

OPM overview

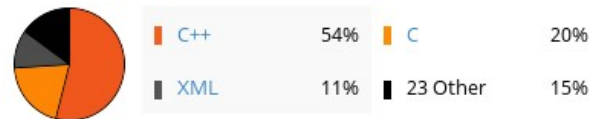
Alf B. Rustad, Statoil

We are growing

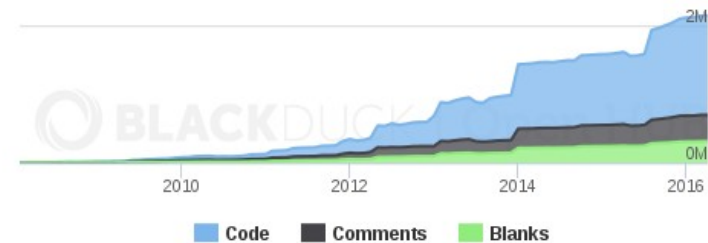
In a Nutshell, Open Porous Media...

- ... has had **28,432 commits** made by **107 contributors** representing **1,450,500 lines of code**
- ... is **mostly written in C++** with **a well-commented source code**
- ... has **a well established, mature codebase** maintained by a very large development team with **increasing Y-O-Y commits**
- ... took an estimated **404 years of effort** (COCOMO model) starting with its **first commit in February, 2008** ending with its **most recent commit about 1 month ago**

Languages



Lines of Code



Activity

30 Day Summary

Mar 17 2016 — Apr 16 2016

428 Commits

18 Contributors

3 New Languages :

XSL Transformation added Apr 4
Python added Apr 4
Autoconf added Apr 4

12 Month Summary

Apr 16 2015 — Apr 16 2016

5933 Commits

Up + 2007 (51%) from previous 12 months

41 Contributors

Up + 11 (36%) from previous 12 months

Commits per Month

Zoom 1yr 3yr 5yr **All**



We are in the cloud...

New web-page

OPM | The Open Porous Media Initiative - Mozilla Firefox

OPM | The Open Porous ... x +

opm-project.org

Search

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OPM

The Open Porous Media Initiative

FOR DEVELOPERS

- Modules
- GitHub
- How to contribute
- Mailing list
- Wiki
- License
- API Documentation

PARTNERS

- IRIS
- SINTEF ICT
- Statoil
- Ceetron Solutions

AFFILIATED

- MRST
- DuMuX

META

- Log in
- Entries RSS
- Comments RSS
- WordPress.org

OPEN POROUS MEDIA

The Open Porous Media (OPM) initiative encourages open innovation and reproducible research for modeling and simulation of porous media processes.

OPM Flow

Industry-standard black-oil simulator for stratigraphic and unstructured grids.

RECENT OPM NEWS

- [Program for the OPM meeting June 1-2](#)
May 24, 2016
- [OPM release 2016.04](#)
May 2, 2016
- [OPM meeting in Oslo June 1-2](#)
April 11, 2016
- [Module reorganization, upcoming release](#)
April 7, 2016
- [Black-oil polymer simulator in OPM](#)
December 17, 2015

