



5g. Use of gitHub for GSICS developments

Jin Woo

KMA

**CMA, CNES, EUMETSAT, ISRO, IMD, JMA, KMA, NASA,
NIST, NOAA, ROSHYDROMET, USGS, WMO**



Contents

- Operational Policy of GDWG GitHub
- Status of GitHub Activities
- Plotting tool Project
- KMA's GitLab for contributing plotting tool



Operational Policy of GitHub

[Decisions made at 2017 GDWG meeting]

■ Goals

- ▷ Configuration management(codes, tools), issue tracking(GDWG action)

■ Who

- ▷ User(All developers(#) or [Agency representatives in GDWG group](#))
- ▷ Administrator ⇒ [KMA](#)

■ What

- ▷ Operational code, s/w, tools, action items, etc.
- ▷ Copyright ?

■ Activation plan

- ▷ Collaboration project ⇒ [Plotting tool](#)



Operational Policy of GitHub

[Decisions made at 2017 GDWG meeting]

A screenshot of the GitHub web interface showing the 'Member privileges' settings for the organization 'GDWG-GSICS'. The browser address bar shows the URL 'https://github.com/organizations/GDWG-GSICS/settings/member_privileges'. The page has a dark header with the GitHub logo and navigation links. On the left, a sidebar lists various settings categories: Organization settings (Profile, Member privileges, Billing, Security, Audit log, Blocked users, Webhooks, Third-party access, Installed GitHub Apps, Repository topics, Projects), Developer settings (OAuth Apps, GitHub Apps), and a 'Settings' tab. The main content area is divided into four sections: 'Repository creation' (with a checked option 'Allow members to create repositories for this organization'), 'Repository deletion' (with a checked option 'Allow members to delete or transfer repositories for this organization'), 'Repository visibility change' (with a checked option 'Allow members to change repository visibilities for this organization'), and 'Default repository permission' (with radio buttons for Admin, Write, Read, and None). Each section has a 'Save' button. The footer contains copyright information and links to Terms, Privacy, Security, Status, Help, and other resources.



Status of GitHub Activities

[History]

■ Group account registration in GitHub [April 27, 2017]

▷ <https://github.com/GDWG-GSICS>

■ Registration request to GDWG members [May 4, 2017]

■ Naming convention for account [May 30, 2017]

- ▷ Account name : "\${personal name}-\${Agency's name}" (e.g. JWOO-KMA)
- ▷ Profile name : "\${Agency's name}-GDWG" (e.g. KMA-GDWG)

■ Registration Plotting tool Project [June 8, 2017]

- ▷ By EUMETSAT(Pablo Benedicto)



Status of GitHub Activities

[Members]

A screenshot of the GitHub organization page for GDWG-GSICS. The browser address bar shows the URL https://github.com/GDWG-GSICS. The organization's name and logo are at the top. Below the navigation bar, there are tabs for Repositories (1), People (3), Teams (0), Projects (0), and Settings. A search bar and filters for repository type and language are present. The main content area shows a repository named 'Plotting_tool' with a description 'Development of plotting tool', a Java language indicator, and an update date of 'Updated on 7 Aug'. On the right sidebar, 'Top languages' lists Java. The 'People' section lists three members: JWoo-KMA (KMA-GDWG), MasayaTakahashi-JMA (JMA-GDWG), and PabloBenedicto-EUMETSAT (EUMETSAT-GDWG), with an 'Invite someone' button below. The footer contains copyright information for GitHub, Inc. and various links like Terms, Privacy, Security, Status, Help, Contact GitHub, API, Training, Shop, Blog, and About.



Plotting Tool Project

[Repository]

GDWG-GSICS/Plotting_tool

GitHub, Inc. [US] | https://github.com/GDWG-GSICS/Plotting_tool

This repository Search Pull requests Issues Marketplace Explore

GDWG-GSICS / Plotting_tool Watch 0 Star 0 Fork 0

Code Issues 0 Pull requests 0 Projects 0 Wiki Insights Settings

Development of plotting tool Edit

Add topics

15 commits 1 branch 0 releases 1 contributor

Branch: master New pull request Create new file Upload files Find file Clone or download

PabloBenedicto-EUMETSAT keySet changed to entrySet to avoid ConcurrentModificationExceptions Latest commit bf6188a on 7 Aug

