# Scientific Computing Without the Command Line: Enabling Any HPC Code to Run Anywhere through a Web Interface with the Agave API

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https://togo.agaveplatform.org

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- If you want a tutorial for your group, etc. just call and we'll set it up

# What is a Science Gateway?

Normally, it means a web interface used to run a complex scientific application on a high performance computer.

Designing a GUI or web interface to resources and making it robust is a long complex process that can take many hours.

Today we are going to learn how to make a science gateway from your application in an hour!

More formally:

https://www.xsede.org/gateways-overview

.

# What is Agave?

- The Agave Platform ( LINK: http://agaveplatform.org) is an open source, science-as-a-service API platform for powering your digital lab.

- Agave allows you to bring together your public, private and shared high performance computing (HPC), high throughput computing (HTC), cloud and Big Data resources under a single friendly REST API

# How does Agave work

Under the hood, Agave works by using a REST api and JSON to format data.

What do the words JSON and REST mean?
1 What is JSON? JSON (JavaScript Object Notation) is a lightweight data-interchange format. It is easy for humans to read and write. It is easy for machines to parse and generate.

2 What is REST?  REST stands for REpresentational State Transfer.  REST is a stateless, cacheable, uniform way of using URL's to communicate between a client and server.

# What Capabilities does Agave provide?

- Run code

- Manage data

- Collaborate meaningfully

- Integrate anywhere

- Provenance chain

# https://togo.agaveplatform.org

- This is the URI you will use after the tutorial is over

- To use this you must have an Agave account and an HPC account

Everything on this screen if you were to create it from scratch would be a HUGE job requiring hours of coding.  With ToGo your Gateway's users can login securely and get to work
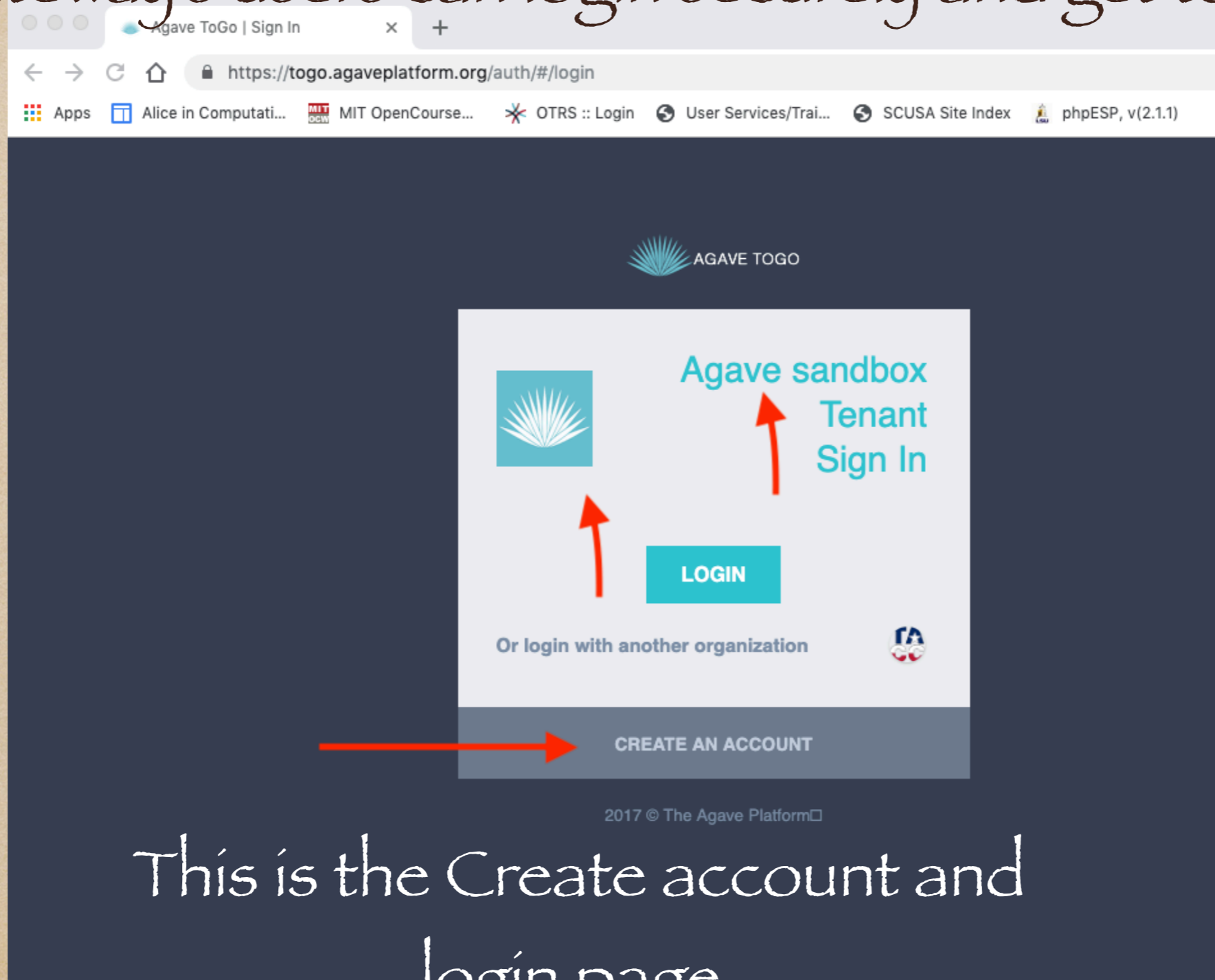