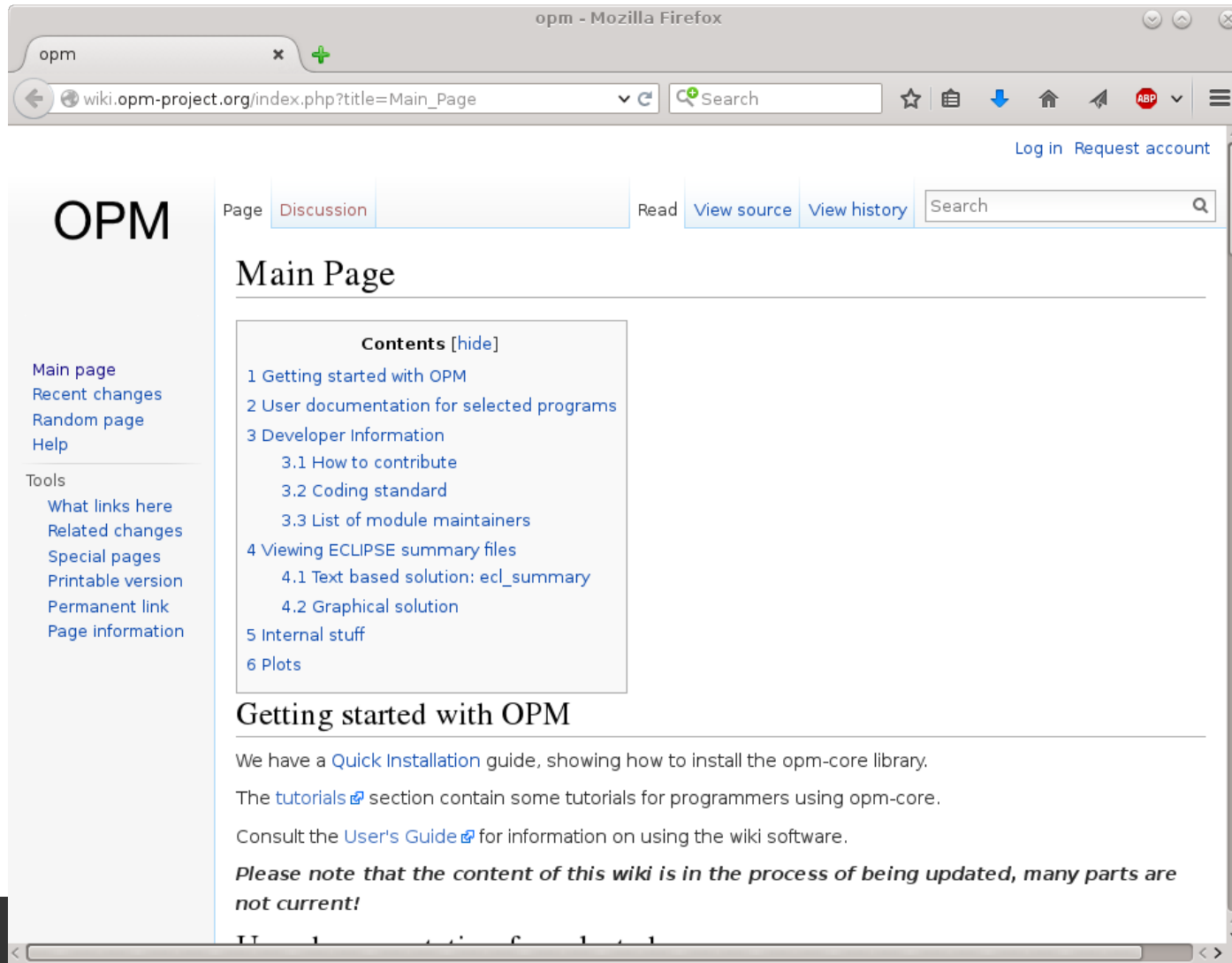
ALL OPM NEWS

The OPM [news archive](#).

OPM coordinates collaborative software development, maintains and distributes open-source software and open data sets, and seeks to ensure that these are available under a free license in a long-term perspective.

Current development is focused on CO₂ sequestration and improved

The wiki is still around



The screenshot shows a Mozilla Firefox browser window with the address bar displaying `wiki.opm-project.org/index.php?title=Main_Page`. The page title is "Main Page". The browser's address bar includes a search field and navigation icons. The page content is organized into a sidebar on the left and a main content area. The sidebar contains links for "Main page", "Recent changes", "Random page", "Help", and "Tools". The main content area features a "Contents" table of contents, a "Getting started with OPM" section, and a "Please note" warning.

OPM

Page [Discussion](#) [View source](#) [View history](#)

Main Page

Contents [\[hide\]](#)

- 1 [Getting started with OPM](#)
- 2 [User documentation for selected programs](#)
- 3 [Developer Information](#)
 - 3.1 [How to contribute](#)
 - 3.2 [Coding standard](#)
 - 3.3 [List of module maintainers](#)
- 4 [Viewing ECLIPSE summary files](#)
 - 4.1 [Text based solution: ecl_summary](#)
 - 4.2 [Graphical solution](#)
- 5 [Internal stuff](#)
- 6 [Plots](#)

Getting started with OPM

We have a [Quick Installation](#) guide, showing how to install the opm-core library.

The [tutorials](#) section contain some tutorials for programmers using opm-core.

Consult the [User's Guide](#) for information on using the wiki software.

Please note that the content of this wiki is in the process of being updated, many parts are not current!

The mailing list too

GROUP

gmane.science.simulation.opm.

ADVERTISEMENT

PROJECT WEB PAGE

The Mailing List of the Open Porous Media (OPM) Initiative

SEARCH ARCHIVE

Search

PAGE

1|2|3|4|5|6|7|8|9|10|11

MAY 2016

Mon	Tue	Wed	Thu	Fri	Sat	Sun
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31					

Previous

LANGUAGE

Change language

OPTIONS

The Mailing List of the Open Porous Media (OPM) Initiative - Mozilla Firefox

blog.gmane.org/gmane.science.simulation.opm

Search

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ABP

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opm@opm-project.org

The Mailing List of the Open Porous Media (OPM) Initiative

🔍

Atgeirr Rasmussen | 24 May 10:03 2016

headers


Norway

Program for the OPM meeting available

Dear OPM community,

The program for the OPM meeting is ready, and can be viewed at

<http://opm-project.org/?p=664>

Please direct any questions to me or Tor Harald Sandve.

