

McStas Documentation and help sources

Help resources

- McStas website
- The manual(s)
- mcdoc
- Mailing list + archive
- Github site
- The examples catalogue



McStas Documentation and help sources

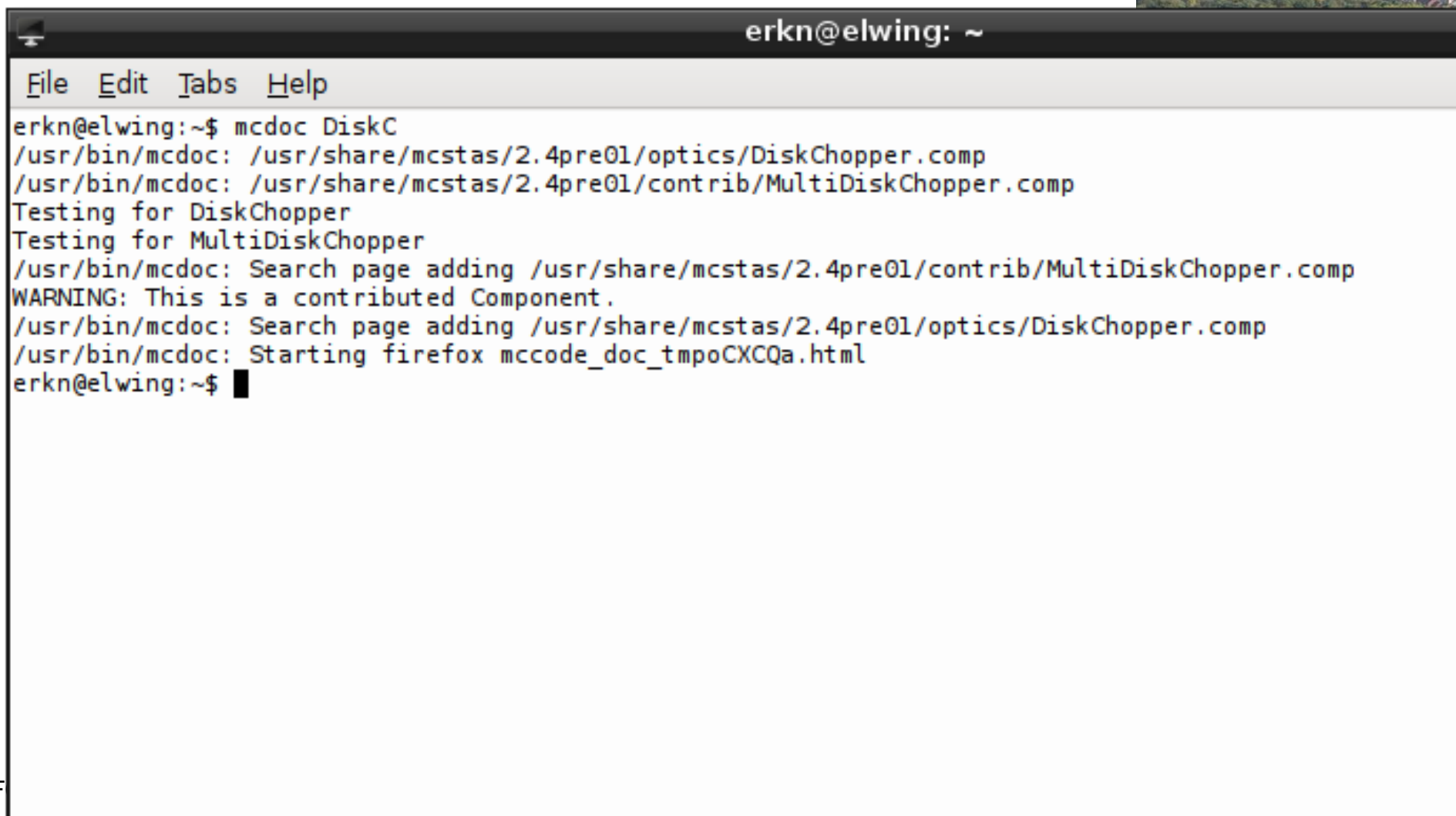
Help resources prioritized

- `mcdoc`
- The examples catalogue
- The manual(s)
- McStas website
- Github site
- Mailing list + archive



mcdoc

In a terminal:



```
erkn@elwing: ~  
File Edit Tabs Help  
erkn@elwing:~$ mcdoc DiskC  
/usr/bin/mcdoc: /usr/share/mcstas/2.4pre01/optics/DiskChopper.comp  
/usr/bin/mcdoc: /usr/share/mcstas/2.4pre01/contrib/MultiDiskChopper.comp  
Testing for DiskChopper  
Testing for MultiDiskChopper  
/usr/bin/mcdoc: Search page adding /usr/share/mcstas/2.4pre01/contrib/MultiDiskChopper.comp  
WARNING: This is a contributed Component.  
/usr/bin/mcdoc: Search page adding /usr/share/mcstas/2.4pre01/optics/DiskChopper.comp  
/usr/bin/mcdoc: Starting firefox mcode_doc_tmpoCXCQa.html  
erkn@elwing:~$
```

