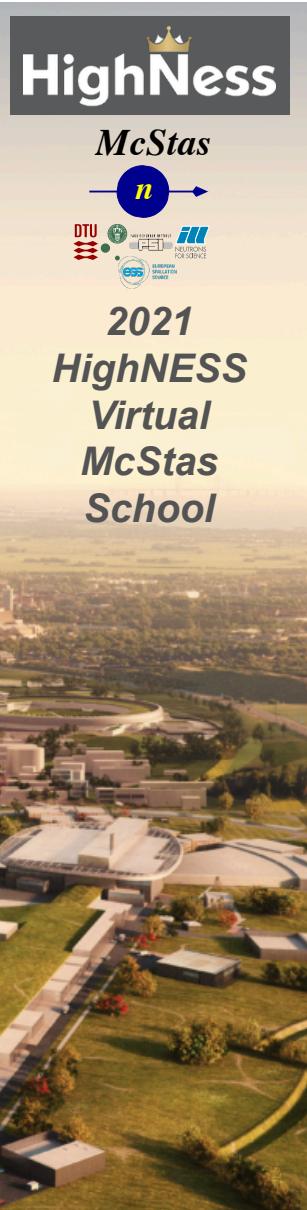


Main help resources

- [McStas website](#) and [info-links](#)
- The manual(s)
- mcdoc
- [Mailing list + archive](#)
- [GitHub Wiki](#)
- McStas review paper series (vol [I](#) and [II](#) are out)
- The examples catalogue



Help resources prioritized

- mcdoc
- The examples catalogue
- The manual(s)
- McStas review paper series (vol I and II are out)
- [McStas website](#) and [info-links](#)
- [GitHub Wiki](#)
- [Mailing list](#) + [archive](#)



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In a terminal:



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File Edit Tabs Help

erkn@elwing: ~

```
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.com
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 mccode_doc_tmptCXCQa.html
erkn@elwing:~$
```

McStas : Components/Instruments Library - Mozilla Firefox

McStas : Components/Instruments Library - Mozilla Firefox

file:///home/erkn/mccode_doc_tmpQVWyAa.html

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[[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_gated	Risoe	Kim Lefmann	comp	A simple source with flat or Maxwellian energy/wavelength spectrum

mcdoc.pl: Search result for "DiskC" - Mozilla Firefox

mcdoc.pl: Search result f... x +

file:///home/erkn/mccode_doc_tmppnr5P1l.html

Search

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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](#)]

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Aerial view of the European Spallation Source facility.

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 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