Atgeirr

Opm mailing list


Opm <at> opm-project.org

<http://opm-project.org/cgi-bin/mailman/listinfo/opm>

Permalink | Reply | 0 comments | [Report this as spam](#)

Per Ame Slotte | 24 May 09:14 2016

headers




Problems compiling the new version of OPM

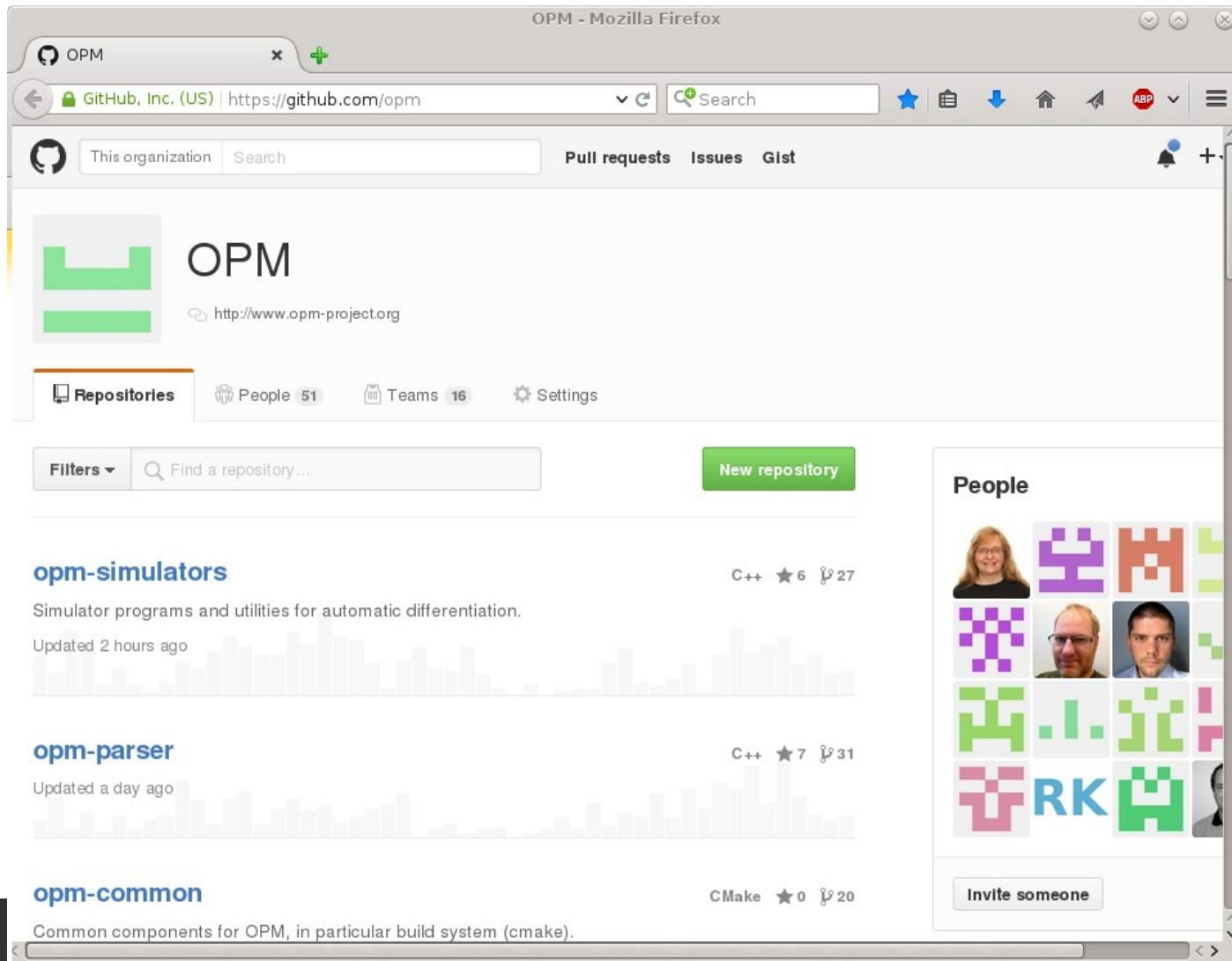
OPM'ers

Having had no major problems with compiling OPM back in january, I am now trying to upgrade to the latest version.

No problems with the first 6 modules (common, parser, material, core, grid, output) except that I had



Github of course



Jenkins

Dashboard [Jenkins] - Mozilla Firefox

Dashboard [Jenkins] x +

https://ci.opm-project.org

Search

Jenkins

log in

ENABLE AUTO REFRESH

People

Build History

Credentials

Claim Report

Build Queue

No builds in the queue.

