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# **OSG Gratia Chrome App Documentation**

***Release 1***

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The OSG Usage App provides an interface into the [OSG](#)'s accounting system. It also features:

- Sharing of collections of graphs with other users.
- Refining of graphed data.

A great way to start using the OSG Usage App is to follow the *OSG Chrome App Tutorial*.

The code is hosted on [Github](#). As well as the [issue tracker](#).

Table of Contents:



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## OSG Chrome App Tutorial

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This tutorial will step you through running the Chrome App. The first step is installation.

### 1.1 Installing

To install the Chrome app, download it from the [Chrome App Store](#). The app is free, and should install quickly. Once it is installed, you can launch in one of two ways:

1. When opening a new tab, click the **Apps** button at the top. This will bring you to the Chrome application list, where you can find the newly installed OSG Usage Viewer application.

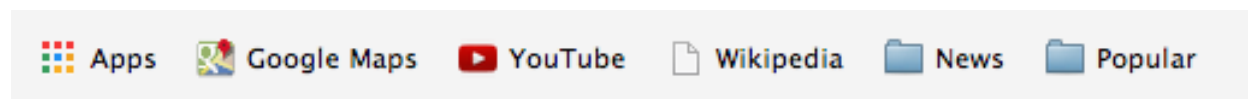


Figure 1.1: Chrome App Launcher in the top bar of a new tab page.

2. Using the [Chrome App Launcher](#), which is installed with Chrome on Mac and Windows.

### 1.2 Initial Setup

When you first start the App, it will show a dialog to pick a profile. This dialog shows a list of predefined profiles for you. Choose the one most appropriate for you. For example, if you are an OSG user, you would choose the *OSG User* profile. Or, if you are a *Resource Owner*, choose that profile. Further descriptions of the initial profiles are available on the *profiles page*.

After selecting a profile, enter a small amount of information required to restrict what the graphs will show. Below is an example for a Nebraska resource owner (administrator):

After you have entered the information, click the *Add* button. The graphs will load and you will be displayed with the main screen.

### 1.3 Refining the Graphs

Each graph can be edited by either changing the *Profile's* parameters, or each graph's individual parameters. We will continue with the previous example of being an administrator at Nebraska.

## Profile Setup

Available Templates:

Shared Profile

OSG User

Resource Owner

The Resource Owner template shows the resource usage of many users on a set of resources.

### Custom Attributes

#### Resources

Nebraska, red-gateway

A comma separated list of resources to include in the data. A topology of resources is available on [OIM](#).

Add

VO Manager

Figure 1.2: Profile showing Nebraska resources being entered.



Nebraska has many resources, but the graphs are only showing the usage from one of our clusters. We wish to add our other clusters to all of the graphs. We can change all of the graphs simultaneously by selecting the *Edit Graph Properties* button from the top navigation, under *Graph*.

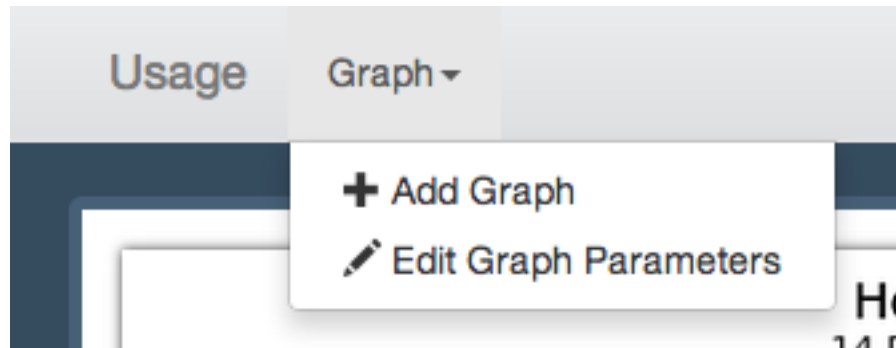


Figure 1.3: Graph dropdown for manipulating the profile's graphs.

In this dialog, we can add more clusters into the resources box. We add Crane and Tusker clusters.

**Resource**

Nebraska, red-gateway, Crane, Tusker

Figure 1.4: Graph edit dialog

Once you have finished, click *Refine*, or hit *Enter*. All of the graphs in the current profile will be refreshed with the new parameters.

## 1.4 Further Reading

You may use more advanced features of the App such as:

- *Adding new Graphs*
- *Adding new Profiles*
- *Sharing Profiles*
- *Embedding a Shared Profile*



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## Profiles

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A profile is a collection of graphs grouped together. A profile may define refining parameters which are applied to each of the graphs in the profile.

It is often useful to have multiple profiles that can show you different information. One profile could show usage over the last 2 weeks for the Nebraska resources. While another profile could show the usage over the last year of the HCC VO.

### 2.1 Template Profiles

Three template profiles are provided when the app first starts.

**OSG User** A profile meant for users of the OSG. Specifically, it is designed for Glidein users of the OSG, such as those using the OSG-XSEDE resource, or any of the other available glidein submission hosts. It can be filtered by User and/or Project.

