Indico Documentation

Release 3.1.2-dev

Indico Team

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Contents

The effortless open source tool for event organization, archival and collaboration.

Welcome to Indico's documentation. This documentation is split into several parts, from installing Indico to developing Indico plugins. To dive into the internals of Indico, check out the API documentation. Read more about Indico in our official website.

CHAPTER 1

Installation

To simply install and use Indico, follow the *production installation instructions*. For those who are interested in developing new features and plugins for Indico, check out the *development installation instructions*.

1.1 Installation guides

To simply install and use Indico, follow the *production installation instructions*. For those who are interested in developing new features and plugins for Indico, check out the *development installation instructions*.

1.1.1 Production

We provide guides to install Indico on CentOS and Debian systems. While other distributions are not officially supported, they should work fine, but the installation steps (especially package names) may need some slight adjustments.

Our guides cover a single-machine installation where Indico, Celery, Redis and PostgreSQL run on the same machine. This should be fine for almost all Indico instances, but adapting the steps to multiple machines is not particularly hard either.

CentOS / CC7

Except for minor differences, these guides apply to vanilla CentOS 7/8 and also the CERN flavor of CentOS 7, CC7 (CentOS CERN 7).

We have **not** tested the installation guides with CentOS Stream 8, as there are no up to date official Postgres packages available yet.

> **Warning:** CentOS 8 is **only** supported with nginx, as some important packages (mod_xsendfile and mod_proxy_uwsgi) are not (yet?) available for CentOS 8 in first-party repos. Once they are in EPEL, there is a good chance the guide will work as expected.

nginx

Note: Please note that you **must** use Apache if you intend to use SSO using Shibboleth. If that's not the case because you do not use SSO at all or use e.g. OAuth, OIDC or SAML without Shibboleth, we recommend using nginx.

1. Enable EPEL

```
yum install -y epel-release
```

Note: If you use CC7, EPEL is already enabled and this step is not necessary

2. Install Packages

If you are on CentOS 7, edit `/etc/yum.repos.d/CentOS-Base.repo` and add `exclude=postgresql*` to the `[base]` and `[updates]` sections, as described in the PostgreSQL wiki and then run these commands:

```
yum install -y centos-release-scl
yum install -y https://download.postgresql.org/pub/repos/yum/reporpms/EL-7-x86_64/
↪pgdg-redhat-repo-latest.noarch.rpm
```

If you are on CentOS 8, run this instead:

```
dnf install -y https://download.postgresql.org/pub/repos/yum/reporpms/EL-8-x86_64/
↪pgdg-redhat-repo-latest.noarch.rpm
dnf -qy module disable postgresql
yum config-manager --set-enabled powertools
```

Now install all the required packages:

```
yum install -y postgresql13 postgresql13-server postgresql13-libs postgresql13-devel␣
↪postgresql13-contrib
yum install -y git gcc make redis nginx
yum install -y libjpeg-turbo-devel libxslt-devel libxml2-devel libffi-devel pcre-
↪devel libyaml-devel zlib-devel bzip2 bzip2-devel readline-devel sqlite sqlite-devel␣
↪openssl-devel xz xz-devel findutils libuuid-devel tar
/usr/pgsql-13/bin/postgresql-13-setup initdb
systemctl start postgresql-13.service redis.service
```

3. Create a Database

We create a user and database for indico and enable the necessary Postgres extensions (which can only be done by the Postgres superuser)

```
su - postgres -c 'createuser indico'
su - postgres -c 'createdb -O indico indico'
su - postgres -c 'psql indico -c "CREATE EXTENSION unaccent; CREATE EXTENSION pg_trgm;
↪"'
```

Warning: Do not forget to setup a cronjob that creates regular database backups once you start using Indico in production!

4. Configure uWSGI & nginx

The default uWSGI and nginx configuration files should work fine in most cases.

```
cat > /etc/uwsgi-indico.ini <<'EOF'
[uwsgi]
uid = indico
gid = nginx
umask = 027

processes = 4
enable-threads = true
chmod-socket = 770
socket = /opt/indico/web/uwsgi.sock
stats = /opt/indico/web/uwsgi-stats.sock
protocol = uwsgi

master = true
auto-procname = true
procname-prefix-spaced = indico
disable-logging = true

single-interpreter = true

touch-reload = /opt/indico/web/indico.wsgi
wsgi-file = /opt/indico/web/indico.wsgi
virtualenv = /opt/indico/.venv

vacuum = true
buffer-size = 20480
memory-report = true
max-requests = 2500
harakiri = 900
harakiri-verbose = true
reload-on-rss = 2048
evil-reload-on-rss = 8192
EOF
```

We also need a systemd unit to start uWSGI.

```
cat > /etc/systemd/system/indico-uwsgi.service <<'EOF'
[Unit]
Description=Indico uWSGI
After=network.target

[Service]
ExecStart=/opt/indico/.venv/bin/uwsgi --ini /etc/uwsgi-indico.ini
ExecReload=/bin/kill -HUP $MAINPID
Restart=always
SyslogIdentifier=indico-uwsgi
User=indico
Group=nginx
```

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```
UMask=0027
Type=notify
NotifyAccess=all
KillMode=mixed
KillSignal=SIGQUIT
TimeoutStopSec=300

[Install]
WantedBy=multi-user.target
EOF
```

Note: Replace `YOURHOSTNAME` in the next file with the hostname on which your Indico instance should be available, e.g. `indico.yourdomain.com`

```
cat > /etc/nginx/conf.d/indico.conf <<'EOF'
server {
  listen 80;
  listen [::]:80;
  server_name YOURHOSTNAME;
  return 301 https://$server_name$request_uri;
}

server {
  listen       *:443 ssl http2;
  listen       [::]:443 ssl http2 default ipv6only=on;
  server_name  YOURHOSTNAME;

  ssl_certificate           /etc/ssl/indico/indico.crt;
  ssl_certificate_key       /etc/ssl/indico/indico.key;
  ssl_dhparam               /etc/ssl/indico/ffdhe2048;

  ssl_session_timeout       1d;
  ssl_session_cache         shared:SSL:10m;
  ssl_session_tickets       off;
  ssl_protocols             TLSv1.2 TLSv1.3;
  ssl_ciphers               ECDHE-ECDSA-AES128-GCM-SHA256:ECDHE-RSA-AES128-GCM-
↪SHA256:ECDHE-ECDSA-AES256-GCM-SHA384:ECDHE-RSA-AES256-GCM-SHA384:ECDHE-ECDSA-
↪CHACHA20-POLY1305:ECDHE-RSA-CHACHA20-POLY1305:DHE-RSA-AES128-GCM-SHA256:DHE-RSA-
↪AES256-GCM-SHA384;
  ssl_prefer_server_ciphers off;

  access_log            /opt/indico/log/nginx/access.log combined;
  error_log             /opt/indico/log/nginx/error.log;

  if ($host != $server_name) {
    rewrite ^/(.*) https://$server_name/$1 permanent;
  }

  location /.xsf/indico/ {
    internal;
    alias /opt/indico/;
  }

  location ~ ^/(images|fonts)(.*)/(.+?)(__v[0-9a-f]+)?\.([^.]+)$ {
```

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```
    alias /opt/indico/web/static/$1$2/$3.$5;
    access_log off;
  }

  location ~ ^/(css|dist|images|fonts)/(.*)$ {
    alias /opt/indico/web/static/$1/$2;
    access_log off;
  }

  location /robots.txt {
    alias /opt/indico/web/static/robots.txt;
    access_log off;
  }

  location / {
    root /var/empty/nginx;
    include /etc/nginx/uwsgi_params;
    uwsgi_pass unix:/opt/indico/web/uwsgi.sock;
    uwsgi_param UWSGI_SCHEME $scheme;
    uwsgi_read_timeout 15m;
    uwsgi_buffers 32 32k;
    uwsgi_busy_buffers_size 128k;
    uwsgi_hide_header X-Sendfile;
    client_max_body_size 1G;
  }
}
EOF
```

5. Create a TLS Certificate

First, create the folders for the certificate/key and set restrictive permissions on them:

```
mkdir /etc/ssl/indico
chown root:root /etc/ssl/indico/
chmod 700 /etc/ssl/indico
```

We also use a strong set of pre-generated DH params (ffdhe2048 from RFC7919) as suggested in Mozilla's TLS config recommendations:

```
cat > /etc/ssl/indico/ffdhe2048 <<'EOF'
-----BEGIN DH PARAMETERS-----
MIIBCAKCAQEA//////////+t+FRYortKmq/cViAnPTzx2LnFg84tNpWp4TZBFGQz
+8yTnc4kmz75fS/jY2MMddj2gbICrsRhetPfHtXV/WVhJDP1H18GbtCFY2VVPe0a
87VXE15/V8k1mE8McODmi3fipona8+/och3xWKE2rec1MKzKT0g6eXq8CrGCsyT7
YdEIqUuyyOP7uWrat2DX9GgdT0Kj3jlN9K5W7edjcrsZCwenyO4KbXCeAvzhzffi
7MA0BM0oNC9hkXL+nOmFg/+OTxIy7vKBg8P+OxtMb61zO7X8vC7CIAXFjvGDfRaD
ssbzSibBsu/6iGtCOGEoXJf//////////wIBAg==
-----END DH PARAMETERS-----
EOF
```

If you are just trying out Indico you can simply use a self-signed certificate (your browser will show a warning which you will have to confirm when accessing your Indico instance for the first time).

Note: Do not forget to replace `YOURHOSTNAME` with the same value you used above

```
openssl req -x509 -nodes -newkey rsa:4096 -subj /CN=YOURHOSTNAME -keyout /etc/ssl/
↪indico/indico.key -out /etc/ssl/indico/indico.crt
```

While a self-signed certificate works for testing, it is not suitable for a production system. You can either buy a certificate from any commercial certification authority or get a free one from Let's Encrypt.

Note: There's an optional step later in this guide to get a certificate from Let's Encrypt. We can't do it right now since the nginx config references a directory yet to be created, which prevents nginx from starting.

6. Configure SELinux

Indico works fine with SELinux enabled, but you need to load a custom SELinux module to tell SELinux about Indico's files and how they should be handled.

```
cat > /tmp/indico.cil <<'EOF'
; define custom type that logrotate can access
(type indico_log_t)
(typeattributeset file_type (indico_log_t))
(typeattributeset logfile (indico_log_t))
(roletype object_r indico_log_t)

; allow logrotate to reload systemd services
(allow logrotate_t init_t (service (start)))
(allow logrotate_t policykit_t (dbus (send_msg)))
(allow policykit_t logrotate_t (dbus (send_msg)))

; make sure the uwsgi socket is writable by the webserver
(typetransition unconfined_service_t usr_t sock_file "uwsgi.sock" httpd_sys_rw_
↪content_t)
(filecon "/opt/indico/web/uwsgi\.sock" socket (system_u object_r httpd_sys_rw_content_
↪t ((s0)(s0))))

; set proper types for our log dirs
(filecon "/opt/indico/log(/.*)?" any (system_u object_r indico_log_t ((s0)(s0))))
(filecon "/opt/indico/log/nginx(/.*)?" any (system_u object_r httpd_log_t ((s0)(s0))))
EOF
semodule -i /tmp/indico.cil
```

7. Install Indico

Celery runs as a background daemon. Add a systemd unit file for it:

```
cat > /etc/systemd/system/indico-celery.service <<'EOF'
[Unit]
Description=Indico Celery
After=network.target

[Service]
ExecStart=/opt/indico/.venv/bin/indico celery worker -B
Restart=always
SyslogIdentifier=indico-celery
User=indico
```

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```
Group=nginx
UMask=0027
Type=simple
KillMode=mixed
TimeoutStopSec=300

[Install]
WantedBy=multi-user.target
EOF

systemctl daemon-reload
```

Now create a user that will be used to run Indico and switch to it:

```
useradd -rm -g nginx -d /opt/indico -s /bin/bash indico
su - indico
```

The first thing to do is installing pyenv - we use it to install the latest Python version as not all Linux distributions include it and like this Indico can benefit from the latest Python features.

```
curl -L https://github.com/pyenv/pyenv-installer/raw/master/bin/pyenv-installer | bash

cat >> ~/.bashrc <<'EOF'
export PATH="/opt/indico/.pyenv/bin:$PATH"
eval "$(pyenv init --path)"
eval "$(pyenv init -)"
EOF

source ~/.bashrc
```

You are now ready to install Python 3.9:

Run `pyenv install --list | egrep '^\s*3\.9\.'` to check for the latest available version and then install it and set it as the active Python version (replace `x` in both lines).

```
pyenv install 3.9.x
pyenv global 3.9.x
```

This may take a while since pyenv needs to compile the specified Python version. Once done, you may want to use `python -V` to confirm that you are indeed using the version you just installed.

You are now ready to install Indico:

```
python -m venv --upgrade-deps --prompt indico ~/.venv
source ~/.venv/bin/activate
export PATH="$PATH:/usr/pgsql-13/bin"
echo 'source ~/.venv/bin/activate' >> ~/.bashrc
pip install wheel
pip install uwsgi
pip install indico
```

8. Configure Indico

Once Indico is installed, you can run the configuration wizard. You can keep the defaults for most options, but make sure to use `https://YOURHOSTNAME` when prompted for the Indico URL. Also specify valid email addresses when

asked and enter a valid SMTP server Indico can use to send emails. When asked for the default timezone make sure this is the main time zone used in your Indico instance.

```
indico setup wizard
```

Now finish setting up the directory structure and permissions:

```
mkdir ~/log/nginx
chmod go-rwx ~/* ~/.[^.]*
chmod 710 ~/ ~/archive ~/cache ~/log ~/tmp
chmod 750 ~/web ~/.venv
chmod g+w ~/log/nginx
restorecon -R ~/
echo -e "\nSTATIC_FILE_METHOD = ('xaccelredirect', {'/opt/indico': '/.xsf/indico'})" >
↪> ~/etc/indico.conf
```

9. Create database schema

Finally you can create the database schema and switch back to *root*:

```
indico db prepare
exit
```

10. Launch Indico

You can now start Indico and set it up to start automatically when the server is rebooted:

```
systemctl restart nginx.service indico-celery.service indico-uwsgi.service
systemctl enable nginx.service postgresql-13.service redis.service indico-celery.
↪service indico-uwsgi.service
```

11. Open the Firewall

```
firewall-cmd --permanent --add-port 443/tcp --add-port 80/tcp
firewall-cmd --reload
```

Note: This is only needed if you use CC7 as CentOS 7/8 have no firewall enabled by default

12. Optional: Get a Certificate from Let's Encrypt

To avoid ugly TLS warnings in your browsers, the easiest option is to get a free certificate from Let's Encrypt. We also enable the cronjob to renew it automatically:

```
yum install -y python-certbot-nginx
certbot --nginx --rsa-key-size 4096 --no-redirect --staple-ocsp -d YOURHOSTNAME
rm -rf /etc/ssl/indico
systemctl start certbot-renew.timer
systemctl enable certbot-renew.timer
```

13. Create an Indico user

Access `https://YOURHOSTNAME` in your browser and follow the steps displayed there to create your initial user.

14. Install TeXLive

Follow the *LaTeX install guide* to install TeXLive so Indico can generate PDF files in various places.

Apache

Warning: CentOS 8 with Apache is **not supported**, as some important packages (mod_xsendfile and mod_proxy_uwsgi) are not (yet?) available for CentOS 8 in first-party repos. Once they are in EPEL, there is a good chance this guide will work as expected.

1. Enable EPEL

```
yum install -y epel-release
```

Note: If you use CC7, EPEL is already enabled and this step is not necessary

2. Install Packages

If you are on CentOS 7, edit `/etc/yum.repos.d/CentOS-Base.repo` and add `exclude=postgresql*` to the `[base]` and `[updates]` sections, as described in the PostgreSQL wiki and then run these commands:

```
yum install -y centos-release-scl
yum install -y https://download.postgresql.org/pub/repos/yum/reporpms/EL-7-x86_64/
↪pgdg-redhat-repo-latest.noarch.rpm
```

If you are on CentOS 8, run this instead:

```
dnf install -y https://download.postgresql.org/pub/repos/yum/reporpms/EL-8-x86_64/
↪pgdg-redhat-repo-latest.noarch.rpm
dnf -qy module disable postgresql
yum config-manager --set-enabled powertools
```

```
yum install -y postgresql13 postgresql13-server postgresql13-libs postgresql13-devel␣
↪postgresql13-contrib
yum install -y git gcc make redis httpd mod_proxy_uwsgi mod_ssl mod_xsendfile
yum install -y libjpeg-turbo-devel libxslt-devel libxml2-devel libffi-devel pcre-
↪devel libyaml-devel zlib-devel bzip2 bzip2-devel readline-devel sqlite sqlite-devel␣
↪openssl-devel xz xz-devel findutils libuuid-devel tar
/usr/pgsql-13/bin/postgresql-13-setup initdb
systemctl start postgresql-13.service redis.service
```

3. Create a Database

We create a user and database for indico and enable the necessary Postgres extensions (which can only be done by the Postgres superuser)

```
su - postgres -c 'createuser indico'
su - postgres -c 'createdb -O indico indico'
su - postgres -c 'psql indico -c "CREATE EXTENSION unaccent; CREATE EXTENSION pg_trgm;
↪"'
```

Warning: Do not forget to setup a cronjob that creates regular database backups once you start using Indico in production!

4. Configure uWSGI & Apache

The default uWSGI and Apache configuration files should work fine in most cases.

```
cat > /etc/uwsgi-indico.ini <<'EOF'
[uwsgi]
uid = indico
gid = apache
umask = 027

processes = 4
enable-threads = true
socket = 127.0.0.1:8008
stats = /opt/indico/web/uwsgi-stats.sock
protocol = uwsgi

master = true
auto-procname = true
procname-prefix-spaced = indico
disable-logging = true

single-interpreter = true

touch-reload = /opt/indico/web/indico.wsgi
wsgi-file = /opt/indico/web/indico.wsgi
virtualenv = /opt/indico/.venv

vacuum = true
buffer-size = 20480
memory-report = true
max-requests = 2500
harakiri = 900
harakiri-verbose = true
reload-on-rss = 2048
evil-reload-on-rss = 8192
EOF
```

We also need a systemd unit to start uWSGI.

```
cat > /etc/systemd/system/indico-uwsgi.service <<'EOF'
[Unit]
```

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```
Description=Indico uWSGI
After=network.target

[Service]
ExecStart=/opt/indico/.venv/bin/uwsgi --ini /etc/uwsgi-indico.ini
ExecReload=/bin/kill -HUP $MAINPID
Restart=always
SyslogIdentifier=indico-uwsgi
User=indico
Group=apache
UMask=0027
Type=notify
NotifyAccess=all
KillMode=mixed
KillSignal=SIGQUIT
TimeoutStopSec=300

[Install]
WantedBy=multi-user.target
EOF
```

Note: Replace `YOURHOSTNAME` in the next files with the hostname on which your Indico instance should be available, e.g. `indico.yourdomain.com`

```
cat > /etc/httpd/conf.d/indico-sslredir.conf <<'EOF'
<VirtualHost *:80>
    ServerName YOURHOSTNAME
    RewriteEngine On
    RewriteRule ^(.*)$ https://%{HTTP_HOST}$1 [R=301,L]
</VirtualHost>
EOF

cat > /etc/httpd/conf.d/indico.conf <<'EOF'
<VirtualHost *:443>
    ServerName YOURHOSTNAME
    DocumentRoot "/var/empty/apache"

    SSLEngine               on
    SSLCertificateFile      /etc/ssl/indico/indico.crt
    SSLCertificateChainFile /etc/ssl/indico/indico.crt
    SSLCertificateKeyFile   /etc/ssl/indico/indico.key

    SSLProtocol             all -SSLv3 -TLSv1 -TLSv1.1
    SSLCipherSuite          ECDHE-ECDSA-AES128-GCM-SHA256:ECDHE-RSA-AES128-GCM-
↪SHA256:ECDHE-ECDSA-AES256-GCM-SHA384:ECDHE-RSA-AES256-GCM-SHA384:ECDHE-ECDSA-
↪CHACHA20-POLY1305:ECDHE-RSA-CHACHA20-POLY1305:DHE-RSA-AES128-GCM-SHA256:DHE-RSA-
↪AES256-GCM-SHA384
    SSLHonorCipherOrder     off
    SSLSessionTickets       off

    XSendFile on
    XSendFilePath /opt/indico
    CustomLog /opt/indico/log/apache/access.log combined
    ErrorLog /opt/indico/log/apache/error.log
```

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```
    LogLevel error
    ServerSignature Off

    <If "%{HTTP_HOST} != 'YOURHOSTNAME'">
        Redirect 301 / https://YOURHOSTNAME/
    </If>

    AliasMatch "^/(images|fonts)(.*)/(.+?)(__v[0-9a-f]+)?\.([^.]+)$" "/opt/indico/web/
↪static/$1$2/$3.$5"
    AliasMatch "^/(css|dist|images|fonts)/(.*)$" "/opt/indico/web/static/$1/$2"
    Alias /robots.txt /opt/indico/web/static/robots.txt

    SetEnv UWSGI_SCHEME https
    ProxyPass / uwsgi://127.0.0.1:8008/

    <Directory /opt/indico>
        AllowOverride None
        Require all granted
    </Directory>
</VirtualHost>
EOF
```

Now enable the uwsgi proxy module in apache:

```
echo 'LoadModule proxy_uwsgi_module modules/mod_proxy_uwsgi.so' > /etc/httpd/conf.
↪modules.d/proxy_uwsgi.conf
```

5. Create a TLS Certificate

First, create the folders for the certificate/key and set restrictive permissions on them:

```
mkdir /etc/ssl/indico
chown root:root /etc/ssl/indico/
chmod 700 /etc/ssl/indico
```

If you are just trying out Indico you can simply use a self-signed certificate (your browser will show a warning which you will have to confirm when accessing your Indico instance for the first time).

Note: Do not forget to replace `YOURHOSTNAME` with the same value you used above

```
openssl req -x509 -nodes -newkey rsa:4096 -subj /CN=YOURHOSTNAME -keyout /etc/ssl/
↪indico/indico.key -out /etc/ssl/indico/indico.crt
```

While a self-signed certificate works for testing, it is not suitable for a production system. You can either buy a certificate from any commercial certification authority or get a free one from Let's Encrypt.

Note: There's an optional step later in this guide to get a certificate from Let's Encrypt. We can't do it right now since the Apache config references a directory yet to be created, which prevents Apache from starting.

6. Configure SELinux

Indico works fine with SELinux enabled, but you need to load a custom SELinux module to tell SELinux about Indico's files and how they should be handled.

```
cat > /tmp/indico.cil <<'EOF'
; define custom type that logrotate can access
(type indico_log_t)
(typeattributeset file_type (indico_log_t))
(typeattributeset logfile (indico_log_t))
(roletype object_r indico_log_t)

; allow logrotate to reload systemd services
(allow logrotate_t init_t (service (start)))
(allow logrotate_t policykit_t (dbus (send_msg)))
(allow policykit_t logrotate_t (dbus (send_msg)))

; make sure the uwsgi socket is writable by the webserver
(typetransition unconfined_service_t usr_t sock_file "uwsgi.sock" httpd_sys_rw_
↪content_t)
(filecon "/opt/indico/web/uwsgi\.sock" socket (system_u object_r httpd_sys_rw_content_
↪t ((s0)(s0))))

; set proper types for our log dirs
(filecon "/opt/indico/log(/.*)?" any (system_u object_r indico_log_t ((s0)(s0))))
(filecon "/opt/indico/log/apache(/.*)?" any (system_u object_r httpd_log_t␣
↪((s0)(s0))))
EOF
semodule -i /tmp/indico.cil
```

7. Install Indico

Celery runs as a background daemon. Add a systemd unit file for it:

```
cat > /etc/systemd/system/indico-celery.service <<'EOF'
[Unit]
Description=Indico Celery
After=network.target

[Service]
ExecStart=/opt/indico/.venv/bin/indico celery worker -B
Restart=always
SyslogIdentifier=indico-celery
User=indico
Group=apache
UMask=0027
Type=simple
KillMode=mixed
TimeoutStopSec=300

[Install]
WantedBy=multi-user.target
EOF

systemctl daemon-reload
```

Now create a user that will be used to run Indico and switch to it:

```
useradd -rm -g apache -d /opt/indico -s /bin/bash indico
su - indico
```

The first thing to do is installing pyenv - we use it to install the latest Python version as not all Linux distributions include it and like this Indico can benefit from the latest Python features.

```
curl -L https://github.com/pyenv/pyenv-installer/raw/master/bin/pyenv-installer | bash

cat >> ~/.bashrc <<'EOF'
export PATH="/opt/indico/.pyenv/bin:$PATH"
eval "$(pyenv init --path)"
eval "$(pyenv init -)"
EOF

source ~/.bashrc
```

You are now ready to install Python 3.9:

Run `pyenv install --list | egrep '^\s*3\.9\.'` to check for the latest available version and then install it and set it as the active Python version (replace `x` in both lines).

```
pyenv install 3.9.x
pyenv global 3.9.x
```

This may take a while since pyenv needs to compile the specified Python version. Once done, you may want to use `python -V` to confirm that you are indeed using the version you just installed.

You are now ready to install Indico:

```
python -m venv --upgrade-deps --prompt indico ~/.venv
source ~/.venv/bin/activate
export PATH="$PATH:/usr/pgsql-13/bin"
echo 'source ~/.venv/bin/activate' >> ~/.bashrc
pip install wheel
pip install uwsgi
pip install indico
```

8. Configure Indico

Once Indico is installed, you can run the configuration wizard. You can keep the defaults for most options, but make sure to use `https://YOURHOSTNAME` when prompted for the Indico URL. Also specify valid email addresses when asked and enter a valid SMTP server Indico can use to send emails. When asked for the default timezone make sure this is the main time zone used in your Indico instance.

```
indico setup wizard
```

Now finish setting up the directory structure and permissions:

```
mkdir ~/log/apache
chmod go-rwx ~/* ~/.[^.]*
chmod 710 ~/ ~/archive ~/cache ~/log ~/tmp
chmod 750 ~/web ~/.venv
chmod g+w ~/log/apache
restorecon -R ~/
echo -e "\nSTATIC_FILE_METHOD = 'xsendfile'" >> ~/etc/indico.conf
```

9. Create database schema

Finally you can create the database schema and switch back to *root*:

```
indico db prepare
exit
```

10. Launch Indico

You can now start Indico and set it up to start automatically when the server is rebooted:

```
systemctl restart httpd.service indico-celery.service indico-uwsgi.service
systemctl enable httpd.service postgresql-13.service redis.service indico-celery.
↪service indico-uwsgi.service
```

11. Open the Firewall

```
firewall-cmd --permanent --add-port 443/tcp --add-port 80/tcp
firewall-cmd --reload
```

Note: This is only needed if you use CC7 as CentOS 7/8 have no firewall enabled by default

12. Optional: Get a Certificate from Let's Encrypt

To avoid ugly TLS warnings in your browsers, the easiest option is to get a free certificate from Let's Encrypt. We also enable the cronjob to renew it automatically:

```
yum install -y python-certbot-apache
certbot --apache --rsa-key-size 4096 --no-redirect --staple-ocsp -d YOURHOSTNAME
rm -rf /etc/ssl/indico
systemctl start certbot-renew.timer
systemctl enable certbot-renew.timer
```

13. Create an Indico user

Access `https://YOURHOSTNAME` in your browser and follow the steps displayed there to create your initial user.

14. Install TeXLive

Follow the *LaTeX install guide* to install TeXLive so Indico can generate PDF files in various places.

Optional: Shibboleth

If your organization uses Shibboleth/SAML-based SSO, follow these steps to use it in Indico:

1. Install Shibboleth

Add the Shibboleth yum repository:

Note: If you use CC7, Shibboleth is already available and there is no need to add the repo manually.

If you use CentOS 7:

```
curl -fsSL -o /etc/yum.repos.d/shibboleth.repo 'https://shibboleth.net/cgi-bin/sp_
↪repo.cgi?platform=CentOS_7'
```

If you use CentOS 8:

```
curl -fsSL -o /etc/yum.repos.d/shibboleth.repo 'https://shibboleth.net/cgi-bin/sp_
↪repo.cgi?platform=CentOS_8'
```

Now install Shibboleth itself. When prompted to accept the GPG key of the Shibboleth yum repo, confirm the prompt.

```
setsebool httpd_can_network_connect 1
yum install -y shibboleth xmltooling-schemas opensaml-schemas
```

2. Configure Shibboleth

This is outside the scope of this documentation and depends on your environment (Shibboleth, SAML, ADFS, etc). Please contact whoever runs your SSO infrastructure if you need assistance.

3. Enable Shibboleth in Apache

Add the following code to your `/etc/httpd/conf.d/indico.conf` right before the `AliasMatch` lines:

```
<LocationMatch "^(/Shibboleth\.sso|/login/shib-sso/shibboleth)">
    AuthType shibboleth
    ShibRequestSetting requireSession 1
    ShibExportAssertion Off
    Require valid-user
</LocationMatch>
```

4. Enable Shibboleth in Indico

Add the following code to your `/opt/indico/etc/indico.conf`:

```
# SSO
AUTH_PROVIDERS = {
    'shib-sso': {
        'type': 'shibboleth',
        'title': 'SSO',
        'attrs_prefix': 'ADFS_',
        'callback_uri': '/login/shib-sso/shibboleth',
        # 'logout_uri': 'https://login.yourcompany.tld/logout'
    }
}
```

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```
IDENTITY_PROVIDERS = {
    'shib-sso': {
        'type': 'shibboleth',
        'title': 'SSO',
        'identifier_field': 'ADFS_LOGIN',
        'mapping': {
            'affiliation': 'ADFS_HOMEINSTITUTE',
            'first_name': 'ADFS_FIRSTNAME',
            'last_name': 'ADFS_LASTNAME',
            'email': 'ADFS_EMAIL',
            'phone': 'ADFS_PHONENUMBER'
        },
        'trusted_email': True
    }
}
```

The values for `attrs_prefix`, `mapping` and `identifier_field` may be different in your environment. Uncomment and set `logout_uri` if your SSO infrastructure provides a logout URL (usually used to log you out from all applications).

If you only want to use SSO, without allowing people to login locally using username/password, disable it by setting `LOCAL_IDENTITIES = False` in `indico.conf`.

Warning: We assume that emails received from SSO are already validated. If this is not the case, make sure to disable `trusted_email` which will require email validation in Indico when logging in for the first time. Otherwise people could take over the account of someone else by using their email address!

Note: The example config is rather simple and only accesses data from SSO during login. This is not sufficient for advanced features such as automatic synchronization of names, affiliations and phone numbers or using centrally managed groups. To use these features, you need to use e.g. the LDAP identity provider and use the information received via SSO to retrieve the user details from LDAP. If you need assistance with this, feel free to ask us on IRC (#indico @ Libera.Chat) or the forum.

Note: Please note that you **must** use Apache if you intend to use SSO using Shibboleth. If that's not the case because you do not use SSO at all or use e.g. OAuth, OIDC or SAML without Shibboleth, we recommend using nginx.

Debian / Ubuntu

Except for minor differences, this guide applies to both Debian and Ubuntu. It has been tested with Debian 10 (Buster) and Ubuntu 20.04 (Focal).

Warning: Older distributions may work, but they are unsupported. We do not recommend using those unless you have a strong reason for it and the necessary system administration knowledge to know how to deal with compatibility issues should any arise.

nginx

Note: Please note that you **must** use Apache if you intend to use SSO using Shibboleth. If that's not the case because you do not use SSO at all or use e.g. OAuth, OIDC or SAML without Shibboleth, we recommend using nginx.

1. Install Packages

PostgreSQL and nginx are installed from their upstream repos to get much more recent versions.

```
apt install -y lsb-release wget curl gnupg
echo "deb http://apt.postgresql.org/pub/repos/apt/ $(lsb_release -cs)-pgdg main" > /
↪etc/apt/sources.list.d/pgdg.list
echo "deb http://nginx.org/packages/$(lsb_release -is | tr '[:upper:]' '[:lower:]')/
↪$(lsb_release -cs) nginx" > /etc/apt/sources.list.d/nginx.list
wget --quiet -O - https://www.postgresql.org/media/keys/ACCC4CF8.asc | apt-key add -
wget --quiet -O - https://nginx.org/keys/nginx_signing.key | apt-key add -
apt update
apt install -y --install-recommends postgresql-13 libpq-dev nginx libxslt1-dev␣
↪libxml2-dev libffi-dev libpcre3-dev libyaml-dev libssl-dev zlib1g-dev libbz2-dev␣
↪libreadline-dev libsqlite3-dev libncurses5-dev libncursesw5-dev xz-utils liblzma-
↪dev uuid-dev build-essential redis-server
```

If you use Debian, run this command:

```
apt install -y libjpeg62-turbo-dev
```

If you use Ubuntu, run this instead:

```
apt install -y libjpeg-turbo8-dev zlib1g-dev
```

Afterwards, make sure the services you just installed are running:

```
systemctl start postgresql.service redis-server.service
```

2. Create a Database

Let's create a user and database for indico and enable the necessary Postgres extensions (which can only be done by the Postgres superuser).

```
su - postgres -c 'createuser indico'
su - postgres -c 'createdb -O indico indico'
su - postgres -c 'psql indico -c "CREATE EXTENSION unaccent; CREATE EXTENSION pg_trgm;
↪"'
```

Warning: Do not forget to setup a cronjob that creates regular database backups once you start using Indico in production!

3. Configure uWSGI & nginx

The default uWSGI and nginx configuration files should work fine in most cases.

```
cat > /etc/uwsgi-indico.ini <<'EOF'
[uwsgi]
uid = indico
gid = nginx
umask = 027

processes = 4
enable-threads = true
chmod-socket = 770
chown-socket = indico:nginx
socket = /opt/indico/web/uwsgi.sock
stats = /opt/indico/web/uwsgi-stats.sock
protocol = uwsgi

master = true
auto-procname = true
procname-prefix-spaced = indico
disable-logging = true

single-interpreter = true

touch-reload = /opt/indico/web/indico.wsgi
wsgi-file = /opt/indico/web/indico.wsgi
virtualenv = /opt/indico/.venv

vacuum = true
buffer-size = 20480
memory-report = true
max-requests = 2500
harakiri = 900
harakiri-verbose = true
reload-on-rss = 2048
evil-reload-on-rss = 8192
EOF
```

We also need a systemd unit to start uWSGI.

```
cat > /etc/systemd/system/indico-uwsgi.service <<'EOF'
[Unit]
Description=Indico uWSGI
After=network.target

[Service]
ExecStart=/opt/indico/.venv/bin/uwsgi --ini /etc/uwsgi-indico.ini
ExecReload=/bin/kill -HUP $MAINPID
Restart=always
SyslogIdentifier=indico-uwsgi
User=indico
Group=nginx
UMask=0027
Type=notify
NotifyAccess=all
KillMode=mixed
KillSignal=SIGQUIT
TimeoutStopSec=300

[Install]
```

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```
WantedBy=multi-user.target
EOF
```

Note: Replace `YOURHOSTNAME` in the next file with the hostname on which your Indico instance should be available, e.g. `indico.yourdomain.com`

```
cat > /etc/nginx/conf.d/indico.conf <<'EOF'
server {
  listen 80;
  listen [::]:80;
  server_name YOURHOSTNAME;
  return 301 https://$server_name$request_uri;
}

server {
  listen       *:443 ssl http2;
  listen       [::]:443 ssl http2 default ipv6only=on;
  server_name  YOURHOSTNAME;

  ssl_certificate           /etc/ssl/indico/indico.crt;
  ssl_certificate_key       /etc/ssl/indico/indico.key;
  ssl_dhparam               /etc/ssl/indico/ffdhe2048;

  ssl_session_timeout       1d;
  ssl_session_cache         shared:SSL:10m;
  ssl_session_tickets       off;
  ssl_protocols             TLSv1.2 TLSv1.3;
  ssl_ciphers               ECDHE-ECDSA-AES128-GCM-SHA256:ECDHE-RSA-AES128-GCM-
↪SHA256:ECDHE-ECDSA-AES256-GCM-SHA384:ECDHE-RSA-AES256-GCM-SHA384:ECDHE-ECDSA-
↪CHACHA20-POLY1305:ECDHE-RSA-CHACHA20-POLY1305:DHE-RSA-AES128-GCM-SHA256:DHE-RSA-
↪AES256-GCM-SHA384;
  ssl_prefer_server_ciphers off;

  access_log            /opt/indico/log/nginx/access.log combined;
  error_log             /opt/indico/log/nginx/error.log;

  if ($host != $server_name) {
    rewrite ^/(.*) https://$server_name/$1 permanent;
  }

  location /.xsf/indico/ {
    internal;
    alias /opt/indico/;
  }

  location ~ ^/(images|fonts)(.*)/(.+?)(__v[0-9a-f]+)?\.([^.]+)$ {
    alias /opt/indico/web/static/$1$2/$3.$5;
    access_log off;
  }

  location ~ ^/(css|dist|images|fonts)/(.*)$ {
    alias /opt/indico/web/static/$1/$2;
    access_log off;
  }
```

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```
  location /robots.txt {
    alias /opt/indico/web/static/robots.txt;
    access_log off;
  }

  location / {
    root /var/empty/nginx;
    include /etc/nginx/uwsgi_params;
    uwsgi_pass unix:/opt/indico/web/uwsgi.sock;
    uwsgi_param UWSGI_SCHEME $scheme;
    uwsgi_read_timeout 15m;
    uwsgi_buffers 32 32k;
    uwsgi_busy_buffers_size 128k;
    uwsgi_hide_header X-Sendfile;
    client_max_body_size 1G;
  }
}
EOF
```

4. Create a TLS Certificate

First, create the folders for the certificate/key and set restrictive permissions on them:

```
mkdir /etc/ssl/indico
chown root:root /etc/ssl/indico/
chmod 700 /etc/ssl/indico
```

We also use a strong set of pre-generated DH params (ffdhe2048 from RFC7919) as suggested in Mozilla's TLS config recommendations:

```
cat > /etc/ssl/indico/ffdhe2048 <<'EOF'
-----BEGIN DH PARAMETERS-----
MIIBCAKCAQEA//////////+t+FRYortKmq/cViAnPTzx2LnFg84tNpWp4TZBFGQz
+8yTnc4kmz75fS/jY2MMddj2gbICrsRhetPfHtXV/WVhJDP1H18GbtCFY2VVPe0a
87VXE15/V8k1mE8McODmi3fipona8+/och3xWKE2rec1MKzKT0g6eXq8CrGCsyT7
YdEIqUuyyOP7uWrat2DX9GgdT0Kj3jlN9K5W7edjcrsZCwenyO4KbXCeAvzhzffi
7MA0BM0oNC9hkXL+nOmFg/+OTxIy7vKBg8P+OxtMb61zO7X8vC7CIAXFjvGDfRaD
ssbzSibBsu/6iGtCOGEoXJf//////////wIBAg==
-----END DH PARAMETERS-----
EOF
```

If you are just trying out Indico you can simply use a self-signed certificate (your browser will show a warning which you will have to confirm when accessing your Indico instance for the first time).

Note: Do not forget to replace `YOURHOSTNAME` with the same value you used above

```
openssl req -x509 -nodes -newkey rsa:4096 -subj /CN=YOURHOSTNAME -keyout /etc/ssl/
↪indico/indico.key -out /etc/ssl/indico/indico.crt
```

While a self-signed certificate works for testing, it is not suitable for a production system. You can either buy a certificate from any commercial certification authority or get a free one from Let's Encrypt.

Note: There's an optional step later in this guide to get a certificate from Let's Encrypt. We can't do it right now since the nginx config references a directory yet to be created, which prevents nginx from starting.

5. Install Indico

Celery runs as a background daemon. Add a systemd unit file for it:

```
cat > /etc/systemd/system/indico-celery.service <<'EOF'
[Unit]
Description=Indico Celery
After=network.target

[Service]
ExecStart=/opt/indico/.venv/bin/indico celery worker -B
Restart=always
SyslogIdentifier=indico-celery
User=indico
Group=nginx
UMask=0027
Type=simple
KillMode=mixed
TimeoutStopSec=300

[Install]
WantedBy=multi-user.target
EOF

systemctl daemon-reload
```

Now create a user that will be used to run Indico and switch to it:

```
useradd -rm -g nginx -d /opt/indico -s /bin/bash indico
su - indico
```

The first thing to do is installing pyenv - we use it to install the latest Python version as not all Linux distributions include it and like this Indico can benefit from the latest Python features.

```
curl -L https://github.com/pyenv/pyenv-installer/raw/master/bin/pyenv-installer | bash

cat >> ~/.bashrc <<'EOF'
export PATH="/opt/indico/.pyenv/bin:$PATH"
eval "$(pyenv init --path)"
eval "$(pyenv init -)"
EOF

source ~/.bashrc
```

You are now ready to install Python 3.9:

Run `pyenv install --list | egrep '^\s*3\.9\.'` to check for the latest available version and then install it and set it as the active Python version (replace `x` in both lines).

```
pyenv install 3.9.x
pyenv global 3.9.x
```

This may take a while since pyenv needs to compile the specified Python version. Once done, you may want to use `python -V` to confirm that you are indeed using the version you just installed.

You are now ready to install Indico:

```
python -m venv --upgrade-deps --prompt indico ~/.venv
source ~/.venv/bin/activate
echo 'source ~/.venv/bin/activate' >> ~/.bashrc
pip install wheel
pip install uwsgi
pip install indico
```

6. Configure Indico

Once Indico is installed, you can run the configuration wizard. You can keep the defaults for most options, but make sure to use `https://YOURHOSTNAME` when prompted for the Indico URL. Also specify valid email addresses when asked and enter a valid SMTP server Indico can use to send emails. When asked for the default timezone make sure this is the main time zone used in your Indico instance.

```
indico setup wizard
```

Now finish setting up the directory structure and permissions:

```
mkdir ~/log/nginx
chmod go-rwx ~/* ~/.[^.]*
chmod 710 ~/ ~/archive ~/cache ~/log ~/tmp
chmod 750 ~/web ~/.venv
chmod g+w ~/log/nginx
echo -e "\nSTATIC_FILE_METHOD = ('xaccelredirect', {'/opt/indico': '/.xsf/indico'})" >
↪> ~/etc/indico.conf
```

7. Create database schema

Finally, you can create the database schema and switch back to *root*:

```
indico db prepare
exit
```

8. Launch Indico

You can now start Indico and set it up to start automatically when the server is rebooted:

```
systemctl restart nginx.service indico-celery.service indico-uwsgi.service
systemctl enable nginx.service postgresql.service redis-server.service indico-celery.
↪service indico-uwsgi.service
```

9. Optional: Get a Certificate from Let's Encrypt

Note: You need to use at least Debian 9 (Stretch) to use certbot. If you are still using Debian 8 (Jessie), consider updating or install certbot from backports.

If you use Ubuntu, install the certbot PPA:

```
apt install -y software-properties-common
add-apt-repository -y ppa:certbot/certbot
apt update
```

To avoid ugly TLS warnings in your browsers, the easiest option is to get a free certificate from Let's Encrypt. We also enable the cronjob to renew it automatically:

```
apt install -y python-certbot-nginx
certbot --nginx --rsa-key-size 4096 --no-redirect --staple-ocsp -d YOURHOSTNAME
rm -rf /etc/ssl/indico
systemctl start certbot.timer
systemctl enable certbot.timer
```

10. Create an Indico user

Access `https://YOURHOSTNAME` in your browser and follow the steps displayed there to create your initial user.

11. Install TeXLive

Follow the *LaTeX install guide* to install TeXLive so Indico can generate PDF files in various places.

Apache

1. Install Packages

PostgreSQL is installed from its upstream repos to get a much more recent version.

```
apt install -y lsb-release wget curl gnupg
echo "deb http://apt.postgresql.org/pub/repos/apt/ $(lsb_release -cs)-pgdg main" > /
↪etc/apt/sources.list.d/pgdg.list
wget --quiet -O - https://www.postgresql.org/media/keys/ACCC4CF8.asc | apt-key add -
apt update
apt install -y --install-recommends postgresql-13 libpq-dev apache2 libapache2-mod-
↪proxy-uwsgi libapache2-mod-xsendfile libxslt1-dev libxml2-dev libffi-dev libpcre3-
↪dev libyaml-dev libssl-dev zlib1g-dev libbz2-dev libreadline-dev libsqlite3-dev␣
↪libncurses5-dev libncursesw5-dev xz-utils liblzma-dev uuid-dev build-essential␣
↪redis-server
```

If you use Debian, run this command:

```
apt install -y libjpeg62-turbo-dev
```

If you use Ubuntu, run this instead:

```
apt install -y libjpeg-turbo8-dev zlib1g-dev
```

Afterwards, make sure the services you just installed are running:

```
systemctl start postgresql.service redis-server.service
```

2. Create a Database

Let's create a user and database for indico and enable the necessary Postgres extensions (which can only be done by the Postgres superuser).

```
su - postgres -c 'createuser indico'
su - postgres -c 'createdb -O indico indico'
su - postgres -c 'psql indico -c "CREATE EXTENSION unaccent; CREATE EXTENSION pg_trgm;
↪"'
```

Warning: Do not forget to setup a cronjob that creates regular database backups once you start using Indico in production!

3. Configure uWSGI & Apache

The default uWSGI and Apache configuration files should work fine in most cases.

```
cat > /etc/uwsgi-indico.ini <<'EOF'
[uwsgi]
uid = indico
gid = www-data
umask = 027

processes = 4
enable-threads = true
socket = 127.0.0.1:8008
stats = /opt/indico/web/uwsgi-stats.sock
protocol = uwsgi

master = true
auto-procname = true
procname-prefix-spaced = indico
disable-logging = true

single-interpreter = true

touch-reload = /opt/indico/web/indico.wsgi
wsgi-file = /opt/indico/web/indico.wsgi
virtualenv = /opt/indico/.venv

vacuum = true
buffer-size = 20480
memory-report = true
max-requests = 2500
harakiri = 900
harakiri-verbose = true
reload-on-rss = 2048
evil-reload-on-rss = 8192
EOF
```

We also need a systemd unit to start uWSGI.

```
cat > /etc/systemd/system/indico-uwsgi.service <<'EOF'
[Unit]
```

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```
Description=Indico uWSGI
After=network.target

[Service]
ExecStart=/opt/indico/.venv/bin/uwsgi --ini /etc/uwsgi-indico.ini
ExecReload=/bin/kill -HUP $MAINPID
Restart=always
SyslogIdentifier=indico-uwsgi
User=indico
Group=www-data
UMask=0027
Type=notify
NotifyAccess=all
KillMode=mixed
KillSignal=SIGQUIT
TimeoutStopSec=300

[Install]
WantedBy=multi-user.target
EOF
```

Note: Replace `YOURHOSTNAME` in the next files with the hostname on which your Indico instance should be available, e.g. `indico.yourdomain.com`

```
cat > /etc/apache2/sites-available/indico-sslredir.conf <<'EOF'
<VirtualHost *:80>
    ServerName YOURHOSTNAME
    RewriteEngine On
    RewriteRule ^(.*)$ https://%{HTTP_HOST}$1 [R=301,L]
</VirtualHost>
EOF

cat > /etc/apache2/sites-available/indico.conf <<'EOF'
<VirtualHost *:443>
    ServerName YOURHOSTNAME
    DocumentRoot "/var/empty/apache"
    Protocols h2 http/1.1

    SSLEngine             on
    SSLCertificateFile    /etc/ssl/indico/indico.crt
    SSLCertificateKeyFile /etc/ssl/indico/indico.key

    SSLProtocol           all -SSLv3 -TLSv1 -TLSv1.1
    SSLCipherSuite        ECDHE-ECDSA-AES128-GCM-SHA256:ECDHE-RSA-AES128-GCM-
↪SHA256:ECDHE-ECDSA-AES256-GCM-SHA384:ECDHE-RSA-AES256-GCM-SHA384:ECDHE-ECDSA-
↪CHACHA20-POLY1305:ECDHE-RSA-CHACHA20-POLY1305:DHE-RSA-AES128-GCM-SHA256:DHE-RSA-
↪AES256-GCM-SHA384
    SSLHonorCipherOrder   off
    SSLSessionTickets     off

    XSendFile on
    XSendFilePath /opt/indico
    CustomLog /opt/indico/log/apache/access.log combined
    ErrorLog /opt/indico/log/apache/error.log
```

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```
    LogLevel error
    ServerSignature Off

    <If "%{HTTP_HOST} != 'YOURHOSTNAME'">
        Redirect 301 / https://YOURHOSTNAME/
    </If>

    AliasMatch "^/(images|fonts)(.*)/(.+?)(__v[0-9a-f]+)?\.([^.]+)$" "/opt/indico/web/
↪static/$1$2/$3.$5"
    AliasMatch "^/(css|dist|images|fonts)/(.*)$" "/opt/indico/web/static/$1/$2"
    Alias /robots.txt /opt/indico/web/static/robots.txt

    SetEnv UWSGI_SCHEME https
    ProxyPass / uwsgi://127.0.0.1:8008/

    <Directory /opt/indico>
        AllowOverride None
        Require all granted
    </Directory>
</VirtualHost>
EOF
```

Now enable the necessary modules and the indico site in apache:

```
a2enmod proxy_uwsgi rewrite ssl xsendfile
a2dissite 000-default
a2ensite indico indico-sslredir
```

4. Create a TLS Certificate

First, create the folders for the certificate/key and set restrictive permissions on them:

```
mkdir /etc/ssl/indico
chown root:root /etc/ssl/indico/
chmod 700 /etc/ssl/indico
```

If you are just trying out Indico you can simply use a self-signed certificate (your browser will show a warning which you will have to confirm when accessing your Indico instance for the first time).

Note: Do not forget to replace `YOURHOSTNAME` with the same value you used above

```
openssl req -x509 -nodes -newkey rsa:4096 -subj /CN=YOURHOSTNAME -keyout /etc/ssl/
↪indico/indico.key -out /etc/ssl/indico/indico.crt
```

While a self-signed certificate works for testing, it is not suitable for a production system. You can either buy a certificate from any commercial certification authority or get a free one from Let's Encrypt.

Note: There's an optional step later in this guide to get a certificate from Let's Encrypt. We can't do it right now since the Apache config references a directory yet to be created, which prevents Apache from starting.

5. Install Indico

Celery runs as a background daemon. Add a systemd unit file for it:

```
cat > /etc/systemd/system/indico-celery.service <<'EOF'
[Unit]
Description=Indico Celery
After=network.target

[Service]
ExecStart=/opt/indico/.venv/bin/indico celery worker -B
Restart=always
SyslogIdentifier=indico-celery
User=indico
Group=www-data
UMask=0027
Type=simple
KillMode=mixed
TimeoutStopSec=300

[Install]
WantedBy=multi-user.target
EOF

systemctl daemon-reload
```

Now create a user that will be used to run Indico and switch to it:

```
useradd -rm -g www-data -d /opt/indico -s /bin/bash indico
su - indico
```

The first thing to do is installing pyenv - we use it to install the latest Python version as not all Linux distributions include it and like this Indico can benefit from the latest Python features.

```
curl -L https://github.com/pyenv/pyenv-installer/raw/master/bin/pyenv-installer | bash

cat >> ~/.bashrc <<'EOF'
export PATH="/opt/indico/.pyenv/bin:$PATH"
eval "$(pyenv init --path)"
eval "$(pyenv init -)"
EOF

source ~/.bashrc
```

You are now ready to install Python 3.9:

Run `pyenv install --list | egrep '^\s*3\.9\.'` to check for the latest available version and then install it and set it as the active Python version (replace `x` in both lines).

```
pyenv install 3.9.x
pyenv global 3.9.x
```

This may take a while since pyenv needs to compile the specified Python version. Once done, you may want to use `python -V` to confirm that you are indeed using the version you just installed.

You are now ready to install Indico:

```
python -m venv --upgrade-deps --prompt indico ~/.venv
source ~/.venv/bin/activate
echo 'source ~/.venv/bin/activate' >> ~/.bashrc
pip install wheel
pip install uwsgi
pip install indico
```

6. Configure Indico

Once Indico is installed, you can run the configuration wizard. You can keep the defaults for most options, but make sure to use `https://YOURHOSTNAME` when prompted for the Indico URL. Also specify valid email addresses when asked and enter a valid SMTP server Indico can use to send emails. When asked for the default timezone make sure this is the main time zone used in your Indico instance.

```
indico setup wizard
```

Now finish setting up the directory structure and permissions:

```
mkdir ~/log/apache
chmod go-rwx ~/* ~/.[^.]*
chmod 710 ~/ ~/archive ~/cache ~/log ~/tmp
chmod 750 ~/web ~/.venv
chmod g+w ~/log/apache
echo -e "\nSTATIC_FILE_METHOD = 'xsendfile'" >> ~/etc/indico.conf
```

7. Create database schema

Finally, you can create the database schema and switch back to *root*:

```
indico db prepare
exit
```

8. Launch Indico

You can now start Indico and set it up to start automatically when the server is rebooted:

```
systemctl restart apache2.service indico-celery.service indico-uwsgi.service
systemctl enable apache2.service postgresql.service redis-server.service indico-
↪celery.service indico-uwsgi.service
```

9. Optional: Get a Certificate from Let's Encrypt

Note: You need to use at least Debian 9 (Stretch) to use certbot. If you are still using Debian 8 (Jessie), consider updating or install certbot from backports.

If you use Ubuntu, install the certbot PPA:

```
apt install -y software-properties-common
add-apt-repository -y ppa:certbot/certbot
apt update
```

To avoid ugly TLS warnings in your browsers, the easiest option is to get a free certificate from Let's Encrypt. We also enable the cronjob to renew it automatically:

```
apt install -y python-certbot-apache
certbot --apache --rsa-key-size 4096 --no-redirect --staple-ocsp -d YOURHOSTNAME
rm -rf /etc/ssl/indico
systemctl start certbot.timer
systemctl enable certbot.timer
```

10. Create an Indico user

Access `https://YOURHOSTNAME` in your browser and follow the steps displayed there to create your initial user.

11. Install TeXLive

Follow the *LaTeX install guide* to install TeXLive so Indico can generate PDF files in various places.

Optional: Shibboleth

If your organization uses Shibboleth/SAML-based SSO, follow these steps to use it in Indico:

1. Install Shibboleth

```
apt install -y libapache2-mod-shib2
a2enmod shib2
```

2. Configure Shibboleth

This is outside the scope of this documentation and depends on your environment (Shibboleth, SAML, ADFS, etc). Please contact whoever runs your SSO infrastructure if you need assistance.

3. Enable Shibboleth in Apache

Add the following code to your `/etc/apache2/sites-available/indico.conf` right before the `AliasMatch` lines:

```
<LocationMatch "^(/Shibboleth\.sso|/login/shib-sso/shibboleth)">
    AuthType shibboleth
    ShibRequestSetting requireSession 1
    ShibExportAssertion Off
    Require valid-user
</LocationMatch>
```

4. Enable Shibboleth in Indico

Add the following code to your `/opt/indico/etc/indico.conf`:

```
# SSO
AUTH_PROVIDERS = {
    'shib-sso': {
        'type': 'shibboleth',
        'title': 'SSO',
        'attrs_prefix': 'ADFS_',
        'callback_uri': '/login/shib-sso/shibboleth',
        # 'logout_uri': 'https://login.yourcompany.tld/logout'
    }
}
IDENTITY_PROVIDERS = {
    'shib-sso': {
        'type': 'shibboleth',
        'title': 'SSO',
        'identifier_field': 'ADFS_LOGIN',
        'mapping': {
            'affiliation': 'ADFS_HOMEINSTITUTE',
            'first_name': 'ADFS_FIRSTNAME',
            'last_name': 'ADFS_LASTNAME',
            'email': 'ADFS_EMAIL',
            'phone': 'ADFS_PHONENUMBER'
        },
        'trusted_email': True
    }
}
```

The values for `attrs_prefix`, `mapping` and `identifier_field` may be different in your environment. Uncomment and set `logout_uri` if your SSO infrastructure provides a logout URL (usually used to log you out from all applications).

If you only want to use SSO, without allowing people to login locally using username/password, disable it by setting `LOCAL_IDENTITIES = False` in `indico.conf`.

Warning: We assume that emails received from SSO are already validated. If this is not the case, make sure to disable `trusted_email` which will require email validation in Indico when logging in for the first time. Otherwise people could take over the account of someone else by using their email address!

Note: The example config is rather simple and only accesses data from SSO during login. This is not sufficient for advanced features such as automatic synchronization of names, affiliations and phone numbers or using centrally managed groups. To use these features, you need to use e.g. the LDAP identity provider and use the information received via SSO to retrieve the user details from LDAP. If you need assistance with this, feel free to ask us on IRC (#indico @ Libera.Chat) or the forum.

Note: Please note that you **must** use Apache if you intend to use SSO using Shibboleth. If that's not the case because you do not use SSO at all or use e.g. OAuth, OIDC or SAML without Shibboleth, we recommend using nginx.

1.1.2 Upgrade

It is important to keep your Indico instance up to date to have the latest bug fixes and features. Upgrading can be done with almost no user-facing downtime.

> **Warning:** When upgrading a production system it is highly recommended to create a database backup before starting.

Upgrading between 3.x versions

First of all, stop the Celery worker. To do so, run this as *root*:

```
systemctl stop indico-celery.service
```

Now switch to the *indico* user and activate the virtualenv:

```
su - indico
source ~/.venv/bin/activate
```

If you are on CentOS, update your PATH to avoid errors in case the new Indico version needs to install an updated version of the PostgreSQL client library (psycopg2):

```
export PATH="$PATH:/usr/pgsql-13/bin"
```

You are now ready to install the latest version of Indico:

```
pip install -U indico
```

If you installed the official plugins, update them too:

```
pip install -U indico-plugins
```

It is a good idea to ensure you are using the latest recommended Python version:

```
indico setup upgrade-python
```

Some versions may include database schema upgrades. Make sure to perform them immediately after upgrading. If there are no schema changes, the command will simply do nothing.

```
indico db upgrade
indico db --all-plugins upgrade
```

Note: Some database structure changes require an *exclusive lock* on some tables in the database. Unless you have very high activity on your instance, this lock can be acquired quickly, but if the upgrade command seems to hang for more than a few seconds, you can restart uWSGI by running `systemctl restart uwsgi.service` as *root* (in a separate shell, i.e. don't abort the upgrade command!) which will ensure nothing is accessing Indico for a moment.

Unless you just restarted uWSGI, it is now time to reload it so the new version is actually used:

```
touch ~/web/indico.wsgi
```

Also start the Celery worker again (once again, as *root*):

```
systemctl start indico-celery.service
```

Upgrading from 2.x to 3.x

The upgrade from 2.x to 3.x is a major change since Indico now requires Python 3. We also strongly recommend upgrading your database to PostgreSQL 13.

Note: There are no changes that require the newer Postgres version immediately, but we no longer test on versions older than Postgres 12, and thus can give you no guarantees that things will keep working on older versions such as 9.6.

Warning: If you are using any custom plugins they will most likely no longer work and need to be updated. Contact the developers of these plugins to see whether they already have a version compatible with Python 3 and Indico 3.

Due to the significant changes in the environment, we recommend using a **freshly installed server/VM** with the latest long-term-supported version of your preferred Linux distribution.

Note: If you are using CentOS, staying with CentOS 7 is recommended as CentOS 8 actually has a much earlier end-of-life date (end of 2021) than CentOS 7 (mid 2024), and running Indico with Apache on CentOS 8 is currently not supported.

When following the *production installation guide*, there are a few places where you need to do something differently:

- Instead of running `indico db prepare`, restore a dump of your old Postgres database
- You still need to run `indico setup wizard` to create some of the directories, but compare the generated config file with your old one and update any settings you may have changed manually (e.g. for LDAP or SSO authentication)
- You need to perform the database structure upgrades just like during any other Indico upgrade: `indico db upgrade` and `indico db --all-plugins upgrade`
- Copy the contents of the `/opt/indico/archive` folder from your old instance and ensure owner, group and permissions are correct. This step is critical as this folder contains all the files uploaded to Indico

If you need any help with the upgrade or encounter any issues, please open a thread in our forum.

Upgrading from 2.x to 3.x in-place

Warning: If you are not experienced with Linux system administration, we highly recommend you to either ask someone from your IT department for assistance and/or follow our recommendation of using a new server/VM to install Indico v3.

In case you prefer to perform the upgrade in place on your existing server, you will need to compare the installation guides of 2.3 and 3.x and apply the differences manually. This should be fairly easy for someone with Linux system administration experience, but here are some important points:

- Create a backup of both your Postgres database and `/opt/indico/archive`

- Stop, disable and and uninstall uWSGI and delete the old config file. To support the latest Python version uWSGI is now installed into the Indico virtual environment using `pip`
- Delete the `~/.venv` folder of the Indico user and recreate it using the commands from the setup guide
- Make sure to update your webserver config to use the more modern TLS defaults

1.1.3 Upgrade Indico from 1.2

The migration tool (indico-migrate) requires Python 2.7 and Indico 2.0. It is not supported by Indico v3 nor will it work on Python 3.

If you still need to migrate a legacy instance from the 1.x (or older), please consult the documentation from Indico v2. You may also want to consider running the migration on a separate virtual machine in order to not clutter the server that will run Indico v3 with legacy tools and software.

1.1.4 Installation guide (development)

Installing System Packages

Web assets such as JavaScript and SCSS files are compiled using Webpack, which requires NodeJS to be present. You can find information on how to install NodeJS here.

Do not use the default NodeJS packages from your Linux distribution as they are usually outdated or come with an outdated npm version.

Since only few Linux distributions include Python 3.9 in their package managers, we recommend installing pyenv and then install the latest Python 3.9 version using `pyenv install 3.9.9` (adapt this command in case a newer version is available).

Tip: You can run `pyenv doctor` once you installed and enabled pyenv in order to see whether all dependencies are met. There's a good chance that you need to install some additional system packages beyond those listed below, and using this tool will tell you what exactly you need.

CentOS/Fedora

```
yum install -y gcc redis libjpeg-turbo-devel libxslt-devel libxml2-devel \
    libffi-devel pcre-devel libyaml-devel redhat-rpm-config \
    postgresql postgresql-server postgresql-contrib libpq-devel
systemctl start redis.service postgresql.service
```

Debian/Ubuntu

```
apt install -y --install-recommends libxslt1-dev libxml2-dev libffi-dev libpcre3-dev \
    libyaml-dev build-essential redis-server postgresql libpq-dev
```

Then on Debian:

```
apt install -y libjpeg62-turbo-dev
```

And on Ubuntu:

```
apt install -y libjpeg-turbo8-dev zlib1g-dev
```

macOS

We recommend that you use Homebrew:

```
brew install redis libjpeg libffi pcre libyaml postgresql
brew services start postgresql
brew services start redis
```

Creating the directory structure

You will need a directory in your file system to store Indico as well as its data files (archives, etc...). Some developers keep all their code inside a `dev` or `code` dir. We will assume `dev` here.

```
mkdir -p ~/dev/indico/data
```

We will need a virtualenv where to run Indico:

```
cd ~/dev/indico
pyenv local 3.9.9
python -m venv env
```

Note: After setting the version with pyenv, it's a good idea to use `python -V` to ensure you are really running that particular Python version; depending on the shell you may need to restart your shell first. In case you installed a newer version than 3.9.9 earlier, adapt the pyenv command accordingly.

Cloning Indico

First, let's clone Indico's code base. If you're going to contribute back to the project, it's probably best if you clone your own GitHub fork of the project and set it as the origin:

```
git clone git@github.com:<your-github-username>/indico.git src
cd src
git remote add upstream https://github.com/indico/indico.git
cd ..
```

Otherwise, cloning the upstream repository as the origin should be enough:

```
git clone https://github.com/indico/indico.git src
```

If you're going to be changing the standard Indico plugins and/or the documentation, you can also clone those:

```
mkdir plugins
git clone https://github.com/indico/indico-plugins.git plugins/base
git clone https://github.com/indico/indico-user-docs.git user-docs
```

Setting up Maildump (recommended)

Some actions in Indico trigger automatic e-mails. Those will normally have to be routed through an SMTP server. This can become a problem if you're using production data and/or real e-mails, as users may end up being spammed unnecessarily. This is why we advise that you include a fake SMTP server in your development setup. Maildump does exactly this and runs on Python. It should be quite simple to set up:

```
python -m venv maildump
./maildump/bin/pip install -U pip setuptools wheel
./maildump/bin/pip install maildump
./maildump/bin/maildump -p /tmp/maildump.pid
```

You'll then be able to access the message log at http://localhost:1080.

Creating the DB

```
sudo -u postgres createuser $USER --createdb
sudo -u postgres createdb indico_template -O $USER
sudo -u postgres psql indico_template -c "CREATE EXTENSION unaccent; CREATE EXTENSION␣
↪pg_trgm;"
createdb indico -T indico_template
```

Configuring

Let's get into the Indico virtualenv:

```
source ./env/bin/activate
pip install -U pip setuptools wheel

cd src
pip install -e '.[dev]'
npm ci
```

Then, follow the instructions given by the wizard:

```
indico setup wizard --dev
```

You can then initialize the DB:

```
indico db prepare
```

To build the locales, use:

```
indico i18n compile-catalog
indico i18n compile-catalog-react
```

Running Indico

You will need two shells running in parallel. The first one will run the webpack watcher, which compiles the JavaScript and style assets every time you change them:

```
./bin/maintenance/build-assets.py indico --dev --watch
```

On the second one we'll run the Indico Development server:

```
indico run -h <your-hostname> -q --enable-evalex
```

Double-check that your hostname matches that which has been set in the config file (by the wizard).

It is also worth mentioning that when working on a plugin, it is necessary to run another webpack watcher to build the plugin assets. That can be accomplished using the same command as above with an argument specifying which plugin you want to build the assets for:

```
./bin/maintenance/build-assets.py plugin <plugin-directory> --dev --watch
```

You can also build the assets for all the plugins:

```
./bin/maintenance/build-assets.py all-plugins --dev <plugins-directory>
```

Installing TeXLive (optional)

If you need PDF generation in certain parts of Indico to work (e.g. for contributions and the Book of Abstracts), you need LaTeX. To install it, follow the *LaTeX install guide*.

Using HTTPS through nginx (optional)

If you wish to open your development server to others, then we highly recommend that you properly set HTTPS. While you could do so directly at the development server, it's normally easier to proxy it through nginx and have it serve static files as well.

You should obviously install nginx first:

```
sudo yum install nginx  # centos/fedora
sudo apt install nginx  # debian/ubuntu
brew install nginx      # macOS
```

Here is an example of a `nginx.conf` you can use. It assumes your username is `jdoe` and the hostname is `acme.example.org`:

```
user jdoe users;
worker_processes 4;
error_log /var/log/nginx/error.log info;
pid /run/nginx.pid;

events {
    worker_connections 1024;
    use epoll;
}

http {
    access_log off;

    sendfile on;
    tcp_nopush on;
    tcp_nodelay on;

    keepalive_timeout   75 20;
    types_hash_max_size 2048;
```

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```
    ignore_invalid_headers on;

    connection_pool_size 256;
    client_header_buffer_size 10k;
    large_client_header_buffers 4 20k;
    request_pool_size 4k;
    client_max_body_size 2048m;

    proxy_buffers 32 32k;
    proxy_buffer_size 32k;
    proxy_busy_buffers_size 128k;

    gzip on;
    gzip_min_length 1100;
    gzip_buffers 4 8k;
    gzip_types text/plain text/css application/x-javascript;

    include             /etc/nginx/mime.types;
    default_type        application/octet-stream;

    server {
        listen [::]:80 ipv6only=off;
        server_name acme.example.org;

        access_log /var/log/nginx/acme.access_log combined;
        error_log /var/log/nginx/acme.error_log info;

        root /var/empty;

        return 302 https://$server_name$request_uri;
    }

    server {
        listen [::]:443 ipv6only=off http2;
        server_name acme.example.org;

        ssl on;
        ssl_protocols TLSv1 TLSv1.1 TLSv1.2;
        ssl_ciphers ECDHE-RSA-AES256-GCM-SHA384:ECDHE-RSA-AES128-GCM-SHA256:DHE-RSA-
↪AES256-GCM-SHA384:ECDHE-RSA-AES256-SHA384:ECDHE-RSA-AES128-SHA256:ECDHE-RSA-AES256-
↪SHA:ECDHE-RSA-AES128-SHA:DHE-RSA-AES256-SHA:DHE-RSA-AES128-SHA;
        ssl_prefer_server_ciphers on;
        ssl_certificate /home/jdoe/acme.crt;
        ssl_certificate_key /home/jdoe/acme.key;

        access_log /var/log/nginx/acme.ssl_access_log combined;
        error_log /var/log/nginx/acme.ssl_error_log info;

        root /var/empty;


        location ~ ^/(images|fonts)(.*)/(.+?)(__v[0-9a-f]+)?\.([^.]+)$ {
            alias /home/jdoe/dev/indico/src/indico/web/static/$1$2/$3.$5;
        }

        location ~ ^/(css|dist|images|fonts)/(.*)$ {
            alias /home/jdoe/dev/indico/src/indico/web/static/$1/$2;
```

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```
        }

        location / {
            proxy_pass http://127.0.0.1:8000;
            proxy_set_header Host $server_name;
            proxy_set_header X-Forwarded-For $remote_addr;
            proxy_set_header X-Forwarded-Proto $scheme;
        }
    }
}
```

This configuration also assumes you've already got a secret key and certificate stored in `~/acme.key` and `acme.crt` respectively. In most cases you will probably use a self-signed certificate. There are many guides on-line on how to generate a self-signed certificate, so we will not cover it here.

If you're using SELinux, you will need to set the following configuration options:

```
sudo setsebool -P httpd_can_network_connect 1
sudo setsebool -P httpd_read_user_content 1
```

Uploading large files will probably fail unless you do:

```
sudo chown -R jdoe:nginx /var/lib/nginx/tmp/
```

The Indico dev server should be run with the `--proxy` option:

```
indico run -h 127.0.0.1 -p 8000 -q --enable-evalex --url https://acme.example.org --
↪proxy
```

You can then start nginx and access `https://acme.example.org` directly.

1.1.5 Plugins

We provide a meta-package that contains all official plugins. Before installing it, make sure you are logged in as the *indico* user and inside the Indico environment:

```
su - indico
source ~/.venv/bin/activate
```

Now install the package which will automatically install our plugins:

```
pip install indico-plugins
```

Note: Having all plugins installed has no disadvantages; only plugins enabled in `indico.conf` are actually loaded and executed. If you do not use the `indico-plugins` package, we won't be able to display a notification when updates are available and you would have to update all the plugins separately.

You can use the `indico setup list-plugins` command to see which plugins are installed and which name to use in the config file to load them.

To enable plugins, add a `PLUGINS` entry to `/opt/indico/etc/indico.conf`. For example, the following line would enable the "Bank Transfer" and "PayPal" payment plugins:

```
PLUGINS = {'payment_manual', 'payment_paypal'}
```

Some plugins contain additional database tables. Run the plugin database migrations to create them (if you do not have any plugins with custom tables, the command will simply do nothing):

```
indico db --all-plugins upgrade
```

After any change to the config file, you need to reload uWSGI:

```
touch ~/web/indico.wsgi
```

It is also a good idea to restart the Celery worker (as *root*) since some plugins may come with background tasks:

```
systemctl restart indico-celery.service
```

1.1.6 Translations

Indico comes with a number of languages by default. In release 2.3, those are: English (default), French, Portuguese, Spanish and Chinese (in the order of integration). Additional languages are being prepared on the Transifex platform.