Build Executor Status

1 Idle

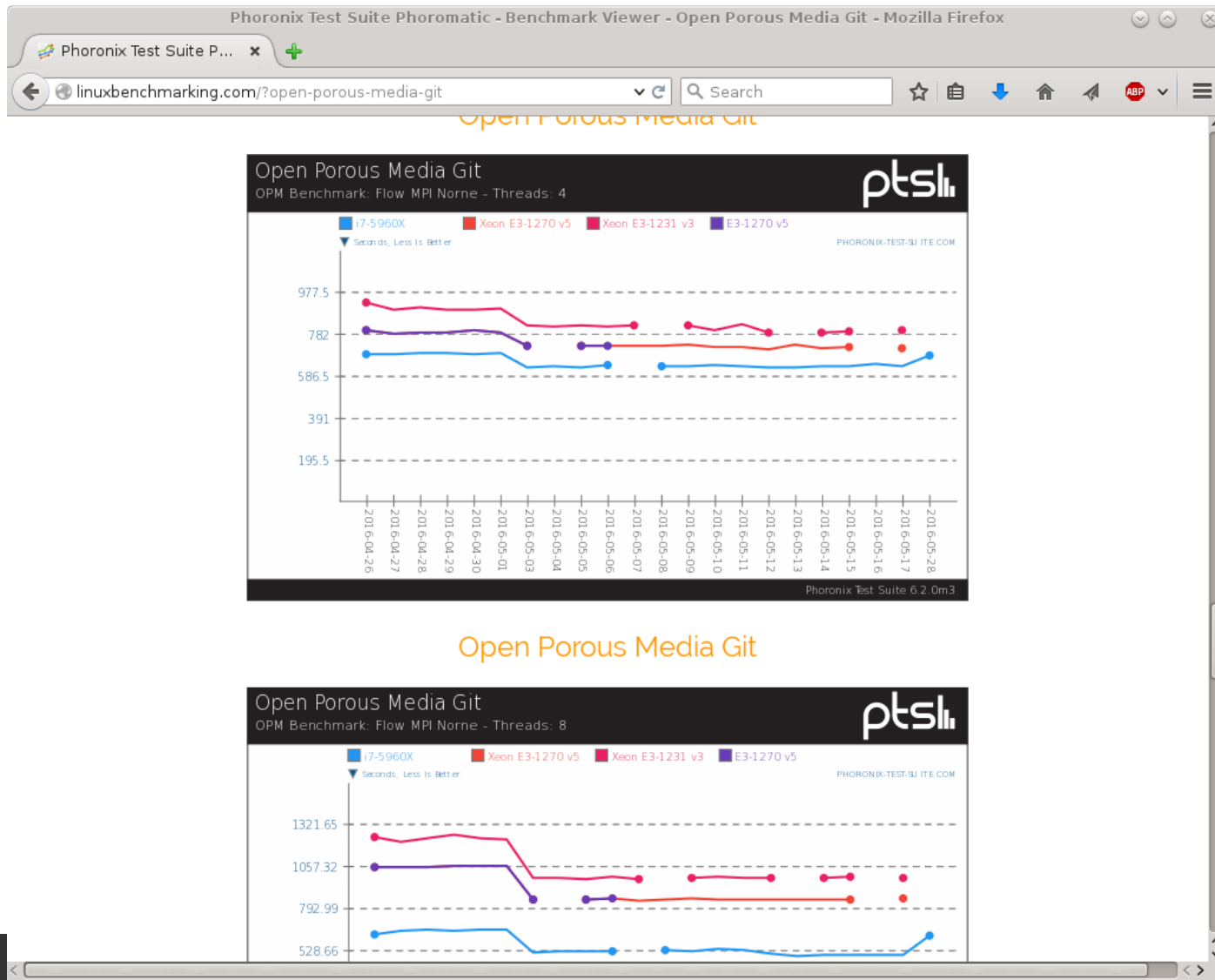
2 Idle

All Feedback panel OPM Pull Request Builders OPM install OPM sibling

OPM-overview Simulator Tests

S	W	Name	Last Success	Last Failure	Last Duration
		ERT	2 days 23 hr - #521	N/A	29 sec
		ewoms	9 days 14 hr - #19	1 mo 0 days - #11	58 min
		ewoms-PR-builder	25 days - #6	1 mo 10 days - #4	58 min
		Norne-full-run	8 hr 4 min - #310	3 days 8 hr - #307	1 hr 18 min
		opm-common	2 days 22 hr - #33	1 mo 29 days - #2	35 sec
		opm-common-PR-builder	19 days - #7	19 days - #6	1 hr 54 min
		opm-core	4 days 0 hr - #28	3 days 0 hr - #29	16 min
		opm-core-PR-builder	1 mo 10 days - #8	N/A	14 min
		opm-data-nightly	8 hr 25 min - #52	N/A	0.74 sec
		opm-data-PR-builder	1 mo 9 days - #84	1 mo 9 days - #83	1 hr 14 min
		opm-grid	19 days - #14	1 mo 25 days - #1	15 min
		opm-grid-PR-builder	26 days - #4	26 days - #3	1 hr 33 min