**Resource Owner** Meant for owners of computational resources, this profile highlights who is running on the resources and how many hours are being consumed on the filtered resources. It can be filtered by Resource Name.

**VO Manager** Meant for the manager of a Virtual Organization (VO). This profile highlights the VO's usage. Both, who is using resources on behalf of the VO, and on what resources the VO is running. It can be filtered by VO name.

### 2.2 Adding new Profiles

To add a new profile, click on the profile dropdown in the top right of the navigation bar. Then, click on the *Create New* option.

The new profile dialog will appear, which will be the same as the first time you created a profile.

Enter the appropriate information for your new profile, or enter the URL for a *shared* profile.

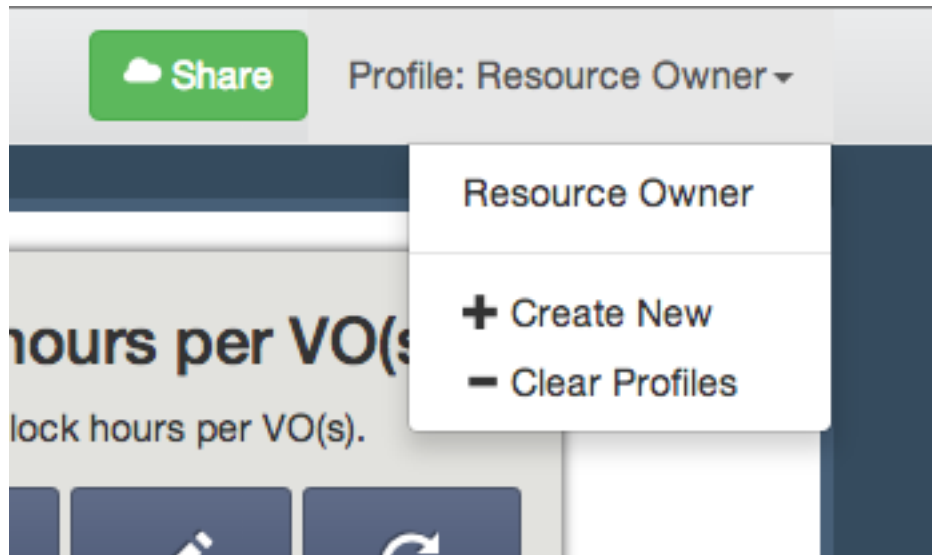


Figure 2.1: Dropdown box for profile creation.

### Profile Setup

**Available Templates:**

- Shared Profile
- OSG User
- Resource Owner

The Resource Owner template shows the resource usage of many users on a set of resources.

### Custom Attributes

**Resources**

Nebraska, red-gateway

A comma separated list of resources to include in the data. A topology of resources is available on [OIM](#).

**Add**

**VO Manager**

Figure 2.2: Profile showing Nebraska resources being entered.

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## Graphs

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Graphs are the heart of the OSG Usage App. You can add them, remove them, and refine the graph's displayed data.

### 3.1 Adding new Graphs

Adding a new graph is done in the graph dropdown box in the navigation bar.

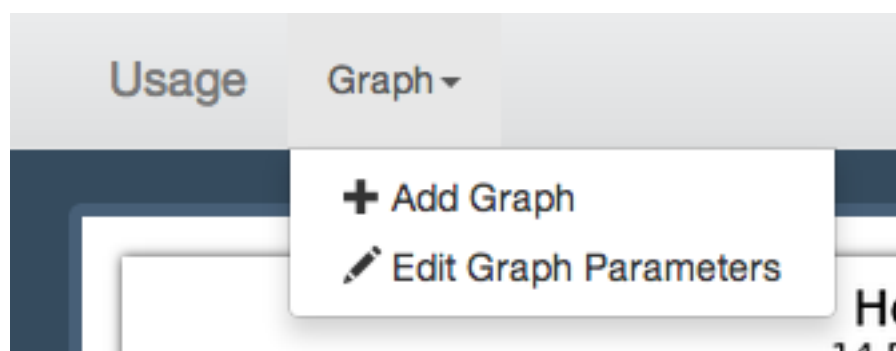


Figure 3.1: Graph dropdown box showing the *Add Graph* option.

After opening the dialog, enter the graph name and description. Both of these attributes are arbitrary and will be used only for display purposes.

The **Base Graph URL** refers to the URL of the graph from [gratiaweb](#). A list of available graphs are available in the [gratiaweb backpage](#). Select any of these graphs, then copy / paste the URL from the website into the **Base Graph URL**.

The App will parse the URL and determine if the graph can be retrieved. If it is successful, it will add the graph to the profile.

### 3.2 Get Links to Graphs

The links are intended to be used to directly view the Gratiaweb backend pages for the graph. The backend pages include many more parameters that can be configured than are built into the Chrome App.

