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4.1.4 Config Editor

Detailed Review status

Introduction

The ConfigEditor is a tool for browsing and editing of Python configuration files in CMSSW. It allows

- Browsing:
 - ◆ Visualise the complete structure of a Config File and all included config files (via import)
 - ◆ Inspect the parameters of modules
 - ◆ Track which modules use input from which other modules
 - ◆ Track in which file certain modules can be found
 - ◆ Open the definition of certain modules in the user's favourite editor
- Editing:
 - ◆ Create user configuration files which start from some standard configuration (e.g. PAT) and contain all changes to it.
 - ◆ Modify parameters of modules
 - ◆ Apply tools (e.g. PAT tools)

The **Manual of the ConfigEditor** can be found at [SWGuideConfigEditor#Manual](#). If you have problems using the ConfigEditor, please also look at: [SWGuideConfigEditor#Troubleshooting](#). Note that the ConfigEditor is not designed to debug Python related errors in Python config files. Therefore have a look at [SWGuidePythonTips](#), or at [SWGuideAboutPythonConfigFile](#). Feel free to contact [AndreasHinzmann](#) for feedback and suggestions!

Getting started

Set up CMSSW and run ConfigEditor

- CMSSW $\geq 4_1_X$:

```
setenv SCRAM_ARCH slc5_amd64_gcc434
cmsrel CMSSW_4_1_6
cd CMSSW_4_1_6/src
cmsenv
edmConfigEditor
```

- If you are running remotely (via ssh -Y):

```
edmConfigEditorSSH
```

Older releases:

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- CMSSW $\geq 3_8_2$:

```
cmsrel CMSSW_3_8_2
cd CMSSW_3_8_2/src
cmsenv
edmConfigEditor
```

- CMSSW $\geq 3_5_4$

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```
cmsrel CMSSW_3_5_4
cd CMSSW_3_5_4/src
cmsenv
edmConfigEditor
```

If you have freeze problems using edmConfigEditor over **ssh**, use this recipe:

```
addpkg FWCore/GuiBrowsers V00-00-38
scram b
```

- CMSSW 3_1_1 - 3_5_3 PAT tools are not yet supported. All other functionality is in place.

```
cmsrel CMSSW_3_1_1
cd CMSSW_3_1_1/src
cmsenv
addpkg FWCore/GuiBrowsers V00-00-38
scram b
edmConfigEditor
```

- CMSSW 2_1_X - 3_1_1 Only browsing functionality in place. No editing of configuration possible. The name of the tool is edmConfigBrowser.
- Set up CMSSW(>=2_1_X) environment:

```
cmsrel CMSSW_2_1_17
cd CMSSW_2_1_17/src
cmsenv
```

- Download latest version (0.3.2) of ConfigBrowser from AFS (tgz-file, 20 MB):

```
cp /afs/cern.ch/user/h/hinzmann/www/web/ConfigBrowser.tgz .
```

or from website <http://cern.ch/test-configbrowser/ConfigBrowser.tgz>.

- Extract (total size 54 MB) and run ConfigBrowser:

```
tar -xzf ConfigBrowser.tgz
cd ConfigBrowser
./edmConfigBrowser
```

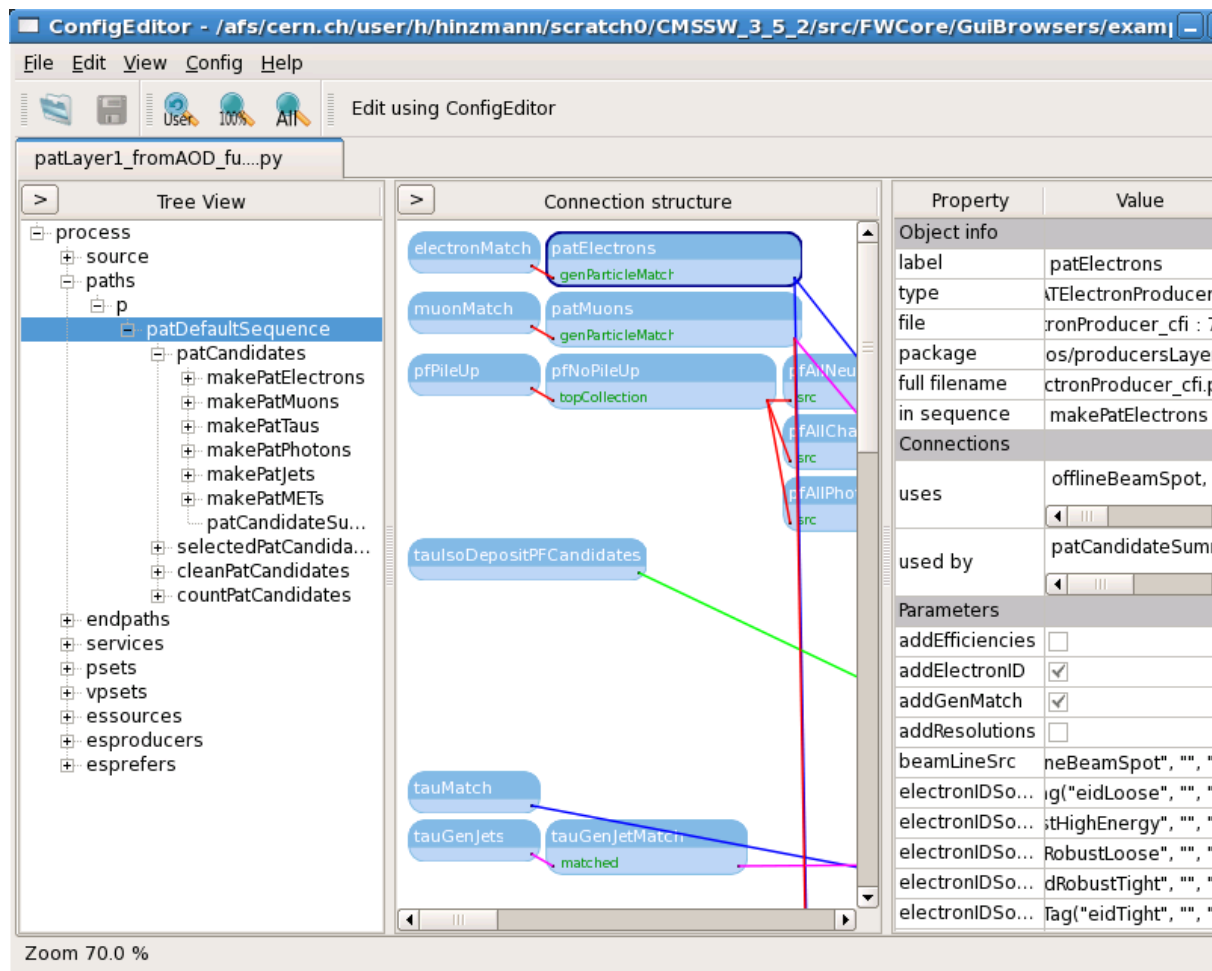
Browsing configuration files

- Browse an example file:
 - ◆ Check out an example from PAT:

```
git cms-addpkg PhysicsTools/PatAlgos
```

- ◆ Open the configuration file via menu *File -> Open...* or via commandline:

```
edmConfigEditor PhysicsTools/PatAlgos/test/patTuple_standard_cfg.py
```



- ◆ Select an object in the *Tree View* -> The content is displayed in the *Connection Structure*
 - ◆ Select an object in the *Connection Structure* -> All parameters are displayed in the *Property View*
 - ◆ Double-click an object in the *Connection Structure* -> The object with all its dependencies is displayed in the *Connection Structure*
- Inspect configuration files using your favorite editor
 - ◆ Select your favorite editor in the menu *Config* -> *Choose editor...* (e.g. type *emacs*)
 - ◆ Select an object and open the config file in which the selected object is defined via menu *Config* -> *Open editor...*
 - ⚠ If you edit configuration files, you modify the default settings in your project CMSSW area! You should be aware of what you are doing. If you want to create user defined configuration follow the instructions in the next section.

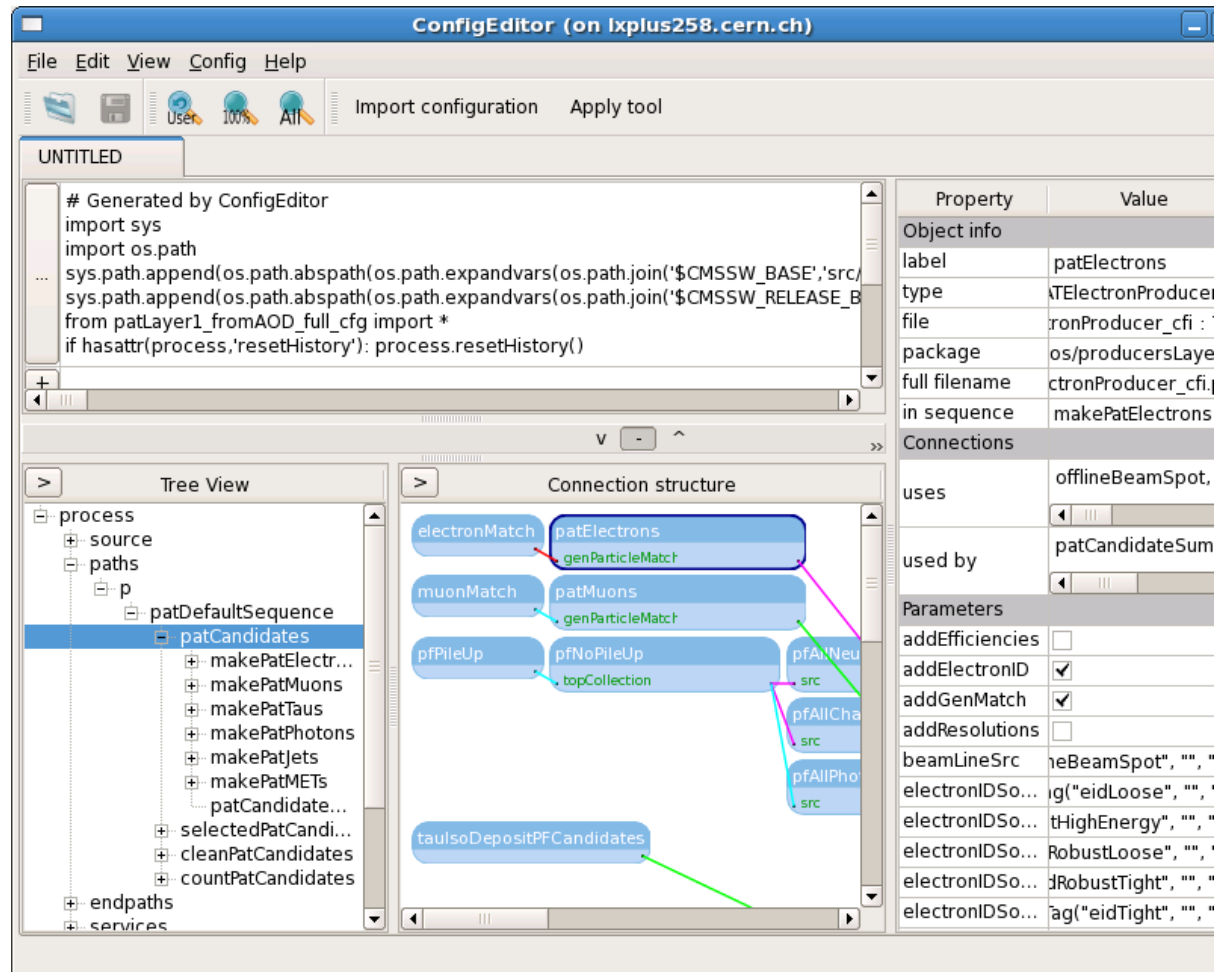
Creating user configuration files

- Create a new user configuration
 - ◆ Click menu *File* - *New configuration file*
 - ◆ Select a standard configuration file that you would like to start from via menu *Config* - *Import configuration*

PhysicsTools/PatAlgos/test/patTuple_standard_cfg.py

⚠ You cannot create configuration files from scratch. You need to start from a configuration file containing a process (e.g. `process=cms.Process("PAT")`) and a path (e.g.

```
process.p=cms.Path(...).
```



- Apply changes to the standard configuration and save them into the user configuration
 - ◆ Edit parameters of selected modules using the *Property View*. Your changes will appear in the user configuration code generated by ConfigEditor.
 - ◆ You can apply tools (e.g. PAT tools) via menu *Config - Apply tool*. Select a tool, choose its parameters and press apply.
 - ◆ Save user configuration via menu *File - Save as...*

Tutorials

[Browsing PAT with ConfigEditor \(2010\)](#)

[Writing PAT user configuration with ConfigEditor \(2010\)](#)

Review status

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Reviewer/Editor and Date (copy from screen)	Comments
AndreasHinzmann - 03 Mar 2010	create Workbook page

Responsible: AndreasHinzmann

This topic: CMSPublic > WorkBookConfigEditor

Topic revision: r19 - 2014-07-08 - XuanChen



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