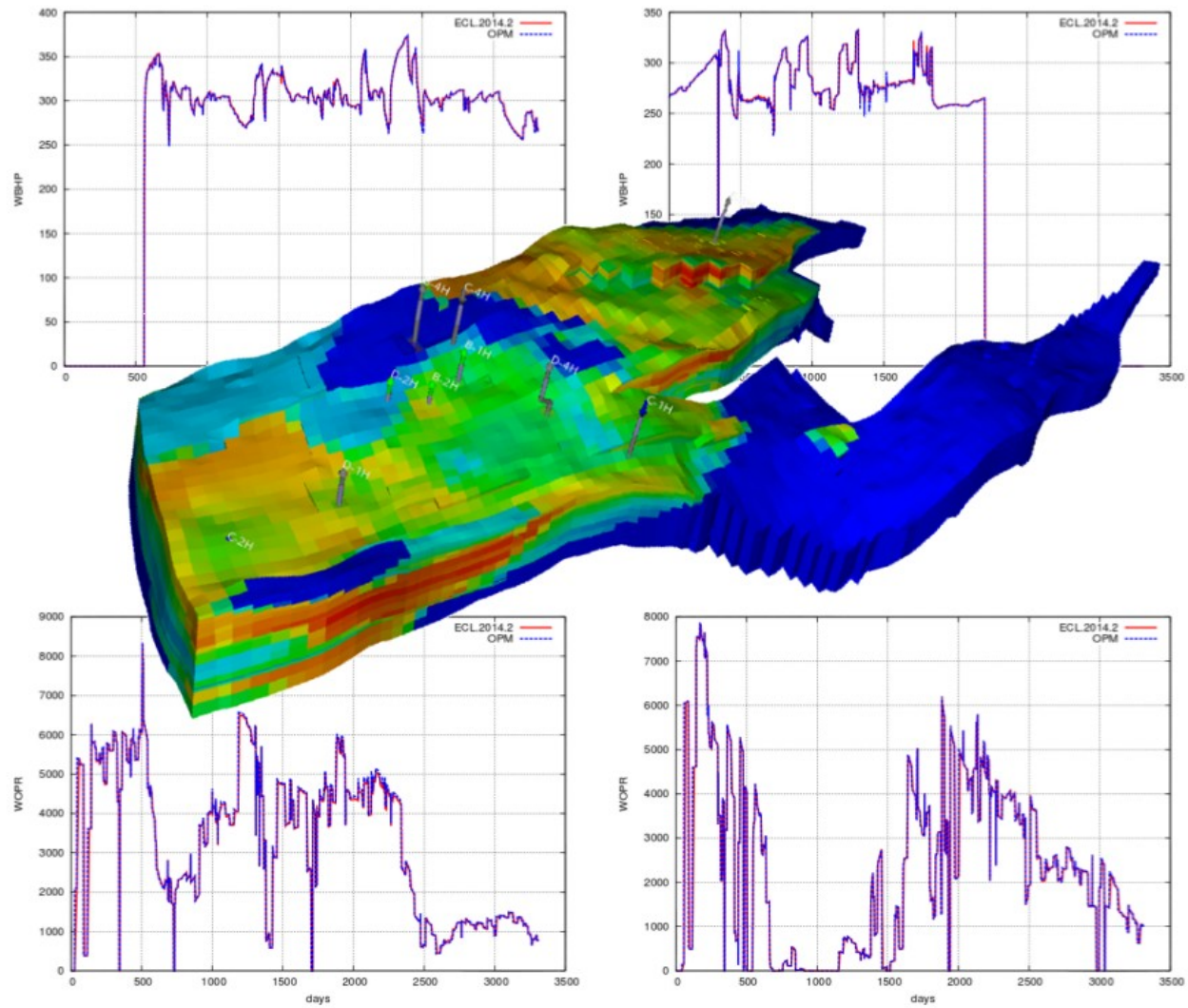
Benchmarking