In order to use (partially) existing translations from Transifex or to contribute translations, you need to register with the Indico project on the Transifex platform.

Additional Translations

This is a guide to set up an Indico instance with a new language. It is useful for translators to verify how the translation looks in production or for administrators who just want to lurk at the incubated translation embryos.

Alternatively, you may use this guide to expose a translation we do not officially support, in your production version.

1. Setup an Indico dev environment

This should usually be done on your own computer or a virtual machine.

For creating your own Indico instance, we provide two different guides: The first one is for a *production system*, it will prepare Indico to be served to users and used in all the different purposes you may have besides translations. The second is *development* a light-weight, easier to set up, version oriented to testing purposes, that should not be exposed to the public.

For the purpose of translation **development** or **testing** we recommend using the development version.

2. Install the transifex client

Follow the instructions on the transifex site.

3. Get an API token

Go to your transifex settings and generate an API token. Afterwards, you should run the command `tx init --skipsetup`. It will request the token you just copied from the previous settings and save it locally so you can start using transifex locally. If you do not know how to run this command, please refer to the transifex client guide.

4. Install the translations

Navigate to `~/dev/indico/src` (assuming you used the standard locations from the dev setup guide).

Run `tx pull -f -l <language_code>`. Languages codes can be obtained here.

For example, Chinese (China) is `zh_CN.GB2312`.

5. Compile translations and run Indico

Run the commands `indico i18n compile-catalog` and `indico i18n compile-catalog-react` and:

- *launch Indico*, or
- *build* and *deploy your own version of Indico*, if you wish to deploy the translation in a production version.

The language should now show up as an option in the top right corner.

In case you modified the `.js` resources, you also need to delete the cached files in `~/dev/indico/data/cache/assets_i18n_*.js`.

FAQ

Why isn't Indico loading my language?

Some languages in transifex use codes that Indico is not able to recognize. One example is the Chinese's `zh_CN.GB2312`. The easy fix for this is to rename the folder `zh_CN.GB2312` (inside `indico/translations/`) to the extended locale code `zh_Hant_TW`. Unfortunately, there is no list with mappings for all the languages. So if by any reason it doesn't work for you, feel free to *ask us*.

Contributing

As a **translator**, you should have a good knowledge of the Indico functions (from the user side at least). Then you can subscribe to the abovementioned Transifex site for Indico and request membership of one of the translation teams. You should also contact the coordinators; some languages have specific coordinators assigned. They may point you to places, where work is needed and which rules have been agreed for the translations.

The glossary is usually of big help to obtain a uniform translation of all technical terms. Use it!

As a **programmer** or **developer**, you will have to be aware of the needs and difficulties of translation work. A Wiki page for Internationalisation is available from github (slightly outdated and we should eventually move it to this documentation). It describes the interface between translating and programming and some conventions to be followed. Everyone involved in translating or programming Indico should have read it before starting the work.

Whenever translaters spot difficult code (forgotten pluralization, typos), they should do their best to avoid double (or rather: multiple) work to their fellow translators. What is a problem for their translation, usually will be a problem for all translations. Don't hesitate to open an issue or pull request on GitHub. Repair first, then translate (and be aware that after repair, the translation has to be made again for all languages).

Note: The codebase also contains legacy code, which may not follow all rules.

File Organisation

The relationship between

- transifex resources names (core.js, core.py, core.react.js)
- PO file names (messages-js.po, messages.po, messages-react.po) and
- the actual place, where the strings are found

is not always obvious. Starting with the resource names, the files ending in

- `.py` refer to translations used with python and jinja templates,
- `.js` refer to translations used with generic or legacy javascript,
- `react.js` refer to translations used with the new react-based javascript.

These contain a relationship to PO files, as defined in the following example extracted from `src/.tx/config`.

```
[indico.<transifex resource slug>]
file_filter = indico/translations/<lang>/LC_MESSAGES/<PO file name>.po
source_file = indico/translations/<source file name>.pot
source_lang = en
type = PO
```

Note: The transifex resource slug is a name-like alias that identifies a particular file.

For more information regarding this subject a thread has started here.

1.1.7 LaTeX

Indico uses LaTeX (xelatex to be exact) to generate some PDF files such as the *Book of Abstracts* and the PDF versions of contributions. If you do not need these features, you can skip this part of the documentation and avoid installing LaTeX altogether.

Since Indico requires quite a few LaTeX packages which are not always] installed by default when using the texlive packages of the various linux distributions, we recommend installing it manually.

First of all, you will need to install some dependencies so that all TeX formats are generated successfully upon TeXLive installation.

```
yum install fontconfig ghostscript     # CentOS / CC7
apt install libfontconfig1 ghostscript # Debian / Ubuntu
```

You are now ready to install TeXLive. The following commands should work fine to install everything you need. You need to run the installation as root or create `/opt/texlive` as root and grant your user write access to it.

Download the installer and cd to its location (the directory name contains the date when the package was built, so use the wildcard or type the name manually based on the output when unpacking the archive):

```
cd /tmp
wget http://mirror.ctan.org/systems/texlive/tlnet/install-tl-unx.tar.gz
tar xvzf install-tl-unx.tar.gz
cd install-tl-*/
```

Create the setup config file to install all the packages you need:

```
cat > texlive.profile <<'EOF'
selected_scheme scheme-full
TEXDIR /opt/texlive
TEXMFCONFIG ~/.texlive/texmf-config
TEXMFHOME ~/texmf
TEXMFLOCAL /opt/texlive/texmf-local
TEXMFSYSCONFIG /opt/texlive/texmf-config
TEXMFSYSVAR /opt/texlive/texmf-var
TEXMFVAR ~/.texlive/texmf-var
binary_x86_64-linux 1
instopt_adjustpath 0
instopt_adjustrepo 0
instopt_letter 0
instopt_portable 0
instopt_write18_restricted 1
tlpdbopt_autobackup 1
tlpdbopt_backupdir tlpkg/backups
tlpdbopt_create_formats 1
tlpdbopt_generate_updmap 0
tlpdbopt_install_docfiles 0
tlpdbopt_install_srcfiles 0
tlpdbopt_post_code 1
tlpdbopt_sys_bin /usr/local/bin
tlpdbopt_sys_info /usr/local/share/info
tlpdbopt_sys_man /usr/local/share/man
EOF
```

Start the installer and wait for it to complete. This may take between a few minutes and a few hours depending on the speed of the (randomly chosen) mirror.

```
./install-tl --profile texlive.profile
```

After installing it, add this line to your `indico.conf` file to use your new TeXLive installation:

```
XELATEX_PATH = '/opt/texlive/bin/x86_64-linux/xelatex'
```

If you are in a production setup, reload uWSGI using `touch /opt/indico/web/indico.wsgi` to reload the config file.

As security-related updates are released frequently, it is also a good idea to periodically update the TeXLive packages by running:

```
/opt/texlive/bin/x86_64-linux/tlmgr update --self --all
```

CHAPTER 2

Configuration

Indico is very flexible and many things can be configured/customized in its configuration file.

2.1 Configuration

Indico is very flexible and many things can be configured/customized in its configuration file.

2.1.1 Settings

`indico.conf` is Indico's main configuration file. Its initial version is usually generated when running `indico setup wizard` as described in the Installation Guide, but depending on the setup it should be modified later.

The config file is loaded from the path specified in the `INDICO_CONFIG` environment variable; if no such path is set, the config file (or a symlink to it) is searched in the following places, in order:

- `<indico_package_path>/indico.conf` (development setups only)
- `~/.indico.conf`
- `/etc/indico.conf`

The file is executed as a Python module, so anything that is valid Python 2.7 code can be used in it. When defining temporary variables that are not config options, their name should be prefixed with an underscore; otherwise you will get a warning about unknowing config options being defined.

Authentication

LOCAL_IDENTITIES

This setting controls whether local Indico accounts are available. If no centralized authentication infrastructure (e.g. LDAP, OAuth, or another kind of SSO) is used, local accounts are the only way of logging in to Indico.

Default: `True`

LOCAL_GROUPS
This setting controls whether local Indico groups are available. If no centralized authentication infrastructure that supports groups (e.g. LDAP) is used, local groups are the only way to define groups in Indico, but if you do have central groups it may be useful to disable local ones to have all groups in one central place.

Default: `True`

LOCAL_REGISTRATION
This setting controls whether people accessing Indico can create a new account. Admins can always create new local accounts, regardless of this setting.

This setting is only taken into account if *LOCAL_IDENTITIES* are enabled.

Default: `True`

LOCAL_MODERATION
This setting controls whether a new registration needs to be approved by an admin before the account is actually created.

This setting is only taken into account if *LOCAL_IDENTITIES* and *LOCAL_REGISTRATION* are enabled.

Default: `False`

FAILED_LOGIN_RATE_LIMIT
Applies a rate limit to failed login attempts due to an invalid username or password. When specifying multiple rate limits separated with a semicolon, they are checked in that specific order, which can allow for a short burst of attempts (e.g. a legitimate user trying multiple passwords they commonly use) and then slowing down more strongly (in case someone tries to brute-force more than just a few passwords).

Rate limiting is applied by IP address and only failed logins count against the rate limit. It also does not apply to login attempts using external login systems (SSO) as failures there are rarely related to invalid credentials coming from the user (these would be rejected on the SSO side, which should implement its own rate limiting).

The default allows a burst of 15 attempts, and then only 5 attempts every 15 minutes for the next 24 hours. Setting the rate limit to `None` disables it.

Default: `'5 per 15 minutes; 10 per day'`

EXTERNAL_REGISTRATION_URL
The URL to an external page where people can register an account that can then be used to login to Indico (usually via LDAP/SSO).

This setting is only taken into account if *LOCAL_IDENTITIES* are disabled.

Default: `None`

AUTH_PROVIDERS
A dict defining Flask-Multipass authentication providers used by Indico. The dict specified here is passed to the `MULTIPASS_AUTH_PROVIDERS` setting of Flask-Multipass.

Default: `{}`

IDENTITY_PROVIDERS
A dict defining Flask-Multipass identity providers used by Indico to look up user information based on the data provided by an authentication provider. The dict specified here is passed to the `MULTIPASS_IDENTITY_PROVIDERS` setting of Flask-Multipass.

Default: `{}`

PROVIDER_MAP
If not specified, authentication and identity providers with the same name are linked automatically. The dict specified here is passed to the `MULTIPASS_PROVIDER_MAP` setting of Flask-Multipass.

Default: `{}`

Cache

REDIS_CACHE_URL
The URL of the redis server to use for caching.

If the Redis server requires authentication, use a URL like this: `redis://unused:password@127.0.0.1:6379/1`

If no authentication is used (usually the case with a local Redis server), you can omit the user/password part: `redis://127.0.0.1:6379/1`

Default: `None`

MEMCACHED_SERVERS
The list of memcached servers (each entry is an `ip:port` string) to use with the `memcached` cache backend.

Default: `[]`

Celery

CELERY_BROKER
The URL of the Celery broker (usually Redis of AMQP) used for communication between Indico and the Celery background workers.

We recommend using Redis as it is the easiest option, but you can check the Celery documentation on brokers for more information on the other possible brokers.

Default: `None`

CELERY_RESULT_BACKEND
The URL of the Celery result backend. If not set, the same backend as the broker is used. Indico currently does not use task results, and we recommend leaving this setting at its default.

Default: `None`

CELERY_CONFIG
A dict containing additional Celery settings.

> **Warning:** This is an advanced setting that is rarely needed and we do not recommend using it unless you know exactly what you are doing! Changing Celery settings may break things or result in tasks not being executed without other changes (such as running additional celery workers on different queues).

One use case for this setting is routing certain tasks to a different queue, and then running multiple Celery workers for these queues.

```
CELERY_CONFIG = {
    'task_routes': {
        'indico_livesync.task.scheduled_update': {'queue': 'livesync'},
    }
}
```

Default: `{}`

SCHEDULED_TASK_OVERRIDE
A dict overriding the task schedule for specific tasks.

By default, all periodic tasks are enabled and use a schedule which we consider useful for most cases. Using this setting, you can override the default schedule.

The dict key is the name of the task and the value can be one of the following:

- `None` or `False` – disables the task completely
- A dictionary, as described in the Celery documentation on periodic tasks. The `task` should not be specified, as it is set automatically.
- A `timedelta` or `crontab` object which will just override the schedule without changing any other options of the task. Both classes are available in the config file by default.

Note: Use `indico celery inspect registered` to get a list of task names. Celery must be running for this command to work.

Default: `{}`

Customization

CUSTOMIZATION_DIR

The base path to the directory containing customizations for your Indico instance.

It is possible to override specific templates and add CSS and JavaScript for advanced customizations. When using this, be advised that depending on the modifications you perform things may break after an Indico update. Make sure to test all your modifications whenever you update Indico!

To include custom CSS and JavaScript, simply put `*.css` and `*.js` files into `<CUSTOMIZATION_DIR>/css` / `<CUSTOMIZATION_DIR>/js`. If there are multiple files, they will be included in alphabetical order, so prefixing them with a number (e.g. `00-base.css`, `10-events.css`) is a good idea.

Static files may be added in `<CUSTOMIZATION_DIR>/files`. They can be referenced in templates through the `assets.custom` endpoint. In CSS/JS, the URL for them needs to be built manually (`/static/custom/files/...`).

For template customizations, see the description of *CUSTOMIZATION_DEBUG* as this setting is highly recommended to figure out where exactly to put customized templates.

Here is an example for a template customization that includes a custom asset and uses inheritance to avoid having to replace the whole template:

```
{% extends '~footer.html' %}

{% block footer_logo %}
    {%- set filename = 'cern_small_light.png' if dark|default(false) else 'cern_
↪small.png' -%}
    <a href="https://home.cern/" class="footer-logo">
        <img src="{{ url_for('assets.custom', filename=filename) }}" alt="CERN">
    </a>
{% endblock %}
```

Default: `None`

CUSTOMIZATION_DEBUG

Whether to log details for all customizable templates the first time they are accessed. The log message contains the path where you need to store the template; this path is relative to `<CUSTOMIZATION_DIR>/templates/`.

The log message also contains the full path of the original template in case you decide to copy it. However, instead of copying templates it is better to use Jinja inheritance where possible. To make this easier the log entry contains a "reference" path that can be used to reference the original template from the customized one.

Default: `False`

HELP_URL
The URL used for the "Help" link in the footer.

Default: `'https://learn.getindico.io'`

LOGO_URL
The URL to a custom logo. If unset, the default Indico logo is used.

Default: `None`

CUSTOM_COUNTRIES
A dict with country name overrides. This can be useful if the official ISO name of a country does not match what your Indico instance's target audience expects for a country, e.g. due to political situations.

```
CUSTOM_COUNTRIES = {'KP': 'North Korea'}
```

Default: `{}`

CUSTOM_LANGUAGES
A dict with language/territory name overrides. This can be useful if the official territory name that goes along with a language does not match what your Indico instance's target audience expects for a country, e.g. due to political situations.

For example, to replace "Chinese (Simplified)" with "Chinese (China)", you would use:

```
CUSTOM_LANGUAGES = {'zh_Hans_CN': ('Chinese', 'Simplified')}
```

Note that the language and territory name should be written in that particular language to be consistent with the defaults. So in the example above, you would write "Chinese" and "Simplified" in Simplified Chinese.

Setting the territory (second element in the tuple) to `None` will hide it and only show the language name itself. Setting the dict value to `None` will effectively hide the language altogether.

Default: `{}`

Database

SQLALCHEMY_DATABASE_URI
The URI used to connect to the PostgreSQL database. For a local database, you can usually omit everything besides the database name: `postgresql:///indico`

If the database requires authentication and/or runs on a separate host, this form should be used: `postgresql://user:password@hostname/dbname`

SQLALCHEMY_POOL_SIZE
This setting configures SQLAlchemy's connection pool. For details, check the Flask-SQLAlchemy documentation.

Default: `5`

SQLALCHEMY_POOL_RECYCLE
This setting configures SQLAlchemy's connection pool. For details, check the Flask-SQLAlchemy documentation.

Default: `120`

SQLALCHEMY_POOL_TIMEOUT
This setting configures SQLAlchemy's connection pool. For details, check the Flask-SQLAlchemy documentation.

Default: `10`

Development

Warning: Do not turn on development settings in production. While we are not aware of serious security issues caused by these settings, they may slow down Indico or remove redundancies and thus make Indico not as stable as one would expect it to be in a production environment.

DEBUG
Enables debugging mode. If enabled, assets are not minified, error messages are more verbose and various other features are configured in a developer-friendly way.

Do not enable debug mode in production.

Default: `False`

DB_LOG
Enables real-time database query logging. When enabled, all database queries are sent to a socket where they can be read by the `db_log.py` script. To use the database logger, run `bin/utils/db_log.py` (only available when running Indico from a Git clone) in a separate terminal and all requests and verbose queries will be displayed there.

Default: `False`

PROFILE
Enables the Python profiler. The profiler output is stored in `<TEMP_DIR>/*.prof`.

Default: `False`

SMTP_USE_CELERY
If disabled, emails will be sent immediately instead of being handed to a Celery background worker. This is often more convenient during development as you do not need to run a Celery worker while still receiving emails sent from Indico. Disabling it may result in emails not being sent if the mail server is unavailable or some other failure happens during email sending. Because of this, the setting should never be disabled in a production environment.

Default: `True`

COMMUNITY_HUB_URL
The URL of the community hub. This should only be changed when using a local instance of Mereswine to debug the interface between Indico and Mereswine.

Default: `'https://hub.getindico.io'`

SYSTEM_NOTICES_URL
The URL of a YAML file with system notices. This should only be changed during development (to test custom notices) or set to `None` to opt-out from ever fetching or displaying system notices.

Default: `'https://getindico.io/notices.yml'`

DISABLE_CELERY_CHECK
Disables the warning about Celery not running or being outdated. When set to `None`, the warning is disabled when *DEBUG* is enabled; otherwise this setting enables/disables the warning regardless of debug mode.

Default: `None`

Directories

CACHE_DIR
The directory in which various data is cached temporarily. Must be accessible by the web server.

Default: `'/opt/indico/cache'`

LOG_DIR
The directory in which log files are stored. Can be overridden by using absolute paths in `logging.yaml`.

Default: `'/opt/indico/log'`

TEMP_DIR
The directory in which various temporary files are stored. Must be accessible by the web server.

Default: `'/opt/indico/cache'`

Emails

SMTP_SERVER
The hostname and port of the SMTP server used for sending emails.

Default: `('localhost', 25)`

SMTP_LOGIN
The username to send if the SMTP server requires authentication.

Default: `None`

SMTP_PASSWORD
The password to send if the SMTP server requires authentication.

Default: `None`

SMTP_USE_TLS
If enabled, STARTTLS will be used to use an encrypted SMTP connection.

Default: `False`

SMTP_CERTFILE
If provided, this certificate file will be used for certificate-based SMTP authentication.

Default: `None`

SMTP_KEYFILE
If provided, this private key file will be used for certificate-based SMTP authentication.

Default: `None`

SMTP_TIMEOUT
The timeout in seconds after which a connection attempt to the SMTP server is aborted.

Default: `30`

SMTP_ALLOWED_SENDERS
A list of allowed envelope sender addresses. Each entry must be an email address, but using the `*` wildcard is allowed. For any address not matching an entry in this list, the envelope sender will be rewritten to the *SMTP_SENDER_FALLBACK* address. The `From` email header which is shown to end users is not affected by this.

For example, if your mail server only allowed sending emails from your domain `example.com`, you would set this setting to `{'*@example.com'}`. If only a specific sender address was allowed, you'd use e.g. `{'indico@example.com'}`.

Default: `set()`

SMTP_SENDER_FALLBACK
The envelope sender address to be used for any senders that are not whitelisted in *SMTP_ALLOWED_SENDERS*. This setting is required if the sender whitelist is used.

Default: `None`

NO_REPLY_EMAIL
The email address used when sending emails to users to which they should not reply.

Default: `None`

PUBLIC_SUPPORT_EMAIL
The email address that is shown to users on the "Contact" page.

Default: `None`

SUPPORT_EMAIL
The email address of the technical manager of the Indico instance. Emails about unhandled errors/exceptions are sent to this address.

Default: `None`

Experimental Features

EXPERIMENTAL_EDITING_SERVICE
If enabled, event managers can connect the Editing module of their events to an external microservice extending the normal Editing workflow. As long as this is considered experimental, there are no guarantees on backwards compatibility even in minor Indico version bumps. Please check the reference implementation for details/changes.

Default: `False`

LaTeX

XELATEX_PATH
The full path to the `xelatex` program of TeXLive.

If it is installed in a directory in your `$PATH`, specifying its name without a path is sufficient.

If the path is not configured, any functionality that requires LaTeX on the server (such as generating the Book of Abstracts or exporting contributions to PDF) will be disabled.

Default: `None`

STRICT_LATEX
Enables strict mode for LaTeX rendering, in which case a non-zero status code is considered failure.

LaTeX is rather generous when it comes to using a non-zero exit code. For example, having an oversized image in an abstract is enough to cause one. It is generally not a good idea to enable strict mode as this will result in PDF generation to fail instead of creating a PDF that looks slightly uglier (e.g. a truncated image) than one that would succeed without a non-zero status code.

Default: `False`

Logging

LOGGING_CONFIG_FILE
The path to the logging config file. Unless an absolute path is specified, the path is relative to the location of the Indico config file after resolving symlinks.

Default: `'logging.yaml'`

SENTRY_DSN
If you use Sentry for logging warnings/errors, you can specify the connection string here.

Default: `None`

SENTRY_LOGGING_LEVEL
The minimum level a log record needs to have to be sent to Sentry. If you do not care about warnings, set this to `'ERROR'`.

Default: `'WARNING'`

Security

SECRET_KEY
The secret key used to sign tokens in URLs. It must be kept secret under all circumstances.

When using Indico on a cluster of more than one worker, all machines need to have the same secret key.

The initial key is generated by the setup wizard, but if you have to regenerate it, the best way of doing so is running this snippet on a shell: `python -c 'import os; print repr(os.urandom(32))'`

Default: `None`

SESSION_LIFETIME
The duration of inactivity after which a session and its session cookie expires. If set to `0`, the session cookie will be cleared when the browser is closed.

Default: `86400 * 31`

Storage

STORAGE_BACKENDS
The list of backends that can be used to store/retrieve files.

Indico needs to store various files such as event attachments somewhere. By default only a filesystem based storage backend is available, but plugins could add additional backends. You can define multiple backends, but once a backend has been used, you **MUST NOT** remove it or all files stored in that backend will become unavailable.

To define a filesystem-based backend, use the string `fs:/base/path`. If you stopped using a backend, you can switch it to read-only mode by using `fs-readonly:` instead of `fs:`

Other backends may accept different options - see the documentation of these backends for details.

Default: `{'default': 'fs:/opt/indico/archive'}`

ATTACHMENT_STORAGE
The name of the storage backend used to store all kinds of attachments. Anything in this backend is write-once, i.e. once stored, files in it are never modified or deleted.

Changing this only affects new uploads; existing files are taken from the backend that was active when they were uploaded – which is also why you must not remove a backend from *STORAGE_BACKENDS* once it has been used.

Default: `'default'`

STATIC_SITE_STORAGE
The name of the storage backend used to store "offline copies" of events. Files are written to this backend when generating an offline copy and deleted after a certain amount of time.

If not set, the *ATTACHMENT_STORAGE* backend is used.

Default: `None`

System

BASE_URL
This is the URL through which Indico is accessed by users. For production systems this should be an `https://` URL and your web server should redirect all plain HTTP requests to HTTPs.

Default: `None`

USE_PROXY
This setting controls whether Indico runs behind a proxy or load balancer and should honor headers such as `X-Forwarded-For` to get the real IP address of the users accessing it.

The headers taken into account are:

- `X-Forwarded-For` – the IP address of the user
- `X-Forwarded-Proto` – the protocol used by the user
- `X-Forwarded-Host` – the hostname as specified in *BASE_URL* (can be omitted if the `Host` header is correct)

> **Warning:** This setting **MUST NOT** be enabled if the server is accessible directly by untrusted clients without going through the proxy or users will be able to spoof their IP address by sending a custom `X-Forwarded-For` header. You need to configure your firewall so only requests coming from your proxy or load balancer are allowed.

Default: `False`

ROUTE_OLD_URLS
If you migrated from an older Indico version (v1.x), enable this option to redirect from the legacy URLs so external links keep working.

Default: `False`

STATIC_FILE_METHOD
This setting controls how static files (like attachments) are sent to clients.

Web servers are very good at doing this; much better and more efficient than Indico or the WSGI container, so this should be offloaded to your web server using this setting.

When using Apache with `mod_xsendfile` or lighttpd, set this to `'xsendfile'` and of course enable xsendfile in your Apache config.

When using nginx, set this to `('xaccelredirect', {'/opt/indico': '/.xsf/indico'})` and add an internal location handler to your nginx config to serve `/opt/indico` via `/.xsf/indico`:

```
location /.xsf/indico/ {
  internal;
  alias /opt/indico/;
}
```

The *production installation instructions* already configure this properly, so if you installed Indico using our guide, you only need to change this setting if you add e.g. a new storage backend in *STORAGE_BACKENDS* that stores the files outside `/opt/indico`.

Default: `None`

MAX_UPLOAD_FILE_SIZE
The maximum size of an uploaded file (in MB). A value of `0` disables the limit.

This limit is only enforced on the client side. For a hard limit that is enforced on the server, see *MAX_UPLOAD_FILES_TOTAL_SIZE*

Default: `0`

MAX_UPLOAD_FILES_TOTAL_SIZE
The maximum size (in MB) of all files uploaded in a single request (or to be more exact, any data contained in the body of a single request).

A value of `0` disables the limit, but most web servers also have limits which need to be configured as well (`client_max_body_size` in nginx) to allow very large uploads.

Default: `0`

DEFAULT_LOCALE
The locale that is used by default for i18n. Valid values are `en_GB`, `fr_FR`, and `es_ES`.

Default: `'en_GB'`

DEFAULT_TIMEZONE
The timezone that is used by default. Any timezone identifier such as `Europe/Zurich` or `US/Central` can be used.

Default: `'UTC'`

ENABLE_ROOMBOOKING
Whether to enable the room booking system.

Default: `False`

PLUGINS
The list of *Indico plugins* to enable.

A list of all installed plugins can be displayed by the `indico setup list-plugins` command; see the guide linked above for details on how to enable plugins.

Default: `set()`

CATEGORY_CLEANUP
This setting specifies categories where events are automatically deleted a certain amount of days after they have been created.

For each entry, the key is the category id and the value the days after which an event is deleted.

> **Warning:** This feature is mostly intended for "Sandbox" categories where users test Indico features. Since it is common for such categories to be used for real events nonetheless, we recommend enabling the "Event Header" in the category settings and clearly mention that the event will be deleted after a while.

Default: `{}`

WORKER_NAME
The name of the machine running Indico. The default value is usually fine unless your servers have ugly (e.g. auto-generated) hostnames and you prefer nicer names to show up in error emails.

Default: `socket.getfqdn()`

2.1.2 Authentication

Indico uses Flask-Multipass to handle authentication, searching for users in an external database, and externally managed groups. This means any Flask-Multipass authentication/identity provider can be used in Indico without any modifications to Indico itself.

For a description of the basic settings regarding local accounts (managed within Indico itself), see the *general indico config documentation*. This guide focuses solely on advanced authentication methods and how to configure them in Indico.

Configuration

Authentication providers

Authentication providers handle the login process, i.e. asking for user credentials or redirecting to an external site in case of SSO.

The *AUTH_PROVIDERS* setting is Indico's equivalent to the `MULTIPASS_AUTH_PROVIDERS` setting of Flask-Multipass.

It must be set to a dict mapping a unique (internal) name of the auth provider (e.g. `mycompany-ldap`) to a dict of whatever data is needed for the given provider.

The following keys are available in the provider data:

- `type` – **Required.** The type of the provider. Valid values are e.g. `ldap`, `authlib`, `shibboleth`, and whatever custom providers you have installed.
- `title` – The title of the provider (shown on the login page). If omitted, the provider name is used.
- `default` – Must be set to `True` for exactly one form-based provider in case more than one such provider is used. The login form of the default provider is displayed when opening the login page so it should be the provider that most people use.
- Any provider-specific settings.

Identity providers

Identity providers get data about a user who logged in (based on the information passed on by the authentication provider) and also handle searching of external users and groups.

The *IDENTITY_PROVIDERS* setting is Indico's equivalent to the `MULTIPASS_IDENTITY_PROVIDERS` setting of Flask-Multipass.

It must be set to a dict mapping a unique (internal) name of the identity provider (e.g. `mycompany-ldap`) to a dict of whatever data is needed for the given provider. Note that once an identity provider has been used, its name must not be changed.

The following keys are available in the provider data:

- `type` – **Required.** The type of the provider. Valid values are e.g. `ldap`, `authlib`, `shibboleth`, and whatever custom providers you have installed.
- `title` – The title of the provider (shown in the account list of the user profile). If omitted, the provider name is used.

- `trusted_email` – Set this to `True` if all email addresses received from the provider are trustworthy, i.e. if it is guaranteed that an email address actually belongs to the user (either because it's coming from a trusted employee database or the provider is known to send verification emails). If an email is trusted, Indico will use it immediately to start the signup process or associate an existing account with a matching email address. Otherwise a verification email is sent to prove that the user has access to the email address, which is less user-friendly but extremely important to prevent malicious takeovers of Indico accounts.
- `moderated` – Set this to `True` if you want to require manual approval of the registration by an Indico admin. This results in the same workflow as *LOCAL_MODERATION* in case of local accounts.
- `synced_fields` – This may be set in no more than once identity provider and enables user data synchronization. Its value should be a set of user attributes that can be synchronized during login. The following attributes can be synchronized: `email`, `first_name`, `last_name`, `affiliation`, `phone`, `address` Due to the unique nature of email addresses, synchronizing them may fail; in that case a warning is displayed and the old email address remains - an Indico admin could merge the users if they are indeed the same person, but this needs to be done manually since merging users is a potentially destructive operation that cannot be undone. It is also strongly recommended to ONLY sync emails if the provider has validated emails (ie `trusted_email` set to `True`); otherwise users would get unvalidated (possibly even invalid) emails set on their account during sync.
- `mapping` – A dictionary that maps between keys given by the identity provider and keys expected by Indico for user information. The key of each entry is the Indico-side attribute name; the value is the key under which the data is exposed by the provider. Indico can take user information from the following keys: `first_name`, `last_name`, `email`, `affiliation`, `phone`, `address`. For example, this mapping would use the `givenName` provided by the identity provider to populate the user's `first_name` in Indico:

```
'mapping': {'first_name': 'givenName'}
```

- `identity_info_keys` – By default, all six attributes listed above will be used if the provider has them (either directly or in some other field specified in the `mapping`). If you want to restrict the data from a provider (e.g. because the value it provides is known to be useless/incorrect), you can set this to a set containing only the attributes you want to use. Note that external user search requires email addresses, so if you exclude email addresses here, users from this provider will never appear in search results.
- Any provider-specific settings.

Links between providers

By default, authentication and identity providers with the same name are linked together. If this is not what you want, you can use the *PROVIDER_MAP* setting to manually link providers. This is useful for advanced cases where you have e.g. both a login form to enter LDAP credentials and a SSO provider, but want to have a single LDAP identity provider that can use the username from either SSO or the LDAP login. In this case you would link both authentication providers to the same identity provider.

Specific providers

LDAP

The `ldap` authentication/identity providers are available by default, but to use them you need to install the `python-ldap` library using `pip install python-ldap`.

Note: `python-ldap` has some extra system dependencies (openldap and libsasl). How to install them (apt, yum, etc.) depends on your linux distribution. The package names are usually `libsasl2-dev` or `libsasl-dev` and

`openldap-dev` (or `-devel` on some distros). If one of these libraries is missing, `pip` will fail when installing `python-ldap`. Simply re-run the command after installing the missing library.

Once everything is installed, you can add the LDAP-related settings to your `indico.conf`. Below is an example based on the LDAP config we use at CERN with Active Directory; you can copy this as a starting point for your own config and then adapt it to your own environment:

```
_ldap_config = {
    'uri': 'ldaps://...',
    'bind_dn': 'cn=***,OU=Users,OU=Organic Units,DC=cern,DC=ch',
    'bind_password': '***',
    'timeout': 30,
    'verify_cert': True,
    'page_size': 1500,

    'uid': 'cn',
    'user_base': 'DC=cern,DC=ch',
    'user_filter': '(objectCategory=user)',

    'gid': 'cn',
    'group_base': 'OU=Workgroups, DC=cern, DC=ch',
    'group_filter': '(objectCategory=group)',
    'member_of_attr': 'memberOf',
    'ad_group_style': True
}


AUTH_PROVIDERS = {
    'ldap': {
        'type': 'ldap',
        'title': 'LDAP',
        'ldap': _ldap_config,
        'default': True
    }
}

IDENTITY_PROVIDERS = {
    'ldap': {
        'type': 'ldap',
        'title': 'LDAP',
        'ldap': _ldap_config,
        'mapping': {
            'first_name': 'givenName',
            'last_name': 'sn',
            'email': 'mail',
            'affiliation': 'company',
            'phone': 'telephoneNumber'
        },
        'trusted_email': True,
        'synced_fields': {'first_name', 'last_name', 'affiliation', 'phone', 'address
↪'}
    }
}
```

The LDAP-specific config uses the following keys:

- `uri` – **Required.** The URI referring to the LDAP server including the protocol and the port. Use `ldaps://` for LDAP over SSL/TLS and `ldap://` with the `starttls` option for a plain LDAP connection with TLS

negotiation. The port can be omitted if the LDAP server listens on the default port (636 for LDAP over SSL and 389 for a plain LDAP connection with TLS negotiation).

- `bind_dn` – **Required.** The distinguished name to bind to the LDAP directory.
- `bind_password` – **Required**. The password to use together with the `bind_dn` to login to the LDAP server.
- `timeout` – The delay in seconds to wait for a reply from the LDAP server (set to `-1` to disable). Default: `30`
- `verify_cert` – Whether to verify the TLS certificate of the LDAP server. Default: `True`
- `starttls` – Whether to use STARTTLS to switch to an encrypted connection. Ignored with an `ldaps://` URI. Default: `False`
- `page_size` – The limit of entries to retrieve at once for a search. `0` means no size limit. It is recommended to have at most the size limit imposed by the server. Default: `1000`
- `uid` – The attribute whose value is used as an identifier for the user (typically the username). This attribute must be a single-valued attribute whose value is unique for each user. If the attribute is multi-valued, only the first one retrieved will be returned. Default: `'uid'`
- `user_base` – **Required.** The base node for all the nodes which might contain a user.
- `user_filter` – A valid LDAP filter which will select exclusively all users in the subtree from the `user_base`. The combination of the `user_base` and the `user_filter` must match exclusively all the users. Default: `'(objectClass=person)'`
- `gid` – The attribute whose value is used as an identifier for the group (typically the group's name). This attribute must be a single-valued attribute whose value is unique for each group. If the attribute is multi-valued, only the first one retrieved will be returned. Default: `'cn'`
- `group_base` – **Required.** The base node for all the nodes which might contain a group.
- `group_filter` – A valid LDAP filter which will select exclusively all groups in the subtree from the `group_base`. The combination of the `group_base` and the `group_filter` must match exclusively all the groups. Default: `'(objectClass=groupOfNames)'`
- `member_of_attr` – The multi-valued attribute of a user containing the list of groups the user is a member of. Default: `'memberOf'`

Note: In case of SLAPD/OpenLDAP, the *member of* attribute must be enabled. While it is not enabled by default, the majority of servers will have it enabled. A simple `ldapsearch` for a user member of any group should show if that is the case. If not, you can check this article on information how to enable it on your LDAP server. Note that unless you manage the LDAP server, you need to ask the administrator of that server to do that.

- `ad_group_style` – Whether the server uses Active-Directory-style groups or not. This is only used when checking if a user is a member of a group. If enabled, the code will take advantage of the `tokenGroups` attribute of a user to check for nested group membership. Otherwise, it will only look through the values of the `member_of_attr`, which should also work for Active Directory, but only for direct membership. Default: `False`

SAML

The `saml` authentication/identity providers are available by default, but to use them you need to install the `python3-saml` library using `pip install python3-saml`.

Note: `python3-saml` has some extra system dependencies (`xmlsec`). How to install them (apt, yum, etc.) depends on your linux distribution. The package name is usually `libxmlsec1-dev` (or `xmlsec1-devel` on

RPM-based distros). If this library is missing, `pip` will fail when installing `python3-saml`. Simply re-run the command after installing the missing library.

Once everything is installed, you can add the SAML-related settings to your `indico.conf`. Below is an example you can copy to have a good starting point for your own config and then adapt it to your own environment:

```
_saml_config = {
    'sp': {
        'entityId': 'indico-saml',
        # Depending on your security config below you may need to generate
        # a certificate and private key.
        # You can use https://www.samltool.com/self_signed_certs.php or
        # use openssl for it (which is more secure as it ensures the
        # key never leaves your machine)
        'x509cert': '',
        'privateKey': '',
    },
    'idp': {
        # This metadata is provided by your SAML IdP. You can omit (or
        # leave empty) the whole 'idp' section in case you need SP
        # metadata to register your app and get the IdP metadata from
        # https://indico.example.com/multipass/saml/{auth-provider-name}/metadata
        # and then fill in the IdP metadata afterwards.
        'entityId': 'https://my-idp.example.com',
        'singleSignOnService': {
            'url': 'https://my-idp.example.com/saml',
            'binding': 'urn:oasis:names:tc:SAML:2.0:bindings:HTTP-Redirect'
        },
        'singleLogoutService': {
            'url': 'https://my-idp.example.com/saml',
            'binding': 'urn:oasis:names:tc:SAML:2.0:bindings:HTTP-Redirect'
        },
        'x509cert': ''
    },
    # These advanced settings allow you to tune the SAML security options.
    # Please see the documentation on https://github.com/onelogin/python3-saml
    # for details on how they behave. Note that by requiring signatures,
    # you usually need to set a cert and key on your SP config.
    'security': {
        'nameIdEncrypted': False,
        'authnRequestsSigned': True,
        'logoutRequestSigned': True,
        'logoutResponseSigned': True,
        'signMetadata': True,
        'wantMessagesSigned': True,
        'wantAssertionsSigned': True,
        'wantNameId' : True,
        'wantNameIdEncrypted': False,
        'wantAssertionsEncrypted': False,
        'allowSingleLabelDomains': False,
        'signatureAlgorithm': 'http://www.w3.org/2001/04/xmldsig-more#rsa-sha256',
        'digestAlgorithm': 'http://www.w3.org/2001/04/xmlenc#sha256'
    }
}

AUTH_PROVIDERS = {
    'saml': {
```

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```
        'type': 'saml',
        'title': 'SAML SSO',
        'saml_config': _saml_config,
        # If your IdP is using ADFS you may need to uncomment this. For details, see
        # https://github.com/onelogin/python-saml/pull/144
        # 'lowercase_urlencoding': True
    }
}
IDENTITY_PROVIDERS = {
    'saml': {
        'type': 'saml',
        'title': 'SSO',
        'mapping': {
            'first_name': 'Firstname',
            'last_name': 'Lastname',
            'email': 'EmailAddress',
            'affiliation': 'HomeInstitute',
        },
        'trusted_email': True,
        # You can use a different field as the unique identifier.
        # By default the qualified NameID from SAML is used, but in
        # case you want to use something else, any SAML attribute can
        # be used.
        # 'identifier_field': 'Username'
    }
}
```

If you also have an LDAP server, it may be a good idea to use the `saml` authentication provider and connect it to an `ldap` identity provider. This way the user information is retrieved from LDAP based on a unique identifier of the user that comes from SAML, and you can still use the search and group functionality provided by LDAP.

To use this, use the `AUTH_PROVIDERS` config from above together with the `IDENTITY_PROVIDERS` config from the LDAP section on this page, and set up a `PROVIDER_MAP` that passes the identifier from SAML to LDAP. The example below assumes that the LDAP username is passed in a SAML attribute named `UPN`.

```
PROVIDER_MAP = {
    'saml': {'identity_provider': 'ldap', 'mapping': {'identifier': 'UPN'}},
}
```

Shibboleth

Changed in version 3.0: SAML is now supported without the need for Apache.

Note: Note that since Indico 3.0 there is a new `saml` auth/identity provider available which does not require Apache/shibd and is thus the recommended option to use regardless of the web server in use.

The `shibboleth` authentication/identity providers are available by default, but due to how the protocol works you need to use the Apache webserver to use SAML atuhentication provider.

You can find guides on how to set it up for *CentOS* and *Debian*.

If you also have an LDAP server, it may be a good idea to use the `shibboleth` authentication provider and connect it to an `ldap` identity provider. This way the user information is retrieved from LDAP based on a unique identifier of the user that comes from SAML, and you can still use the search and group functionality provided by LDAP.

CHAPTER 3

Building

3.1 Building

Before starting Indico compilation, this guide assumes you've previously *setup the development base* up until the *configuring step*.

Warning: We do not recommend doing these steps on the same system where you are running your production version, as you run into the risk of mixing the latter with development resources.

Note: The `master` branch on Git is usually the next version under (heavy) development. Check if there is a `3.*.x` branch for your version and if yes, use that branch instead of `master`.

The first step is to generate a local distribution archive. Navigate to the Indico source folder (by default, it is `~/dev/indico/src`) and run the following command:

```
./bin/maintenance/build-wheel.py indico --add-version-suffix
```

Note: The build script refuses to run on a dirty git working directory, so any changes you decide to include must be committed temporarily. You can use `git checkout --detach` to avoid committing to your local master branch; if you plan to actually use the translation the better option would be of course to create a real Git branch.

Warning: Make sure you're also not running any other build tool such as `build-assets.py`, as it may interfere with the creation of a production build when running in `--watch` mode.

Finally, the `dist` folder will contain the wheel distribution, the file you should to copy to your production machine:

```
dist/
  indico-2.3.1.dev0+202009231923.a14a24f564-py2-none-any.whl
```

To deploy this distribution, you should follow the *production installation guide*, but instead of installing Indico from PyPI (`pip install indico`), install your custom-built wheel from the previous step:

```
pip install /tmp/indico-2.3.1.dev0+202009231923.a14a24f564-py2-none-any.whl
```

If you already have Indico installed, then simply installing the version from the wheel and restarting uwsgi and indico-celery is all you need to do.

3.1.1 Including a new translation

If you are including a new translation, you should also include the moment-js locale in `indico/web/client/js/jquery/index.js` before building:

```
// moment.js locales
import 'moment/locale/your-locale';

import 'moment/locale/zh-cn';
import 'moment/locale/es';
import 'moment/locale/fr';
import 'moment/locale/en-gb';
```

Note: Put your custom locale first, since `en-gb` needs to be the last one as a fallback.

CHAPTER 4

Search

4.1 Search

Indico's version 3.0 introduced a brand new reusable and backend-agnostic search module backed up by the SQL storage by default. This module can however be decomposed into a single provider, supporting any external service through a plugin.

Indico provides multiple options for a search service, such as:

- The default SQL based search.
- A performant and feature-rich ElasticSearch-based search service, Citadel which can be integrated with Indico easily using the official Citadel plugin.
- Any external search service, as long as you implement a plugin interface according to the specification below.

4.1.1 Internal Search

The Internal Search is a default SQL based engine implementation, created to support the most basic queries. While not as fast and less feature rich (no filters or aggregations) compared to specialized search engines, this search engine provides a decent option for smaller Indico instances which may not want to spend additional time on deploying a separate service just for search.

It supports the two types of records from a total of six targets:

- Events
- Categories
- Contributions
- Attachments
- Notes

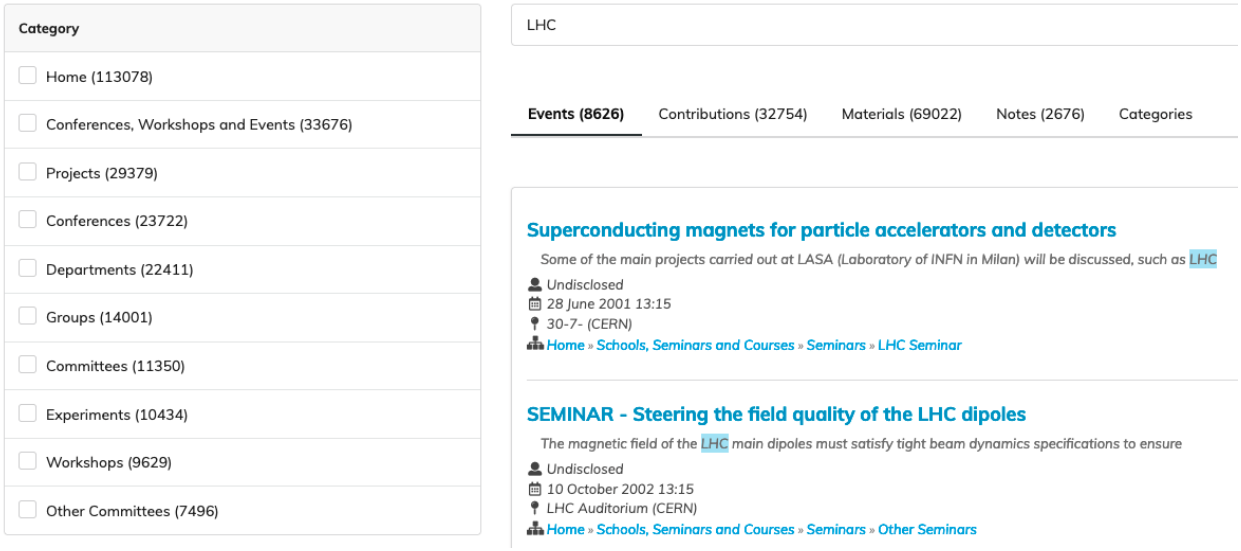
Note: The Internal Search only supports text-based search on titles, description and notes content.

4.1.2 External Search Service

Indico provides several powerful features for aggregation and filtering when combined with an external search service supporting them, such as Citadel.

Aggregations

Aggregations, as seen in Elastic Search, provide a way to combine information in groups according to a certain metric, such as a field value, sum or average.



Indico supports any bucket or metric group, composed of a key, count and filter key:

class indico.modules.search.result_schemas.**AggregationSchema**

Bases: indico.modules.search.result_schemas._ResultSchemaBase

Represents an aggregation list.

buckets = None

A bucket list representing each group.

label = None

The name of the aggregation.

class indico.modules.search.result_schemas.**BucketSchema**

Bases: indico.modules.search.result_schemas._ResultSchemaBase

Represents an individual aggregation bucket element.

count = None

The number of elements.

filter = None

The key that identifies the element's filter.

key = None
The aggregation key.

Filters

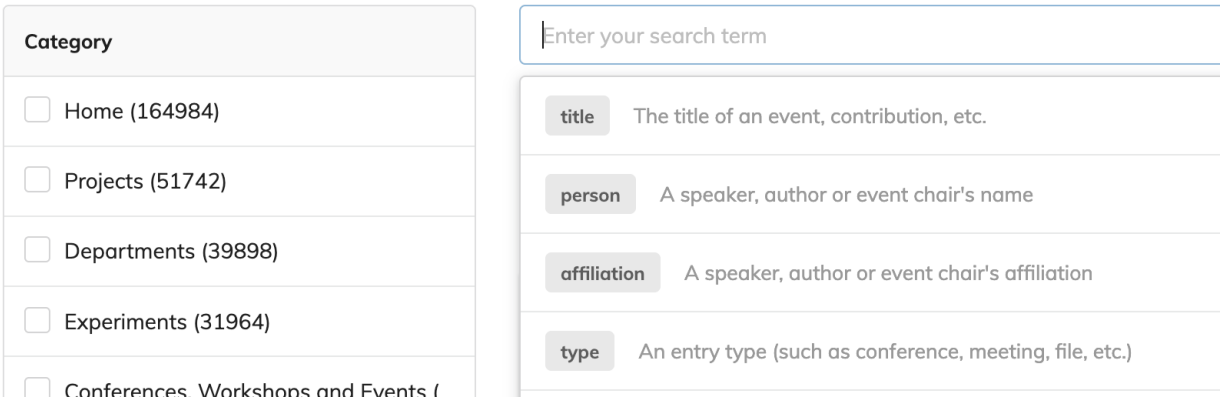
Filters act combined upon a certain aggregation on structured data. Consider the following bucket group composed of a single affiliation:

```
{
    "affiliation": {
        "label": "Affiliation",
        "buckets": {
            "key": "CERN",
            "count": 5,
            "filter": "cern"
        }
    }
}
```

The combination of *key* and *filter* from `AggregationSchema` can be used as a way to define a human-readable label to an attribute. A corresponding filter acting upon the same key in the example above would be `affiliation=cern`.

Placeholders

Placeholders are a special type of filters specifically designed to be part of the user-facing text based search query. Examples of valid placeholders would be: *affiliation:CERN* or *person:"John Doe"*.



Indico expects to receive a list of valid placeholders through `get_placeholders()` where each one will be merely hinted to the user while doing a text based search.

class indico.modules.search.base.**IndicoSearchProvider**
Bases: object

get_placeholders()
Retrieve the list of search shortcuts that will be shown to users when typing a search query.

Returns a list of *SearchOption* instances

4.1.3 API Reference

The `IndicoSearchProvider` interface allows an external service to integrate with Indico's search module.

class indico.modules.search.base.**IndicoSearchProvider**
Bases: object

RESULTS_PER_PAGE = 10
The number of results to show per page.

active = True

get_placeholders()
Retrieve the list of search shortcuts that will be shown to users when typing a search query.

Returns a list of *SearchOption* instances

get_sort_options()
Retrieve the list of search sortable options.

Returns a list of *SearchOption* instances

search(*query*, *user=None*, *page=None*, *object_types=()*, ***, *admin_override_enabled=False*, ***params*)
Search using a custom service across multiple targets.

Parameters

- **query** – Keyword based query string
- **user** – The user performing the search (for access checks)
- **page** – The result page to show
- **object_types** – A filter for a specific *SearchTarget*
- **admin_override_enabled** – Whether to ignore access restrictions
- **params** – Any additional search params such as filters

Returns a dict with the *ResultSchema* structure

class indico.modules.search.base.**SearchOption**(*key: str*, *label: str*)
Bases: object

class indico.modules.search.base.**SearchOptions**(*placeholders: list*, *sort_options: list*)
Bases: object

dump()

class indico.modules.search.base.**SearchTarget**
Bases: int, indico.util.enum.IndicoEnum

An enumeration.

attachment = 6

category = 1

contribution = 3

event = 2

event_note = 5

subcontribution = 4

indico.modules.search.base.**get_search_provider**(*only_active=True*)
Get the search provider to use for a search.

Parameters **only_active** – Whether to check that the provider is active; in case it isn't, the default InternalSearch provider will be used.

Models

class indico.modules.search.result_schemas.**ResultSchemaBase**
Bases: indico.modules.search.result_schemas._ResultSchemaBase

category_path = None
The parent category chain

class indico.modules.search.result_schemas.**EventResultSchema**
Bases: *indico.modules.search.result_schemas.ResultSchemaBase*

description = None
The event description

end_dt = None
The event end date time

event_id = None
The event id

event_type = None
The event type

highlight = None
The event content to highlight

location = None
The event location

persons = None
The event associated persons

start_dt = None
The event start date time

title = None
The event title

type = None
The record type

class indico.modules.search.result_schemas.**ContributionResultSchema**
Bases: *indico.modules.search.result_schemas.ResultSchemaBase*

contribution_id = None
The contribution id

description = None
The contribution description

duration = None
The contribution duration

end_dt = None
The contribution end date time

event_id = None
The contribution event id

highlight = None
The contribution content to highlight

location = None
The contribution location

persons = None
The contribution associated persons

start_dt = None
The contribution start date time

title = None
The contribution title

type = None
The record type

class indico.modules.search.result_schemas.**SubContributionResultSchema**
Bases: *indico.modules.search.result_schemas.ContributionResultSchema*

subcontribution_id = None
The sub-contribution id

type = None
The record type

class indico.modules.search.result_schemas.**AttachmentResultSchema**
Bases: *indico.modules.search.result_schemas.ResultSchemaBase*

attachment_id = None
The attachment id

attachment_type = None
The attachment type

contribution_id = None
The attachment contribution id

event_id = None
The attachment event id

filename = None
The attachment filename

folder_id = None
The attachment folder id

modified_dt = None
The attachment last modified date time

subcontribution_id = None
The attachment sub-contribution id

title = None
The attachment title

type = None
The record type

user = None
The attachment author

class indico.modules.search.result_schemas.**EventNoteResultSchema**
Bases: *indico.modules.search.result_schemas.ResultSchemaBase*

content = None
The note content

contribution_id = None
The note contribution id

event_id = None
The note event id

highlight = None
The note content to highlight

modified_dt = None
The note last modification date time

note_id = None
The note id

subcontribution_id = None
The note sub-contribution id

title = None
The note title

type = None
The record type

user = None
The note author

class indico.modules.search.result_schemas.**PersonSchema**
Bases: indico.modules.search.result_schemas._ResultSchemaBase

affiliation = None
The person's affiliation

name = None
The person's name

class indico.modules.search.result_schemas.**LocationResultSchema**
Bases: indico.core.marshmallow.IndicoSchema

address = None
The address

room_name = None
The room name

venue_name = None
The venue name

class indico.modules.search.result_schemas.**HighlightSchema**
Bases: indico.modules.search.result_schemas._ResultSchemaBase

content = None
The field's content to highlight

description = None
The field's description to highlight

CHAPTER 5

Plugins

Indico can be extended through plugins, standalone packages of code that do not require any modifications to the Indico core itself. A plugin can perform something very simple such as adding a new command to the Indico CLI to more complex functionalities like introducing new payment methods, chat integration, etc.

We suggest that you first have a look at *Getting started* and then head over to the more advance topics in the table of contents.

5.1 Extending Indico with plugins

Indico can be extended through plugins, standalone packages of code that do not require any modifications to the Indico core itself. A plugin can perform something very simple such as adding a new command to the Indico CLI to more complex functionalities like introducing new payment methods, chat integration, etc.

We suggest that you first have a look at *Getting started* and then head over to the more advance topics in the table of contents.

5.1.1 Getting started with Indico plugins

Todo: Write a **REAL**, simple example of a plugin. Include link to Github repo.

Example plugin

The following is a minimal plugin that makes use of all capababilites of the plugin API. The **display name** of the plugin is defined by the first line of the docstring and the **description** by the rest of it. The plugin may override signal handlers to hook into Indico and aditionally run any initialization needed. For example, it will add some command to Indico CLI, extend the shell context and register some assets. Also, *init* is used to inject CSS and JS bundles outside of the plugin scope.

```
class ExamplePlugin(IndicoPlugin):
    """Example Plugin

    An example plugin that demonstrates the capabilities of the new Indico plugin␣
↪system.
    """

    settings_form = SettingsForm

    def init(self):
        super(ExamplePlugin, self).init()
        self.inject_bundle('main.js')

    def get_blueprints(self):
        return blueprint

    def add_cli_command(self, manager):
        @manager.command
        @with_plugin_context(self)
        def example():
            """Example command from example plugin"""
            print 'example plugin says hi', current_plugin
            if self.settings.get('show_message'):
                print self.settings.get('dummy_message')

    def extend_shell_context(self, add_to_context):
        add_to_context('bar', name='foo', doc='foobar from example plugin', color=
↪'magenta!')
```

The plugin can specify its settings via a `IndicoForm`:

```
class SettingsForm(IndicoForm):
    dummy_message = StringField('Dummy Message')
    show_message = BooleanField('Show Message')
```

The plugin can also specify request handlers and templates. Templates will be loaded from a *templates* folder within your plugin folder. Your plugin can even load templates from other modules by prefixing the name of the template *'other_plugin:example'* with *render_template()*.

```
class WPExample(WPDecorated):
    def _get_body(self, params):
        return render_plugin_template('example.html', **params)


class RHExample(RH):
    def _process(self):
        return WPExample(self, foo=u'bar').display()


class RHTest(RH):
    def _process(self):
        return render_plugin_template('test.html')


blueprint = IndicoPluginBlueprint('example', __name__)
blueprint.add_url_rule('/example', 'example', view_func=RHExample)
blueprint.add_url_rule('/example/x', 'example', view_func=RHExample)
```

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```
blueprint.add_url_rule('/test', 'test', view_func=RHTest)
```

5.1.2 Plugin API reference

Indico's plugin system allows you to extend indico with additional modules which can be installed separately and do not require any modifications to the indico core itself.

class indico.core.plugins.**IndicoPlugin**(*plugin_engine*, *app*)
Bases: flask_pluginengine.plugin.Plugin

Base class for an Indico plugin.

All your plugins need to inherit from this class. It extends the *Plugin* class from Flask-PluginEngine with useful indico-specific functionality that makes it easier to write custom plugins.

When creating your plugin, the class-level docstring is used to generate the friendly name and description of a plugin. Its first line becomes the name while everything else goes into the description.

This class provides methods for some of the more common hooks Indico provides. Additional signals are defined in `signals` and can be connected to custom functions using `connect()`.

acl_event_settings = frozenset()
A set containing the names of event-specific settings which store ACLs

acl_settings = frozenset()
A set containing the names of settings which store ACLs

category = None
The group category that the plugin belongs to

configurable = False
If the plugin should link to a details/config page in the admin interface

default_event_settings = {}
A dictionary containing default values for event-specific settings

default_settings = {}
A dictionary containing default values for settings

default_user_settings = {}
A dictionary containing default values for user-specific settings

event_settings
classmethod(function) -> method

Convert a function to be a class method.

A class method receives the class as implicit first argument, just like an instance method receives the instance. To declare a class method, use this idiom:

class C: @classmethod def f(cls, arg1, arg2, ...):

...

It can be called either on the class (e.g. C.f()) or on an instance (e.g. C().f()). The instance is ignored except for its class. If a class method is called for a derived class, the derived class object is passed as the implied first argument.

Class methods are different than C++ or Java static methods. If you want those, see the staticmethod builtin.

event_settings_converters = {}
A dict containing custom converters for event-specific settings

get_blueprints()
Return blueprints to be registered on the application.

A single blueprint can be returned directly, for multiple blueprint you need to yield them or return an iterable.

get_vars_js()
Return a dictionary with variables to be added to vars.js file.

init()
Called when the plugin is being loaded/initialized.

If you want to run custom initialization code, this is the method to override. Make sure to call the base method or the other overridable methods in this class will not be called anymore.

inject_bundle(*name*, *view_class=None*, *subclasses=True*, *condition=None*)
Inject an asset bundle into Indico's pages.

Parameters

- **name** – Name of the bundle
- **view_class** – If a WP class is specified, only inject it into pages using that class
- **subclasses** – also inject into subclasses of *view_class*
- **condition** – a callable to determine whether to inject or not. only called, when the view_class criterion matches

inject_vars_js()
Return a string that will define variables for the plugin in the vars.js file.

settings
classmethod(function) -> method

Convert a function to be a class method.

A class method receives the class as implicit first argument, just like an instance method receives the instance. To declare a class method, use this idiom:

class C: @classmethod def f(cls, arg1, arg2, ...):

...

It can be called either on the class (e.g. C.f()) or on an instance (e.g. C().f()). The instance is ignored except for its class. If a class method is called for a derived class, the derived class object is passed as the implied first argument.

Class methods are different than C++ or Java static methods. If you want those, see the staticmethod builtin.

settings_converters = {}
A dict containing custom converters for settings

settings_form = None
WTForm for the plugin's settings (requires *configurable=True*). All fields must return JSON-serializable types.

settings_form_field_opts = {}
A dictionary which can contain the kwargs for a specific field in the *settings_form*.

strict_settings = True
If *settings*, *event_settings* and *user_settings* should use strict mode, i.e. only allow keys in *default_settings*, *default_event_settings* or *default_user_settings* (or the related *acl_settings* sets). This should not be disabled in most cases; if you need to store arbitrary keys, consider storing a dict inside a single top-level setting.

template_hook(*name*, *receiver*, *priority=50*, *markup=True*)
Register a function to be called when a template hook is invoked.

For details see `register_template_hook()`.

translation_domain
Return the domain for this plugin's translation_path.

translation_path
Return translation files to be used by the plugin.

By default, get <root_path>/translations, unless it does not exist.

user_settings
classmethod(function) -> method

Convert a function to be a class method.

A class method receives the class as implicit first argument, just like an instance method receives the instance. To declare a class method, use this idiom:

class C: @classmethod def f(cls, arg1, arg2, ...):

...

It can be called either on the class (e.g. C.f()) or on an instance (e.g. C().f()). The instance is ignored except for its class. If a class method is called for a derived class, the derived class object is passed as the implied first argument.

Class methods are different than C++ or Java static methods. If you want those, see the staticmethod builtin.

user_settings_converters = {}
A dict containing custom converters for user-specific settings

class indico.core.plugins.**IndicoPluginBlueprint**(*name*, **args*, ***kwargs*)
Bases: `flask_pluginengine.mixins.PluginBlueprintMixin`, `indico.web.flask.wrappers.IndicoBlueprint`

The Blueprint class all plugins need to use.

It contains the necessary logic to run the blueprint's view functions inside the correct plugin context and to make the static folder work.

make_setup_state(*app*, *options*, *first_registration=False*)
Creates an instance of `BlueprintSetupState()` object that is later passed to the register callback functions. Subclasses can override this to return a subclass of the setup state.

class indico.core.plugins.**IndicoPluginBlueprintSetupState**(*blueprint: Blueprint*, *app: Flask*, *options: Any*, *first_registration: bool*)
Bases: `flask_pluginengine.mixins.PluginBlueprintSetupStateMixin`, `indico.web.flask.wrappers.IndicoBlueprintSetupState`

add_url_rule(*rule*, *endpoint=None*, *view_func=None*, ***options*)
A helper method to register a rule (and optionally a view function) to the application. The endpoint is automatically prefixed with the blueprint's name.

class indico.core.plugins.**PluginCategory**
Bases: str, indico.util.enum.IndicoEnum

An enumeration.

class indico.core.plugins.**WPJinjaMixinPlugin**
Bases: indico.web.views.WPJinjaMixin

static render_template_func(*template_name_or_list*, ***context*)
Renders a template from the plugin's template folder with the given context.

If the template name contains a plugin name (`pluginname:name`), that name is used instead of the current plugin's name.

Parameters

- **template_name_or_list** – the name of the template or an iterable containing template names (the first existing template is used)
- **context** – the variables that should be available in the context of the template.

indico.core.plugins.**get_plugin_template_module**(*template_name*, ***context*)
Like `get_template_module()`, but using plugin templates

indico.core.plugins.**plugin_url_rule_to_js**(*endpoint*)
Like `url_rule_to_js()` but prepending plugin name prefix to the endpoint

indico.core.plugins.**url_for_plugin**(*endpoint*, **targets*, ***values*)
Like `url_for()` but prepending `'plugin_'` to the blueprint name.

5.1.3 Hooking into Indico using Signals

Contents

Signals allow you to hook into certain parts of Indico without adding any code to the core (which is something a plugin can and should not do). Each signal has a *sender* which can be any object (depending on the signal) and possibly some keyword arguments. Some signals also make use of their return value or even require one. Check the documentation of each signal on how it's used.

To avoid breakage with newer versions of Indico, it is highly advised to always accept extra `**kwargs` in your signal receiver. For example, a receiver function could look like this:

```
def receiver(sender, something, **kwargs):
    do_stuff_with(something)
```

indico.core.signals

indico.core.signals.acl

indico.core.signals.acl.**can_access**
Called when *ProtectionMixin.can_access* is used to determine if a user can access something or not.

The *sender* is the type of the object that's using the mixin. The actual instance is passed as *obj*. The *user* and *allow_admin* arguments of *can_access* are passed as kwargs with the same name.

The *authorized* argument is `None` when this signal is called at the beginning of the access check and `True` or `False` at the end when regular access rights have already been checked. For expensive checks (such as anything involving database queries) it is recommended to skip the check while *authorized* is `None` since the regular access check is likely to be cheaper (due to ACLs being preloaded etc).

If the signal returns `True` or `False`, the access check succeeds or fails immediately. If multiple subscribers to the signal return contradictory results, `False` wins and access is denied.

indico.core.signals.acl.**can_manage**
Called when *ProtectionMixin.can_manage* is used to determine if a user can manage something or not.

The *sender* is the type of the object that's using the mixin. The actual instance is passed as *obj*. The *user*, *permission*, *allow_admin*, *check_parent* and *explicit_permission* arguments of *can_manage* are passed as kwargs with the same name.

If the signal returns `True` or `False`, the access check succeeds or fails without any further checks. If multiple subscribers to the signal return contradictory results, `False` wins and access is denied.

indico.core.signals.acl.**entry_changed**
Called when an ACL entry is changed.

The *sender* is the type of the object that's using the mixin. The actual instance is passed as *obj*. The *User*, *GroupProxy* or *EmailPrincipal* is passed as *principal* and *entry* contains the actual ACL entry (a *PrincipalMixin* instance) or `None` in case the entry was deleted. *is_new* is a boolean indicating whether the given principal was in the ACL before. If *quiet* is `True`, signal handlers should not perform noisy actions such as logging or sending emails related to the change.

If the ACL uses permissions, *old_data* will contain a dictionary of the previous permissions (see *PrincipalPermissionsMixin.current_data*).

indico.core.signals.acl.**get_management_permissions**
Expected to return *ManagementPermission* subclasses. The *sender* is the type of the object the permissions may be used for. Functions subscribing to this signal **MUST** check the sender by specifying it using the first argument of *connect_via()* or by comparing it inside the function.

indico.core.signals.acl.**protection_changed**
Called when the protection mode of an object is changed.

The *sender* is the type of the object that's using the mixin. The actual instance is passed as *obj*. The old protection mode is passed as *old_mode*, the new mode as *mode*.

indico.core.signals.agreements

indico.core.signals.agreements.**get_definitions**
Expected to return a list of AgreementDefinition classes.

indico.core.signals.attachments

indico.core.signals.attachments.**attachment_accessed**
Called when an attachment is accessed. The *sender* is the *Attachment* that was accessed. The user who accessed the attachment is passed in the *user* kwarg. The *from_preview* kwarg will be set to `True` if the download link on the preview page was used to access the attachment or if the attachment was loaded to be displayed on the preview page (opening the preview itself already sends this signal with *from_preview=False*).

indico.core.signals.attachments.**attachment_created**
Called when a new attachment is created. The *sender* object is the new *Attachment*. The user who created the attachment is passed in the *user* kwarg.

indico.core.signals.attachments.**attachment_deleted**
Called when an attachment is deleted. The *sender* object is the *Attachment* that was deleted. The user who deleted the attachment is passed in the *user* kwarg.

indico.core.signals.attachments.**attachment_updated**
Called when an attachment is updated. The *sender* is the *Attachment* that was updated. The user who updated the attachment is passed in the *user* kwarg.

indico.core.signals.attachments.**folder_created**
Called when a new attachment folder is created. The *sender* is the new *AttachmentFolder* object. The user who created the folder is passed in the *user* kwarg. This signal is never triggered for the internal default folder.

indico.core.signals.attachments.**folder_deleted**
Called when a folder is deleted. The *sender* is the *AttachmentFolder* that was deleted. The user who deleted the folder is passed in the *user* kwarg.

indico.core.signals.attachments.**folder_updated**
Called when a folder is updated. The *sender* is the *AttachmentFolder* that was updated. The user who updated the folder is passed in the *user* kwarg.

indico.core.signals.attachments.**get_file_previewers**
Expected to return one or more *Previewer* subclasses.

indico.core.signals.category

indico.core.signals.category.**created**
Called when a new category is created. The *sender* is the new category.

indico.core.signals.category.**deleted**
Called when a category is deleted. The *sender* is the category.

indico.core.signals.category.**extra_events**
Called when a category is displayed. The *sender* is the category. *is_flat* is passed as kwarg with the same name. The additional kwargs passed to this signal depend on the context.

indico.core.signals.category.**moved**
Called when a category is moved into another category. The *sender* is the category and the old parent category is passed in the *old_parent* kwarg.

indico.core.signals.category.**updated**
Called when a category is modified. The *sender* is the updated category.

indico.core.signals.core

indico.core.signals.core.**add_form_fields**
Lets you add extra fields to a form. The *sender* is the form class and should always be specified when subscribing to this signal.

The signal handler should return one or more `'name', Field` tuples. Each field will be added to the form as `ext__<name>` and is automatically excluded from the form's *data* property and its *populate_obj* method.

To actually process the data, you can use e.g. the *form_validated* signal and then store it in *flask.g* until another signal informs you that the operation the user was performing has been successful.

indico.core.signals.core.**after_commit**
Called after an SQL transaction has been committed. Note that the session is in 'committed' state when this signal is called, so no SQL can be emitted while this signal is being handled.

indico.core.signals.core.**after_process**
Called after an Indico request has been processed. This signal should also be triggered by CLI utilities that result in other signals being triggered.

indico.core.signals.core.**app_created**
Called when the app has been created. The *sender* is the flask app.

indico.core.signals.core.**before_notification_send**
Executed before a notification is sent. The *sender* is a string representing the type of notification. The notification email that will be sent is passed in the `email` kwarg. The additional kwargs passed to this signal depend on the context.

indico.core.signals.core.**check_password_secure**
Check whether a password is secure. The *sender* is a string indicating the context where the password check happens, the plaintext password is sent in the *password* kwarg. To fail the security check for a password, the signal handler should return a string describing why the password is not secure.

indico.core.signals.core.**db_schema_created**
Executed when a new database schema is created. The *sender* is the name of the schema.

indico.core.signals.core.**form_validated**
Triggered when an IndicoForm was validated successfully. The *sender* is the form object.