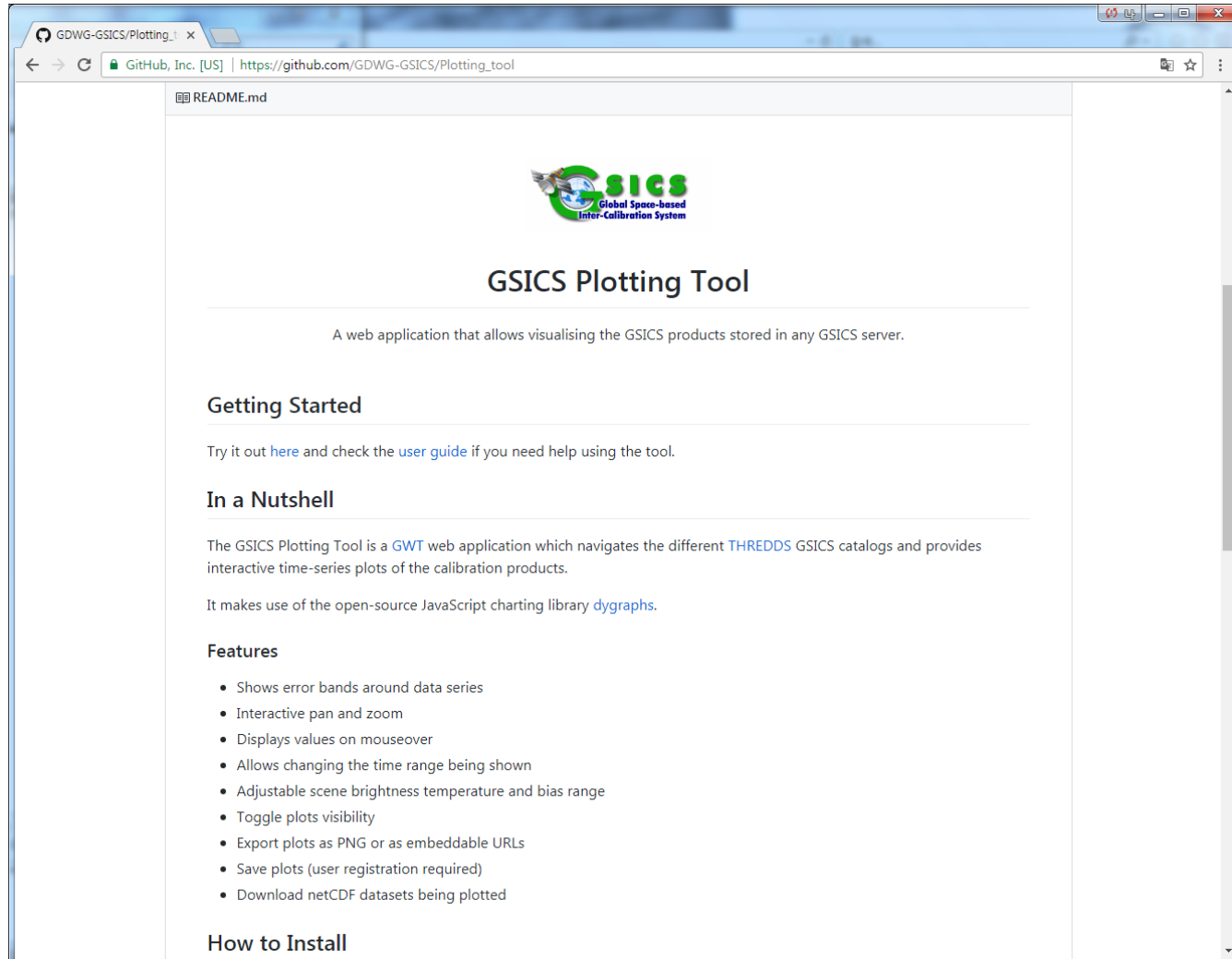
src	keySet changed to entrySet to avoid ConcurrentModificationExceptions	3 months ago
test	'Variable' and 'Attribute' mocks made stubOnly to spare memory	4 months ago
war	Initial commit	5 months ago
CONTRIBUTING.md	Nested lists fixed	4 months ago
README.md	'How to install' and 'How to contribute' sections added	4 months ago
build.xml	- Most libraries updated to latest version (gwt, gwt,...)	4 months ago
ivy.xml	- Most libraries updated to latest version (gwt, gwt,...)	4 months ago
ivysettings.xml	- Most libraries updated to latest version (gwt, gwt,...)	4 months ago

README.md



Plotting Tool Project

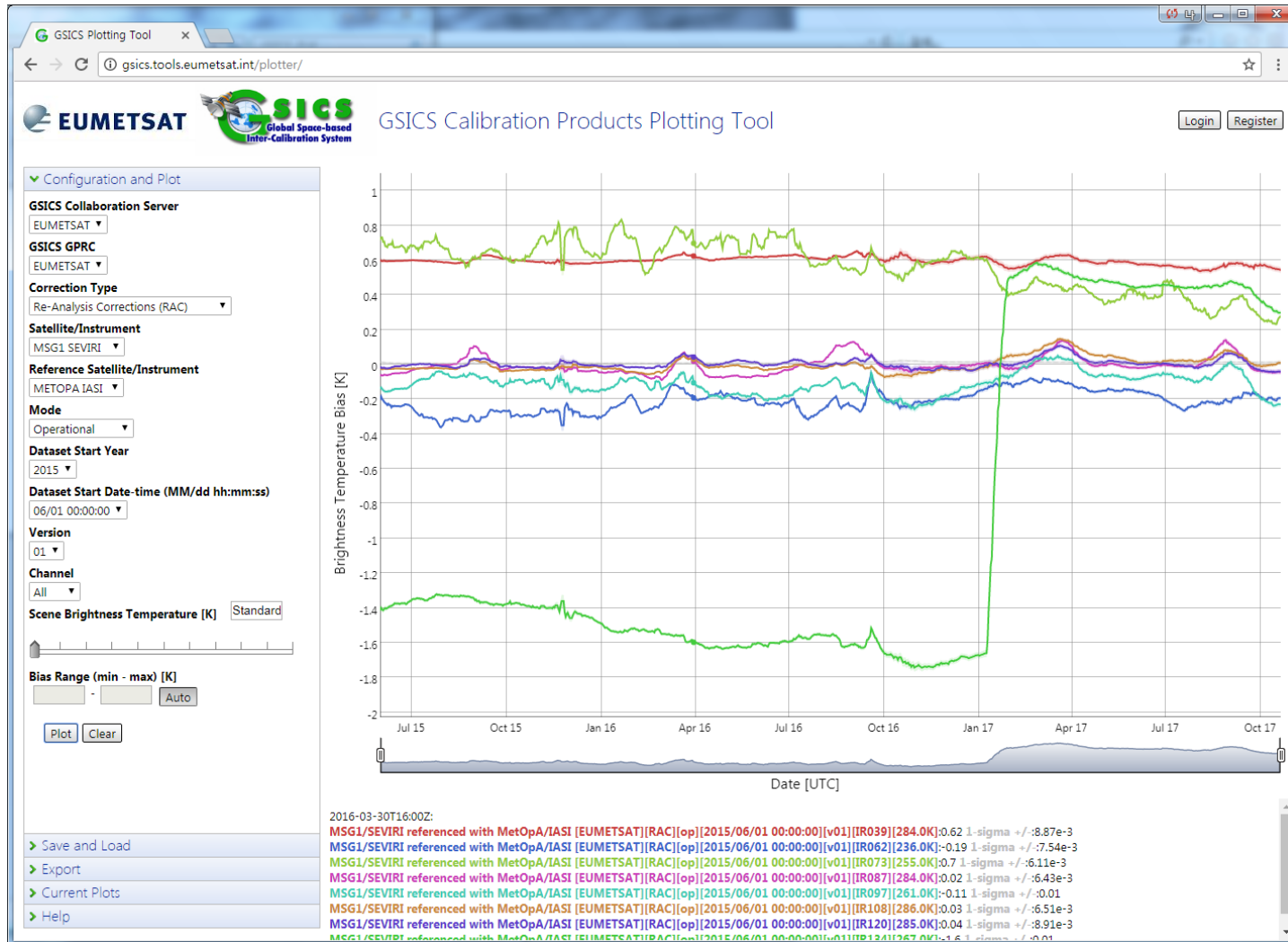
[Readme]