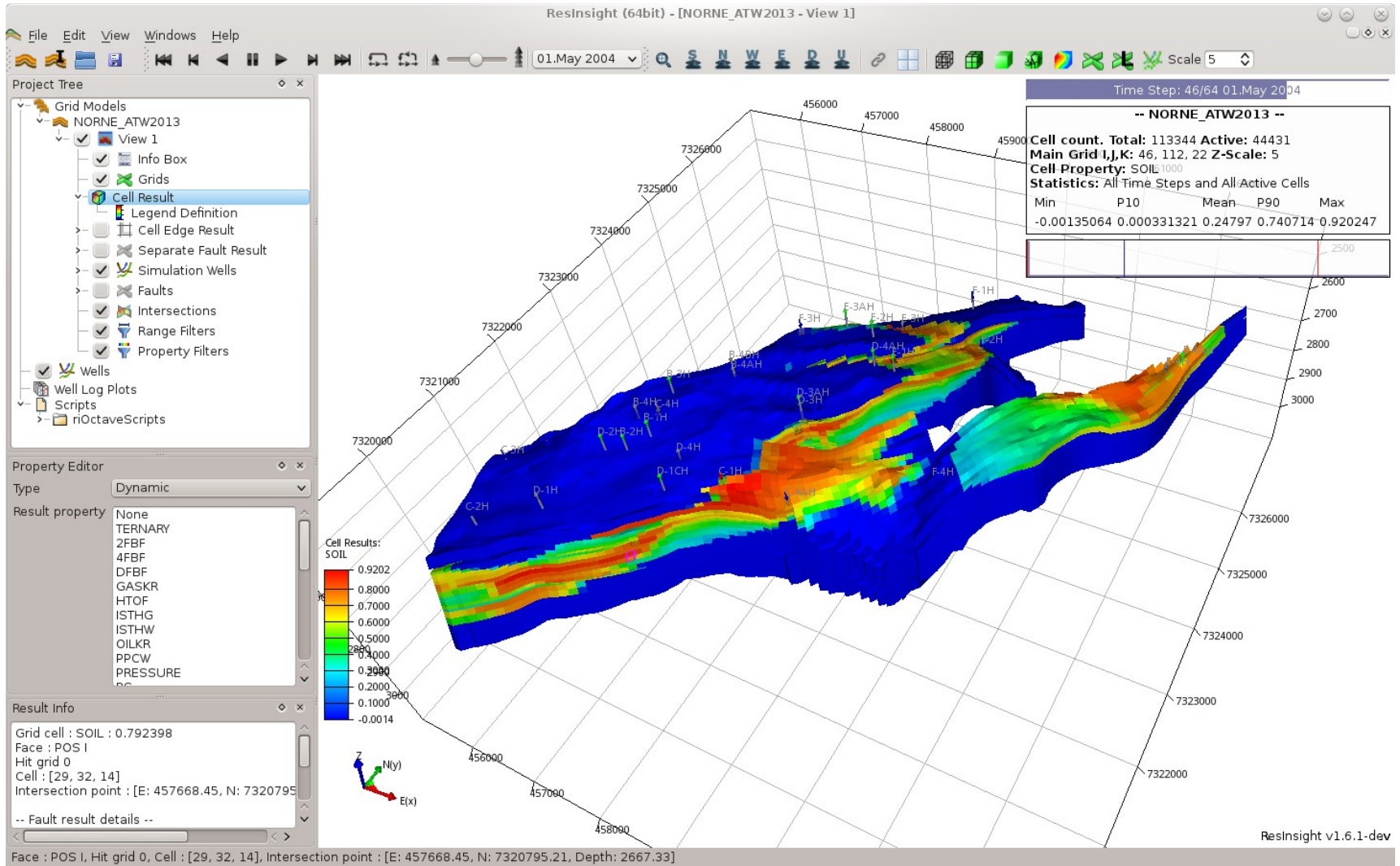
Open data

What about the apps?

Let it flow!