This signal may return `False` to mark the form as invalid even though WTForms validation was successful. In this case it is highly recommended to mark a field as erroneous or indicate the error in some other way.

indico.core.signals.core.**get_conditions**
Expected to return one or more classes inheriting from *Condition*. The *sender* is a string (or some other object) identifying the context. The additional kwargs passed to this signal depend on the context.

indico.core.signals.core.**get_fields**
Expected to return *BaseField* subclasses. The *sender* is an object (or just a string) identifying for what to get fields. This signal should never be registered without restricting the sender to ensure only the correct field types are returned.

indico.core.signals.core.**get_placeholders**
Expected to return one or more *Placeholder* objects. The *sender* is a string (or some other object) identifying the context. The additional kwargs passed to this signal depend on the context.

indico.core.signals.core.**get_search_providers**
Expected to return exactly one *IndicoSearchProvider* subclass. No more than one handler for this signal may return one as using multiple search providers at the same time is not possible.

indico.core.signals.core.**get_storage_backends**
Expected to return one or more Storage subclasses.

indico.core.signals.core.**import_tasks**
Called when Celery needs to import all tasks. Use this signal if you have modules containing task registered using one of the Celery decorators but don't import them anywhere. The signal handler should only `import` these modules and do nothing else.

indico.core.signals.event

indico.core.signals.event.**abstract_created**
Called when a new abstract is created. The *sender* is the new abstract.

indico.core.signals.event.**abstract_deleted**
Called when an abstract is deleted. The *sender* is the abstract.

indico.core.signals.event.**abstract_state_changed**
Called when an abstract is withdrawn. The *sender* is the abstract.

indico.core.signals.event.**abstract_updated**
Called when an abstract is modified. The *sender* is the abstract.

indico.core.signals.event.**after_registration_form_clone**
Executed after a registration form is cloned. The sender is the old `RegistrationForm` object being cloned. The new `RegistrationForm` object is passed in the `new_form` kwarg.

indico.core.signals.event.**before_check_registration_email**
Called before checking the validity of the registration email. The sender is the `RegistrationForm` object. The signal handler is expected to return `None` if all checks passed or a `{'status': ..., 'conflict': ...}` dictionary. `'status'` is expected to be either `'error'`, `'warning'` or `ok`.

indico.core.signals.event.**before_reminder_make_email**
Executed before a reminder email is created. The *EventReminder* object is the sender. The parameters to create an email (*to_list*, *from_address*, *template* and *attachments*) are passed as kwargs; the signal can return a dict used to update the params which will then be passed to the *make_email* call.

indico.core.signals.event.**cloned**
Called when an event is cloned. The *sender* is the *Event* object of the old event, the new event is passed in the *new_event* kwarg.

indico.core.signals.event.**contribution_created**
Called when a new contribution is created. The *sender* is the new contribution.

indico.core.signals.event.**contribution_deleted**
Called when a contribution is deleted. The *sender* is the contribution.

indico.core.signals.event.**contribution_updated**
Called when a contribution is modified. The *sender* is the contribution. A dict containing `old, new` tuples for all changed values is passed in the `changes` kwarg.

indico.core.signals.event.**created**
Called when a new event is created. The *sender* is the new Event. The *cloning* kwarg indictates whether the event is a clone.

indico.core.signals.event.**deleted**
Called when an event is deleted. The *sender* is the event object. The *user* kwarg contains the user performing the deletion if available.

indico.core.signals.event.**draw_item_on_badge**
Called when drawing an item on a badge for a given registration. The *registration* object is the sender. The *items*, *self.height*, *self.width* and *item_data* are passed in the kwargs. *item_data* is a dictionary containing *item*, *text*, *pos_x* and *pos_y*. The signal returns a dictionary of updates for the contents of *item_data*.

indico.core.signals.event.**filter_selectable_badges**
Called when composing lists of badge templates. The *sender* may be either `BadgeSettingsForm`, `RHListEventTemplates` or `RHListCategoryTemplates`. The list of badge templates is passed in the *badge_templates* kwarg. The signal handler is expected to mutate the list.

indico.core.signals.event.**generate_ticket_qr_code**
Called when generating the QR code for a ticket. The data included in the QR code is passed in the *ticket_data* kwarg and may be modified.

indico.core.signals.event.**get_feature_definitions**
Expected to return *EventFeature* subclasses.

indico.core.signals.event.**get_log_renderers**
Expected to return *EventLogRenderer* classes.

indico.core.signals.event.**hide_participant_list**
The *event* object is the sender.

The signal should return a bool to determine if the Participant list menu should be displayed on the Event page.

indico.core.signals.event.**imported**
Called when data is imported to an event. The *sender* is the *Event* data was imported into, the source event is passed in the *source_event* kwarg.

indico.core.signals.event.**is_ticket_blocked**
Called when resolving whether Indico should let a registrant download their ticket. The *sender* is the registrant's *Registration* object.

If this signal returns `True`, the user will not be able to download their ticket. Any badge containing a ticket-specific placeholder such as the ticket qr code is considered a ticket, and the restriction applies to both users trying to get their own ticket and managers trying to get a ticket for a registrant.

indico.core.signals.event.**is_ticketing_handled**
Called when resolving whether Indico should send tickets with e-mails or it will be handled by other module. The *sender* is the *RegistrationForm* object.

If this signal returns `True`, no ticket will be emailed on registration.

indico.core.signals.event.**location_changed**
Called when the location of an object changed. The *sender* is the type of the object, the object itself is passed as *obj*. The changes are passed in the *changes* kwarg.

indico.core.signals.event.**metadata_postprocess**
Called right after a dict-like representation of an event is created, so that plugins can add their own fields.

The *sender* is a string parameter specifying the source of the metadata. The *event* kwarg contains the event object. The metadata is passed in the *data* kwarg. The *user* kwarg contains the user for whom the data is generated.

The signal should return a dict that will be used to update the original representation (fields to add or override).

indico.core.signals.event.**moved**
Called when an event is moved to a different category. The *sender* is the event, the old category is in the *old_parent* kwarg.

indico.core.signals.event.**note_added**
Called when a note is added. The *sender* is the note.

indico.core.signals.event.**note_deleted**
Called when a note is deleted. The *sender* is the note.

indico.core.signals.event.**note_modified**
Called when a note is modified. The *sender* is the note.

indico.core.signals.event.**note_restored**
Called when a previously-deleted note is restored. The *sender* is the note. This is triggered when a "new" note is created on an object that previously already had a note which got deleted.

indico.core.signals.event.**person_updated**
Called when an EventPerson is modified. The *sender* is the EventPerson.

indico.core.signals.event.**print_badge_template**
Called when printing a badge template. The registration form is passed in the *regform* kwarg. The list of registration objects are passed in the *registrations* kwarg and it may be modified.

indico.core.signals.event.**registration_checkin_updated**
Called when the checkin state of a registration changes. The *sender* is the *Registration* object.

indico.core.signals.event.**registration_created**
Called when a new registration has been created. The *sender* is the *Registration* object. The *data* kwarg contains the form data used to populate the registration fields. The *management* kwarg is set to *True* if the registration was created from the event management area.

indico.core.signals.event.**registration_deleted**
Called when a registration is removed. The *sender* is the *Registration* object.

indico.core.signals.event.**registration_form_created**
Called when a new registration form is created. The *sender* is the *RegistrationForm* object.

indico.core.signals.event.**registration_form_deleted**
Called when a registration form is removed. The *sender* is the *RegistrationForm* object.

indico.core.signals.event.**registration_form_edited**
Called when a registration form is edited. The *sender* is the *RegistrationForm* object.

indico.core.signals.event.**registration_form_wtform_created**
Called when a the wtform is created for rendering/processing a registration form. The sender is the *RegistrationForm* object. The generated WTForm class is passed in the *wtform_cls* kwarg and it may be modified. The *registration* kwarg contains a *Registration* object when called from registration edit endpoints. The *management* kwarg is set to *True* if the registration form is rendered/processed from the event management area.

indico.core.signals.event.**registration_personal_data_modified**
Called when the registration personal data is modified. The *sender* is the *Registration* object; the change is passed in the *change* kwarg.

indico.core.signals.event.**registration_state_updated**
Called when the state of a registration changes. The *sender* is the *Registration* object; the previous state is passed in the *previous_state* kwarg.

indico.core.signals.event.**registration_updated**
Called when a registration has been updated. The *sender* is the *Registration* object. The *data* kwarg contains the

form data used to populate the registration fields. The *management* kwarg is set to *True* if the registration was updated from the event management area.

`indico.core.signals.event.`**`restored`**
Called when a previously-deleted event is restored. The *sender* is the event object. The *user* kwarg contains the user restoring the event if available, and the *reason* kwarg the reason if available.

`indico.core.signals.event.`**`session_block_deleted`**
Called when a session block is deleted. The *sender* is the session block. This signal is called before the `db.session.delete()` on the block is executed.

`indico.core.signals.event.`**`session_block_updated`**
Called when a session block is updated. The *sender* is the session block.

`indico.core.signals.event.`**`session_deleted`**
Called when a session is deleted. The *sender* is the session.

`indico.core.signals.event.`**`session_updated`**
Called when a session is updated. The *sender* is the session.

`indico.core.signals.event.`**`sidemenu`**
Expected to return `MenuEntryData` objects to be added to the event side menu. A single entry can be returned directly, multiple entries must be yielded.

`indico.core.signals.event.`**`subcontribution_created`**
Called when a new subcontribution is created. The *sender* is the new subcontribution.

`indico.core.signals.event.`**`subcontribution_deleted`**
Called when a subcontribution is deleted. The *sender* is the subcontribution.

`indico.core.signals.event.`**`subcontribution_updated`**
Called when a subcontribution is modified. The *sender* is the subcontribution.

`indico.core.signals.event.`**`times_changed`**
Called when the times of a scheduled object (contribution, break or session block) change, either by a change in duration or start time. The *sender* is the type of the object; the timetable entry is passed as *entry* and the object is passed as *obj*. Information about the changes are passed as *changes* which is a dict containing old/new tuples for *start_dt*, *duration* and *end_dt*. If an attribute did not change, it is not included in the dict. If the time of the event itself changes, *entry* is `None` and *obj* contains the *Event*.

`indico.core.signals.event.`**`timetable_buttons`**
Expected to return a list of tuples ('button_name', 'js-call-class'). Called when building the timetable view.

`indico.core.signals.event.`**`timetable_entry_created`**
Called when a new timetable entry is created. The *sender* is the new entry.

`indico.core.signals.event.`**`timetable_entry_deleted`**
Called when a timetable entry is deleted. The *sender* is the entry. This signal is triggered right before the entry deletion is performed.

`indico.core.signals.event.`**`timetable_entry_updated`**
Called when a timetable entry is updated. The *sender* is the entry. A dict containing `old, new` tuples for all changed values is passed in the `changes` kwarg.

`indico.core.signals.event.`**`type_changed`**
Called when the type of an event is changed. The *sender* is the event, the old type is passed in the *old_type* kwarg.

`indico.core.signals.event.`**`update_badge_style`**
Called when printing a badge. The *template* is the sender. The *item* and it's *styles* are passed in the kwarg. The signal returns a dictionary which is used to update the item *style*.

indico.core.signals.event.**updated**
: Called when basic data of an event is updated. The *sender* is the event. A dict of changes is passed in the *changes* kwarg, with `(old, new)` tuples for each change. Note than the *person_links* change may happen with *old* and *new* being the same lists for technical reasons. If the key is present, it should be assumed that something changed (usually the order or some data on the person link).

indico.core.signals.event_management

indico.core.signals.event_management.**get_cloners**
: Expected to return one or more `EventCloner` subclasses implementing a cloning operation for something within an event.

indico.core.signals.event_management.**image_created**
: Called when a new image is created. The *sender* object is the new `ImageFile`. The user who uploaded the image is passed in the `user` kwarg.

indico.core.signals.event_management.**image_deleted**
: Called when an image is deleted. The *sender* object is the `ImageFile` that is about to be deleted. The user who uploaded the image is passed in the `user` kwarg.

indico.core.signals.event_management.**management_url**
: Expected to return a URL for the event management page of the plugin. This is used when someone who does not have event management access wants to go to the event management area. He is then redirected to one of the URLs returned by plugins, i.e. it is not guaranteed that the user ends up on a specific plugin's management page. The signal should return None if the current user (available via `session.user`) cannot access the management area. The *sender* is the event object.

indico.core.signals.menu

indico.core.signals.menu.**items**
: Expected to return one or more *SideMenuItem* to be added to the side menu. The *sender* is an id string identifying the target menu.

indico.core.signals.menu.**sections**
: Expected to return one or more *SideMenuSection* objects to be added to the side menu. The *sender* is an id string identifying the target menu.

indico.core.signals.plugin

indico.core.signals.plugin.**cli**
: Expected to return one or more click commands/groups. If they use *indico.cli.core.cli_command* / *indico.cli.core.cli_group* they will be automatically executed within a plugin context and run within a Flask app context by default.

indico.core.signals.plugin.**get_blueprints**
: Expected to return one or more IndicoPluginBlueprint-based blueprints which will be registered on the application. The Blueprint must be named either *PLUGINNAME* or *compat_PLUGINNAME*.

indico.core.signals.plugin.**get_conference_themes**
: Expected to return `(name, css, title)` tuples for conference stylesheets. `name` is the internal name used for the stylesheet which will be stored when the theme is selected in an event. `css` is the location of the CSS file, relative to the plugin's `static` folder. `title` is the title displayed to the user when selecting the theme.

indico.core.signals.plugin.**get_event_request_definitions**
: Expected to return one or more RequestDefinition subclasses.

indico.core.signals.plugin.**get_event_themes_files**
Expected to return the path of a themes yaml containing event theme definitions.

indico.core.signals.plugin.**get_template_customization_paths**
Expected to return the absolute path to a directory containing template overrides. This signal is called once during initialization so it should not use any data that may change at runtime. The behavior of a customization path returned by this function is exactly like `<CUSTOMIZATION_DIR>/templates`, but it has lower priority than the one from the global customization dir.

indico.core.signals.plugin.**inject_bundle**
Expected to return a list of bundle names which are loaded after all the rest. The *sender* is the WP class of the page.

indico.core.signals.plugin.**interceptable_function**
This signal provides a generic way to let plugins intercept function calls and inspect or modify their call arguments. The sender should always be taken from the `interceptable_sender()` util and not be used directly.

The signal handler also receives the original function in the `func` kwarg and the `BoundArguments` for the original function call in the `args` kwarg. Additional context may be preovided in the `ctx` kwargs.

The args object is mutable; its *arguments* attribute is a dict containing all the arguments of the original function call; if necessary its *apply_defaults* method can be called to fill in any default values the function provides.

The signal handler may also return a value; if it does so, the original function will NOT be called but rather the returned value used. Note that using the signal in this way should only be done if you are very sure that no other signal handler does so, as the function call will fail with an error in case more than one return value override is specified.

Due to how Python works, returning an explicit `None` in order to override the return value with `None` won't work; but you can use the special `RETURN_NONE` kwarg for this purpose.

Note that this signal does NOT let you intercept arbitrary functions; only those which are either decorated or where the caller explicitly wrapped the function using `make_interceptable()` can be intercepted. If you believe a certain function should allow this, you're welcome to send a Pull Request.

indico.core.signals.plugin.**schema_post_dump**
Called when a marshmallow schema is dumped. The *sender* is the schema class and code using this signal should always specify it. The signal is called with the following arguments:

- `many` – bool indicating whether the data was dumped with `many=True` or not
- **`data` – the dumped data. this is guaranteed to be a list; in case of `many=False`** it is guaranteed to contain exactly one element
- `orig` – the original data before dumping. just like `data` it is always a list

If a plugin wants to modify the data returned when dumping, it may do so by modifying the contents of `data`.

indico.core.signals.plugin.**schema_post_load**
Called after a marshmallow schema is loaded. The *sender* is the schema class and code using this signal should always specify it. The signal is called with the following arguments:

- **`data` – the data returned by marshmallow; this is usually a dict which may contain** more complex data types than those valid in JSON

If a plugin wants to modify the resulting data, it may do so by modifying the contents of `data`.

indico.core.signals.plugin.**schema_pre_load**
Called when a marshmallow schema is loaded. The *sender* is the schema class and code using this signal should always specify it. The signal is called with the following arguments:

- **data – the raw data passed to marshmallow; this is usually a dict of raw** json/form data coming from the user, so it can have all types valid in JSON

If a plugin wants to modify the data the schema will eventually load, it may do so by modifying the contents of `data`.

`indico.core.signals.plugin.`**`shell_context`**
Called after adding stuff to the *indico shell* context. Receives the *add_to_context* and *add_to_context_multi* keyword args with functions which allow you to add custom items to the context.

`indico.core.signals.plugin.`**`template_hook`**
Expected to return a `(is_markup, priority, value)` tuple. The returned value will be inserted at the location where this signal is triggered; if multiple receivers are connected to the signal, they will be ordered by priority. If *is_markup* is True, the value will be wrapped in a *Markup* object which will cause it to be rendered as HTML. The *sender* is the name of the actual hook. The keyword arguments depend on the hook.

indico.core.signals.rb

`indico.core.signals.rb.`**`booking_created`**
Executed after a booking has been successfully created. The *sender* is the new *Reservation* object.

`indico.core.signals.rb.`**`booking_deleted`**
Executed after a booking has been deleted. The *sender* is the *Reservation* object.

`indico.core.signals.rb.`**`booking_modified`**
Executed after a booking has been modified. The *sender* is the *Reservation* object and a dictionary of changed values is passed in the *changes* kwarg.

`indico.core.signals.rb.`**`booking_occurrence_state_changed`**
Executed after the state of a booking occurrence changed. The *sender* is the *ReservationOccurrence* object.

`indico.core.signals.rb.`**`booking_state_changed`**
Executed after a booking has been cancelled/rejected/accepted. The *sender* is the *Reservation* object.

indico.core.signals.rh

`indico.core.signals.rh.`**`before_process`**
Executed right before *_process* of an *RH* instance is called. The *sender* is the RH class, the current instance is passed in *rh*. If a signal handler returns a value, the original *_process* method will not be executed. If multiple signal handlers return a value, an exception is raised.

`indico.core.signals.rh.`**`check_access`**
Executed right after *_check_access* of an *RH* instance has been called unless the access check raised an exception. The *sender* is the RH class, the current instance is passed in *rh*.

`indico.core.signals.rh.`**`process`**
Executed right after *_process* of an *RH* instance has been called. The *sender* is the RH class, the current instance is passed in *rh*. The return value of *_process* is available in *result* and if a signal handler returns a value, it will replace the original return value. If multiple signals handlers return a value, an exception is raised.

`indico.core.signals.rh.`**`process_args`**
Executed right after *_process_args* of an *RH* instance has been called. The *sender* is the RH class, the current instance is passed in *rh*. The return value of *_process_args* (usually `None`) is available in *result*.

indico.core.signals.users

indico.core.signals.users.**email_added**
: Called when a new email address is added to a user. The *sender* is the user object and the email address is passed in the *email* kwarg. The *silent* kwarg indicates whether the email was added during some automated process where no messages should be flashed (e.g. because the sync was in a background task or triggered during a request from another user).

indico.core.signals.users.**logged_in**
: Called when a user logs in. The *sender* is the User who logged in. Depending on whether this was a regular login or an admin impersonating the user, either the *identity* kwarg is set to the *Identity* used by the user to log in or the *admin_impersonation* kwarg is `True`.

indico.core.signals.users.**merged**
: Called when two users are merged. The *sender* is the main user while the merged user (i.e. the one being deleted in the merge) is passed via the *source* kwarg.

indico.core.signals.users.**preferences**
: Expected to return a *ExtraUserPreferences* subclass which implements extra preferences for the user preference page. The *sender* is the user for whom the preferences page is being shown which might not be the currently logged-in user!

indico.core.signals.users.**primary_email_changed**
: Called when the primary address is changed. The *sender* is the user object and the *new* and *old* values are passed as kwargs.

indico.core.signals.users.**registered**
: Called once a user registers (either locally or joins through a provider). The *sender* is the new user object. The kwarg *from_moderation* indicates whether the user went through a moderation process (this also includes users created by an administrator manually) or was created immediately on registration; the identity associated with the registration is passed in the *identity* kwarg.

indico.core.signals.users.**registration_requested**
: Called when a user requests to register a new indico account, i.e. if moderation is enabled. The *sender* is the registration request.

5.1.4 Adding models to your plugin

Plugins must describe its database model the in the *models* folder if needed:

```
class Foo(db.Model):
    __tablename__ = 'foo'
    __table_args__ = {'schema': 'plugin_example'}

    id = db.Column(
        db.Integer,
        primary_key=True
    )
    bar = db.Column(
        db.String,
        nullable=False,
        default=''
    )
    location_id = db.Column(
        db.Integer,
        db.ForeignKey('roombooking.locations.id'),
```

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```
        nullable=False
    )
    location = db.relationship(
        'Location',
        backref=db.backref('example_foo', cascade='all, delete-orphan', lazy='dynamic
↪'),
    )

    def __repr__(self):
        return u'<Foo({}, {}, {})>'.format(self.id, self.bar, self.location)
```

Thanks to **Alembic**, the migration needed to create the tables in the database can also be included in the plugin. The steps to do so are:

1. Create a revision for the changes your plugin will add with `indico db --plugin example migrate -m 'short description'`
2. Fine-tune the revision file generated under *migrations*.
3. Run `indico db --plugin example upgrade` to have Alembic upgrade your DB with the changes.

CHAPTER 6

HTTP API

Indico allows you to programmatically access the content of its database by exposing various information like category contents, events, rooms and room bookings through a web service, the HTTP Export API.

6.1 Indico - HTTP API

Indico allows you to programmatically access the content of its database by exposing various information like category contents, events, rooms and room bookings through a web service, the HTTP Export API.

6.1.1 Accessing the API

URL structure

Indico allows you to programmatically access the content of its database by exposing various information like category contents, events, rooms and room bookings through a web service, the HTTP Export API.

The basic URL looks like:

```
https://my.indico.server/export/WHAT/[LOC/]ID.TYPE?PARAMS
```

or when using legacy API keys:

```
https://my.indico.server/export/WHAT/[LOC/]ID.TYPE?PARAMS&ak=KEY&timestamp=TS&signature=SI
```

where:

- *WHAT* is the element you want to export (one of *categ*, *event*, *room*, *reservation*)
- *LOC* is the location of the element(s) specified by *ID* and only used for certain elements, for example, for the room booking (https://indico.server/export/room/CERN/120.json?ak=0...)
- *ID* is the ID of the element you want to export (can be a - separated list). As for example, the 120 in the above URL.
- *TYPE* is the output format (one of *json*, *jsonp*, *xml*, *html*, *ics*, *atom*, *bin*)

- *PARAMS* are various parameters affecting (filtering, sorting, ...) the result list
- *KEY*, *TS*, *SIG* are part of the *API Key Authentication (Deprecated)*

Some examples could be:

- Export data about events in a category: `/export/categ/2.json?from=today&to=today&pretty=yes`
- Export data about a event: `/export/event/137346.json?occ=yes&pretty=yes`
- Export data about rooms: `/export/room/CERN/120.json?pretty=yes`
- Export your reservations: `/export/reservation/CERN.json?detail=reservations&from=today&to=today`

See more details about querying in Exporters.

API Token Authentication

New in version 3.0.

Indico users may create API tokens with a custom name and scope. They can then be used to authenticate requests to the Indico API using the standard `Authorization: Bearer <token>` HTTP header.

Compared to the legacy API key authentication (see below), they have various advantages:

- no need to generate signatures and deal with expiring links - nowadays with HTTPS being widespread, the risk of leaking a link (but not the secrets used to generate it) is very low
- authentication using a HTTP header avoids including sensitive information in the query string
- each application/script can get its own token, which can have only the scopes assigned that are actually needed
- they behave exactly like OAuth tokens, except that no OAuth application or OAuth flow is required, which makes them perfect for use in custom scripts

These personal API tokens always have the format `indp_<42 random chars>` - tokens generated during a regular OAuth flow have the `indo_` prefix instead.

Note: Indico administrators have the ability to restrict the creation of API tokens; in that case only admins can create tokens or manage their scopes, but users who have a token can still reset it in order to use the API once authorized by an admin.

Scopes

API tokens can have one or more of these scopes:

- `full:everything` - Everything (all methods)
- `read:everything` - Everything (only GET)
- `read:legacy_api` - Classic API (read only)
- `write:legacy_api` - Classic API (write only)
- `registrants` - Event registrants
- `read:user` - User information (read only)

The `everything` scopes are special because they can be used with *any* Indico endpoint, i.e. they are not restricted to official APIs. This has the advantage that even Indico actions which do not have a corresponding API can be scripted. Endpoints covered by the `legacy_api` scopes are *not* included; these scopes need to be granted explicitly.

> **Warning:** We make absolutely no promises of backwards compatibility on endpoints that are not part of documented APIs. You use them at your own risk.

The `legacy_api` scopes grant access to the API this documentation is about, i.e. `/export/` for retrieving data and some `/api/` paths for modifying data.

The `read:user` scope grants access to basic information about the current user via the `/api/user/` endpoint:

```
{
    "admin": false,
    "email": "guinea.pig@example.com",
    "first_name": "Guinea",
    "id": 1337,
    "last_name": "Pig"
}
```

The `registrants` scope is mainly used by the mobile check-in app and grants access to (currently) undocumented APIs that allow retrieving the list of registrants in an event and and updating their check-in state.

API Key Authentication (Deprecated)

Deprecated since version 3.0: Use *API Token Authentication* instead. This authentication method may be removed in a future version.

General

The HTTP Export API uses an API key and - depending on the config - a cryptographic signature for each request.

To create an API key, go to *My Profile » HTTP API* and click the *Create API key* button. This will create an *API Key* and a *Secret Key* (if signatures are required).

It is recommended to always use the highest security level. That means if only an *API key* is available always include it and if a *secret key* is available, always sign your requests. Since you might want to retrieve only public information (instead of everything visible to your Indico user) you can add the param *onlypublic=yes* to the query string.

It is also possible to re-use the existing Indico session. This only makes sense if your browser accesses the API, e.g. because you are developing on Indico and want to access the API via an AJAX request. Additionally this method of authentication is restricted to GET requests. To use it, add *cookieauth=yes* to the query string and do not specify an API key, timestamp or signature. To prevent data leakage via CSRF the CSRF token of the current session needs to be provided as a GET argument *csrftoken* or a HTTP header *X-CSRF-Token*.

Request Signing

To sign a request, you need the following:

- The requested path, e.g. */export/categ/123.json*
- Any additional params, e.g. *limit=10*
- The current UNIX timestamp

- Your *API key* and *secret key*

1) Add your API key to the params (*limit=10&ak=your-api-key*)
2) Add the current timestamp to the params (*limit=10&ak=your-api-key&timestamp=1234567890*)
3) Sort the query string params (*ak=your-api-key&limit=10&timestamp=1234567890*)
4) Merge path and the sorted query string to a single string (*/export/categ/123.json?ak=your-api-key&limit=10&timestamp=1234567890*)
5) Create a HMAC-SHA1 signature of this string using your *secret key* as the key.
6) Append the hex-encoded signature to your query string: *?ak=your-api-key&limit=10&timestamp=1234567890&signature=your-signature*

Note that a signed request might be valid only for a few seconds or minutes, so you **need** to sign it right before sending it and not store the generated URL as it is likely to expire soon.

You can find example code for Python and PHP in the following sections.

If persistent signatures are enabled, you can also omit the timestamp. In this case the URL is valid forever. When using this feature, please make sure to use these URLs only where necessary - use timestamped URLs whenever possible.

Request Signing for Python

A simple example in Python:

```
import hashlib
import hmac
import time

try:
    from urllib.parse import urlencode
except ImportError:
    from urllib import urlencode


def build_indico_request(path, params, api_key=None, secret_key=None, only_
↪public=False, persistent=False):
    items = list(params.items()) if hasattr(params, 'items') else list(params)
    if api_key:
        items.append(('apikey', api_key))
    if only_public:
        items.append(('onlypublic', 'yes'))
    if secret_key:
        if not persistent:
            items.append(('timestamp', str(int(time.time()))))
        items = sorted(items, key=lambda x: x[0].lower())
        url = '%s?%s' % (path, urlencode(items))
        signature = hmac.new(secret_key.encode('utf-8'), url.encode('utf-8'),
                             hashlib.sha1).hexdigest()
        items.append(('signature', signature))
    if not items:
        return path
    return '%s?%s' % (path, urlencode(items))


if __name__ == '__main__':
```

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```
    API_KEY = '00000000-0000-0000-0000-000000000000'
    SECRET_KEY = '00000000-0000-0000-0000-000000000000'
    PATH = '/export/categ/1337.json'
    PARAMS = {
        'limit': 123
    }
    print(build_indico_request(PATH, PARAMS, API_KEY, SECRET_KEY))
```

Request Signing for PHP

A simple example in PHP:

```
<?php

function build_indico_request($path, $params, $api_key = null, $secret_key = null,
↪$only_public = false, $persistent = false) {
    if($api_key) {
        $params['apikey'] = $api_key;
    }

    if($only_public) {
        $params['onlypublic'] = 'yes';
    }

    if($secret_key) {
        if(!$persistent) {
            $params['timestamp'] = time();
        }
        uksort($params, 'strcasecmp');
        $url = $path . '?' . http_build_query($params);
        $params['signature'] = hash_hmac('sha1', $url, $secret_key);
    }

    if(!$params) {
        return $path;
    }

    return $path . '?' . http_build_query($params);
}

if(true) { // change to false if you want to include this file
    $API_KEY = '00000000-0000-0000-0000-000000000000';
    $SECRET_KEY = '00000000-0000-0000-0000-000000000000';
    $PATH = '/export/categ/1337.json';
    $PARAMS = array(
        'limit' => 123
    );
    echo build_indico_request($PATH, $PARAMS, $API_KEY, $SECRET_KEY) . "\n";
}
```

6.1.2 Common Parameters

The following parameters are valid for all requests no matter which element is requested. If a parameter has a shorter form, it's given in parentheses.

Param	Short	Description
from/to	f/t	**Accepted formats:** • ISO 8601 subset - YYYY-MM-DD[THH:MM] • 'today', 'yesterday', 'tomorrow' and 'now' • days in the future/past: '[+/-]DdHHhMMm'
pretty	p	Pretty-print the output. When exporting as JSON it will include whitespace to make the json more human-readable.
onlypublic	op	Only return results visible to unauthenticated users when set to *yes*.
onlyauthed	oa	Fail if the request is unauthenticated for any reason when this is set to *yes*.
cookieauth	ca	Use the Indico session cookie to authenticate instead of an API key.
nocache	nc	Disable caching of results when this is set to *yes*.
limit	n	Return no more than the X results.
offset	O	Skip the first X results.
detail	d	Specify the detail level (values depend on the exported element)
order	o	Sort the results. Must be one of *id*, *start*, *end*, *title*.
descending	c	Sort the results in descending order when set to *yes*.
tz	-	Assume given timezone (default UTC) for specified dates. Example: `Europe/Lisbon`.

6.1.3 API Resources

Categories

URL Format

/export/categ/ID.TYPE

The ID can be either a single category ID or a - separated list. In an authenticated request the special ID *favorites* will be resolved to the user's list of favorites.

Parameters

Param	Short	Description
location	l	Only include events taking place at the specified location. The * and *?* wildcards may be used.
room	r	Only include events taking place in the specified room. The * and *?* wildcards may be used.
type	T	Only include events of the specified type. Must be one of: simple_event (or lecture), meeting, conference

Detail Levels

events

Returns basic data about the events in the category.

This is the result of the following the query https://my.indico/export/categ/2.json?from=today&to=today&pretty=yes:


```
{
    "count": 2,
    "_type": "HTTPAPIResult",
    "complete": true,
    "url": "https://my.indico/export/categ/2.json?from=today&to=today&pretty=yes",
    "ts": 1308841641,
    "results": [
        {
            "category": "TEST Category",
            "startDate": {
                "date": "2011-06-17",
                "tz": "Europe/Zurich",
                "time": "08:00:00"
            },
            "_type": "Conference",
            "endDate": {
                "date": "2011-06-30",
                "tz": "Europe/Zurich",
                "time": "18:00:00"
            },
            "description": "",
            "title": "Test EPayment",
            "url": "http://pcituds07.cern.ch/indico/conferenceDisplay.py?confId=137344
↪",
            "location": "CERN",
            "_fossil": "conferenceMetadata",
            "timezone": "Europe/Zurich",
            "type": "conference",
            "id": "137344",
            "room": "1-1-025",
            "keywords": []
        },
        {
            "category": "TEST Category",
            "startDate": {
                "date": "2011-06-23",
                "tz": "Europe/Zurich",
```


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```
                "time": "08:00:00"
            },
            "_type": "Conference",
            "endDate": {
                "date": "2011-06-24",
                "tz": "Europe/Zurich",
                "time": "18:00:00"
            },
            "description": "",
            "title": "Export Test",
            "url": "http://pcituds07.cern.ch/indico/conferenceDisplay.py?confId=137346
↪",
            "location": "CERN",
            "_fossil": "conferenceMetadata",
            "timezone": "Europe/Zurich",
            "type": "meeting",
            "id": "137346",
            "room": null,
            "keywords": []
        }
    ]
}
```


Events

URL Format

/export/event/ID.TYPE

The ID can be either a single event ID or a - separated list.

Parameters

Param	Short	Description
occurrences	occ	Include the daily event times in the exported data.

Detail Levels

events

Returns basic data about the event. In this example occurrences are included, too.

Result for https://indico.server/export/event/137346.json?occ=yes&pretty=yes:


```
{
    "count": 1,
    "_type": "HTTPAPIResult",
    "complete": true,
    "url": "https://indico.server/export/event/137346.json?occ=yes&pretty=yes",
    "ts": 1308899256,
    "results": [
```


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```
        {
            "category": "TEST Category",
            "startDate": {
                "date": "2011-06-23",
                "tz": "Europe/Zurich",
                "time": "08:00:00"
            },
            "_type": "Conference",
            "endDate": {
                "date": "2011-06-24",
                "tz": "Europe/Zurich",
                "time": "18:00:00"
            },
            "description": "",
            "title": "Export Test",
            "url": "http://indico.server/conferenceDisplay.py?confId=137346",
            "room": null,
            "keywords": [],
            "occurrences": [
                {
                    "_fossil": "period",
                    "endDT": {
                        "date": "2011-06-23",
                        "tz": "Europe/Zurich",
                        "time": "08:40:00"
                    },
                    "startDT": {
                        "date": "2011-06-23",
                        "tz": "Europe/Zurich",
                        "time": "08:00:00"
                    },
                    "_type": "Period"
                },
                {
                    "_fossil": "period",
                    "endDT": {
                        "date": "2011-06-24",
                        "tz": "Europe/Zurich",
                        "time": "15:00:00"
                    },
                    "startDT": {
                        "date": "2011-06-24",
                        "tz": "Europe/Zurich",
                        "time": "12:00:00"
                    },
                    "_type": "Period"
                }
            ],
            "_fossil": "conferenceMetadata",
            "timezone": "Europe/Zurich",
            "type": "meeting",
            "id": "137346",
            "location": "CERN"
        }
    ]
}
```

contributions

Includes the contributions of the event.

Output for https://indico.server/export/event/137346.json?detail=contributions&pretty=yes:


```
{
    "count": 1,
    "_type": "HTTPAPIResult",
    "complete": true,
    "url": "https://indico.server/export/event/137346.json?detail=contributions&
↪pretty=yes",
    "ts": 1308899252,
    "results": [
        {
            "category": "TEST Category",
            "startDate": {
                "date": "2011-06-23",
                "tz": "Europe/Zurich",
                "time": "08:00:00"
            },
            "_type": "Conference",
            "endDate": {
                "date": "2011-06-24",
                "tz": "Europe/Zurich",
                "time": "18:00:00"
            },
            "description": "",
            "title": "Export Test",
            "url": "http://indico.server/conferenceDisplay.py?confId=137346",
            "type": "meeting",
            "location": "CERN",
            "_fossil": "conferenceMetadataWithContribs",
            "timezone": "Europe/Zurich",
            "keywords": [],
            "contributions": [
                {
                    "startDate": {
                        "date": "2011-06-23",
                        "tz": "Europe/Zurich",
                        "time": "08:20:00"
                    },
                    "_type": "Contribution",
                    "endDate": {
                        "date": "2011-06-23",
                        "tz": "Europe/Zurich",
                        "time": "08:40:00"
                    },
                    "description": "",
                    "title": "d1c2",
                    "track": null,
                    "duration": 20,
                    "session": null,
                    "location": "CERN",
                    "_fossil": "contributionMetadata",
                    "type": null,
                    "id": "1",
                    "room": null
```


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```
        },
        {
            "startDate": {
                "date": "2011-06-23",
                "tz": "Europe/Zurich",
                "time": "08:00:00"
            },
            "_type": "Contribution",
            "endDate": {
                "date": "2011-06-23",
                "tz": "Europe/Zurich",
                "time": "08:20:00"
            },
            "description": "",
            "title": "d1c1",
            "track": null,
            "duration": 20,
            "session": null,
            "location": "CERN",
            "_fossil": "contributionMetadata",
            "type": null,
            "id": "0",
            "room": null
        },
        {
            "startDate": {
                "date": "2011-06-24",
                "tz": "Europe/Zurich",
                "time": "14:00:00"
            },
            "_type": "Contribution",
            "endDate": {
                "date": "2011-06-24",
                "tz": "Europe/Zurich",
                "time": "14:20:00"
            },
            "description": "",
            "title": "d2s1c1",
            "track": null,
            "duration": 20,
            "session": "d2s1",
            "location": "CERN",
            "_fossil": "contributionMetadata",
            "type": null,
            "id": "3",
            "room": null
        },
        {
            "startDate": {
                "date": "2011-06-24",
                "tz": "Europe/Zurich",
                "time": "12:00:00"
            },
            "_type": "Contribution",
            "endDate": {
                "date": "2011-06-24",
                "tz": "Europe/Zurich",
```


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```
                        "time": "14:00:00"
                    },
                    "description": "",
                    "title": "d2c1",
                    "track": null,
                    "duration": 120,
                    "session": null,
                    "location": "CERN",
                    "_fossil": "contributionMetadata",
                    "type": null,
                    "id": "2",
                    "room": null
                }
            ],
            "id": "137346",
            "room": null
        }
    ]
}
```


subcontributions

Like *contributions*, but inside the contributions the subcontributions are included in a field named *subContributions*.

sessions

Includes details about the different sessions and groups contributions by sessions. The top-level *contributions* list only contains contributions which are not assigned to any session. Subcontributions are included in this details level, too.

For example, https://indico.server/export/event/137346.json?detail=sessions&pretty=yes:


```
{
    "count": 1,
    "_type": "HTTPAPIResult",
    "complete": true,
    "url": "https://indico.server/export/event/137346.json?detail=sessions&pretty=yes
↪",
    "ts": 1308899771,
    "results": [
        {
            "category": "TEST Category",
            "startDate": {
                "date": "2011-06-23",
                "tz": "Europe/Zurich",
                "time": "08:00:00"
            },
            "_type": "Conference",
            "endDate": {
                "date": "2011-06-24",
                "tz": "Europe/Zurich",
                "time": "18:00:00"
            },
            "description": "",
            "title": "Export Test",
```


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```
            "url": "http://indico.server/conferenceDisplay.py?confId=137346",
            "keywords": [],
            "contributions": [
                {
                    "startDate": {
                        "date": "2011-06-23",
                        "tz": "Europe/Zurich",
                        "time": "08:20:00"
                    },
                    "_type": "Contribution",
                    "endDate": {
                        "date": "2011-06-23",
                        "tz": "Europe/Zurich",
                        "time": "08:40:00"
                    },
                    "description": "",
                    "subContributions": [],
                    "title": "d1c2",
                    "track": null,
                    "duration": 20,
                    "session": null,
                    "location": "CERN",
                    "_fossil": "contributionMetadataWithSubContribs",
                    "type": null,
                    "id": "1",
                    "room": null
                },
                {
                    "startDate": {
                        "date": "2011-06-23",
                        "tz": "Europe/Zurich",
                        "time": "08:00:00"
                    },
                    "_type": "Contribution",
                    "endDate": {
                        "date": "2011-06-23",
                        "tz": "Europe/Zurich",
                        "time": "08:20:00"
                    },
                    "description": "",
                    "subContributions": [],
                    "title": "d1c1",
                    "track": null,
                    "duration": 20,
                    "session": null,
                    "location": "CERN",
                    "_fossil": "contributionMetadataWithSubContribs",
                    "type": null,
                    "id": "0",
                    "room": null
                },
                {
                    "startDate": {
                        "date": "2011-06-24",
                        "tz": "Europe/Zurich",
                        "time": "12:00:00"
                    },
```


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```
                "_type": "Contribution",
                "endDate": {
                    "date": "2011-06-24",
                    "tz": "Europe/Zurich",
                    "time": "14:00:00"
                },
                "description": "",
                "subContributions": [],
                "title": "d2c1",
                "track": null,
                "duration": 120,
                "session": null,
                "location": "CERN",
                "_fossil": "contributionMetadataWithSubContribs",
                "type": null,
                "id": "2",
                "room": null
            }
        ],
        "sessions": [
            {
                "startDate": {
                    "date": "2011-06-24",
                    "tz": "Europe/Zurich",
                    "time": "14:00:00"
                },
                "_type": "Session",
                "room": "",
                "numSlots": 1,
                "color": "#EEE0EF",
                "material": [],
                "isPoster": false,
                "sessionConveners": [],
                "location": "CERN",
                "address": "",
                "_fossil": "sessionMetadata",
                "title": "d2s1",
                "textColor": "#1D041F",
                "contributions": [
                    {
                        "startDate": {
                            "date": "2011-06-24",
                            "tz": "Europe/Zurich",
                            "time": "14:00:00"
                        },
                        "_type": "Contribution",
                        "endDate": {
                            "date": "2011-06-24",
                            "tz": "Europe/Zurich",
                            "time": "14:20:00"
                        },
                        "description": "",
                        "subContributions": [],
                        "title": "d2s1c1",
                        "track": null,
                        "duration": 20,
                        "session": "d2s1",
```


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```
                            "location": "CERN",
                            "_fossil": "contributionMetadataWithSubContribs",
                            "type": null,
                            "id": "3",
                            "room": null
                        }
                    ],
                    "id": "0"
                }
            ],
            "location": "CERN",
            "_fossil": "conferenceMetadataWithSessions",
            "timezone": "Europe/Zurich",
            "type": "meeting",
            "id": "137346",
            "room": null
        }
    ]
}
```


Timetable

URL Format

/export/timetable/ID.TYPE

The ID should be the event ID, e.g. *123*.

Results

Returns the timetable of the event.

Result for https://indico.server/export/timetable/137346.json?ak=00000000-0000-0000-0000-000000000000&pretty=yes:


```
{
    "count": 1,
    "additionalInfo": {},
    "_type": "HTTPAPIResult",
    "complete": true,
    "url": "https:\/\/indico.server\/export\/timetable\/137346.json?ak=00000000-0000-
↪0000-0000-000000000000&pretty=yes",
    "ts": 1367242732,
    "results": {
        "137346": {
            "20130429": {
                "c0": {
                    "startDate": {
                        "date": "2013-04-29",
                        "tz": "Europe\/Zurich",
                        "time": "16:00:00"
                    },
                    "_type": "ContribSchEntry",
                    "material": [],
```


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```
                    "endDate": {
                        "date": "2013-04-29",
                        "tz": "Europe\/Zurich",
                        "time": "16:30:00"
                    },
                    "description": "",
                    "title": "Contrib 1",
                    "id": "c0",
                    "contributionId": "0",
                    "sessionSlotId": null,
                    "conferenceId": "137346",
                    "presenters": [],
                    "sessionId": null,
                    "location": "CERN",
                    "uniqueId": "a137346t0",
                    "_fossil": "contribSchEntryDisplay",
                    "sessionCode": null,
                    "entryType": "Contribution",
                    "room": "160-1-009"
                }
            }
        }
```


Event Search

URL Format

/export/event/search/TERM.TYPE

The TERM should be a string, e.g. “ichep”

Results

Returns the events found.

Result for https://indico.server/export/event/search/ichep.json?ak=00000000-0000-0000-0000-000000000000&pretty=yes:


```
{
    "count": 5,
    "additionalInfo": {},
    "_type": "HTTPAPIResult",
    "complete": true,
    "url": "https:\/\/indico.server\/export\/event\/search\/ichep.json?ak=00000000-
↪0000-0000-0000-000000000000&pretty=yes",
    "ts": 1367245058,
    "results": [
        {
            "startDate": {
                "date": "2010-07-16",
                "tz": "UTC",
                "time": "11:00:00"
            },
            "hasAnyProtection": false,
```


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```
            "id": "101465",
            "title": "Rehearsals for ICHEP Friday 16th July Afternoon Session"
        },
        {
            "startDate": {
                "date": "2010-08-06",
                "tz": "UTC",
                "time": "12:00:00"
            },
            "hasAnyProtection": false,
            "id": "102669",
            "title": "Overview of LHC physics results at ICHEP"
        },
        {
            "startDate": {
                "date": "2010-08-18",
                "tz": "UTC",
                "time": "17:00:00"
            },
            "hasAnyProtection": false,
            "id": "104128",
            "title": "Seminer Oturumu: \"ATLAS status and highlights as of ICHEP\" Dr␣
↪Tayfun Ince (Universitaet Bonn)"
        },
        {
            "startDate": {
                "date": "2011-07-23",
                "tz": "UTC",
                "time": "11:00:00"
            },
            "hasAnyProtection": false,
            "id": "145521",
            "title": "89th Plenary ECFA and Joint EPS\/ICHEP-ECFA Session - Grenoble,␣
↪France"
        },
        {
            "startDate": {
                "date": "2012-01-12",
                "tz": "UTC",
                "time": "08:00:00"
            },
            "hasAnyProtection": false,
            "id": "168897",
            "title": "ICHEP 2012 Outreach Planning Meeting"
        }
    ]
}
```


Files

General Information

The file export is only available for authenticated users, i.e. when using an API key and a signature (if enabled).

URL Format

/export/event/EVENT_ID/session/SESSION_ID/contrib/CONTRIBUTION_ID/subcontrib/SUBCONTRIBUTION_ID/material/MATERIA

All ID's should be single ID, not separated list.

The *EVENT_ID* should be the event ID, e.g. *123*.
The *SESSION_ID (optional)* should be the session ID, e.g. *4*.
The *CONTRIBUTION_ID (optional)* should be the contribution ID, e.g. *3*.
The *SUBCONTRIBUTION_ID (optional)* should be the sub-contribution ID, e.g. *1*.
The *MATERIAL_ID* should by the material name if it came default group e.g. *Slides* or material ID if not, e.g. *2*.
The *RESOURCE_ID* should by the resource ID.
Only supported *TYPE* for files is *bin* (binary data).

Parameters

None

Detail Levels

file

Returns file (or an error in *JSON* format).

For example: https://indico.server/export/event/23/session/0/contrib/3/material/slides/3.bin?ak=00000000-0000-0000-0000-000000000000

User

General Information

The user export is only available for authenticated users, i.e. when using an API key and a signature (if enabled).

URL Format

/export/user/USER_ID.TYPE

The *USER_ID* should be the user ID, e.g. *44*.

Parameters

None

Results

Returns the user information (or an error in *JSON* format).

Result for https://indico.server/export/user/6.json?ak=00000000-0000-0000-0000-000000000000&pretty=yes:


```
{
    "count": 1,
    "additionalInfo": {},
    "_type": "HTTPAPIResult"
    "ts": 1610536660,
    "url": "https:\/\/indico.server\/export\/user\/6.json?ak=00000000-0000-0000-0000-
↪000000000000&pretty=yes",
    "results": [{
        "id": 6,
        "first_name": "Guinea",
        "last_name": "Pig",
        "full_name": "Guinea Pig"
        "email": "test@cern.ch",
        "affiliation": "CERN",
        "phone": "",
        "avatar_url": "\/user\/6\/picture-default",
        "identifier": "User:6",
    }],
}
```


Room Booking

Bookings

Creating bookings

General Information

The Room Booking API is only available for authenticated users, i.e. when using an API key and a signature (if enabled). If the room booking system is restricted to certain users/groups this restriction applies for this API, too. The request will fail if there is a collision with another booking, blocking or unavailable period.

Note that it is not possible to pre-book a room through this api.

URL Format

/api/roomBooking/bookRoom.TYPE

TYPE should be *json* or *xml*.

Parameters

The following parameters are required:

Param	Values	Description
location	text	Room location, e.g. *CERN*
roomid	text	Room id
from/to	f/t	**Start/End time for a booking. Accepted formats:** • ISO 8601 subset - YYYY-MM-DD[THH:MM] • 'today', 'yesterday', 'tomorrow' and 'now' • days in the future/past: '[+/-]DdHHhMMm'
reason	text	Reason for booking a room
username	text	User login name for whom the booking will be created

Booking a room

POST request

Returns *reservation id* if the booking was successful or error information it there were any problems.

For example:

```
curl --data "username=jdoe&from=2012-12-30T21:30&to=2012-12-30T22:15&reason=meeting&
↪location=CERN&roomid=189" 'http://indico.server/indico/api/roomBooking/bookRoom.json
↪'
```

Result:

```
{
    {
        "url": "\/api\/roomBooking\/bookRoom.json",
        "_type": "HTTPAPIResult",
        "results": {
            "reservationID": 45937
        },
        "ts": 1354695663
    }
}
```

Retrieving bookings

General Information

The reservation export is only availabled for authenticated users, i.e. when using an API key and a signature (if enabled). If the room booking system is restricted to certain users/groups this restriction applies for the reservation export API, too.

Please note that the room export with the *reservations* detail level is much more appropriate if you need reservations for specific rooms.

URL Format

/export/reservation/LOCATION.TYPE

The *LOCATION* should be the room location, e.g. *CERN*. A - separated list of multiple locations is allowed, too.

Parameters

Param	Short	Values	Description
occurrences	occ	yes, no	Include all occurrences of room reservations.
cancelled	cxl	yes, no	If specified only include cancelled (*yes*) or non-cancelled (*no*) reservations.
rejected	rej	yes, no	If specified only include rejected/non-rejected resvs.
confirmed	-	yes, no, pending	If specified only include bookings/pre-bookings with the given state.
archival	arch	yes, no	If specified only include bookings (not) from the past.
recurring	rec	yes, no	If specified only include bookings which are (not) recurring.
repeating	rep	yes, no	Alias for *recurring*
booked-for	bf	text (wildcards)	Only include bookings where the *booked for* field matches the given wildcard string.
occurs	-	yyyy-mm-dd	Only include bookings which have a valid occurrence on the given date. Multiple dates can be separated by commas.

Detail Levels

reservations

Returns detailed data about the reservations and the most important information about the booked room.

For example, https://indico.server/export/reservation/CERN.json?ak=00000000-0000-0000-0000-000000000000&detail=reservation&from=today&to=today&pretty=yes:


```
{
    "count": 1,
    "additionalInfo": {},
    "_type": "HTTPAPIResult",
    "url": "/export/reservation/CERN.json?ak=00000000-0000-0000-0000-000000000000&
↪detail=reservation&from=today&to=today&pretty=yes",
    "results": [
        {
            "_type": "Reservation",
            "repeat_unit": 1,
            "endDT": {
                "date": "2014-08-14",
                "tz": "Europe/Zurich",
                "time": "12:30:00"
            },
            "room": {
                "_type": "Room",
```


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```
                "fullName": "500-1-001 - Main Auditorium",
                "id": 57
            },
            "isConfirmed": true,
            "isValid": true,
            "repeatability": "daily",
            "repeat_step": 1,
            "vcList": [],
            "reason": "Summer Student Lecture programme",
            "bookedForName": "DOE, John",
            "is_rejected": false,
            "is_cancelled": false,
            "startDT": {
                "date": "2014-07-02",
                "tz": "Europe/Zurich",
                "time": "08:30:00"
            },
            "id": 63779,
            "bookingUrl": "http://indico.server/rooms/booking/CERN/63779/",
            "location": "CERN"
        }
    ],
    "ts": 1406727843
}
```


Rooms

General Information

The room export is only availabled for authenticated users, i.e. when using an API key and a signature (if enabled). If the room booking system is restricted to certain users/groups this restriction applies for the room export API, too.

URL Format

/export/room/LOCATION/ID.TYPE

The *LOCATION* should be the room location, e.g. *CERN*. The *ID* can be either a single room ID or a - separated list.

Parameters

Param	Short	Values	Description
occurrences	occ	yes, no	Include all occurrences of room reservations.
cancelled	cxl	yes, no	If specified only include cancelled (*yes*) or non-cancelled (*no*) reservations.
rejected	rej	yes, no	If specified only include rejected/non-rejected resvs.
confirmed	-	yes, no, pending	If specified only include bookings/pre-bookings with the given state.
archival	arch	yes, no	If specified only include bookings (not) from the past.
recurring	rec	yes, no	If specified only include bookings which are (not) recurring.
repeating	rep	yes, no	Alias for *recurring*
booked-for	bf	text (wildcards)	Only include bookings where the *booked for* field matches the given wildcard string.
occurs	-	yyyy-mm-dd	Only include bookings which have a valid occurrence on the given date. Multiple dates can be separated by commas.

Detail Levels

rooms

Returns basic data about the rooms.

For example, https://indico.server/export/room/CERN/57.json?ak=00000000-0000-0000-0000-000000000000&pretty=yes:


```
{
    "count": 1,
    "additionalInfo": {},
    "_type": "HTTPAPIResult",
    "url": "/export/room/CERN/57.json?ak=00000000-0000-0000-0000-000000000000&
↪pretty=yes",
    "results": [
        {
            "building": "500",
            "_type": "Room",
            "name": "Main Auditorium",
            "floor": "1",
            "longitude": "6.0542704900999995",
            "vcList": [
                "Audio Conference",
                "Built-in (MCU) Bridge",
                "CERN MCU",
                "ESnet MCU",
                "EVO",
                "H323 point2point",
                "Vidyo"
            ],
            "equipment": [
                "Blackboard",
```


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```
                "Computer Projector",
                "Ethernet",
                "Microphone",
                "PC",
                "Telephone conference",
                "Video conference",
                "Webcast/Recording",
                "Wireless"
            ],
            "roomNr": "001",
            "location": "CERN",
            "latitude": "46.23141394580001",
            "fullName": "500-1-001 - Main Auditorium",
            "id": 57,
            "bookingUrl": "/indico/rooms/room/CERN/57/book"
        }
    ],
    "ts": 1406729635
}
```


reservations

Returns basic data about the rooms and their reservations in the given timeframe.

Output for https://indico.server/export/room/CERN/57.json?ak=00000000-0000-0000-0000-000000000000&detail=reservations&from=today&to=today&pretty=yes:


```
{
    "count": 1,
    "additionalInfo": {},
    "_type": "HTTPAPIResult",
    "url": "/export/room/CERN/57.json?ak=00000000-0000-0000-0000-000000000000&
↪detail=reservations&from=today&to=today&pretty=yes",
    "results": [
        {
            "building": "500",
            "_type": "Room",
            "name": "Main Auditorium",
            "floor": "1",
            "reservations": [
                {
                    "_type": "Reservation",
                    "repeat_unit": 1,
                    "endDT": {
                        "date": "2014-08-14",
                        "tz": "Europe/Zurich",
                        "time": "12:30:00"
                    },
                    "isConfirmed": true,
                    "isValid": true,
                    "repeatability": "daily",
                    "repeat_step": 1,
                    "vcList": [],
                    "reason": "Summer Student Lecture programme",
                    "bookedForName": "DOE, John",
```


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```
                    "is_rejected": false,
                    "is_cancelled": false,
                    "startDT": {
                        "date": "2014-07-02",
                        "tz": "Europe/Zurich",
                        "time": "08:30:00"
                    },
                    "id": 63779,
                    "bookingUrl": "http://pcavc005.cern.ch:8000/indico/rooms/booking/
↪CERN/63779/",
                    "location": "CERN"
                }
            ],
            "longitude": "6.0542704900999995",
            "vcList": [
                "Audio Conference",
                "Built-in (MCU) Bridge",
                "CERN MCU",
                "ESnet MCU",
                "EVO",
                "H323 point2point",
                "Vidyo"
            ],
            "equipment": [
                "Blackboard",
                "Computer Projector",
                "Ethernet",
                "Microphone",
                "PC",
                "Telephone conference",
                "Video conference",
                "Webcast/Recording",
                "Wireless"
            ],
            "roomNr": "001",
            "location": "CERN",
            "latitude": "46.23141394580001",
            "fullName": "500-1-001 - Main Auditorium",
            "id": 57,
            "bookingUrl": "/indico/rooms/room/CERN/57/book"
        }
    ],
    "ts": 1406731966
}
```


Get room by room name

General Information

The search room export is guest allowed because the room data is public (no the reservations).

URL Format

/export/roomName/LOCATION/ROOMNAME.TYPE

The *LOCATION* should be the room location, e.g. *CERN*. The *ROOMNAME* is a single ROOMNAME.

Parameters

No parameters needed.

Results

Returns basic data about the rooms.

For example, https://indico.server/export/roomName/CERN/Main Auditorium.json?ak=00000000-0000-0000-0000-000000000000&pretty=yes:


```
{
    "count": 1,
    "additionalInfo": {},
    "_type": "HTTPAPIResult",
    "url": "/export/roomName/CERN/Main Auditorium.json?ak=00000000-0000-0000-0000-
↪000000000000&pretty=yes",
    "results": [
        {
            "building": "500",
            "_type": "Room",
            "name": "Main Auditorium",
            "floor": "1",
            "longitude": "6.0542704900999995",
            "vcList": [
                "Audio Conference",
                "Built-in (MCU) Bridge",
                "CERN MCU",
                "ESnet MCU",
                "EVO",
                "H323 point2point",
                "Vidyo"
            ],
            "equipment": [
                "Blackboard",
                "Computer Projector",
                "Ethernet",
                "Microphone",
                "PC",
                "Telephone conference",
                "Video conference",
                "Webcast/Recording",
                "Wireless"
            ],
            "roomNr": "001",
            "location": "CERN",
            "latitude": "46.23141394580001",
            "fullName": "500-1-001 - Main Auditorium",
            "id": 57,
            "bookingUrl": "/indico/rooms/room/CERN/57/book"
        }
    ],
    "ts": 1406732578
}
```

6.1.4 HTTP API Tools

Note: API keys and signatures have been deprecated. Please consider using *API Token Authentication* instead.

Deprecated since version 3.0.

CHAPTER 7

API reference

This part of the documentation focuses on the core modules of Indico and includes information about the **models** and **utility functions and classes** that are useful for understanding the internals of the application.

7.1 API reference

This part of the documentation focuses on the core modules of Indico and includes information about the **models** and **utility functions and classes** that are useful for understanding the internals of the application.

7.1.1 Event

Todo: Docstrings (module, models, operations, utilities, settings)

Models

class indico.modules.events.models.events.**Event**(***kwargs*)

Bases: indico.core.db.sqlalchemy.searchable.SearchableTitleMixin, indico.core.db.sqlalchemy.descriptions.DescriptionMixin, indico.core.db.sqlalchemy.locations.LocationMixin, indico.core.db.sqlalchemy.protection.ProtectionManagersMixin, indico.core.db.sqlalchemy.attachments.AttachedItemsMixin, indico.core.db.sqlalchemy.notes.AttachedNotesMixin, *indico.modules.events.models.persons.PersonLinkDataMixin*, sqlalchemy.orm.decl_api.Model

An Indico event.

This model contains the most basic information related to an event.

Note that the ACL is currently only used for managers but not for view access!

A simple constructor that allows initialization from kwargs.

Sets attributes on the constructed instance using the names and values in `kwargs`.

Only keys that are present as attributes of the instance's class are allowed. These could be, for example, any mapped columns or relationships.

ATTACHMENT_FOLDER_ID_COLUMN = 'event_id'

access_key

acl_entries
The ACL entries for the event

additional_info

all_notes

allow_access_key = True

allow_location_inheritance = False

allow_no_access_contact = True

allow_none_protection_parent = True

can_display(*user*)
Check whether the user can display the event in the category.

can_lock(*user*)
Check whether the user can lock/unlock the event.

category
The category containing the event

classmethod category_chain_overlaps(*category_ids*)
Create a filter that checks whether the event has any of the provided category ids in its parent chain.

Warning: This method cannot be used in a negated filter.

Parameters **category_ids** – A list of category ids or a single category id

category_id
The ID of immediate parent category of the event

cfa

cfp

cloned_from
The event this one was cloned from

cloned_from_id
If this event was cloned, the id of the parent event

contact_emails

contact_phones

contact_title

created_dt
The creation date of the event

creator
The user who created the event

creator_id
The ID of the user who created the event

custom_boa
The custom book of abstracts

custom_boa_id
The ID of the uploaded custom book of abstracts (if available)

default_page
The event's default page (conferences only)

default_page_id
The ID of the event's default page (conferences only)

default_render_mode = 1

delete(*reason*, *user=None*)

disallowed_protection_modes = frozenset()

display_tzinfo
The tzinfo of the event as preferred by the current user.

duration

editable_types

end_dt
The end date of the event

end_dt_display
The 'displayed end dt', which is usually the actual end dt, but may be overridden for a conference.

end_dt_local

end_dt_override

ends_after(*dt*)
Check whether the event ends on/after the specified date.

event
Convenience property so all event entities have it.

external_logo_url

external_url

get_allowed_sender_emails(*include_current_user=True*, *include_creator=True*, *include_managers=True*, *include_contact=True*, *include_chairs=True*, *extra=None*)
Return the emails of people who can be used as senders (or rather Reply-to contacts) in emails sent from within an event.

Parameters

- **include_current_user** – Whether to include the email of the currently logged-in user
- **include_creator** – Whether to include the email of the event creator
- **include_managers** – Whether to include the email of all event managers
- **include_contact** – Whether to include the "event contact" emails
- **include_chairs** – Whether to include the emails of event chairpersons (or lecture speakers)

- **extra** – An email address that is always included, even if it is not in any of the included lists.

Returns A dictionary mapping emails to pretty names

get_contribution(*id_*)
Get a contribution of the event.

get_contribution_field(*field_id*)

get_label_markup(*size=''*)

get_non_inheriting_objects()
Get a set of child objects that do not inherit protection.

get_relative_event_ids()
Get the first, last, previous and next event IDs.

Any of those values may be `None` if there is no matching event or if it would be the current event.

Returns A dict containing `first`, `last`, `prev` and `next`.

get_session(*id_=None*, *friendly_id=None*)
Get a session of the event.

get_session_block(*id_*, *scheduled_only=False*)
Get a session block of the event.

get_sorted_tracks()
Return tracks and track groups in the correct order.

get_verbose_title(*show_speakers=False*, *show_series_pos=False*)
Get the event title with some additional information.

Parameters

- **show_speakers** – Whether to prefix the title with the speakers of the event.
- **show_series_pos** – Whether to suffix the title with the position and total count in the event's series.

happens_between(*from_dt=None*, *to_dt=None*)
Check whether the event takes place within two dates.

has_custom_boa

has_ended

has_feature(*feature*)
Check if a feature is enabled for the event.

has_logo

has_regform_in_acl

has_stylesheet

id
The ID of the event

inherit_location = False

inheriting_have_acl = True

is_deleted
If the event has been deleted

is_locked
If the event is locked (read-only mode)

is_unlisted

is_user_registered(*user*)
Check whether the user is registered in the event.

This takes both unpaid and complete registrations into account.

classmethod is_visible_in(*category_id*)
Create a filter that checks whether the event is visible in the specified category.

iter_days(*tzinfo=None*)

keywords
A list of tags/keywords for the event

label
The label assigned to the event

label_id
The ID of the label assigned to the event

label_message

location_backref_name = 'events'

locator

log(*realm*, *kind*, *module*, *summary*, *user=None*, *type_='simple'*, *data=None*, *meta=None*)
Create a new log entry for the event.

Parameters

- **realm** – A value from *EventLogRealm* indicating the realm of the action.
- **kind** – A value from *LogKind* indicating the kind of the action that was performed.
- **module** – A human-friendly string describing the module related to the action.
- **summary** – A one-line summary describing the logged action.
- **user** – The user who performed the action.
- **type** – The type of the log entry. This is used for custom rendering of the log message/data
- **data** – JSON-serializable data specific to the log type.
- **meta** – JSON-serializable data that won't be displayed.

Returns The newly created *EventLogEntry*

In most cases the `simple` log type is fine. For this type, any items from data will be shown in the detailed view of the log entry. You may either use a dict (which will be sorted) alphabetically or a list of `key, value` pairs which will be displayed in the given order.

logging_disabled
Temporarily disable event logging.

This is useful when performing actions e.g. during event creation or at other times where adding entries to the event log doesn't make sense.

logo
The logo's raw image data

logo_metadata
The metadata of the logo (hash, size, filename, content_type)

logo_url

map_url

move(*category*, *, *log_meta=None*)

move_start_dt(*start_dt*)
Set event start_dt and adjust its timetable entries.

note

organizer_info

own_address

own_map_url
The url to a map for the event

own_no_access_contact

own_room

own_room_id

own_room_name

own_venue

own_venue_id

own_venue_name

participation_regform

pending_move_request
The current pending move request

person_links
Persons associated with this event

possible_render_modes = {<RenderMode.html: 1>}

preload_all_acl_entries()

protection_mode

protection_parent
The parent object to consult for ProtectionMode.inheriting.

public_regform_access

published_registrations

references
External references associated with this event

refresh_event_persons(*, *notify=True*)
Update the data for all EventPersons based on the linked Users.

Parameters **notify** – Whether to trigger the `person_updated` signal.

render_mode = 1

reservations

restore(*reason=None*, *user=None*)

scheduled_notes

series
The series this event is part of

series_id
The ID of the series this events belongs to

session_block_count

short_external_url

short_url

start_dt
The start date of the event

start_dt_display
The 'displayed start dt', which is usually the actual start dt, but may be overridden for a conference.

start_dt_local

start_dt_override

starts_between (*from_dt=None*, *to_dt=None*)
Check whether the event starts within two dates.

stylesheet
The stylesheet's raw image data

stylesheet_metadata
The metadata of the stylesheet (hash, size, filename)

theme

timetable_entries

timezone
The timezone of the event

title

type

type_

tzinfo

url

url_shortcut
The URL shortcut for the event

visibility
The visibility depth in category overviews

class indico.modules.events.models.events.**EventType**
Bases: indico.util.enum.RichIntEnum

An enumeration.

conference = 3

lecture = 1

legacy_name

meeting = 2

class indico.modules.events.models.persons.**AuthorsSpeakersMixin**
Bases: object

AUTHORS_SPEAKERS_DISPLAY_ORDER_ATTR = 'display_order_key'

primary_authors

secondary_authors

speakers

class indico.modules.events.models.persons.**EventPerson**(***kwargs*)
Bases: *indico.modules.users.models.users.PersonMixin*, sqlalchemy.orm.decl_api.Model

A person inside an event, e.g. a speaker/author etc.

A simple constructor that allows initialization from kwargs.

Sets attributes on the constructed instance using the names and values in `kwargs`.

Only keys that are present as attributes of the instance's class are allowed. These could be, for example, any mapped columns or relationships.

address

affiliation

classmethod create_from_user(*user*, *event=None*, *is_untrusted=False*)

email

event

event_id

first_name

classmethod for_user(*user*, *event=None*, *is_untrusted=False*)
Return EventPerson for a matching User in Event creating if needed.

has_role(*role*, *obj*)
Whether the person has a role in the ACL list of a given object.

id

identifier

invited_dt

is_untrusted

last_name

classmethod link_user_by_email(*user*)
Link all email-based persons matching the user's email addresses with the user.

Parameters **user** – A User object.

locator
Define a smart locator property.

This behaves pretty much like a normal read-only property and the decorated function should return a dict containing the necessary data to build a URL for the object.

This decorator should usually be applied to a method named `locator` as this name is required for *get_locator* to find it automatically when just passing the object.

If you need more than one locator, you can define it like this:

```
@locator_property
def locator(self):
    return {...}

@locator.other
def locator(self):
    return {...}
```

The `other` locator can then be accessed by passing `obj.locator.other` to the code expecting an object with a locator.

merge_person_info(*other*)

classmethod merge_users(*target*, *source*)
Merge the EventPersons of two users.

Parameters

- **target** – The target user of the merge
- **source** – The user that is being merged into *target*

phone

principal

sync_user(*, *notify=True*)
Update all person data based on the current user data.

Parameters **notify** – Whether to trigger the `person_updated` signal.

user

user_id

class indico.modules.events.models.persons.**EventPersonLink**(**args*, ***kwargs*)
Bases: *indico.modules.events.models.persons.PersonLinkBase*

Association between EventPerson and Event.

Chairperson or speaker (lecture)

display_order

event_id

id

is_submitter

object_relationship_name = 'event'

person

person_id

person_link_backref_name = 'event_links'

person_link_unique_columns = ('event_id',)

class indico.modules.events.models.persons.**PersonLinkBase**(**args*, ***kwargs*)
Bases: *indico.modules.users.models.users.PersonMixin*, sqlalchemy.orm.decl_api.Model

Base class for EventPerson associations.

address

affiliation

display_order = Column(None, Integer(), table=None, nullable=False, default=ColumnDefa

display_order_key

display_order_key_lastname

email

first_name

id = Column(None, Integer(), table=None, primary_key=True, nullable=False)

last_name

object

object_relationship_name = None
The name of the relationship pointing to the object the person is linked to

person = <RelationshipProperty at 0x7fb1347af040; no key>

person_id = Column(None, Integer(), ForeignKey('events.persons.id'), table=None, nulla

person_link_backref_name = None
The name of the backref on the *EventPerson*

person_link_unique_columns = None
The columns which should be included in the unique constraint.

phone

title

class indico.modules.events.models.persons.**PersonLinkDataMixin**
Bases: object

person_link_data

class indico.modules.events.models.principals.**EventPrincipal**(***kwargs*)
Bases: indico.core.db.sqlalchemy.principals.PrincipalPermissionsMixin, sqlalchemy.orm.decl_api.Model

A simple constructor that allows initialization from kwargs.

Sets attributes on the constructed instance using the names and values in `kwargs`.

Only keys that are present as attributes of the instance's class are allowed. These could be, for example, any mapped columns or relationships.

allow_category_roles = True

allow_emails = True

allow_event_roles = True

allow_networks = True

allow_registration_forms = True

category_role

category_role_id

email

event_id
The ID of the associated event

event_role

event_role_id

full_access

id
The ID of the acl entry

ip_network_group

ip_network_group_id

local_group

local_group_id

multipass_group_name

multipass_group_provider

permissions

principal_backref_name = 'in_event_acls'

principal_for = 'Event'

read_access

registration_form

registration_form_id

type

unique_columns = ('event_id',)

user

user_id

class indico.modules.events.models.references.**EventReference**(***kwargs*)
Bases: *indico.modules.events.models.references.ReferenceModelBase*

A simple constructor that allows initialization from kwargs.

Sets attributes on the constructed instance using the names and values in `kwargs`.

Only keys that are present as attributes of the instance's class are allowed. These could be, for example, any mapped columns or relationships.

event_id

id

reference_backref_name = 'event_references'

reference_type

reference_type_id

value

class indico.modules.events.models.references.**ReferenceModelBase**(***kwargs*)
Bases: `sqlalchemy.orm.decl_api.Model`

A simple constructor that allows initialization from kwargs.

Sets attributes on the constructed instance using the names and values in `kwargs`.

Only keys that are present as attributes of the instance's class are allowed. These could be, for example, any mapped columns or relationships.

id = Column(None, Integer(), table=None, primary_key=True, nullable=False)

reference_backref_name = None
The name of the backref on the *ReferenceType*

reference_type = <RelationshipProperty at 0x7fb1345e3140; no key>

reference_type_id = Column(None, Integer(), ForeignKey('indico.reference_types.id'), t

url
The URL of the referenced entity.

`None` if no URL template is defined.

urn
The URN of the referenced entity.

`None` if no scheme is defined.

value = Column(None, String(), table=None, nullable=False)

class indico.modules.events.models.references.**ReferenceType**(***kwargs*)
Bases: sqlalchemy.orm.decl_api.Model

A simple constructor that allows initialization from kwargs.

Sets attributes on the constructed instance using the names and values in `kwargs`.

Only keys that are present as attributes of the instance's class are allowed. These could be, for example, any mapped columns or relationships.

id
The unique ID of the reference type

locator
Define a smart locator property.

This behaves pretty much like a normal read-only property and the decorated function should return a dict containing the necessary data to build a URL for the object.

This decorator should usually be applied to a method named `locator` as this name is required for *get_locator* to find it automatically when just passing the object.

If you need more than one locator, you can define it like this:

```
@locator_property
def locator(self):
    return {...}

@locator.other
def locator(self):
    return {...}
```

The `other` locator can then be accessed by passing `obj.locator.other` to the code expecting an object with a locator.

name
The name of the referenced system

scheme
The scheme used to build an URN for the reference

url_template
A URL template to build a link to a referenced entity

class indico.modules.events.models.reviews.**ProposalCommentMixin**
Bases: object

can_edit(*user*)

timeline_item_type = 'comment'

class indico.modules.events.models.reviews.**ProposalGroupProxy**(*group*)
Bases: object

The object that the proposals can be grouped by.

It provides all necessary methods for building the URLs, displaying the grouping information, etc.

full_title

full_title_attr = 'full_title'

id

locator
Define a smart locator property.