Result of search for "DiskC" in your McStas library

(Please note that only current dir /home/erkn and /usr/share/mcstas/2.4pre01 were searched, discarding 'obsolete' components)

| Name | Origin | Author(s) | Source code | Description |
|----------------------------------|-------------------------------------|---------------------|----------------------|---|
| MultiDiskChopper | ILL / FAU Erlangen- Nuernberg | Markus Appel | comp | Based on DiskChopper (Revision 1.18) by Peter Willendrup (2006), which in turn is based on Chopper (Philipp Bernhardt), Jitter and beamstop from work by Kaspar Hewitt Klenoe (jan 2006), adjustments by Rob Bewey (march 2006) |
| DiskChopper | Risoe | Peter Willendrup | comp | Based on Chopper (Philipp Bernhardt), Jitter and beamstop from work by Kaspar Hewitt Klenoe (jan 2006), adjustments by Rob Bewey (march 2006) |

This Component list was updated on Mon Apr 24 08:51:08 2017.

[[McStas web site](#)]

Generated by mcdoc.pl, Maintained by Emmanuel Farhi <farhi@ill.fr>, Peter Willendrup <peter.willendrup@risoe.dk>, and Erik B Knudsen <erkn@fysik.dtu.dk>. Contact us for any comments.

[[Identification](#) | [Description](#) | [Input parameters](#) | [Output parameters](#) | [Links](#)]

The DiskChopper Component

Based on Chopper (Philipp Bernhardt), Jitter and beamstop from work by Kaspar Hewitt Klenoe (jan 2006), adjustments by Rob Bewey (march 2006)

Identification

- **Author:** Peter Willendrup
- **Origin:** Risoe
- **Date:** March 9 2006
- **Version:** \$Revision\$

Description

Models a disc chopper with `nslit` identical slits, which are symmetrically distributed on the disc. At time $t=0$, the centre of the first slit opening will be situated at the vertical axis when $\text{phase}=0$.

For more complicated geometries, see component manual example of DiskChopper GROUPing.

If the chopper is the 1st chopper of the instrument, it sets t time with phase
- Only relevant for when using continuous source modules.

Example: `DiskChopper(radius=0.2, theta_0=10, nu=41.7, nslit=3, delay=0, isfirst=1)` First chopper
`DiskChopper(radius=0.2, theta_0=10, nu=41.7, nslit=3, delay=0, isfirst=0)`

