

Geant4 web-siteS

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CERN/EP/SFT

Geant4 Websites

- Main Geant4 web site: [http\(s\)://cern.ch/geant4](http(s)://cern.ch/geant4) :
 - website based on Drupal 7
 - <http://geant4.cern.ch> is an alias to
- Mirror at <http://geant4.org>
- Documentation : [http\(s\)://cern.ch/geant4-userdoc](http(s)://cern.ch/geant4-userdoc)
- Data: [http\(s\)://cern.ch/geant4-data](http(s)://cern.ch/geant4-data)
 - Download pages for releases and data
 - Not directly a web site, above URL redirects to download page in Drupal
 - Release Notes
- Web tools(scripted pages): [http\(s\)://cern.ch/geant4-tools](http(s)://cern.ch/geant4-tools)
 - Hosts Geant4 tags DB interface
 - Collaboration signature tool
 - EM validation pages
- Other sites
 - DoSSiER: Validation database portal at FNAL: <http://g4validation.fnal.gov:8080/DoSSiER>
 - Development version: <https://g4devel.fnal.gov:8181/>
 - Geant validation web app: <http://cern.ch/geant-val>
 - Several sites or wiki's for individual working groups or Geant4 institution specific pages



Overview

Geant4 is a toolkit for the simulation of the passage of particles through matter. Its areas of application include high energy, nuclear and accelerator physics, as well as studies in medical and space science. The three main reference papers for Geant4 are published in Nuclear Instruments and Methods in Physics Research A 506 (2003) 250-303 [↗](#), IEEE Transactions on Nuclear Science 53 No. 1 (2006) 270-278 [↗](#) and Nuclear Instruments and Methods in Physics Research [↗](#)A 835 (2016) 186-225 [↗](#).

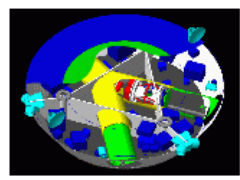
Applications



A sampling of applications, technology transfer and other uses of Geant4

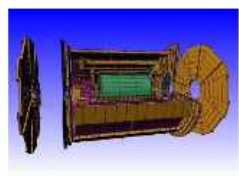
[printer-friendly version](#)

User Support



Getting started, guides and information for users and developers

Publications



Validation of Geant4, results from experiments and publications

Collaboration



Who we are: collaborating institutions, members, organization and legal information

News

- 29 Jun 2018
Release 10.5-BETA is available from the [BETA Download](#) area.
- 25 May 2018
Patch-02 to release 10.4 is available from the [Download](#) area.
- 12 Mar 2018
2018 planned developments
- 20 Oct 2017
Patch-03 to release 10.3 is available from the [source archive](#) area.

Events

- [23rd Geant4 Collaboration Meeting](#), Lund University, Lund (Sweden), **27-31 August 2018**.
- [Geant4 Tutorial](#), Lund University, Lund (Sweden), **3-7 September 2018**.
- [Geant4 Japanese tutorial & workshop for medicine](#), Hokkaido University, Hokkaido (Japan), **25-28 September 2018**.
- [3rd Geant4 International User Conference](#) at the Physics-Medicine-Biology Frontier, Bordeaux (France), **29-31 October 2018**.
- [13th Geant4 Space Users Workshop](#) at the Space Center Houston, Texas (USA), **28-30 November 2018**.

Drupal website

- cern.ch/geant4 or after redirect geant4.web.cern.ch
- Look similar to old AFS pages
- Site has ~ 1500 pages, 'copied' from old site
 - Many of these are SB private pages, agenda and minutes
- All collaborators have right to edit
 - Login is via CERN account
 - SB protected pages are only accessible to SB members
- User documentation not 'copied' into Drupal
 - Explicitly kept separate
 - Accessed via new web site geant4-userdoc.web.cern.ch
- Download pages in Drupal, but not the data files
 - Tarfiles, and all datafile on EOS server <http://cern.ch/geant4-data>
 - Set up redirects in Drupal to keep most release related existing URLs valid via redirect to geant4-data



Features

- Content and settings stored in database
 - Content not accessible via filesystem
- Content is created and modified in browser
 - Using different **content types**
- Content can be labelled – taxonomy
 - Not used so far
- Files like pictures/pdf/... kept in a filesystem
 - Upload via web interface, some content types allow direct upload
 - Mounting of filesystem possible from windows, ... (<https>)
- Site fully backed up daily, backup includes DB and files
 - Automatic backups kept for 10 days
 - Manual backups possible, but limited to 5



Drupal Basic

- **Theme:** layout of pages, regions, colors, fonts,
- **Node:** basic unit of content
 - A node is not a page, but node(s) are shown on page(s)
- **Content type**
- **View**
 - Combine nodes or parts/fields of nodes including filtering
 - Create page or block
- **Region**
 - Nodes or blocks are placed in regions
- **Menu**, to ease navigation
- **Page**
- **Block**
- **Taxonomy:** keywords which can be added to nodes,....



Content Types

- Content kept in node \neq web page
- Node is a collection of fields:
 - Title, text, date, file, ...
- Access control per content type
 - Optionally per node
- Aggregation of node content possible via views
 - Events and News
- Main content types
 - Drupal default types: Basic page, Article,
 - Geant4 specific: basic with files, basic with sideblock, imported page, news item, event, download page
 - Several content types for minutes, agenda
- Content can be, and by default (G4), is versioned, can roll back



Addresses

- **Normal URL:**
 - `cern.ch/geant4/node/1954`
- **URL alias**
 - Alias can be given: used for frequently used pages
 - `cern.ch/geant4/support`
 - `cern.ch/geant4/license`
 - `cern.ch/geant4/logo`
 - `cern.ch/geant4/author-HOWTO`
 - Etc...
 - A list of all aliases is available from admin menu
- **Redirection**
 - Powerful way for URL in Geant4 web to redirect elsewhere
 - E.g release announcement have <http://cern.ch/geant4/support/ReleaseNotes4.10.4.html>
 - Users have bookmarked URL of data files
 - Using Structure -> Pages



Open problems

- For you to find :-)



Migration of web tools

- End 2015: Collaboration agreement tool
- Feb 2016: Tags database interface
- April 2018: **Geant4 web site in Drupal**
- Fall 2018: Migrate geant4-tools to EOS webserver
 - Concerns signature tool
 - Geant4 Tags DB should will no longer be needed with Git
- 2018/2019: Migrate site from Drupal7 to Drupal 8
 - Volunteers to help with this and become administrator welcome!



Summary

- Geant4 master in Drupal since April
- Few problems reported and fixed
- Will need to migrate to Drupal 8
 - Non trivial, but less work than migration from AFS -> Drupal 7



Drupal basics

Basic introduction to edit/add pages

- Log in to change or add pages
- See cern.ch/geant4/author-HOWTO
- To edit, go to the page, and click on the edit just below the title of the page
- To add a page, click add content, choose type of page to add, e.g 'basic page'
 - Give a title, and body.
 - Choose the kind of text, plain ascii, filtered or full html; usually we need full html
 - To add a link to another existing page, select the text to become the link, click on the link symbol, choose link type as URL, protocol to be
 - <other> for site internal link, address is something like content/.....,
 - http(s):// for link to external page, address is URL without the http(s)://
 - At the bottom of the page, you set options:
 - you may create an entry in a menu:
 - Select 'Provide menu link'
 - choose parent menu where you want the entry
 - Create a new version, so we can revert
 - Under publishing information, select 'published'
 - Then click SAVE, you may also save before you are fully done and continue later.
 - If you exit without save, all is lost. Going to another page without save also loses changes.