This behaves pretty much like a normal read-only property and the decorated function should return a dict containing the necessary data to build a URL for the object.

This decorator should usually be applied to a method named `locator` as this name is required for *get_locator* to find it automatically when just passing the object.

If you need more than one locator, you can define it like this:

```
@locator_property
def locator(self):
    return {...}

@locator.other
def locator(self):
    return {...}
```

The `other` locator can then be accessed by passing `obj.locator.other` to the code expecting an object with a locator.

title

title_attr = 'title'

class indico.modules.events.models.reviews.**ProposalMixin**
Bases: object

Classes that represent a proposal object should extend this class (ex: Abstract, Paper).

call_for_proposals_attr = None
Attribute to retrieve the object with access to the reviewing settings

can_comment(*user*)

can_review(*user*, *check_state=False*)

cfp

create_comment_endpoint = None

create_judgment_endpoint = None

create_review_endpoint = None

delete_comment_endpoint = None

edit_comment_endpoint = None

edit_review_endpoint = None

get_delete_comment_url(*comment*)

get_last_revision()

get_revisions()

get_save_comment_url(*comment=None*)

get_save_judgment_url()

get_save_review_url(*group=None*, *review=None*)

is_in_final_state

proposal_type = None
A unique identifier to handle rendering differences between proposal types

revisions_enabled = True
Whether there is support for multiple revisions per proposal or just one

class indico.modules.events.models.reviews.**ProposalReviewMixin**
Bases: object

Mixin for proposal reviews.

Classes that represent a review of a proposal should extend this class (ex: AbstractReview, PaperReview).

can_edit(*user*)

group

group_attr = None
Object used to group reviews together

group_proxy_cls
Proxy class to provide the necessary properties and methods to the review grouping object

alias of *ProposalGroupProxy*

revision

revision_attr = None
The revision object that the review refers to

score

timeline_item_type = 'review'
A unique identifier to handle rendering differences between timeline items

class indico.modules.events.models.reviews.**ProposalRevisionMixin**
Bases: object

Properties and methods of a proposal revision.

get_reviewed_for_groups(*user*, *include_reviewed=False*)

get_reviewer_render_data(*user*)

get_reviews(*group=None*, *user=None*)

get_timeline(*user=None*)

proposal

proposal_attr = None
The attribute of the revision used to fetch the proposal object.

revisions_enabled = True
Whether the reviewing process supports multiple revisions per proposal. If set to false it is assumed that the reviewing process supports only one revision per proposal.

class indico.modules.events.models.series.**EventSeries**(***kwargs*)
Bases: sqlalchemy.orm.decl_api.Model

A series of events.

A simple constructor that allows initialization from kwargs.

Sets attributes on the constructed instance using the names and values in `kwargs`.

Only keys that are present as attributes of the instance's class are allowed. These could be, for example, any mapped columns or relationships.

id
The ID of the series

show_links
Whether to show links to the other events in the same series on the main event page.

show_sequence_in_title
Whether to show the sequence number of an event in its title on category display pages and on the main event page.

class indico.modules.events.models.settings.**EventSetting**(***kwargs*)
Bases: indico.core.settings.models.base.JSONSettingsBase, *indico.modules.events.models.settings.EventSettingsMixin*, sqlalchemy.orm.decl_api.Model

A simple constructor that allows initialization from kwargs.

Sets attributes on the constructed instance using the names and values in `kwargs`.

Only keys that are present as attributes of the instance's class are allowed. These could be, for example, any mapped columns or relationships.

event

event_id

id

module

name

settings_backref_name = 'settings'

value

class indico.modules.events.models.settings.**EventSettingPrincipal**(***kwargs*)
Bases: indico.core.settings.models.base.PrincipalSettingsBase, *indico.modules.events.models.settings.EventSettingsMixin*, sqlalchemy.orm.decl_api.Model

A simple constructor that allows initialization from kwargs.

Sets attributes on the constructed instance using the names and values in `kwargs`.

Only keys that are present as attributes of the instance's class are allowed. These could be, for example, any mapped columns or relationships.

allow_category_roles = True

allow_event_roles = True

category_role

category_role_id

email = None

event

event_id

event_role

event_role_id

extra_key_cols = ('event_id',)

id

ip_network_group = None

ip_network_group_id = None

local_group

local_group_id

module

multipass_group_name

multipass_group_provider

name

principal_backref_name = 'in_event_settings_acls'

registration_form = None

registration_form_id = None

settings_backref_name = 'settings_principals'

type

user

user_id

class indico.modules.events.models.settings.**EventSettingsMixin**

Bases: object

event = <RelationshipProperty at 0x7fb1348744c0; no key>

event_id = Column(None, Integer(), ForeignKey('events.events.id'), table=None, nullabl

settings_backref_name = None

class indico.modules.events.models.static_list_links.**StaticListLink**(***kwargs*)

Bases: sqlalchemy.orm.decl_api.Model

Display configuration data used in static links to listing pages.

This allows users to share links to listing pages in events while preserving e.g. column/filter configurations.

A simple constructor that allows initialization from kwargs.

Sets attributes on the constructed instance using the names and values in `kwargs`.

Only keys that are present as attributes of the instance's class are allowed. These could be, for example, any mapped columns or relationships.

classmethod create(*event*, *type_*, *data*)
Create a new static list link.

If one exists with the same data, that link is used instead of creating a new one.

Parameters

- **event** – the *Event* for which to create the link
- **type** – the type of the link
- **data** – the data to associate with the link

Returns the newly created *StaticListLink*

created_dt

data

event

event_id

id

last_used_dt

classmethod load(*event*, *type_*, *uuid*)
Load the data associated with a link.

Parameters

- **event** – the *Event* the link belongs to
- **type** – the type of the link
- **uuid** – the UUID of the link

Returns the link data or `None` if the link does not exist

type

uuid

Operations

indico.modules.events.operations.**clone_event**(*event*, *n_occurrence*, *start_dt*, *cloners*, *category=None*, *refresh_users=False*)
Clone an event on a given date/time.

Runs all required cloners.

Parameters

- **n_occurrence** – The 1-indexed number of the occurrence, if this is a "recurring" clone, otherwise *0*
- **start_dt** – The start datetime of the new event;

- **cloners** – A set containing the names of all enabled cloners;
- **category** – The *Category* the new event will be created in.

Aparam refresh_users Whether *EventPerson* data should be updated from their linked *User* object

indico.modules.events.operations.**clone_into_event**(*source_event*, *target_event*, *cloners*)

Clone data into an existing event.

Runs all required cloners.

Parameters

- **source_event** – The *Event* to clone data from;
- **target_event** – The *Event* to clone data into;
- **cloners** – A set containing the names of all enabled cloners.

indico.modules.events.operations.**create_event**(*category*, *event_type*, *data*, *add_creator_as_manager=True*, *features=None*, *cloning=False*)

Create a new event.

Parameters

- **category** – The category in which to create the event
- **event_type** – An *EventType* value
- **data** – A dict containing data used to populate the event
- **add_creator_as_manager** – Whether the creator (current user) should be added as a manager
- **features** – A list of features that will be enabled for the event. If set, only those features will be used and the default feature set for the event type will be ignored.
- **cloning** – Whether the event is created via cloning or not

indico.modules.events.operations.**create_event_label**(*data*)

indico.modules.events.operations.**create_event_references**(*event*, *data*)

indico.modules.events.operations.**create_event_request**(*event*, *category*, *comment=''*)

indico.modules.events.operations.**create_reference_type**(*data*)

indico.modules.events.operations.**create_reviewing_question**(*event*, *question_model*, *wtf_field_cls*, *form*, *data=None*)

indico.modules.events.operations.**delete_event_label**(*event_label*)

indico.modules.events.operations.**delete_reference_type**(*reference_type*)

indico.modules.events.operations.**delete_reviewing_question**(*question*)

indico.modules.events.operations.**lock_event**(*event*)

indico.modules.events.operations.**sort_reviewing_questions**(*questions*, *new_positions*)

indico.modules.events.operations.**unlock_event**(*event*)

indico.modules.events.operations.**update_event**(*event*, *update_timetable=False*, ***data*)

indico.modules.events.operations.**update_event_label**(*event_label*, *data*)

indico.modules.events.operations.**update_event_protection**(*event*, *data*)

indico.modules.events.operations.**update_event_type**(*event*, *type_*)

indico.modules.events.operations.**update_reference_type**(*reference_type*, *data*)

indico.modules.events.operations.**update_reviewing_question**(*question*, *form*)

Utilities

class indico.modules.events.util.**ListGeneratorBase**(*event*, *entry_parent=None*)
Bases: object

Base class for classes performing actions on Indico object lists.

Parameters

- **event** – The associated *Event*
- **entry_parent** – The parent of the entries of the list. If it's None, the parent is assumed to be the event itself.

default_list_config = None
The default list configuration dictionary

endpoint = None
The endpoint of the list management page

entry_parent = None
The parent object of the list items

event = None
The event the list is associated with

flash_info_message(*obj*)

generate_static_url()
Return a URL with a uuid referring to the list's configuration.

get_list_url(*uuid=None*, *external=False*)
Return the URL of the list management page.

list_link_type = None
Unique list identifier

static_items = None
Columns that originate from the list item's properties, relationships etc, but not from user defined fields (e.g. registration/contribution fields)

store_configuration()
Load the filters from the request and store them in the session.

class indico.modules.events.util.**ZipGeneratorMixin**
Bases: object

Mixin for RHs that generate zip with files.

indico.modules.events.util.**check_event_locked**(*rh*, *event*, *force=False*)

indico.modules.events.util.**check_permissions**(*event*, *field*, *allow_networks=False*)

indico.modules.events.util.**create_event_logo_tmp_file**(*event*, *tmpdir=None*)
Create a temporary file with the event's logo.

If *tmpdir* is specified, the logo file is created in there and a path relative to that directory is returned.

indico.modules.events.util.**get_all_user_roles**(*event*, *user*)

indico.modules.events.util.**get_event_from_url**(*url*)

indico.modules.events.util.**get_events_created_by**(*user*, *dt=None*)
Get the IDs of events created by the user.

Parameters

- **user** – A *User*
- **dt** – Only include events taking place on/after that date

Returns A set of event ids

indico.modules.events.util.**get_events_managed_by**(*user*, *dt=None*)
Get the IDs of events where the user has management privs.

Parameters

- **user** – A *User*
- **dt** – Only include events taking place on/after that date

Returns A set of event ids

indico.modules.events.util.**get_events_with_linked_event_persons**(*user*, *dt=None*)
Return a dict containing the event ids and role for all events where the user is a chairperson or (in case of a lecture) speaker.

Parameters

- **user** – A *User*
- **dt** – Only include events taking place on/after that date

indico.modules.events.util.**get_field_values**(*form_data*)
Split the form fields between custom and static.

indico.modules.events.util.**get_object_from_args**(*args=None*)
Retrieve an event object from request arguments.

This utility is meant to be used in cases where the same controller can deal with objects attached to various parts of an event which use different URLs to indicate which object to use.

Parameters **args** – The request arguments. If unspecified, `request.view_args` is used.

Returns An `(object_type, event, object)` tuple. The event is always the `Event` associated with the object. The object may be an *Event*, *Session*, *Contribution* or *SubContribution*. If the object does not exist, `(object_type, None, None)` is returned.

indico.modules.events.util.**get_random_color**(*event*)

indico.modules.events.util.**get_theme**(*event*, *override_theme_id=None*)
Get the theme ID and whether it's an override.

This is useful for places where a user may specify a different timetable theme. If the override theme is not valid for the event, a message is flashed and an exception redirecting the user to the main event page is raised.

Raises **BadRequest** – if the override theme id is not valid

Returns a `(theme_id, is_override)` tuple

indico.modules.events.util.**register_event_time_change**(*event*)
Register a time-related change for an event.

This is an internal helper function used in the model to record changes of the start time or end time. The changes are exposed through the *track_time_changes* contextmanager function.

indico.modules.events.util.**register_location_change**(*entry*)
Register a location-related change for an event object.

This is an internal helper function used in the models to record changes of the location information. The changes are exposed through the *track_location_changes* contextmanager function.

indico.modules.events.util.**register_time_change**(*entry*)
Register a time-related change for a timetable entry.

This is an internal helper function used in the models to record changes of the start time or duration. The changes are exposed through the *track_time_changes* contextmanager function.

indico.modules.events.util.**serialize_event_for_ical**(*event*)

indico.modules.events.util.**serialize_event_for_json_ld**(*event*, *full=False*)

indico.modules.events.util.**serialize_event_person**(*person*)
Serialize EventPerson to JSON-like object.

indico.modules.events.util.**serialize_person_for_json_ld**(*person*)

indico.modules.events.util.**serialize_person_link**(*person_link*)
Serialize PersonLink to JSON-like object.

indico.modules.events.util.**set_custom_fields**(*obj*, *custom_fields_data*)

indico.modules.events.util.**should_show_draft_warning**(*event*)

indico.modules.events.util.**track_location_changes**()
Track location changes of event objects.

This provides a list of changes while the context manager was active and also triggers *location_changed* signals.

If the code running inside the `with` block of this context manager raises an exception, no signals will be triggered.

indico.modules.events.util.**track_time_changes**(*auto_extend=False*, *user=None*)
Track time changes of event objects.

This provides a list of changes while the context manager was active and also triggers *times_changed* signals.

If the code running inside the `with` block of this context manager raises an exception, no signals will be triggered.

Parameters

- **auto_extend** – Whether entry parents will get their boundaries automatically extended or not. Passing `'start'` will extend only start datetime, `'end'` to extend only end datetime.
- **user** – The *User* that will trigger time changes.

indico.modules.events.util.**update_object_principals**(*obj*, *new_principals*, *read_access=False*, *full_access=False*, *permission=None*)
Update an object's ACL with a new list of principals.

Exactly one argument out of *read_access*, *full_access* and *role* must be specified.

Parameters

- **obj** – The object to update. Must have `acl_entries`
- **new_principals** – The set containing the new principals
- **read_access** – Whether the read access ACL should be updated
- **full_access** – Whether the full access ACL should be updated
- **permission** – The role ACL that should be updated

Settings

class indico.modules.events.settings.**EventACLProxy**(*proxy*)
Bases: indico.core.settings.proxy.ACLProxyBase

Proxy class for event-specific ACL settings.

add_principal(*event*, *name*, *principal*)
Add a principal to an ACL.

Parameters

- **event** – Event (or its ID)
- **name** – Setting name
- **principal** – A *User* or a *GroupProxy*

contains_user(*event*, *name*, *user*)
Check if a user is in an ACL.

To pass this check, the user can either be in the ACL itself or in a group in the ACL.

Parameters

- **event** – Event (or its ID)
- **name** – Setting name
- **user** – A *User*

get(*event*, *name*)
Retrieves an ACL setting

Parameters

- **event** – Event (or its ID)
- **name** – Setting name

merge_users(*target*, *source*)
Replace all ACL user entries for *source* with *target*.

remove_principal(*event*, *name*, *principal*)
Remove a principal from an ACL.

Parameters

- **event** – Event (or its ID)
- **name** – Setting name
- **principal** – A *User* or a *GroupProxy*

set(*event*, *name*, *acl*)
Replace an ACL with a new one.

Parameters

- **event** – Event (or its ID)
- **name** – Setting name
- **acl** – A set containing principals (users/groups)

class indico.modules.events.settings.**EventSettingProperty**(*proxy*, *name*, *default=<object object>*, *attr=None*)

Bases: indico.core.settings.proxy.SettingProperty

attr = 'event'

class indico.modules.events.settings.**EventSettingsProxy**(*module*, *defaults=None*, *strict=True*, *acls=None*, *converters=None*)

Bases: indico.core.settings.proxy.SettingsProxyBase

Proxy class to access event-specific settings for a certain module.

acl_proxy_class
alias of *EventACLProxy*

delete(*event*, **names*)
Delete settings.

Parameters

- **event** – Event (or its ID)
- **names** – One or more names of settings to delete

delete_all(*event*)
Delete all settings.

Parameters **event** – Event (or its ID)

get(*event*, *name*, *default=<object object>*)
Retrieve the value of a single setting.

Parameters

- **event** – Event (or its ID)
- **name** – Setting name
- **default** – Default value in case the setting does not exist

Returns The settings's value or the default value

get_all(*event*, *no_defaults=False*)
Retrieve all settings.

Parameters

- **event** – Event (or its ID)
- **no_defaults** – Only return existing settings and ignore defaults.

Returns Dict containing the settings

query
Return a query object filtering by the proxy's module.

set(*event*, *name*, *value*)
Set a single setting.

Parameters

- **event** – Event (or its ID)
- **name** – Setting name
- **value** – Setting value; must be JSON-serializable

set_multi(*event*, *items*)
Set multiple settings at once.

Parameters

- **event** – Event (or its ID)
- **items** – Dict containing the new settings

class indico.modules.events.settings.**ThemeSettingsProxy**
Bases: object

defaults

get_themes_for(*event_type*)

settings

themes

indico.modules.events.settings.**event_or_id**(*f*)

7.1.2 Abstract

Todo: Docstrings (module, models, operations, utilities, settings)

Models

class indico.modules.events.abstracts.models.abstracts.**Abstract**(***kwargs*)
Bases: *indico.modules.events.models.reviews.ProposalMixin*, *indico.modules.events.models.reviews.ProposalRevisionMixin*, indico.core.db.sqlalchemy.descriptions.DescriptionMixin, *indico.modules.events.contributions.models.contributions.CustomFieldsMixin*, *indico.modules.events.models.persons.AuthorsSpeakersMixin*, sqlalchemy.orm.decl_api.Model

An abstract that can be associated to a Contribution.

A simple constructor that allows initialization from kwargs.

Sets attributes on the constructed instance using the names and values in `kwargs`.

Only keys that are present as attributes of the instance's class are allowed. These could be, for example, any mapped columns or relationships.

AUTHORS_SPEAKERS_DISPLAY_ORDER_ATTR = 'display_order_key_lastname'

accepted_contrib_type

accepted_contrib_type_id

accepted_track

accepted_track_id

call_for_proposals_attr = 'cfa'

can_access(*user*)

can_change_tracks(*user*, *check_state=False*)

can_comment(*user*, *check_state=False*)

can_convene(*user*)

can_edit(*user*)

can_judge(*user*, *check_state=False*)

can_review(*user*, *check_state=False*)

can_see_reviews(*user*)

can_withdraw(*user*, *check_state=False*)

candidate_contrib_types

candidate_tracks

create_comment_endpoint = 'abstracts.comment_abstract'

create_judgment_endpoint = 'abstracts.judge_abstract'

create_review_endpoint = 'abstracts.review_abstract'

data_by_field

default_render_mode = 2

delete_comment_endpoint = 'abstracts.delete_abstract_comment'

duplicate_of

duplicate_of_id

edit_comment_endpoint = 'abstracts.edit_abstract_comment'

edit_review_endpoint = 'abstracts.edit_review'

edit_track_mode

event

event_id

field_values
Data stored in abstract/contribution fields

friendly_id

get_reviewed_for_groups(*user*, *include_reviewed=False*)

get_timeline(*user=None*)

get_track_reviewing_state(*track*)

get_track_score(*track*)

id

is_deleted

is_in_final_state

judge
User who judged the abstract

judge_id
ID of the user who judged the abstract

judgment_comment

judgment_dt

locator
Define a smart locator property.

This behaves pretty much like a normal read-only property and the decorated function should return a dict containing the necessary data to build a URL for the object.

This decorator should usually be applied to a method named `locator` as this name is required for *get_locator* to find it automatically when just passing the object.

If you need more than one locator, you can define it like this:

```
@locator_property
def locator(self):
    return {...}

@locator.other
def locator(self):
    return {...}
```

The `other` locator can then be accessed by passing `obj.locator.other` to the code expecting an object with a locator.

log(**args*, ***kwargs*)
Log with prefilled metadata for the abstract.

marshmallow_aliases = {'_description': 'content'}

merged_into

merged_into_id

modification_ended

modified_by

modified_by_id

modified_dt

person_links
Persons associated with this abstract

possible_render_modes = {<RenderMode.markdown: 2>}

proposal_type = 'abstract'

public_state

render_mode = 2

reset_state()

reviewed_for_tracks

reviewing_state

revisions_enabled = False

score

state

submission_comment

submitted_contrib_type

submitted_contrib_type_id

submitted_dt

submitted_for_tracks

submitter
User who submitted the abstract

submitter_id
ID of the user who submitted the abstract

title

track_question_scores

user_owns(*user*)

uuid

verbose_title

class indico.modules.events.abstracts.models.abstracts.**AbstractPublicState**
Bases: indico.util.enum.RichIntEnum

An enumeration.

accepted = 3

awaiting = -1

duplicate = 6

invited = 7

merged = 5

rejected = 4

under_review = -2

withdrawn = 2

class indico.modules.events.abstracts.models.abstracts.**AbstractReviewingState**
Bases: indico.util.enum.RichIntEnum

An enumeration.

conflicting = 3

in_progress = 1

mixed = 5

negative = 4

not_started = 0

positive = 2

class indico.modules.events.abstracts.models.abstracts.**AbstractState**
Bases: indico.util.enum.RichIntEnum

An enumeration.

accepted = 3

duplicate = 6

invited = 7

merged = 5

rejected = 4

submitted = 1

withdrawn = 2

class indico.modules.events.abstracts.models.abstracts.**EditTrackMode**
Bases: int, indico.util.enum.IndicoEnum

An enumeration.

both = 1

none = 0

reviewed_for = 2

class indico.modules.events.abstracts.models.call_for_abstracts.**CallForAbstracts**(*event*)
Bases: object

Proxy class to facilitate access to the call for abstracts settings.

allow_attachments

allow_comments

allow_contributors_in_comments

allow_convener_judgment

allow_convener_track_change

allow_editing

announcement

can_edit_abstracts(*user*)

can_submit_abstracts(*user*)

close()

contribution_submitters

end_dt

has_ended

has_started

is_open

is_scheduled

judgment_instructions

modification_end_dt

modification_ended

open()

rating_range

reviewing_instructions

schedule(*start_dt*, *end_dt*, *modification_end_dt*)

start_dt

submission_instructions

class indico.modules.events.abstracts.models.comments.**AbstractComment**(***kwargs*)

Bases: *indico.modules.events.models.reviews.ProposalCommentMixin*, indico.core.db.sqlalchemy.review_comments.ReviewCommentMixin, sqlalchemy.orm.decl_api.Model

A simple constructor that allows initialization from kwargs.

Sets attributes on the constructed instance using the names and values in `kwargs`.

Only keys that are present as attributes of the instance's class are allowed. These could be, for example, any mapped columns or relationships.

abstract

abstract_id

can_edit(*user*)

can_view(*user*)

created_dt

id

is_deleted

locator

Define a smart locator property.

This behaves pretty much like a normal read-only property and the decorated function should return a dict containing the necessary data to build a URL for the object.

This decorator should usually be applied to a method named `locator` as this name is required for *get_locator* to find it automatically when just passing the object.

If you need more than one locator, you can define it like this:

```
@locator_property
def locator(self):
    return {...}

@locator.other
def locator(self):
    return {...}
```

The `other` locator can then be accessed by passing `obj.locator.other` to the code expecting an object with a locator.

marshmallow_aliases = {'_text': 'text'}

modified_by

modified_by_id

modified_dt

render_mode = 2

user

user_backref_name = 'abstract_comments'

user_id

user_modified_backref_name = 'modified_abstract_comments'

visibility

class indico.modules.events.abstracts.models.email_logs.**AbstractEmailLogEntry**(***kwargs*)
Bases: sqlalchemy.orm.decl_api.Model

A simple constructor that allows initialization from kwargs.

Sets attributes on the constructed instance using the names and values in kwargs.

Only keys that are present as attributes of the instance's class are allowed. These could be, for example, any mapped columns or relationships.

abstract

abstract_id

body

classmethod create_from_email(*email_data*, *email_tpl*, *user=None*)
Create a new log entry from the data used to send an email.

Parameters

- **email_data** – email data as returned from *make_email*
- **email_tpl** – the abstract email template that created the email
- **user** – the user who performed the action causing the notification

data

email_template

email_template_id

id

recipients

sent_dt

subject

user

user_id

class indico.modules.events.abstracts.models.email_templates.**AbstractEmailTemplate**(***kwargs*)
Bases: sqlalchemy.orm.decl_api.Model

An email template for abstracts notifications.

A simple constructor that allows initialization from kwargs.

Sets attributes on the constructed instance using the names and values in kwargs.

Only keys that are present as attributes of the instance's class are allowed. These could be, for example, any mapped columns or relationships.

body
The body of the template

event

event_id

extra_cc_emails
List of extra email addresses to be added as CC in the email

id

include_authors
Whether to include authors' email addresses as To for emails

include_coauthors
Whether to include co-authors' email addresses as CC for emails

include_submitter
Whether to include the submitter's email address as To for emails

locator
Define a smart locator property.

This behaves pretty much like a normal read-only property and the decorated function should return a dict containing the necessary data to build a URL for the object.

This decorator should usually be applied to a method named `locator` as this name is required for *get_locator* to find it automatically when just passing the object.

If you need more than one locator, you can define it like this:

```
@locator_property
def locator(self):
    return {...}

@locator.other
def locator(self):
    return {...}
```

The `other` locator can then be accessed by passing `obj.locator.other` to the code expecting an object with a locator.

position
The relative position of the template in the list of templates

reply_to_address
The address to use as Reply-To in the email

rules
Conditions need to be met to send the email

stop_on_match
Whether to stop checking the rest of the conditions when a match is found

subject
The subject of the email

title

class indico.modules.events.abstracts.models.fields.**AbstractFieldValue**(***kwargs*)
Bases: *indico.modules.events.contributions.models.fields.ContributionFieldValueBase*

Store a field values related to abstracts.

A simple constructor that allows initialization from kwargs.

Sets attributes on the constructed instance using the names and values in `kwargs`.

Only keys that are present as attributes of the instance's class are allowed. These could be, for example, any mapped columns or relationships.

abstract_id

contribution_field

contribution_field_backref_name = 'abstract_values'

contribution_field_id

data

class indico.modules.events.abstracts.models.files.**AbstractFile**(***kwargs*)

Bases: indico.core.storage.models.StoredFileMixin, sqlalchemy.orm.decl_api.Model

A simple constructor that allows initialization from kwargs.

Sets attributes on the constructed instance using the names and values in `kwargs`.

Only keys that are present as attributes of the instance's class are allowed. These could be, for example, any mapped columns or relationships.

abstract

abstract_id

add_file_date_column = False

content_type
The MIME type of the file.

created_dt = None

extension
The extension of the file.

filename
The name of the file.

id

locator

md5
An MD5 hash of the file.

Automatically assigned when *save()* is called.

size
The size of the file (in bytes).

Automatically assigned when *save()* is called.

storage_backend

storage_file_id

class indico.modules.events.abstracts.models.persons.**AbstractPersonLink**(**args*, ***kwargs*)

Bases: *indico.modules.events.models.persons.PersonLinkBase*

Association between EventPerson and Abstract.

abstract_id

author_type

display_order

id

is_speaker

locator
Define a smart locator property.

This behaves pretty much like a normal read-only property and the decorated function should return a dict containing the necessary data to build a URL for the object.

This decorator should usually be applied to a method named `locator` as this name is required for *get_locator* to find it automatically when just passing the object.

If you need more than one locator, you can define it like this:

```
@locator_property
def locator(self):
    return {...}

@locator.other
def locator(self):
    return {...}
```

The `other` locator can then be accessed by passing `obj.locator.other` to the code expecting an object with a locator.

object_relationship_name = 'abstract'

person

person_id

person_link_backref_name = 'abstract_links'

person_link_unique_columns = ('abstract_id',)

class indico.modules.events.abstracts.models.review_questions.**AbstractReviewQuestion**(***kwarg*
Bases: indico.core.db.sqlalchemy.review_questions.ReviewQuestionMixin, sqlalchemy.orm.decl_api.Model

A simple constructor that allows initialization from kwargs.

Sets attributes on the constructed instance using the names and values in `kwargs`.

Only keys that are present as attributes of the instance's class are allowed. These could be, for example, any mapped columns or relationships.

description

event

event_backref_name = 'abstract_review_questions'

event_id

field

field_data

field_type

id

is_deleted

is_required

locator
Define a smart locator property.

This behaves pretty much like a normal read-only property and the decorated function should return a dict containing the necessary data to build a URL for the object.

This decorator should usually be applied to a method named `locator` as this name is required for *get_locator* to find it automatically when just passing the object.

If you need more than one locator, you can define it like this:

```
@locator_property
def locator(self):
    return {...}

@locator.other
def locator(self):
    return {...}
```

The `other` locator can then be accessed by passing `obj.locator.other` to the code expecting an object with a locator.

position

title

class indico.modules.events.abstracts.models.review_ratings.**AbstractReviewRating**(***kwargs*)
Bases: indico.core.db.sqlalchemy.review_ratings.ReviewRatingMixin, sqlalchemy.orm.decl_api.Model

A simple constructor that allows initialization from kwargs.

Sets attributes on the constructed instance using the names and values in `kwargs`.

Only keys that are present as attributes of the instance's class are allowed. These could be, for example, any mapped columns or relationships.

id

question

question_class
alias of *indico.modules.events.abstracts.models.review_questions.AbstractReviewQuestion*

question_id

review

review_class
alias of *indico.modules.events.abstracts.models.reviews.AbstractReview*

review_id

value

class indico.modules.events.abstracts.models.reviews.**AbstractAction**
Bases: indico.util.enum.RichIntEnum

An enumeration.

accept = 1

change_tracks = 3

mark_as_duplicate = 4

merge = 5

reject = 2

class indico.modules.events.abstracts.models.reviews.**AbstractCommentVisibility**
Bases: indico.util.enum.RichIntEnum

Most to least restrictive visibility for abstract comments.

contributors = 4

conveners = 2

judges = 1

reviewers = 3

users = 5

class indico.modules.events.abstracts.models.reviews.**AbstractReview**(***kwargs*)
Bases: *indico.modules.events.models.reviews.ProposalReviewMixin*, indico.core.db.sqlalchemy.descriptions.RenderModeMixin, sqlalchemy.orm.decl_api.Model

An abstract review, emitted by a reviewer.

A simple constructor that allows initialization from kwargs.

Sets attributes on the constructed instance using the names and values in `kwargs`.

Only keys that are present as attributes of the instance's class are allowed. These could be, for example, any mapped columns or relationships.

abstract

abstract_id

can_edit(*user*, *check_state=False*)

can_view(*user*)

comment

created_dt

default_render_mode = 2

group_attr = 'track'

id

locator
Define a smart locator property.

This behaves pretty much like a normal read-only property and the decorated function should return a dict containing the necessary data to build a URL for the object.

This decorator should usually be applied to a method named `locator` as this name is required for *get_locator* to find it automatically when just passing the object.

If you need more than one locator, you can define it like this:

```
@locator_property
def locator(self):
    return {...}
```

(continues on next page)

(continued from previous page)

```
@locator.other
def locator(self):
    return {...}
```

The `other` locator can then be accessed by passing `obj.locator.other` to the code expecting an object with a locator.

marshmallow_aliases = {'_comment': 'comment'}

modified_dt

possible_render_modes = {<RenderMode.markdown: 2>}

proposed_action

proposed_contribution_type

proposed_contribution_type_id

proposed_related_abstract

proposed_related_abstract_id

proposed_tracks

render_mode = 2

revision_attr = 'abstract'

score

scores

track

track_id

user

user_id

visibility

Operations

indico.modules.events.abstracts.operations.**add_abstract_files**(*abstract*, *files*, *log_action=True*)

indico.modules.events.abstracts.operations.**close_cfa**(*event*)

indico.modules.events.abstracts.operations.**create_abstract**(*event*, *abstract_data*, *custom_fields_data=None*, *send_notifications=False*, *submitter=None*, *is_invited=False*)

indico.modules.events.abstracts.operations.**create_abstract_comment**(*abstract*, *comment_data*)

indico.modules.events.abstracts.operations.**create_abstract_review**(*abstract*, *track*, *user*, *review_data*, *questions_data*)

indico.modules.events.abstracts.operations.**delete_abstract**(*abstract*, *delete_contrib=False*)

indico.modules.events.abstracts.operations.**delete_abstract_comment**(*comment*)

indico.modules.events.abstracts.operations.**delete_abstract_files**(*abstract*, *files*)

indico.modules.events.abstracts.operations.**judge_abstract**(*abstract*, *abstract_data*, *judgment*, *judge*, *contrib_session=None*, *merge_persons=False*, *send_notifications=False*)

indico.modules.events.abstracts.operations.**open_cfa**(*event*)

indico.modules.events.abstracts.operations.**reset_abstract_state**(*abstract*)

indico.modules.events.abstracts.operations.**schedule_cfa**(*event*, *start_dt*, *end_dt*, *modification_end_dt*)

indico.modules.events.abstracts.operations.**update_abstract**(*abstract*, *abstract_data*, *custom_fields_data=None*)

indico.modules.events.abstracts.operations.**update_abstract_comment**(*comment*, *comment_data*)

indico.modules.events.abstracts.operations.**update_abstract_review**(*review*, *review_data*, *questions_data*)

indico.modules.events.abstracts.operations.**update_reviewed_for_tracks**(*abstract*, *tracks*)

indico.modules.events.abstracts.operations.**withdraw_abstract**(*abstract*)

Utilities

indico.modules.events.abstracts.util.**build_default_email_template**(*event*, *tpl_type*)

Build a default e-mail template based on a notification type provided by the user.

indico.modules.events.abstracts.util.**can_create_invited_abstracts**(*event*)

indico.modules.events.abstracts.util.**clear_boa_cache**(*event*)

Delete the cached book of abstract.

indico.modules.events.abstracts.util.**create_boa**(*event*)

Create the book of abstracts if necessary.

Returns The path to the PDF file

indico.modules.events.abstracts.util.**create_boa_tex**(*event*)

Create the book of abstracts as a LaTeX archive.

Returns A *BytesIO* containing the zip file.

indico.modules.events.abstracts.util.**create_mock_abstract**(*event*)
Create a mock abstract that can be used in previews.

Brace for geek references.

indico.modules.events.abstracts.util.**filter_field_values**(*fields*, *can_manage*, *owns_abstract*)

indico.modules.events.abstracts.util.**generate_spreadsheet_from_abstracts**(*abstracts*, *static_item_ids*, *dynamic_items*)
Generate a spreadsheet data from a given abstract list.

Parameters

- **abstracts** – The list of abstracts to include in the file
- **static_item_ids** – The abstract properties to be used as columns
- **dynamic_items** – Contribution fields as extra columns

indico.modules.events.abstracts.util.**get_events_with_abstract_persons**(*user*, *dt=None*)
Return a dict of event ids and the abstract submission related roles the user has in that event.

Parameters

- **user** – A *User*
- **dt** – Only include events taking place on/after that date

indico.modules.events.abstracts.util.**get_events_with_abstract_reviewer_convener**(*user*, *dt=None*)
Return a dict of event ids and the abstract reviewing related roles the user has in that event.

Parameters

- **user** – A *User*
- **dt** – Only include events taking place on/after that date

indico.modules.events.abstracts.util.**get_track_reviewer_abstract_counts**(*event*, *user*)
Get the numbers of abstracts per track for a specific user.

Note that this does not take into account if the user is a reviewer for a track; it just checks whether the user has reviewed an abstract in a track or not.

Returns A dict mapping tracks to dicts containing the counts.

indico.modules.events.abstracts.util.**get_user_abstracts**(*event*, *user*)
Get the list of abstracts where the user is a reviewer/convener.

indico.modules.events.abstracts.util.**get_user_tracks**(*event*, *user*)
Get the list of tracks where the user is a reviewer/convener.

indico.modules.events.abstracts.util.**get_visible_reviewed_for_tracks**(*abstract*, *user*)

indico.modules.events.abstracts.util.**has_user_tracks**(*event*, *user*)

indico.modules.events.abstracts.util.**make_abstract_form**(*event*, *user*, *notification_option=False*, *management=False*, *invited=False*)

Extend the abstract WTForm to add the extra fields.

Each extra field will use a field named `custom_ID`.

Parameters

- **event** – The *Event* for which to create the abstract form.
- **user** – The user who is going to use the form.
- **notification_option** – Whether to add a field to the form to disable triggering notifications for the abstract submission.
- **management** – Whether the form is used in the management area
- **invited** – Whether the form is used to create an invited abstract

Returns An *AbstractForm* subclass.

Placeholders

class indico.modules.events.abstracts.placeholders.**EventTitlePlaceholder**

Bases: indico.util.placeholders.Placeholder

description = l'The title of the event'

name = 'event_title'

classmethod render(*abstract*)

Convert the placeholder to a string.

When a placeholder contains HTML that should not be escaped, the returned value should be returned as a `markupsafe.Markup` instance instead of a plain string.

Subclasses are encouraged to explicitly specify the arguments they expect instead of using `**kwargs`.

Parameters **kwargs** – arguments specific to the placeholder's context

class indico.modules.events.abstracts.placeholders.**EventURLPlaceholder**

Bases: indico.util.placeholders.Placeholder

description = l'The URL of the event'

name = 'event_url'

classmethod render(*abstract*)

Convert the placeholder to a string.

When a placeholder contains HTML that should not be escaped, the returned value should be returned as a `markupsafe.Markup` instance instead of a plain string.

Subclasses are encouraged to explicitly specify the arguments they expect instead of using `**kwargs`.

Parameters **kwargs** – arguments specific to the placeholder's context

class indico.modules.events.abstracts.placeholders.**AbstractIDPlaceholder**

Bases: indico.util.placeholders.Placeholder

description = l'The ID of the abstract'

name = 'abstract_id'

classmethod render(*abstract*)
Convert the placeholder to a string.

When a placeholder contains HTML that should not be escaped, the returned value should be returned as a `markupsafe.Markup` instance instead of a plain string.

Subclasses are encouraged to explicitly specify the arguments they expect instead of using `**kwargs`.

Parameters **kwargs** – arguments specific to the placeholder's context

class indico.modules.events.abstracts.placeholders.**AbstractTitlePlaceholder**
Bases: `indico.util.placeholders.Placeholder`

description = l'The title of the abstract'

name = 'abstract_title'

classmethod render(*abstract*)
Convert the placeholder to a string.

When a placeholder contains HTML that should not be escaped, the returned value should be returned as a `markupsafe.Markup` instance instead of a plain string.

Subclasses are encouraged to explicitly specify the arguments they expect instead of using `**kwargs`.

Parameters **kwargs** – arguments specific to the placeholder's context

class indico.modules.events.abstracts.placeholders.**AbstractURLPlaceholder**
Bases: `indico.util.placeholders.Placeholder`

advanced = True

description = l'The direct URL of the abstract'

name = 'abstract_url'

classmethod render(*abstract*)
Convert the placeholder to a string.

When a placeholder contains HTML that should not be escaped, the returned value should be returned as a `markupsafe.Markup` instance instead of a plain string.

Subclasses are encouraged to explicitly specify the arguments they expect instead of using `**kwargs`.

Parameters **kwargs** – arguments specific to the placeholder's context

class indico.modules.events.abstracts.placeholders.**AbstractInvitationURLPlaceholder**
Bases: `indico.util.placeholders.Placeholder`

description = l'The link to submit an invited abstract'

name = 'invitation_url'

classmethod render(*abstract*)
Convert the placeholder to a string.

When a placeholder contains HTML that should not be escaped, the returned value should be returned as a `markupsafe.Markup` instance instead of a plain string.

Subclasses are encouraged to explicitly specify the arguments they expect instead of using `**kwargs`.

Parameters **kwargs** – arguments specific to the placeholder's context

class indico.modules.events.abstracts.placeholders.**AbstractTrackPlaceholder**
Bases: `indico.util.placeholders.Placeholder`

description = l'The name of the destination track'

name = 'abstract_track'

classmethod render(*abstract*)
Convert the placeholder to a string.

When a placeholder contains HTML that should not be escaped, the returned value should be returned as a `markupsafe.Markup` instance instead of a plain string.

Subclasses are encouraged to explicitly specify the arguments they expect instead of using `**kwargs`.

Parameters **kwargs** – arguments specific to the placeholder's context

class indico.modules.events.abstracts.placeholders.**AbstractSessionPlaceholder**
Bases: `indico.util.placeholders.Placeholder`

description = l'The name of the destination session'

name = 'abstract_session'

classmethod render(*abstract*)
Convert the placeholder to a string.

When a placeholder contains HTML that should not be escaped, the returned value should be returned as a `markupsafe.Markup` instance instead of a plain string.

Subclasses are encouraged to explicitly specify the arguments they expect instead of using `**kwargs`.

Parameters **kwargs** – arguments specific to the placeholder's context

class indico.modules.events.abstracts.placeholders.**PrimaryAuthorsPlaceholder**
Bases: `indico.util.placeholders.Placeholder`

description = l'The names of the primary authors (separated by commas)'

name = 'primary_authors'

classmethod render(*abstract*)
Convert the placeholder to a string.

When a placeholder contains HTML that should not be escaped, the returned value should be returned as a `markupsafe.Markup` instance instead of a plain string.

Subclasses are encouraged to explicitly specify the arguments they expect instead of using `**kwargs`.

Parameters **kwargs** – arguments specific to the placeholder's context

class indico.modules.events.abstracts.placeholders.**CoAuthorsPlaceholder**
Bases: `indico.util.placeholders.Placeholder`

description = l'The names of the co-authors (separated by commas)'

name = 'co_authors'

classmethod render(*abstract*)
Convert the placeholder to a string.

When a placeholder contains HTML that should not be escaped, the returned value should be returned as a `markupsafe.Markup` instance instead of a plain string.

Subclasses are encouraged to explicitly specify the arguments they expect instead of using `**kwargs`.

Parameters **kwargs** – arguments specific to the placeholder's context

class indico.modules.events.abstracts.placeholders.**SubmitterNamePlaceholder**
Bases: `indico.util.placeholders.Placeholder`

description = l'The full name of the submitter, no title'

name = 'submitter_name'

classmethod render(*abstract*)
Convert the placeholder to a string.

When a placeholder contains HTML that should not be escaped, the returned value should be returned as a `markupsafe.Markup` instance instead of a plain string.

Subclasses are encouraged to explicitly specify the arguments they expect instead of using `**kwargs`.

Parameters **kwargs** – arguments specific to the placeholder's context

class indico.modules.events.abstracts.placeholders.**SubmitterFirstNamePlaceholder**
Bases: `indico.util.placeholders.Placeholder`

advanced = True

description = l'The first name of the submitter'

name = 'submitter_first_name'

classmethod render(*abstract*)
Convert the placeholder to a string.

When a placeholder contains HTML that should not be escaped, the returned value should be returned as a `markupsafe.Markup` instance instead of a plain string.

Subclasses are encouraged to explicitly specify the arguments they expect instead of using `**kwargs`.

Parameters **kwargs** – arguments specific to the placeholder's context

class indico.modules.events.abstracts.placeholders.**SubmitterLastNamePlaceholder**
Bases: `indico.util.placeholders.Placeholder`

advanced = True

description = l'The last name of the submitter'

name = 'submitter_last_name'

classmethod render(*abstract*)
Convert the placeholder to a string.

When a placeholder contains HTML that should not be escaped, the returned value should be returned as a `markupsafe.Markup` instance instead of a plain string.

Subclasses are encouraged to explicitly specify the arguments they expect instead of using `**kwargs`.

Parameters **kwargs** – arguments specific to the placeholder's context

class indico.modules.events.abstracts.placeholders.**SubmitterTitlePlaceholder**
Bases: `indico.util.placeholders.Placeholder`

description = l'The title of the submitter (Dr, Prof., etc...)'

name = 'submitter_title'

classmethod render(*abstract*)
Convert the placeholder to a string.

When a placeholder contains HTML that should not be escaped, the returned value should be returned as a `markupsafe.Markup` instance instead of a plain string.

Subclasses are encouraged to explicitly specify the arguments they expect instead of using `**kwargs`.

Parameters **kwargs** – arguments specific to the placeholder's context

class indico.modules.events.abstracts.placeholders.**TargetAbstractIDPlaceholder**
Bases: indico.util.placeholders.Placeholder

description = l'The ID of the target abstract (merge or duplicate)'

name = 'target_abstract_id'

classmethod render(*abstract*)
Convert the placeholder to a string.

When a placeholder contains HTML that should not be escaped, the returned value should be returned as a markupsafe.Markup instance instead of a plain string.

Subclasses are encouraged to explicitly specify the arguments they expect instead of using **kwargs.

Parameters kwargs – arguments specific to the placeholder's context

class indico.modules.events.abstracts.placeholders.**TargetAbstractTitlePlaceholder**
Bases: indico.util.placeholders.Placeholder

description = l'The title of the target abstract (merge or duplicate)'

name = 'target_abstract_title'

classmethod render(*abstract*)
Convert the placeholder to a string.

When a placeholder contains HTML that should not be escaped, the returned value should be returned as a markupsafe.Markup instance instead of a plain string.

Subclasses are encouraged to explicitly specify the arguments they expect instead of using **kwargs.

Parameters kwargs – arguments specific to the placeholder's context

class indico.modules.events.abstracts.placeholders.**TargetSubmitterNamePlaceholder**
Bases: indico.util.placeholders.Placeholder

advanced = True

description = l"The full name of the target abstract's submitter, no title (merge or d

name = 'target_submitter_name'

classmethod render(*abstract*)
Convert the placeholder to a string.

When a placeholder contains HTML that should not be escaped, the returned value should be returned as a markupsafe.Markup instance instead of a plain string.

Subclasses are encouraged to explicitly specify the arguments they expect instead of using **kwargs.

Parameters kwargs – arguments specific to the placeholder's context

class indico.modules.events.abstracts.placeholders.**TargetSubmitterFirstNamePlaceholder**
Bases: indico.util.placeholders.Placeholder

advanced = True

description = l"The first name of the target abstract's submitter (merge or duplicate)

name = 'target_submitter_first_name'

classmethod render(*abstract*)
Convert the placeholder to a string.

When a placeholder contains HTML that should not be escaped, the returned value should be returned as a markupsafe.Markup instance instead of a plain string.

Subclasses are encouraged to explicitly specify the arguments they expect instead of using `**kwargs`.

Parameters **kwargs** – arguments specific to the placeholder's context

class indico.modules.events.abstracts.placeholders.**TargetSubmitterLastNamePlaceholder**
Bases: indico.util.placeholders.Placeholder

advanced = True

description = l"The last name of the target abstract's submitter (merge or duplicate)"

name = 'target_submitter_last_name'

classmethod render(*abstract*)
Convert the placeholder to a string.

When a placeholder contains HTML that should not be escaped, the returned value should be returned as a `markupsafe.Markup` instance instead of a plain string.

Subclasses are encouraged to explicitly specify the arguments they expect instead of using `**kwargs`.

Parameters **kwargs** – arguments specific to the placeholder's context

class indico.modules.events.abstracts.placeholders.**JudgmentCommentPlaceholder**
Bases: indico.util.placeholders.Placeholder

description = l'Comments written by event organizer (upon final decision)'

name = 'judgment_comment'

classmethod render(*abstract*)
Convert the placeholder to a string.

When a placeholder contains HTML that should not be escaped, the returned value should be returned as a `markupsafe.Markup` instance instead of a plain string.

Subclasses are encouraged to explicitly specify the arguments they expect instead of using `**kwargs`.

Parameters **kwargs** – arguments specific to the placeholder's context

class indico.modules.events.abstracts.placeholders.**ContributionTypePlaceholder**
Bases: indico.util.placeholders.Placeholder

description = l'The contribution type that is associated to the abstract'

name = 'contribution_type'

classmethod render(*abstract*)
Convert the placeholder to a string.

When a placeholder contains HTML that should not be escaped, the returned value should be returned as a `markupsafe.Markup` instance instead of a plain string.

Subclasses are encouraged to explicitly specify the arguments they expect instead of using `**kwargs`.

Parameters **kwargs** – arguments specific to the placeholder's context

class indico.modules.events.abstracts.placeholders.**ContributionURLPlaceholder**
Bases: indico.util.placeholders.Placeholder

advanced = True

description = l'Contribution URL'

name = 'contribution_url'

classmethod render (*abstract*)
Convert the placeholder to a string.

When a placeholder contains HTML that should not be escaped, the returned value should be returned as a `markupsafe.Markup` instance instead of a plain string.

Subclasses are encouraged to explicitly specify the arguments they expect instead of using `**kwargs`.

Parameters **kwargs** – arguments specific to the placeholder's context

Settings

class indico.modules.events.abstracts.settings.**AllowEditingType**
Bases: indico.util.enum.RichEnum

An enumeration.

submitter = 'submitter'

submitter_all = 'submitter_all'

submitter_authors = 'submitter_authors'

submitter_primary = 'submitter_primary'

class indico.modules.events.abstracts.settings.**BOACorrespondingAuthorType**
Bases: indico.util.enum.RichEnum

An enumeration.

none = 'none'

speakers = 'speakers'

submitter = 'submitter'

class indico.modules.events.abstracts.settings.**BOALinkFormat**
Bases: indico.util.enum.RichEnum

LaTeX book of abstracts link format setting.

value is a 2-tuple of strings: first is the hyperref option to use second sets additional tex commands

colorlinks = ('[colorlinks]', '')

frame = ('', '')

unstyled = ('[hidelinks]', '')

class indico.modules.events.abstracts.settings.**BOASortField**
Bases: indico.util.enum.RichEnum

An enumeration.

abstract_title = 'title'

board_number = 'board_number'

id = 'id'

schedule = 'schedule'

schedule_board_number = 'schedule_board_number'

session_board_number = 'session_board_number'

session_schedule_board = 'session_schedule_board'

session_title = 'session_title'

speaker = 'speaker'

class indico.modules.events.abstracts.settings.**SubmissionRightsType**
Bases: indico.util.enum.RichEnum

An enumeration.

all = 'all'

speakers = 'speakers'

7.1.3 Agreement

Todo: Docstrings (module, models, utilities)

Models

class indico.modules.events.agreements.models.agreements.**Agreement**(***kwargs*)
Bases: sqlalchemy.orm.decl_api.Model

Agreements between a person and Indico.

A simple constructor that allows initialization from kwargs.

Sets attributes on the constructed instance using the names and values in kwargs.

Only keys that are present as attributes of the instance's class are allowed. These could be, for example, any mapped columns or relationships.

accept(*from_ip*, *reason=None*, *on_behalf=False*)

accepted

attachment
Attachment

attachment_filename
Filename and extension of the attachment

belongs_to(*person*)

static create_from_data(*event*, *type_*, *person*)

data
Definition-specific data of the agreement

definition

event
The Event this agreement is associated with

event_id
ID of the event

id
Entry ID

identifier
Unique identifier within the event and type

is_orphan()

locator

pending

person_email
Email of the person agreeing

person_name
Full name of the person agreeing

reason
Explanation as to why the agreement was accepted/rejected

reject(*from_ip*, *reason=None*, *on_behalf=False*)

rejected

render(*form*, ***kwargs*)

reset()

signed_dt
The date and time the agreement was signed

signed_from_ip
The IP from which the agreement was signed

signed_on_behalf

state
A *AgreementState*

timestamp
The date and time the agreement was created

type
Type of agreement

user
The user this agreement is linked to

user_id
ID of a linked user

uuid
Entry universally unique ID

class indico.modules.events.agreements.models.agreements.**AgreementState**
Bases: indico.util.enum.RichIntEnum

An enumeration.

accepted = 1

accepted_on_behalf = 3
agreement accepted on behalf of the person

pending = 0

rejected = 2

rejected_on_behalf = 4
agreement rejected on behalf of the person

Utilities

indico.modules.events.agreements.util.**get_agreement_definitions**()

indico.modules.events.agreements.util.**send_new_agreements**(*event*, *name*, *people*, *email_body*, *cc_addresses*, *from_address*)

Create and send agreements for a list of people on a given event.

Parameters

- **event** – The *Event* associated with the agreement
- **name** – The agreement type matcing a `AgreementDefinition` name
- **people** – The list of people for whom agreements will be created
- **email_body** – The body of the email
- **cc_addresses** – Email addresses to send CCs to
- **from_address** – Email address of the sender

Placeholders

class indico.modules.events.agreements.placeholders.**AgreementLinkPlaceholder**

Bases: `indico.util.placeholders.Placeholder`

description = l'Link to the agreement page'

name = 'agreement_link'

classmethod render(*definition*, *agreement*)

Convert the placeholder to a string.

When a placeholder contains HTML that should not be escaped, the returned value should be returned as a `markupsafe.Markup` instance instead of a plain string.

Subclasses are encouraged to explicitly specify the arguments they expect instead of using `**kwargs`.

Parameters **kwargs** – arguments specific to the placeholder's context

required = True

class indico.modules.events.agreements.placeholders.**PersonNamePlaceholder**

Bases: `indico.util.placeholders.Placeholder`

description = l'Name of the person'

name = 'person_name'

classmethod render(*definition*, *agreement*)

Convert the placeholder to a string.

When a placeholder contains HTML that should not be escaped, the returned value should be returned as a `markupsafe.Markup` instance instead of a plain string.

Subclasses are encouraged to explicitly specify the arguments they expect instead of using `**kwargs`.

Parameters **kwargs** – arguments specific to the placeholder's context

7.1.4 Contribution

Todo: Docstrings (module, models, operations, utilities)

Models

class indico.modules.events.contributions.models.contributions.**Contribution**(***kwargs*)

Bases: indico.core.db.sqlalchemy.searchable.SearchableTitleMixin, indico.core.db.sqlalchemy.descriptions.SearchableDescriptionMixin, indico.core.db.sqlalchemy.protection.ProtectionManagersMixin, indico.core.db.sqlalchemy.locations.LocationMixin, indico.core.db.sqlalchemy.attachments.AttachedItemsMixin, indico.core.db.sqlalchemy.notes.AttachedNotesMixin, *indico.modules.events.models.persons.PersonLinkDataMixin*, *indico.modules.events.models.persons.AuthorsSpeakersMixin*, *indico.modules.events.contributions.models.contributions.CustomFieldsMixin*, sqlalchemy.orm.decl_api.Model

ATTACHMENT_FOLDER_ID_COLUMN = 'contribution_id'

PRELOAD_EVENT_ATTACHED_ITEMS = True

PRELOAD_EVENT_NOTES = True

abstract

abstract_id

access_key = None

acl_entries

classmethod allocate_friendly_ids(*event*, *n*)

Allocate n Contribution friendly_ids.

This is needed so that we can allocate all IDs in one go. Not doing so could result in DB deadlocks. All operations that create more than one contribution should use this method.

Parameters

- **event** – the Event in question
- **n** – the number of ids to pre-allocate

allow_relationship_preloading = True

allowed_types_for_editable

board_number

can_edit(*user*)

can_manage(*user*, *permission=None*, *allow_admin=True*, *check_parent=True*, *explicit_permission=False*)

Check if the user can manage the object.

Parameters

- **user** – The *User* to check. May be None if the user is not logged in.
- **allow_admin** – If admin users should always have access

- **check_parent** – If the parent object should be checked. In this case the permission is ignored; only full management access is inherited to children.
- **explicit_permission** – If the specified permission should be checked explicitly instead of short-circuiting the check for Indico admins or managers. When this option is set to `True`, the values of *allow_admin* and *check_parent* are ignored. This also applies if *permission* is None in which case this argument being set to `True` is equivalent to *allow_admin* and *check_parent* being set to `False`.

Param permission: The management permission that is needed for the check to succeed. If not specified, full management privs are required. May be set to the string `'ANY'` to check if the user has any management privileges. If the user has *full_access* privileges, he's assumed to have all possible permissions.

can_submit_proceedings(*user*)
Whether the user can submit editables/papers.

code

default_render_mode = 2

disallowed_protection_modes = frozenset()

duration

duration_display
The displayed duration of the contribution.

This is the duration of the poster session if applicable, otherwise the duration of the contribution itself.

duration_poster

enabled_editables
Return all submitted editables with enabled types.

end_dt

end_dt_display
The displayed end time of the contribution.

This is the end time of the poster session if applicable, otherwise the end time of the contribution itself.

end_dt_poster

event

event_id

field_values
Data stored in abstract/contribution fields

friendly_id
The human-friendly ID for the contribution

get_editable(*editable_type*)
Get the editable of the given type.

get_non_inheriting_objects()
Get a set of child objects that do not inherit protection.

has_published_editables

id

inherit_location

inheriting_have_acl = True

is_deleted

is_paper_reviewer(*user*)

is_scheduled

is_user_associated(*user*, *check_abstract=False*)

keywords

location_backref_name = 'contributions'

location_parent
The parent object to consult if the location is inherited.

locator
Define a smart locator property.

This behaves pretty much like a normal read-only property and the decorated function should return a dict containing the necessary data to build a URL for the object.

This decorator should usually be applied to a method named `locator` as this name is required for *get_locator* to find it automatically when just passing the object.

If you need more than one locator, you can define it like this:

```
@locator_property
def locator(self):
    return {...}

@locator.other
def locator(self):
    return {...}
```

The `other` locator can then be accessed by passing `obj.locator.other` to the code expecting an object with a locator.

log(**args*, ***kwargs*)
Log with prefilled metadata for the contribution.

note

own_address

own_no_access_contact = None

own_room

own_room_id

own_room_name

own_venue

own_venue_id

own_venue_name

paper

paper_content_reviewers
Paper content reviewers

paper_judges
Paper reviewing judges

paper_layout_reviewers
Paper layout reviewers

pending_paper_files
Paper files not submitted for reviewing

person_links
Persons associated with this contribution

possible_render_modes = {<RenderMode.html: 1>, <RenderMode.markdown: 2>}

classmethod preload_acl_entries(*event*)

protection_mode

protection_parent
The parent object to consult for ProtectionMode.inheriting.

references
External references associated with this contribution

render_mode

session

session_block

session_block_id

session_id

slug

start_dt

start_dt_display
The displayed start time of the contribution.

This is the start time of the poster session if applicable, otherwise the start time of the contribution itself.

start_dt_poster

subcontribution_count

subcontributions

submitters

title

track

track_id

type

type_id

verbose_title

class indico.modules.events.contributions.models.contributions.**CustomFieldsMixin**
Bases: object

Methods to process custom field data.

get_field_value(*field_id*, *raw=False*)

set_custom_field(*field_id*, *field_value*)

class indico.modules.events.contributions.models.fields.**ContributionField**(***kwargs*)
Bases: sqlalchemy.orm.decl_api.Model

A simple constructor that allows initialization from kwargs.

Sets attributes on the constructed instance using the names and values in `kwargs`.

Only keys that are present as attributes of the instance's class are allowed. These could be, for example, any mapped columns or relationships.

description

event

event_id

field

field_data

field_type

filter_choices

id

is_active

is_public

is_required

is_user_editable

legacy_id

locator

Define a smart locator property.

This behaves pretty much like a normal read-only property and the decorated function should return a dict containing the necessary data to build a URL for the object.

This decorator should usually be applied to a method named `locator` as this name is required for *get_locator* to find it automatically when just passing the object.

If you need more than one locator, you can define it like this:

```
@locator_property
def locator(self):
    return {...}

@locator.other
def locator(self):
    return {...}
```

The `other` locator can then be accessed by passing `obj.locator.other` to the code expecting an object with a locator.

mgmt_field

position

title

visibility

class indico.modules.events.contributions.models.fields.**ContributionFieldValue**(***kwargs*)
Bases: *indico.modules.events.contributions.models.fields.ContributionFieldValueBase*

A simple constructor that allows initialization from kwargs.

Sets attributes on the constructed instance using the names and values in `kwargs`.

Only keys that are present as attributes of the instance's class are allowed. These could be, for example, any mapped columns or relationships.

contribution_field

contribution_field_backref_name = 'contribution_values'

contribution_field_id

contribution_id

data

class indico.modules.events.contributions.models.fields.**ContributionFieldValueBase**(***kwargs*)
Bases: sqlalchemy.orm.decl_api.Model

A simple constructor that allows initialization from kwargs.

Sets attributes on the constructed instance using the names and values in `kwargs`.

Only keys that are present as attributes of the instance's class are allowed. These could be, for example, any mapped columns or relationships.

contribution_field = <RelationshipProperty at 0x7fb134db40c0; no key>

contribution_field_backref_name = None
The name of the backref on the *ContributionField*

contribution_field_id

data = Column(None, JSONB(astext_type=Text()), table=None, nullable=False)

friendly_data

class indico.modules.events.contributions.models.fields.**ContributionFieldVisibility**
Bases: indico.util.enum.RichIntEnum

An enumeration.

managers_and_submitters = 2

managers_only = 3

public = 1

class indico.modules.events.contributions.models.persons.**AuthorType**
Bases: int, indico.util.enum.IndicoEnum

An enumeration.

get_highest = <bound method AuthorType.get_highest of <enum 'AuthorType'>>

none = 0

primary = 1

secondary = 2

class indico.modules.events.contributions.models.persons.**ContributionPersonLink**(**args*, ***kwargs*)

Bases: *indico.modules.events.models.persons.PersonLinkBase*

Association between EventPerson and Contribution.

author_type

contribution_id

display_order

id

is_author

is_speaker

is_submitter

locator

Define a smart locator property.

This behaves pretty much like a normal read-only property and the decorated function should return a dict containing the necessary data to build a URL for the object.

This decorator should usually be applied to a method named `locator` as this name is required for *get_locator* to find it automatically when just passing the object.

If you need more than one locator, you can define it like this:

```
@locator_property
def locator(self):
    return {...}

@locator.other
def locator(self):
    return {...}
```

The `other` locator can then be accessed by passing `obj.locator.other` to the code expecting an object with a locator.

object_relationship_name = 'contribution'

person

person_id

person_link_backref_name = 'contribution_links'

person_link_unique_columns = ('contribution_id',)

class indico.modules.events.contributions.models.persons.**SubContributionPersonLink**(**args*, ***kwargs*)

Bases: *indico.modules.events.models.persons.PersonLinkBase*

Association between EventPerson and SubContribution.

author_type = 0

display_order

id

is_speaker = True

object_relationship_name = 'subcontribution'

person

person_id

person_link_backref_name = 'subcontribution_links'

person_link_unique_columns = ('subcontribution_id',)

subcontribution_id

class indico.modules.events.contributions.models.principals.**ContributionPrincipal**(***kwargs*)

Bases: indico.core.db.sqlalchemy.principals.PrincipalPermissionsMixin, sqlalchemy.orm.decl_api.Model

A simple constructor that allows initialization from kwargs.

Sets attributes on the constructed instance using the names and values in `kwargs`.

Only keys that are present as attributes of the instance's class are allowed. These could be, for example, any mapped columns or relationships.

allow_category_roles = True

allow_emails = True

allow_event_roles = True

allow_registration_forms = True

category_role

category_role_id

contribution_id
The ID of the associated contribution

disallowed_protection_modes = frozenset()

email

event_role

event_role_id

full_access

id
The ID of the acl entry

ip_network_group = None

ip_network_group_id = None

local_group

local_group_id

multipass_group_name

multipass_group_provider

permissions

principal_backref_name = 'in_contribution_acls'

principal_for = 'Contribution'

read_access

registration_form

registration_form_id

type

unique_columns = ('contribution_id',)

user

user_id

class indico.modules.events.contributions.models.references.**ContributionReference**(***kwargs*)
Bases: *indico.modules.events.models.references.ReferenceModelBase*

A simple constructor that allows initialization from kwargs.

Sets attributes on the constructed instance using the names and values in `kwargs`.

Only keys that are present as attributes of the instance's class are allowed. These could be, for example, any mapped columns or relationships.

contribution_id

id

reference_backref_name = 'contribution_references'

reference_type

reference_type_id

value

class indico.modules.events.contributions.models.references.**SubContributionReference**(***kwarg*
Bases: *indico.modules.events.models.references.ReferenceModelBase*

A simple constructor that allows initialization from kwargs.

Sets attributes on the constructed instance using the names and values in `kwargs`.

Only keys that are present as attributes of the instance's class are allowed. These could be, for example, any mapped columns or relationships.

id

reference_backref_name = 'subcontribution_references'

reference_type

reference_type_id

subcontribution_id

value

class indico.modules.events.contributions.models.subcontributions.**SubContribution**(***kwargs*)
Bases: indico.core.db.sqlalchemy.searchable.SearchableTitleMixin, indico.core.db.sqlalchemy.descriptions.SearchableDescriptionMixin, indico.core.db.sqlalchemy.attachments.AttachedItemsMixin, indico.core.db.sqlalchemy.notes.AttachedNotesMixin, sqlalchemy.orm.decl_api.Model

ATTACHMENT_FOLDER_ID_COLUMN = 'subcontribution_id'

PRELOAD_EVENT_ATTACHED_ITEMS = True

PRELOAD_EVENT_NOTES = True

can_access(*user*, ***kwargs*)

can_edit(*user*)

can_manage(*user*, *permission=None*, ***kwargs*)

code

contribution_id

default_render_mode = 2

duration

event

friendly_id
The human-friendly ID for the sub-contribution

get_access_list()

get_manager_list(*recursive=False*, *include_groups=True*)

id

is_deleted

is_protected

is_user_associated(*user*)

location_parent

locator
Define a smart locator property.

This behaves pretty much like a normal read-only property and the decorated function should return a dict containing the necessary data to build a URL for the object.

This decorator should usually be applied to a method named `locator` as this name is required for *get_locator* to find it automatically when just passing the object.

If you need more than one locator, you can define it like this:

```
@locator_property
def locator(self):
    return {...}

@locator.other
def locator(self):
    return {...}
```

The `other` locator can then be accessed by passing `obj.locator.other` to the code expecting an object with a locator.

note

person_links
Persons associated with this contribution

position

possible_render_modes = {<RenderMode.html: 1>, <RenderMode.markdown: 2>}

references
External references associated with this contribution

render_mode

room_name

session
Convenience property so all event entities have it.

slug

speakers

timetable_entry
Convenience property so all event entities have it.

title

venue_name

class indico.modules.events.contributions.models.types.**ContributionType**(***kwargs*)
Bases: sqlalchemy.orm.decl_api.Model

A simple constructor that allows initialization from kwargs.

Sets attributes on the constructed instance using the names and values in `kwargs`.

Only keys that are present as attributes of the instance's class are allowed. These could be, for example, any mapped columns or relationships.

description

event

event_id

id

is_private

locator
Define a smart locator property.

This behaves pretty much like a normal read-only property and the decorated function should return a dict containing the necessary data to build a URL for the object.

This decorator should usually be applied to a method named `locator` as this name is required for *get_locator* to find it automatically when just passing the object.

If you need more than one locator, you can define it like this:

```
@locator_property
def locator(self):
    return {...}

@locator.other
def locator(self):
    return {...}
```

The `other` locator can then be accessed by passing `obj.locator.other` to the code expecting an object with a locator.

name

Operations

indico.modules.events.contributions.operations.**create_contribution**(*event*, *contrib_data*, *custom_fields_data=None*, *session_block=None*, *extend_parent=False*)

indico.modules.events.contributions.operations.**create_contribution_from_abstract**(*abstract*, *contrib_session=*

indico.modules.events.contributions.operations.**create_subcontribution**(*contrib*, *data*)

indico.modules.events.contributions.operations.**delete_contribution**(*contrib*)

indico.modules.events.contributions.operations.**delete_subcontribution**(*subcontrib*)

indico.modules.events.contributions.operations.**update_contribution**(*contrib*, *contrib_data*, *custom_fields_data=None*)

Update a contribution.

Parameters

- **contrib** – The *Contribution* to update
- **contrib_data** – A dict containing the data to update
- **custom_fields_data** – A dict containing the data for custom fields.

Returns A dictionary containing information related to the update. *unscheduled* will be true if the modification resulted in the contribution being unscheduled. In this case *undo_unschedule* contains the necessary data to re-schedule it (undoing the session change causing it to be unscheduled)

indico.modules.events.contributions.operations.**update_subcontribution**(*subcontrib*, *data*)

Utilities

indico.modules.events.contributions.util.**contribution_type_row**(*contrib_type*)

indico.modules.events.contributions.util.**generate_spreadsheet_from_contributions**(*contributions*, *, *affiliations=False*)

Return a tuple consisting of spreadsheet columns and respective contribution values.

indico.modules.events.contributions.util.**get_boa_export_formats**()

indico.modules.events.contributions.util.**get_contributions_for_person**(*event*, *person*, *only_speakers=False*)

Get all contributions for an event person.

If `only_speakers` is true, then only contributions where the person is a speaker are returned

indico.modules.events.contributions.util.**get_contributions_with_user_as_submitter**(*event*, *user*)

Get a list of contributions in which the *user* has submission rights.

indico.modules.events.contributions.util.**get_events_with_linked_contributions**(*user*, *dt=None*)

Return a dict with keys representing event_id and the values containing data about the user rights for contributions within the event.

Parameters

- **user** – A *User*
- **dt** – Only include events taking place on/after that date

indico.modules.events.contributions.util.**has_contributions_with_user_as_submitter**(*event*, *user*)

indico.modules.events.contributions.util.**import_contributions_from_csv**(*event*, *f*)

Import timetable contributions from a CSV file into an event.

indico.modules.events.contributions.util.**make_contribution_form**(*event*)

Extend the contribution WTForm to add the extra fields.

Each extra field will use a field named `custom_ID`.

Parameters **event** – The *Event* for which to create the contribution form.

Returns A *ContributionForm* subclass.

indico.modules.events.contributions.util.**render_archive**(*event*, *contribs*, *sort_by*, *cls*)

indico.modules.events.contributions.util.**render_pdf**(*event*, *contribs*, *sort_by*, *cls*)

indico.modules.events.contributions.util.**serialize_contribution_for_ical**(*contrib*)

indico.modules.events.contributions.util.**serialize_contribution_person_link**(*person_link*, *is_submitter=None*)

Serialize ContributionPersonLink to JSON-like object.

indico.modules.events.contributions.util.**sort_contribs**(*contribs*, *sort_by*)

7.1.5 Feature

Todo: Docstrings (module, utilities)

Utilities

indico.modules.events.features.util.**format_feature_names**(*names*)

indico.modules.events.features.util.**get_disallowed_features**(*event*)
Get a set containing the names of features which are not available for an event.

indico.modules.events.features.util.**get_enabled_features**(*event*, *only_explicit=False*)
Return a set of enabled feature names for an event.

indico.modules.events.features.util.**get_feature_definition**(*name*)
Get a feature definition.

indico.modules.events.features.util.**get_feature_definitions**()
Get a dict containing all feature definitions.

indico.modules.events.features.util.**is_feature_enabled**(*event*, *name*)
Check if a feature is enabled for an event.

Parameters

- **event** – The event (or event ID) to check.
- **name** – The name of the feature.

indico.modules.events.features.util.**require_feature**(*event*, *name*)
Raise a NotFound error if a feature is not enabled.

Parameters

- **event** – The event (or event ID) to check.
- **name** – The name of the feature.

indico.modules.events.features.util.**set_feature_enabled**(*event*, *name*, *state*)
Enable/disable a feature for an event.

Parameters

- **event** – The event.
- **name** – The name of the feature.
- **state** – If the feature is enabled or not.

Returns Boolean indicating if the state of the feature changed.

7.1.6 Layout

Todo: Docstrings (module, models, utilities)

Models

class indico.modules.events.layout.models.images.**ImageFile**(***kwargs*)
Bases: `indico.core.storage.models.StoredFileMixin`, `sqlalchemy.orm.decl_api.Model`

A simple constructor that allows initialization from kwargs.

Sets attributes on the constructed instance using the names and values in `kwargs`.