Plotting Tool Project

[Try it out]





Plotting Tool Project

[User Guide]

Plotting_tool/GSICS_Plotting_Tool

GitHub, Inc. [US] | https://github.com/GDWG-GSICS/Plotting_tool/blob/master/src/org/eumetsat/usd/gcp/client/resources/pdf/GSICS_Plotting_Tool_UserGuide.pdf

This repository Search Pull requests Issues Marketplace Explore

GDWG-GSICS / Plotting_tool Watch 0 Star 0 Fork 0

Code Issues 0 Pull requests 0 Projects 0 Wiki Insights Settings


Branch: master Find file Copy path

Plotting_tool / src / org / eumetsat / usd / gcp / client / resources / pdf / GSICS_Plotting_Tool_UserGuide.pdf


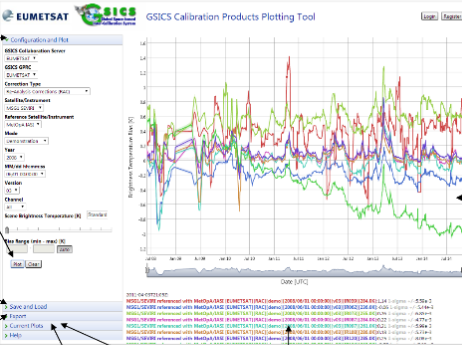
Pablo Benedicto Initial commit 268eef8 on 22 Jun

0 contributors

585 KB Download History



GSICS Plotting Tool User Guide

Configure Plot
Select from available options in selected GSICS Collaboration Server.
Standard scene brightness temperature is loaded for every channel.

Plot
Plot selected configuration (over current graph, if any).
Click "Clear" to delete current graph.

Load Saved Plot
Load selected saved plot.
Click "Remove Selected" to delete selected user saved plot.
Click "Remove All" to delete all user saved plots.

Save/Export Plot
Enter a name and click "Save" to save current plot (after login).
Click "Export as PNG" to export it as an image.
Click "Get Plot URL" to get the URL to directly access this plot

Toggle Plots Viability
Show/hide existing plots on the current graph.

Download Datasets
Download NetCDF datasets being plotted.

Plot Legend
Show the value of the plots on the time instant where the mouse pointer is over.

Register/Login/Logout
Click "Register" for new user.
Click "Login" to login.
Click "Logout" to logout.

Horizontal Zoom

Vertical Zoom

Graph
Interactive graph showing the plots the user has requested.

Select Time Range
Modify the time range of the current graph.

Compatible with latest versions of modern web browsers (in I4.0 & notably slower)



Plotting Tool Project

[Readme]

GDWG-GSICS/Plotting_1 x

← → ↻ GitHub, Inc. [US] | https://github.com/GDWG-GSICS/Plotting_tool

- Save plots (user registration required)
- Download netCDF datasets being plotted

How to Install

In order to host this web application, the server shall meet the following software requirements:

- Tomcat 7 or 8 installed.
- Java 7 or 8 installed.
- Open HTTP outbound port (80), in order to access external HTTP GSICS servers.
- MySQL database v4 or above, setup as stated by SQL queries below (required by save plots feature).

```
create database gsics_plotter_db;

grant SELECT, INSERT, UPDATE, DELETE, CREATE, DROP, ALTER on gsics_plotter_db.* to 'plotter'@'localhost' ;

use gsics_plotter_db;

drop table if exists plot_configuration;

drop table if exists user;

create table plot_configuration (
  plot_configuration_id bigint not null auto_increment,
  channel varchar(10),
  data varchar(20),
  mode varchar(100),
  name varchar(255) not null,
  ref_sat_instr varchar(100),
  sat_instr varchar(100),
  scene_tb double precision,
  server varchar(100),
  source varchar(100),
  type varchar(100),
  version varchar(10),
  year varchar(10),
  user_id bigint not null,
  idx integer,
  primary key (plot_configuration_id)
);

create table user (
  user_id bigint not null auto_increment,
  name varchar(20) not null unique,
  password_hash varchar(255) not null,
  primary key (user_id)
);

alter table plot_configuration
  add index FKD1A093618C1753508 (user_id),
  add constraint FKD1A093618C1753508
  foreign key (user_id)
  references user (user_id);
```

After building the project, `plotter.war` will be created in the project root folder. In order to deploy it, copy the `plotter.war` file into the `webapps` directory in your server's tomcat installation.

How to Contribute

[Read the contributing guideline.](#)



Plotting Tool Project

[Contributing Guideline1]

Plotting_tool/CONTRIBU x gwt project : 네이버 통 x

← → ↻ GitHub, Inc. [US] | https://github.com/GDWG-GSICS/Plotting_tool/blob/master/CONTRIBUTING.md

This repository Search Pull requests Issues Marketplace Explore

GDWG-GSICS / Plotting_tool Watch 0 Star 0 Fork 0


<> Code Issues 0 Pull requests 0 Projects 0 Wiki Insights Settings

Branch: master Plotting_tool / CONTRIBUTING.md Find file Copy path

PabloBenedicto-EUMETSAT Nested lists fixed 0ef2e48 on 29 Jun

1 contributor

89 lines (78 sloc) 2.94 KB Raw Blame History


GSICS Plotting Tool

A web application that allows visualising the GSICS products stored in any GSICS server.