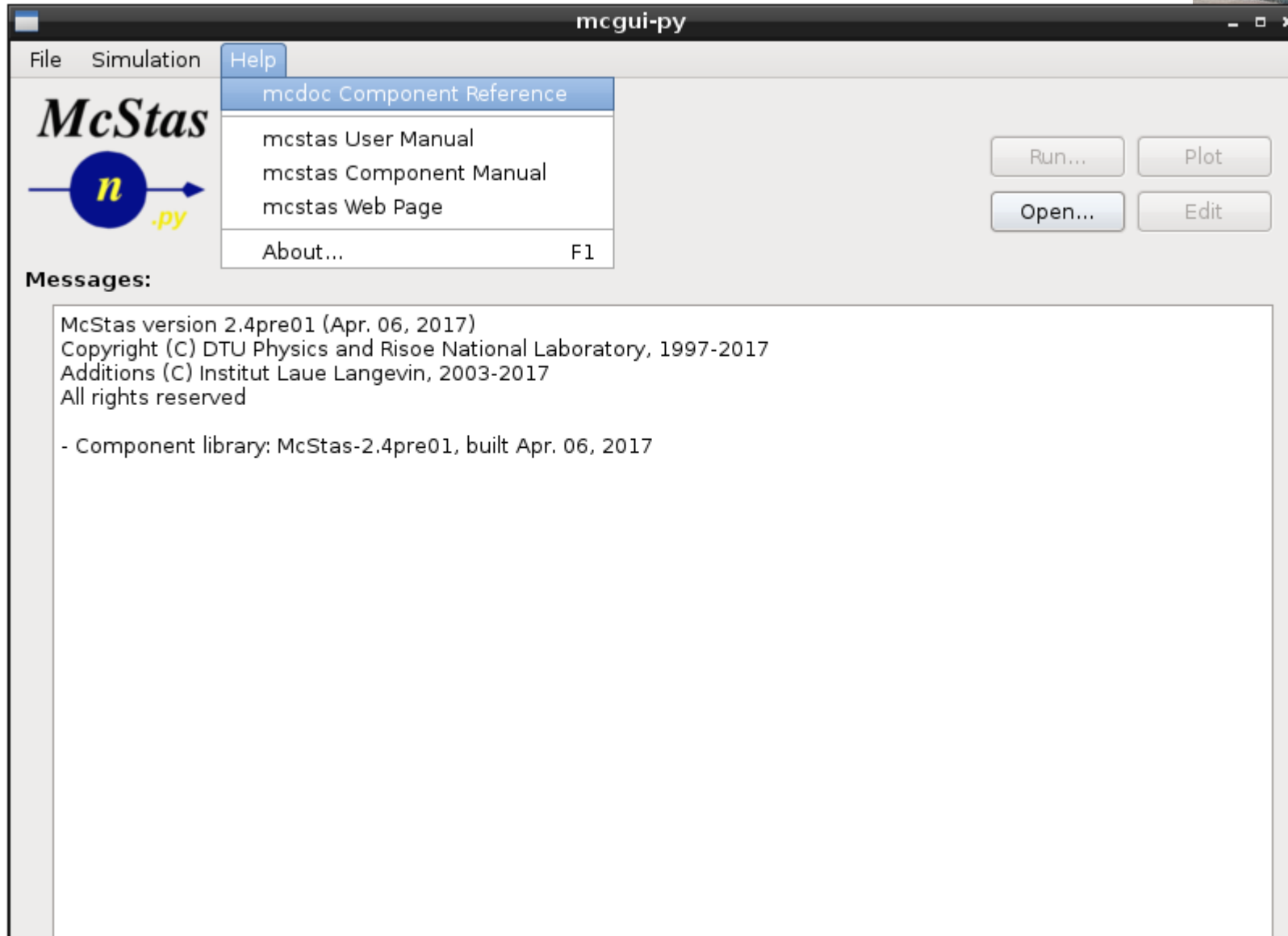
Input parameters

Parameters in **boldface** are required; the others are optional.

| Name | Unit | Description | Default |
|-----------------------------|------|---|---------|
| <code>theta_0</code> | deg | Angular width of the slits. | 0 |
| <code>radius</code> | m | Radius of the disc | 0.5 |
| <code>yheight</code> | m | Slit height (if = 0, equal to radius). Auto centering of beam at half height. | |
| <code>nu</code> | Hz | Frequency of the Chopper, $\omega=2\pi\nu$ (algebraic sign defines the direction of rotation) | |
| <code>nslit</code> | 1 | Number of slits, regularly arranged around the disk | 3 |
| <code>jitter</code> | s | Jitter in the time phase | 0 |

mcdoc

From the GUI



[[sources](#) | [optics](#) | [samples](#) | [monitors](#) | [misc](#) | [contrib](#) | [examples](#)]

[[User Manual](#) | [Component Manual](#) | [Data files](#) | [/usr/share/mcstas/2.4pre01/tools/Python/mcgui/./mccodelib/./././](#)]

Components and Instruments from the Library for *McStas*

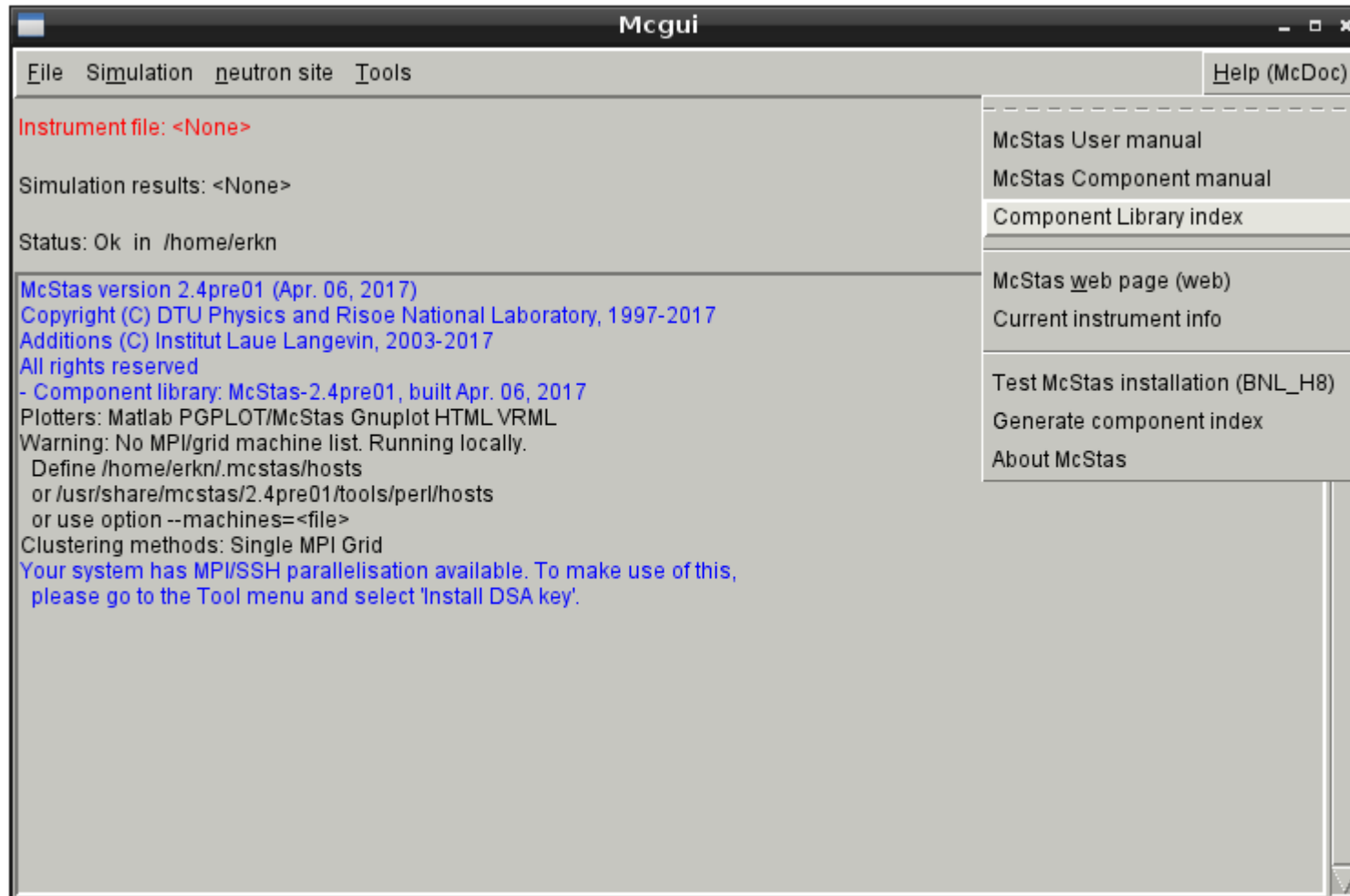
Names in **Boldface** denote components that are properly documented with comments in the source code.