Only keys that are present as attributes of the instance's class are allowed. These could be, for example, any mapped columns or relationships.

content_type
The MIME type of the file.

created_dt
The date/time when the file was uploaded.

event

event_id
The event the image belongs to

extension
The extension of the file.

filename
The name of the file.

id
The ID of the file

locator

md5
An MD5 hash of the file.

Automatically assigned when *save()* is called.

size
The size of the file (in bytes).

Automatically assigned when *save()* is called.

storage_backend

storage_file_id

version_of = None

class indico.modules.events.layout.models.menu.**EventPage**(***kwargs*)
Bases: sqlalchemy.orm.decl_api.Model

A simple constructor that allows initialization from kwargs.

Sets attributes on the constructed instance using the names and values in `kwargs`.

Only keys that are present as attributes of the instance's class are allowed. These could be, for example, any mapped columns or relationships.

event
The Event which contains the page

event_id
The ID of the event which contains the page

html
The rendered HTML of the page

id
The ID of the page

is_default

locator

class indico.modules.events.layout.models.menu.**MenuEntry**(**kwargs)

Bases: *indico.modules.events.layout.models.menu.MenuEntryMixin*, sqlalchemy.orm.decl_api.Model

children
The children menu entries and parent backref

event
The Event containing the menu entry

event_id
The ID of the event which contains the menu

static get_for_event(*event*)

id
The ID of the menu entry

insert(*parent*, *position*)

is_enabled
Whether the entry is visible in the event's menu

is_root

link_url
The target URL of a custom link

move(*to*)

name
The name of the menu entry (to uniquely identify a default entry for a given event)

new_tab
Whether the menu entry should be opened in a new tab or window

page
The page of the menu entry

page_id
The page ID if the entry is a page

parent_id
The ID of the parent menu entry (NULL if root menu entry)

plugin
The name of the plugin from which the entry comes from (NULL if the entry does not come from a plugin)

position
The relative position of the entry in the menu

registered_only
Whether the menu entry should be viewable only by registered users

title
The title of the menu entry (to be displayed to the user)

type
The type of the menu entry

class indico.modules.events.layout.models.menu.**MenuEntryMixin**(**kwargs)

Bases: object

default_data

event_ref

is_internal_link

is_link

is_orphaned

is_page

is_plugin_link

is_separator

is_user_link

is_visible

localized_title

locator

url

class indico.modules.events.layout.models.menu.**MenuEntryType**

Bases: indico.util.enum.RichIntEnum

An enumeration.

internal_link = 2

page = 5

plugin_link = 4

separator = 1

user_link = 3

class indico.modules.events.layout.models.menu.**TransientMenuEntry**(*event*, *is_enabled*, *name*, *position*, *children*, *new_tab=False*)

Bases: *indico.modules.events.layout.models.menu.MenuEntryMixin*

id

Utilities

class indico.modules.events.layout.util.**MenuEntryData**(*title*, *name*, *endpoint=None*, *position=-1*, *is_enabled=True*, *visible=None*, *parent=None*, *static_site=False*, *url_kwargs=None*, *hide_if_restricted=True*, *new_tab=False*)

Bases: object

Container to transmit menu entry-related data via signals.

The data contained is transmitted via the *sidemenu* signal and used to build the side menu of an event.

Parameters

- **title** – str – The title of the menu, displayed to the user. The title should be translated using the normal gettext function, i.e. `_('...')`, or the plugin's bound gettext function.
- **name** – str – Name used to refer to the entry internally. This is never shown to the user. The name must be unique, names from plugins are automatically prefixed with the plugin name and a colon and therefore have to be unique only within the plugin. To mark the entry as active, its name must be specified in the *menu_entry_name* class attribute of the WP class. For plugins, the plugin name must be specified via the *menu_entry_plugin* attribute as well.
- **endpoint** – str – The endpoint the entry will point to.
- **position** – int – The desired position of the menu entry. the position is indicative only, relative to the other entries and not the exact position. Entries with the same position will be sorted alphanumerically on their name. A position of *-1* will append the entry at the end of the menu.
- **is_enabled** – bool – Whether the entry should be enabled by default (Default: *True*).
- **visible** – function – Determines if the entry should be visible. This is a simple function which takes only the *event* as parameter and returns a boolean to indicate if the entry is visible or not. It is called whenever the menu is displayed, so the current state of the event/user can be taken into account.
- **parent** – str – The name of the parent entry (None for root entries).
- **static_site** – bool or str – If True, this menu item should be shown in the menu of a static site. When set to a string, the string will be used instead of a mangled version of the endpoint's URL.
- **url_kwargs** – dict – Additional data passed to `url_for` when building the url the menu item points to.

name

plugin = None

visible(*event*)

indico.modules.events.layout.util.**build_menu_entry_name**(*name*, *plugin=None*)

Build the proper name for a menu entry.

Given a menu entry's name and optionally a plugin, returns the correct name of the menu entry.

Parameters

- **name** – str – The name of the menu entry.
- **plugin** – IndicoPlugin or str – The plugin (or the name of the plugin) which created the entry.

indico.modules.events.layout.util.**get_css_file_data**(*event*)

indico.modules.events.layout.util.**get_css_url**(*event*, *force_theme=None*, *for_preview=False*)

Build the URL of a CSS resource.

Parameters

- **event** – The *Event* to get the CSS url for
- **force_theme** – The ID of the theme to override the custom CSS resource only if it exists
- **for_preview** – Whether the URL is used in the CSS preview page

Returns The URL to the CSS resource

indico.modules.events.layout.util.**get_logo_data**(*event*)

indico.modules.events.layout.util.**get_menu_entries_from_signal**()

indico.modules.events.layout.util.**get_menu_entry_by_name**(*name*, *event*)

indico.modules.events.layout.util.**get_plugin_conference_themes**()

indico.modules.events.layout.util.**is_menu_entry_enabled**(*entry_name*, *event*)
Check whether the MenuEntry is enabled.

indico.modules.events.layout.util.**menu_entries_for_event**(*event*)

7.1.7 Log

Todo: Docstrings (module, models, utilities)

Models

class indico.modules.logs.models.entries.**CategoryLogEntry**(***kwargs*)
Bases: *indico.modules.logs.models.entries.LogEntryBase*

Log entries for categories.

A simple constructor that allows initialization from kwargs.

Sets attributes on the constructed instance using the names and values in `kwargs`.

Only keys that are present as attributes of the instance's class are allowed. These could be, for example, any mapped columns or relationships.

category_id
The ID of the category

data

event
The Category this log entry is associated with

id

kind

link_fk_name = 'category_id'

logged_dt

meta

module

realm
The general area of the event the entry comes from

summary

type

user
The user associated with the log entry.

user_backref_name = 'category_log_entries'

user_id
The ID of the user associated with the entry.

class indico.modules.logs.models.entries.**CategoryLogRealm**
Bases: indico.util.enum.RichIntEnum

An enumeration.

category = 1

events = 2

class indico.modules.logs.models.entries.**EventLogEntry**(***kwargs*)
Bases: *indico.modules.logs.models.entries.LogEntryBase*

Log entries for events.

A simple constructor that allows initialization from kwargs.

Sets attributes on the constructed instance using the names and values in `kwargs`.

Only keys that are present as attributes of the instance's class are allowed. These could be, for example, any mapped columns or relationships.

data

event
The Event this log entry is associated with

event_id
The ID of the event

id

kind

link_fk_name = 'event_id'

logged_dt

meta

module

realm
The general area of the event the entry comes from

summary

type

user
The user associated with the log entry.

user_backref_name = 'event_log_entries'

user_id
The ID of the user associated with the entry.

class indico.modules.logs.models.entries.**EventLogRealm**
Bases: indico.util.enum.RichIntEnum

An enumeration.

emails = 5

event = 1

management = 2

participants = 3

reviewing = 4

class indico.modules.logs.models.entries.**LogEntryBase**(***kwargs*)
Bases: sqlalchemy.orm.decl_api.Model

Base model for log entries.

A simple constructor that allows initialization from kwargs.

Sets attributes on the constructed instance using the names and values in `kwargs`.

Only keys that are present as attributes of the instance's class are allowed. These could be, for example, any mapped columns or relationships.

data = Column(None, JSON(astext_type=Text()), table=None, nullable=False)
Type-specific data

id = Column(None, Integer(), table=None, primary_key=True, nullable=False)
The ID of the log entry

kind = Column(None, PyIntEnum(), table=None, nullable=False)
The general kind of operation that was performed

link_fk_name = None

logged_date

logged_dt = Column(None, UTCDateTime(), table=None, nullable=False, default=ColumnDefa
The date/time when the reminder was created

meta = Column(None, JSONB(astext_type=Text()), table=None, nullable=False)
Non-displayable data

module = Column(None, String(), table=None, nullable=False)
The module the operation was related to (does not need to match something in indico.modules and should be human-friendly but not translated).

render()
Render the log entry to be displayed.

If the renderer is not available anymore, e.g. because of a disabled plugin, `None` is returned.

renderer

summary = Column(None, String(), table=None, nullable=False)
A short one-line description of the logged action. Should not be translated!

type = Column(None, String(), table=None, nullable=False)
The type of the log entry. This needs to match the name of a log renderer.

user = <RelationshipProperty at 0x7fb13414f140; no key>

user_backref_name = None

user_id = Column(None, Integer(), ForeignKey('users.users.id'), table=None)

class indico.modules.logs.models.entries.**LogKind**
Bases: int, indico.util.enum.IndicoEnum

An enumeration.

change = 3

negative = 4

other = 1

positive = 2

Utilities

indico.modules.logs.util.**get_log_renderers**()

indico.modules.logs.util.**make_diff_log**(*changes*, *fields*)
Create a value for log data containing change information.

Parameters

- **changes** – a dict mapping attributes to `(old, new)` tuples
- **fields** – a dict mapping attributes to field metadata. for simple cases this may be a string with the human-friendly title, for more advanced fields it should be a dict containing `title`, a `type` string and a `convert` callback which will be invoked with a tuple containing the old and new value

indico.modules.logs.util.**render_changes**(*a*, *b*, *type_*)
Render the comparison of *a* and *b* as HTML.

Parameters

- **a** – old value
- **b** – new value
- **type** – the type determining how the values should be compared

indico.modules.logs.util.**serialize_log_entry**(*entry*)

class indico.modules.logs.renderers.**EmailRenderer**
Bases: *indico.modules.logs.renderers.EventLogRendererBase*

name = 'email'

template_name = 'logs/entry_email.html'

class indico.modules.logs.renderers.**EventLogRendererBase**
Bases: `object`

Base class for event log renderers.

classmethod get_data(*entry*)
Return the entry data in a format suitable for the template.

This method may be overridden if the entry's data needs to be preprocessed before being passed to the template.

It MUST NOT modify *entry.data* directly.

name = None
unique name of the log renderer (matches EventLogEntry.type)

plugin = None
plugin containing this renderer - assigned automatically

classmethod render_entry(*entry*)
Render the log entry row.

Parameters **entry** – A *EventLogEntry*

template_kwargs = {}
extra kwargs passed to *render_template*

template_name = None
template used to render the log entry

class indico.modules.logs.renderers.**SimpleRenderer**
Bases: *indico.modules.logs.renderers.EventLogRendererBase*

classmethod get_data(*entry*)
Return the entry data in a format suitable for the template.

This method may be overridden if the entry's data needs to be preprocessed before being passed to the template.

It MUST NOT modify *entry.data* directly.

name = 'simple'

template_kwargs = {'compare': <function render_changes>}

template_name = 'logs/entry_simple.html'

7.1.8 Event Management

class indico.modules.events.management.controllers.**RHManageEventBase**
Bases: indico.modules.events.controllers.base.RHEventBase, indico.modules.events.management.controllers.base.ManageEventMixin

Base class for event management RHs.

class indico.modules.events.management.views.**WPEventManagement**(*rh*, *event_*, *active_menu_item=None*, ***kwargs*)
Bases: indico.web.views.WPJinjaMixin, indico.web.views.WPDecorated

Base class for event management pages.

When using this class the template will always have *event* available; it is not necessary to pass it as a kwarg when calling the *render_template* classmethod.

When using the class directly, pass the menu item as a posarg:

```
return WPEventManagement.render_template('foobar.html', self.event, 'foobar',
                                         foo='bar')
```

When subclassing you can set *sidemenu_option* on the class, allowing you to omit it. This is recommended if you have many pages using the same menu item or if you already need to subclass for some other reason (e.g. to set a *template_prefix* or include additional JS/CSS bundles):

```
return WPSomething.render_template('foobar.html', self.event,
                                   foo='bar')
```

7.1.9 Note

Todo: Docstrings (module, models, utilities)

Models

class indico.modules.events.notes.models.notes.**EventNote**(***kwargs*)
Bases: indico.core.db.sqlalchemy.links.LinkMixin, sqlalchemy.orm.decl_api.Model

A simple constructor that allows initialization from kwargs.

Sets attributes on the constructed instance using the names and values in `kwargs`.

Only keys that are present as attributes of the instance's class are allowed. These could be, for example, any mapped columns or relationships.

allowed_link_types = frozenset({<LinkType.event: 2>, <LinkType.contribution: 3>, <Li

category = None

category_id = None

contribution

contribution_id

create_revision(*render_mode*, *source*, *user*)
Create a new revision if needed and marks it as undeleted if it was.

Any change to the render mode or the source causes a new revision to be created. The user is not taken into account since a user "modifying" a note without changing things is not really a change.

current_revision
The currently active revision of the note

current_revision_id
The ID of the current revision

delete(*user*)
Mark the note as deleted and adds a new empty revision.

event

event_id

events_backref_name = 'all_notes'

classmethod get_for_linked_object(*linked_object*, *preload_event=True*)
Get the note for the given object.

This only returns a note that hasn't been deleted.

Parameters

- **linked_object** – An event, session, contribution or subcontribution.
- **preload_event** – If all notes for the same event should be pre-loaded and cached in the app context.

classmethod get_or_create(*linked_object*)
Get the note for the given object or creates a new one.

If there is an existing note for the object, it will be returned even. Otherwise a new note is created.

html
The rendered HTML of the note

classmethod html_matches(*search_string*, *exact=False*)
Check whether the html content matches a search string.

To be used in a SQLAlchemy *filter* call.

Parameters

- **search_string** – A string to search for
- **exact** – Whether to search for the exact string

id
The ID of the note

is_deleted
If the note has been deleted

link_backref_name = 'note'

link_type

linked_event

linked_event_id

locator
Define a smart locator property.

This behaves pretty much like a normal read-only property and the decorated function should return a dict containing the necessary data to build a URL for the object.

This decorator should usually be applied to a method named `locator` as this name is required for *get_locator* to find it automatically when just passing the object.

If you need more than one locator, you can define it like this:

```
@locator_property
def locator(self):
    return {...}

@locator.other
def locator(self):
    return {...}
```

The `other` locator can then be accessed by passing `obj.locator.other` to the code expecting an object with a locator.

revisions
The list of all revisions for the note

session

session_block = None

session_block_id = None

session_id

subcontribution

subcontribution_id

unique_links = True

class indico.modules.events.notes.models.notes.**EventNoteRevision**(***kwargs*)
Bases: sqlalchemy.orm.decl_api.Model

A simple constructor that allows initialization from kwargs.

Sets attributes on the constructed instance using the names and values in `kwargs`.

Only keys that are present as attributes of the instance's class are allowed. These could be, for example, any mapped columns or relationships.

created_dt
The date/time when the revision was created

html
The rendered HTML of the note

id
The ID of the revision

note

note_id
The ID of the associated note

render_mode
How the note is rendered

source
The raw source of the note as provided by the user

user
The user who created the revision

user_id
The user who created the revision

Utilities

indico.modules.events.notes.util.**build_note_api_data**(*note*)

indico.modules.events.notes.util.**build_note_legacy_api_data**(*note*)

indico.modules.events.notes.util.**can_edit_note**(*obj*, *user*)
Check if a user can edit the object's note.

indico.modules.events.notes.util.**get_scheduled_notes**(*event*)
Get all notes of scheduled items inside an event.

7.1.10 Paper

Todo: Docstrings (module, models, operations, utilities, settings)

The `papers` module handles the Indico's Paper Peer Reviewing workflow. The "inputs" of this module are the conference papers, which will be uploaded by the corresponding authors/submitters.

Models

class indico.modules.events.papers.models.call_for_papers.**CallForPapers**(*event*)
Bases: object

Proxy class to facilitate access to the call for papers settings.

announcement

assignees

can_access_judging_area(*user*)

can_access_reviewing_area(*user*)

close()

content_review_questions

content_reviewer_deadline

content_reviewer_deadline_enforced

content_reviewers

content_reviewing_enabled

end_dt

get_questions_for_review_type(*review_type*)

get_reviewing_state(*reviewing_type*)

has_ended

has_started

is_judge(*user*)

is_manager(*user*)

is_open

is_reviewer(*user*, *role=None*)

is_staff(*user*)

judge_deadline

judges

layout_review_questions

layout_reviewer_deadline

layout_reviewer_deadline_enforced

layout_reviewers

layout_reviewing_enabled

managers

open()

rating_range

schedule(*start_dt*, *end_dt*)

set_reviewing_state(*reviewing_type*, *enable*)

start_dt

user_competences

class indico.modules.events.papers.models.comments.**PaperReviewComment**(***kwargs*)

Bases: *indico.modules.events.models.reviews.ProposalCommentMixin*, indico.core.db.sqlalchemy.review_comments.ReviewCommentMixin, sqlalchemy.orm.decl_api.Model

A simple constructor that allows initialization from kwargs.

Sets attributes on the constructed instance using the names and values in `kwargs`.

Only keys that are present as attributes of the instance's class are allowed. These could be, for example, any mapped columns or relationships.

can_edit(*user*)

can_view(*user*)

created_dt

id

is_deleted

locator

Define a smart locator property.

This behaves pretty much like a normal read-only property and the decorated function should return a dict containing the necessary data to build a URL for the object.

This decorator should usually be applied to a method named `locator` as this name is required for *get_locator* to find it automatically when just passing the object.

If you need more than one locator, you can define it like this:

```
@locator_property
def locator(self):
    return {...}

@locator.other
def locator(self):
    return {...}
```

The `other` locator can then be accessed by passing `obj.locator.other` to the code expecting an object with a locator.

modified_by

modified_by_id

modified_dt

paper_revision

render_mode = 2

revision_id

user

user_backref_name = 'review_comments'

user_id

user_modified_backref_name = 'modified_review_comments'

visibility

class indico.modules.events.papers.models.competences.**PaperCompetence**(***kwargs*)
Bases: sqlalchemy.orm.decl_api.Model

A simple constructor that allows initialization from kwargs.

Sets attributes on the constructed instance using the names and values in `kwargs`.

Only keys that are present as attributes of the instance's class are allowed. These could be, for example, any mapped columns or relationships.

competences

event

event_id

id

classmethod merge_users(*target*, *source*)

user

user_id

class indico.modules.events.papers.models.files.**PaperFile**(**args*, ***kwargs*)
Bases: indico.core.storage.models.StoredFileMixin, sqlalchemy.orm.decl_api.Model

add_file_date_column = False

content_type
The MIME type of the file.

created_dt = None

extension
The extension of the file.

filename
The name of the file.

id

locator
Define a smart locator property.

This behaves pretty much like a normal read-only property and the decorated function should return a dict containing the necessary data to build a URL for the object.

This decorator should usually be applied to a method named `locator` as this name is required for *get_locator* to find it automatically when just passing the object.

If you need more than one locator, you can define it like this:

```
@locator_property
def locator(self):
    return {...}

@locator.other
def locator(self):
    return {...}
```

The `other` locator can then be accessed by passing `obj.locator.other` to the code expecting an object with a locator.

md5
An MD5 hash of the file.

Automatically assigned when *save()* is called.

paper

paper_revision

revision_id

size
The size of the file (in bytes).

Automatically assigned when *save()* is called.

storage_backend

storage_file_id

class indico.modules.events.papers.models.papers.**Paper**(*contribution*)
Bases: *indico.modules.events.models.reviews.ProposalMixin*

Proxy class to facilitate access to all paper-related properties.

accepted_revision

call_for_proposals_attr = 'cfp'

can_comment(*user*, *check_state=False*)

can_judge(*user*, *check_state=False*)

can_manage(*user*)

can_review(*user*, *check_state=False*)

can_submit(*user*)

event

files

get_last_revision()

get_revisions()

is_in_final_state

judgment_comment

last_revision

locator
Define a smart locator property.

This behaves pretty much like a normal read-only property and the decorated function should return a dict containing the necessary data to build a URL for the object.

This decorator should usually be applied to a method named `locator` as this name is required for *get_locator* to find it automatically when just passing the object.

If you need more than one locator, you can define it like this:

```
@locator_property
def locator(self):
    return {...}

@locator.other
def locator(self):
    return {...}
```

The `other` locator can then be accessed by passing `obj.locator.other` to the code expecting an object with a locator.

proposal_type = 'paper'

proxied_attr = 'contribution'

reset_state()

revision_count

revisions

revisions_enabled = True

state

title

verbose_title

class indico.modules.events.papers.models.review_questions.**PaperReviewQuestion**(***kwargs*)

Bases: indico.core.db.sqlalchemy.review_questions.ReviewQuestionMixin, sqlalchemy.orm.decl_api.Model

A simple constructor that allows initialization from kwargs.

Sets attributes on the constructed instance using the names and values in `kwargs`.

Only keys that are present as attributes of the instance's class are allowed. These could be, for example, any mapped columns or relationships.

description

event

event_backref_name = 'paper_review_questions'

event_id

field

field_data

field_type

id

is_deleted

is_required

locator

Define a smart locator property.

This behaves pretty much like a normal read-only property and the decorated function should return a dict containing the necessary data to build a URL for the object.

This decorator should usually be applied to a method named `locator` as this name is required for *get_locator* to find it automatically when just passing the object.

If you need more than one locator, you can define it like this:

```
@locator_property
def locator(self):
    return {...}

@locator.other
def locator(self):
    return {...}
```

The `other` locator can then be accessed by passing `obj.locator.other` to the code expecting an object with a locator.

position

title

type

class indico.modules.events.papers.models.review_ratings.**PaperReviewRating**(***kwargs*)

Bases: indico.core.db.sqlalchemy.review_ratings.ReviewRatingMixin, sqlalchemy.orm.decl_api.Model

A simple constructor that allows initialization from kwargs.

Sets attributes on the constructed instance using the names and values in `kwargs`.

Only keys that are present as attributes of the instance's class are allowed. These could be, for example, any mapped columns or relationships.

id

question

question_class

alias of *indico.modules.events.papers.models.review_questions.PaperReviewQuestion*

question_id

review

review_class

alias of *indico.modules.events.papers.models.reviews.PaperReview*

review_id

value

class indico.modules.events.papers.models.reviews.**PaperAction**

Bases: indico.util.enum.RichIntEnum

An enumeration.

accept = 1

reject = 2

to_be_corrected = 3

class indico.modules.events.papers.models.reviews.**PaperCommentVisibility**

Bases: indico.util.enum.RichIntEnum

Most to least restrictive visibility for paper comments.

contributors = 3

judges = 1

reviewers = 2

users = 4

class indico.modules.events.papers.models.reviews.**PaperJudgmentProxy**(*paper*)
Bases: object

A timeline item for the non final judgments.

created_dt

timeline_item_type = 'judgment'

class indico.modules.events.papers.models.reviews.**PaperReview**(***kwargs*)
Bases: *indico.modules.events.models.reviews.ProposalReviewMixin*, indico.core.db.sqlalchemy.descriptions.RenderModeMixin, sqlalchemy.orm.decl_api.Model

A paper review, emitted by a layout or content reviewer.

A simple constructor that allows initialization from kwargs.

Sets attributes on the constructed instance using the names and values in `kwargs`.

Only keys that are present as attributes of the instance's class are allowed. These could be, for example, any mapped columns or relationships.

TIMELINE_TYPE = 'review'

can_edit(*user*, *check_state=False*)

can_view(*user*)

comment

created_dt

default_render_mode = 2

group_attr = 'type'

group_proxy_cls
alias of *PaperTypeProxy*

id

locator
Define a smart locator property.

This behaves pretty much like a normal read-only property and the decorated function should return a dict containing the necessary data to build a URL for the object.

This decorator should usually be applied to a method named `locator` as this name is required for *get_locator* to find it automatically when just passing the object.

If you need more than one locator, you can define it like this:

```
@locator_property
def locator(self):
    return {...}

@locator.other
```

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```
def locator(self):
    return {...}
```

The `other` locator can then be accessed by passing `obj.locator.other` to the code expecting an object with a locator.

modified_dt

possible_render_modes = {<RenderMode.markdown: 2>}

proposed_action

render_mode = 2

revision

revision_attr = 'revision'

revision_id

score

type

user

user_id

visibility

class indico.modules.events.papers.models.reviews.**PaperReviewType**

Bases: `indico.util.enum.RichIntEnum`

An enumeration.

content = 2

layout = 1

class indico.modules.events.papers.models.reviews.**PaperTypeProxy**(*group*)

Bases: *indico.modules.events.models.reviews.ProposalGroupProxy*

locator

Define a smart locator property.

This behaves pretty much like a normal read-only property and the decorated function should return a dict containing the necessary data to build a URL for the object.

This decorator should usually be applied to a method named `locator` as this name is required for *get_locator* to find it automatically when just passing the object.

If you need more than one locator, you can define it like this:

```
@locator_property
def locator(self):
    return {...}

@locator.other
def locator(self):
    return {...}
```

The `other` locator can then be accessed by passing `obj.locator.other` to the code expecting an object with a locator.

class indico.modules.events.papers.models.revisions.**PaperRevision**(**args*, ***kwargs*)

Bases: *indico.modules.events.models.reviews.ProposalRevisionMixin*, indico.core.db.sqlalchemy.descriptions.RenderModeMixin, sqlalchemy.orm.decl_api.Model

default_render_mode = 2

get_reviewed_for_groups(*user*, *include_reviewed=False*)

get_reviews(*group=None*, *user=None*)

get_spotlight_file()

get_timeline(*user=None*)

has_user_reviewed(*user*, *review_type=None*)

id

is_last_revision

judge

judge_id

judgment_comment

judgment_dt

locator

Define a smart locator property.

This behaves pretty much like a normal read-only property and the decorated function should return a dict containing the necessary data to build a URL for the object.

This decorator should usually be applied to a method named `locator` as this name is required for *get_locator* to find it automatically when just passing the object.

If you need more than one locator, you can define it like this:

```
@locator_property
def locator(self):
    return {...}

@locator.other
def locator(self):
    return {...}
```

The `other` locator can then be accessed by passing `obj.locator.other` to the code expecting an object with a locator.

number

paper

possible_render_modes = {<RenderMode.markdown: 2>}

proposal_attr = 'paper'

render_mode = 2

spotlight_file

state

submitted_dt

submitter

submitter_id

timeline

class indico.modules.events.papers.models.revisions.**PaperRevisionState**
Bases: indico.util.enum.RichIntEnum

An enumeration.

accepted = 2

rejected = 3

submitted = 1

to_be_corrected = 4

class indico.modules.events.papers.models.templates.**PaperTemplate**(***kwargs*)
Bases: indico.core.storage.models.StoredFileMixin, sqlalchemy.orm.decl_api.Model

A simple constructor that allows initialization from kwargs.

Sets attributes on the constructed instance using the names and values in `kwargs`.

Only keys that are present as attributes of the instance's class are allowed. These could be, for example, any mapped columns or relationships.

add_file_date_column = False

content_type
The MIME type of the file.

created_dt = None

description

event

event_id

extension
The extension of the file.

filename
The name of the file.

id

locator
Define a smart locator property.

This behaves pretty much like a normal read-only property and the decorated function should return a dict containing the necessary data to build a URL for the object.

This decorator should usually be applied to a method named `locator` as this name is required for *get_locator* to find it automatically when just passing the object.

If you need more than one locator, you can define it like this:

```
@locator_property
def locator(self):
    return {...}
```

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```
@locator.other
def locator(self):
    return {...}
```

The `other` locator can then be accessed by passing `obj.locator.other` to the code expecting an object with a locator.

md5

An MD5 hash of the file.

Automatically assigned when *save()* is called.

name

size

The size of the file (in bytes).

Automatically assigned when *save()* is called.

storage_backend

storage_file_id

Operations

indico.modules.events.papers.operations.**close_cfp**(*event*)

indico.modules.events.papers.operations.**create_comment**(*paper*, *text*, *visibility*, *user*)

indico.modules.events.papers.operations.**create_competences**(*event*, *user*, *competences*)

indico.modules.events.papers.operations.**create_paper_revision**(*paper*, *submitter*, *files*)

indico.modules.events.papers.operations.**create_paper_template**(*event*, *data*)

indico.modules.events.papers.operations.**create_review**(*paper*, *review_type*, *user*, *review_data*, *questions_data*)

indico.modules.events.papers.operations.**delete_comment**(*comment*)

indico.modules.events.papers.operations.**delete_paper_template**(*template*)

indico.modules.events.papers.operations.**judge_paper**(*paper*, *judgment*, *comment*, *judge*)

indico.modules.events.papers.operations.**open_cfp**(*event*)

indico.modules.events.papers.operations.**reset_paper_state**(*paper*)

indico.modules.events.papers.operations.**schedule_cfp**(*event*, *start_dt*, *end_dt*)

indico.modules.events.papers.operations.**set_deadline**(*event*, *role*, *deadline*, *enforce=True*)

indico.modules.events.papers.operations.**set_reviewing_state**(*event*, *reviewing_type*, *enable*)

indico.modules.events.papers.operations.**update_comment**(*comment*, *text=None*, *visibility=None*)

indico.modules.events.papers.operations.**update_competences**(*user_competences*, *competences*)

indico.modules.events.papers.operations.**update_paper_template**(*template*, *data*)

indico.modules.events.papers.operations.**update_review**(*review*, *review_data*, *questions_data*)

indico.modules.events.papers.operations.**update_reviewing_roles**(*event*, *users*, *contributions*, *role*, *assign*)

indico.modules.events.papers.operations.**update_team_members**(*event*, *managers*, *judges*, *content_reviewers=None*, *layout_reviewers=None*)

Utilities

indico.modules.events.papers.util.**get_contributions_with_paper_submitted_by_user**(*event*, *user*)

indico.modules.events.papers.util.**get_events_with_paper_roles**(*user*, *dt=None*)
Get the IDs and PR roles of events where the user has any kind of paper reviewing privileges.

Parameters

- **user** – A *User*
- **dt** – Only include events taking place on/after that date

Returns A dict mapping event IDs to a set of roles

indico.modules.events.papers.util.**get_user_contributions_to_review**(*event*, *user*)
Get the list of contributions where user has paper to review.

indico.modules.events.papers.util.**get_user_reviewed_contributions**(*event*, *user*)
Get the list of contributions where user already reviewed paper.

indico.modules.events.papers.util.**get_user_submittable_contributions**(*event*, *user*)

indico.modules.events.papers.util.**has_contributions_with_user_paper_submission_rights**(*event*, *user*)

indico.modules.events.papers.util.**is_type_reviewing_possible**(*cfp*, *review_type*)

Settings

class indico.modules.events.settings.**EventACLProxy**(*proxy*)
Bases: indico.core.settings.proxy.ACLProxyBase

Proxy class for event-specific ACL settings.

add_principal(*event*, *name*, *principal*)
Add a principal to an ACL.

Parameters

- **event** – Event (or its ID)
- **name** – Setting name
- **principal** – A *User* or a *GroupProxy*

contains_user(*event*, *name*, *user*)
Check if a user is in an ACL.

To pass this check, the user can either be in the ACL itself or in a group in the ACL.

Parameters

- **event** – Event (or its ID)
- **name** – Setting name
- **user** – A *User*

get(*event*, *name*)
Retrieves an ACL setting

Parameters

- **event** – Event (or its ID)
- **name** – Setting name

merge_users(*target*, *source*)
Replace all ACL user entries for *source* with *target*.

remove_principal(*event*, *name*, *principal*)
Remove a principal from an ACL.

Parameters

- **event** – Event (or its ID)
- **name** – Setting name
- **principal** – A *User* or a *GroupProxy*

set(*event*, *name*, *acl*)
Replace an ACL with a new one.

Parameters

- **event** – Event (or its ID)
- **name** – Setting name
- **acl** – A set containing principals (users/groups)

class indico.modules.events.settings.**EventSettingProperty**(*proxy*, *name*, *default=<object object>*, *attr=None*)
Bases: indico.core.settings.proxy.SettingProperty

attr = 'event'

class indico.modules.events.settings.**EventSettingsProxy**(*module*, *defaults=None*, *strict=True*, *acls=None*, *converters=None*)
Bases: indico.core.settings.proxy.SettingsProxyBase

Proxy class to access event-specific settings for a certain module.

acl_proxy_class
alias of *EventACLProxy*

delete(*event*, **names*)
Delete settings.

Parameters

- **event** – Event (or its ID)
- **names** – One or more names of settings to delete

delete_all(*event*)
Delete all settings.

Parameters **event** – Event (or its ID)

get(*event*, *name*, *default=<object object>*)
Retrieve the value of a single setting.

Parameters

- **event** – Event (or its ID)
- **name** – Setting name
- **default** – Default value in case the setting does not exist

Returns The settings's value or the default value

get_all(*event*, *no_defaults=False*)
Retrieve all settings.

Parameters

- **event** – Event (or its ID)
- **no_defaults** – Only return existing settings and ignore defaults.

Returns Dict containing the settings

query
Return a query object filtering by the proxy's module.

set(*event*, *name*, *value*)
Set a single setting.

Parameters

- **event** – Event (or its ID)
- **name** – Setting name
- **value** – Setting value; must be JSON-serializable

set_multi(*event*, *items*)
Set multiple settings at once.

Parameters

- **event** – Event (or its ID)
- **items** – Dict containing the new settings

class indico.modules.events.settings.**ThemeSettingsProxy**
Bases: object

defaults

get_themes_for(*event_type*)

settings

themes

indico.modules.events.settings.**event_or_id**(*f*)

7.1.11 Payment

Todo: Docstrings (module, models, plugins)

Models

exception indico.modules.events.payment.models.transactions.**DoublePaymentTransaction**
Bases: Exception

exception indico.modules.events.payment.models.transactions.**IgnoredTransactionAction**
Bases: Exception

exception indico.modules.events.payment.models.transactions.**InvalidManualTransactionAction**
Bases: Exception

exception indico.modules.events.payment.models.transactions.**InvalidTransactionAction**
Bases: Exception

exception indico.modules.events.payment.models.transactions.**InvalidTransactionStatus**
Bases: Exception

class indico.modules.events.payment.models.transactions.**PaymentTransaction**(***kwargs*)
Bases: sqlalchemy.orm.decl_api.Model

Payment transactions.

A simple constructor that allows initialization from kwargs.

Sets attributes on the constructed instance using the names and values in kwargs.

Only keys that are present as attributes of the instance's class are allowed. These could be, for example, any mapped columns or relationships.

amount
the base amount the user needs to pay (without payment-specific fees)

classmethod create_next(*registration*, *amount*, *currency*, *action*, *provider=None*, *data=None*)

currency
the currency of the payment (ISO string, e.g. EUR or USD)

data
plugin-specific data of the payment

id
Entry ID

is_manual

is_pending_expired()

plugin

provider
the provider of the payment (e.g. manual, PayPal etc.)

registration
The associated registration

registration_id
ID of the associated registration

render_details()
Render the transaction details.

status
a *TransactionStatus*

timestamp
the date and time the transaction was recorded

class indico.modules.events.payment.models.transactions.**TransactionAction**
Bases: int, indico.util.enum.IndicoEnum

An enumeration.

cancel = 2

complete = 1

pending = 3

reject = 4

class indico.modules.events.payment.models.transactions.**TransactionStatus**
Bases: int, indico.util.enum.IndicoEnum

An enumeration.

cancelled = 2
payment cancelled manually

failed = 3
payment attempt failed

pending = 4
payment on hold pending approval of merchant

rejected = 5
payment rejected after being pending

successful = 1
payment attempt succeeded

class indico.modules.events.payment.models.transactions.**TransactionStatusTransition**
Bases: object

initial_statuses = [<TransactionStatus.cancelled: 2>, <TransactionStatus.failed: 3>,

classmethod next(*transaction*, *action*, *provider=None*)

Utilities

indico.modules.events.payment.util.**get_active_payment_plugins**(*event*)
Return a dict containing the active payment plugins of an event.

indico.modules.events.payment.util.**get_payment_plugins**()
Return a dict containing the available payment plugins.

indico.modules.events.payment.util.**register_transaction**(*registration*, *amount*, *currency*, *action*, *provider=None*, *data=None*)
Create a new transaction for a certain transaction action.

Parameters

- **registration** – the *Registration* associated to the transaction
- **amount** – the (strictly positive) amount of the transaction
- **currency** – the currency used for the transaction
- **action** – the *TransactionAction* of the transaction
- **provider** – the payment method name of the transaction, or '_manual' if no payment method has been used
- **data** – arbitrary JSON-serializable data specific to the transaction's provider

Plugins

class indico.modules.events.payment.plugins.**PaymentPluginMixin**

Bases: object

adjust_payment_form_data(*data*)

Update the payment form data if necessary.

This method can be overridden to update e.g. the amount based on choices the user makes in the payment form or to provide additional data to the form. To do so, *data* must be modified.

Parameters **data** – a dict containing event, registration, amount, currency, settings and event_settings

can_be_modified(*user*, *event*)

Check if the user is allowed to enable/disable/modify the payment method.

Parameters

- **user** – the *User* repesenting the user
- **event** – the Event

category = 'Payment'

default_settings

event_settings_form

alias of PaymentEventSettingsFormBase

get_event_management_url(*event*, ***kwargs*)

get_invalid_regforms(*event*)

Return registration forms with incompatible currencies.

get_method_name(*event*)

Return the (customized) name of the payment method.

init()

is_pending_transaction_expired(*transaction*)

Check if the transaction is pending but expired.

If this returns true, it will show up as unpaid instead of pending for the user and they can proceed to payment once again.

logo_url

render_payment_form(*registration*)

Return the payment form shown to the user.

Parameters **registration** – a Registration object

render_transaction_details(*transaction*)
Render the transaction details in event management.

Override this (or inherit from the template) to show more useful data such as transaction IDs

Parameters **transaction** – the PaymentTransaction

settings_form
alias of PaymentPluginSettingsFormBase

supports_currency(*currency*)

valid_currencies = None
Set containing all valid currencies. Set to *None* to allow all.

7.1.12 Person

Todo: Docstrings (module, operations)

Operations

indico.modules.events.persons.operations.**update_person**(*person*, *data*)

Placeholders

class indico.modules.events.persons.placeholders.**ContributionsPlaceholder**
Bases: indico.util.placeholders.ParametrizedPlaceholder

classmethod iter_param_info(*person*, *event*, ***kwargs*)
Yield information for known params.

Each item yielded must be a (value, description) tuple.

Parameters **kwargs** – arguments specific to the placeholder's context

name = 'contributions'

param_required = False

param_restricted = True

classmethod render(*param*, *person*, *event*, ***kwargs*)
Convert the placeholder to a string.

When a placeholder contains HTML that should not be escaped, the returned value should be returned as a markupsafe.Markup instance instead of a plain string.

Subclasses are encouraged to explicitly specify the arguments they expect instead of using **kwargs.

Parameters **kwargs** – arguments specific to the placeholder's context

class indico.modules.events.persons.placeholders.**EmailPlaceholder**
Bases: indico.util.placeholders.Placeholder

description = l'Email of the person'

name = 'email'

classmethod render(*person*, *event*, ***kwargs*)
Convert the placeholder to a string.

When a placeholder contains HTML that should not be escaped, the returned value should be returned as a `markupsafe.Markup` instance instead of a plain string.

Subclasses are encouraged to explicitly specify the arguments they expect instead of using `**kwargs`.

Parameters **kwargs** – arguments specific to the placeholder's context

class indico.modules.events.persons.placeholders.**EventLinkPlaceholder**
Bases: `indico.util.placeholders.Placeholder`

description = l'Link to the event'

name = 'event_link'

classmethod render(*person*, *event*, ***kwargs*)
Convert the placeholder to a string.

When a placeholder contains HTML that should not be escaped, the returned value should be returned as a `markupsafe.Markup` instance instead of a plain string.

Subclasses are encouraged to explicitly specify the arguments they expect instead of using `**kwargs`.

Parameters **kwargs** – arguments specific to the placeholder's context

class indico.modules.events.persons.placeholders.**EventTitlePlaceholder**
Bases: `indico.util.placeholders.Placeholder`

description = l'The title of the event'

name = 'event_title'

classmethod render(*person*, *event*, ***kwargs*)
Convert the placeholder to a string.

When a placeholder contains HTML that should not be escaped, the returned value should be returned as a `markupsafe.Markup` instance instead of a plain string.

Subclasses are encouraged to explicitly specify the arguments they expect instead of using `**kwargs`.

Parameters **kwargs** – arguments specific to the placeholder's context

class indico.modules.events.persons.placeholders.**FirstNamePlaceholder**
Bases: `indico.util.placeholders.Placeholder`

description = l'First name of the person'

name = 'first_name'

classmethod render(*person*, *event*, ***kwargs*)
Convert the placeholder to a string.

When a placeholder contains HTML that should not be escaped, the returned value should be returned as a `markupsafe.Markup` instance instead of a plain string.

Subclasses are encouraged to explicitly specify the arguments they expect instead of using `**kwargs`.

Parameters **kwargs** – arguments specific to the placeholder's context

class indico.modules.events.persons.placeholders.**LastNamePlaceholder**
Bases: `indico.util.placeholders.Placeholder`

description = l'Last name of the person'

name = 'last_name'

classmethod render(*person*, *event*, ***kwargs*)
Convert the placeholder to a string.

When a placeholder contains HTML that should not be escaped, the returned value should be returned as a `markupsafe.Markup` instance instead of a plain string.

Subclasses are encouraged to explicitly specify the arguments they expect instead of using `**kwargs`.

Parameters **kwargs** – arguments specific to the placeholder's context

class indico.modules.events.persons.placeholders.**RegisterLinkPlaceholder**
Bases: `indico.util.placeholders.Placeholder`

description = l'The link for the registration page'

name = 'register_link'

classmethod render(*person*, *event*, ***kwargs*)
Convert the placeholder to a string.

When a placeholder contains HTML that should not be escaped, the returned value should be returned as a `markupsafe.Markup` instance instead of a plain string.

Subclasses are encouraged to explicitly specify the arguments they expect instead of using `**kwargs`.

Parameters **kwargs** – arguments specific to the placeholder's context

7.1.13 Registration

Todo: Docstrings (module, models, utilities, statistics)

Models

class indico.modules.events.registration.models.registrations.**Registration**(***kwargs*)
Bases: `sqlalchemy.orm.decl_api.Model`

Somebody's registration for an event through a registration form.

A simple constructor that allows initialization from kwargs.

Sets attributes on the constructed instance using the names and values in `kwargs`.

Only keys that are present as attributes of the instance's class are allowed. These could be, for example, any mapped columns or relationships.

avatar_url
Return the url of the user's avatar.

base_price
The base registration fee (that is not specific to form items)

billable_data

can_be_modified

can_be_withdrawn

checked_in
Whether the person has checked in. Setting this also sets or clears *checked_in_dt*.

checked_in_dt
The date/time when the person has checked in

currency
Registration price currency

data
The registration this data is associated with

data_by_field

display_full_name
Return the full name using the user's preferred name format.

email
The email of the registrant

event
The Event containing this registration

event_id
The ID of the event

first_name
The first name of the registrant

friendly_id
The human-friendly ID for the object

full_name
Return the user's name in 'Firstname Lastname' notation.

classmethod get_all_for_event(*event*)
Retrieve all registrations in all registration forms of an event.

get_full_name(*last_name_first=True*, *last_name_upper=False*, *abbrev_first_name=False*)
Return the user's in the specified notation.

If not format options are specified, the name is returned in the 'Lastname, Firstname' notation.

Note: Do not use positional arguments when calling this method. Always use keyword arguments!

Parameters

- **last_name_first** – if "lastname, firstname" instead of "firstname lastname" should be used
- **last_name_upper** – if the last name should be all-uppercase
- **abbrev_first_name** – if the first name should be abbreviated to use only the first character

get_personal_data()

has_conflict()
Check if there are other valid registrations for the same user.

This is intended for cases where this registration is currenly invalid (rejected or withdrawn) to determine whether it would be acceptable to restore it.

has_files

id
The ID of the object

is_active

is_cancelled

is_deleted
If the registration has been deleted

is_paid
Return whether the registration has been paid for.

is_pending_transaction_expired()
Check if the registration has a pending transaction that expired.

is_publishable

is_ticket_blocked
Check whether the ticket is blocked by a plugin.

last_name
The last name of the registrant

locator
Define a smart locator property.

This behaves pretty much like a normal read-only property and the decorated function should return a dict containing the necessary data to build a URL for the object.

This decorator should usually be applied to a method named `locator` as this name is required for *get_locator* to find it automatically when just passing the object.

If you need more than one locator, you can define it like this:

```
@locator_property
def locator(self):
    return {...}

@locator.other
def locator(self):
    return {...}
```

The `other` locator can then be accessed by passing `obj.locator.other` to the code expecting an object with a locator.

log(**args*, ***kwargs*)
Log with prefilled metadata for the registration.

classmethod merge_users(*target*, *source*)

order_by_name = (<sqlalchemy.sql.functions.Function at 0x7fb132ea2fa0; lower>, <sqlalc

payment_dt
The date/time when the registration has been paid for.

price
The total price of the registration.

This includes the base price, the field-specific price, and the custom price adjustment for the registrant.

Return type Decimal

price_adjustment
The price modifier applied to the final calculated price

registration_form_id
The ID of the registration form

rejection_reason
If given a reason for rejection

render_base_price()

render_price()

render_price_adjustment()

sections_with_answered_fields

state
The state a registration is in

submitted_dt
The date/time when the registration was recorded

summary_data
Export registration data nested in sections and fields.

sync_state(*_skip_moderation=True*)
Sync the state of the registration.

tags
The registration tags assigned to this registration

ticket_uuid
The unique token used in tickets

transaction
The latest payment transaction associated with this registration

transaction_id
The ID of the latest payment transaction associated with this registration

update_state(*approved=None*, *paid=None*, *rejected=None*, *withdrawn=None*, *_skip_moderation=False*)
Update the state of the registration for a given action.

The accepted kwargs are the possible actions. `True` means that the action occured and `False` that it was reverted.

user

user_id
The ID of the user who registered

uuid
The unguessable ID for the object

class indico.modules.events.registration.models.registrations.**RegistrationData**(***kwargs*)
Bases: indico.core.storage.models.StoredFileMixin, sqlalchemy.orm.decl_api.Model

Data entry within a registration for a field in a registration form.

A simple constructor that allows initialization from kwargs.

Sets attributes on the constructed instance using the names and values in `kwargs`.

Only keys that are present as attributes of the instance's class are allowed. These could be, for example, any mapped columns or relationships.

add_file_date_column = False

content_type
The MIME type of the file.

created_dt = None

data
The submitted data for the field

extension
The extension of the file.

field_data
The associated field data object

field_data_id
The ID of the field data

file

file_required = False

filename
The name of the file.

friendly_data

get_friendly_data(***kwargs*)

locator
Define a smart locator property.

This behaves pretty much like a normal read-only property and the decorated function should return a dict containing the necessary data to build a URL for the object.

This decorator should usually be applied to a method named `locator` as this name is required for *get_locator* to find it automatically when just passing the object.

If you need more than one locator, you can define it like this:

```
@locator_property
def locator(self):
    return {...}

@locator.other
def locator(self):
    return {...}
```

The `other` locator can then be accessed by passing `obj.locator.other` to the code expecting an object with a locator.

md5
An MD5 hash of the file.

Automatically assigned when *save()* is called.

price

registration_id
The ID of the registration

render_price()

search_data

size
The size of the file (in bytes).

Automatically assigned when *save()* is called.

storage_backend

storage_file_id

summary_data

user_data

class indico.modules.events.registration.models.registrations.**RegistrationState**
Bases: indico.util.enum.RichIntEnum

An enumeration.

complete = 1

pending = 2

rejected = 3

unpaid = 5

withdrawn = 4

class indico.modules.events.registration.models.form_fields.**RegistrationFormField**(***kwargs*)
Bases: *indico.modules.events.registration.models.items.RegistrationFormItem*

A registration form field.

A simple constructor that allows initialization from kwargs.

Sets attributes on the constructed instance using the names and values in kwargs.

Only keys that are present as attributes of the instance's class are allowed. These could be, for example, any mapped columns or relationships.

calculate_price(*registration_data*)

children

current_data

current_data_id

data

data_versions

description

field_impl
Gets the implementation of the field.

Returns An instance of a *RegistrationFormFieldBase* subclass

get_friendly_data(*registration_data*, ***kwargs*)

html_field_name

id

input_type

is_deleted

is_enabled

is_manager_only

is_required

locator

parent_id

personal_data_type

position

registration_form_id

title

type

versioned_data

view_data
Return object with data that Angular can understand.

class indico.modules.events.registration.models.form_fields.**RegistrationFormFieldData**(**kwa
Bases: sqlalchemy.orm.decl_api.Model

Description of a registration form field.

A simple constructor that allows initialization from kwargs.

Sets attributes on the constructed instance using the names and values in `kwargs`.

Only keys that are present as attributes of the instance's class are allowed. These could be, for example, any mapped columns or relationships.

field_id
The ID of the registration form field

id
The ID of the object

versioned_data
Data describing the field

class indico.modules.events.registration.models.form_fields.**RegistrationFormPersonalDataFi
Bases: *indico.modules.events.registration.models.form_fields.RegistrationFormField*

A simple constructor that allows initialization from kwargs.

Sets attributes on the constructed instance using the names and values in `kwargs`.

Only keys that are present as attributes of the instance's class are allowed. These could be, for example, any mapped columns or relationships.

children

current_data

current_data_id

data

data_versions

description

html_field_name

id

input_type

is_deleted

is_enabled

is_manager_only

is_required

parent_id

personal_data_type

position

registration_form_id

title

type

view_data
Return object with data that Angular can understand.

class indico.modules.events.registration.models.forms.**ModificationMode**
Bases: indico.util.enum.RichIntEnum

An enumeration.

allowed_always = 1

allowed_until_approved = 4

allowed_until_payment = 2

not_allowed = 3

class indico.modules.events.registration.models.forms.**RegistrationForm**(***kwargs*)
Bases: sqlalchemy.orm.decl_api.Model

A registration form for an event.

A simple constructor that allows initialization from kwargs.

Sets attributes on the constructed instance using the names and values in kwargs.

Only keys that are present as attributes of the instance's class are allowed. These could be, for example, any mapped columns or relationships.

active_fields

active_registrations

attach_ical
If the completed registration email should include the event's iCalendar file.

base_price
The base fee users have to pay when registering

can_submit(*user*)

contact_info
Contact information for registrants

currency
Currency for prices in the registration form

disabled_sections

end_dt
Datetime when the registration form is closed

event
The Event containing this registration form

event_id
The ID of the event

form_items

get_personal_data_field_id(*personal_data_type*)
Return the field id corresponding to the personal data field with the given name.

get_registration(*user=None*, *uuid=None*, *email=None*)
Retrieve registrations for this registration form by user or uuid.

has_ended

has_started

id
The ID of the object

identifier

introduction

invitations
The registration invitations associated with this form

is_active

is_deleted
Whether the registration has been marked as deleted

is_modification_allowed(*registration*)
Check whether a registration may be modified.

is_modification_open

is_open

is_participation
Whether it's the 'Participants' form of a meeting/lecture

is_scheduled

limit_reached

locator

manager_notification_recipients
List of emails that should receive management notifications

manager_notifications_enabled
Whether the manager notifications for this event are enabled

message_complete
Custom message to include in emails for complete registrations

message_pending
Custom message to include in emails for pending registrations

message_unpaid
Custom message to include in emails for unpaid registrations

moderation_enabled
Whether registrations must be approved by a manager

modification_end_dt
Datetime when the modification period is over

modification_mode
Whether registration modifications are allowed

name

notification_sender_address
Notifications sender address

principal_order = 2

principal_type = 8

publish_checkin_enabled
Whether checked-in status should be displayed in the event pages and participant list

publish_registration_count
Whether to display the number of registrations

publish_registrations_enabled
Whether registrations should be displayed in the participant list

registration_limit
Maximum number of registrations allowed

registrations
The registrations associated with this form

render_base_price()

require_login
Whether users must be logged in to register

require_user
Whether registrations must be associated with an Indico account

sections

start_dt
Datetime when the registration form is open

ticket_on_email
Whether to send tickets by e-mail

ticket_on_event_page
Whether to show a ticket download link on the event homepage

ticket_on_summary_page
Whether to show a ticket download link on the registration summary page

ticket_template
The template used to generate tickets

ticket_template_id
The ID of the template used to generate tickets

tickets_enabled
Whether tickets are enabled for this form

title
The title of the registration form

class indico.modules.events.registration.models.invitations.**InvitationState**
Bases: indico.util.enum.RichIntEnum

An enumeration.

accepted = 1

declined = 2

pending = 0

class indico.modules.events.registration.models.invitations.**RegistrationInvitation**(***kwargs*)
Bases: sqlalchemy.orm.decl_api.Model

An invitation for someone to register.

A simple constructor that allows initialization from kwargs.

Sets attributes on the constructed instance using the names and values in `kwargs`.

Only keys that are present as attributes of the instance's class are allowed. These could be, for example, any mapped columns or relationships.

affiliation
The affiliation of the invited person

email
The email of the invited person

first_name
The first name of the invited person

id
The ID of the invitation

last_name
The last name of the invited person

locator
Define a smart locator property.

This behaves pretty much like a normal read-only property and the decorated function should return a dict containing the necessary data to build a URL for the object.

This decorator should usually be applied to a method named `locator` as this name is required for *get_locator* to find it automatically when just passing the object.

If you need more than one locator, you can define it like this:

```
@locator_property
def locator(self):
    return {...}

@locator.other
def locator(self):
    return {...}
```

The `other` locator can then be accessed by passing `obj.locator.other` to the code expecting an object with a locator.

registration
The associated registration

registration_form_id
The ID of the registration form

registration_id
The ID of the registration (if accepted)

skip_moderation
Whether registration moderation should be skipped

state
The state of the invitation

uuid
The UUID of the invitation

class indico.modules.events.registration.models.items.**PersonalDataType**
Bases: int, indico.util.enum.IndicoEnum

Description of the personal data items that exist on every registration form.

FIELD_DATA = [(<PersonalDataType.first_name: 2>, {'title': 'First Name', 'input_type

address = 6

affiliation = 4

column
The Registration column in which the value is stored in addition to the regular registration data entry.

country = 8

email = 1

first_name = 2

get_title()

is_required

last_name = 3

phone = 7

position = 9

title = 5

class indico.modules.events.registration.models.items.**RegistrationFormItem**(***kwargs*)
Bases: sqlalchemy.orm.decl_api.Model

Generic registration form item.

A simple constructor that allows initialization from kwargs.

Sets attributes on the constructed instance using the names and values in kwargs.

Only keys that are present as attributes of the instance's class are allowed. These could be, for example, any mapped columns or relationships.

children

current_data
The latest value of the field

current_data_id
The ID of the latest data

data
unversioned field data

data_versions
The list of all versions of the field data

description
Description of this field

id
The ID of the object

input_type
input type of this field

is_deleted
Whether field has been "deleted"

is_enabled
Whether the field is enabled

is_field

is_manager_only
if the section is only accessible to managers

is_required
determines if the field is mandatory

is_section

is_visible

parent_id
The ID of the parent form item

personal_data_type
The type of a personal data field

position

registration_form_id
The ID of the registration form

title
The title of this field

type
The type of the registration form item

view_data
Return object with data that Angular can understand.

class indico.modules.events.registration.models.items.**RegistrationFormItemType**
Bases: int, indico.util.enum.IndicoEnum

An enumeration.

field = 2

field_pd = 5

section = 1

section_pd = 4

text = 3

class indico.modules.events.registration.models.items.**RegistrationFormPersonalDataSection**(*
Bases: *indico.modules.events.registration.models.items.RegistrationFormSection*

A simple constructor that allows initialization from kwargs.

Sets attributes on the constructed instance using the names and values in `kwargs`.

Only keys that are present as attributes of the instance's class are allowed. These could be, for example, any mapped columns or relationships.

children

current_data

current_data_id

data

data_versions

description

id

input_type

is_deleted

is_enabled

is_manager_only

is_required

parent_id

personal_data_type

position

registration_form_id

title

type

view_data
Return object with data that Angular can understand.

class indico.modules.events.registration.models.items.**RegistrationFormSection**(***kwargs*)
Bases: *indico.modules.events.registration.models.items.RegistrationFormItem*

Registration form section that can contain fields and text.

A simple constructor that allows initialization from kwargs.

Sets attributes on the constructed instance using the names and values in `kwargs`.

Only keys that are present as attributes of the instance's class are allowed. These could be, for example, any mapped columns or relationships.

active_fields

children

current_data

current_data_id

data

data_versions

description

fields

id

input_type

is_deleted

is_enabled

is_manager_only

is_required

locator

own_data

parent_id

personal_data_type

position

registration_form_id

title

type

view_data

Return object with data that Angular can understand.

class indico.modules.events.registration.models.items.**RegistrationFormText**(***kwargs*)

Bases: *indico.modules.events.registration.models.items.RegistrationFormItem*

Text to be displayed in registration form sections.

A simple constructor that allows initialization from kwargs.

Sets attributes on the constructed instance using the names and values in `kwargs`.

Only keys that are present as attributes of the instance's class are allowed. These could be, for example, any mapped columns or relationships.

children

current_data

current_data_id

data

data_versions

description

id

input_type

is_deleted

is_enabled

is_manager_only

is_required

locator

parent_id

personal_data_type

position

registration_form_id

title

type

view_data
Return object with data that Angular can understand.

Utilities

indico.modules.events.registration.util.**build_registration_api_data**(*registration*)

indico.modules.events.registration.util.**build_registrations_api_data**(*event*)

indico.modules.events.registration.util.**check_registration_email**(*regform*, *email*, *registration=None*, *management=False*)

Check whether an email address is suitable for registration.

Parameters

- **regform** – The registration form
- **email** – The email address
- **registration** – The existing registration (in case of modification)
- **management** – If it's a manager adding a new registration

indico.modules.events.registration.util.**create_invitation**(*regform*, *user*, *skip_moderation*, *email_from*, *email_subject*, *email_body*)

indico.modules.events.registration.util.**create_personal_data_fields**(*regform*)
Create the special section/fields for personal data.

indico.modules.events.registration.util.**create_registration**(*regform*, *data*, *invitation=None*, *management=False*, *notify_user=True*, *skip_moderation=None*)

indico.modules.events.registration.util.**generate_spreadsheet_from_registrations**(*registrations*, *regform_items*, *static_items*)

Generate a spreadsheet data from a given registration list.

Parameters

- **registrations** – The list of registrations to include in the file
- **regform_items** – The registration form items to be used as columns
- **static_items** – Registration form information as extra columns

indico.modules.events.registration.util.**generate_ticket**(*registration*)

indico.modules.events.registration.util.**generate_ticket_qr_code**(*registration*)

Generate a Pillow *Image* with a QR Code encoding a check-in ticket.

Parameters **registration** – corresponding *Registration* object

indico.modules.events.registration.util.**get_event_regforms**(*event*, *user*, *with_registrations=False*, *only_in_acl=False*)

Get registration forms with information about user registrations.

Parameters

- **event** – the *Event* to get registration forms for
- **user** – A *User*
- **with_registrations** – Whether to return the user's registration instead of just whether they have one
- **only_in_acl** – Whether to include only registration forms that are in the event's ACL

indico.modules.events.registration.util.**get_event_regforms_registrations**(*event*, *user*, *include_scheduled=True*, *only_in_acl=False*)

Get regforms and the associated registrations for an event+user.

Parameters

- **event** – the *Event* to get registration forms for
- **user** – A *User*
- **include_scheduled** – Whether to include scheduled but not open registration forms
- **only_in_acl** – Whether to include only registration forms that are in the event's ACL

Returns A tuple, which includes: - All registration forms which are scheduled, open or registered. - A dict mapping all registration forms to the user's registration if they have one.

indico.modules.events.registration.util.**get_event_section_data**(*regform*, *management=False*, *registration=None*)

indico.modules.events.registration.util.**get_events_registered**(*user*, *dt=None*)

Get the IDs of events where the user is registered.

Parameters

- **user** – A *User*
- **dt** – Only include events taking place on/after that date

Returns A set of event ids

indico.modules.events.registration.util.**get_published_registrations**(*event*)
Get a list of published registrations for an event.

Parameters **event** – the *Event* to get registrations for

Returns list of *Registration* objects

indico.modules.events.registration.util.**get_registered_event_persons**(*event*)
Get all registered EventPersons of an event.

indico.modules.events.registration.util.**get_registrations_with_tickets**(*user*, *event*)

indico.modules.events.registration.util.**get_ticket_attachments**(*registration*)

indico.modules.events.registration.util.**get_title_uuid**(*regform*, *title*)
Convert a string title to its UUID value.

If the title does not exist in the title PD field, it will be ignored and returned as `None`.

indico.modules.events.registration.util.**import_invitations_from_csv**(*regform*, *fileobj*, *email_from*, *email_subject*, *email_body*, *skip_moderation=True*, *skip_existing=False*)
Import invitations from a CSV file.

Returns A list of invitations and the number of skipped records which is zero if skip_existing=False

indico.modules.events.registration.util.**import_registrations_from_csv**(*regform*, *fileobj*, *skip_moderation=True*, *notify_users=False*)
Import event registrants from a CSV file into a form.

indico.modules.events.registration.util.**import_user_records_from_csv**(*fileobj*, *columns*)
Parse and do basic validation of user data from a CSV file.

Parameters

- **fileobj** – the CSV file to be read
- **columns** – A list of column names, 'first_name', 'last_name', & 'email' are compulsory.

Returns A list dictionaries each representing one row, the keys of which are given by the column names.

indico.modules.events.registration.util.**make_registration_form**(*regform*, *management=False*, *registration=None*)
Create a WTForm based on registration form fields.

indico.modules.events.registration.util.**modify_registration**(*registration*, *data*, *management=False*, *notify_user=True*)

indico.modules.events.registration.util.**serialize_registration_form**(*regform*)
Serialize registration form to JSON-like object.

indico.modules.events.registration.util.**update_regform_item_positions**(*regform*)
Update positions when deleting/disabling an item in order to prevent gaps.

indico.modules.events.registration.util.**url_rule_to_angular**(*endpoint*)
Convert a flask-style rule to angular style.

Placeholders

class indico.modules.events.registration.placeholders.registrations.**EventLinkPlaceholder**
Bases: indico.util.placeholders.Placeholder

description = l'Link to the event'

name = 'event_link'

classmethod render(*regform*, *registration*)
Convert the placeholder to a string.

When a placeholder contains HTML that should not be escaped, the returned value should be returned as a `markupsafe.Markup` instance instead of a plain string.

Subclasses are encouraged to explicitly specify the arguments they expect instead of using `**kwargs`.

Parameters **kwargs** – arguments specific to the placeholder's context

class indico.modules.events.registration.placeholders.registrations.**EventTitlePlaceholder**
Bases: indico.util.placeholders.Placeholder

description = l'The title of the event'

name = 'event_title'

classmethod render(*regform*, *registration*)
Convert the placeholder to a string.

When a placeholder contains HTML that should not be escaped, the returned value should be returned as a `markupsafe.Markup` instance instead of a plain string.

Subclasses are encouraged to explicitly specify the arguments they expect instead of using `**kwargs`.

Parameters **kwargs** – arguments specific to the placeholder's context

class indico.modules.events.registration.placeholders.registrations.**FieldPlaceholder**
Bases: indico.util.placeholders.ParametrizedPlaceholder

advanced = True

description = None

classmethod iter_param_info(*regform*, *registration*)
Yield information for known params.

Each item yielded must be a `(value, description)` tuple.

Parameters **kwargs** – arguments specific to the placeholder's context

name = 'field'

param_required = True

param_restricted = True

classmethod render(*param*, *regform*, *registration*)
Convert the placeholder to a string.

When a placeholder contains HTML that should not be escaped, the returned value should be returned as a `markupsafe.Markup` instance instead of a plain string.

Subclasses are encouraged to explicitly specify the arguments they expect instead of using `**kwargs`.

Parameters **kwargs** – arguments specific to the placeholder's context

class indico.modules.events.registration.placeholders.registrations.**FirstNamePlaceholder**
Bases: indico.util.placeholders.Placeholder

description = l'First name of the person'

name = 'first_name'

classmethod render(*regform*, *registration*)
Convert the placeholder to a string.

When a placeholder contains HTML that should not be escaped, the returned value should be returned as a `markupsafe.Markup` instance instead of a plain string.

Subclasses are encouraged to explicitly specify the arguments they expect instead of using `**kwargs`.

Parameters **kwargs** – arguments specific to the placeholder's context

class indico.modules.events.registration.placeholders.registrations.**IDPlaceholder**
Bases: indico.util.placeholders.Placeholder

description = l'The ID of the registration'

name = 'id'

classmethod render(*regform*, *registration*)
Convert the placeholder to a string.

When a placeholder contains HTML that should not be escaped, the returned value should be returned as a `markupsafe.Markup` instance instead of a plain string.

Subclasses are encouraged to explicitly specify the arguments they expect instead of using `**kwargs`.

Parameters **kwargs** – arguments specific to the placeholder's context

class indico.modules.events.registration.placeholders.registrations.**LastNamePlaceholder**
Bases: indico.util.placeholders.Placeholder

description = l'Last name of the person'

name = 'last_name'

classmethod render(*regform*, *registration*)
Convert the placeholder to a string.

When a placeholder contains HTML that should not be escaped, the returned value should be returned as a `markupsafe.Markup` instance instead of a plain string.

Subclasses are encouraged to explicitly specify the arguments they expect instead of using `**kwargs`.

Parameters **kwargs** – arguments specific to the placeholder's context

class indico.modules.events.registration.placeholders.registrations.**LinkPlaceholder**
Bases: indico.util.placeholders.Placeholder

description = l'The link to the registration details'

name = 'link'

classmethod render(*regform*, *registration*)
Convert the placeholder to a string.

When a placeholder contains HTML that should not be escaped, the returned value should be returned as a `markupsafe.Markup` instance instead of a plain string.

Subclasses are encouraged to explicitly specify the arguments they expect instead of using `**kwargs`.

Parameters **kwargs** – arguments specific to the placeholder's context

class indico.modules.events.registration.placeholders.registrations.**RejectionReasonPlaceho**
Bases: indico.util.placeholders.Placeholder

description = l'The reason why the registration was rejected'

name = 'rejection_reason'

classmethod render(*regform*, *registration*)
Convert the placeholder to a string.

When a placeholder contains HTML that should not be escaped, the returned value should be returned as a `markupsafe.Markup` instance instead of a plain string.

Subclasses are encouraged to explicitly specify the arguments they expect instead of using `**kwargs`.

Parameters **kwargs** – arguments specific to the placeholder's context

class indico.modules.events.registration.placeholders.invitations.**FirstNamePlaceholder**
Bases: indico.util.placeholders.Placeholder

description = l'First name of the person'

name = 'first_name'

classmethod render(*invitation*)
Convert the placeholder to a string.

When a placeholder contains HTML that should not be escaped, the returned value should be returned as a `markupsafe.Markup` instance instead of a plain string.

Subclasses are encouraged to explicitly specify the arguments they expect instead of using `**kwargs`.

Parameters **kwargs** – arguments specific to the placeholder's context

class indico.modules.events.registration.placeholders.invitations.**InvitationLinkPlaceholde**
Bases: indico.util.placeholders.Placeholder

description = l'Link to accept/decline the invitation'

name = 'invitation_link'

classmethod render(*invitation*)
Convert the placeholder to a string.

When a placeholder contains HTML that should not be escaped, the returned value should be returned as a `markupsafe.Markup` instance instead of a plain string.

Subclasses are encouraged to explicitly specify the arguments they expect instead of using `**kwargs`.

Parameters **kwargs** – arguments specific to the placeholder's context

required = True

class indico.modules.events.registration.placeholders.invitations.**LastNamePlaceholder**
Bases: indico.util.placeholders.Placeholder

description = l'Last name of the person'

name = 'last_name'

classmethod render(*invitation*)
Convert the placeholder to a string.

When a placeholder contains HTML that should not be escaped, the returned value should be returned as a `markupsafe.Markup` instance instead of a plain string.

Subclasses are encouraged to explicitly specify the arguments they expect instead of using `**kwargs`.

Parameters **kwargs** – arguments specific to the placeholder's context

Settings

class indico.modules.events.registration.settings.**RegistrationSettingsProxy**(*module*, *defaults=None*, *strict=True*, *acls=None*, *converters=None*)
Bases: *indico.modules.events.settings.EventSettingsProxy*

Store per-event registration settings.

get_participant_list_columns(*event*, *form=None*)

get_participant_list_form_ids(*event*)

set_participant_list_columns(*event*, *columns*, *form=None*)

set_participant_list_form_ids(*event*, *form_ids*)

Statistics

class indico.modules.events.registration.stats.**AccommodationStats**(*field*)
Bases: *indico.modules.events.registration.stats.FieldStats*, *indico.modules.events.registration.stats.StatsBase*

class indico.modules.events.registration.stats.**Cell**
Bases: *indico.modules.events.registration.stats.Cell*

Hold data and type for a cell of a stats table.

The table below indicates the valid types and expected data.

type	data
str	*str* – string value
progress	*(int, str)* – a tuple with the progress (a value between 0 and 1) and a label
progress-stacked	*([int], str)* – a tuple with a list of progresses (values which must sum up to 1) and a label
currency	*float* – numeric value
icon	*str* – icon name from *_icons.scss*
default	*None* – renders a default cell with an *—* (use *Cell(type='str')* for an empty cell)

Parameters

- **type** – str – The type of data in the cell
- **data** – The data for the cell
- **colspan** – int – HTML colspan value for the cell
- **classes** – [str] – HTML classes to apply to the cell
- **qtip** – str – content for qtip

class indico.modules.events.registration.stats.**DataItem**
Bases: *indico.modules.events.registration.stats.DataItem*

Hold the aggregation of some data, intended for stats tables as a aggregation from which to generate cells.

Parameters

- **regs** – int – number of registrant
- **attendance** – int – number of people attending
- **capacity** – int – maximum number of people allowed to attend (*0* if unlimited)
- **billable** – bool – whether the item is billable to the or not
- **cancelled** – bool – whether the item is cancelled or not
- **price** – str – the price of the item
- **fixed_price** – bool – *True* if the price is per registrant, *False* if accompanying guests must pay as well.
- **paid** – int – number of registrants who paid
- **paid_amount** – float – amount already paid by registrants
- **unpaid** – int – number of registrants who haven't paid
- **unpaid_amount** – float – amount not already paid by registrants

class indico.modules.events.registration.stats.**FieldStats**(*field*, ***kwargs*)
Bases: object

Hold stats for a registration form field.

get_table()
Return a table containing the stats for each item.

Returns dict – A table with a list of head cells (key: *'head'*) and a list of rows (key: *'rows'*) where each row is a list of cells.

is_currency_shown

class indico.modules.events.registration.stats.**OverviewStats**(*regform*)
Bases: *indico.modules.events.registration.stats.StatsBase*

Generic stats for a registration form.

class indico.modules.events.registration.stats.**StatsBase**(*title*, *subtitle*, *type*, ***kwargs*)
Bases: object

Base class for registration form statistics.