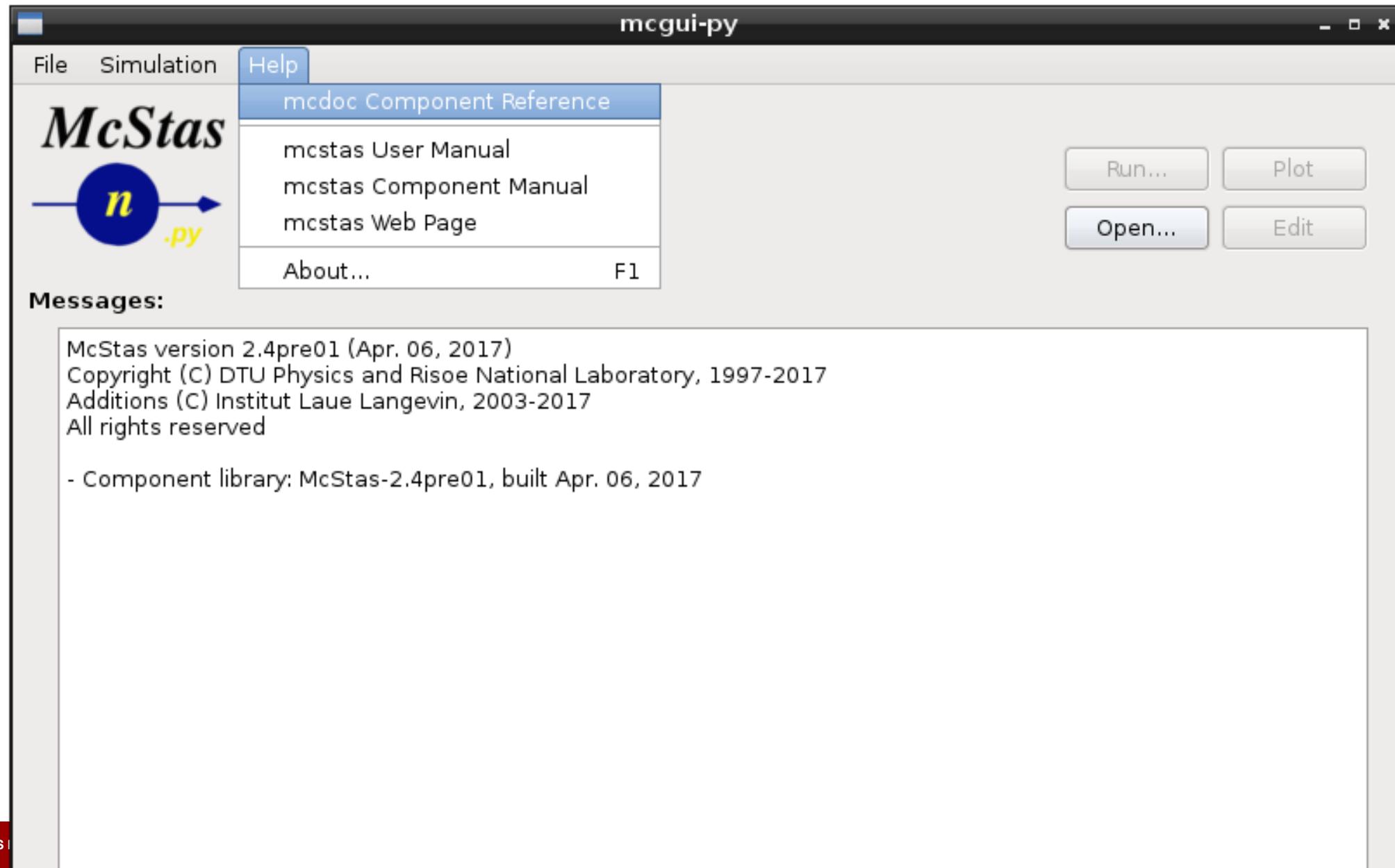
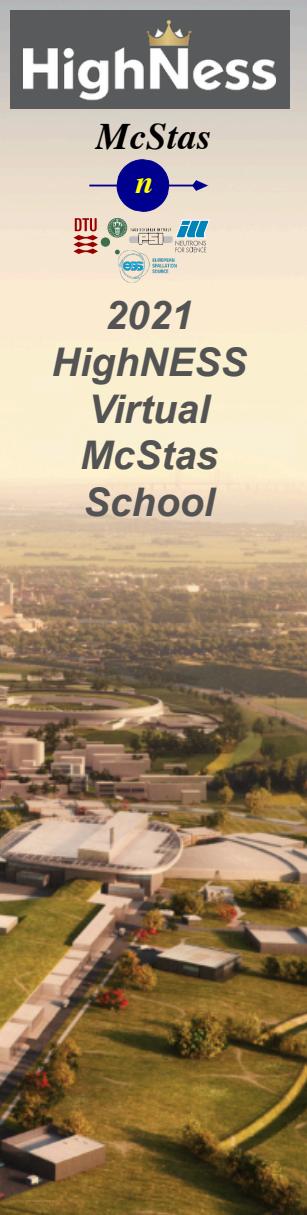
Parameters in **boldface** are required; the others are optional.