Visualize and analyse



Documentation and profiling

ResInsight • 3D viewer and post processing of reservoir models - Mozilla Firefox

ResInsight • 3D viewe... x

resinsight.org

HOME DOCUMENTATION PROJECT NEWS DOWNLOAD

ResInsight

Fast and Free 3D Visualization of Reservoir Simulations

Fast


- ✓ Hazzle free
- ✓ Starts in an instant

Unique Features

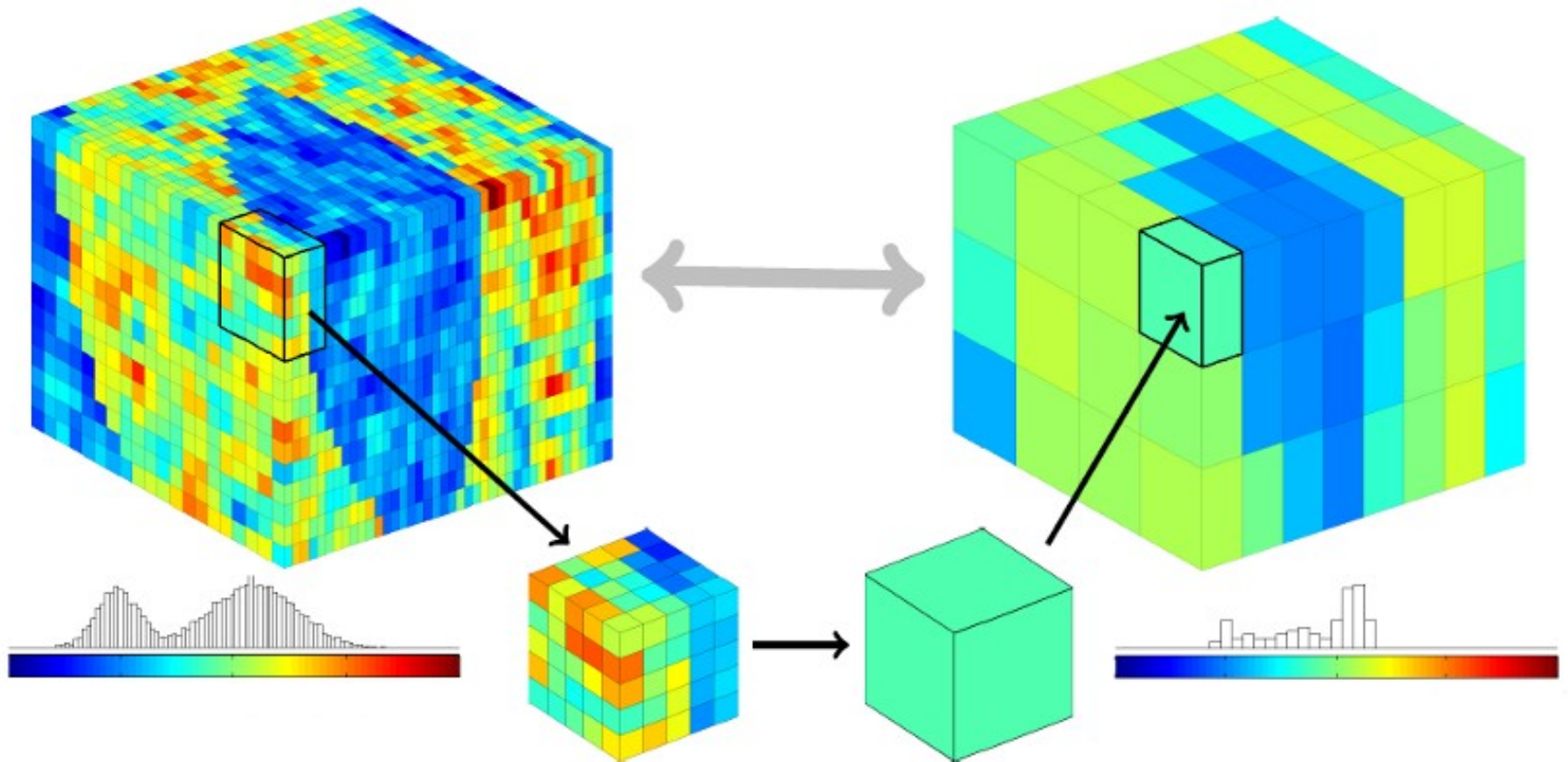
- ✓ NNC visualization
- ✓ Cell Edge Coloring

Getting started

It's easy, both on Linux and Windows:

 **Statoil**

Homogenize



Command-line rocks!