Parameters

- **title** – str – the title for the stats box

- **subtitle** – str – the subtitle for the stats box
- **type** – str – the type used in Jinja to display the stats

is_currency_shown

7.1.14 Reminder

Todo: Docstrings (module)

Models

class indico.modules.events.reminders.models.reminders.**EventReminder**(***kwargs*)
Bases: sqlalchemy.orm.decl_api.Model

Email reminders for events.

A simple constructor that allows initialization from kwargs.

Sets attributes on the constructed instance using the names and values in `kwargs`.

Only keys that are present as attributes of the instance's class are allowed. These could be, for example, any mapped columns or relationships.

all_recipients
Return all recipients of the notifications.

This includes both explicit recipients and, if enabled, participants/speakers of the event.

attach_ical
If the notification should include the event's iCalendar file.

created_dt
The date/time when the reminder was created

creator
The user who created the reminder

creator_id
The ID of the user who created the reminder

event
The Event this reminder is associated with

event_id
The ID of the event

event_start_delta
How long before the event start the reminder should be sent This is needed to update the *scheduled_dt* when changing the start time of the event.

id
The ID of the reminder

include_description
If the notification should include the event's description.

include_summary
If the notification should include a summary of the event's schedule.

is_overdue

is_relative
Return if the reminder is relative to the event time.

is_sent
If the reminder has been sent

locator

message
Custom message to include in the email

recipients
The recipients of the notification

reply_to_address
The address to use as Reply-To in the notification email.

scheduled_dt
The date/time when the reminder should be sent

send()
Send the reminder to its recipients.

send_to_participants
If the notification should also be sent to all event participants

send_to_speakers
If the notification should also be sent to all event speakers

Utilities

indico.modules.events.reminders.util.**make_reminder_email**(*event*, *with_agenda*, *with_description*, *note*)
Return the template module for the reminder email.

Parameters

- **event** – The event
- **with_agenda** – If the event's agenda should be included
- **note** – A custom message to include in the email

7.1.15 Request

Todo: Docstrings (module)

Models

class indico.modules.events.requests.models.requests.**Request**(***kwargs*)
Bases: sqlalchemy.orm.decl_api.Model

Event-related requests, e.g. for a webcast.

A simple constructor that allows initialization from kwargs.

Sets attributes on the constructed instance using the names and values in `kwargs`.

Only keys that are present as attributes of the instance's class are allowed. These could be, for example, any mapped columns or relationships.

can_be_modified
Determine if the request can be modified or if a new one must be sent.

comment
an optional comment for an accepted/rejected request

created_by_id
ID of the user creating the request

created_by_user
The user who created the request

created_dt
the date/time the request was created

data
plugin-specific data of the request

definition

event
The Event this agreement is associated with

event_id
ID of the event

classmethod find_latest_for_event(*event*, *type_=None*)
Return the latest requests for a given event.

Parameters

- **event** – the event to find the requests for
- **type** – the request type to retrieve, or *None* to get all

Returns a dict mapping request types to a *Request* or if *type_* was specified, a single *Request* or *None*

id
request ID

locator

processed_by_id
ID of the user processing the request

processed_by_user
The user who processed the request

processed_dt
the date/time the request was accepted/rejected

state
the requests's date, a *RequestState* value

type
the request type name

class indico.modules.events.requests.models.requests.**RequestState**
Bases: indico.util.enum.RichIntEnum

An enumeration.

accepted = 1

pending = 0

rejected = 2

withdrawn = 3

Utilities

indico.modules.events.requests.util.**get_request_definitions**()
Return a dict of request definitions.

indico.modules.events.requests.util.**is_request_manager**(*user*)
Check if the user manages any request types.

class indico.modules.events.requests.base.**RequestDefinitionBase**
Bases: object

A service request which can be sent by event managers.

classmethod accept(*req*, *data*, *user*)
Accept the request.

To ensure that additional data is saved, this method should call **:method:'manager_save'**.

Parameters

- **req** – the Request of the request
- **data** – the form data from the management form
- **user** – the user processing the request

classmethod can_be_managed(*user*)
Check whether the user is allowed to manage this request type.

Parameters **user** – a *User*

classmethod create_form(*event*, *existing_request=None*)
Create the request form.

Parameters

- **event** – the event the request is for
- **existing_request** – the Request if there's an existing request of this type

Returns an instance of an IndicoForm subclass

classmethod create_manager_form(*req*)
Create the request management form.

Parameters **req** – the Request of the request

Returns an instance of an IndicoForm subclass

form = None
the IndicoForm to use for the request form

form_defaults = {}
default values to use if there's no existing request

classmethod get_manager_notification_emails()
Return the email addresses of users who manage requests of this type.

The email addresses are used only for notifications. It usually makes sense to return the email addresses of the users who pass the **:method:‘can_be_managed‘** check.

Returns set of email addresses

classmethod get_notification_reply_email()
Return the *Reply-To* e-mail address for notifications.

classmethod get_notification_template(*name*, ***context*)
Get the template module for a notification email.

Parameters

- **name** – the template name
- **context** – data passed to the template

manager_form
the `IndicoForm` to use for the request manager form

alias of `RequestManagerForm`

classmethod manager_save(*req*, *data*)
Save management-specific data.

This method is called when the management form is submitted without accepting/rejecting the request (which is guaranteed to be already accepted or rejected).

Parameters

- **req** – the `Request` of the request
- **data** – the form data from the management form

name = None
the unique internal name of the request type

plugin = None
the plugin containing this request definition - assigned automatically

classmethod reject(*req*, *data*, *user*)
Reject the request.

To ensure that additional data is saved, this method should call **:method:‘manager_save‘**.

Parameters

- **req** – the `Request` of the request
- **data** – the form data from the management form
- **user** – the user processing the request

classmethod render_form(*event*, ***kwargs*)
Render the request form.

Parameters

- **event** – the event the request is for
- **kwargs** – arguments passed to the template

classmethod send(*req*, *data*)
Send a new/modified request.

Parameters

- **req** – the `Request` of the request
- **data** – the form data from the request form

title = None
the title of the request type as shown to users

classmethod withdraw(*req*, *notify_event_managers=True*)
Withdraw the request.

Parameters

- **req** – the `Request` of the request
- **notify_event_managers** – if event managers should be notified

7.1.16 Session

Todo: Docstrings (module, models, operations, utilities)

Models

class indico.modules.events.sessions.models.sessions.**Session**(***kwargs*)
Bases: indico.core.db.sqlalchemy.descriptions.DescriptionMixin, indico.core.db.sqlalchemy.colors.ColorMixin, indico.core.db.sqlalchemy.protection.ProtectionManagersMixin, indico.core.db.sqlalchemy.locations.LocationMixin, indico.core.db.sqlalchemy.attachments.AttachedItemsMixin, indico.core.db.sqlalchemy.notes.AttachedNotesMixin, sqlalchemy.orm.decl_api.Model

ATTACHMENT_FOLDER_ID_COLUMN = 'session_id'

PRELOAD_EVENT_ATTACHED_ITEMS = True

PRELOAD_EVENT_NOTES = True

access_key = None

acl_entries

allow_relationship_preloading = True

background_color

blocks

can_manage_blocks(*user*, *allow_admin=True*)
Check whether a user can manage session blocks.

This only applies to the blocks themselves, not to contributions inside them.

can_manage_contributions(*user*, *allow_admin=True*)
Check whether a user can manage contributions within the session.

code

conveners

default_colors = ColorTuple(text='202020', background='e3f2d3')

default_contribution_duration

default_render_mode = 2

disallowed_protection_modes = frozenset()

end_dt

event

event_id

friendly_id
The human-friendly ID for the session

get_non_inheriting_objects()
Get a set of child objects that do not inherit protection.

id

inherit_location

inheriting_have_acl = True

is_deleted

is_poster

location_backref_name = 'sessions'

location_parent
The parent object to consult if the location is inherited.

locator
Define a smart locator property.

This behaves pretty much like a normal read-only property and the decorated function should return a dict containing the necessary data to build a URL for the object.

This decorator should usually be applied to a method named `locator` as this name is required for *get_locator* to find it automatically when just passing the object.

If you need more than one locator, you can define it like this:

```
@locator_property
def locator(self):
    return {...}

@locator.other
def locator(self):
    return {...}
```

The `other` locator can then be accessed by passing `obj.locator.other` to the code expecting an object with a locator.

note

own_address

own_no_access_contact = None

own_room

own_room_id

own_room_name

own_venue

own_venue_id

own_venue_name

possible_render_modes = {<RenderMode.markdown: 2>}

classmethod preload_acl_entries(*event*)

protection_mode

protection_parent
The parent object to consult for ProtectionMode.inheriting.

render_mode = 2

session
Convenience property so all event entities have it.

start_dt

text_color

title

type

type_id

class indico.modules.events.sessions.models.blocks.**SessionBlock**(***kwargs*)
Bases: indico.core.db.sqlalchemy.locations.LocationMixin, sqlalchemy.orm.decl_api.Model

can_access(*user*, *allow_admin=True*)

can_edit_note(*user*)

can_manage(*user*, *allow_admin=True*)

can_manage_attachments(*user*)

code

contribution_count

duration

end_dt

event

full_title

has_note

id

inherit_location

location_backref_name = 'session_blocks'

location_parent
The parent object to consult if the location is inherited.

locator
Define a smart locator property.

This behaves pretty much like a normal read-only property and the decorated function should return a dict containing the necessary data to build a URL for the object.

This decorator should usually be applied to a method named `locator` as this name is required for *get_locator* to find it automatically when just passing the object.

If you need more than one locator, you can define it like this:

```
@locator_property
def locator(self):
    return {...}

@locator.other
def locator(self):
    return {...}
```

The `other` locator can then be accessed by passing `obj.locator.other` to the code expecting an object with a locator.

note

own_address

own_room

own_room_id

own_room_name

own_venue

own_venue_id

own_venue_name

person_links
Persons associated with this session block

session_id

slug

start_dt

title

class indico.modules.events.sessions.models.persons.**SessionBlockPersonLink**(**args*, ***kwargs*)

Bases: *indico.modules.events.models.persons.PersonLinkBase*

Association between EventPerson and SessionBlock.

Also known as a 'session convener'.

display_order

id

object_relationship_name = 'session_block'

person

person_id

person_link_backref_name = 'session_block_links'

person_link_unique_columns = ('session_block_id',)

session_block_id

class indico.modules.events.sessions.models.principals.**SessionPrincipal**(***kwargs*)

Bases: indico.core.db.sqlalchemy.principals.PrincipalPermissionsMixin, sqlalchemy.orm.decl_api.Model

A simple constructor that allows initialization from kwargs.

Sets attributes on the constructed instance using the names and values in `kwargs`.

Only keys that are present as attributes of the instance's class are allowed. These could be, for example, any mapped columns or relationships.

allow_category_roles = True

allow_emails = True

allow_event_roles = True

allow_registration_forms = True

category_role

category_role_id

disallowed_protection_modes = frozenset()

email

event_role

event_role_id

full_access

id

The ID of the acl entry

ip_network_group = None

ip_network_group_id = None

local_group

local_group_id

multipass_group_name

multipass_group_provider

permissions

principal_backref_name = 'in_session_acls'

principal_for = 'Session'

read_access

registration_form

registration_form_id

session_id

The ID of the associated session

type

unique_columns = ('session_id',)

user

user_id

Operations

indico.modules.events.sessions.operations.**create_session**(*event*, *data*)
Create a new session with the information passed in the *data* argument.

indico.modules.events.sessions.operations.**create_session_block**(*session_*, *data*)

indico.modules.events.sessions.operations.**delete_session**(*event_session*)
Delete session from the event.

indico.modules.events.sessions.operations.**delete_session_block**(*session_block*)

indico.modules.events.sessions.operations.**update_session**(*event_session*, *data*)
Update a session based on the information in the *data*.

indico.modules.events.sessions.operations.**update_session_block**(*session_block*, *data*)
Update a session block with data passed in the *data* argument.

indico.modules.events.sessions.operations.**update_session_coordinator_privs**(*event*, *data*)

Utilities

class indico.modules.events.sessions.util.**SessionListToPDF**(*sessions*)
Bases: indico.legacy.pdfinterface.base.PDFBase

getBody(*story=None*)
Add the content to the story.

indico.modules.events.sessions.util.**can_manage_sessions**(*user*, *event*, *permission=None*)
Check whether a user can manage any sessions in an event.

indico.modules.events.sessions.util.**generate_pdf_from_sessions**(*sessions*)
Generate a PDF file from a given session list.

indico.modules.events.sessions.util.**generate_spreadsheet_from_sessions**(*sessions*)
Generate spreadsheet data from a given session list.

Parameters **sessions** – The sessions to include in the spreadsheet

indico.modules.events.sessions.util.**get_events_with_linked_sessions**(*user*, *dt=None*)
Return a dict with keys representing event_id and the values containing data about the user rights for sessions within the event.

Parameters

- **user** – A *User*
- **dt** – Only include events taking place on/after that date

indico.modules.events.sessions.util.**get_session_timetable_pdf**(*sess*, ***kwargs*)

indico.modules.events.sessions.util.**get_sessions_for_user**(*event*, *user*)

indico.modules.events.sessions.util.**has_sessions_for_user**(*event*, *user*)

indico.modules.events.sessions.util.**render_session_type_row**(*session_type*)

indico.modules.events.sessions.util.**session_coordinator_priv_enabled**(*event*, *priv*)

Check whether a coordinator privilege is enabled.

Currently the following privileges are available:

- manage-contributions
- manage-blocks

Parameters

- **event** – The *Event* to check for
- **priv** – The name of the privilege

7.1.17 Survey

Todo: Docstrings (module, models)

Models

class indico.modules.events.surveys.models.surveys.**Survey**(***kwargs*)

Bases: sqlalchemy.orm.decl_api.Model

A simple constructor that allows initialization from kwargs.

Sets attributes on the constructed instance using the names and values in `kwargs`.

Only keys that are present as attributes of the instance's class are allowed. These could be, for example, any mapped columns or relationships.

anonymous
Whether submissions will not be linked to a user

can_submit(*user*)

close()

end_dt
Datetime when the survey is closed

event
The Event containing this survey

event_id
The ID of the event

has_ended

has_started

id
The ID of the survey

introduction

is_active

is_deleted
Whether the survey has been marked as deleted

is_visible

items
The list of items

limit_reached

locator
Define a smart locator property.

This behaves pretty much like a normal read-only property and the decorated function should return a dict containing the necessary data to build a URL for the object.

This decorator should usually be applied to a method named `locator` as this name is required for *get_locator* to find it automatically when just passing the object.

If you need more than one locator, you can define it like this:

```
@locator_property
def locator(self):
    return {...}

@locator.other
def locator(self):
    return {...}
```

The `other` locator can then be accessed by passing `obj.locator.other` to the code expecting an object with a locator.

new_submission_emails
Email addresses to notify about new submissions

notifications_enabled
Whether to send survey related notifications to users

notify_participants
Whether include Participants / Registrants when sending start notifications

open()

partial_completion
Whether answers can be saved without submitting the survey

private

questions
The list of questions

require_user
Whether submissions must be done by logged users

sections
The list of sections

send_start_notification()

send_submission_notification(*submission*)

start_dt
Datetime when the survey is open

start_notification_emails
Email addresses to notify about the start of a survey

start_notification_recipients
Return all recipients of the notifications.

This includes both explicit recipients and, if enabled, participants of the event.

start_notification_sent
Whether start notification has been already sent

state

submission_limit
Maximum number of submissions allowed

submissions
The list of submissions

title
The title of the survey

uuid

class indico.modules.events.surveys.models.surveys.**SurveyState**
Bases: indico.util.enum.IndicoEnum

An enumeration.

active_and_answered = 4

active_and_clean = 3

finished = 5

limit_reached = 6

not_ready = 1

ready_to_open = 2

class indico.modules.events.surveys.models.items.**SurveyItem**(***kwargs*)
Bases: indico.core.db.sqlalchemy.descriptions.DescriptionMixin, sqlalchemy.orm.decl_api.Model

A simple constructor that allows initialization from kwargs.

Sets attributes on the constructed instance using the names and values in `kwargs`.

Only keys that are present as attributes of the instance's class are allowed. These could be, for example, any mapped columns or relationships.

default_render_mode = 2

display_as_section
If a section should be rendered as a section

field_data
Field-specific data (such as choices for multi-select fields)

field_type
The type of the field used for the question

id
The ID of the item

is_required
If the question must be answered (wtforms DataRequired)

parent_id
The ID of the parent section item (NULL for top-level items, i.e. sections)

position
The position of the item in the survey form

possible_render_modes = {<RenderMode.markdown: 2>}

render_mode = 2

survey_id
The ID of the survey

title
The title of the item

to_dict()
Return a json-serializable representation of this object.

Subclasses must add their own data to the dict.

type
The type of the survey item

class indico.modules.events.surveys.models.items.**SurveyItemType**
Bases: int, indico.util.enum.IndicoEnum

An enumeration.

question = 1

section = 2

text = 3

class indico.modules.events.surveys.models.items.**SurveyQuestion**(**kwargs*)
Bases: *indico.modules.events.surveys.models.items.SurveyItem*

A simple constructor that allows initialization from kwargs.

Sets attributes on the constructed instance using the names and values in `kwargs`.

Only keys that are present as attributes of the instance's class are allowed. These could be, for example, any mapped columns or relationships.

display_as_section

field

field_data

field_type

get_summary(**kwargs*)
Return the summary of answers submitted for this question.

id

is_required

locator

not_empty_answers

parent_id

position

render_mode = 2

survey_id

title

to_dict()
Return a json-serializable representation of this object.

Subclasses must add their own data to the dict.

type

class indico.modules.events.surveys.models.items.**SurveySection**(***kwargs*)
Bases: *indico.modules.events.surveys.models.items.SurveyItem*

A simple constructor that allows initialization from kwargs.

Sets attributes on the constructed instance using the names and values in `kwargs`.

Only keys that are present as attributes of the instance's class are allowed. These could be, for example, any mapped columns or relationships.

children
The child items of this section

display_as_section

field_data

field_type

id

is_required

locator

parent_id

position

render_mode = 2

survey_id

title

to_dict()
Return a json-serializable representation of this object.

Subclasses must add their own data to the dict.

type

class indico.modules.events.surveys.models.items.**SurveyText**(***kwargs*)
Bases: *indico.modules.events.surveys.models.items.SurveyItem*

A simple constructor that allows initialization from kwargs.

Sets attributes on the constructed instance using the names and values in `kwargs`.

Only keys that are present as attributes of the instance's class are allowed. These could be, for example, any mapped columns or relationships.

display_as_section

field_data

field_type

id

is_required

locator

parent_id

position

render_mode = 2

survey_id

title

to_dict()
Return a json-serializable representation of this object.

Subclasses must add their own data to the dict.

type

class indico.modules.events.surveys.models.submissions.**SurveyAnswer**(***kwargs*)
Bases: sqlalchemy.orm.decl_api.Model

A simple constructor that allows initialization from kwargs.

Sets attributes on the constructed instance using the names and values in kwargs.

Only keys that are present as attributes of the instance's class are allowed. These could be, for example, any mapped columns or relationships.

answer_data

data
The user's answer (no, not 42!) to the question

is_empty

question
The list of answers

question_id
The ID of the question

submission_id
The ID of the submission

class indico.modules.events.surveys.models.submissions.**SurveySubmission**(***kwargs*)
Bases: sqlalchemy.orm.decl_api.Model

A simple constructor that allows initialization from kwargs.

Sets attributes on the constructed instance using the names and values in kwargs.

Only keys that are present as attributes of the instance's class are allowed. These could be, for example, any mapped columns or relationships.

answers
The list of answers

friendly_id
The human-friendly ID of the submission

id
The ID of the submission

is_anonymous
Whether the survey submission is anonymous

is_submitted
Whether the survey was submitted

locator

pending_answers
List of non-submitted answers

submitted_dt
The date/time when the survey was submitted

survey_id
The ID of the survey

user
The user who submitted the survey

user_id
The ID of the user who submitted the survey

Operations

indico.modules.events.surveys.operations.**add_survey_question**(*section*, *field_cls*, *data*)
Add a question to a survey.

Parameters

- **section** – The *SurveySection* to which the question will be added.
- **field_cls** – The field class of this question.
- **data** – The *FieldConfigForm.data* to populate the question with.

Returns The added *SurveyQuestion*.

indico.modules.events.surveys.operations.**add_survey_section**(*survey*, *data*)
Add a section to a survey.

Parameters

- **survey** – The *Survey* to which the section will be added.
- **data** – Attributes of the new *SurveySection*.

Returns The added *SurveySection*.

indico.modules.events.surveys.operations.**add_survey_text**(*section*, *data*)
Add a text item to a survey.

Parameters

- **section** – The *SurveySection* to which the question will be added.
- **data** – The *TextForm.data* to populate the question with.

Returns The added *SurveyText*.

Utilities

indico.modules.events.surveys.util.**generate_spreadsheet_from_survey**(*survey*, *submission_ids*)

Generate spreadsheet data from a given survey.

Parameters

- **survey** – *Survey* for which the user wants to export submissions
- **submission_ids** – The list of submissions to include in the file

indico.modules.events.surveys.util.**get_events_with_submitted_surveys**(*user*, *dt=None*)

Get the IDs of events where the user submitted a survey.

Parameters

- **user** – A *User*
- **dt** – Only include events taking place on/after that date

Returns A set of event ids

indico.modules.events.surveys.util.**is_submission_in_progress**(*survey*)

Check whether the current user has a survey submission in progress.

indico.modules.events.surveys.util.**make_survey_form**(*survey*)

Create a WTForm from survey questions.

Each question will use a field named `question_ID`.

Parameters **survey** – The *Survey* for which to create the form.

Returns An *IndicoForm* subclass.

indico.modules.events.surveys.util.**query_active_surveys**(*event*)

indico.modules.events.surveys.util.**save_submitted_survey_to_session**(*submission*)

Save submission of a survey to session for further checks.

indico.modules.events.surveys.util.**was_survey_submitted**(*survey*)

Check whether the current user has submitted a survey.

7.1.18 Timetable

Todo: Docstring (module, models, operations, utilities)

Models

class indico.modules.events.timetable.models.breaks.**Break**(***kwargs*)

Bases: indico.core.db.sqlalchemy.descriptions.DescriptionMixin, indico.core.db.sqlalchemy.colors.ColorMixin, indico.core.db.sqlalchemy.locations.LocationMixin, sqlalchemy.orm.decl_api.Model

A simple constructor that allows initialization from kwargs.

Sets attributes on the constructed instance using the names and values in `kwargs`.

Only keys that are present as attributes of the instance's class are allowed. These could be, for example, any mapped columns or relationships.

background_color

can_access(*user*)

default_colors = ColorTuple(text='202020', background='90c0f0')

default_render_mode = 2

duration

end_dt

event

id

inherit_location

location_backref_name = 'breaks'

location_parent
The parent object to consult if the location is inherited.

locator
Define a smart locator property.

This behaves pretty much like a normal read-only property and the decorated function should return a dict containing the necessary data to build a URL for the object.

This decorator should usually be applied to a method named `locator` as this name is required for *get_locator* to find it automatically when just passing the object.

If you need more than one locator, you can define it like this:

```
@locator_property
def locator(self):
    return {...}

@locator.other
def locator(self):
    return {...}
```

The `other` locator can then be accessed by passing `obj.locator.other` to the code expecting an object with a locator.

own_address

own_room

own_room_id

own_room_name

own_venue

own_venue_id

own_venue_name

possible_render_modes = {<RenderMode.markdown: 2>}

render_mode = 2

start_dt

text_color

title

class indico.modules.events.timetable.models.entries.**TimetableEntry**(***kwargs*)
Bases: sqlalchemy.orm.decl_api.Model

A simple constructor that allows initialization from kwargs.

Sets attributes on the constructed instance using the names and values in `kwargs`.

Only keys that are present as attributes of the instance's class are allowed. These could be, for example, any mapped columns or relationships.

break_

break_id

can_view(*user*)
Check whether the user will see this entry in the timetable.

children

contribution

contribution_id

duration

end_dt

event

event_id

extend_end_dt(*end_dt*)

extend_parent(*by_start=True*, *by_end=True*)
Extend start/end of parent objects if needed.

No extension if performed for entries crossing a day boundary in the event timezone.

Parameters

- **by_start** – Extend parent by start datetime.
- **by_end** – Extend parent by end datetime.

extend_start_dt(*start_dt*)

id

is_parallel(*in_session=False*)

locator
Define a smart locator property.

This behaves pretty much like a normal read-only property and the decorated function should return a dict containing the necessary data to build a URL for the object.

This decorator should usually be applied to a method named `locator` as this name is required for *get_locator* to find it automatically when just passing the object.

If you need more than one locator, you can define it like this:

```
@locator_property
def locator(self):
    return {...}

@locator.other
def locator(self):
    return {...}
```

The `other` locator can then be accessed by passing `obj.locator.other` to the code expecting an object with a locator.

move(*start_dt*)
Move the entry to start at a different time.

This method automatically moves children of the entry to preserve their start time relative to the parent's start time.

move_next_to(*sibling*, *position='before'*)

object

parent_id

session_block

session_block_id

session_siblings

siblings

siblings_query

start_dt

type

class indico.modules.events.timetable.models.entries.**TimetableEntryType**
Bases: indico.util.enum.RichIntEnum

An enumeration.

BREAK = 3

CONTRIBUTION = 2

SESSION_BLOCK = 1

Operations

indico.modules.events.timetable.operations.**can_swap_entry**(*entry*, *direction*, *in_session=False*)

indico.modules.events.timetable.operations.**create_break_entry**(*event*, *data*, *session_block=None*)

indico.modules.events.timetable.operations.**create_session_block_entry**(*session_*, *data*)

indico.modules.events.timetable.operations.**create_timetable_entry**(*event*, *data*, *parent=None*, *extend_parent=False*)

indico.modules.events.timetable.operations.**delete_timetable_entry**(*entry*, *log=True*)

indico.modules.events.timetable.operations.**fit_session_block_entry**(*entry*, *log=True*)

indico.modules.events.timetable.operations.**get_sibling_entry**(*entry*, *direction*, *in_session=False*)

indico.modules.events.timetable.operations.**move_timetable_entry**(*entry*, *parent=None*, *day=None*)

Move the *entry* to another session or top-level timetable.

Parameters

- **entry** – *TimetableEntry* to be moved
- **parent** – If specified then the entry will be set as a child of parent
- **day** – If specified then the entry will be moved to the top-level timetable on this day

indico.modules.events.timetable.operations.**schedule_contribution**(*contribution*, *start_dt*, *session_block=None*, *extend_parent=False*)

indico.modules.events.timetable.operations.**swap_timetable_entry**(*entry*, *direction*, *session_=None*)

Swap entry with closest gap or non-parallel sibling.

indico.modules.events.timetable.operations.**update_break_entry**(*break_*, *data*)

indico.modules.events.timetable.operations.**update_timetable_entry**(*entry*, *data*)

indico.modules.events.timetable.operations.**update_timetable_entry_object**(*entry*, *data*)

Update the *object* of a timetable entry according to its type.

Utilities

indico.modules.events.timetable.util.**find_latest_entry_end_dt**(*obj*, *day=None*)

Get the latest end datetime for timetable entries within the object.

Parameters

- **obj** – The `Event` or `SessionBlock` that will be used to look for timetable entries.
- **day** – The local event date to look for timetable entries. Applicable only to `Event`.

Returns The end datetime of the timetable entry finishing the latest. `None` if no entry was found.

indico.modules.events.timetable.util.**find_next_start_dt**(*duration*, *obj*, *day=None*, *force=False*)

Find the next most convenient start date fitting a duration within an object.

Parameters

- **duration** – Duration to fit into the event/session-block.
- **obj** – The `Event` or `SessionBlock` the duration needs to fit into.
- **day** – The local event date where to fit the duration in case the object is an event.

- **force** – Gives earliest datetime if the duration doesn't fit.

Returns The end datetime of the latest scheduled entry in the object if the duration fits then. It it doesn't, the latest datetime that fits it. `None` if the duration cannot fit in the object, earliest datetime if `force` is `True`.

indico.modules.events.timetable.util.**get_category_timetable**(*categ_ids*, *start_dt*, *end_dt*, *detail_level='event'*, *tz=<UTC>*, *from_categ=None*, *grouped=True*, *includible=<function <lambda>>*)

Retrieve time blocks that fall within a specific time interval for a given set of categories.

Parameters

- **categ_ids** – iterable containing list of category IDs
- **start_dt** – start of search interval (`datetime`, expected to be in display timezone)
- **end_dt** – end of search interval (`datetime` in expected to be in display timezone)
- **detail_level** – the level of detail of information (`event|session|contribution`)
- **tz** – the `timezone` information should be displayed in
- **from_categ** – `Category` that will be taken into account to calculate visibility
- **grouped** – Whether to group results by start date
- **includible** – a callable, to allow further arbitrary custom filtering (maybe from 3rd party plugins) on whether to include (returns True) or not (returns False) each `detail` item. Default always returns True.

Returns a dictionary containing timetable information in a structured way. See source code for examples.

indico.modules.events.timetable.util.**get_nested_entries**(*event*)

indico.modules.events.timetable.util.**get_session_block_entries**(*event*, *day*)

Return a list of event top-level session blocks for the given *day*.

indico.modules.events.timetable.util.**get_time_changes_notifications**(*changes*, *tzinfo*, *entry=None*)

indico.modules.events.timetable.util.**get_timetable_offline_pdf_generator**(*event*)

indico.modules.events.timetable.util.**get_top_level_entries**(*event*)

indico.modules.events.timetable.util.**render_entry_info_balloon**(*entry*, *editable=False*, *sess=None*, *is_session_timetable=False*)

indico.modules.events.timetable.util.**render_session_timetable**(*session*, *timetable_layout=None*, *management=False*)

indico.modules.events.timetable.util.**shift_following_entries**(*entry*, *shift*, *session_=None*)

Reschedule entries starting after the given entry by the given shift.

class indico.modules.events.timetable.reschedule.**RescheduleMode**

Bases: str, indico.util.enum.RichEnum

An enumeration.

duration = 'duration'

none = 'none'

time = 'time'

class indico.modules.events.timetable.reschedule.**Rescheduler**(*event*, *mode*, *day*, *session=None*, *session_block=None*, *fit_blocks=False*, *gap=datetime.timedelta(0)*)

Bases: object

Compact the the schedule of an event day by either adjusting start times or durations of timetable entries.

Parameters

- **event** – The event of which the timetable entries should be rescheduled.
- **mode** – A *RescheduleMode* value specifying whether the duration or start time should be adjusted.
- **day** – A *date* specifying the day to reschedule (the day of the timetable entries are determined using the event's timezone)
- **session** – If specified, only blocks of that session will be rescheduled, ignoring any other timetable entries. Cannot be combined with *session_block*.
- **session_block`** – If specified, only entries inside that block will be rescheduled. Cannot be combined with *session*.
- **fit_blocks** – Whether session blocks should be resized to exactly fit their contents before the actual rescheduling operation.
- **gap** – A timedelta specifying the cap between rescheduled timetable entries.

run()

Perform the rescheduling.

7.1.19 Track

Todo: Docstring (module, models, operations)

Models

class indico.modules.events.tracks.models.tracks.**Track**(***kwargs*)

Bases: indico.core.db.sqlalchemy.descriptions.DescriptionMixin, indico.core.db.sqlalchemy.protection.ProtectionManagersMixin, sqlalchemy.orm.decl_api.Model

A simple constructor that allows initialization from kwargs.

Sets attributes on the constructed instance using the names and values in `kwargs`.

Only keys that are present as attributes of the instance's class are allowed. These could be, for example, any mapped columns or relationships.

access_key = None

acl_entries

can_convene(*user*)

can_delete(*user*)

can_review_abstracts(*user*)

code

default_render_mode = 2

default_session

default_session_id

disable_protection_mode = True

event

event_id

full_title

full_title_with_group

id

is_track_group = False

locator

Define a smart locator property.

This behaves pretty much like a normal read-only property and the decorated function should return a dict containing the necessary data to build a URL for the object.

This decorator should usually be applied to a method named `locator` as this name is required for *get_locator* to find it automatically when just passing the object.

If you need more than one locator, you can define it like this:

```
@locator_property
def locator(self):
    return {...}

@locator.other
def locator(self):
    return {...}
```

The `other` locator can then be accessed by passing `obj.locator.other` to the code expecting an object with a locator.

own_no_access_contact = None

position

possible_render_modes = {<RenderMode.markdown: 2>}

protection_mode = None

render_mode = 2

short_title

short_title_with_group

title

title_with_group

track_group

track_group_id

indico.modules.events.tracks.models.tracks.**get_next_position**(*context*)

class indico.modules.events.tracks.models.principals.**TrackPrincipal**(***kwargs*)

Bases: indico.core.db.sqlalchemy.principals.PrincipalPermissionsMixin, sqlalchemy.orm.decl_api.Model

A simple constructor that allows initialization from kwargs.

Sets attributes on the constructed instance using the names and values in `kwargs`.

Only keys that are present as attributes of the instance's class are allowed. These could be, for example, any mapped columns or relationships.

allow_category_roles = True

allow_event_roles = True

category_role

category_role_id

email = None

event_role

event_role_id

full_access

id

ip_network_group = None

ip_network_group_id = None

local_group

local_group_id

multipass_group_name

multipass_group_provider

permissions

principal_backref_name = 'in_track_acls'

principal_for = 'Track'

read_access

registration_form = None

registration_form_id = None

track_id

type

unique_columns = ('track_id',)

user

user_id

Operations

indico.modules.events.tracks.operations.**create_track**(*event*, *data*)

indico.modules.events.tracks.operations.**create_track_group**(*event*, *data*)

indico.modules.events.tracks.operations.**delete_track**(*track*)

indico.modules.events.tracks.operations.**delete_track_group**(*track_group*)

indico.modules.events.tracks.operations.**update_program**(*event*, *data*)

indico.modules.events.tracks.operations.**update_track**(*track*, *data*)

indico.modules.events.tracks.operations.**update_track_group**(*track_group*, *data*)

7.1.20 Static site

Todo: Doctrings (module, utilities)

Models

class indico.modules.events.static.models.static.**StaticSite**(***kwargs*)

Bases: indico.core.storage.models.StoredFileMixin, sqlalchemy.orm.decl_api.Model

Static site for an Indico event.

A simple constructor that allows initialization from kwargs.

Sets attributes on the constructed instance using the names and values in `kwargs`.

Only keys that are present as attributes of the instance's class are allowed. These could be, for example, any mapped columns or relationships.

add_file_date_column = False

content_type
The MIME type of the file.

created_dt = None

creator
The user who created the static site

creator_id
ID of the user who created the static site

event
The Event this static site is associated with

event_id
ID of the event

extension
The extension of the file.

file_required = False

filename
The name of the file.

id
Entry ID

locator

md5
An MD5 hash of the file.

Automatically assigned when *save()* is called.

requested_dt
The date and time the static site was requested

size
The size of the file (in bytes).

Automatically assigned when *save()* is called.

state
The state of the static site (a *StaticSiteState* member)

storage_backend

storage_file_id

class indico.modules.events.static.models.static.**StaticSiteState**
Bases: indico.util.enum.RichIntEnum

An enumeration.

expired = 4

failed = 3

pending = 0

running = 1

success = 2

Utilities

class indico.modules.events.static.util.**RewrittenManifest**(*manifest*)
Bases: pywebpack.manifests.Manifest

A manifest that rewrites its asset paths.

indico.modules.events.static.util.**collect_static_files**()
Keep track of URLs used by manifest and url_for.

indico.modules.events.static.util.**override_request_endpoint**(*endpoint*)

indico.modules.events.static.util.**rewrite_css_urls**(*event*, *css*)
Rewrite CSS in order to handle url(...) properly.

indico.modules.events.static.util.**rewrite_static_url**(*path*)
Remove __vxxx prefix from static URLs.

indico.modules.events.static.util.**url_to_static_filename**(*endpoint*, *url*)
Handle special endpoint/URLs so that they link to offline content.

7.1.21 Category

Todo: Docstrings (module, model, operations, utilities)

Models

class indico.modules.categories.models.categories.**Category**(***kwargs*)
Bases: indico.core.db.sqlalchemy.searchable.SearchableTitleMixin, indico.core.db.sqlalchemy.descriptions.DescriptionMixin, indico.core.db.sqlalchemy.protection.ProtectionManagersMixin, indico.core.db.sqlalchemy.attachments.AttachedItemsMixin, sqlalchemy.orm.decl_api.Model

An Indico category.

A simple constructor that allows initialization from kwargs.

Sets attributes on the constructed instance using the names and values in `kwargs`.

Only keys that are present as attributes of the instance's class are allowed. These could be, for example, any mapped columns or relationships.

ATTACHMENT_FOLDER_ID_COLUMN = 'category_id'

access_key = None

acl_entries

allow_no_access_contact = True

allow_relationship_preloading = True

can_create_events(*user*)
Check whether the user can create events in the category.

can_propose_events(*user*)
Check whether the user can propose move requests to the category.

chain_query
Get a query object for the category chain.

The query retrieves the root category first and then all the intermediate categories up to (and including) this category.

children

deep_children_query
Get a query object for all subcategories.

This includes subcategories at any level of nesting.

default_badge_template

default_badge_template_id

default_event_themes

default_render_mode = 2

default_ticket_template

default_ticket_template_id

disallowed_protection_modes = frozenset()

display_tzinfo
The tzinfo of the category or the one specified by the user.

effective_icon_url
Get the HTTP URL of the icon (possibly inherited).

event_creation_mode

event_creation_notification_emails

event_message

event_message_mode

get_hidden_events(*user=None*)
Get all hidden events within the given category and user.

classmethod get_icon_data_cte()

classmethod get_protection_cte()

get_protection_parent_cte()

classmethod get_root()
Get the root category.

classmethod get_subtree_ids_cte(*ids*)
Create a CTE for a category subtree.

This CTE contains a single `id` column that contains all the specified IDs and those of all their subcategories.

This is likely to be much more performant than *get_tree_cte* when the query is used with LIMIT, especially in large databases.

classmethod get_tree_cte(*col='id'*)
Create a CTE for the category tree.

The CTE contains the following columns:

- `id` – the category id
- **`path` – an array containing the path from the root to** the category itself
- `is_deleted` – whether the category is deleted

Parameters **`col`** – The name of the column to use in the path or a callable receiving the category alias that must return the expression used for the 'path' retrieved by the CTE.

static get_visible_categories_cte(*category_id*)
Get a sqlalchemy select for the visible categories within the given category, including the category itself.

has_effective_icon

has_icon

has_logo

icon

icon_metadata

icon_url
Get the HTTP URL of the icon.

id

inheriting_have_acl = True

is_deleted

is_descendant_of(*categ*)

is_empty

is_flat_view_enabled

is_root

locator
Define a smart locator property.

This behaves pretty much like a normal read-only property and the decorated function should return a dict containing the necessary data to build a URL for the object.

This decorator should usually be applied to a method named `locator` as this name is required for *get_locator* to find it automatically when just passing the object.

If you need more than one locator, you can define it like this:

```
@locator_property
def locator(self):
    return {...}

@locator.other
def locator(self):
    return {...}
```

The `other` locator can then be accessed by passing `obj.locator.other` to the code expecting an object with a locator.

log(*realm*, *kind*, *module*, *summary*, *user=None*, *type_='simple'*, *data=None*, *meta=None*)
Create a new log entry for the category.

Parameters

- **realm** – A value from *CategoryLogRealm* indicating the realm of the action.
- **kind** – A value from *LogKind* indicating the kind of the action that was performed.
- **module** – A human-friendly string describing the module related to the action.
- **summary** – A one-line summary describing the logged action.
- **user** – The user who performed the action.
- **type** – The type of the log entry. This is used for custom rendering of the log message/data
- **data** – JSON-serializable data specific to the log type.
- **meta** – JSON-serializable data that won't be displayed.

Returns The newly created *EventLogEntry*

In most cases the `simple` log type is fine. For this type, any items from data will be shown in the detailed view of the log entry. You may either use a dict (which will be sorted) alphabetically or a list of `key, value` pairs which will be displayed in the given order.

logo

logo_metadata

logo_url
Get the HTTP URL of the logo.

move(*target: indico.modules.categories.models.categories.Category*)
Move the category into another category.

notify_managers

nth_parent(*n_categs*, *fail_on_overflow=True*)
Return the nth parent of the category.

Parameters

- **n_categs** – the number of categories to go up
- **fail_on_overflow** – whether to fail if we try to go above the root category

Returns *Category* object or None (only if `fail_on_overflow` is not set)

own_no_access_contact

own_visibility_horizon
Get the highest category this one would like to be visible from (configured visibility).

parent_chain_query
Get a query object for the category's parent chain.

The query retrieves the root category first and then all the intermediate categories up to (excluding) this category.

parent_id

position

possible_render_modes = {<RenderMode.markdown: 2>}

protection_mode

protection_parent
The parent object to consult for ProtectionMode.inheriting.

real_visibility_horizon
Get the highest category this one is actually visible from (as limited by categories above).

render_mode = 2

suggestions_disabled

timezone

title

tzinfo

url

visibility

visibility_horizon_query
Get a query object that returns the highest category this one is visible from.

visible_categories_query
Get a query object for the visible categories within this category, including the category itself.

class indico.modules.categories.models.categories.**EventCreationMode**
Bases: indico.util.enum.RichIntEnum

An enumeration.

moderated = 2

open = 3

restricted = 1

class indico.modules.categories.models.categories.**EventMessageMode**
Bases: indico.util.enum.RichIntEnum

An enumeration.

danger = 3

disabled = 0

info = 1

warning = 2

class indico.modules.categories.models.principals.**CategoryPrincipal**(***kwargs*)
Bases: indico.core.db.sqlalchemy.principals.PrincipalPermissionsMixin, sqlalchemy.orm.decl_api.Model

A simple constructor that allows initialization from kwargs.

Sets attributes on the constructed instance using the names and values in kwargs.

Only keys that are present as attributes of the instance's class are allowed. These could be, for example, any mapped columns or relationships.

allow_category_roles = True

allow_networks = True

category_id
The ID of the associated event

category_role

category_role_id

email = None

event_role = None

event_role_id = None

full_access

id
The ID of the acl entry

ip_network_group

ip_network_group_id

local_group

local_group_id

multipass_group_name

multipass_group_provider

permissions

principal_backref_name = 'in_category_acls'

principal_for = 'Category'

read_access

registration_form = None

registration_form_id = None

type

unique_columns = ('category_id',)

user

user_id

class indico.modules.categories.models.settings.**CategorySetting**(***kwargs*)

Bases: indico.core.settings.models.base.JSONSettingsBase, sqlalchemy.orm.decl_api.Model

A simple constructor that allows initialization from kwargs.

Sets attributes on the constructed instance using the names and values in `kwargs`.

Only keys that are present as attributes of the instance's class are allowed. These could be, for example, any mapped columns or relationships.

category

category_id

id

module

name

value

Operations

indico.modules.categories.operations.**create_category**(*parent*, *data*)

indico.modules.categories.operations.**delete_category**(*category*)

indico.modules.categories.operations.**move_category**(*category*, *target_category*)

indico.modules.categories.operations.**update_category**(*category*, *data*, *skip=()*)

indico.modules.categories.operations.**update_category_protection**(*category*, *data*)

indico.modules.categories.operations.**update_event_move_request**(*request*, *accept*, *reason=''*)

Utilities

indico.modules.categories.util.**can_create_unlisted_events**(*user*)

indico.modules.categories.util.**format_visibility**(*category_or_event*, *visibility*)

indico.modules.categories.util.**get_attachment_count**(*category_id=None*)
Get the number of attachments in events in a category.

Parameters **category_id** – The category ID to get statistics for. Attachments from subcategories are also included.

Returns The number of attachments

indico.modules.categories.util.**get_category_stats**(*category_id=None*)
Get category statistics.

This function is mainly a helper so we can get and cache all values at once and keep a last-update timestamp.

Parameters **category_id** – The category ID to get statistics for. Subcategories are also included.

indico.modules.categories.util.**get_contribs_by_year**(*category_id=None*)
Get the number of contributions for each year.

Parameters **category_id** – The category ID to get statistics for. Contributions from subcategories are also included.

Returns A dictionary mapping years to contribution counts.

indico.modules.categories.util.**get_events_by_year**(*category_id=None*)
Get the number of events for each year.

Parameters **category_id** – The category ID to get statistics for. Events from subcategories are also included.

Returns A dictionary mapping years to event counts.

indico.modules.categories.util.**get_image_data**(*image_type*, *category*)

indico.modules.categories.util.**get_min_year**(*category_id=None*)
Get the min year.

Parameters **category_id** – The category ID to get statistics for.

Returns The year.

indico.modules.categories.util.**get_upcoming_events**()
Get the global list of upcoming events.

indico.modules.categories.util.**get_visibility_options**(*category_or_event*, *allow_invisible=True*)
Return the visibility options available for the category or event.

indico.modules.categories.util.**serialize_category_role**(*role*, *legacy=True*)
Serialize role to JSON-like object.

indico.modules.categories.serialize.**serialize_categories_ical**(*category_ids*, *user*, *event_filter=True*, *event_filter_fn=None*, *update_query=None*)
Export the events in a category to iCal.

Parameters

- **category_ids** – Category IDs to export
- **user** – The user who needs to be able to access the events
- **event_filter** – A SQLalchemy criterion to restrict which events will be returned. Usually something involving the start/end date of the event.
- **event_filter_fn** – A callable that determines which events to include (after querying)
- **update_query** – A callable that can update the query used to retrieve the events. Must return the updated query object.

indico.modules.categories.serialize.**serialize_category**(*category*, *with_favorite=False*, *with_path=False*, *parent_path=None*, *child_path=None*)

indico.modules.categories.serialize.**serialize_category_atom**(*category*, *url*, *user*, *event_filter*)

Export the events in a category to Atom.

Parameters

- **category** – The category to export
- **url** – The URL of the feed
- **user** – The user who needs to be able to access the events
- **event_filter** – A SQLalchemy criterion to restrict which events will be returned. Usually something involving the start/end date of the event.

indico.modules.categories.serialize.**serialize_category_chain**(*category*, *include_children=False*, *include_parents=False*)

Settings

class indico.modules.categories.settings.**CategorySettingsProxy**(*module*, *defaults=None*, *strict=True*, *acls=None*, *converters=None*)

Bases: indico.core.settings.proxy.SettingsProxyBase

Proxy class to access category-specific settings for a certain module.

delete(*category*, **names*)

Delete settings.

Parameters

- **category** – Category (or its ID)
- **names** – One or more names of settings to delete

delete_all(*category*)

Delete all settings.

Parameters **category** – Category (or its ID)

get (*category*, *name*, *default=<object object>*)
Retrieve the value of a single setting.

Parameters

- **category** – Category (or its ID)
- **name** – Setting name
- **default** – Default value in case the setting does not exist

Returns The settings's value or the default value

get_all (*category*, *no_defaults=False*)
Retrieve all settings.

Parameters

- **category** – Category (or its ID)
- **no_defaults** – Only return existing settings and ignore defaults.

Returns Dict containing the settings

query
Return a query object filtering by the proxy's module.

set (*category*, *name*, *value*)
Set a single setting.

Parameters

- **category** – Category (or its ID)
- **name** – Setting name
- **value** – Setting value; must be JSON-serializable

set_multi (*category*, *items*)
Set multiple settings at once.

Parameters

- **category** – Category (or its ID)
- **items** – Dict containing the new settings

7.1.22 User

Todo: Docstrings (module, models, utilities)

Models

class indico.modules.users.models.users.**NameFormat**
Bases: indico.util.enum.RichIntEnum

An enumeration.

f_last = 3

f_last_upper = 7

first_last = 0

first_last_upper = 4

last_f = 2

last_f_upper = 6

last_first = 1

last_first_upper = 5

class indico.modules.users.models.users.**PersonMixin**
Bases: object

Add convenience properties and methods to person classes.

Assumes the following attributes exist: * first_name * last_name * title

display_full_name
Return the full name using the user's preferred name format.

full_name
Return the person's name in 'Firstname Lastname' notation.

get_full_name(*last_name_first=True*, *last_name_upper=True*, *abbrev_first_name=True*, *show_title=False*, *_show_empty_names=False*)
Return the person's name in the specified notation.

Note: Do not use positional arguments when calling this method. Always use keyword arguments!

Parameters

- **last_name_first** – if "lastname, firstname" instead of "firstname lastname" should be used
- **last_name_upper** – if the last name should be all-uppercase
- **abbrev_first_name** – if the first name should be abbreviated to use only the first character
- **show_title** – if the title of the person should be included

name
Return the person's name in 'Firstname Lastname' notation.

title
The title of the user

class indico.modules.users.models.users.**ProfilePictureSource**
Bases: int, enum.Enum

An enumeration.

custom = 3

gravatar = 2

identicon = 1

standard = 0

class indico.modules.users.models.users.**User**(***kwargs*)
Bases: *indico.modules.users.models.users.PersonMixin*, sqlalchemy.orm.decl_api.Model

Indico users.

A simple constructor that allows initialization from kwargs.

Sets attributes on the constructed instance using the names and values in `kwargs`.

Only keys that are present as attributes of the instance's class are allowed. These could be, for example, any mapped columns or relationships.

address
the address of the user

affiliation
the affiliation of the user

all_emails
all emails of the user. read-only; use it only for searching by email! also, do not use it between modifying *email* or *secondary_emails* and a session expire/commit!

api_key
the active API key of the user

as_principal
The serializable principal identifier of this user.

avatar_bg_color

avatar_url

can_be_modified(*user*)
If this user can be modified by the given user.

can_get_all_multipass_groups
Check whether it is possible to get all multipass groups the user is in.

email
the primary email address of the user

event_notes_revisions

external_identities
The external identities of the user.

favorite_categories
the users's favorite categories

favorite_users
the users's favorite users

first_name
the first name of the user

get_full_name(**args*, ***kwargs*)
Return the person's name in the specified notation.

Note: Do not use positional arguments when calling this method. Always use keyword arguments!

Parameters

- **last_name_first** – if "lastname, firstname" instead of "firstname lastname" should be used
- **last_name_upper** – if the last name should be all-uppercase
- **abbrev_first_name** – if the first name should be abbreviated to use only the first character
- **show_title** – if the title of the person should be included

get_identity(*provider*)
Return the first user identity which matches the given provider.

Parameters **provider** – The id of the provider in question

Returns The requested identity, or *None* if none is found

get_merged_from_users_recursive()
Get the users merged into this users recursively.

static get_system_user()

has_picture

id
the unique id of the user

identifier

identities
the identities used by this user

is_admin
if the user is an administrator with unrestricted access to everything

is_blocked
if the user has been blocked

is_deleted
if the user is deleted (e.g. due to a merge)

is_pending
if the user is pending (e.g. never logged in, only added to some list)

is_system
if the user is the default system user

iter_all_multipass_groups()
Iterate over all multipass groups the user is in.

iter_identifiers(*check_providers=False*, *providers=None*)
Yields `(provider, identifier)` tuples for the user.

Parameters

- **check_providers** – If True, providers are searched for additional identifiers once all existing identifiers have been yielded.
- **providers** – May be a set containing provider names to get only identifiers from the specified providers.

last_login_dt
The datetime when the user last logged in.

last_name
the last/family name of the user

local_identities
The local identities of the user.

local_identity
The main (most recently used) local identity.

locator
Define a smart locator property.

This behaves pretty much like a normal read-only property and the decorated function should return a dict containing the necessary data to build a URL for the object.

This decorator should usually be applied to a method named `locator` as this name is required for *get_locator* to find it automatically when just passing the object.

If you need more than one locator, you can define it like this:

```
@locator_property
def locator(self):
    return {...}

@locator.other
def locator(self):
    return {...}
```

The `other` locator can then be accessed by passing `obj.locator.other` to the code expecting an object with a locator.

make_email_primary(*email*)
Promote a secondary email address to the primary email address.

Parameters **email** – an email address that is currently a secondary email

merged_into_id
the id of the user this user has been merged into

merged_into_user
the user this user has been merged into

old_api_keys
the previous API keys of the user

phone
the phone number of the user

picture
the user profile picture

picture_metadata
user profile picture metadata

picture_source
user profile picture source

principal_order = 0

principal_type = 1

query_personal_tokens(*, *include_revoked=False*)
Query the personal tokens of the user.

Parameters **include_revoked** – whether to query revoked tokens as well

reset_signing_secret()

secondary_emails
any additional emails the user might have

secondary_local_identities
The local identities of the user except the main one.

settings
Return the user settings proxy for this user.

signing_secret
a unique secret used to generate signed URLs

suggested_categories
the user's category suggestions

synced_fields
The fields of the user whose values are currently synced.

This set is always a subset of the synced fields define in synced fields of the idp in 'indico.conf'.

synced_values
The values from the synced identity for the user.

Those values are not the actual user's values and might differ if they are not set as synchronized.

synchronize_data(*refresh=False*, *silent=False*)
Synchronize the fields of the user from the sync identity.

This will take only into account *synced_fields*.

Parameters

- **refresh** – bool – Whether to refresh the synced identity with the sync provider before instead of using the stored data. (Only if the sync provider supports refresh.)
- **silent** – bool – Whether to just synchronize but not flash any messages

class indico.modules.users.models.users.**UserTitle**
Bases: indico.util.enum.RichIntEnum

An enumeration.

dr = 4

mr = 1

mrs = 3

ms = 2

mx = 6

none = 0

prof = 5

indico.modules.users.models.users.**format_display_full_name**(*user*, *obj*)

indico.modules.users.models.users.**syncable_fields = {'address': l'address', 'affiliation'**
Fields which can be synced as keys and a mapping to a more human readable version, used for flashing messages

class indico.modules.users.models.affiliations.**UserAffiliation**(***kwargs*)
Bases: sqlalchemy.orm.decl_api.Model

A simple constructor that allows initialization from kwargs.

Sets attributes on the constructed instance using the names and values in kwargs.

Only keys that are present as attributes of the instance's class are allowed. These could be, for example, any mapped columns or relationships.

id
the unique id of the affiliations

name
the affiliation

user_id
the id of the associated user

class indico.modules.users.models.emails.**UserEmail**(***kwargs*)
Bases: sqlalchemy.orm.decl_api.Model

A simple constructor that allows initialization from kwargs.

Sets attributes on the constructed instance using the names and values in `kwargs`.

Only keys that are present as attributes of the instance's class are allowed. These could be, for example, any mapped columns or relationships.

email
the email address

id
the unique id of the email address

is_primary
if the email is the user's primary email

is_user_deleted
if the user is marked as deleted (e.g. due to a merge). DO NOT use this flag when actually deleting an email

user_id
the id of the associated user

class indico.modules.users.models.suggestions.**SuggestedCategory**(***kwargs*)
Bases: sqlalchemy.orm.decl_api.Model

A simple constructor that allows initialization from kwargs.

Sets attributes on the constructed instance using the names and values in `kwargs`.

Only keys that are present as attributes of the instance's class are allowed. These could be, for example, any mapped columns or relationships.

category

category_id

is_ignored

classmethod merge_users(*target*, *source*)
Merge the suggestions for two users.

Parameters

- **target** – The target user of the merge.
- **source** – The user that is being merged into *target*.

score

user_id

class indico.modules.users.models.settings.**UserSetting**(***kwargs*)
Bases: indico.core.settings.models.base.JSONSettingsBase, sqlalchemy.orm.decl_api.Model

User-specific settings.

A simple constructor that allows initialization from kwargs.

Sets attributes on the constructed instance using the names and values in `kwargs`.

Only keys that are present as attributes of the instance's class are allowed. These could be, for example, any mapped columns or relationships.

id

module

name

user

user_id

value

class indico.modules.users.models.settings.**UserSettingsProxy**(*module*, *defaults=None*, *strict=True*, *acls=None*, *converters=None*)

Bases: indico.core.settings.proxy.SettingsProxyBase

Proxy class to access user-specific settings for a certain module.

delete(*user*, **names*)
Delete settings.

Parameters

- **user** – {'user': user} or {'user_id': id}
- **names** – One or more names of settings to delete

delete_all(*user*)
Delete all settings.

Parameters **user** – {'user': user} or {'user_id': id}

get(*user*, *name*, *default=<object object>*)
Retrieve the value of a single setting.

Parameters

- **user** – {'user': user} or {'user_id': id}
- **name** – Setting name
- **default** – Default value in case the setting does not exist

Returns The settings's value or the default value

get_all(*user*, *no_defaults=False*)
Retrieve all settings.

Parameters

- **user** – {'user': user} or {'user_id': id}
- **no_defaults** – Only return existing settings and ignore defaults.

Returns Dict containing the settings

query
Return a query object filtering by the proxy's module.

set(*user*, *name*, *value*)
Set a single setting.

Parameters

- **user** – `{'user': user}` or `{'user_id': id}`
- **name** – Setting name
- **value** – Setting value; must be JSON-serializable

set_multi(*user*, *items*)
Set multiple settings at once.

Parameters

- **user** – `{'user': user}` or `{'user_id': id}`
- **items** – Dict containing the new settings

indico.modules.users.models.settings.**user_or_id**(*f*)

Operations

indico.modules.users.operations.**create_user**(*email*, *data*, *identity=None*, *settings=None*, *other_emails=None*, *from_moderation=True*)
Create a new user.

This may also convert a pending user to a proper user in case the email address matches such a user.

Parameters

- **email** – The primary email address of the user.
- **data** – The data used to populate the user.
- **identity** – An *Identity* to associate with the user.
- **settings** – A dict containing user settings.
- **other_emails** – A set of email addresses that are also used to check for a pending user. They will also be added as secondary emails to the user.
- **from_moderation** – Whether the user was created through the moderation process or manually by an admin.

Utilities

indico.modules.users.util.**build_user_search_query**(*criteria*, *exact=False*, *include_deleted=False*, *include_pending=False*, *include_blocked=False*, *favorites_first=False*)

indico.modules.users.util.**get_admin_emails**()
Get the email addresses of all Indico admins.

indico.modules.users.util.**get_avatar_url_from_name**(*first_name*)

indico.modules.users.util.**get_color_for_user_id**(*user_id: Union[int, str]*)
Calculate a unique color for a user based on their id.

Parameters **user_id** – the user ID (int), or otherwise a string (external search results)

indico.modules.users.util.**get_gravatar_for_user**(*user*, *identicon*, *size=256*, *lastmod=None*)

indico.modules.users.util.**get_linked_events**(*user*, *dt*, *limit=None*, *load_also=()*)
Get the linked events and the user's roles in them.

Parameters

- **user** – A *User*
- **dt** – Only include events taking place on/after that date
- **limit** – Max number of events

indico.modules.users.util.**get_related_categories**(*user*, *detailed=True*)
Get the related categories of a user for the dashboard.

indico.modules.users.util.**get_suggested_categories**(*user*)
Get the suggested categories of a user for the dashboard.

indico.modules.users.util.**get_unlisted_events**(*user*)

indico.modules.users.util.**get_user_by_email**(*email*, *create_pending=False*)
Find a user based on his email address.

Parameters

- **email** – The email address of the user.
- **create_pending** – If True, this function searches for external users and creates a new pending User in case no existing user was found.

Returns A *User* instance or None if not exactly one user was found.

indico.modules.users.util.**merge_users**(*source*, *target*, *force=False*)
Merge two users together, unifying all related data.

Parameters

- **source** – source user (will be set as deleted)
- **target** – target user (final)

indico.modules.users.util.**search_users**(*exact=False*, *include_deleted=False*, *include_pending=False*, *include_blocked=False*, *external=False*, *allow_system_user=False*, ***criteria*)
Search for users.

Parameters

- **exact** – Indicates if only exact matches should be returned. This is MUCH faster than a non-exact saerch, especially when searching external users.
- **include_deleted** – Indicates if also users marked as deleted should be returned.
- **include_pending** – Indicates if also users who are still pending should be returned.
- **include_blocked** – Indicates if also users marked as blocked should be returned.
- **external** – Indicates if identity providers should be searched for matching users.
- **allow_system_user** – Whether the system user may be returned in the search results.
- **criteria** – A dict containing any of the following keys: name, first_name, last_name, email, affiliation, phone, address

Returns A set of matching users. If *external* was set, it may contain both IdentityInfo objects for external users not yet in Indico and *User* objects for existing users.

indico.modules.users.util.**send_avatar**(*user*)

indico.modules.users.util.**send_default_avatar**(*user: Union[indico.modules.users.models.users.User, str, None]*)

Send a user's default avatar as an SVG.

Parameters **user** – A *User* object, string (external search results, registrations) or *None* (blank avatar)

indico.modules.users.util.**serialize_user**(*user*)

Serialize user to JSON-like object.

indico.modules.users.util.**set_user_avatar**(*user*, *avatar*, *filename*, *lastmod=None*)

class indico.modules.users.ext.**ExtraUserPreferences**(*user*)

Bases: object

Define additional user preferences.

To use this class, subclass it and override *defaults*, *fields* and *save* to implement your custom logic.

extend_defaults(*defaults*)

Add values to the FormDefaults.

extend_form(*form_class*)

Create a subclass of the form containing the extra field.

fields = {}

a dict containing all the fields that should be added to the user preferences

classmethod is_active(*user*)

Return whether the preferences are available for the given user.

load()

Return a dict with the current values for the user.

process_form_data(*data*)

Process and save submitted data.

This modifies *data* so the core code doesn't receive any extra data it doesn't expect.

save(*data*)

Save the updated settings.

7.1.23 Attachment

Todo: Docstrings (module, models, operations)

Models

class indico.modules.attachments.models.attachments.**Attachment**(***kwargs*)

Bases: indico.core.db.sqlalchemy.searchable.SearchableTitleMixin, indico.core.db.sqlalchemy.protection.ProtectionMixin, indico.core.storage.models.VersionedResourceMixin, sqlalchemy.orm.decl_api.Model

A simple constructor that allows initialization from kwargs.

Sets attributes on the constructed instance using the names and values in `kwargs`.

Only keys that are present as attributes of the instance's class are allowed. These could be, for example, any mapped columns or relationships.

absolute_download_url
The absolute download url for the attachment.

access_key = None

acl
The ACL of the folder (used for ProtectionMode.protected)

acl_entries

all_files

can_access(*user*, **args*, ***kwargs*)
Check if the user is allowed to access the attachment.

This is the case if the user has access to see the attachment or if the user can manage attachments for the linked object.

description
The description of the attachment

download_url
The download url for the attachment.

file

file_id

folder
The folder containing the attachment

folder_id
The ID of the folder the attachment belongs to

get_download_url(*absolute=False*)
Return the download url for the attachment.

During static site generation this returns a local URL for the file or the target URL for the link.

Parameters **absolute** – If the returned URL should be absolute.

id
The ID of the attachment

is_deleted
If the attachment has been deleted

link_url
The target URL for a link attachment

locator

modified_dt
The date/time when the attachment was created/modified

own_no_access_contact = None

protection_mode

protection_parent
The parent object to consult for ProtectionMode.inheriting.

stored_file_class
alias of *AttachmentFile*

stored_file_fkey = 'attachment_id'

stored_file_table = 'attachments.files'

title

title_required = False

type
The type of the attachment (file or link)

user
The user who created the attachment

user_id
The ID of the user who created the attachment

class indico.modules.attachments.models.attachments.**AttachmentFile**(***kwargs*)
Bases: indico.core.storage.models.StoredFileMixin, sqlalchemy.orm.decl_api.Model

A simple constructor that allows initialization from kwargs.

Sets attributes on the constructed instance using the names and values in `kwargs`.

Only keys that are present as attributes of the instance's class are allowed. These could be, for example, any mapped columns or relationships.

attachment_id
The ID of the associated attachment

content_type
The MIME type of the file.

created_dt
The date/time when the file was uploaded.

extension
The extension of the file.

filename
The name of the file.

id
The ID of the file

is_previewable

md5
An MD5 hash of the file.

Automatically assigned when *save()* is called.

size
The size of the file (in bytes).

Automatically assigned when *save()* is called.

storage_backend

storage_file_id

user
The user who uploaded the file

user_id
The user who uploaded the file

version_of = 'attachment'

class indico.modules.attachments.models.attachments.**AttachmentType**
Bases: indico.util.enum.RichIntEnum

An enumeration.

file = 1

link = 2

class indico.modules.attachments.models.folders.**AttachmentFolder**(***kwargs*)
Bases: indico.core.db.sqlalchemy.links.LinkMixin, indico.core.db.sqlalchemy.protection.ProtectionMixin, sqlalchemy.orm.decl_api.Model

A simple constructor that allows initialization from kwargs.

Sets attributes on the constructed instance using the names and values in kwargs.

Only keys that are present as attributes of the instance's class are allowed. These could be, for example, any mapped columns or relationships.

access_key = None

acl
The ACL of the folder (used for ProtectionMode.protected)

acl_entries

allowed_link_types = frozenset({<LinkType.category: 1>, <LinkType.event: 2>, <LinkTy

attachments
The list of attachments that are not deleted, ordered by name

can_access(*user*, **args*, ***kwargs*)
Check if the user is allowed to access the folder.

This is the case if the user has access the folder or if the user can manage attachments for the linked object.

can_view(*user*)
Check if the user can see the folder.

This does not mean the user can actually access its contents. It just determines if it is visible to him or not.

category

category_id

contribution

contribution_id

description
The description of the folder

event

event_id

events_backref_name = 'all_attachment_folders'

classmethod get_for_linked_object(*linked_object*, *preload_event=False*)
Get the attachments for the given object.

This only returns attachments that haven't been deleted.

Parameters

- **linked_object** – A category, event, session, contribution or subcontribution.
- **preload_event** – If all attachments for the same event should be pre-loaded and cached in the app context. This must not be used when `linked_object` is a category.

classmethod get_or_create(*linked_object*, *title=None*)
Get a folder for the given object or create it.

If no folder title is specified, the default folder will be used. It is the caller's responsibility to add the folder or an object (such as an attachment) associated with it to the SQLAlchemy session using `db.session.add(...)`.

classmethod get_or_create_default(*linked_object*)
Get the default folder for the given object or creates it.

id
The ID of the folder

is_always_visible
If the folder is always visible (even if you cannot access it)

is_default
If the folder is the default folder (used for "folder-less" files)

is_deleted
If the folder has been deleted

is_hidden
If the folder is never shown in the frontend (even if you can access it)

link_backref_lazy = 'dynamic'

link_backref_name = 'attachment_folders'

link_type

linked_event

linked_event_id

locator
Define a smart locator property.

This behaves pretty much like a normal read-only property and the decorated function should return a dict containing the necessary data to build a URL for the object.

This decorator should usually be applied to a method named `locator` as this name is required for *get_locator* to find it automatically when just passing the object.

If you need more than one locator, you can define it like this:

```
@locator_property
def locator(self):
    return {...}

@locator.other
def locator(self):
    return {...}
```

The `other` locator can then be accessed by passing `obj.locator.other` to the code expecting an object with a locator.

own_no_access_contact = None

protection_mode

protection_parent
The parent object to consult for ProtectionMode.inheriting.

session

session_block = None

session_block_id = None

session_id

subcontribution

subcontribution_id

title
The name of the folder (`None` for the default folder)

unique_links = 'is_default'

class indico.modules.attachments.models.principals.**AttachmentFolderPrincipal**(***kwargs*)
Bases: indico.core.db.sqlalchemy.principals.PrincipalMixin, sqlalchemy.orm.decl_api.Model

A simple constructor that allows initialization from kwargs.

Sets attributes on the constructed instance using the names and values in `kwargs`.

Only keys that are present as attributes of the instance's class are allowed. These could be, for example, any mapped columns or relationships.

allow_category_roles = True

allow_event_roles = True

allow_registration_forms = True

category_role

category_role_id

email = None

event_role

event_role_id

folder_id
The ID of the associated folder

id
The ID of the acl entry

ip_network_group = None

ip_network_group_id = None

local_group

local_group_id

multipass_group_name

multipass_group_provider

principal_backref_name = 'in_attachment_folder_acls'

registration_form

registration_form_id

type

unique_columns = ('folder_id',)

user

user_id

class indico.modules.attachments.models.principals.**AttachmentPrincipal**(***kwargs*)
Bases: indico.core.db.sqlalchemy.principals.PrincipalMixin, sqlalchemy.orm.decl_api.Model

A simple constructor that allows initialization from kwargs.

Sets attributes on the constructed instance using the names and values in `kwargs`.

Only keys that are present as attributes of the instance's class are allowed. These could be, for example, any mapped columns or relationships.

allow_category_roles = True

allow_event_roles = True

allow_registration_forms = True

attachment_id
The ID of the associated attachment

category_role

category_role_id

email = None

event_role

event_role_id

id
The ID of the acl entry

ip_network_group = None

ip_network_group_id = None

local_group

local_group_id

multipass_group_name

multipass_group_provider

principal_backref_name = 'in_attachment_acls'

registration_form

registration_form_id

type

unique_columns = ('attachment_id',)

user

user_id

Operations

indico.modules.attachments.operations.**add_attachment_link**(*data*, *linked_object*)
Add a link attachment to linked_object.

Utilities

indico.modules.attachments.util.**can_manage_attachments**(*obj*, *user*, *allow_admin=True*)
Check if a user can manage attachments for the object.

indico.modules.attachments.util.**get_attached_folders**(*linked_object*, *include_empty=True*, *include_hidden=True*, *preload_event=False*)
Return a list of all the folders linked to an object.

Parameters

- **linked_object** – The object whose attachments are to be returned
- **include_empty** – Whether to return empty folders as well.
- **include_hidden** – Include folders that the user can't see
- **preload_event** – in the process, preload all objects tied to the corresponding event and keep them in cache

indico.modules.attachments.util.**get_attached_items**(*linked_object*, *include_empty=True*, *include_hidden=True*, *preload_event=False*)
Return a structured representation of all the attachments linked to an object.

Parameters

- **linked_object** – The object whose attachments are to be returned
- **include_empty** – Whether to return empty folders as well.
- **include_hidden** – Include folders that the user can't see
- **preload_event** – in the process, preload all objects tied to the corresponding event and keep them in cache

indico.modules.attachments.util.**get_default_folder_names**()

indico.modules.attachments.util.**get_event**(*linked_object*)

class indico.modules.attachments.preview.**ImagePreviewer**
Bases: *indico.modules.attachments.preview.Previewer*

ALLOWED_CONTENT_TYPE = re.compile('^image/')

TEMPLATE = 'image_preview.html'

class indico.modules.attachments.preview.**MarkdownPreviewer**
Bases: *indico.modules.attachments.preview.Previewer*

ALLOWED_CONTENT_TYPE = re.compile('^text/markdown$')

classmethod generate_content(*attachment*)
Generate the HTML output of the file preview.

class indico.modules.attachments.preview.**PDFPreviewer**
Bases: *indico.modules.attachments.preview.Previewer*

ALLOWED_CONTENT_TYPE = re.compile('^application/pdf$')

TEMPLATE = 'iframe_preview.html'

classmethod can_preview(*attachment_file*)
Check if the content type of the file matches the allowed content type of files that the previewer can be used for.

class indico.modules.attachments.preview.**Previewer**
Bases: object

Base class for file previewers.

To create a new file prewiewer, subclass this class and register it using the *get_file_previewers* signal.