Sources

| Name | Origin | Author(s) | Source code | Description |
|-----------------------------------|------------------------------|---|----------------------|--|
| Adapt_check | Risoe | Kristian Nielsen | comp | Optimization specifier for the Source_adapt component. |
| ESS_butterfly | DTU | Peter Willendrup and Esben Klinkby | comp | ESS butterfly moderator, 2016 revision |
| ESS_moderator | DTU | P Willendrup and E Klinkby, February 2014, derived from K Lefmann ESS_moderator_long | comp | A parametrised pulsed source for modelling ESS long pulses. |
| Moderator | Risoe | KN, M.Hagen | comp | A simple pulsed source for time-of-flight. |
| Monitor_Optimizer | ILL (France) | Emmanuel Farhi | comp | To be used after the Source_Optimizer component |
| Source_Maxwell_3 | Risoe | Kim Lefmann | comp | Source with up to three Maxwellian distributions |
| Source_Optimizer | ILL (France) | Emmanuel Farhi | comp | A component that optimizes the neutron flux passing through the Source_Optimizer in order to have the maximum flux at the Monitor_Optimizer position. |
| Source_adapt | Risoe | Kristian Nielsen | comp | Neutron source with adaptive importance sampling |
| Source_div | Risoe | KL | comp | Neutron source with Gaussian or uniform divergence |
| Source_gen | ILL/Risoe | Emmanuel Farhi, Kim Lefmann | comp | Circular/squared neutron source with flat or Maxwellian energy/wavelength spectrum |
| Source_simple | Risoe | Kim Lefmann | comp | A circular neutron source with flat energy spectrum and arbitrary flux |
| Virtual_input | ILL | E. Farhi | comp | Source-like component that generates neutron events from an ascii 'virtual source' filename. |
| Virtual_output | ILL | E. Farhi | comp | Detector-like component that writes neutron state parameters into an ascii-format 'virtual source' neutron file. |

mcdoc

From the old GUI



mcdoc

...but let me show you instead



- Simple grep →
 - 370 examples of Monitor_nD
 - 51 examples of Source_gen
 - 10 examples of ISIS_moderator
 - 10 examples of Single_crystal

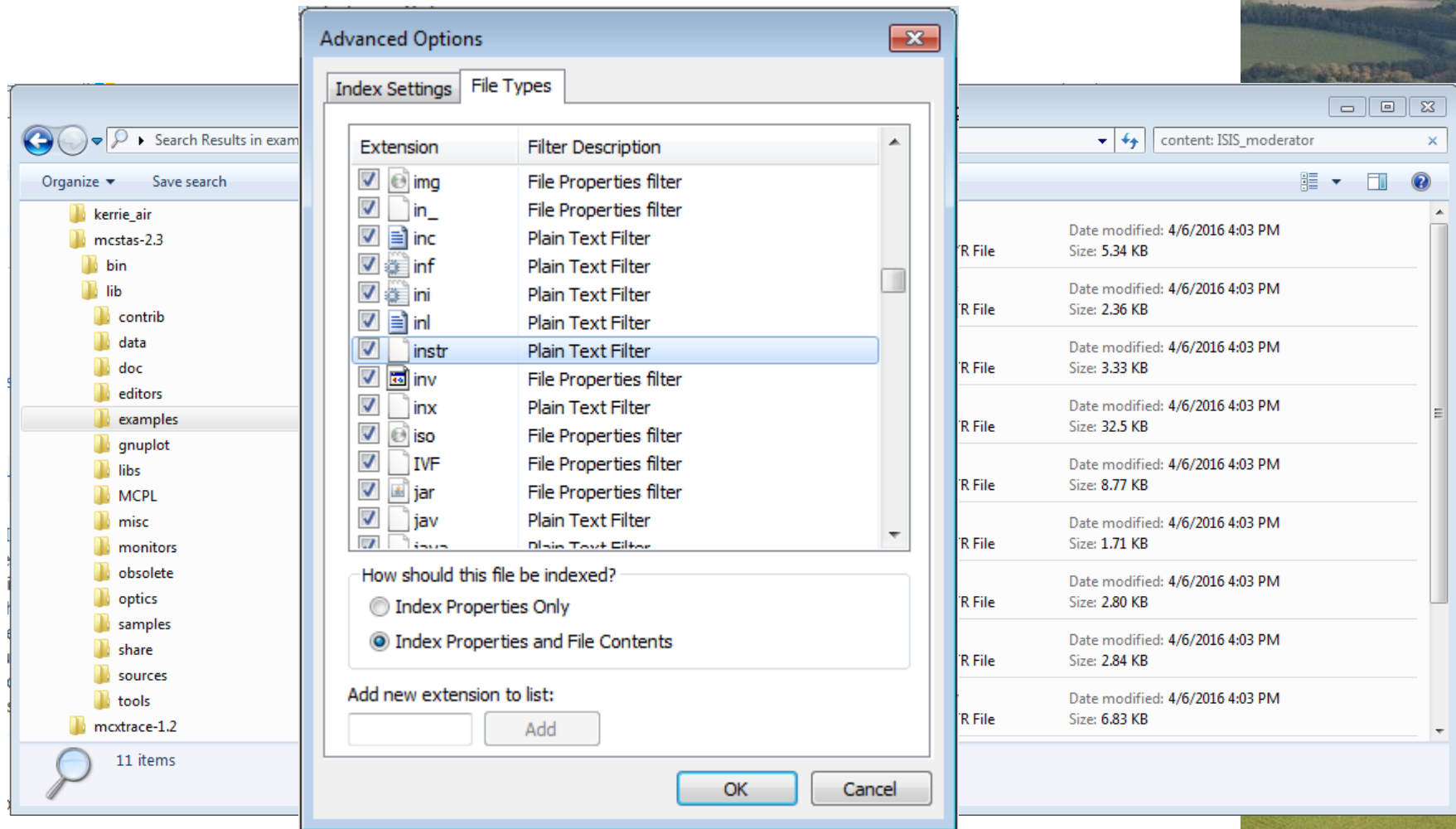
Unix/Linux:

```
grep ISIS_moderator  
/usr/share/mcstas/2.4pre01/examples/*
```



