django-report-builder Documentation

Release 1.13

Burke Software and Consulting LLC

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A GUI for Django ORM. Build custom queries and display results. Targets sys admins and capable end users who might not be able to program or gain direct interactive shell access.

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Quick Start Guide

1.1 Installation

- 1. pip install django-report-builder
- 2. Add report_builder to INSTALLED_APPS
- 3. Add url(r'^report_builder/', include('report_builder.urls')) to url.py url patterns
- 4. Sync your database.

```
./manage.py migrate
```

5. Use Django admin to start building reports.

1.2 Settings

You may include and exclude fields or entire models.:

```
REPORT_BUILDER_INCLUDE = []
REPORT_BUILDER_EXCLUDE = ['user'] # Allow all models except User to be accessed
```

You may also limit which fields in a model can be used. Just add this property to a model:

```
report_builder_exclude_fields = () # Lists or tuple of excluded fields
```

You may set a custom model manager for all models:

```
REPORT_BUILDER_MODEL_MANAGER = 'on_site' #name of custom model manager to use on all models
```

You many also set a custom model manager per model. Just add the custom model manager and this property to a model:

```
report_builder_model_manager = on_site #reference to custom model manager to use for a model
```

Export to Report action is disabled by default. To enable set:

```
REPORT_BUILDER_GLOBAL_EXPORT = True
```

1.3 Asynchronous Report Generation

Sometimes it's useful to generate long running reports with a background worker. Defaults to off. Advantages of this option

- Works better with Heroku which limits requests to 30 seconds
- Run a report, close your browser, come back later to a finished report
- Download the last report that was run instead of regenerating
- Nicer status messages about report status

1.3.1 Installation

- 1. Set up Celery
- 2. Set REPORT_BUILDER_ASYNC_REPORT = True in settings.py

Extending and integrating django-report-builder

2.1 Format

Note many python format features require >= 2.7 http://docs.python.org/2/library/string.html#string-formatting

You may add formats in /admin/report_builder/format. See http://docs.python.org/2/library/string.html#formatexamples

There are also some examples included in the south migrations. If you use south django-report-builder comes with a few formats for you.

2.2 Integrations

Give django-report-builder a native look and feel. django-sis shows a good example of a django-grappelli like style.

https://github.com/burke-software/django-sis/tree/master/templates/report_builder

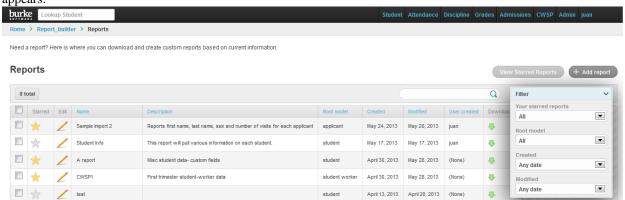
Note I use django-apptemplates in this example to specify which app template I'm extending.



How To Use Django-Report-Builder

Django-SIS is a good example integration of report_builder. Note we've given report_builder a grappelli theme by modifying templates.

Access the admin report builder site (sampleurl/admin/report_builder). The following report builder dashboard screen appears:



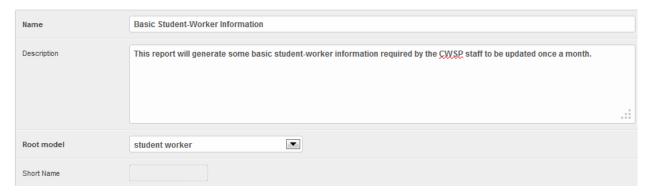
This dashboard will allow the user to view any reports that have previously been created. Additionally, users will have the option of utilizing the available filter to quickly access, sort, and view previous reports by status, date, and root model.

Starred Reports are utilized to mark important reports, or reports that will be frequently generated. Users may quickly sort the dash to view only starred reports by selecting the **View Starred Reports** button located towards the top of the dashboard.

3.1 Creating a New Report

From the report builder main screen described above, select **Add Report** located at the top right-hand corner of the dash. The *Add Report* screen displays- **name** and **root model** (students, applicants, workers, etc.) are required fields.

Add report

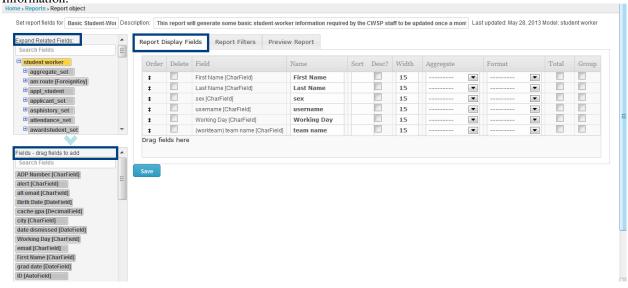


It may also be helpful to include an extended description as shown above to provide other users with a more clear direction of how the report is used. Once the information has been entered, select **Save** Your newly created report will now show as the most recent report in the dash, where you can then edit accordingly:



3.2 Editing a Report

All created reports have the option of being edited. Using the newly created report from above, to begin editing, select the pencil icon located under the **Edit** column by the respective report, in this instance: Basic Student-Worker Information.

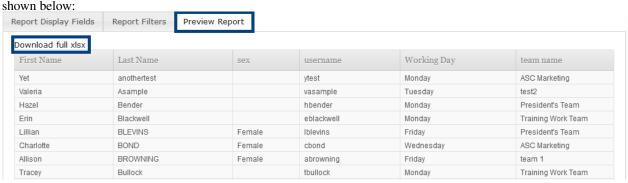


With the **Report Display Fields** tab selected, click and drag the fields from the list of available options located at the bottom-left side of the screen into the empty area located directly to the right while the appropriate tab is still selected. **Save** your selection.

Note: The **Expand Related Fields** field located in the box above the current fields list allows users to access expanded fields/information. Selecting one option will generate the expanded fields in the box below where you can then drag

and drop into the space available accordingly.

After dragging your specified fields and saving, users then have the option to preview the report by selecting the **Preview Report** tab. This will generate a preview, where users can then export into an Excel/Libre-Calc document, as

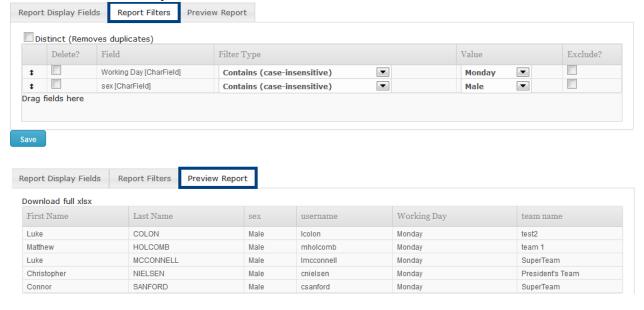


3.3 Using the Report Filters Tab

The **Report Filters** option is designed to give users the ability to further refine their data. Refining information functions similiar to editing your report, simply select the **Report Filters** tab and use the available fields list to drag and drop into the empty area.

Using the example above, consider the use case of a user wanting to pull the student-worker data from before, but only for males working on Mondays.

- 1. Drag and drop Working day and sex into the open area as shown below.
- 2. Under the **value** header, select Monday, and Male accordingly.
- 3. Click **Save** then enter preview tab to view and download into Excel.



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CHAPTER 4	
Code	

https://github.com/burke-software/django-report-builder

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Discussion

Let us know your thoughts at https://google.com/+Burkesoftware or consider sending some pull requests our way!