ALLOWED_CONTENT_TYPE = None

TEMPLATE = None

TEMPLATES_DIR = 'attachments/previewers/'

classmethod can_preview(*attachment_file*)
Check if the content type of the file matches the allowed content type of files that the previewer can be used for.

classmethod generate_content(*attachment*)
Generate the HTML output of the file preview.

class indico.modules.attachments.preview.**TextPreviewer**
Bases: *indico.modules.attachments.preview.Previewer*

ALLOWED_CONTENT_TYPE = re.compile('^text/plain$')

classmethod generate_content(*attachment*)
Generate the HTML output of the file preview.

indico.modules.attachments.preview.**get_file_previewer**(*attachment_file*)
Return a file previewer for the given attachment file based on the file's content type.

indico.modules.attachments.preview.**get_file_previewers**()

7.1.24 Room booking

Todo: Docstrings (module, models, utilities, services)

Models

class indico.modules.rb.models.rooms.**Room**(***kwargs*)
Bases: indico.core.db.sqlalchemy.protection.ProtectionManagersMixin, sqlalchemy.orm.decl_api.Model

A simple constructor that allows initialization from kwargs.

Sets attributes on the constructed instance using the names and values in `kwargs`.

Only keys that are present as attributes of the instance's class are allowed. These could be, for example, any mapped columns or relationships.

access_key = None

acl_entries

attributes

available_equipment

blocked_rooms

bookable_hours

booking_limit_days

building

can_access(*user*, *allow_admin=True*)
Check if the user can access the object.

Parameters

- **user** – The *User* to check. May be None if the user is not logged in.
- **allow_admin** – If admin users should always have access

can_book(*user*, *allow_admin=True*)

can_delete(*user*)

can_edit(*user*)

can_manage(*user*, *permission=None*, *allow_admin=True*, *check_parent=True*, *explicit_permission=False*)
Check if the user can manage the object.

Parameters

- **user** – The *User* to check. May be None if the user is not logged in.
- **allow_admin** – If admin users should always have access
- **check_parent** – If the parent object should be checked. In this case the permission is ignored; only full management access is inherited to children.
- **explicit_permission** – If the specified permission should be checked explicitly instead of short-circuiting the check for Indico admins or managers. When this option is set to `True`, the values of *allow_admin* and *check_parent* are ignored. This also applies if *permission* is None in which case this argument being set to `True` is equivalent to *allow_admin* and *check_parent* being set to `False`.

Param permission: The management permission that is needed for the check to succeed. If not specified, full management privs are required. May be set to the string `'ANY'` to check if the user has any management privileges. If the user has *full_access* privileges, he's assumed to have all possible permissions.

can_moderate(*user*, *allow_admin=True*)

can_override(*user*, *allow_admin=True*)

can_prebook(*user*, *allow_admin=True*)

capacity

check_advance_days(*end_date*, *user=None*, *quiet=False*)

check_bookable_hours(*start_time*, *end_time*, *user=None*, *quiet=False*)

comments

default_protection_mode = 0

details_url

disallowed_protection_modes = frozenset({<ProtectionMode.inheriting: 1>})

division

end_notification_daily

end_notification_monthly

end_notification_weekly

end_notifications_enabled

favorite_of

static filter_available(*start_dt*, *end_dt*, *repetition*, *include_blockings=True*, *include_pre_bookings=True*, *include_pending_blockings=False*)
Return a SQLAlchemy filter criterion ensuring that the room is available during the given time.

static filter_bookable_hours(*start_time*, *end_time*)

static filter_nonbookable_periods(*start_dt*, *end_dt*)

classmethod find_with_attribute(*attribute*)
Search rooms which have a specific attribute.

floor

full_name

generate_name()

get_attribute_by_name(*attribute_name*)

get_attribute_value(*name*, *default=None*)

get_blocked_rooms(**dates*, ***kwargs*)

classmethod get_permissions_for_user(*user*, *allow_admin=True*)
Get the permissions for all rooms for a user.

In case of multipass-based groups it will try to get a list of all groups the user is in, and if that's not possible check the permissions one by one for each room (which may result in many group membership lookups).

It is recommended to not call this in any place where performance matters and to memoize the result.

static get_with_data(**args*, ***kwargs*)

has_attribute(*attribute_name*)

has_equipment(**names*)

has_photo

id

is_auto_confirm

is_deleted

is_reservable

static is_user_admin(*user*)

key_location

latitude

location

location_id

location_name

longitude

map_url

max_advance_days

name

nonbookable_periods

notification_before_days

notification_before_days_monthly

notification_before_days_weekly

notification_emails

notifications_enabled

number

own_no_access_contact = None

owner
The owner of the room. This is purely informational and does not grant any permissions on the room.

owner_id

photo

photo_id

protection_mode

protection_parent
The parent object to consult for ProtectionMode.inheriting.

reservations

reservations_need_confirmation

set_attribute_value(*name*, *value*)

site

sprite_position

surface_area

telephone

verbose_name
Verbose name for the room (long)

class indico.modules.rb.models.room_attributes.**RoomAttribute**(***kwargs*)
Bases: sqlalchemy.orm.decl_api.Model

A simple constructor that allows initialization from kwargs.

Sets attributes on the constructed instance using the names and values in `kwargs`.

Only keys that are present as attributes of the instance's class are allowed. These could be, for example, any mapped columns or relationships.

id

is_hidden

name

title

class indico.modules.rb.models.room_attributes.**RoomAttributeAssociation**(***kwargs*)
Bases: sqlalchemy.orm.decl_api.Model

A simple constructor that allows initialization from kwargs.

Sets attributes on the constructed instance using the names and values in `kwargs`.

Only keys that are present as attributes of the instance's class are allowed. These could be, for example, any mapped columns or relationships.

attribute

attribute_id

room_id

value

class indico.modules.rb.models.room_bookable_hours.**BookableHours**(***kwargs*)
Bases: sqlalchemy.orm.decl_api.Model

A simple constructor that allows initialization from kwargs.

Sets attributes on the constructed instance using the names and values in `kwargs`.

Only keys that are present as attributes of the instance's class are allowed. These could be, for example, any mapped columns or relationships.

end_time

fits_period(*st*, *et*)

room_id

start_time

class indico.modules.rb.models.room_nonbookable_periods.**NonBookablePeriod**(***kwargs*)
Bases: sqlalchemy.orm.decl_api.Model

A simple constructor that allows initialization from kwargs.

Sets attributes on the constructed instance using the names and values in `kwargs`.

Only keys that are present as attributes of the instance's class are allowed. These could be, for example, any mapped columns or relationships.

end_dt

overlaps(*st*, *et*)

room_id

start_dt

class indico.modules.rb.models.blockings.**Blocking**(***kwargs*)
Bases: sqlalchemy.orm.decl_api.Model

A simple constructor that allows initialization from kwargs.

Sets attributes on the constructed instance using the names and values in `kwargs`.

Only keys that are present as attributes of the instance's class are allowed. These could be, for example, any mapped columns or relationships.

allowed
A descriptor that presents a read/write view of an object attribute.

blocked_rooms

can_delete(*user*, *allow_admin=True*)

can_edit(*user*, *allow_admin=True*)

can_override(*user*, *room=None*, *explicit_only=False*, *allow_admin=True*)
Check if a user can override the blocking.

The following persons are authorized to override a blocking: - the creator of the blocking - anyone on the blocking's ACL - unless explicit_only is set: rb admins and room managers (if a room is given)

created_by_id

created_by_user
The user who created this blocking.

created_dt

end_date

external_details_url

id

is_active_at(*d*)

reason

start_date

class indico.modules.rb.models.blocked_rooms.**BlockedRoom**(***kwargs*)
Bases: sqlalchemy.orm.decl_api.Model

A simple constructor that allows initialization from kwargs.

Sets attributes on the constructed instance using the names and values in `kwargs`.

Only keys that are present as attributes of the instance's class are allowed. These could be, for example, any mapped columns or relationships.

State
alias of *BlockedRoomState*

approve(*notify_blocker=True*)
Approve the room blocking, rejecting all colliding reservations/occurrences.

blocking_id

id

reject(*user=None*, *reason=None*)
Reject the room blocking.

rejected_by

rejection_reason

room_id

state

state_name

class indico.modules.rb.models.blocked_rooms.**BlockedRoomState**
Bases: indico.util.enum.RichIntEnum

An enumeration.

accepted = 1

pending = 0

rejected = 2

class indico.modules.rb.models.blocking_principals.**BlockingPrincipal**(***kwargs*)
Bases: indico.core.db.sqlalchemy.principals.PrincipalMixin, sqlalchemy.orm.decl_api.Model

A simple constructor that allows initialization from kwargs.

Sets attributes on the constructed instance using the names and values in kwargs.

Only keys that are present as attributes of the instance's class are allowed. These could be, for example, any mapped columns or relationships.

blocking_id

category_role = None

category_role_id = None

email = None

event_role = None

event_role_id = None

id

ip_network_group = None

ip_network_group_id = None

local_group

local_group_id

multipass_group_name

multipass_group_provider

principal_backref_name = 'in_blocking_acls'

registration_form = None

registration_form_id = None

type

unique_columns = ('blocking_id',)

user

user_id

class indico.modules.rb.models.equipment.**EquipmentType**(***kwargs*)
Bases: sqlalchemy.orm.decl_api.Model

A simple constructor that allows initialization from kwargs.

Sets attributes on the constructed instance using the names and values in kwargs.

Only keys that are present as attributes of the instance's class are allowed. These could be, for example, any mapped columns or relationships.

features

id

name

class indico.modules.rb.models.locations.**Location**(**kwargs)
Bases: sqlalchemy.orm.decl_api.Model

A simple constructor that allows initialization from kwargs.

Sets attributes on the constructed instance using the names and values in kwargs.

Only keys that are present as attributes of the instance's class are allowed. These could be, for example, any mapped columns or relationships.

id

is_deleted

map_url_template

name

room_name_format
Translate Postgres' format syntax (e.g. *%1$s/%2$s-%3$s*) to Python's.

rooms

class indico.modules.rb.models.map_areas.**MapArea**(**kwargs)
Bases: sqlalchemy.orm.decl_api.Model

A simple constructor that allows initialization from kwargs.

Sets attributes on the constructed instance using the names and values in kwargs.

Only keys that are present as attributes of the instance's class are allowed. These could be, for example, any mapped columns or relationships.

bottom_right_latitude

bottom_right_longitude

id

is_default

name

top_left_latitude

top_left_longitude

class indico.modules.rb.models.photos.**Photo**(**kwargs)
Bases: sqlalchemy.orm.decl_api.Model

A simple constructor that allows initialization from kwargs.

Sets attributes on the constructed instance using the names and values in kwargs.

Only keys that are present as attributes of the instance's class are allowed. These could be, for example, any mapped columns or relationships.

data

id

exception indico.modules.rb.models.reservations.**ConflictingOccurrences**
Bases: Exception

class indico.modules.rb.models.reservations.**RepeatFrequency**
Bases: int, indico.util.enum.IndicoEnum

An enumeration.

DAY = 1

MONTH = 3

NEVER = 0

WEEK = 2

class indico.modules.rb.models.reservations.**RepeatMapping**
Bases: object

classmethod get_message(*repeat_frequency*, *repeat_interval*)

classmethod get_short_name(*repeat_frequency*, *repeat_interval*)

mapping = {(<RepeatFrequency.NEVER: 0>, 0): ('Single reservation', None, 'none'), (<R

class indico.modules.rb.models.reservations.**Reservation**(***kwargs*)
Bases: sqlalchemy.orm.decl_api.Model

A simple constructor that allows initialization from kwargs.

Sets attributes on the constructed instance using the names and values in `kwargs`.

Only keys that are present as attributes of the instance's class are allowed. These could be, for example, any mapped columns or relationships.

accept(*user*, *reason=None*)

add_edit_log(*edit_log*)

booked_for_id

booked_for_name

booked_for_user
The user this booking was made for. Assigning a user here also updates *booked_for_name*.

booking_reason

can_accept(*user*, *allow_admin=True*)

can_cancel(*user*, *allow_admin=True*)

can_delete(*user*, *allow_admin=True*)

can_edit(*user*, *allow_admin=True*)

can_reject(*user*, *allow_admin=True*)

cancel(*user*, *reason=None*, *silent=False*)

contact_email

classmethod create_from_data(*room*, *data*, *user*, *prebook=None*, *ignore_admin=False*)
Create a new reservation.

Parameters

- **room** – The Room that's being booked.

- **data** – A dict containing the booking data, usually from a `NewBookingConfirmForm` instance
- **user** – The *User* who creates the booking.
- **prebook** – Instead of determining the booking type from the user's permissions, always use the given mode.
- **ignore_admin** – Whether to ignore the user's admin status.

create_occurrences(*skip_conflicts*, *user=None*, *allow_admin=True*)

created_by_id

created_by_user
The user who created this booking.

created_dt

edit_logs

end_dt

end_notification_sent

event

external_details_url

find_excluded_days()

find_overlapping()

static find_overlapping_with(*room*, *occurrences*, *skip_reservation_id=None*)

get_conflicting_occurrences()

static get_with_data(**args*, ***kwargs*)

id

is_accepted

is_archived

is_booked_for(*user*)

is_cancelled

is_owned_by(*user*)

is_pending

is_rejected

is_repeating

link

link_id

linked_object

location_name

modify(*data*, *user*)
Modify an existing reservation.

Parameters

- **data** – A dict containing the booking data, usually from a `ModifyBookingForm` instance
- **user** – The *User* who modifies the booking.

occurrences

reject(*user*, *reason*, *silent=False*)

rejection_reason

repeat_frequency

repeat_interval

repetition

reset_approval(*user*)

room_id

start_dt

state

class indico.modules.rb.models.reservations.**ReservationLink**(***kwargs*)

Bases: indico.core.db.sqlalchemy.links.LinkMixin, sqlalchemy.orm.decl_api.Model

A simple constructor that allows initialization from kwargs.

Sets attributes on the constructed instance using the names and values in `kwargs`.

Only keys that are present as attributes of the instance's class are allowed. These could be, for example, any mapped columns or relationships.

allowed_link_types = {<LinkType.event: 2>, <LinkType.contribution: 3>, <LinkType.ses

category = None

category_id = None

contribution

contribution_id

event

event_id

events_backref_name = 'all_room_reservation_links'

id

link_backref_name = 'room_reservation_links'

link_type

linked_event

linked_event_id

session = None

session_block

session_block_id

session_id = None

subcontribution = None

subcontribution_id = None

class indico.modules.rb.models.reservations.**ReservationState**
Bases: int, indico.util.enum.IndicoEnum

An enumeration.

accepted = 2

cancelled = 3

pending = 1

rejected = 4

class indico.modules.rb.models.reservation_edit_logs.**ReservationEditLog**(***kwargs*)
Bases: sqlalchemy.orm.decl_api.Model

A simple constructor that allows initialization from kwargs.

Sets attributes on the constructed instance using the names and values in `kwargs`.

Only keys that are present as attributes of the instance's class are allowed. These could be, for example, any mapped columns or relationships.

id

info

reservation_id

timestamp

user_name

class indico.modules.rb.models.reservation_occurrences.**ReservationOccurrence**(***kwargs*)
Bases: sqlalchemy.orm.decl_api.Model

A simple constructor that allows initialization from kwargs.

Sets attributes on the constructed instance using the names and values in `kwargs`.

Only keys that are present as attributes of the instance's class are allowed. These could be, for example, any mapped columns or relationships.

NO_RESERVATION_USER_STRATEGY = <sqlalchemy.orm.strategy_options._UnboundLoad object>
A relationship loading strategy that will avoid loading the users linked to a reservation. You want to use this in pretty much all cases where you eager-load the *reservation* relationship.

can_cancel(*user*, *allow_admin=True*)

can_reject(*user*, *allow_admin=True*)

cancel(*user*, *reason=None*, *silent=False*)

classmethod create_series(*start*, *end*, *repetition*)

classmethod create_series_for_reservation(*reservation*)

date

end_dt

external_cancellation_url

static filter_overlap(*occurrences*)

classmethod find_overlapping_with(*room*, *occurrences*, *skip_reservation_id=None*)

get_overlap(*occurrence*, *skip_self=False*)

is_cancelled

is_rejected

is_valid

is_within_cancel_grace_period

classmethod iter_create_occurrences(*start*, *end*, *repetition*)

static iter_start_time(*start*, *end*, *repetition*)

notification_sent

overlaps(*occurrence*, *skip_self=False*)

reject(*user*, *reason*, *silent=False*)

rejection_reason

reservation_id

start_dt

state

class indico.modules.rb.models.reservation_occurrences.**ReservationOccurrenceState**
Bases: int, indico.util.enum.IndicoEnum

An enumeration.

cancelled = 3

rejected = 4

valid = 2

indico.modules.rb.models.util.**proxy_to_reservation_if_last_valid_occurrence**(*f*)
Forward a method call to *self.reservation* if there is only one occurrence.

Utilities

indico.modules.rb.util.**TempReservationConcurrentOccurrence**
alias of indico.modules.rb.util.ReservationOccurrenceTmp

indico.modules.rb.util.**TempReservationOccurrence**
alias of indico.modules.rb.util.ReservationOccurrenceTmp

indico.modules.rb.util.**build_rooms_spritesheet**()

indico.modules.rb.util.**generate_spreadsheet_from_occurrences**(*occurrences*)
Generate spreadsheet data from a given booking occurrence list.

Parameters **occurrences** – The booking occurrences to include in the spreadsheet

indico.modules.rb.util.**get_booking_params_for_event**(*event*)
Get a set of RB interface parameters suitable for this event.

These parameters can then be used to construct a URL that will lead to a pre-filled search that matches the start/end times for a given day.

Parameters **event** – *Event* object

indico.modules.rb.util.**get_format_placeholders**(*format_str*)

indico.modules.rb.util.**get_linked_object**(*type_*, *id_*)

indico.modules.rb.util.**get_prebooking_collisions**(*reservation*)

indico.modules.rb.util.**get_resized_room_photo**(*room*)

indico.modules.rb.util.**group_by_occurrence_date**(*occurrences*, *sort_by=None*)

indico.modules.rb.util.**is_booking_start_within_grace_period**(*start_dt*, *user*, *allow_admin=False*)

indico.modules.rb.util.**rb_check_user_access**(*user*)
Check if the user has access to the room booking system.

indico.modules.rb.util.**rb_is_admin**(*user*)
Check if the user is a room booking admin.

indico.modules.rb.util.**remove_room_spritesheet_photo**(*room*)

indico.modules.rb.util.**serialize_availability**(*availability*)

indico.modules.rb.util.**serialize_blockings**(*data*)

indico.modules.rb.util.**serialize_booking_details**(*booking*)

indico.modules.rb.util.**serialize_concurrent_pre_bookings**(*data*)

indico.modules.rb.util.**serialize_nonbookable_periods**(*data*)

indico.modules.rb.util.**serialize_occurrences**(*data*)

indico.modules.rb.util.**serialize_unbookable_hours**(*data*)

indico.modules.rb.statistics.**calculate_rooms_bookable_time**(*rooms*, *start_date=None*, *end_date=None*)

indico.modules.rb.statistics.**calculate_rooms_booked_time**(*rooms*, *start_date=None*, *end_date=None*)

indico.modules.rb.statistics.**calculate_rooms_occupancy**(*rooms*, *start=None*, *end=None*)

7.1.25 Authentication

Todo: Docstrings (module, models, utilities)

Models

class indico.modules.auth.models.identities.**Identity**(***kwargs*)
Bases: sqlalchemy.orm.decl_api.Model

Identities of Indico users.

A simple constructor that allows initialization from kwargs.

Sets attributes on the constructed instance using the names and values in `kwargs`.

Only keys that are present as attributes of the instance's class are allowed. These could be, for example, any mapped columns or relationships.

data

id
the unique id of the identity

identifier
the unique identifier of the user within its provider

last_login_dt
the timestamp of the latest login

last_login_ip
the ip address that was used for the latest login

locator

multipass_data
internal data used by the flask-multipass system

password
the password of the user in case of a local identity

password_hash
the hash of the password in case of a local identity

provider
the provider name of the identity

register_login(*ip*)
Update the last login information.

safe_last_login_dt
last_login_dt that is safe for sorting (no None values).

user_id
the id of the user this identity belongs to

class indico.modules.auth.models.registration_requests.**RegistrationRequest**(***kwargs*)
Bases: sqlalchemy.orm.decl_api.Model

A simple constructor that allows initialization from kwargs.

Sets attributes on the constructed instance using the names and values in `kwargs`.

Only keys that are present as attributes of the instance's class are allowed. These could be, for example, any mapped columns or relationships.

comment

email

extra_emails

id

identity_data

locator
Define a smart locator property.

This behaves pretty much like a normal read-only property and the decorated function should return a dict containing the necessary data to build a URL for the object.

This decorator should usually be applied to a method named `locator` as this name is required for *get_locator* to find it automatically when just passing the object.

If you need more than one locator, you can define it like this:

```
@locator_property
def locator(self):
    return {...}

@locator.other
def locator(self):
    return {...}
```

The `other` locator can then be accessed by passing `obj.locator.other` to the code expecting an object with a locator.

settings

user_data

Utilities

indico.modules.auth.util.**impersonate_user**(*user*)
Impersonate another user as an admin.

indico.modules.auth.util.**load_identity_info**()
Retrieve identity information from the session.

indico.modules.auth.util.**redirect_to_login**(*next_url=None*, *reason=None*)
Redirect to the login page.

Parameters

- **next_url** – URL to be redirected upon successful login. If not specified, it will be set to `request.relative_url`.
- **reason** – Why the user is redirected to a login page.

indico.modules.auth.util.**register_user**(*email*, *extra_emails*, *user_data*, *identity_data*, *settings*, *from_moderation=False*)
Create a user based on the registration data provided during the user registration process (via *RHRegister* and *RegistrationHandler*).

This method is not meant to be used for generic user creation, the only reason why this is here is that approving a registration request is handled by the *users* module.

indico.modules.auth.util.**save_identity_info**(*identity_info*, *user*)
Save information from IdentityInfo in the session.

indico.modules.auth.util.**undo_impersonate_user**()
Undo an admin impersonation login and revert to the old user.

indico.modules.auth.util.**url_for_login**(*next_url=None*)

indico.modules.auth.util.**url_for_logout**(*next_url=None*)

indico.modules.auth.util.**url_for_register**(*next_url=None*, *email=None*)
Returns the URL to register

Parameters

- **next_url** – The URL to redirect to afterwards.
- **email** – A pre-validated email address to use when creating a new local account. Use this argument ONLY when sending the link in an email or if the email address has already been validated using some other way.

7.1.26 OAuth

Todo: Docstrings (module, models, provider)

Models

class indico.core.oauth.models.applications.**OAuthApplication**(***kwargs*)

Bases: authlib.oauth2.rfc6749.models.ClientMixin, sqlalchemy.orm.decl_api.Model

OAuth applications registered in Indico.

A simple constructor that allows initialization from kwargs.

Sets attributes on the constructed instance using the names and values in `kwargs`.

Only keys that are present as attributes of the instance's class are allowed. These could be, for example, any mapped columns or relationships.

allow_pkce_flow
whether the application can use the PKCE flow without a client secret

allowed_scopes
the OAuth scopes the application may request access to

check_client_secret(*client_secret*)
Check client_secret matching with the client. For instance, in the client table, the column is called `client_secret`:

```
def check_client_secret(self, client_secret):
    return self.client_secret == client_secret
```

Parameters **client_secret** – A string of client secret

Returns bool

check_endpoint_auth_method(*method*, *endpoint*)
Check if client support the given method for the given endpoint. There is a `token_endpoint_auth_method` defined via RFC7591. Developers MAY re-implement this method with:

```
def check_endpoint_auth_method(self, method, endpoint):
    if endpoint == 'token':
        # if client table has ``token_endpoint_auth_method``
        return self.token_endpoint_auth_method == method
    return True
```

Method values defined by this specification are:

- **"none": The client is a public client as defined in OAuth 2.0,** and does not have a client secret.
- **"client_secret_post": The client uses the HTTP POST parameters** as defined in OAuth 2.0
- **"client_secret_basic": The client uses HTTP Basic as defined in** OAuth 2.0

check_grant_type(*grant_type*)
Validate if the client can handle the given grant_type. There are four grant types defined by RFC6749:

- authorization_code
- implicit
- client_credentials
- password

For instance, there is a `allowed_grant_types` column in your client:

```
def check_grant_type(self, grant_type):
    return grant_type in self.grant_types
```

Parameters **grant_type** – the requested grant_type string.

Returns bool

check_redirect_uri(*redirect_uri*)
Called by authlib to validate the redirect_uri.

Uses a logic similar to the one at GitHub, i.e. protocol and host/port must match exactly and if there is a path in the whitelisted URL, the path of the redirect_uri must start with that path.

check_response_type(*response_type*)
Validate if the client can handle the given response_type. There are two response types defined by RFC6749: code and token. For instance, there is a `allowed_response_types` column in your client:

```
def check_response_type(self, response_type):
    return response_type in self.response_types
```

Parameters **response_type** – the requested response_type string.

Returns bool

client_id
the OAuth client_id

client_secret
the OAuth client_secret

default_redirect_uri

description
human readable description

get_allowed_scope(*scope*)
A method to return a list of requested scopes which are supported by this client. For instance, there is a `scope` column:

```
def get_allowed_scope(self, scope):
    if not scope:
        return ''
    allowed = set(scope_to_list(self.scope))
    return list_to_scope([s for s in scope.split() if s in allowed])
```

Parameters **scope** – the requested scope.

Returns string of scope

get_client_id()
A method to return client_id of the client. For instance, the value in database is saved in a column called `client_id`:

```
def get_client_id(self):
    return self.client_id
```

Returns string

get_default_redirect_uri()
A method to get client default redirect_uri. For instance, the database table for client has a column called `default_redirect_uri`:

```
def get_default_redirect_uri(self):
    return self.default_redirect_uri
```

Returns A URL string

id
the unique id of the application

is_enabled
whether the application is enabled or disabled

is_trusted
whether the application can access user data without asking for permission

locator

name
human readable name

redirect_uris
the OAuth absolute URIs that a application may use to redirect to after authorization

reset_client_secret()

system_app_type
the type of system app (if any). system apps cannot be deleted

class indico.core.oauth.models.applications.**OAuthApplicationUserLink**(***kwargs*)
Bases: sqlalchemy.orm.decl_api.Model

The authorization link between an OAuth app and a user.

A simple constructor that allows initialization from kwargs.

Sets attributes on the constructed instance using the names and values in `kwargs`.

Only keys that are present as attributes of the instance's class are allowed. These could be, for example, any mapped columns or relationships.

application

application_id

id

scopes

update_scopes(*scopes: set*)

user

user_id

class indico.core.oauth.models.applications.**SystemAppType**
Bases: int, indico.util.enum.IndicoEnum

An enumeration.

checkin = 1

default_data

enforced_data

none = 0

class indico.core.oauth.models.tokens.**OAuth2AuthorizationCode**(*code: str*, *user_id: int*, *client_id: str*, *code_challenge: str*, *code_challenge_method: str*, *redirect_uri: str = ''*, *scope: str = ''*, *auth_time: datetime.datetime = <factory>*)
Bases: authlib.oauth2.rfc6749.models.AuthorizationCodeMixin

get_auth_time()

get_nonce()

get_redirect_uri()
A method to get authorization code's redirect_uri. For instance, the database table for authorization code has a column called redirect_uri:

```
def get_redirect_uri(self):
    return self.redirect_uri
```

Returns A URL string

get_scope()
A method to get scope of the authorization code. For instance, the column is called scope:

```
def get_scope(self):
    return self.scope
```

Returns scope string

is_expired()

redirect_uri = ''

scope = ''

class indico.core.oauth.models.tokens.**OAuthToken**(***kwargs*)
Bases: *indico.core.oauth.models.tokens.TokenModelBase*

OAuth tokens.

A simple constructor that allows initialization from kwargs.

Sets attributes on the constructed instance using the names and values in `kwargs`.

Only keys that are present as attributes of the instance's class are allowed. These could be, for example, any mapped columns or relationships.

access_token_hash

app_user_link

app_user_link_id

application

check_client(*client*)

A method to check if this token is issued to the given client. For instance, `client_id` is saved on token table:

```
def check_client(self, client):
    return self.client_id == client.client_id
```

Returns bool

created_dt

get_scope()

A method to get scope of the authorization code. For instance, the column is called `scope`:

```
def get_scope(self):
    return self.scope
```

Returns scope string

id

is_revoked()

A method to define if this token is revoked. For instance, there is a boolean column `revoked` in the table:

```
def is_revoked(self):
    return self.revoked
```

Returns boolean

last_used_dt

last_used_ip

use_count

user

class indico.core.oauth.models.tokens.**TokenModelBase**(***kwargs*)

Bases: authlib.oauth2.rfc6749.models.TokenMixin, sqlalchemy.orm.decl_api.Model

A simple constructor that allows initialization from kwargs.

Sets attributes on the constructed instance using the names and values in `kwargs`.

Only keys that are present as attributes of the instance's class are allowed. These could be, for example, any mapped columns or relationships.

access_token
Similar to *PasswordProperty* but tailored towards API tokens.

Since tokens are used much more often than passwords, they use a fast hash algorithm instead of a secure one. This is not a problem for tokens as they are fully random and much longer than the typical password or even passphrase.

access_token_hash = Column(None, String(), table=None, nullable=False)

created_dt = Column(None, UTCDateTime(), table=None, nullable=False, default=ColumnDef

get_expires_in()
A method to get the `expires_in` value of the token. e.g. the column is called `expires_in`:

```
def get_expires_in(self):
    return self.expires_in
```

Returns timestamp int

id = Column(None, Integer(), table=None, primary_key=True, nullable=False)

is_expired()
A method to define if this token is expired. For instance, there is a column `expired_at` in the table:

```
def is_expired(self):
    return self.expired_at < now
```

Returns boolean

last_used_dt = Column(None, UTCDateTime(), table=None)

last_used_ip = Column(None, INET(), table=None)

locator

scopes
The set of scopes this token has access to.

use_count = Column(None, Integer(), table=None, nullable=False, default=ColumnDefault(

7.1.27 Group

Todo: Docstrings (module)

Models

class indico.modules.groups.models.groups.**LocalGroup**(***kwargs*)
Bases: `sqlalchemy.orm.decl_api.Model`

A simple constructor that allows initialization from kwargs.

Sets attributes on the constructed instance using the names and values in `kwargs`.

Only keys that are present as attributes of the instance's class are allowed. These could be, for example, any mapped columns or relationships.

id
the unique id of the group

members
the users in the group

name
the name of the group

proxy
Return a GroupProxy wrapping this group.

class indico.modules.groups.core.**GroupProxy**
Bases: object

Provide a generic interface for both local and multipass groups.

Creating an instance of this class actually creates either a `LocalGroupProxy` or a `MultipassGroupProxy`, but they expose the same API.

Parameters

- **name_or_id** – The name of a multipass group or ID of a local group
- **provider** – The provider of a multipass group

Create the correct GroupProxy for the group type.

as_principal
The serializable principal identifier of this group.

get_members()
Get the list of users who are members of the group.

group
The underlying group object.

has_member(*user*)
Check if the user is a member of the group.

This can also be accessed using the `in` operator.

identifier

principal_order = 3

classmethod search(*name*, *exact=False*, *providers=None*)
Search for groups.

Parameters

- **name** – The group name to search for.
- **exact** – If only exact matches should be found (much faster)
- **providers** – `None` to search in all providers and local groups. May be a set specifying providers to search in. For local groups, the `'indico'` provider name may be used.

Utilities

indico.modules.groups.util.**serialize_group**(*group*)
Serialize group to JSON-like object.

7.1.28 Video conference

Todo: Docstrings (module, models, utilities, plugins, exceptions)

Models

class indico.modules.vc.models.vc_rooms.**VCRoom**(***kwargs*)
Bases: sqlalchemy.orm.decl_api.Model

A simple constructor that allows initialization from kwargs.

Sets attributes on the constructed instance using the names and values in `kwargs`.

Only keys that are present as attributes of the instance's class are allowed. These could be, for example, any mapped columns or relationships.

created_by_id
ID of the creator

created_by_user
The user who created the videoconference room

created_dt
Creation timestamp of the videoconference room

data
videoconference plugin-specific data

id
Videoconference room ID

locator

modified_dt
Modification timestamp of the videoconference room

name
Name of the videoconference room

plugin

status
Status of the videoconference room

type
Type of the videoconference room

class indico.modules.vc.models.vc_rooms.**VCRoomEventAssociation**(***kwargs*)
Bases: sqlalchemy.orm.decl_api.Model

A simple constructor that allows initialization from kwargs.

Sets attributes on the constructed instance using the names and values in `kwargs`.

Only keys that are present as attributes of the instance's class are allowed. These could be, for example, any mapped columns or relationships.

contribution_id

data
videoconference plugin-specific data

delete(*user*, *delete_all=False*)
Delete a VC room from an event.

If the room is not used anywhere else, the room itself is also deleted.

Parameters

- **user** – the user performing the deletion
- **delete_all** – if True, the room is detached from all events and deleted.

event
The associated Event

event_id
ID of the event

classmethod find_for_event(*event*, *include_hidden=False*, *include_deleted=False*, *only_linked_to_event=False*, ***kwargs*)
Return a Query that retrieves the videoconference rooms for an event.

Parameters

- **event** – an indico Event
- **only_linked_to_event** – only retrieve the vc rooms linked to the whole event
- **kwargs** – extra kwargs to pass to `filter_by()`

classmethod get_linked_for_event(*event*)
Get a dict mapping link objects to event vc rooms.

id
Association ID

link_object

link_type
Type of the object the vc_room is linked to

linked_block
The linked session block (if the VC room is attached to a block)

linked_contrib
The linked contribution (if the VC room is attached to a contribution)

linked_event
The linked event (if the VC room is attached to the event itself)

linked_event_id

locator

classmethod register_link_events()

session_block_id

show
If the vc room should be shown on the event page

vc_room
The associated :class:VCRoom

vc_room_id
ID of the videoconference room

class indico.modules.vc.models.vc_rooms.**VCRoomLinkType**
Bases: int, indico.util.enum.IndicoEnum

An enumeration.

block = 3

contribution = 2

event = 1

class indico.modules.vc.models.vc_rooms.**VCRoomStatus**
Bases: int, indico.util.enum.IndicoEnum

An enumeration.

created = 1

deleted = 2

Utilities

indico.modules.vc.util.**find_event_vc_rooms**(*from_dt=None*, *to_dt=None*, *distinct=False*)
Find VC rooms matching certain criteria.

Parameters

- **from_dt** – earliest event/contribution to include
- **to_dt** – latest event/contribution to include
- **distinct** – if True, never return the same `(event, vcroom)` more than once (even if it's linked more than once to that event)

indico.modules.vc.util.**get_linked_to_description**(*obj*)

indico.modules.vc.util.**get_managed_vc_plugins**(*user*)
Return the plugins the user can manage.

indico.modules.vc.util.**get_vc_plugins**()
Return a dict containing the available videoconference plugins.

indico.modules.vc.util.**resolve_title**(*obj*)

Plugins

class indico.modules.vc.plugins.**VCPluginMixin**
Bases: object

acl_settings = {'acl', 'managers'}

can_manage_vc(*user*)
Check if a user has management rights on this VC system.

can_manage_vc_room(*user*, *room*)
Check if a user can manage a vc room.

can_manage_vc_rooms(*user*, *event*)
Check if a user can manage vc rooms on an event.

category = 'Videoconference'

clone_room(*old_event_vc_room*, *link_object*)
Clone the room, returning a new VCRoomEventAssociation.

Parameters

- **old_event_vc_room** – the original VCRoomEventAssociation
- **link_object** – the new object the association will be tied to

Returns the new VCRoomEventAssociation

create_form(*event*, *existing_vc_room=None*, *existing_event_vc_room=None*)
Create the videoconference room form.

Parameters

- **event** – the event the videoconference room is for
- **existing_vc_room** – a vc_room from which to retrieve data for the form

Returns an instance of an IndicoForm subclass

create_room(*vc_room*, *event*)

default_settings = {'notification_emails': []}

friendly_name = None
the readable name of the VC plugin

get_extra_delete_msg(*vc_room*, *event_vc_room*)
Return a custom message to show in the confirmation dialog when deleting a VC room.

Parameters

- **vc_room** – the VC room object
- **event_vc_room** – the association of an event and a VC room

Returns a string (may contain HTML) with the message to display

get_notification_bcc_list(*action*, *vc_room*, *event*)

get_notification_cc_list(*action*, *vc_room*, *event*)

get_vc_room_attach_form_defaults(*event*)

get_vc_room_form_defaults(*event*)

icon_url

init()

logo_url

render_buttons(*vc_room*, *event_vc_room*, ***kwargs*)
Render a list of plugin specific buttons (eg: Join URL, etc) in the management area.

Parameters

- **vc_room** – the VC room object
- **event_vc_room** – the association of an event and a VC room
- **kwargs** – arguments passed to the template

render_event_buttons(*vc_room*, *event_vc_room*, ***kwargs*)
Render a list of plugin specific buttons (eg: Join URL, etc) in the event page.

Parameters

- **vc_room** – the VC room object
- **event_vc_room** – the association of an event and a VC room

- **kwargs** – arguments passed to the template

render_form(***kwargs*)
Render the videoconference room form.

Parameters **kwargs** – arguments passed to the template

render_info_box(*vc_room*, *event_vc_room*, *event*, ***kwargs*)
Render the information shown in the expandable box of a VC room row.

Parameters

- **vc_room** – the VC room object
- **event_vc_room** – the association of an event and a VC room
- **event** – the event with the current VC room attached to it
- **kwargs** – arguments passed to the template

render_manage_event_info_box(*vc_room*, *event_vc_room*, *event*, ***kwargs*)
Render the information shown in the expandable box on a VC room in the management area.

Parameters

- **vc_room** – the VC room object
- **event_vc_room** – the association of an event and a VC room
- **event** – the event with the current VC room attached to it
- **kwargs** – arguments passed to the template

service_name

settings_form
alias of `indico.modules.vc.forms.VCPluginSettingsFormBase`

update_data_association(*event*, *vc_room*, *event_vc_room*, *data*)

update_data_vc_room(*vc_room*, *data*, *is_new=False*)

vc_room_attach_form = None
the `IndicoForm` to use for the videoconference room attach form

vc_room_form = None
the `IndicoForm` to use for the videoconference room form

Exceptions

exception indico.modules.vc.exceptions.**VCRoomError**(*message*, *field=None*)
Bases: `Exception`

exception indico.modules.vc.exceptions.**VCRoomNotFoundError**(*message*)
Bases: *indico.modules.vc.exceptions.VCRoomError*

7.1.29 Designer

Todo: Docstrings (module, models, utilities)

Models

class indico.modules.designer.models.images.**DesignerImageFile**(***kwargs*)
Bases: indico.core.storage.models.StoredFileMixin, sqlalchemy.orm.decl_api.Model

A simple constructor that allows initialization from kwargs.

Sets attributes on the constructed instance using the names and values in `kwargs`.

Only keys that are present as attributes of the instance's class are allowed. These could be, for example, any mapped columns or relationships.

content_type
The MIME type of the file.

created_dt
The date/time when the file was uploaded.

download_url

extension
The extension of the file.

filename
The name of the file.

id
The ID of the file

locator

md5
An MD5 hash of the file.

Automatically assigned when *save()* is called.

size
The size of the file (in bytes).

Automatically assigned when *save()* is called.

storage_backend

storage_file_id

template

template_id
The designer template the image belongs to

version_of = None

class indico.modules.designer.models.templates.**DesignerTemplate**(***kwargs*)
Bases: sqlalchemy.orm.decl_api.Model

background_image

background_image_id

backside_template

backside_template_id

category

category_id

data

event

event_id

id

is_clonable

is_system_template

is_ticket

locator

Define a smart locator property.

This behaves pretty much like a normal read-only property and the decorated function should return a dict containing the necessary data to build a URL for the object.

This decorator should usually be applied to a method named `locator` as this name is required for *get_locator* to find it automatically when just passing the object.

If you need more than one locator, you can define it like this:

```
@locator_property
def locator(self):
    return {...}

@locator.other
def locator(self):
    return {...}
```

The `other` locator can then be accessed by passing `obj.locator.other` to the code expecting an object with a locator.

owner

title

type

Utilities

indico.modules.designer.util.**get_all_templates**(*obj*)
Get all templates usable by an event/category.

indico.modules.designer.util.**get_badge_format**(*tpl*)

indico.modules.designer.util.**get_default_badge_on_category**(*category*, *only_inherited=False*)

indico.modules.designer.util.**get_default_ticket_on_category**(*category*, *only_inherited=False*)

indico.modules.designer.util.**get_image_placeholder_types**()

indico.modules.designer.util.**get_inherited_templates**(*obj*)
Get all templates inherited by a given event/category.

indico.modules.designer.util.**get_nested_placeholder_options**()

indico.modules.designer.util.**get_not_deletable_templates**(*obj*)
Get all non-deletable templates for an event/category.

indico.modules.designer.util.**get_placeholder_options**()

class indico.modules.designer.pdf.**DesignerPDFBase**(*template*, *config*)
Bases: object

get_pdf()

class indico.modules.designer.pdf.**TplData**(*width*, *height*, *items*, *background_position*, *width_cm*, *height_cm*)
Bases: tuple

Create new instance of TplData(width, height, items, background_position, width_cm, height_cm)

background_position
Alias for field number 3

height
Alias for field number 1

height_cm
Alias for field number 5

items
Alias for field number 2

width
Alias for field number 0

width_cm
Alias for field number 4

Placeholders

class indico.modules.designer.placeholders.**EventDatesPlaceholder**
Bases: indico.modules.designer.placeholders.DesignerPlaceholder

description = l'Event Dates'

group = 'event'

name = 'event_dates'

classmethod render(*event*)
Convert the placeholder to a string.

When a placeholder contains HTML that should not be escaped, the returned value should be returned as a markupsafe.Markup instance instead of a plain string.

Subclasses are encouraged to explicitly specify the arguments they expect instead of using **kwargs.

Parameters **kwargs** – arguments specific to the placeholder's context

class indico.modules.designer.placeholders.**EventDescriptionPlaceholder**
Bases: indico.modules.designer.placeholders.DesignerPlaceholder

description = l'Event Description'

group = 'event'

name = 'event_description'

classmethod render(*event*)
Convert the placeholder to a string.

When a placeholder contains HTML that should not be escaped, the returned value should be returned as a `markupsafe.Markup` instance instead of a plain string.

Subclasses are encouraged to explicitly specify the arguments they expect instead of using `**kwargs`.

Parameters **kwargs** – arguments specific to the placeholder's context

class indico.modules.designer.placeholders.**RegistrationFullNamePlaceholder**
Bases: indico.modules.designer.placeholders.FullNamePlaceholderBase

description = l'Full Name'

name = 'full_name'

name_options = {}

with_title = True

class indico.modules.designer.placeholders.**EventOrgTextPlaceholder**
Bases: indico.modules.designer.placeholders.DesignerPlaceholder

description = l'Event Organizers'

group = 'event'

name = 'event_organizers'

classmethod render(*event*)
Convert the placeholder to a string.

When a placeholder contains HTML that should not be escaped, the returned value should be returned as a `markupsafe.Markup` instance instead of a plain string.

Subclasses are encouraged to explicitly specify the arguments they expect instead of using `**kwargs`.

Parameters **kwargs** – arguments specific to the placeholder's context

class indico.modules.designer.placeholders.**RegistrationFullNameNoTitlePlaceholder**
Bases: indico.modules.designer.placeholders.FullNamePlaceholderBase

description = l'Full Name (no title)'

name = 'full_name_no_title'

name_options = {}

with_title = False

class indico.modules.designer.placeholders.**RegistrationFullNamePlaceholderB**
Bases: indico.modules.designer.placeholders.FullNamePlaceholderBase

description = l'Full Name B'

name = 'full_name_b'

name_options = {'last_name_first': False}

with_title = True

class indico.modules.designer.placeholders.**RegistrationFullNameNoTitlePlaceholderB**
Bases: indico.modules.designer.placeholders.FullNamePlaceholderBase

description = l'Full Name B (no title)'

name = 'full_name_b_no_title'

name_options = {'last_name_first': False}

with_title = False

class indico.modules.designer.placeholders.**RegistrationFullNamePlaceholderC**
Bases: indico.modules.designer.placeholders.FullNamePlaceholderBase

description = l'Full Name C'

name = 'full_name_c'

name_options = {'last_name_first': False, 'last_name_upper': True}

with_title = True

class indico.modules.designer.placeholders.**RegistrationFullNameNoTitlePlaceholderC**
Bases: indico.modules.designer.placeholders.FullNamePlaceholderBase

description = l'Full Name C (no title)'

name = 'full_name_no_title_c'

name_options = {'last_name_upper': True}

with_title = False

class indico.modules.designer.placeholders.**RegistrationFullNamePlaceholderD**
Bases: indico.modules.designer.placeholders.FullNamePlaceholderBase

description = l'Full Name D (abbrev.)'

name = 'full_name_d'

name_options = {'abbrev_first_name': True, 'last_name_first': False, 'last_name_uppe

with_title = True

class indico.modules.designer.placeholders.**RegistrationFullNameNoTitlePlaceholderD**
Bases: indico.modules.designer.placeholders.FullNamePlaceholderBase

description = l'Full Name D (abbrev., no title)'

name = 'full_name_no_title_d'

name_options = {'abbrev_first_name': True, 'last_name_upper': True}

with_title = False

class indico.modules.designer.placeholders.**RegistrationTitlePlaceholder**
Bases: indico.modules.designer.placeholders.RegistrationPDPlaceholder

description = l'Title'

field = 'title'

name = 'title'

class indico.modules.designer.placeholders.**RegistrationFirstNamePlaceholder**
Bases: indico.modules.designer.placeholders.RegistrationPlaceholder

description = l'First Name'

field = 'first_name'

name = 'first_name'

class indico.modules.designer.placeholders.**RegistrationLastNamePlaceholder**
Bases: indico.modules.designer.placeholders.RegistrationPlaceholder

description = l'Last Name'

field = 'last_name'

name = 'last_name'

class indico.modules.designer.placeholders.**RegistrationTicketQRPlaceholder**
Bases: indico.modules.designer.placeholders.DesignerPlaceholder

description = l'Ticket QR Code'

group = 'registrant'

is_image = True

is_ticket = True

name = 'ticket_qr_code'

classmethod render(*registration*)
Convert the placeholder to a string.

When a placeholder contains HTML that should not be escaped, the returned value should be returned as a markupsafe.Markup instance instead of a plain string.

Subclasses are encouraged to explicitly specify the arguments they expect instead of using **kwargs.

Parameters **kwargs** – arguments specific to the placeholder's context

class indico.modules.designer.placeholders.**RegistrationEmailPlaceholder**
Bases: indico.modules.designer.placeholders.RegistrationPlaceholder

description = l'E-mail'

field = 'email'

name = 'email'

class indico.modules.designer.placeholders.**RegistrationAmountPlaceholder**
Bases: indico.modules.designer.placeholders.RegistrationPlaceholder

description = l'Price (no currency)'

name = 'amount'

classmethod render(*registration*)
Convert the placeholder to a string.

When a placeholder contains HTML that should not be escaped, the returned value should be returned as a markupsafe.Markup instance instead of a plain string.

Subclasses are encouraged to explicitly specify the arguments they expect instead of using **kwargs.

Parameters **kwargs** – arguments specific to the placeholder's context

class indico.modules.designer.placeholders.**RegistrationPricePlaceholder**
Bases: indico.modules.designer.placeholders.RegistrationPlaceholder

description = l'Price (with currency)'

name = 'price'

classmethod render(*registration*)
Convert the placeholder to a string.

When a placeholder contains HTML that should not be escaped, the returned value should be returned as a markupsafe.Markup instance instead of a plain string.

Subclasses are encouraged to explicitly specify the arguments they expect instead of using **kwargs.

Parameters **kwargs** – arguments specific to the placeholder's context

class indico.modules.designer.placeholders.**RegistrationFriendlyIDPlaceholder**
Bases: indico.modules.designer.placeholders.RegistrationPlaceholder

description = l'Registration ID'

field = 'friendly_id'

name = 'registration_friendly_id'

class indico.modules.designer.placeholders.**RegistrationAffiliationPlaceholder**
Bases: indico.modules.designer.placeholders.RegistrationPDPlaceholder

description = l'Institution'

field = 'affiliation'

name = 'affiliation'

class indico.modules.designer.placeholders.**RegistrationPositionPlaceholder**
Bases: indico.modules.designer.placeholders.RegistrationPDPlaceholder

description = l'Position'

field = 'position'

name = 'position'

class indico.modules.designer.placeholders.**RegistrationAddressPlaceholder**
Bases: indico.modules.designer.placeholders.RegistrationPDPlaceholder

description = l'Address'

field = 'address'

name = 'address'

class indico.modules.designer.placeholders.**RegistrationCountryPlaceholder**
Bases: indico.modules.designer.placeholders.RegistrationPDPlaceholder

description = l'Country'

field = 'country'

name = 'country'

class indico.modules.designer.placeholders.**RegistrationPhonePlaceholder**
Bases: indico.modules.designer.placeholders.RegistrationPDPlaceholder

description = l'Phone'

field = 'phone'

name = 'phone'

class indico.modules.designer.placeholders.**EventTitlePlaceholder**
Bases: indico.modules.designer.placeholders.DesignerPlaceholder

description = l'Event Title'

group = 'event'

name = 'event_title'

classmethod render(*event*)
Convert the placeholder to a string.

When a placeholder contains HTML that should not be escaped, the returned value should be returned as a `markupsafe.Markup` instance instead of a plain string.

Subclasses are encouraged to explicitly specify the arguments they expect instead of using `**kwargs`.

Parameters **kwargs** – arguments specific to the placeholder's context

class indico.modules.designer.placeholders.**CategoryTitlePlaceholder**
Bases: indico.modules.designer.placeholders.DesignerPlaceholder

description = l'Category Title'

group = 'event'

name = 'category_title'

classmethod render(*event*)
Convert the placeholder to a string.

When a placeholder contains HTML that should not be escaped, the returned value should be returned as a `markupsafe.Markup` instance instead of a plain string.

Subclasses are encouraged to explicitly specify the arguments they expect instead of using `**kwargs`.

Parameters **kwargs** – arguments specific to the placeholder's context

class indico.modules.designer.placeholders.**EventRoomPlaceholder**
Bases: indico.modules.designer.placeholders.DesignerPlaceholder

description = l'Event Room'

group = 'event'

name = 'event_room'

classmethod render(*event*)
Convert the placeholder to a string.

When a placeholder contains HTML that should not be escaped, the returned value should be returned as a `markupsafe.Markup` instance instead of a plain string.

Subclasses are encouraged to explicitly specify the arguments they expect instead of using `**kwargs`.

Parameters **kwargs** – arguments specific to the placeholder's context

class indico.modules.designer.placeholders.**EventVenuePlaceholder**
Bases: indico.modules.designer.placeholders.DesignerPlaceholder

description = l'Event Venue'

group = 'event'

name = 'event_venue'

classmethod render(*event*)
Convert the placeholder to a string.

When a placeholder contains HTML that should not be escaped, the returned value should be returned as a `markupsafe.Markup` instance instead of a plain string.

Subclasses are encouraged to explicitly specify the arguments they expect instead of using `**kwargs`.

Parameters **kwargs** – arguments specific to the placeholder's context

class indico.modules.designer.placeholders.**EventSpeakersPlaceholder**
Bases: indico.modules.designer.placeholders.DesignerPlaceholder

description = l'Event Speakers/Chairs'

group = 'event'

name = 'event_speakers'

classmethod render(*event*)
Convert the placeholder to a string.

When a placeholder contains HTML that should not be escaped, the returned value should be returned as a `markupsafe.Markup` instance instead of a plain string.

Subclasses are encouraged to explicitly specify the arguments they expect instead of using `**kwargs`.

Parameters **kwargs** – arguments specific to the placeholder's context

class indico.modules.designer.placeholders.**EventLogoPlaceholder**
Bases: `indico.modules.designer.placeholders.DesignerPlaceholder`

description = l'Event Logo'

group = 'event'

is_image = True

name = 'event_logo'

classmethod render(*event*)
Convert the placeholder to a string.

When a placeholder contains HTML that should not be escaped, the returned value should be returned as a `markupsafe.Markup` instance instead of a plain string.

Subclasses are encouraged to explicitly specify the arguments they expect instead of using `**kwargs`.

Parameters **kwargs** – arguments specific to the placeholder's context

7.1.30 Network

Todo: Docstrings (module, models)

Models

class indico.modules.networks.models.networks.**IPNetwork**(***kwargs*)
Bases: `sqlalchemy.orm.decl_api.Model`

A simple constructor that allows initialization from kwargs.

Sets attributes on the constructed instance using the names and values in `kwargs`.

Only keys that are present as attributes of the instance's class are allowed. These could be, for example, any mapped columns or relationships.

group_id

network

class indico.modules.networks.models.networks.**IPNetworkGroup**(***kwargs*)
Bases: `sqlalchemy.orm.decl_api.Model`

A simple constructor that allows initialization from kwargs.

Sets attributes on the constructed instance using the names and values in `kwargs`.

Only keys that are present as attributes of the instance's class are allowed. These could be, for example, any mapped columns or relationships.

attachment_access_override
Grants all IPs in the network group read access to all attachments

contains_ip(*ip*)

description

hidden
Whether the network group is hidden in ACL forms

id

identifier

locator

name

networks
A descriptor that presents a read/write view of an object attribute.

principal_order = 1

principal_type = 5

Utilities

7.1.31 News

Todo: Docstrings (module, models)

Models

class indico.modules.news.models.news.**NewsItem**(**kwargs*)
Bases: sqlalchemy.orm.decl_api.Model

A simple constructor that allows initialization from kwargs.

Sets attributes on the constructed instance using the names and values in `kwargs`.

Only keys that are present as attributes of the instance's class are allowed. These could be, for example, any mapped columns or relationships.

anchor

content

created_dt

id

locator
Define a smart locator property.

This behaves pretty much like a normal read-only property and the decorated function should return a dict containing the necessary data to build a URL for the object.

This decorator should usually be applied to a method named `locator` as this name is required for *get_locator* to find it automatically when just passing the object.

If you need more than one locator, you can define it like this:

```
@locator_property
def locator(self):
    return {...}

@locator.other
def locator(self):
    return {...}
```

The `other` locator can then be accessed by passing `obj.locator.other` to the code expecting an object with a locator.

slug

title

url

Utilities

indico.modules.news.util.**get_recent_news**()
Get a list of recent news for the home page.

7.1.32 Indico fields

Todo: Docstrings to all fields

Indico fields extend from WTForm fields and are used for the special cases where the simple form fields are not enough to cover all needs.

class indico.modules.events.fields.**EventPersonLinkListField**(**args*, ***kwargs*)
Bases: *indico.modules.events.fields.PersonLinkListFieldBase*

A field to manage event's chairpersons.

linked_object_attr = 'event'

person_link_cls
alias of *indico.modules.events.models.persons.EventPersonLink*

pre_validate(*form*)
Override if you need field-level validation. Runs before any other validators.

Parameters **form** – The form the field belongs to.

widget = <indico.web.forms.widgets.JinjaWidget object>

class indico.modules.events.fields.**EventPersonListField**(**args*, ***kwargs*)
Bases: indico.web.forms.fields.principals.PrincipalListField

A field that lets you select a list Indico user and EventPersons.

This requires its form to have an event set.

create_untrusted_persons = False
Whether new event persons created by the field should be marked as untrusted

event

process_formdata(*valuelist*)
Process data received over the wire from a form.

This will be called during form construction with data supplied through the *formdata* argument.

Parameters **valuelist** – A list of strings to process.

class indico.modules.events.fields.**IndicoThemeSelectField**(**args*, ***kwargs*)
Bases: wtforms.fields.choices.SelectField

class indico.modules.events.fields.**PersonLinkListFieldBase**(**args*, ***kwargs*)
Bases: *indico.modules.events.fields.EventPersonListField*

default_sort_alpha = True
If set to *True*, will be sorted alphabetically by default

linked_object_attr = None
name of the attribute on the form containing the linked object

person_link_cls = None
class that inherits from *PersonLinkBase*

widget = None

class indico.modules.events.fields.**RatingReviewField**(**args*, ***kwargs*)
Bases: wtforms.fields.choices.RadioField

widget = <indico.web.forms.widgets.JinjaWidget object>

class indico.modules.events.fields.**ReferencesField**(**args*, ***kwargs*)
Bases: indico.web.forms.fields.itemlists.MultipleItemsField

A field to manage external references.

pre_validate(*form*)
Override if you need field-level validation. Runs before any other validators.

Parameters **form** – The form the field belongs to.

process_formdata(*valuelist*)
Process data received over the wire from a form.

This will be called during form construction with data supplied through the *formdata* argument.

Parameters **valuelist** – A list of strings to process.

class indico.modules.events.abstracts.fields.**AbstractField**(**args*, ***kwargs*)
Bases: wtforms_sqlalchemy.fields.QuerySelectField

A selectize-based field to select an abstract from an event.

event

pre_validate(*form*)
Override if you need field-level validation. Runs before any other validators.

Parameters **form** – The form the field belongs to.

search_payload

search_url

widget = <indico.web.forms.widgets.SelectizeWidget object>

class indico.modules.events.abstracts.fields.**AbstractPersonLinkListField**(**args*, ***kwargs*)

Bases: *indico.modules.events.fields.PersonLinkListFieldBase*

A field to configure a list of abstract persons.

create_untrusted_persons = True

default_sort_alpha = False

linked_object_attr = 'abstract'

person_link_cls
alias of *indico.modules.events.abstracts.models.persons.AbstractPersonLink*

pre_validate(*form*)
Override if you need field-level validation. Runs before any other validators.

Parameters **form** – The form the field belongs to.

widget = <indico.web.forms.widgets.JinjaWidget object>

class indico.modules.events.abstracts.fields.**EmailRuleListField**(*label=None*, *validators=None*, *filters=()*, *description=''*, *id=None*, *default=None*, *widget=None*, *render_kw=None*, *name=None*, *_form=None*, *_prefix=''*, *_translations=None*, *_meta=None*)

Bases: indico.web.forms.fields.simple.JSONField

A field that stores a list of e-mail template rules.

Construct a new field.

Parameters

- **label** – The label of the field.
- **validators** – A sequence of validators to call when *validate* is called.
- **filters** – A sequence of filters which are run on input data by *process*.
- **description** – A description for the field, typically used for help text.
- **id** – An id to use for the field. A reasonable default is set by the form, and you shouldn't need to set this manually.
- **default** – The default value to assign to the field, if no form or object input is provided. May be a callable.
- **widget** – If provided, overrides the widget used to render the field.

- **render_kw** (*dict*) – If provided, a dictionary which provides default keywords that will be given to the widget at render time.
- **name** – The HTML name of this field. The default value is the Python attribute name.
- **_form** – The form holding this field. It is passed by the form itself during construction. You should never pass this value yourself.
- **_prefix** – The prefix to prepend to the form name of this field, passed by the enclosing form during construction.
- **_translations** – A translations object providing message translations. Usually passed by the enclosing form during construction. See I18n docs for information on message translations.
- **_meta** – If provided, this is the 'meta' instance from the form. You usually don't pass this yourself.

If *_form* isn't provided, an `UnboundField` will be returned instead. Call its `bind()` method with a form instance and a name to construct the field.

CAN_POPULATE = True

accepted_condition_types = (<class 'indico.modules.events.abstracts.notifications.Stat

condition_choices

condition_class_map = {'contribution_type': <class 'indico.modules.events.abstracts.n

pre_validate(*form*)

Override if you need field-level validation. Runs before any other validators.

Parameters **form** – The form the field belongs to.

widget = <indico.web.forms.widgets.JinjaWidget object>

class indico.modules.events.abstracts.fields.**TrackRoleField**(*label=None*, *validators=None*, *filters=()*, *description=''*, *id=None*, *default=None*, *widget=None*, *render_kw=None*, *name=None*, *_form=None*, *_prefix=''*, *_translations=None*, *_meta=None*)

Bases: `indico.web.forms.fields.simple.JSONField`

A field to assign track roles to principals.

Construct a new field.

Parameters

- **label** – The label of the field.
- **validators** – A sequence of validators to call when *validate* is called.
- **filters** – A sequence of filters which are run on input data by *process*.
- **description** – A description for the field, typically used for help text.

- **id** – An id to use for the field. A reasonable default is set by the form, and you shouldn't need to set this manually.
- **default** – The default value to assign to the field, if no form or object input is provided. May be a callable.
- **widget** – If provided, overrides the widget used to render the field.
- **render_kw** (*dict*) – If provided, a dictionary which provides default keywords that will be given to the widget at render time.
- **name** – The HTML name of this field. The default value is the Python attribute name.
- **_form** – The form holding this field. It is passed by the form itself during construction. You should never pass this value yourself.
- **_prefix** – The prefix to prepend to the form name of this field, passed by the enclosing form during construction.
- **_translations** – A translations object providing message translations. Usually passed by the enclosing form during construction. See I18n docs for information on message translations.
- **_meta** – If provided, this is the 'meta' instance from the form. You usually don't pass this yourself.

If *_form* isn't provided, an `UnboundField` will be returned instead. Call its `bind()` method with a form instance and a name to construct the field.

CAN_POPULATE = True

category_roles

event_roles

permissions_info

widget = <indico.web.forms.widgets.JinjaWidget object>

class indico.modules.events.contributions.fields.**ContributionPersonLinkListField**(**args*, ***kwargs*)

Bases: *indico.modules.events.fields.PersonLinkListFieldBase*

A field to configure a list of contribution persons.

linked_object_attr = 'contrib'

person_link_cls
alias of *indico.modules.events.contributions.models.persons.ContributionPersonLink*

pre_validate(*form*)
Override if you need field-level validation. Runs before any other validators.

Parameters **form** – The form the field belongs to.

widget = <indico.web.forms.widgets.JinjaWidget object>

class indico.modules.events.contributions.fields.**SubContributionPersonLinkListField**(**args*, ***kwargs*)

Bases: *indico.modules.events.contributions.fields.ContributionPersonLinkListField*

A field to configure a list of subcontribution persons.

linked_object_attr = 'subcontrib'

person_link_cls
alias of *indico.modules.events.contributions.models.persons.SubContributionPersonLink*

widget = <indico.web.forms.widgets.JinjaWidget object>

class indico.modules.events.papers.fields.**PaperEmailSettingsField**(*label=None*, *validators=None*, *filters=()*, *description=''*, *id=None*, *default=None*, *widget=None*, *render_kw=None*, *name=None*, *_form=None*, *_prefix=''*, *_translations=None*, *_meta=None*)

Bases: indico.web.forms.fields.simple.JSONField

Construct a new field.

Parameters

- **label** – The label of the field.
- **validators** – A sequence of validators to call when *validate* is called.
- **filters** – A sequence of filters which are run on input data by *process*.
- **description** – A description for the field, typically used for help text.
- **id** – An id to use for the field. A reasonable default is set by the form, and you shouldn't need to set this manually.
- **default** – The default value to assign to the field, if no form or object input is provided. May be a callable.
- **widget** – If provided, overrides the widget used to render the field.
- **render_kw** (*dict*) – If provided, a dictionary which provides default keywords that will be given to the widget at render time.
- **name** – The HTML name of this field. The default value is the Python attribute name.
- **_form** – The form holding this field. It is passed by the form itself during construction. You should never pass this value yourself.
- **_prefix** – The prefix to prepend to the form name of this field, passed by the enclosing form during construction.
- **_translations** – A translations object providing message translations. Usually passed by the enclosing form during construction. See I18n docs for information on message translations.

- **_meta** – If provided, this is the 'meta' instance from the form. You usually don't pass this yourself.

If *_form* isn't provided, an `UnboundField` will be returned instead. Call its `bind()` method with a form instance and a name to construct the field.

CAN_POPULATE = True

event

process_formdata(*valuelist*)
Process data received over the wire from a form.

This will be called during form construction with data supplied through the *formdata* argument.

Parameters **valuelist** – A list of strings to process.

widget = <indico.web.forms.widgets.JinjaWidget object>

class indico.modules.events.sessions.fields.**SessionBlockPersonLinkListField**(**args*, ***kwargs*)
Bases: *indico.modules.events.fields.PersonLinkListFieldBase*

linked_object_attr = 'session_block'

person_link_cls
alias of *indico.modules.events.sessions.models.persons.SessionBlockPersonLink*

widget = <indico.web.forms.widgets.JinjaWidget object>

class indico.modules.categories.fields.**CategoryField**(**args*, ***kwargs*)
Bases: `wtforms.fields.simple.HiddenField`

WTForms field that lets you select a category.

Parameters **require_event_creation_rights** – Whether to allow selecting only categories where the user can create events.

process_data(*value*)
Process the Python data applied to this field and store the result.

This will be called during form construction by the form's *kwargs* or *obj* argument.

Parameters **value** – The python object containing the value to process.

process_formdata(*valuelist*)
Process data received over the wire from a form.

This will be called during form construction with data supplied through the *formdata* argument.

Parameters **valuelist** – A list of strings to process.

widget = <indico.web.forms.widgets.JinjaWidget object>

class indico.modules.categories.fields.**EventRequestList**(*category*, ***kwargs*)
Bases: `indico.util.marshmallow.ModelList`

class indico.modules.networks.fields.**MultiIPNetworkField**(**args*, ***kwargs*)
Bases: `indico.web.forms.fields.itemlists.MultiStringField`

A field to enter multiple IPv4 or IPv6 networks.

The field data is a set of `IPNetwork``s not bound to a DB session. The ``unique` and `sortable` parameters of the parent class cannot be used with this class.

pre_validate(*form*)
Override if you need field-level validation. Runs before any other validators.

Parameters **form** – The form the field belongs to.

process_data(*value*)
Process the Python data applied to this field and store the result.

This will be called during form construction by the form's *kwargs* or *obj* argument.

Parameters **value** – The python object containing the value to process.

process_formdata(*valuelist*)
Process data received over the wire from a form.

This will be called during form construction with data supplied through the *formdata* argument.

Parameters **valuelist** – A list of strings to process.

class indico.web.forms.fields.**IndicoSelectMultipleCheckboxField**(*label=None*, *validators=None*, *coerce=<class 'str'>*, *choices=None*, *validate_choice=True*, ***kwargs*)
Bases: wtforms.fields.choices.SelectMultipleField

option_widget = <wtforms.widgets.core.CheckboxInput object>

widget = <indico.web.forms.widgets.JinjaWidget object>

class indico.web.forms.fields.**IndicoRadioField**(**args*, ***kwargs*)
Bases: wtforms.fields.choices.RadioField

widget = <indico.web.forms.widgets.JinjaWidget object>

class indico.web.forms.fields.**JSONField**(*label=None*, *validators=None*, *filters=()*, *description=''*, *id=None*, *default=None*, *widget=None*, *render_kw=None*, *name=None*, *_form=None*, *_prefix=''*, *_translations=None*, *_meta=None*)
Bases: wtforms.fields.simple.HiddenField

Construct a new field.

Parameters

- **label** – The label of the field.
- **validators** – A sequence of validators to call when *validate* is called.
- **filters** – A sequence of filters which are run on input data by *process*.
- **description** – A description for the field, typically used for help text.
- **id** – An id to use for the field. A reasonable default is set by the form, and you shouldn't need to set this manually.
- **default** – The default value to assign to the field, if no form or object input is provided. May be a callable.
- **widget** – If provided, overrides the widget used to render the field.

- **render_kw** (*dict*) – If provided, a dictionary which provides default keywords that will be given to the widget at render time.
- **name** – The HTML name of this field. The default value is the Python attribute name.
- **_form** – The form holding this field. It is passed by the form itself during construction. You should never pass this value yourself.
- **_prefix** – The prefix to prepend to the form name of this field, passed by the enclosing form during construction.
- **_translations** – A translations object providing message translations. Usually passed by the enclosing form during construction. See I18n docs for information on message translations.
- **_meta** – If provided, this is the 'meta' instance from the form. You usually don't pass this yourself.

If *_form* isn't provided, an `UnboundField` will be returned instead. Call its `bind()` method with a form instance and a name to construct the field.

CAN_POPULATE = False
Whether an object may be populated with the data from this field

populate_obj(*obj*, *name*)
Populates *obj.<name>* with the field's data.

Note This is a destructive operation. If *obj.<name>* already exists, it will be overridden. Use with caution.

process_formdata(*valuelist*)
Process data received over the wire from a form.

This will be called during form construction with data supplied through the *formdata* argument.

Parameters **valuelist** – A list of strings to process.

class indico.web.forms.fields.**HiddenFieldList**(*label=None*, *validators=None*, *filters=()*, *description=''*, *id=None*, *default=None*, *widget=None*, *render_kw=None*, *name=None*, *_form=None*, *_prefix=''*, *_translations=None*, *_meta=None*)

Bases: `wtforms.fields.simple.HiddenField`

A hidden field that handles lists of strings.

This is done *getlist*-style, i.e. by repeating the input element with the same name for each list item.

The only case where this field is useful is when you display a form via POST and provide a list of items (e.g. ids) related to the form which needs to be kept when the form is submitted and also need to access it via `request.form.getlist(...)` before submitting the form.

Construct a new field.

Parameters

- **label** – The label of the field.
- **validators** – A sequence of validators to call when *validate* is called.
- **filters** – A sequence of filters which are run on input data by *process*.
- **description** – A description for the field, typically used for help text.
- **id** – An id to use for the field. A reasonable default is set by the form, and you shouldn't need to set this manually.

- **default** – The default value to assign to the field, if no form or object input is provided. May be a callable.
- **widget** – If provided, overrides the widget used to render the field.
- **render_kw** (*dict*) – If provided, a dictionary which provides default keywords that will be given to the widget at render time.
- **name** – The HTML name of this field. The default value is the Python attribute name.
- **_form** – The form holding this field. It is passed by the form itself during construction. You should never pass this value yourself.
- **_prefix** – The prefix to prepend to the form name of this field, passed by the enclosing form during construction.
- **_translations** – A translations object providing message translations. Usually passed by the enclosing form during construction. See I18n docs for information on message translations.
- **_meta** – If provided, this is the 'meta' instance from the form. You usually don't pass this yourself.

If *_form* isn't provided, an `UnboundField` will be returned instead. Call its `bind()` method with a form instance and a name to construct the field.

process_formdata(*valuelist*)

Process data received over the wire from a form.

This will be called during form construction with data supplied through the *formdata* argument.

Parameters **valuelist** – A list of strings to process.

widget = <indico.web.forms.widgets.HiddenInputs object>

class indico.web.forms.fields.**TextListField**(*label=None*, *validators=None*, *filters=()*, *description=''*, *id=None*, *default=None*, *widget=None*, *render_kw=None*, *name=None*, *_form=None*, *_prefix=''*, *_translations=None*, *_meta=None*)

Bases: `wtforms.fields.simple.TextAreaField`

Construct a new field.

Parameters

- **label** – The label of the field.
- **validators** – A sequence of validators to call when *validate* is called.
- **filters** – A sequence of filters which are run on input data by *process*.
- **description** – A description for the field, typically used for help text.
- **id** – An id to use for the field. A reasonable default is set by the form, and you shouldn't need to set this manually.
- **default** – The default value to assign to the field, if no form or object input is provided. May be a callable.
- **widget** – If provided, overrides the widget used to render the field.
- **render_kw** (*dict*) – If provided, a dictionary which provides default keywords that will be given to the widget at render time.
- **name** – The HTML name of this field. The default value is the Python attribute name.

- **_form** – The form holding this field. It is passed by the form itself during construction. You should never pass this value yourself.
- **_prefix** – The prefix to prepend to the form name of this field, passed by the enclosing form during construction.
- **_translations** – A translations object providing message translations. Usually passed by the enclosing form during construction. See I18n docs for information on message translations.
- **_meta** – If provided, this is the 'meta' instance from the form. You usually don't pass this yourself.

If *_form* isn't provided, an `UnboundField` will be returned instead. Call its `bind()` method with a form instance and a name to construct the field.

pre_validate(*form*)
Override if you need field-level validation. Runs before any other validators.