Introduction

This repository follows a centralised version control workflow. That is, each user contributing to the project clones the central remote repository to its local machine, performs the changes in its local working directory (performing local commits when needed), and finally pushes the commits back to the central remote repository (origin).

For this approach, all the users contributing to the central remote repository are added as collaborators with the same access rights as each other.

How to Contribute

1. Make sure git is installed in your computer.



Plotting Tool Project

[Contributing Guideline2]

Plotting_tool/CONTRIBU x gwt project : 네이버 블로그

← → ↻ GitHub, Inc. [US] | https://github.com/GDWG-GSICS/Plotting_tool/blob/master/CONTRIBUTING.md

How to Contribute

1. Make sure git is installed in your computer.
2. Clone this repository to your local one:

```
git clone https://github.com/GDWG-GSICS/Plotting_tool.git
```
3. Perform your changes, committing to your local repository after each change:
 - i. Add file for next commit (stage).

```
git add path/to/file.ext
```
 - ii. Remove file from next commit (unstage).

```
git reset path/to/file.ext
```
 - iii. Remove file and add removal to next commit (remove and stage removal).

```
git rm path/to/file.ext
```
 - iv. Check what is going to be included on next commit.

```
git status
git diff --staged
```
 - v. Check specific changes on a file.

```
git diff path/to/file.ext
```
 - vi. Revert changes.

```
git reset path/to/file.ext # if file has been already staged
git checkout -- path/to/file.ext
```
 - vii. Commit all staged changes.

```
git commit -m "<Commit comment>"
```
4. Build the project with ant



Plotting Tool Project

[Contributing Guideline3]

Plotting_tool/CONTRIBU x gwt project : 네이버 톨 x

← → ↻ GitHub, Inc. [US] | https://github.com/GDWG-GSICS/Plotting_tool/blob/master/CONTRIBUTING.md

viii. Commit on staged changes.

```
git commit -m "<Commit comment>"
```

4. Build the project with ant.

```
ant build
```

5. If build has been successful, test the application by deploying the resulting `plotter.war` into your tomcat server.

6. If test is successful, you can push your changes to the central remote repository:

- i. Check changes which are going to be pushed, and any possible conflicts with other contributors' changes.

```
git fetch origin
git diff origin/master
```

- ii. Solve the conflicts if any and commit modified files.
- iii. If there were other contributors' changes fetched, rebuild the project and retest (steps 4. and 5.).
- iv. Push your changes to the central remote repository.

```
git pull origin master
git push
```

How to Undo a contribution

In order to undo a specific commit already pushed to the central remote repository, follow these steps:

1. Get the commit id by running `git log`.
2. Revert the specific commit.

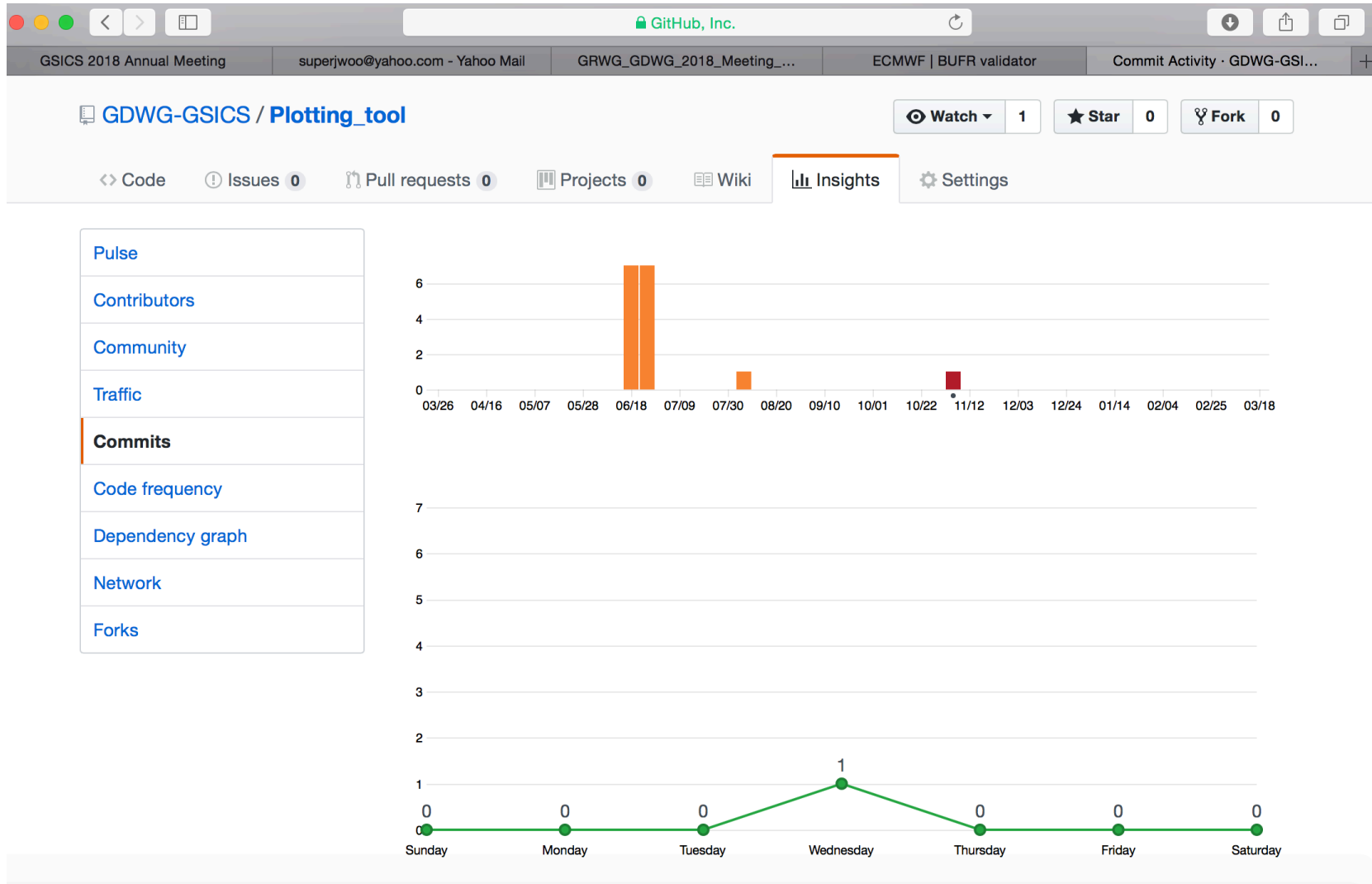
```
git revert <commit_id>
git commit -m "revert commit <commit_id>"
git push
```