## Add Graph

**Graph Name**

A name to be given to the graph

**Graph Description**

A description to be given for the graph

**Base Graph URL**

The base URL for the graph image. The URL should not include the query parameters, ie, `?vo=...`. An example of a valid baseURL is:  
[http://gratiaweb.grid.iu.edu/gratia/glidein\\_bar\\_graphs/glidein\\_dn\\_hours\\_bar](http://gratiaweb.grid.iu.edu/gratia/glidein_bar_graphs/glidein_dn_hours_bar)

Figure 3.2: Add graph dialog showing values filled in.

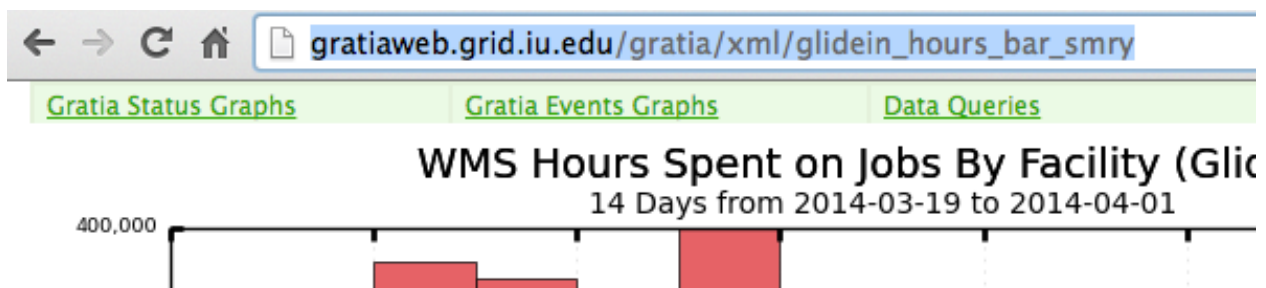


Figure 3.3: URL copy of the graph from gratiaweb.

**Warning:** Not all graphs will work with the share link. The backend page names do not always match with the image name, therefore the linked backend page is not always correct.





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## Sharing Profiles

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The OSG Usage App provides a service to share profiles (collections of graphs) with other users easily.

### 4.1 Sharing your Profile

The OSG Usage App has the ability to generate a link that can be used by others to load the profile. A simple web service stores the profiles when you click on the sharing link, and can be retrieved by others when creating a new profile.

After you have created a profile that you would like to share, click on the *Share* button in the top navigation bar. It will open a dialog to fill in attributes that you would like to assign to the profile, such as *Name* and *Description*.

Once you have entered these values, click on the share button. It will generate a URL that you can copy into an email, or IM, and can be used by another user to load the profile.

Profiles save everything, including:

- All graphs that are in the profile.
- The refine parameters for the profile and each graph.
- Any graphs that were *added* by you.

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**Note:** The remote user will not receive updates if you change a previously shared profile.

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### 4.2 Receiving a Shared Profile

In order to receive a shared profile, you need to be in the *Adding new Profiles* dialog. Once there, select the *Shared Profile* option, and paste the shared profile link you received into the text box.

Click the *Add* button to add the shared profile. It may take a second to load the shared profile.

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**Note:** You will not receive updates if the original sharer updates the profile. Further, any updates you make to the profile are local, and will not be propagated to other users.

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### 4.3 Embedding a Shared Profile

In the sharing dialog, you will notice the embed link. Use this link to embed a shared profile onto your own webpage.

## Share Profile

**Profile Name**

A name to use when sharing this profile

**Description**

A description to use when sharing this profile

### Shared URL's

**Share URL**

<https://osg-gratia-share.appspot.com/api/profile/1e4f3d7b16364f386e2fd9c394f623>

Copy this link and send it to others that you wish to share this profile.

**Embed URL**

```
<script src='https://osg-gratia-share.appspot.com/embed/profile/1e4f3d7b16364f386e2fd9c394f623'></script>
```

Insert this code to embed the profile in a webpage.

Close

Share

Figure 4.1: Sharing dialog with the sharing link selected.

### Available Templates:

**Shared Profile**

A shared profile URL

### Custom Attributes

**Sharing URL**

<file/caf33a644286e8b1f52ff887d3346a1abcf668cab04c68f2f584566f65fbc21>

A URL generated from sharing a profile.

Add

Figure 4.2: Receiving sharing profile creation.

To embed the profile, you need to:

1. Create a profile in the app.
2. Share the profile using the *Share* button.
3. Copy the embed link from the resulting dialog.
4. Paste that link into the HTML of the webpage which you wish to display the profile.

The profile, with all it's graphs and refinements, will be embedded into the webpage.



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## Developer Documentation

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### 5.1 Frameworks

- [AngularJS](#)
- [Bootstrap](#)
- [UI Bootstrap](#) (Bootstrap written for AngularJS)

### 5.2 Data Structures

### 5.3 Built-in Data

### 5.4 Sharing Framework

The sharing framework is hosted on [Google App Engine](#). It provides a REST / JSON interface to store and retrieve profiles.