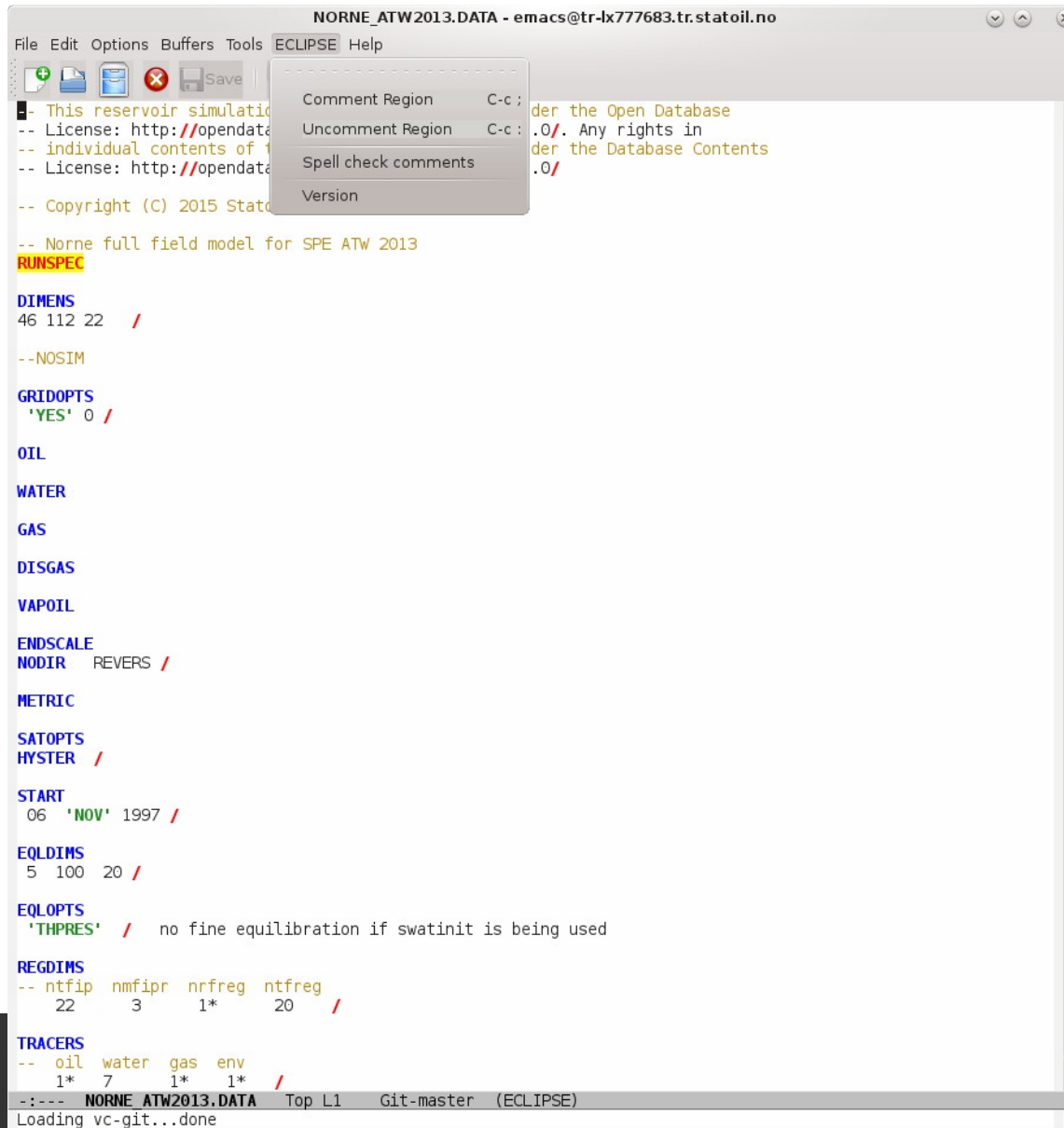
The screenshot shows a Mozilla Firefox browser window with the address bar displaying `wiki.opm-project.org/index.php?title=Upscale_simple_statistics`. The page title is "Upscale simple statistics". The left sidebar contains links for "Main page", "Recent changes", "Random page", "Help", and "Tools" (including "What links here", "Related changes", "Special pages", "Printable version", "Permanent link", and "Page information"). The main content area has a "Page" tab selected, with "Discussion" also visible. Below the tabs is a search bar. The main heading is "Upscale simple statistics". The text describes **cpchop** as a command line utility for doing subsampling and property analysis of Eclipse grid files. It mentions that the program picks (optionally random) subsamples from the model and analyzes these. It lists properties to analyze: single phase permeability (flow based upscaling equivalent to the stand alone tool `upscale_perm`), bulk properties like porosity and `ntg`. Results from this kind of analysis can be outputted to a resultfile. It also states that the program can output the subsamples themselves into new stand alone corner point grids in `grdecl` format. The "Usage" section states that the program can currently only be run from a Linux command line. It refers to "these instructions" for access to the binary files. A code block shows the command: `$ cpchop gridfilename=cornerpointgrid.grdecl [option=value]`. Below this, it states that the gridfile must have a shoebox shape with vertical pillars. A table follows, detailing the options.

Option	Description	Default value
subsamples	number of subsamples	1
filebase	If supplied, <code>grdecl</code> -files for each subsample will be written to files named using this filebase, it may include directory names	
resultfile	name of a textfile to output table of results pr. subsample to	
ilen	length in i-direction of subsample, specified in number of cells(!)	all cells in i-direction
jlen	length in j-direction of subsample, specified in number of cells(!)	all cells in j-direction
zlen	length in z-direction of subsample, specified in the grids length unit (typically cm or m)	full height

Fracturing, the new kid on the block



Don't forget the utilities



```
NORNE_ATW2013.DATA - emacs@tr-lx777683.tr.statoil.no
File Edit Options Buffers Tools ECLIPSE Help
+ Save
Comment Region C-c ;
Uncomment Region C-c ;
Spell check comments
Version

-- This reservoir simulation
-- License: http://opendata
-- individual contents of t
-- License: http://opendata
-- Copyright (C) 2015 Statoil

-- Norne full field model for SPE ATW 2013
RUNSPEC

DIMENS
46 112 22 /

--NOSIM

GRIDOPTS
'YES' 0 /

OIL

WATER

GAS

DISGAS

VAPOIL

ENDSCALE
NODIR REVERS /

METRIC

SATOPTS
HYSTER /

START
06 'NOV' 1997 /

EQLDIMS
5 100 20 /

EQLOPTS
'THPRES' / no fine equilibration if swatinit is being used

REGDIMS
-- ntfig nmfig nrfreg ntfreg
22 3 1* 20 /

TRACERS
-- oil water gas env
1* 7 1* 1* /

-:--- NORNE_ATW2013.DATA Top L1 Git-master (ECLIPSE)
Loading vc-git...done
```


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time for **good ideas**

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Presenters name

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