This is the recommended way to revert commits as the history is not changed and reverts are added to it.



Plotting Tool Project

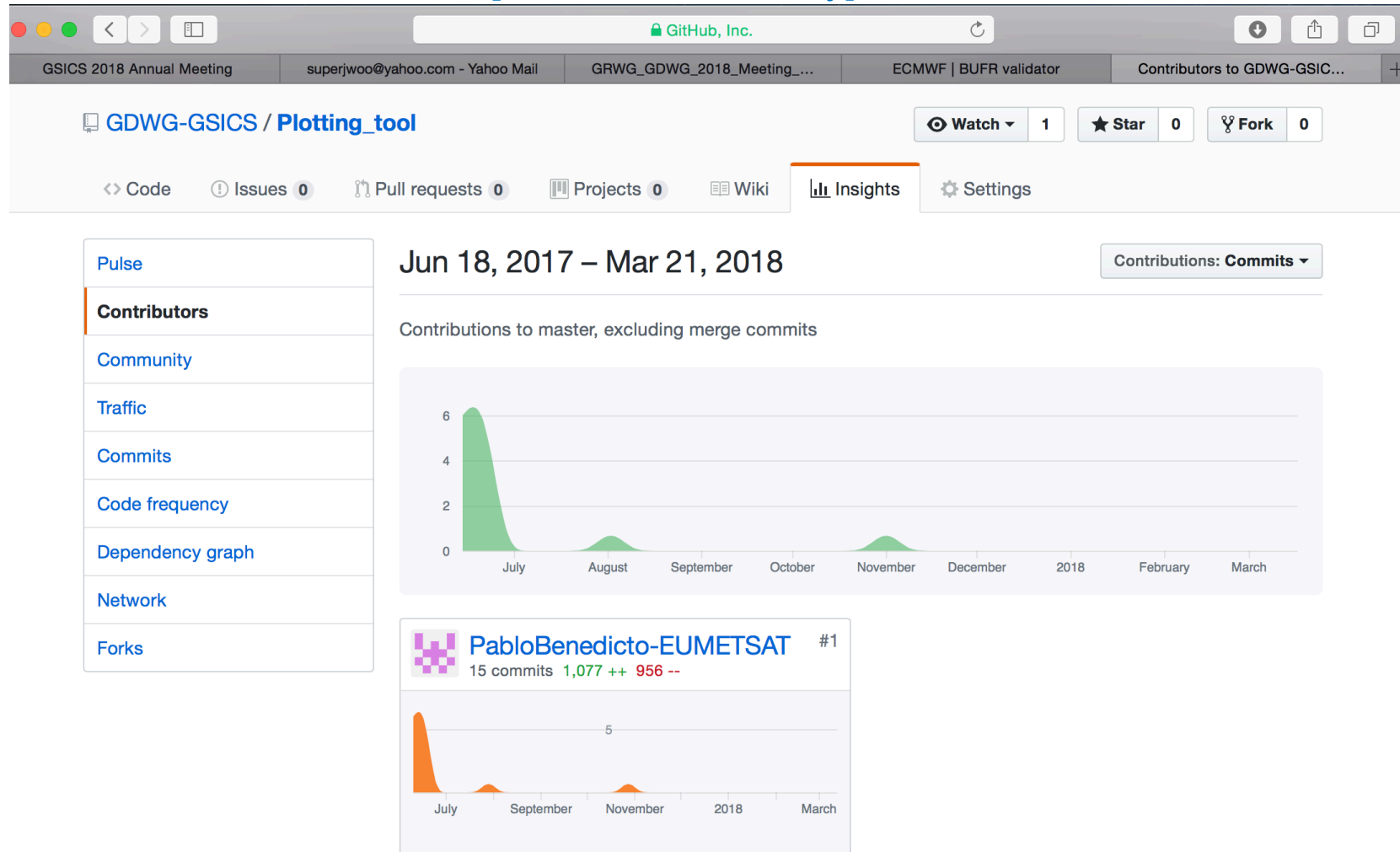
[Statistics of Activity]