Examples Directory

Windows 7: Edit search settings first to search contents of .instr files



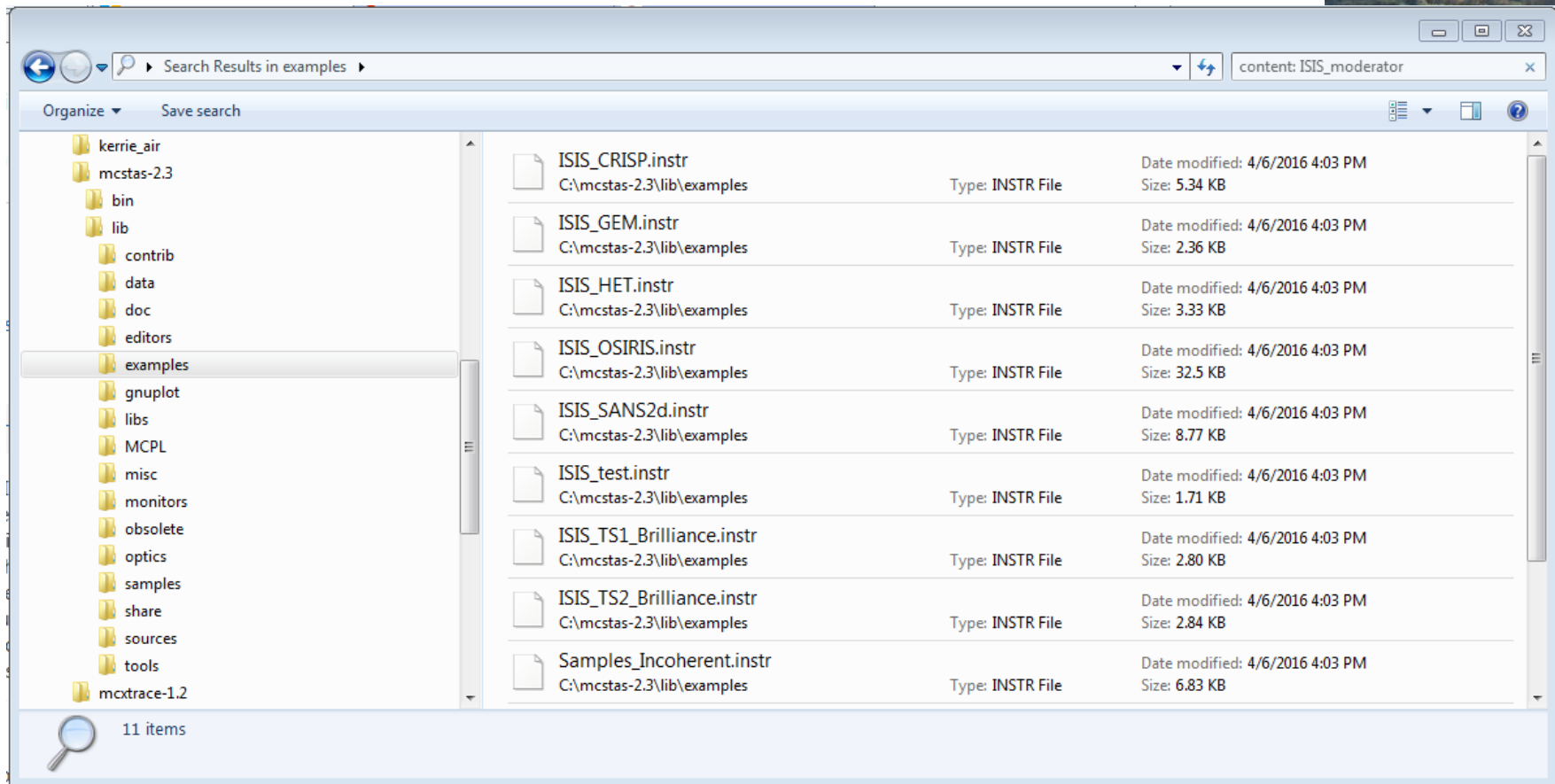
The image shows a Windows 7 desktop environment. On the left, a File Explorer window displays the 'examples' directory. In the center, the 'Advanced Options' dialog box is open, showing the 'File Types' tab. The 'instr' file type is selected, and the 'Index Properties and File Contents' option is chosen. On the right, a search results window shows a list of files with their dates and sizes.