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

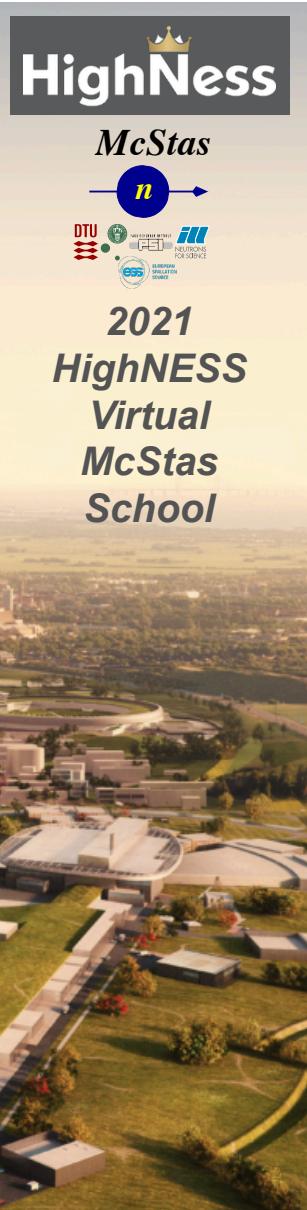


mcdoc

From the GUI



The screenshot shows the 'mcgui-py' application window. The title bar reads 'mcgui-py'. The menu bar includes 'File', 'Simulation', and 'Help'. The 'Help' menu is open, displaying the following options: 'mcdoc Component Reference' (which is highlighted), 'mcstas User Manual', 'mcstas Component Manual', 'mcstas Web Page', 'About...', and 'F1'. The main window contains a logo for 'McStas .py' and a 'Messages:' section. The 'Messages:' section displays the following text:
McStas version 2.4pre01 (Apr. 06, 2017)
Copyright (C) DTU Physics and Risoe National Laboratory, 1997-2017
Additions (C) Institut Laue Langevin, 2003-2017
All rights reserved
- Component library: McStas-2.4pre01, built Apr. 06, 2017

- 
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- Simple grep →
 - 547 examples of Monitor_nD
 - 64 examples of Source_gen
 - 8 examples of ESS_butterfly
 - 25 examples of MCPL I/O
 - 25 examples of Single_crystal

Unix/Linux:

```
grep ESS_butterfly /usr/share/mcstas/3.0/examples/*
```



Examples Directory

- Simple grep →
 - 547 examples of Monitor_nD

They have an author name!

For instance:

ISIS_CRISP → R. Dalgliesh

SE_example → E. Knudsen

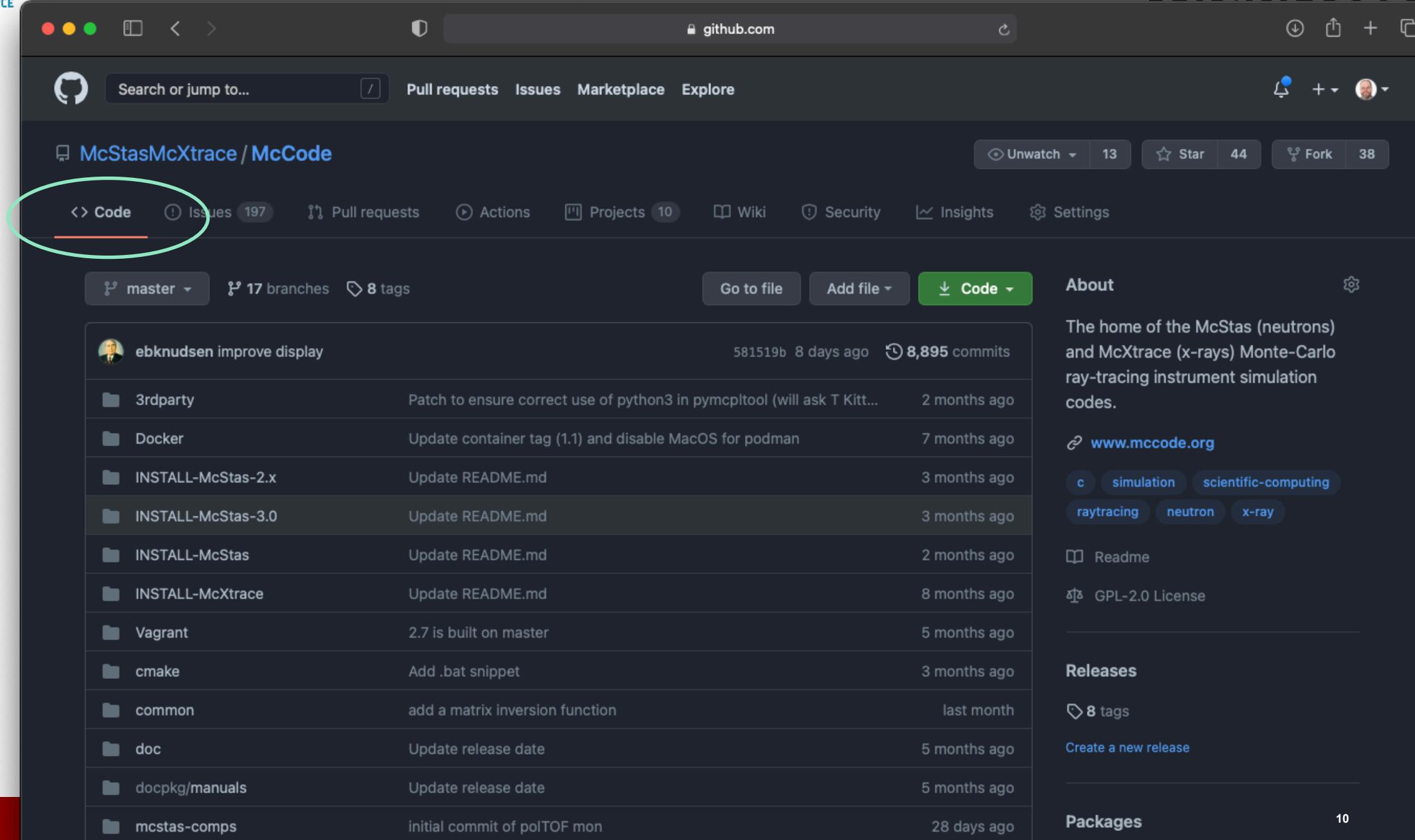


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The screenshot shows the GitHub repository page for `McStasMcXtrace / McCode`. The 'Code' tab is highlighted with a green oval. The page displays a list of recent commits from the `master` branch. The commits are as follows:

Author	Commit Message	Date
ebknudsen	improve display	581519b 8 days ago
3rdparty	Patch to ensure correct use of python3 in pymcpi tool (will ask T Kitt...)	2 months ago
Docker	Update container tag (1.1) and disable MacOS for podman	7 months ago
INSTALL-McStas-2.x	Update README.md	3 months ago
INSTALL-McStas-3.0	Update README.md	3 months ago
INSTALL-McStas	Update README.md	2 months ago
INSTALL-McXtrace	Update README.md	8 months ago
Vagrant	2.7 is built on master	5 months ago
cmake	Add .bat snippet	3 months ago
common	add a matrix inversion function	last month
doc	Update release date	5 months ago
docpkg/manuals	Update release date	5 months ago
mcstas-comps	initial commit of polTOF mon	28 days ago

On the right side of the page, there is an 'About' section with links to www.mccode.org, categories like simulation, scientific-computing, raytracing, neutron, and x-ray, and sections for Readme, GPL-2.0 License, Releases, Tags, and Packages.

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202

<> Code Issues 197 Pull requests Actions Projects 10 Wiki Security Insights Settings

Home

Peter Willendrup edited this page 21 days ago · 16 revisions

Edit New Page

Welcome to the McCode wiki!

General information

- How McStas/McXtrace works overview
- Known issues and FAQ's
- Access to the code tree
- Changes and differences between McStas 2.x and 3.0

Developer guides

- Developer literature
- Building McStas/McXtrace
- Builds and platforms overview
- Release procedure/notes
- UI test checklist
- How to use Eclipse with PyDev
- Debugging the c-code
- Variables and Scopes

For users & comp developers

- McStas tutorial: simplified SANS instrument
- Writing Components

Pages 48

Find a Page...

Home

2020 Virtual McStas McXtrace GPU hackathon (November)

Access to the code tree

Building McStas McXtrace

Builds and platforms overview

Changes and differences between McStas 2.x and 3.0

Debugging the c code

Developer literature

Generate Vitess modules via mcstas2vitess

Generating input files for Single_crystal and PowderN

GPUhack building and installing McStas

GPUhack dev ops

GPUhack example compilation

GPUhack example run

GPUhack get profile data





github.com

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McStasMcXtrace / McCode Unwatch 13 Star 44 Fork 38

Code Issues 197 Pull requests Actions Projects 10 Wiki Security Insights Settings

Label issues and pull requests for new contributors

Now, GitHub will help potential first-time contributors discover issues labeled with good first issue

Go to Labels Dismiss

Filters is:issue is:open Labels 66 Milestones 0 New issue

197 Open 792 Closed

Work on offloading to GPU using gcc/OpenACC #1122 opened 15 days ago by willend 1

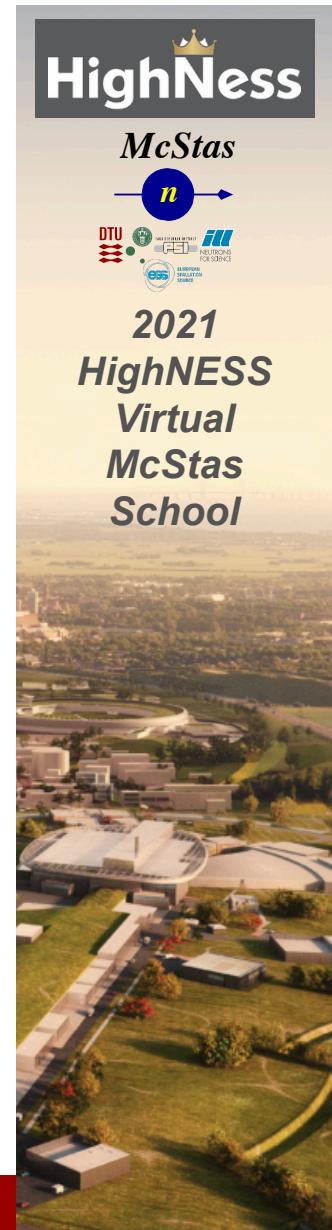
ESS_butterfly issue on macOS with McStas 3.0 - code structure prevents compile with clang mcstas-3.0 #1121 opened 15 days ago by willend