Plotting Tool Project

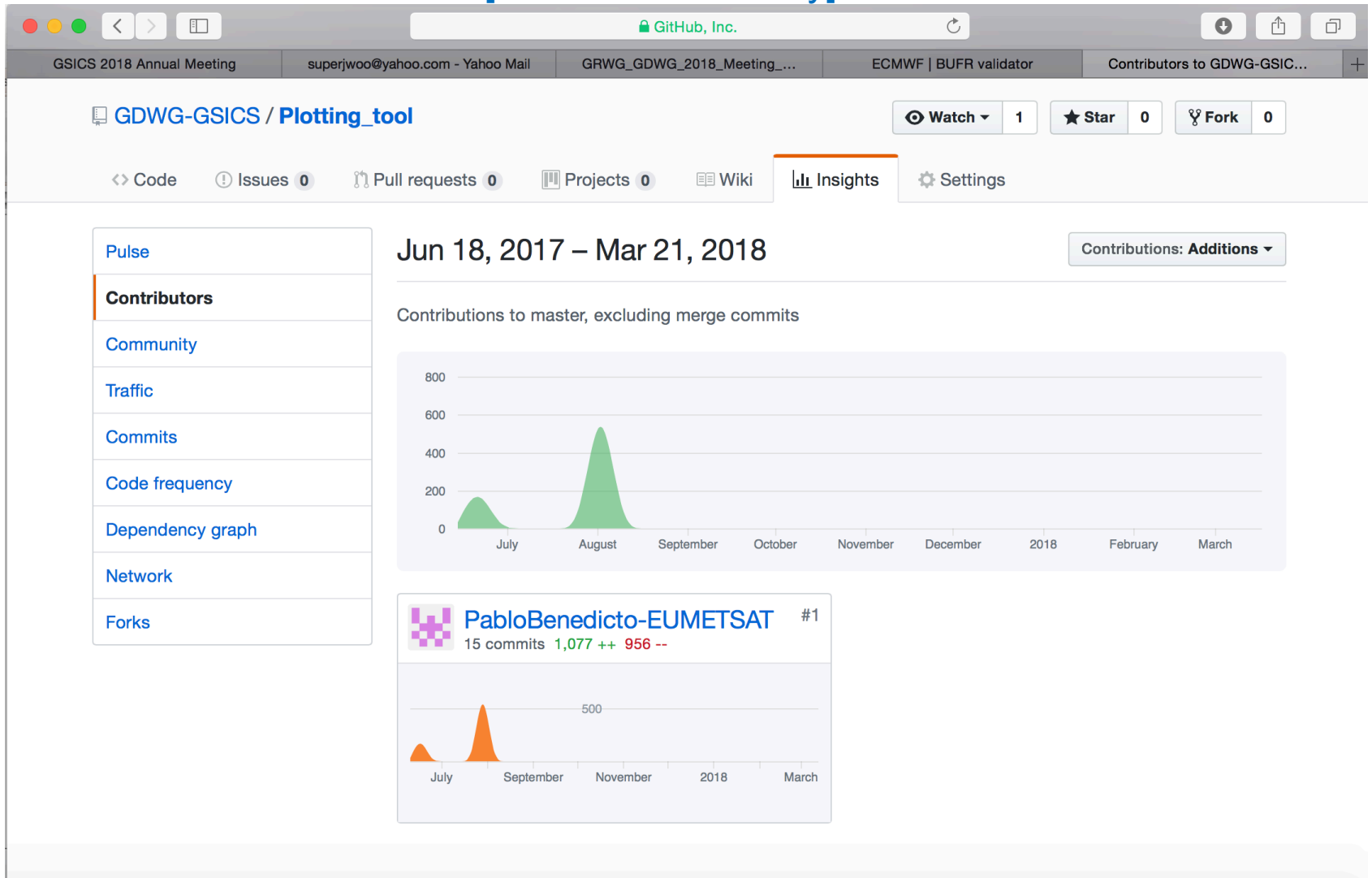
[Statistics of Activity]





Plotting Tool Project

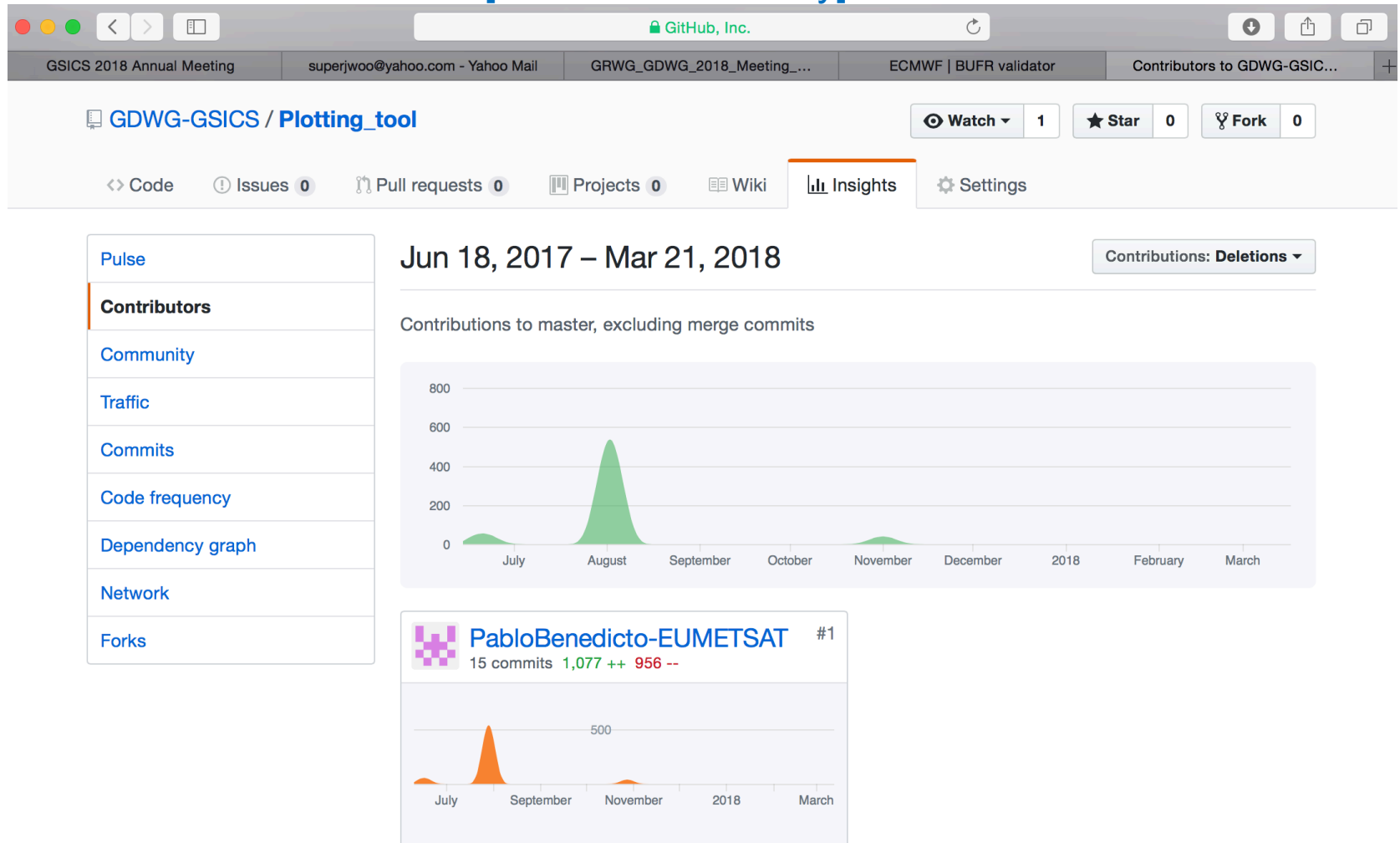
[Statistics of Activity]