Parameters **form** – The form the field belongs to.

process_formdata(*valuelist*)
Process data received over the wire from a form.

This will be called during form construction with data supplied through the *formdata* argument.

Parameters **valuelist** – A list of strings to process.

class indico.web.forms.fields.**EmailListField**(*label=None*, *validators=None*, *filters=()*, *description=''*, *id=None*, *default=None*, *widget=None*, *render_kw=None*, *name=None*, *_form=None*, *_prefix=''*, *_translations=None*, *_meta=None*)
Bases: `indico.web.forms.fields.simple.TextListField`

Construct a new field.

Parameters

- **label** – The label of the field.
- **validators** – A sequence of validators to call when *validate* is called.
- **filters** – A sequence of filters which are run on input data by *process*.
- **description** – A description for the field, typically used for help text.
- **id** – An id to use for the field. A reasonable default is set by the form, and you shouldn't need to set this manually.
- **default** – The default value to assign to the field, if no form or object input is provided. May be a callable.
- **widget** – If provided, overrides the widget used to render the field.
- **render_kw** (*dict*) – If provided, a dictionary which provides default keywords that will be given to the widget at render time.
- **name** – The HTML name of this field. The default value is the Python attribute name.
- **_form** – The form holding this field. It is passed by the form itself during construction. You should never pass this value yourself.
- **_prefix** – The prefix to prepend to the form name of this field, passed by the enclosing form during construction.

- **_translations** – A translations object providing message translations. Usually passed by the enclosing form during construction. See I18n docs for information on message translations.
- **_meta** – If provided, this is the 'meta' instance from the form. You usually don't pass this yourself.

If *_form* isn't provided, an `UnboundField` will be returned instead. Call its `bind()` method with a form instance and a name to construct the field.

process_formdata(*valuelist*)
Process data received over the wire from a form.

This will be called during form construction with data supplied through the *formdata* argument.

Parameters **valuelist** – A list of strings to process.

class indico.web.forms.fields.**IndicoPasswordField**(**args*, ***kwargs*)
Bases: `wtforms.fields.simple.PasswordField`

Password field which can show or hide the password.

widget = <indico.web.forms.widgets.PasswordWidget object>

class indico.web.forms.fields.**IndicoStaticTextField**(**args*, ***kwargs*)
Bases: `wtforms.fields.core.Field`

Return an html element with text taken from this field's value.

process_data(*data*)
Process the Python data applied to this field and store the result.

This will be called during form construction by the form's *kwargs* or *obj* argument.

Parameters **value** – The python object containing the value to process.

widget = <indico.web.forms.widgets.JinjaWidget object>

class indico.web.forms.fields.**IndicoTagListField**(*label=None*, *validators=None*, *filters=()*, *description=''*, *id=None*, *default=None*, *widget=None*, *render_kw=None*, *name=None*, *_form=None*, *_prefix=''*, *_translations=None*, *_meta=None*)
Bases: `indico.web.forms.fields.simple.HiddenFieldList`

Construct a new field.

Parameters

- **label** – The label of the field.
- **validators** – A sequence of validators to call when *validate* is called.
- **filters** – A sequence of filters which are run on input data by *process*.
- **description** – A description for the field, typically used for help text.
- **id** – An id to use for the field. A reasonable default is set by the form, and you shouldn't need to set this manually.
- **default** – The default value to assign to the field, if no form or object input is provided. May be a callable.
- **widget** – If provided, overrides the widget used to render the field.

- **render_kw** (*dict*) – If provided, a dictionary which provides default keywords that will be given to the widget at render time.
- **name** – The HTML name of this field. The default value is the Python attribute name.
- **_form** – The form holding this field. It is passed by the form itself during construction. You should never pass this value yourself.
- **_prefix** – The prefix to prepend to the form name of this field, passed by the enclosing form during construction.
- **_translations** – A translations object providing message translations. Usually passed by the enclosing form during construction. See I18n docs for information on message translations.
- **_meta** – If provided, this is the 'meta' instance from the form. You usually don't pass this yourself.

If *_form* isn't provided, an `UnboundField` will be returned instead. Call its `bind()` method with a form instance and a name to construct the field.

widget = <indico.web.forms.widgets.JinjaWidget object>

class indico.web.forms.fields.**IndicoPalettePickerField**(**args*, ***kwargs*)
Bases: indico.web.forms.fields.simple.JSONField

Field allowing user to pick a color from a set of predefined values.

CAN_POPULATE = True

pre_validate(*form*)
Override if you need field-level validation. Runs before any other validators.

Parameters **form** – The form the field belongs to.

process_data(*value*)
Process the Python data applied to this field and store the result.

This will be called during form construction by the form's *kwargs* or *obj* argument.

Parameters **value** – The python object containing the value to process.

process_formdata(*valuelist*)
Process data received over the wire from a form.

This will be called during form construction with data supplied through the *formdata* argument.

Parameters **valuelist** – A list of strings to process.

widget = <indico.web.forms.widgets.JinjaWidget object>

class indico.web.forms.fields.**IndicoSinglePalettePickerField**(**args*, ***kwargs*)
Bases: indico.web.forms.fields.colors.IndicoPalettePickerField

Like IndicoPalettePickerField but for just a single color.

pre_validate(*form*)
Override if you need field-level validation. Runs before any other validators.

Parameters **form** – The form the field belongs to.

process_formdata(*valuelist*)
Process data received over the wire from a form.

This will be called during form construction with data supplied through the *formdata* argument.

Parameters **valuelist** – A list of strings to process.

class indico.web.forms.fields.**TimeDeltaField**(**args*, ***kwargs*)
Bases: wtforms.fields.core.Field

A field that lets the user select a simple timedelta.

It does not support mixing multiple units, but it is smart enough to switch to a different unit to represent a timedelta that could not be represented otherwise.

Parameters **units** – The available units. Must be a tuple containing any any of 'seconds', 'minutes', 'hours' and 'days'. If not specified, `('hours', 'days')` is assumed.

best_unit
Return the largest unit that covers the current timedelta.

choices

magnitudes = {'days': 86400, 'hours': 3600, 'minutes': 60, 'seconds': 1}

pre_validate(*form*)
Override if you need field-level validation. Runs before any other validators.

Parameters **form** – The form the field belongs to.

process_formdata(*valuelist*)
Process data received over the wire from a form.

This will be called during form construction with data supplied through the *formdata* argument.

Parameters **valuelist** – A list of strings to process.

unit_names = {'days': 'Days', 'hours': 'Hours', 'minutes': 'Minutes', 'seconds': '

widget = <indico.web.forms.widgets.JinjaWidget object>

class indico.web.forms.fields.**IndicoDateTimeField**(**args*, ***kwargs*)
Bases: wtforms_dateutil.DateTimeField

Friendly datetime field that handles timezones and validations.

Important: When the form has a *timezone* field it must be declared before any *IndicoDateTimeField*. Otherwise its value is not available in this field resulting in an error during form submission.

earliest_dt

latest_dt

linked_datetime_validator

linked_field

pre_validate(*form*)
Override if you need field-level validation. Runs before any other validators.

Parameters **form** – The form the field belongs to.

process_formdata(*valuelist*)
Process data received over the wire from a form.

This will be called during form construction with data supplied through the *formdata* argument.

Parameters **valuelist** – A list of strings to process.

timezone

timezone_field

tzinfo

widget = <indico.web.forms.widgets.JinjaWidget object>

class indico.web.forms.fields.**OccurrencesField**(**args*, ***kwargs*)
Bases: indico.web.forms.fields.simple.JSONField

A field that lets you select multiple occurrences consisting of a start date/time and a duration.

CAN_POPULATE = True

process_formdata(*valuelist*)
Process data received over the wire from a form.

This will be called during form construction with data supplied through the *formdata* argument.

Parameters valuelist – A list of strings to process.

timezone

timezone_field

widget = <indico.web.forms.widgets.JinjaWidget object>

class indico.web.forms.fields.**IndicoTimezoneSelectField**(**args*, ***kwargs*)
Bases: wtforms.fields.choices.SelectField

process_data(*value*)
Process the Python data applied to this field and store the result.

This will be called during form construction by the form's *kwargs* or *obj* argument.

Parameters value – The python object containing the value to process.

class indico.web.forms.fields.**IndicoEnumSelectField**(*label=None*, *validators=None*, *enum=None*, *sorted=False*, *only=None*, *skip=None*, *none=None*, *titles=None*, *keep_enum=True*, ***kwargs*)
Bases: indico.web.forms.fields.enums._EnumFieldMixin, wtforms.fields.choices.SelectFieldBase

Select field backed by a RichEnum.

iter_choices()
Provides data for choice widget rendering. Must return a sequence or iterable of (value, label, selected) tuples.

widget = <wtforms.widgets.core.Select object>

class indico.web.forms.fields.**IndicoEnumRadioField**(*label=None*, *validators=None*, *enum=None*, *sorted=False*, *only=None*, *skip=None*, *none=None*, *titles=None*, *keep_enum=True*, ***kwargs*)
Bases: indico.web.forms.fields.enums.IndicoEnumSelectField

option_widget = <wtforms.widgets.core.RadioInput object>

widget = <indico.web.forms.widgets.JinjaWidget object>

class indico.web.forms.fields.**HiddenEnumField**(*label=None*, *validators=None*, *enum=None*, *only=None*, *skip=None*, *none=None*, ***kwargs*)
Bases: indico.web.forms.fields.enums._EnumFieldMixin, wtforms.fields.simple.HiddenField

Hidden field that only accepts values from an Enum.

process_formdata(*valuelist*)
Process data received over the wire from a form.

This will be called during form construction with data supplied through the *formdata* argument.

Parameters **valuelist** – A list of strings to process.

class indico.web.forms.fields.**FileField**(**args*, ***kwargs*)
Bases: wtforms.fields.core.Field

A dropzone field.

default_options = {'add_remove_links': True, 'handle_flashes': False, 'lightweight':

process_formdata(*valuelist*)
Process data received over the wire from a form.

This will be called during form construction with data supplied through the *formdata* argument.

Parameters **valuelist** – A list of strings to process.

widget = <indico.web.forms.widgets.JinjaWidget object>

class indico.web.forms.fields.**MultiStringField**(**args*, ***kwargs*)
Bases: wtforms.fields.simple.HiddenField

A field with multiple input text fields.

Parameters

- **field** – A tuple `(fieldname, title)` where the title is used in the placeholder.
- **uuid_field** – If set, each item will have a UUID assigned and stored in the field specified here.
- **flat** – If True, the field returns a list of string values instead of dicts. Cannot be combined with *uuid_field*.
- **unique** – Whether the values should be unique.
- **sortable** – Whether items should be sortable.

pre_validate(*form*)
Override if you need field-level validation. Runs before any other validators.

Parameters **form** – The form the field belongs to.

process_formdata(*valuelist*)
Process data received over the wire from a form.

This will be called during form construction with data supplied through the *formdata* argument.

Parameters **valuelist** – A list of strings to process.

widget = <indico.web.forms.widgets.JinjaWidget object>

class indico.web.forms.fields.**MultipleItemsField**(**args*, ***kwargs*)
Bases: wtforms.fields.simple.HiddenField

A field with multiple items consisting of multiple string values.

Parameters

- **fields** – A list of dicts with the following arguments: 'id': the unique ID of the field 'caption': the title of the column and the placeholder 'type': 'text|number|select', the type of the field 'coerce': callable to convert the value to a python type.

the type must be comvertible back to a string, so usually you just want something like *int* or *float* here.

In case the type is 'select', the property 'choices' of the *MultipleItemsField* or the 'choices' kwarg needs to be a dict where the key is the 'id' of the select field and the value is another dict mapping the option's id to it caption.

- **uuid_field** – If set, each item will have a UUID assigned and stored in the field specified here. The name specified here may not be in *fields*.
- **uuid_field_opaque** – If set, the *uuid_field* is considered opaque, i.e. it is never touched by this field. This is useful when you subclass the field and use e.g. actual database IDs instead of UUIDs.
- **unique_field** – The name of a field in *fields* that needs to be unique.
- **sortable** – Whether items should be sortable.

pre_validate(*form*)
Override if you need field-level validation. Runs before any other validators.

Parameters **form** – The form the field belongs to.

process_formdata(*valuelist*)
Process data received over the wire from a form.

This will be called during form construction with data supplied through the *formdata* argument.

Parameters **valuelist** – A list of strings to process.

widget = <indico.web.forms.widgets.JinjaWidget object>

class indico.web.forms.fields.**OverrideMultipleItemsField**(**args*, ***kwargs*)
Bases: wtforms.fields.simple.HiddenField

A field similar to *MultipleItemsField* which allows the user to override some values.

Parameters

- **fields** – a list of `(fieldname, title)` tuples. Should match the fields of the corresponding *MultipleItemsField*.
- **field_data** – the data from the corresponding *MultipleItemsField*.
- **unique_field** – the name of the field which is unique among all rows
- **edit_fields** – a set containing the field names which can be edited

If you decide to use this field, please consider adding support for *uuid_field* here!

get_overridden_value(*row*, *name*)
Utility for the widget to get the entered value for an editable field.

get_row_key(*row*)
Utility for the widget to get the unique value for a row.

pre_validate(*form*)
Override if you need field-level validation. Runs before any other validators.

Parameters **form** – The form the field belongs to.

process_formdata(*valuelist*)
Process data received over the wire from a form.

This will be called during form construction with data supplied through the *formdata* argument.

Parameters **valuelist** – A list of strings to process.

widget = <indico.web.forms.widgets.JinjaWidget object>

class indico.web.forms.fields.**PrincipalListField**(**args*, ***kwargs*)
Bases: wtforms.fields.simple.HiddenField

A field that lets you select a list of principals.

Principals are users or other objects represending users such as groups or roles that can be added to ACLs.

Parameters

- **allow_external_users** – If "search users with no indico account" should be available. Selecting such a user will automatically create a pending user once the form is submitted, even if other fields in the form fail to validate!
- **allow_groups** – If groups should be selectable.
- **allow_event_roles** – If event roles should be selectable.
- **allow_category_roles** – If category roles should be selectable.
- **allow_registration_forms** – If registration form associated to an event should be selectable.
- **allow_emails** – If the field should allow bare emails. Those are not selectable in the widget, but may be added to an ACL through other means.

process_formdata(*valuelist*)
Process data received over the wire from a form.

This will be called during form construction with data supplied through the *formdata* argument.

Parameters **valuelist** – A list of strings to process.

widget = <indico.web.forms.widgets.JinjaWidget object>

class indico.web.forms.fields.**PrincipalField**(**args*, ***kwargs*)
Bases: wtforms.fields.simple.HiddenField

A field that lets you select a single Indico user.

Parameters **allow_external_users** – If "search users with no indico account" should be available. Selecting such a user will automatically create a pending user once the form is submitted, even if other fields in the form fail to validate!

process_formdata(*valuelist*)
Process data received over the wire from a form.

This will be called during form construction with data supplied through the *formdata* argument.

Parameters **valuelist** – A list of strings to process.

widget = <indico.web.forms.widgets.JinjaWidget object>

class indico.web.forms.fields.**AccessControlListField**(**args*, ***kwargs*)
Bases: indico.web.forms.fields.principals.PrincipalListField

class indico.web.forms.fields.**IndicoQuerySelectMultipleField**(**args*, ***kwargs*)
Bases: wtforms_sqlalchemy.fields.QuerySelectMultipleField

Like the parent, but with a callback that allows you to modify the list

The callback can return a new list or yield items, and you can use it e.g. to sort the list.

data

class indico.web.forms.fields.**EditableFileField**(**args*, ***kwargs*)
Bases: indico.web.forms.fields.files.FileField

A dropzone field that displays its current state and keeps track of deletes.

process_formdata(*valuelist*)
Process data received over the wire from a form.

This will be called during form construction with data supplied through the *formdata* argument.

Parameters **valuelist** – A list of strings to process.

widget = <indico.web.forms.widgets.JinjaWidget object>

class indico.web.forms.fields.**IndicoQuerySelectMultipleCheckboxField**(**args*, ***kwargs*)
Bases: indico.web.forms.fields.sqlalchemy.IndicoQuerySelectMultipleField

option_widget = <wtforms.widgets.core.CheckboxInput object>

widget = <indico.web.forms.widgets.JinjaWidget object>

class indico.web.forms.fields.**IndicoLocationField**(**args*, ***kwargs*)
Bases: indico.web.forms.fields.simple.JSONField

CAN_POPULATE = True

process_formdata(*valuelist*)
Process data received over the wire from a form.

This will be called during form construction with data supplied through the *formdata* argument.

Parameters **valuelist** – A list of strings to process.

widget = <indico.web.forms.widgets.LocationWidget object>

class indico.web.forms.fields.**IndicoMarkdownField**(**args*, ***kwargs*)
Bases: wtforms.fields.simple.TextAreaField

A Markdown-enhanced textarea.

When using the editor you need to include the markdown JS/CSS bundles and also the MathJax JS bundle (even when using only the editor without Mathjax).

Parameters

- **editor** – Whether to use the WMD widget with its live preview
- **mathjax** – Whether to use MathJax in the WMD live preview

widget = <indico.web.forms.widgets.JinjaWidget object>

class indico.web.forms.fields.**IndicoDateField**(**args*, ***kwargs*)
Bases: wtforms_dateutil.DateField

earliest_date

latest_date

linked_date_validator

linked_field

widget = <indico.web.forms.widgets.JinjaWidget object>

class indico.web.forms.fields.**IndicoProtectionField**(**args*, ***kwargs*)
Bases: indico.web.forms.fields.enums.IndicoEnumRadioField

radio_widget = <indico.web.forms.widgets.JinjaWidget object>

render_protection_message()

widget = <indico.web.forms.widgets.JinjaWidget object>

class indico.web.forms.fields.**IndicoSelectMultipleCheckboxBooleanField**(*label=None*, *validators=None*, *coerce=<class 'str'>*, *choices=None*, *validate_choice=True*, ***kwargs*)

Bases: indico.web.forms.fields.simple.IndicoSelectMultipleCheckboxField

iter_choices()

Provides data for choice widget rendering. Must return a sequence or iterable of (value, label, selected) tuples.

process_formdata(*valuelist*)

Process data received over the wire from a form.

This will be called during form construction with data supplied through the *formdata* argument.

Parameters **valuelist** – A list of strings to process.

class indico.web.forms.fields.**RelativeDeltaField**(**args*, ***kwargs*)

Bases: wtforms.fields.core.Field

A field that lets the user select a simple timedelta.

It does not support mixing multiple units, but it is smart enough to switch to a different unit to represent a timedelta that could not be represented otherwise.

Parameters **units** – The available units. Must be a tuple containing any any of 'seconds', 'minutes', 'hours' and 'days'. If not specified, `('hours', 'days')` is assumed.

choices

magnitudes = {'days': relativedelta(days=+1), 'hours': relativedelta(hours=+1), 'min

pre_validate(*form*)

Override if you need field-level validation. Runs before any other validators.

Parameters **form** – The form the field belongs to.

process_formdata(*valuelist*)

Process data received over the wire from a form.

This will be called during form construction with data supplied through the *formdata* argument.

Parameters **valuelist** – A list of strings to process.

split_data

unit_names = {'days': 'Days', 'hours': 'Hours', 'minutes': 'Minutes', 'months': 'M

widget = <indico.web.forms.widgets.JinjaWidget object>

class indico.web.forms.fields.**IndicoWeekDayRepetitionField**(**args*, ***kwargs*)

Bases: wtforms.fields.core.Field

Field that lets you select an ordinal day of the week.

WEEK_DAY_NUMBER_CHOICES = ((1, l'first'), (2, l'second'), (3, l'third'), (4, l'fourth'

day_number_data

process_formdata(*valuelist*)
Process data received over the wire from a form.

This will be called during form construction with data supplied through the *formdata* argument.

Parameters **valuelist** – A list of strings to process.

week_day_data

widget = <indico.web.forms.widgets.JinjaWidget object>

class indico.web.forms.fields.**IndicoEmailRecipientsField**(*label=None*, *validators=None*, *filters=()*, *description=''*, *id=None*, *default=None*, *widget=None*, *render_kw=None*, *name=None*, *_form=None*, *_prefix=''*, *_translations=None*, *_meta=None*)

Bases: wtforms.fields.core.Field

Construct a new field.

Parameters

- **label** – The label of the field.
- **validators** – A sequence of validators to call when *validate* is called.
- **filters** – A sequence of filters which are run on input data by *process*.
- **description** – A description for the field, typically used for help text.
- **id** – An id to use for the field. A reasonable default is set by the form, and you shouldn't need to set this manually.
- **default** – The default value to assign to the field, if no form or object input is provided. May be a callable.
- **widget** – If provided, overrides the widget used to render the field.
- **render_kw** (*dict*) – If provided, a dictionary which provides default keywords that will be given to the widget at render time.
- **name** – The HTML name of this field. The default value is the Python attribute name.
- **_form** – The form holding this field. It is passed by the form itself during construction. You should never pass this value yourself.
- **_prefix** – The prefix to prepend to the form name of this field, passed by the enclosing form during construction.
- **_translations** – A translations object providing message translations. Usually passed by the enclosing form during construction. See I18n docs for information on message translations.
- **_meta** – If provided, this is the 'meta' instance from the form. You usually don't pass this yourself.

If *_form* isn't provided, an `UnboundField` will be returned instead. Call its `bind()` method with a form instance and a name to construct the field.

process_data(*data*)

Process the Python data applied to this field and store the result.

This will be called during form construction by the form's *kwargs* or *obj* argument.

Parameters **value** – The python object containing the value to process.

widget = <indico.web.forms.widgets.JinjaWidget object>

class indico.web.forms.fields.**IndicoTimeField**(*label=None*, *validators=None*, *format='%H:%M'*, ***kwargs*)

Bases: `wtforms.fields.datetime.TimeField`

widget = <indico.web.forms.widgets.JinjaWidget object>

CHAPTER 8

What's New

8.1 Changelog

8.1.1 Version 3.1.2

Unreleased

Bugfixes

- Prevent access to a badge design of a deleted category or an event (#5329, #5334, thanks @vasantvohra)

Internal Changes

- Let payment plugins ignore pending transactions if they are expired (#5357)

8.1.2 Version 3.1.1

Released on April 27, 2022

Improvements

- Prompt before leaving the event protection page without saving changes (#5222)
- Add the ability to clone abstracts (#5217)
- Add setting to allow submitters to edit their own contributions (#5213)
- Update the editing state color scheme (#5236)
- Include program codes in export API (#5246)
- Add abstract rating scores grouped by track (#5298)

- Allow uploading revisions when an editor hasn't been assigned (#5289)

Bugfixes

- Fix published editable files only being visible to users with access to the editing timeline (#5218)
- Fix incorrect date in multi-day meeting date selector dropdown in certain timezones (#5223)
- Remove excessive padding around category titles (#5225)
- Fix error when exporting registrations to PDFs that contained certain invalid HTML-like sequences (#5233)
- Restore logical order of registration list columns (#5240)
- Fix a performance issue in the HTTP API when exporting events from a specific category while specifying a limit (only affected large databases) (#5260)
- Correctly specify charset in iCalendar files attached to emails (#5228, #5258, thanks @imranyusuff)
- Fix very long map URLs breaking out of the event management settings box (#5275)
- Fix missing abstract withdrawal notification (#5281)
- Fix downloading files from editables without a published revision (#5290)
- Do not mark participants with deleted/inactive registrations as registered in participant roles list (#5308)
- Do not enforce personal token name uniqueness across different users (#5317)
- Fix last modification date not updating when an abstract is edited (#5325)
- Fix a bug with poster and badge printing in unlisted events (#5322)

Internal Changes

- Add `category-sidebar` template hook and blocks around category sidebar sections (#5237, thanks @omegak)
- Add `event.reminder.before_reminder_make_email` signal (#5242, thanks @vasantvohra)
- Add `plugin.interceptable_function` signal to intercept selected function calls (#5254)

8.1.3 Version 3.1

Released on January 11, 2022

Major Features

- Category managers now see a log of all changes made to their category in a category log (similar to the event log). This log includes information about all events being created, deleted or moved in the category (#2809, #5029)
- Besides letting everyone create events in a category or restricting it to specific users, categories now also support a moderation workflow which allows event managers to request moving an event to a category. Only once a category manager approves this request, the event is actually moved (#2057, #5013)
- Admins now have the option to enable "Unlisted events", which are events that are not (yet) assigned to a category. Such events are only accessible to its creator and other users who have been granted access explicitly, and do not show up in any category's event listing (#4294, #5055, #5023, #5095)

Improvements

- Send event reminders as individual emails with the recipient in the To field instead of using BCC (#2318, #5088)
- Let event managers assign custom tags to registrations and filter the list of registrations by the presence or absence of specific tags (#4948, #5091)
- Allow importing registration invitations from a CSV file (#3673, #5108)
- Show event label on category overviews and in iCal event titles (#5140, #5143)
- Let event managers view the final timetable even while in draft mode (#5141, #5145)
- Add option to export role members as CSV (#5147, #5156)
- Include attachment checksums in API responses (#5084, #5169, thanks @avivace)
- iCalendar invites now render nicely in Outlook (#5178)
- Envelope senders for emails can now be restricted to specific addresses/domains using the `SMTP_ALLOWED_SENDERS` and `SMTP_SENDER_FALLBACK` config settings (#4837, #2224, #1877, #5179)
- Allow filtering the contribution list based on whether any person (speaker or author) has registered for the event or not (#5192, #5193)
- Add background color option and layer order to badge/poster designer items (#5139, thanks @SegiNyn)
- Allow external users in event/category ACLs (#5146)

Bugfixes

- Fix `CUSTOM_COUNTRIES` not overriding names of existing countries (#5183)
- Fix error dialog when submitting an invited abstract without being logger in (#5200)
- Fix category picker search displaying deleted categories (#5197, #5203)
- Fix editing service API calls using the service token (#5170)
- Fix excessive retries for Celery tasks with a retry wait time longer than 1 hour (#5172)

8.1.4 Version 3.0.4

Unreleased

Improvements

- Allow external users in event/category ACLs (#5146)

Bugfixes

- Fix editing service API calls using the service token (#5170)
- Fix excessive retries for Celery tasks with a retry wait time longer than 1 hour (#5172)

8.1.5 Version 3.0.3

Released on October 28, 2021

Security fixes

- Protect authentication endpoints against CSRF login attacks (#5099, thanks @omegak)

Improvements

- Support TLS certificates for SMTP authentication (#5100, thanks @dweinholz)
- Add CSV/Excel contribution list exports containing affiliations (#5114, #5118)
- Include program codes in contribution PDFs and spreadsheets (#5126)
- Add an API for bulk-assigning contribution program codes programmatically (#5115, #5120)
- Add layout setting to show videoconferences on the main conference page (#5124)

Bugfixes

- Fix certain registration list filters (checkin status & state) being combined with OR instead of AND (#5101)
- Fix translations not being taken into account in some places (#5073, #5105)
- Use correct/consistent field order for personal data fields in newly created registration forms
- Remove deleted registration forms from ACLs (#5130, #5131, thanks @jbtwist)

Internal Changes

- Truncate file names to 150 characters to avoid hitting file system path limits (#5116, thanks @vasantvohra)

8.1.6 Version 3.0.2

Released on September 09, 2021

Bugfixes

- Fix JavaScript errors on the login page which caused problems when using multiple form-based login methods (e.g. LDAP and local Indico accounts)

8.1.7 Version 3.0.1

Released on September 08, 2021

Improvements

- Allow filtering abstracts by custom fields having no value (#5033, #5034)
- Add support for syncing email addresses when logging in using external accounts (#5035)
- Use more space-efficient QR code version in registration tickets (#5052)
- Improve user experience when accessing an event restricted to registered participants while not logged in (#5053)
- When searching external users, prefer results with a name in case of multiple matches with the same email address (#5066)
- Show program codes in additional places (#5075)
- Display localized country names (#5070, #5076)

Bugfixes

- Show correct placeholders in date picker fields (#5022)
- Correctly preselect the default currency when creating a registration form
- Do not notify registrants when a payment transaction is created in "pending" state
- Keep the order of multi-choice options in registration summary (#5020, #5032)
- Correctly handle relative URLs in PDF generation (#5042, #5044)
- Render markdown in track descriptions in PDF generation (#5043, #5044)
- Fix error when importing chairpersons from an existing event (#5047)
- Fix broken timetable entry permalinks when query string args are present (#5049)
- Do not show "Payments" event management menu entry for registration managers (#5072)
- Replace some hardcoded date formats with locale-aware ones (#5059, #5071)
- Clone the scientific program description together with tracks (#5077)
- Fix database error when importing registrations to an event that already contains a deleted registration form with registrations (#5078)

Internal Changes

- Add `event.before_check_registration_email` signal (#5021, thanks @omegak)
- Do not strip image maps in places where HTML is allowed (#5026, thanks @bpedersen2)
- Add `event.registration.after_registration_form_clone` signal (#5037, thanks @vasantvohra)
- Add `registration-invite-options` template hook (#5045, thanks @vasantvohra)
- Fix Typeahead widget not working with extra validators (#5048, #5050, thanks @jbtwist)

8.1.8 Version 3.0

Released on July 16, 2021

Major Features

- Add system notices which inform administrators about important things such as security problems or outdated Python/Postgres versions. These notices are retrieved once a day without sending any data related to the Indico instance, but if necessary, this feature can be disabled by setting *SYSTEM_NOTICES_URL* to `None` in `indico.conf` (#5004)
- It is now possible to use *SAML SSO* for authentication without the need for Shibboleth and Apache (#5014)

Bugfixes

- Fix formatting and datetime localization in various PDF exports and timetable tab headers (#5009)
- Show lecture speakers as speakers instead of chairpersons on the participant roles page (#5008)

Internal Changes

- Signals previously exposed directly via `signals.foo` now need to be accessed using their explicit name, i.e. `signals.core.foo` (#5007)
- Add `category.extra_events` signal (#5005, thanks @omegak)

8.1.9 Version 3.0rc2

Released on July 09, 2021

Major Features

- Add support for personal tokens. These tokens act like OAuth tokens, but are associated with a specific user and generated manually without the need of doing the OAuth flow. They can be used like API keys but with better granularity using the same scopes OAuth applications have, and a single user can have multiple tokens using various scopes. By default any user can create such tokens, but admins can restrict their creation. (#1934, #4976)

Improvements

- Add abstract content to the abstract list customization options (#4968)
- Add CLI option to create a series (#4969)
- Users cannot submit multiple anonymous surveys anymore by logging out and in again (#4693, #4970)
- Improve reviewing state display for paper reviewers (#4979, #4984)
- Make it clearer if the contributions/timetable of a conference are still in draft mode (#4977, #4986)
- Add "send to speakers" option in event reminders (#4958, #4966, thanks @Naveenaidu)
- Allow displaying all events descending from a category (#4982, #4983, thanks @omegak and @openprojects).
- Add an option to allow non-judge conveners to update an abstract track (#4989)

Bugfixes

- Fix errors when importing events containing abstracts or event roles from a YAML dump (#4995)
- Fix sorting abstract notification rules (#4998)
- No longer silently fall back to the first event contact email address when sending registration emails where no explicit sender address has been configured (#4992, #4996, thanks @vasantvohra)
- Do not check for event access when using a registration link with a registration token (#4991, #4997, thanks @vasantvohra)

8.1.10 Version 3.0rc1

Released on June 25, 2021

Major Features

- There is a new built-in search module which provides basic search functionality out of the box, and for more advanced needs (such as full text search in uploaded files) plugins can provide their own search functionality (e.g. using ElasticSearch). (#4841)
- Categories may now contain both events and subcategories at the same time. During the upgrade to 3.0 event creation is automatically set to restricted in all categories containing subcategories in order to avoid any negative surprises which would suddenly allow random Indico users to create events in places where they couldn't do so previously. (#4679, #4725, #4757)
- The OAuth provider module has been re-implemented based on a more modern library (authlib). Support for the somewhat insecure *implicit flow* has been removed in favor of the code-with-PKCE flow. Tokens are now stored more securely as a hash instead of plaintext. For a given user/app/scope combination, only a certain amount of tokens are stored; once the limit has been reached older tokens will be discarded. The OAuth provider now exposes its metadata via a well-known URI (RFC 8414) and also has endpoints to introspect or revoke a token. (#4685, #4798)
- User profile pictures (avatars) are now shown in many more places throughout Indico, such as user search results, meeting participant lists and reviewing timelines. (#4625, #4747, #4939)

Internationalization

- New locale: English (United States)
- New translation: Turkish

Improvements

- Use a more modern search dialog when searching for users (#4674, #4743)
- Add an option to refresh event person data from the underlying user when cloning an event (#4750, #4760)
- Add options for attaching iCal files to complete registration and event reminder emails (#1158, #4780)
- Use the new token-based URLs instead of API keys for persistent ical links and replace the calendar link widgets in category, event, session and contribution views with the more modern ones used in dashboard (#4776, #4801)
- Add an option to export editables to JSON (#4767, #4810)
- Add an option to export paper peer reviewing data to JSON (#4767, #4818)

- Passwords are now checked against a list of breached passwords ("Have I Been Pwned") in a secure and anonymous way that does not disclose any data. If a user logs in with an insecure password, they are forced to change it before they can continue using Indico (#4817)
- Failed login attempts now trigger rate limiting to prevent brute-force attacks (#1550, #4817)
- Allow filtering the "Participant Roles" page by users who have not registered for the event (#4763, #4822)
- iCalendar exports now include contact data, event logo URL and, when exporting sessions/contributions, the UID of the related event. Also, only non-empty fields are exported. (#4785, #4586, #4587, #4791, #4820)
- Allow adding groups/roles as "authorized abstract submitters" (#4834)
- Direct links to (sub-)contributions in meetings using the URLs usually meant for conferences now redirect to the meeting view page (#4847)
- Use a more compact setup QR code for the mobile *Indico check-in* app; the latest version of the app is now required. (#4844)
- Contribution duration fields now use a widget similar to the time picker that makes selecting durations easier. (#2462, #4873)
- Add new meeting themes that show sequential numbers instead of start times for contributions (#4899)
- Remove the very outdated "Compact style" theme (it's still available via the `themes_legacy` plugin) (#4900, #4899)
- Support cloning surveys when cloning events (#2045, #4910)
- Show external contribution references in conferences (#4928, #4933)
- Allow changing the rating scale in abstract/paper reviewing even after reviewing started (#4942)
- Allow blacklisting email addresses for user registrations (#4644, #4946)

Bugfixes

- Take registrations of users who are only members of a custom event role into account on the "Participant Roles" page (#4822)
- Fail gracefully during registration import when two rows have different emails that belong to the same user (#4823)
- Restore the ability to see who's inheriting access from a parent object (#4833)
- Fix misleading message when cancelling a booking that already started and has past occurrences that won't be cancelled (#4719, #4861)
- Correctly count line breaks in length-limited abstracts (#4918)
- Fix error when trying to access subcontributions while event is in draft mode
- Update the user link in registrations when merging two users (#4936)
- Fix error when exporting a conference timetable PDF with the option "Print abstract content of all contributions" and one of the abstracts is too big to fit in a page (#4881, #4955)
- Emails sent via the Editing module are now logged to the event log (#4960)
- Fix error when importing event notes from another event while the target event already has a deleted note (#4959)

Internal Changes

- Require Python 3.9 - older Python versions (especially Python 2.7) are **no longer supported**
- `confId` has been changed to `event_id` and the corresponding URL path segments now enforce numeric data (and thus pass the id as a number instead of string)
- `CACHE_BACKEND` has been removed; Indico now always uses Redis for caching
- The integration with flower (celery monitoring tool) has been removed as it was not widely used, did not provide much benefit, and it is no longer compatible with the latest Celery version
- `session.user` now returns the user related to the current request, regardless of whether it's coming from OAuth, a signed url or the actual session (#4803)
- Add a new `check_password_secure` signal that can be used to implement additional password security checks (#4817)
- Add an endpoint to let external applications stage the creation of an event with some data to be pre-filled when the user then opens the link returned by that endpoint (#4628, thanks @adl1995)

8.1.11 Version 2.3.6

Unreleased

Bugfixes

- None so far :)

8.1.12 Version 2.3.5

Released on May 11, 2021

Security fixes

- Fix XSS vulnerabilities in the category picker (via category titles), location widget (via room and venue names defined by an Indico administrator) and the "Indico Weeks View" timetable theme (via contribution/break titles defined by an event organizer). As neither of these objects can be created by untrusted users (on a properly configured instance) we consider the severity of this vulnerability "minor" (#4897)

Internationalization

- New translation: Polish
- New translation: Mongolian

Improvements

- Add an option to not disclose the names of editors and commenters to submitters in the Paper Editing module (#4829, #4865)

Bugfixes

- Do not show soft-deleted long-lasting events in category calendar (#4824)
- Do not show management-related links in editing hybrid view unless the user has access to them (#4830)
- Fix error when assigning paper reviewer roles with notifications enabled and one of the reviewing types disabled (#4838)
- Fix viewing timetable entries if you cannot access the event but a specific session inside it (#4857)
- Fix viewing contributions if you cannot access the event but have explicit access to the contribution (#4860)
- Hide registration menu item if you cannot access the event and registrations are not exempt from event access checks (#4860)
- Fix inadvertently deleting a file uploaded during the "make changes" Editing action, resulting in the revision sometimes still referencing the file even though it has been deleted from storage (#4866)
- Fix sorting abstracts by date (#4877)

Internal Changes

- Add `before_notification_send` signal (#4874, thanks @omegak)

8.1.13 Version 2.3.4

Released on March 11, 2021

Security fixes

- Fix some open redirects which could help making harmful URLs look more trustworthy by linking to Indico and having it redirect the user to a malicious site (#4814, #4815)
- The *BASE_URL* is now always enforced and requests whose Host header does not match are rejected. This prevents malicious actors from tricking Indico into sending e.g. a password reset link to a user that points to a host controlled by the attacker instead of the actual Indico host (#4815)

Note: If the webserver is already configured to enforce a canonical host name and redirects or rejects such requests, this cannot be exploited. Additionally, exploiting this problem requires user interaction: they would need to click on a password reset link which they never requested, and which points to a domain that does not match the one where Indico is running.

Improvements

- Fail more gracefully is a user has an invalid locale set and fall back to the default locale or English in case the default locale is invalid as well
- Log an error if the configured default locale does not exist
- Add ID-1 page size for badge printing (#4774, thanks @omegak)
- Allow managers to specify a reason when rejecting registrants and add a new placeholder for the rejection reason when emailing registrants (#4769, thanks @vasantvohra)

Bugfixes

- Fix the "Videoconference Rooms" page in conference events when there are any VC rooms attached but the corresponding plugin is no longer installed
- Fix deleting events which have a videoconference room attached which has its VC plugin no longer installed
- Do not auto-redirect to SSO when an MS office user agent is detected (#4720, #4731)
- Allow Editing team to view editables of unpublished contributions (#4811, #4812)

Internal Changes

- Also trigger the `ical-export` metadata signal when exporting events for a whole category
- Add `primary_email_changed` signal (#4802, thanks @openprojects)

8.1.14 Version 2.3.3

Released on January 25, 2021

Security fixes

- JSON locale data for invalid locales is no longer cached on disk; instead a 404 error is triggered. This avoids creating small files in the cache folder for each invalid locale that is requested. (#4766)

Internationalization

- New translation: Ukrainian

Improvements

- Add a new "Until approved" option for a registration form's "Modification allowed" setting (#4740, thanks @vasantvohra)
- Show last login time in dashboard (#4735, thanks @vasantvohra)
- Allow Markdown in the "Message for complete registrations" option of a registration form (#4741)
- Improve video conference linking dropdown for contributions/sessions (hide unscheduled, show start time) (#4753)
- Show timetable filter button in conferences with a meeting-like timetable

Bugfixes

- Fix error when converting malformed HTML links to LaTeX
- Hide inactive contribution/abstract fields in submit/edit forms (#4755)
- Fix adding registrants to a session ACL

Internal Changes

- Videoconference plugins may now display a custom message for the prompt when deleting a videoconference room (#4733)
- Videoconference plugins may now override the behavior when cloning an event with attached videoconference rooms (#4732)

8.1.15 Version 2.3.2

Released on November 30, 2020

Improvements

- Disable title field by default in new registration forms (#4688, #4692)
- Add gender-neutral "Mx" title (#4688, #4692)
- Add contributions placeholder for emails (#4716, thanks @bpedersen2)
- Show program codes in contribution list (#4713)
- Display the target URL of link materials if the user can access them (#2599, #4718)
- Show the revision number for all revisions in the Editing timeline (#4708)

Bugfixes

- Only consider actual speakers in the "has registered speakers" contribution list filter (#4712, thanks @bpedersen2)
- Correctly filter events in "Sync with your calendar" links (this fix only applies to newly generated links) (#4717)
- Correctly grant access to attachments inside public sessions/contribs even if the event is more restricted (#4721)
- Fix missing filename pattern check when suggesting files from Paper Peer Reviewing to submit for Editing (#4715)
- Fix filename pattern check in Editing when a filename contains dots (#4715)
- Require explicit admin override (or being whitelisted) to override blockings (#4706)
- Clone custom abstract/contribution fields when cloning abstract settings (#4724, thanks @bpedersen2)
- Fix error when rescheduling a survey that already has submissions (#4730)

8.1.16 Version 2.3.1

Released on October 27, 2020

Security fixes

- Fix potential data leakage between OAuth-authenticated and unauthenticated HTTP API requests for the same resource (#4663)

Note: Due to OAuth access to the HTTP API having been broken until this version, we do not believe this was actually exploitable on any Indico instance. In addition, only Indico administrators can create OAuth applications, so regardless of the bug there is no risk for any instance which does not have OAuth applications with the `read:legacy_api` scope.

Improvements

- Generate material packages in a background task to avoid timeouts or using excessive amounts of disk space in case of people submitting several times (#4630)
- Add new *EXPERIMENTAL_EDITING_SERVICE* setting to enable extending an event's Editing workflow through an OpenReferee server (#4659)

Bugfixes

- Only show the warning about draft mode in a conference if it actually has any contributions or timetable entries
- Do not show incorrect modification deadline in abstract management area if no such deadline has been set (#4650)
- Fix layout problem when minutes contain overly large embedded images (#4653, #4654)
- Prevent pending registrations from being marked as checked-in (#4646, thanks @omegak)
- Fix OAuth access to HTTP API (#4663)
- Fix ICS export of events with draft timetable and contribution detail level (#4666)
- Fix paper revision submission field being displayed for judges/reviewers (#4667)
- Fix managers not being able to submit paper revisions on behalf of the user (#4667)

Internal Changes

- Add `registration_form_wtform_created` signal and send form data in `registration_created` and `registration_updated` signals (#4642, thanks @omegak)
- Add `logged_in` signal

8.1.17 Version 2.3

Released on September 14, 2020

Note: We also published a blog post summarizing the most relevant changes for end users.

Major Features

- Add category roles, which are similar to local groups but within the scope of a category and its subcategories. They can be used for assigning permissions in any of these categories and events within such categories.
- Events marked as "Invisible" are now hidden from the category's event list for everyone except managers (#4419, thanks @openprojects)

- Introduce profile picture, which is for now only visible on the user dashboard (#4431, thanks @omegak)
- Registrants can now be added to event ACLs. This can be used to easily restrict parts of an event to registered participants. If registration is open and a registration form is in the ACL, people will be able to access the registration form even if they would otherwise not have access to the event itself. It is also possible to restrict individual event materials and custom page/link menu items to registered participants. (#4477, #4528, #4505, #4507)
- Add a new Editing module for papers, slides and posters which provides a workflow for having a team review the layout/formatting of such proceedings and then publish the final version on the page of the corresponding contribution. The Editing module can also be connected to an external microservice to handle more advanced workflows beyond what is supported natively by Indico.

Internationalization

- New translation: Chinese (Simplified)

Improvements

- Sort survey list by title (#3802)
- Hide "External IDs" field if none are defined (#3857)
- Add LaTeX source export for book of abstracts (#4035, thanks @bpedersen2)
- Tracks can now be categorized in track groups (#4052)
- Program codes for sessions, session blocks, contributions and subcontributions can now be auto-generated (#4026)
- Add draft mode for the contribution list of conference events which hides pages like the contribution list and timetable until the event organizers publish the contribution list. (#4095)
- Add ICS export for information in the user dashboard (#4057)
- Allow data syncing with multipass providers which do not support refreshing identity information
- Show more verbose error when email validation fails during event registration (#4177)
- Add link to external map in room details view (#4146)
- Allow up to 9 digits (instead of 6) before the decimal point in registration fees
- Add button to booking details modal to copy direct link (#4230)
- Do not require new room manager approval when simply shortening a booking (#4214)
- Make root category description/title customizable using the normal category settings form (#4231)
- Added new `LOCAL_GROUPS` setting that can be used to fully disable local groups (#4260)
- Log bulk event category changes in the event log (#4241)
- Add CLI commands to block and unblock users (#3845)
- Show warning when trying to merge a blocked user (#3845)
- Allow importing event role members from a CSV file (#4301)
- Allow optional comment when accepting a pre-booking (#4086)
- Log event restores in event log (#4309)
- Warn about cancelling/rejecting whole recurring bookings instead of just specific occurrences (#4092)

- Add "quick cancel" link to room booking reminder emails (#4324)
- Add visual information and filtering options for participants' registration status to the contribution list (#4318)
- Add warning when accepting a pre-booking in case there are concurrent bookings (#4129)
- Add event logging to opening/closing registration forms, approval/rejection of registrations, and updates to event layout (#4360, thanks @giusedb & @omegak)
- Add category navigation dialog on category display page (#4282, thanks @omegak)
- Add UI for admins to block/unblock users (#3243)
- Show labels indicating whether a user is an admin, blocked or soft-deleted (#4363)
- Add map URL to events, allowing also to override room map URL (#4402, thanks @omegak)
- Use custom time picker for time input fields taking into account the 12h/24h format of the user's locale (#4399)
- Refactor the room edit modal to a tabbed layout and improve error handling (#4408)
- Preserve non-ascii characters in file names (#4465)
- Allow resetting moderation state from registration management view (#4498, thanks @omegak)
- Allow filtering event log by related entries (#4503, thanks @omegak)
- Do not automatically show the browser's print dialog in a meeting's print view (#4513)
- Add "Add myself" button to person list fields (e.g. for abstract authors) (#4411, thanks @jgrigera)
- Subcontributions can now be managed from the meeting display view (#2679, #4520)
- Add CfA setting to control whether authors can edit abstracts (#3431)
- Add CfA setting to control whether only speakers or also authors should get submission rights once the abstract gets accepted (#3431)
- Show the Indico version in the footer again (#4558)
- Event managers can upload a custom Book of Abstract PDF (#3039, #4577)
- Display each news item on a separate page instead of together with all the other news items (#4587)
- Allow registrants to withdraw their application (#2715, #4585, thanks @brabemi & @omegak)
- Allow choosing a default badge in categories (#4574, thanks @omegak)
- Display event labels on the user's dashboard as well (#4592)
- Event modules can now be imported from another event (#4518, thanks @meluru)
- Event modules can now be imported from another event (#4518, #4533, thanks @meluru)
- Include the event keywords in the event API data (#4598, #4599, thanks @chernals)
- Allow registrants to check details for non-active registrations and prevent them from registering twice with the same registration form (#4594, #4595, thanks @omegak)
- Add a new *CUSTOM_LANGUAGES* setting to `indico.conf` to override the name/territory of a language or disable it altogether (#4620)

Bugfixes

- Hide Book of Abstracts menu item if LaTeX is disabled and no custom Book of Abstracts has been uploaded
- Use a more consistent order when cloning the timetable (#4227)

- Do not show unrelated rooms with similar names when booking room from an event (#4089)
- Stop icons from overlapping in the datetime widget (#4342)
- Fix alignment of materials in events (#4344)
- Fix misleading wording in protection info message (#4410)
- Allow guests to access public notes (#4436)
- Allow width of weekly event overview table to adjust to window size (#4429)
- Fix whitespace before punctuation in Book of Abstracts (#4604)
- Fix empty entries in corresponding authors (#4604)
- Actually prevent users from editing registrations if modification is disabled
- Handle LaTeX images with broken redirects (#4623, thanks @bcc)

Internal Changes

- Make React and SemanticUI usable everywhere (#3955)
- Add `before-regform` template hook (#4171, thanks @giusedb)
- Add `registrations` kwarg to the `event.designer.print_badge_template` signal (#4297, thanks @giusedb)
- Add `registration_form_edited` signal (#4421, thanks @omegak)
- Make PyIntEnum freeze enums in Alembic revisions (#4425, thanks @omegak)
- Add `before-registration-summary` template hook (#4495, thanks @omegak)
- Add `extra-registration-actions` template hook (#4500, thanks @omegak)
- Add `event-management-after-title` template hook (#4504, thanks @meluru)
- Save registration id in related event log entries (#4503, thanks @omegak)
- Add `before-registration-actions` template hook (#4524, thanks @omegak)
- Add `LinkedDate` and `DateRange` form field validators (#4535, thanks @omegak)
- Add `extra-regform-settings` template hook (#4553, thanks @meluru)
- Add `filter_selectable_badges` signal (#4557, thanks @omegak)
- Add user ID in every log record logged in a request context (#4570, thanks @omegak)
- Add `extra-registration-settings` template hook (#4596, thanks @meluru)
- Allow extending polymorphic models in plugins (#4608, thanks @omegak)
- Wrap registration form AngularJS directive in jinja block for more easily overriding arguments passed to the app in plugins (#4624, thanks @omegak)

8.1.18 Version 2.2.9

Unreleased

Bugfixes

- Fix error when building LaTeX PDFs if the temporary event logo path contained an underscore (#4521)
- Disallow storing invalid timezones in user settings and reduce risk of sending wrong timezone names when people automatically translate their UI (#4529)

8.1.19 Version 2.2.8

Released on April 08, 2020

Security fixes

- Update bleach to fix a regular expression denial of service vulnerability
- Update Pillow to fix a buffer overflow vulnerability

8.1.20 Version 2.2.7

Released on March 23, 2020

Improvements

- Add support for event labels to indicate e.g. postponed or cancelled events (#3199)

Bugfixes

- Allow slashes in roomName export API
- Show names instead of IDs of local groups in ACLs (#3700)

8.1.21 Version 2.2.6

Released on February 27, 2020

Bugfixes

- Fix some email fields (error report contact, agreement cc address) being required even though they should be optional
- Avoid browsers prefilling stored passwords in togglable password fields such as the event access key
- Make sure that tickets are not attached to emails sent to registrants for whom tickets are blocked (#4242)
- Fix event access key prompt not showing when accessing an attachment link (#4255)
- Include event title in OpenGraph metadata (#4288)
- Fix error when viewing abstract with reviews that have no scores
- Update requests and pin idna to avoid installing incompatible dependency versions (#4327)

8.1.22 Version 2.2.5

Released on December 06, 2019

Improvements

- Sort posters in timetable PDF export by board number (#4147, thanks @bpedersen2)
- Use lat/lng field order instead of lng/lat when editing rooms (#4150, thanks @bpedersen2)
- Add additional fields to the contribution csv/xlsx export (authors and board number) (#4148, thanks @bpedersen2)

Bugfixes

- Update the Pillow library to 6.2.1. This fixes an issue where some malformed images could result in high memory usage or slow processing.
- Truncate long speaker names in the timetable instead of hiding them (#4110)
- Fix an issue causing errors when using translations for languages with no plural forms (like Chinese).
- Fix creating rooms without touching the longitude/latitude fields (#4115)
- Fix error in HTTP API when Basic auth headers are present (#4123, thanks @uxmaster)
- Fix incorrect font size in some room booking dropdowns (#4156)
- Add missing email validation in some places (#4158)
- Reject requests containing NUL bytes in the POST data (#4159)
- Fix truncated timetable PDF when using "Print each session on a separate page" in an event where the last timetable entry of the day is a top-level contribution or break (#4134, thanks @bpedersen2)
- Only show public contribution fields in PDF exports (#4165)
- Allow single arrival/departure date in accommodation field (#4164, thanks @bpedersen2)

8.1.23 Version 2.2.4

Released on October 16, 2019

Security fixes

- Fix more places where LaTeX input was not correctly sanitized. While the biggest security impact (reading local files) has already been mitigated when fixing the initial vulnerability in the previous release, it is still strongly recommended to update.

8.1.24 Version 2.2.3

Released on October 08, 2019

Security fixes

- Strip `@`, `+`, `-` and `=` from the beginning of strings when exporting CSV files to avoid security issues when opening the CSV file in Excel
- Use 027 instead of 000 umask when temporarily changing it to get the current umask
- Fix LaTeX sanitization to prevent malicious users from running unsafe LaTeX commands through specially crafted abstracts or contribution descriptions, which could lead to the disclosure of local file contents

Improvements

- Improve room booking interface on small-screen devices (#4013)
- Add user preference for room owners/manager to select if they want to receive notification emails for their rooms (#4096, #4098)
- Show family name field first in user search dialog (#4099)
- Make date headers clickable in room booking calendar (#4099)
- Show times in room booking log entries (#4099)
- Support disabling server-side LaTeX altogether and hide anything that requires it (such as contribution PDF export or the Book of Abstracts). **LaTeX is now disabled by default, unless the `XELATEX_PATH` is explicitly set in `indico.conf`.**

Bugfixes

- Remove 30s timeout from dropzone file uploads
- Fix bug affecting room booking from an event in another timezone (#4072)
- Fix error when commenting on papers (#4081)
- Fix performance issue in conferences with public registration count and a high amount of registrations
- Fix confirmation prompt when disabling conference menu customizations (#4085)
- Fix incorrect days shown as weekend in room booking for some locales
- Fix ACL entries referencing event roles from the old event when cloning an event with event roles in the ACL. Run `indico maint fix-event-role-acls` after updating to fix any affected ACLs (#4090)
- Fix validation issues in coordinates fields when editing rooms (#4103)

8.1.25 Version 2.2.2

Released on August 23, 2019

Bugfixes

- Remove dependency on `pyatom`, which has vanished from PyPI

8.1.26 Version 2.2.1

Released on August 16, 2019

Improvements

- Make list of event room bookings sortable (#4022)
- Log when a booking is split during editing (#4031)
- Improve "Book" button in multi-day events (#4021)

Bugfixes

- Add missing slash to the `template_prefix` of the `designer` module
- Always use HH:MM time format in book-from-event link
- Fix timetable theme when set to "indico weeks view" before 2.2 (#4027)
- Avoid flickering of booking edit details tooltip
- Fix outdated browser check on iOS (#4033)

8.1.27 Version 2.2

Released on August 06, 2019

Major Changes

- **Drop support for Internet Explorer 11 and other outdated or discontinued browser versions.** Indico shows a warning message when accessed using such a browser. The latest list of supported browsers can be found in the README on GitHub, but generally Indico now supports the last two versions of each major browser (determined at release time), plus the current Firefox ESR.
- Rewrite the room booking frontend to be more straightforward and user-friendly. Check our blog for details.

Improvements

- Rework the event log viewer to be more responsive and not freeze the whole browser when there are thousands of log entries
- Add shortcut to next upcoming event in a category (#3388)
- Make registration period display less confusing (#3359)
- Add edit button to custom conference pages (#3284)
- Support markdown in survey questions (#3366)
- Improve event list in case of long event titles (#3607, thanks @nop33)
- Include event page title in the page's `<title>` (#3285, thanks @bpedersen2)
- Add option to include subcategories in upcoming events (#3449)
- Allow event managers to override the name format used in the event (#2455)
- Add option to not clone venue/room of an event
- Show territory/country next to the language name (#3968)
- Add more sorting options to book of abstracts (#3429, thanks @bpedersen2)

- Add more formatting options to book of abstracts (#3335, thanks @bpedersen2)
- Improve message when the call for abstracts is scheduled to open but hasn't started yet
- Make link color handling for LaTeX pdfs configurable (#3283, thanks @bpedersen2)
- Preserve displayed order in contribution exports that do not apply any specific sorting (#4005)
- Add author list button to list of papers (#3978)

Bugfixes

- Fix incorrect order of session blocks inside timetable (#2999)
- Add missing email validation to contribution CSV import (#3568, thanks @Kush22)
- Do not show border after last item in badge designer toolbar (#3607, thanks @nop33)
- Correctly align centered footer links (#3599, thanks @nop33)
- Fix top/right alignment of session bar in event display view (#3599, thanks @nop33)
- Fix error when trying to create a user with a mixed-case email address in the admin area
- Fix event import if a user in the exported data has multiple email addresses and they match different users
- Fix paper reviewers getting notifications even if their type of reviewing has been disabled (#3852)
- Correctly handle merging users in the paper reviewing module (#3895)
- Show correct number of registrations in management area (#3935)
- Fix sorting book of abstracts by board number (#3429, thanks @bpedersen2)
- Enforce survey submission limit (#3256)
- Do not show "Mark as paid" button and checkout link while a transaction is pending (#3361, thanks @driehle)
- Fix 404 error on custom conference pages that do not have any ascii chars in the title (#3998)
- Do not show pending registrants in public participant lists (#4017)

Internal Changes

- Use webpack to build static assets
- Add React+Redux for new frontend modules
- Enable modern ES201x features

8.1.28 Version 2.1.11

Released on October 16, 2019

Security fixes

- Fix more places where LaTeX input was not correctly sanitized. While the biggest security impact (reading local files) has already been mitigated when fixing the initial vulnerability in the previous release, it is still strongly recommended to update.

8.1.29 Version 2.1.10

Released on October 08, 2019

Security fixes

- Strip `@`, +, − and = from the beginning of strings when exporting CSV files to avoid security issues when opening the CSV file in Excel
- Use 027 instead of 000 umask when temporarily changing it to get the current umask
- Fix LaTeX sanitization to prevent malicious users from running unsafe LaTeX commands through specially crafted abstracts or contribution descriptions, which could lead to the disclosure of local file contents

8.1.30 Version 2.1.9

Released on August 26, 2019

Bugfixes

- Fix bug in calendar view, due to timezones (#3903)
- Remove dependency on `pyatom`, which has vanished from PyPI (#4045)

8.1.31 Version 2.1.8

Released on March 12, 2019

Improvements

- Add A6 to page size options (#3793)

Bugfixes

- Fix celery/redis dependency issue (#3809)

8.1.32 Version 2.1.7

Released on January 24, 2019

Improvements

- Add setting for the default contribution duration of an event (#3446)
- Add option to copy abstract attachments to contributions when accepting them (#3732)

Bugfixes

- Really fix the oauthlib conflict (was still breaking in some cases)

8.1.33 Version 2.1.6

Released on January 15, 2019

Bugfixes

- Allow adding external users as speakers/chairpersons (#3562)
- Allow adding external users to event ACLs (#3562)
- Pin requests-oauthlib version to avoid dependency conflict

8.1.34 Version 2.1.5

Released on December 06, 2018

Improvements

- Render the reviewing state of papers in the same way as abstracts (#3665)

Bugfixes

- Use correct speaker name when exporting contributions to spreadsheets
- Use friendly IDs in abstract attachment package folder names
- Fix typo in material package subcontribution folder names
- Fix check on whether registering for an event is possible
- Show static text while editing registrations (#3682)

8.1.35 Version 2.1.4

Released on September 25, 2018

Bugfixes

- Let managers download tickets for registrants even if all public ticket downloads are disabled (#3493)
- Do not count deleted registrations when printing tickets from the badge designer page
- Hide “Save answers” in surveys while not logged in
- Fix importing event archives containing registrations with attachments
- Fix display issue in participants table after editing data (#3511)
- Fix errors when booking rooms via API

8.1.36 Version 2.1.3

Released on August 09, 2018

Security fixes

- Only return timetable entries for the current session when updating a session through the timetable (#3474, thanks @glunardi for reporting)
- Prevent session managers/coordinators from modifying certain timetable entries or scheduling contributions not assigned to their session
- Restrict access to timetable entry details to users who are authorized to see them

Improvements

- Improve survey result display (#3486)
- Improve email validation for registrations (#3471)

Bugfixes

- Point to correct day in "edit session timetable" link (#3419)
- Fix error when exporting abstracts with review questions to JSON
- Point the timetable to correct day in the session details
- Fix massive performance issue on the material package page in big events
- Fix error when using the checkin app to mark someone as checked in (#3473, thanks @femtobit)
- Fix error when a session coordinator tries changing the color of a break using the color picker in the balloon's tooltip

Internal Changes

- Add some new signals and template hooks to the registration module

8.1.37 Version 2.1.2

Released on June 11, 2018

Improvements

- Show email address for non-anonymous survey submissions (#3258)

Bugfixes

- Show question description in survey results (#3383)
- Allow paper managers to submit paper revisions
- Fix error when not providing a URL for privacy policy or terms
- Use consistent order for privacy/terms links in the footer
- Fix cloning of locked events

8.1.38 Version 2.1.1

Released on May 31, 2018

Improvements

- Add a privacy policy page linked from the footer (#1415)
- Terms & Conditions can now link to an external URL
- Show a warning to all admins if Celery is not running or outdated
- Add registration ID placeholder for badges (#3370, thanks @bpedersen2)

Bugfixes

- Fix alignment issue in the "Indico Weeks View" timetable theme (#3367)
- Reset visibility when cloning an event to a different category (#3372)

8.1.39 Version 2.1

Released on May 16, 2018

Major Features

- Add event roles, which are similar to local groups but within the scope of an event. They can be used both for assigning permissions within the event and also for quickly seeing which user has which role (such as "Program Committee" in the event
- Add new *Participant Roles* (previously called *Roles*) which now shows each person's custom event roles and whether they have registered for the event in addition to the the default roles (speaker, chairperson, etc.)
- Add visibility options to custom abstract/contribution fields so they can be restricted to be editable/visible only for event managers or authors/submitters instad of anyone who can see the abstract/contribution
- Provide new interface to import registations/contributions from a CSV file (#3144)
- Rework how access/permissions are managed. Now all access and management privileges can be assigned from a single place on the protection management page.

Improvements

- Allow specifying a default session for a track which will then be used by default when accepting an abstract in that track (#3069)
- Allow marking contribution types as private so they cannot be selected by users submitting an abstract (#3138)
- Add support for boolean (yes/no) and freetext questions in abstract reviewing (#3175)
- Support event cloning with monthly recurrence on the last day of the month (#1580)
- Add support for custom session types (#3189)
- Move poster session flag from session settings to session type settings
- Add contribution cloning within an event (#3207)

- Add option to include the event description in reminder emails (#3157, thanks @bpedersen2)
- Pin default themes to the top for event managers (#3166)
- Add user setting whether to show future events or not by default in a category. Also keep the per-category status in the session (#3233, thanks @bpedersen2)
- Keep page titles in sync with conference menu item titles (#3236)
- Add option to hide an attachment folder in the display areas of an event (#3181, thanks @bpedersen2)
- Improve flower redirect URI generation (#3187, thanks @bpedersen2)
- When blocking a user account, the user will be forcefully logged out in addition to being prevented from logging in
- Show track-related columns in abstract list only if there are tracks defined for the event (#2813)
- Show warning box to inform that reviewer roles do not apply when an event has no tracks (#2919)
- Allow specifying min/max length for registration form text fields (#3193, thanks @bpedersen2)
- Add settings to configure the scale of 'rating' questions in paper reviewing
- Show a nicer error message when entering an excessively high base registration fee (#3260)
- Use proper British English for person titles (#3279)
- Add event keywords in meta tags (#3262, thanks @bpedersen2)
- Improve sorting by date fields in the registrant list
- Use the user's preferred name format in more places
- Add "back to conference" link when viewing a conference timetable using a meeting theme (#3297, thanks @bpedersen2)
- Allow definition lists in places where Markdown or HTML is accepted (#3325)
- Include event date/time in registration emails (#3337)
- Allow div/span/pre with classes when writing raw HTML in CKEditor (#3332, thanks @bpedersen2)
- Sort abstract authors/speakers by last name (#3340)
- Improve machine-readable metadata for events and categories (#3287, thanks @bpedersen2)

Bugfixes

- Fix selecting a person's title in a different language than English
- Fix display issue in "now happening" (#3278)
- Fix error when displaying the value of an accommodation field in the registrant list and someone has the "no accomodation" option selected (#3272, thanks @bpedersen2)
- Use the 'Reviewing' realm when logging actions from the abstract/paper reviewing modules
- Fix error when printing badges/posters with empty static text fields (#3290)
- Fix error when generating a PDF timetable including contribution abstracts (#3289)
- Do not require management access to a category to select a badge template from it as a backside.
- Fix breadcrumb metadata (#3321, thanks @bpedersen2)
- Fix error when accessing certain registration pages without an active registration

- Use event timezone when displaying event log entries (#3354)
- Correctly render most markdown elements when generating a programme PDF (#3351)
- Do not send any emails when trying to approve/reject a registration that is not pending (#3358)

Internal Changes

- Rename *Roles* in ACL entries to *Permissions*. This especially affects the `can_manage` method whose `role` argument has been renamed to `permission` (#3057)
- Add new `registration_checkin_updated` signal that can be used by plugins to perform an action when the checkin state of a registration changes (#3161, thanks @bpedersen2)
- Add new signals that allow plugins to run custom code at the various stages of the `RH` execution and replace/modify the final response (#3227)
- Add support for building plugin wheels with date/commit-suffixed version numbers (#3232, thanks @driehle)

8.1.40 Version 2.0.3

Released on March 15, 2018

Security fixes

- Do not show contribution information (metadata including title, speakers and a partial description) in the contribution list unless the user has access to a contribution

Improvements

- Show more suitable message when a service request is auto-accepted (#3264)

8.1.41 Version 2.0.2

Released on March 07, 2018

Security fixes

- Update bleach to fix an XSS vulnerability

Improvements

- Warn when editing a speaker/author would result in duplicate emails

Bugfixes

- Take 'center' orientation of badge/poster backgrounds into account (#3238, thanks @bpedersen2)
- Fail nicely when trying to register a local account with an already-used email confirmation link (#3250)

8.1.42 Version 2.0.1

Released on February 6, 2018

Improvements

- Add support for admin-only designer placeholders. Such placeholders can be provided by custom plugins and only be used in the designer by Indico admins (#3210)
- Sort contribution types alphabetically
- Add folding indicators when printing foldable badges (#3216)

Bugfixes

- Fix LaTeX rendering issue when consecutive lines starting with `[` were present (#3203)
- Do not allow managers to retrieve tickets for registrants for whom ticket access is blocked by a plugin (#3208)
- Log a warning instead of an exception if the Indico version check fails (#3209)
- Wrap long lines in event log entries instead of truncating them
- Properly show message about empty agenda in reminders that have "Include agenda" enabled but an empty timetable
- Fix overly long contribution type names pushing edit/delete buttons outside the visible area (#3215)
- Only apply plugin-imposed ticket download restrictions for tickets, not for normal badges.
- Fix switching between badge sides in IE11 (#3214)
- Do not show poster templates as possible backsides for badges
- Convert alpha-channel transparency to white in PDF backgrounds
- Make number inputs big enough to show 5 digits in chrome
- Sort chairperson list on lecture pages
- Remove whitespace before commas in speaker lists
- Hide author UI for subcontribution speakers (#3222)

8.1.43 Version 2.0

Released on January 12, 2018

Improvements

- Add `author_type` and `is_speaker` fields for persons in the JSON abstract export
- Add legacy redirect for `conferenceTimeTable.py`

Bugfixes

- Fix unicode error when searching external users from the "Search Users" dialog
- Fix missing event management menu/layout when creating a material package from the event management area
- Fix error when viewing a contribution with co-authors
- Fix sorting of registration form items not working anymore after moving/disabling some items
- Fix error after updating from 2.0rc1 if there are cached Mako templates
- Fix error when retrieving an image referenced in an abstract fails
- Fix rendering of time pickers in recent Firefox versions (#3194)
- Fix error when trying to use the html serializer with the timetable API
- Fix error when receiving invalid payment events that should be ignored
- Fix last occurrence not being created when cloning events (#3192)
- Fix multiple links in the same line being replaced with the first one when converting abstracts/contributions to PDF (#2816)
- Fix PDF generation when there are links with `&` in the URL
- Fix incorrect spacing in abstract author/speaker lists (#3205)

8.1.44 Version 2.0rc2

Released on December 8, 2017

Improvements

- Allow changing the reloader used by the dev server (#3150)

Bugfixes

- Do not show borders above/below the message in registration emails unless both the header and body blocks are used (#3151)
- Roll-back the database transaction when an error occurs.
- Fix rendering of the LaTeX error box (#3163)
- Fix "N/A" being displayed in a survey result if 0 is entered in a number field
- Fix "N/A" not being displayed in a survey result if nothing is selected in a multi-choice select field
- Fix error when using `target_*` placeholders in abstract notification emails for actions other than "Merged" (#3171)
- Show full track title in tooltips on abstract pages
- Show correct review indicators when a reviewer still has to review an abstract in a different track
- Fix unicode error when searching external users in an LDAP backend

Internal Changes

- Remove `SCSS_DEBUG_INFO` config option.

8.1.45 Version 2.0rc1

Released on November 10, 2017

Improvements

- Hide category field in event creation dialog if there are no subcategories (#3112)
- Remove length limit from registration form field captions (#3119)
- Use semicolons instead of commas as separator when exporting list values (such as multi-select registration form fields) to CSV or Excel (#3060)
- Use custom site title in page title (#3018)
- Allow manually entering dates in datetime fields (#3136)
- Send emails through a celery task. This ensures users do not get an error if the mail server is temporarily unavailable. Sending an email is also retried for a while in case of failure. In case of a persistent failure the email is dumped to the temp directory and can be re-sent manually using the new `indico resend_email` command (#3121)
- Reject requests containing NUL bytes in the query string (#3142)

Bugfixes

- Do not intercept HTTP exceptions containing a custom response. When raising such exceptions we do not want the default handling but rather send the custom response to the client.
- Do not apply margin for empty root category sidebar (#3116, thanks @nop33)
- Fix alignment of info-grid items on main conference page (#3126)
- Properly align the label of the attachment folder title field
- Fix some rare unicode errors during exception handling/logging
- Clarify messages in session block rescheduling dialogs (#3080)
- Fix event header bar in IE11 (#3135)
- Fix footer on login page (#3132)
- Use correct module name for abstract notification emails in the event log
- Remove linebreaks from email subject in paper review notifications
- Fix extra padding in the CFA roles dialog (#3129)
- Do not show an extra day in timetable management if an event begins before a DST change
- Disable caching when retrieving the list of unscheduled contributions
- Process placeholders in the subject when emailing registrants
- Fix Shibboleth login with non-ascii names (#3143)

Internal Changes

- Add new `is_ticket_blocked` signal that can be used by plugins to disable ticket downloads for a registration.

8.1.46 Version 2.0a1

Released on October 20, 2017

This is the first release of the 2.0 series, which is an almost complete rewrite of Indico based on a modern software stack and PostgreSQL.

CHAPTER 9

Indices and tables

- genindex
- modindex

CHAPTER 10

Contact

10.1 Contact

10.1.1 Website

The official website of Indico is getindico.io, there you can find useful information related to the project.

10.1.2 IRC

We use IRC as our main means of real-time communication with the development community. Get in touch through the official #indico channel on Libera.Chat (irc.libera.chat). It is also accessible through Matrix.

10.1.3 Forum

For more elaborate questions and discussions we encourage you to use our discussion forum.

10.1.4 Issue tracker

We use GitHub issues for specific bug reports and feature requests. Support enquiries are better suited for the IRC channel or the forums.

10.1.5 Twitter

Indico has an official Twitter account, @getindico which is occasionally used for announcements.

Python Module Index

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