mcgui log-problem, reports Gravitation: no irrespective of fun dialogue setting mcstas-2.7 mcstas-3.0 #1120 opened 24 days ago by willend

McXtrace/McStas 3.0 : Mask needs the masking variable to be atomic. C: McStas component

Report here!

New issue



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www.mcstas.org/list/ | Search | ⋮

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NEUTRONS FOR SCIENCE Paul Scherrer Institut ess EUROPEAN SPALLATION SOURCE DTU NEXMAP

mcstas-users mailing list

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



Please subscribe!!

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

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

New: Search capability has now been added to the website!

[Printable version](#)

Last Modified:

Last Modified: Thursday, 12-Jun-2008 12:57:22 CEST

[Printable version](#)



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mcstas-users Info Page - Mozilla Firefox

mcstas-users Info Page | mailman.mcstas.org/cgi-bin/mailman/listinfo/mcstas-users

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mcstas-users --

About mcstas-users

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.

You can subscribe to the list, or change your existing subscription, in the sections below.

Subscribing to mcstas-users

Subscribe to mcstas-users by filling out the following form. You will be sent email requesting confirmation, to prevent others from gratuitously subscribing you. Once confirmation is received, your request will be held for approval by the list moderator. You will be notified of the moderator's decision by email. This is also a private list, which means that the list of members is not available to non-members.

Your email address:

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.

If you choose not to enter a password, one will be automatically generated for you, and it will be sent to you once you've confirmed your subscription. You can always request a mail-back of your password when you edit your personal options.

Mailing List - archive dates back to 1998...

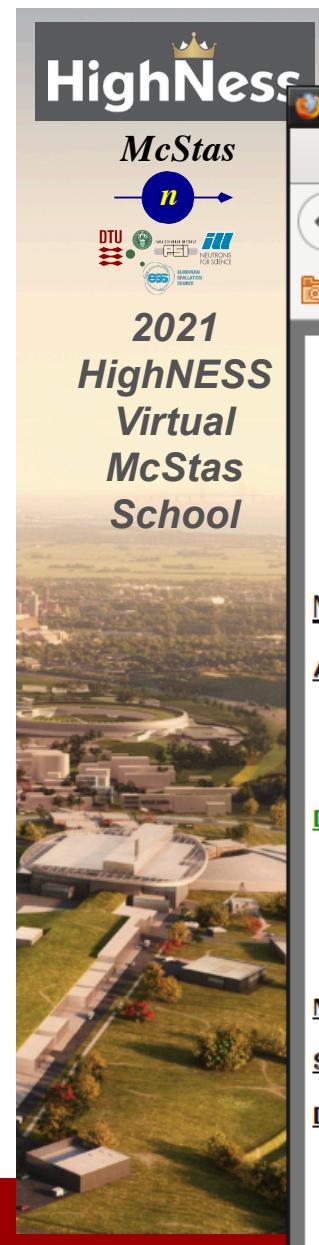
more information about this list'. A table lists archive entries from 1998 to 2021, each with a link to a thread, subject, author, date, and a downloadable version." data-bbox="83 125 530 1000"/>

The mcstas-users Archives

You can get [more information about this list](#).

Archive	View by:	Downloadable version
Second quarter 2021:	Thread Subject Author Date	Text 4 KB
First quarter 2021:	Thread Subject Author Date	Text 72 KB
Fourth quarter 2020:	Thread Subject Author Date	Text 46 KB
Third quarter 2020:	Thread Subject Author Date	Text 1 KB
Second quarter 2020:	Thread Subject Author Date	Text 76 KB
First quarter 2020:	Thread Subject Author Date	Text 36 KB
Fourth quarter 2019:	Thread Subject Author Date	Text 47 KB
Third quarter 2019:	Thread Subject Author Date	Text 115 KB
Second quarter 2019:	Thread Subject Author Date	Text 8 KB
First quarter 2019:	Thread Subject Author Date	Text 67 KB
Fourth quarter 2018:	Thread Subject Author Date	Text 46 KB
Third quarter 2018:	Thread Subject Author Date	Text 15 KB
Second quarter 2018:	Thread Subject Author Date	Text 80 KB
First quarter 2018:	Thread Subject Author Date	Text 36 KB
Fourth quarter 2017:	Thread Subject Author Date	Text 43 KB
Third quarter 2017:	Thread Subject Author Date	Text 21 KB
Second quarter 2017:	Thread Subject Author Date	Text 113 KB
First quarter 2017:	Thread Subject Author Date	Text 15 KB
Fourth quarter 2016:	Thread Subject Author Date	Text 26 KB
Third quarter 2016:	Thread Subject Author Date	Text 23 KB
Second quarter 2016:	Thread Subject Author Date	Text 10 KB
First quarter 2016:	Thread Subject Author Date	Text 18 KB