Plotting Tool Project

[Statistics of Activity]





KMA's GitLab for contributing plotting tool

❖ Only for intranet user(security policy)

The screenshot shows a web browser window with the URL `http://15.238./users/sign_in`. The page title is "NMSC's GitLab Test Page". On the left, there is a large image of a satellite dish with "KMA" written on it. On the right, there is a sign-in form with the following fields and options:

- Sign in** (selected) / **Register**
- Username or email**:
- Password**:
- ☐ Remember me
- [Forgot your password?](#)
- Sign in** (button)

Below the form, there is a link: [Didn't receive a confirmation email? Request a new one.](#)

Below the image, there is Korean text:

NMSC GitLab 테스트 페이지에 오신것을 환영합니다.

처음 접속하신분은 우측 상단의 "Register"를 클릭하여 사용자 등록을 해주
시기 바랍니다.

공지사항 등은 좌측 하단의 "Explore" 클릭 후 나타나는 탭에서 "All"을 선택,
"Administrator/GitLabManagement" 프로젝트의 Wiki 게시판을 참고해 주
세요.

또한 문의 사항 및 여러분의 소중한 의견은 상기 프로젝트의 "Issues" 메뉴
를 통해 남겨주시거나, 구축 담당자(위성운영과 남민석, 내선:5771)에게 연
락해 주시면 감사하겠습니다.

At the bottom, there are links: [Explore](#) [Help](#) [About GitLab](#)



KMA's GitLab for contributing plotting tool

GDWG-GSICS/Plotting_tool

GitHub, Inc. [US] | https://github.com/GDWG-GSICS/Plotting_tool

This repository Search Pull requests Issues Marketplace Explore

GDWG-GSICS / Plotting_tool

Watch 0 Star 0 Fork 0

Code Issues 0 Pull requests 0 Projects 0 Wiki Insights Settings

Development of plotting tool Edit

Add topics

15 commits 1 branch 0 releases 1 contributor


Branches: master New pull request

Create new file Upload files Find file Clone or download

PabloBenedicto-EUMETSAT keySet changed to entrySet to avoid ConcurrentModificationExceptions

src	keySet changed to entrySet to avoid ConcurrentModificationExceptions	
test	'Variable' and 'Attribute' mocks made stubOnly to spare memory	
war	Initial commit	
CONTRIBUTING.md	Nested lists fixed	4 months ago
README.md	'How to install' and 'How to contribute' sections added	4 months ago
build.xml	- Most libraries updated to latest version (gwt, gwt, ...)	4 months ago
ivy.xml	- Most libraries updated to latest version (gwt, gwt, ...)	4 months ago
ivysettings.xml	- Most libraries updated to latest version (gwt, gwt, ...)	4 months ago

README.md


GSICS Plotting Tool

https://github.com/GDWG-GSICS/Plotting_tool/archive/master.zip

ation that allows visualising the GSICS products stored in any GSICS server.