| Extension | Filter Description |
|---|------------------------|
| <input checked="" type="checkbox"/> img | File Properties filter |
| <input checked="" type="checkbox"/> in_ | File Properties filter |
| <input checked="" type="checkbox"/> inc | Plain Text Filter |
| <input checked="" type="checkbox"/> inf | Plain Text Filter |
| <input checked="" type="checkbox"/> ini | Plain Text Filter |
| <input checked="" type="checkbox"/> inl | Plain Text Filter |
| <input checked="" type="checkbox"/> instr | Plain Text Filter |
| <input checked="" type="checkbox"/> inv | File Properties filter |
| <input checked="" type="checkbox"/> inx | Plain Text Filter |
| <input checked="" type="checkbox"/> iso | File Properties filter |
| <input checked="" type="checkbox"/> IVF | File Properties filter |
| <input checked="" type="checkbox"/> jar | File Properties filter |
| <input checked="" type="checkbox"/> jav | Plain Text Filter |
| <input checked="" type="checkbox"/> js | Plain Text Filter |

| Date modified | Size |
|------------------|---------|
| 4/6/2016 4:03 PM | 5.34 KB |
| 4/6/2016 4:03 PM | 2.36 KB |
| 4/6/2016 4:03 PM | 3.33 KB |
| 4/6/2016 4:03 PM | 32.5 KB |
| 4/6/2016 4:03 PM | 8.77 KB |
| 4/6/2016 4:03 PM | 1.71 KB |
| 4/6/2016 4:03 PM | 2.80 KB |
| 4/6/2016 4:03 PM | 2.84 KB |
| 4/6/2016 4:03 PM | 6.83 KB |

Examples Directory

Windows 7: Edit search settings first to search contents of .instr files



- Simple grep →

370 examples of Monitor.pD

They have an author name!

For instance:

ISIS_CRISP → R. Dalgliesh

SE_example → me (E. Knudsen)

GitHub.com

<https://github.com/McStasMcXtrace/McCode>

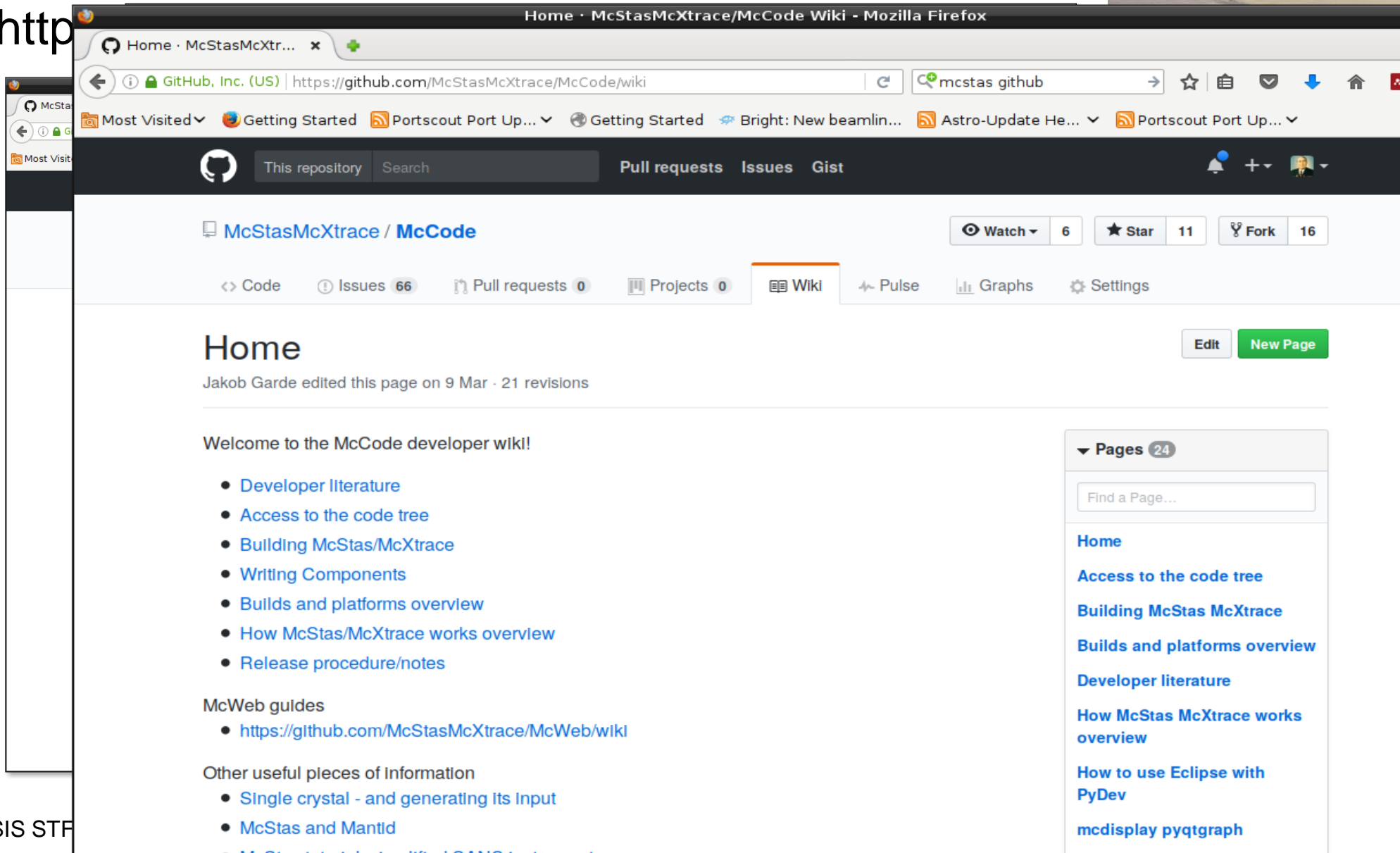
The screenshot shows the GitHub repository page for `McStasMcXtrace/McCode`. The page includes the repository name, navigation tabs (Code, Issues, Pull requests, Projects, Wiki, Pulse, Graphs, Settings), and a list of recent commits. The commit list shows the following entries:

| Commit | Description | Time |
|----------------|--|----------------------------------|
| ebknudsen | forgotten path | Latest commit b439d8d 3 days ago |
| cmake | Attempt to make mcgui desktop link visible again | 15 days ago |
| common | Make the Component Blah AT (x,y,z) location status in trace mode Incl... | 2 months ago |
| doc | Fix all refs to mczilla_webpage, name change for SINE2020 and GitHub ... | 3 months ago |
| docpkg/manuals | Updated pdf's for proofreading | 3 months ago |
| mcstas-comps | minor changes to some instr files to polish link parsing | 4 days ago |
| mcstas | Increase symbol table length to accomodate MACS instrument from Mads ... | 18 days ago |

GitHub.com: wiki

Mostly developer oriented docs so far

http



Home · McStasMcXtrace/McCode Wiki - Mozilla Firefox

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GitHub, Inc. (US) | https://github.com/McStasMcXtrace/McCode/wiki

mcstas github

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McStasMcXtrace / **McCode** Watch 6 Star 11 Fork 16

Code Issues 66 Pull requests 0 Projects 0 Wiki Pulse Graphs Settings

Home

Jakob Garde edited this page on 9 Mar · 21 revisions

Welcome to the McCode developer wiki!

- Developer literature
- Access to the code tree
- Building McStas/McXtrace
- Writing Components
- Builds and platforms overview
- How McStas/McXtrace works overview
- Release procedure/notes