Fourth quarter 2006:	Thread Subject Author Date	Text 12 KB
Third quarter 2006:	Thread Subject Author Date	Text 4 KB
Second quarter 2006:	Thread Subject Author Date	Text 14 KB
First quarter 2006:	Thread Subject Author Date	Text 16 KB
Fourth quarter 2005:	Thread Subject Author Date	Text 13 KB
Third quarter 2005:	Thread Subject Author Date	Text 42 KB
Second quarter 2005:	Thread Subject Author Date	Text 8 KB
First quarter 2005:	Thread Subject Author Date	Text 9 KB
Fourth quarter 2004:	Thread Subject Author Date	Text 10 KB
Third quarter 2004:	Thread Subject Author Date	Text 2 KB
Second quarter 2004:	Thread Subject Author Date	Text 35 KB
First quarter 2004:	Thread Subject Author Date	Text 33 KB
Fourth quarter 2003:	Thread Subject Author Date	Text 11 KB
Third quarter 2003:	Thread Subject Author Date	Text 54 KB
Second quarter 2003:	Thread Subject Author Date	Text 29 KB
First quarter 2003:	Thread Subject Author Date	Text 12 KB
Fourth quarter 2002:	Thread Subject Author Date	Text 44 KB
Third quarter 2002:	Thread Subject Author Date	Text 52 KB
First quarter 2002:	Thread Subject Author Date	Text 3 KB
Fourth quarter 2001:	Thread Subject Author Date	Text 55 KB
Third quarter 2001:	Thread Subject Author Date	Text 95 KB
Second quarter 2001:	Thread Subject Author Date	Text 93 KB
First quarter 2001:	Thread Subject Author Date	Text 346 KB
Fourth quarter 2000:	Thread Subject Author Date	Text 8 KB
Third quarter 2000:	Thread Subject Author Date	Text 108 KB
Second quarter 2000:	Thread Subject Author Date	Text 51 KB
First quarter 2000:	Thread Subject Author Date	Text 453 KB
Fourth quarter 1999:	Thread Subject Author Date	Text 311 KB
Third quarter 1999:	Thread Subject Author Date	Text 221 KB
Second quarter 1999:	Thread Subject Author Date	Text 168 KB
First quarter 1999:	Thread Subject Author Date	Text 341 KB
Fourth quarter 1998:	Thread Subject Author Date	Text 120 KB



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Google™ search: (search google's cache)

the [mcstas-users](#) mailinglist

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Impact

McStas (i): Introduction, use, and basic principles for ray-tracing simulations

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Abstract. We present an overview of, and an introduction to, the general-purpose neutron simulation package McStas. We present the basic principles behind Monte Carlo ray-tracing simulations of neutrons performed in the package and present a few simple examples. We present the implementation of McStas, the status of the package and its use in the neutron community. Finally, we briefly discuss the planned development of the package.

Keywords: McStas, neutron ray-tracing simulation, neutron instrumentation

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McStas (ii): An overview of components, their use, and advice for user contributions

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Abstract. A key element of the success of McStas is the component layer where users and developers alike are contributing to the description of new physical models and features. In McStas, components realise all physical elements of the simulated instrument from source via optics and samples to detector. In this second review paper of the McStas package, we present an overview of the component classes in McStas: sources, monitors, optics, samples, misc, and contrib. Within each component class we give thorough examples of high-quality components, including their algorithms and example use. We present two example instruments, one for a continuous source and one for a time-of-flight source, that together demonstrate the use of the main component classes. Finally, we give tips and instructions that will allow the reader to write good components and elucidate the pathway of contributing new components to McStas.

Keywords: McStas, neutron ray-tracing simulation, neutron instrumentation