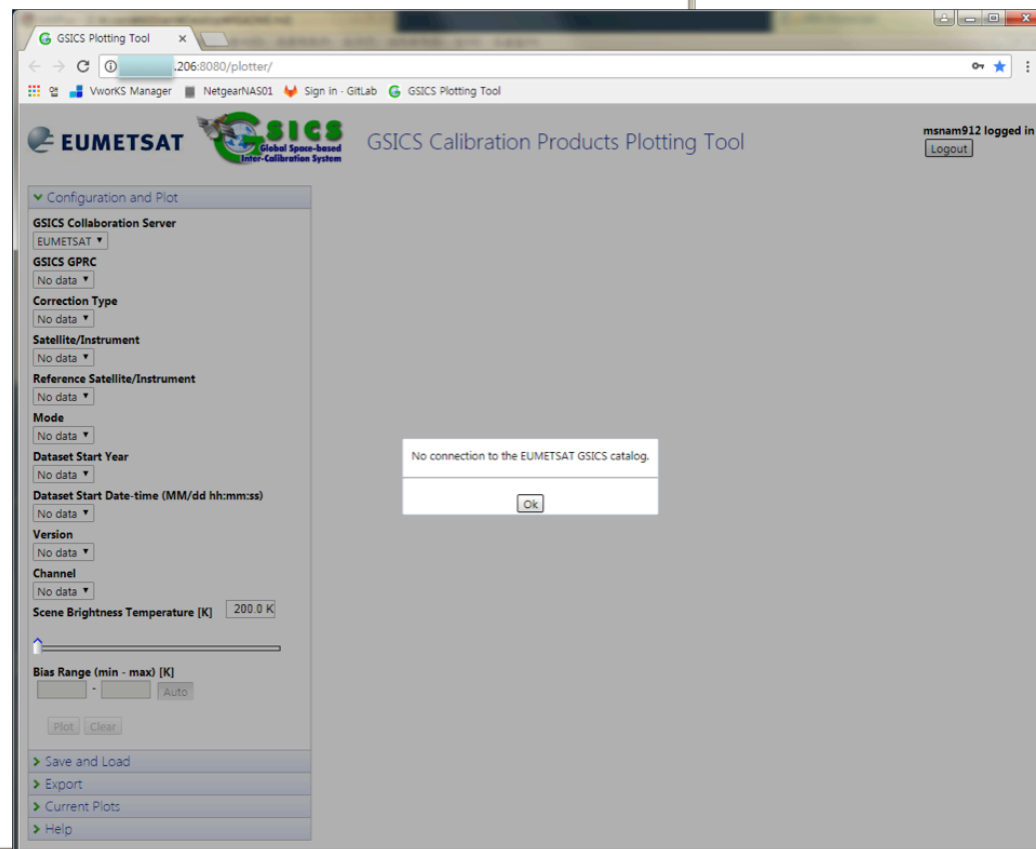
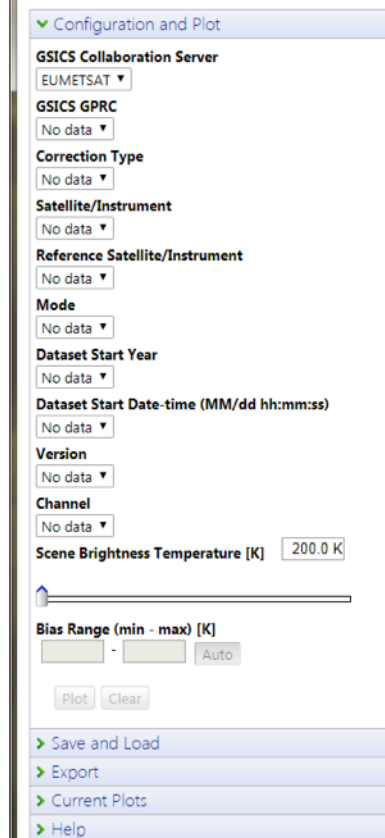
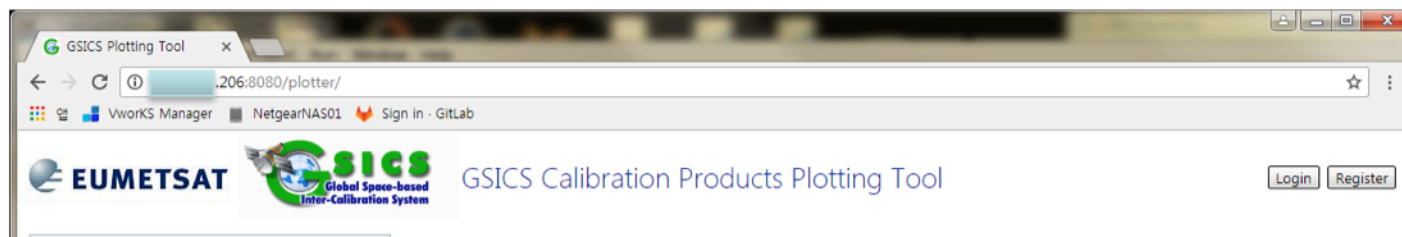
KMA's GitLab for contributing plotting tool

The screenshot shows the GitLab web interface for the project 'GSICS_plotting_tool'. The browser address bar shows the URL 'http://172.19.15.238/superjwoo/GSICS_plotting_tool'. The project page includes a search bar, navigation tabs (Project, Repository, Issues, Merge Requests, Pipelines, Wiki, Snippets, Settings), and a sub-navigation bar (Home, Activity, Cycle Analytics). The project name 'GSICS_plotting_tool' is displayed with its repository path 'GSICS_plotting_tool'. Below the project name, there are buttons for 'Star', 'Fork', and 'HTTP' (with the URL 'http://172.19.15.238/superjwoo/GSI'). There are also buttons for 'Add License' and 'Set up CI'. The file list shows the following files and their last commit details:

Name	Last commit	Last Update
src	Upload New File	about 4 hours ago
test	Add new directory	about 4 hours ago
war	Add new directory	about 4 hours ago
CONTRIBUTING.md	Upload New File	about 4 hours ago
README.md	Add readme.md	about 5 hours ago
README_o.md	Upload New File	about 4 hours ago
build.xml	Upload New File	about 4 hours ago
src.xml	Upload New File	about 4 hours ago



KMA's GitLab for contributing plotting tool





KMA's GitLab for contributing plotting tool

■ GSICS project registration in GitLab [November 7, 2017]

- ▷ http://xxx.xxx.xxx.238/superjwoo/GSICS_plotting_tool

■ Building Development Environment [~ing]

- ▷ Checking environments
- ▷ Open plotting tool web and Notice to internal user (2018)

■ Improvement Plotting Tool in KMA's internal development Environment

- ▷ Make user requirement
- ▷ Modify plotting tool



KMA's GSICS Actions

Action Ref	Description	State	Remark
A.GDWG.2017.5a.7	KMA to review NOAA website contents and update website reviewing slides	Closed	5b
A.GDWG.2017.5i.1	KMA to set up a GitHub project for GDWG activities and document how this is done such that another GPRC can take over the administration of the GitHub project.	Open	5h



End of Presentation: Thank you for your attention

WMO GSICS Portal

<http://gsics.wmo.int>

GSICS Coordination Centre -

<http://www.star.nesdis.noaa.gov/smcd/GCC/index.php>

GSICS Product Catalog -

<http://www.star.nesdis.noaa.gov/smcd/GCC/ProductCatalog.php>

EUMETSAT's Data and Management Server

<http://gsics.eumetsat.int>