McWeb guides

- <https://github.com/McStasMcXtrace/McWeb/wiki>

Other useful pieces of Information

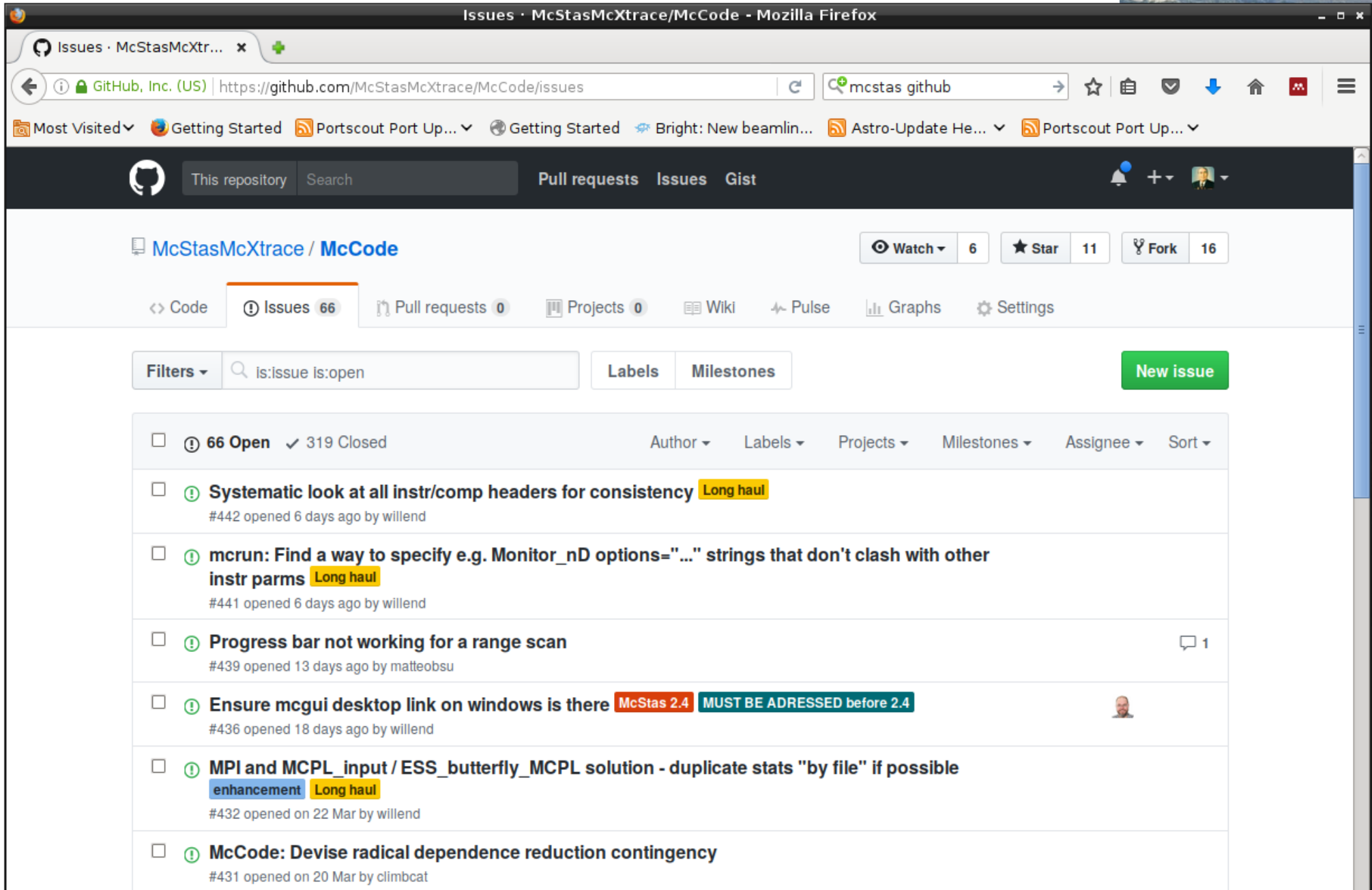
- Single crystal - and generating its input
- McStas and Mantid

Pages 24

Find a Page...

- Home
- Access to the code tree
- Building McStas McXtrace
- Builds and platforms overview
- Developer literature
- How McStas McXtrace works overview
- How to use Eclipse with PyDev
- mcdisplay pyqtgraph

GitHub.com: Issue Tracker



Issues · McStasMcXtrace/McCode - Mozilla Firefox

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GitHub, Inc. (US) | https://github.com/McStasMcXtrace/McCode/issues

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Code Issues 66 Pull requests 0 Projects 0 Wiki Pulse Graphs Settings

Filters is:issue is:open Labels Milestones New issue

66 Open 319 Closed Author Labels Projects Milestones Assignee Sort

- Systematic look at all instr/comp headers for consistency** Long haul
#442 opened 6 days ago by willend
- mcrun: Find a way to specify e.g. Monitor_nD options="..." strings that don't clash with other instr parms** Long haul
#441 opened 6 days ago by willend
- Progress bar not working for a range scan**
#439 opened 13 days ago by matteobsu
- Ensure mcgui desktop link on windows is there** McStas 2.4 MUST BE ADRESSED before 2.4
#436 opened 18 days ago by willend
- MPI and MCPL_input / ESS_butterfly_MCPL solution - duplicate stats "by file" if possible** enhancement Long haul
#432 opened on 22 Mar by willend
- McCode: Devise radical dependence reduction contingency**
#431 opened on 20 Mar by climbcat

Mailing List

McStas homepage - Mozilla Firefox

www.mcstas.org/list/

McStas - A neutron ray-trace simulation package

McStas

mcstas-users mailing list

To subscribe to mcstas-users, fill in your email adress and press subscribe:

To acces the mailing list interface, go to <http://mailman.mcstas.org/cgi-bin/mailman/listinfo/mcstas-users>

To acces archived messages, go to <http://mailman.mcstas.org/pipermail/mcstas-users>.

New: Search capability has now been [added](#) to the website!

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mcstas-users --

About mcstas-users English (USA)

To see the collection of prior postings to the list, visit the [mcstas-users Archives](#).

Using mcstas-users

To post a message to all the list members, send email to mcstas-users@mcstas.org.

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Your name (optional):

You may enter a privacy password below. This provides only mild security, but should prevent others from messing with your subscription. **Do not use a valuable password** as it will occasionally be emailed back to you in cleartext.

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Pick a password:

Reenter password to confirm:

Which language do you prefer to display your messages? English (USA)

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mailman.mcstas.org/pipermail/mcstas-users/

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| First quarter 2014: | [Thread] [Subject] [Author] [Date] | [Gzip'd Text 9 KB] |
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| Third quarter 2013: | [Thread] [Subject] [Author] [Date] | [Gzip'd Text 59 KB] |
| Second quarter 2013: | [Thread] [Subject] [Author] [Date] | [Gzip'd Text 12 KB] |
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| Third quarter 2012: | [Thread] [Subject] [Author] [Date] | [Gzip'd Text 3 KB] |
| Second quarter 2012: | [Thread] [Subject] [Author] [Date] | [Gzip'd Text 7 KB] |

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

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POD?

- Question:
- Would anyone be interested in manuals as P.O.D.?