This is the Create account and login page.

# Finish Agave Account

- Finish creating your account by filling in required information and submitting

- Go to the email app you use for the email address you gave Agave and click on the link to verify and activate your account.

# Setup HPC Account

- Already have an XSEDE or other supercomputer center (HPC) account?  You are set.

- No HPC account?  You must get one before you can proceed.  Ask your group leader, major professor or other researchers around you where to get your account.  HPC account:  https://accounts.hpc.lsu.edu/login_request.php

- After acquiring your account and password you are ready to go.

# Get the code and wrapper files

- To follow along with this tutorial you need several files. These files will be downloaded from my web page in the following slides.

  - input.txt        (input parameter file)

  - drawgau.cpp   (source code)

  - drawgau-wrapper (batch file script to run the job)

```bash
#!/bin/bash
echo 'Executing Draw Gau Code'
# Setting the x flag will echo every
# command onto stderr. This is
# for debugging, so we can see what's
# going on.
set -x
echo ==ENV=============
# The env command prints out the
# entire execution environment. This
# is also present for debugging purposes.
env > env.txt
echo ==PWD=============
# We also print out the execution
# directory. Again, for debugging purposes.
pwd > pwd.txt
echo ==JOB=============
EXE_DIR=/home/$USER/agave-deployment
if [ "${PBS_NODEFILE}" = "" ]
then
  # When running on a system managed by Torque
  # this variable should be set. If it's not,
  # that's a problem.
  echo "The PBS_NODEFILE was not set"
  exit 2
fi
# Strip off the .par from the end of the parfile name.
# Create a directory with the name of the parfile.
```

```
# More debugging.
echo PARFILE=$parfile
echo NODEFILE=$PBS_NODEFILE

# By default, the PBS_NODEFILE lists nodes multiple
# times, once for each MPI process that should run
# there. We only want one MPI process per node, so
# we create a new file with "sort -u".
LOCAL_NODEFILE=nodefile.txt
sort -u < ${PBS_NODEFILE} > ${LOCAL_NODEFILE}
PROCS=$(wc -l < ${LOCAL_NODEFILE})

echo "${xmin} ${xmax} ${deltax}" > input.txt

# Execute our MPI command.
mpirun -np ${PROCS} -machinefile ${LOCAL_NODEFILE} ${EXE_DIR}/drawgau input.txt

# Create a plot
python ./drawgau.py drawgau[0-9]*.txt
[ktraxler@sheloh1 ~]$
```

# Get Files

* You need the files and the best way to get them is:

  * log into your personal hpc account and type the following statements:

    * curl -LO https://cct.lsu.edu/~sbrandt/agave-deployment.tgz

    * tar xzvf agave-deployment.tgz

    * cd agave-deployment

    * make

# Setup Agave Storage and Execution Systems

The right side of the dashboard.
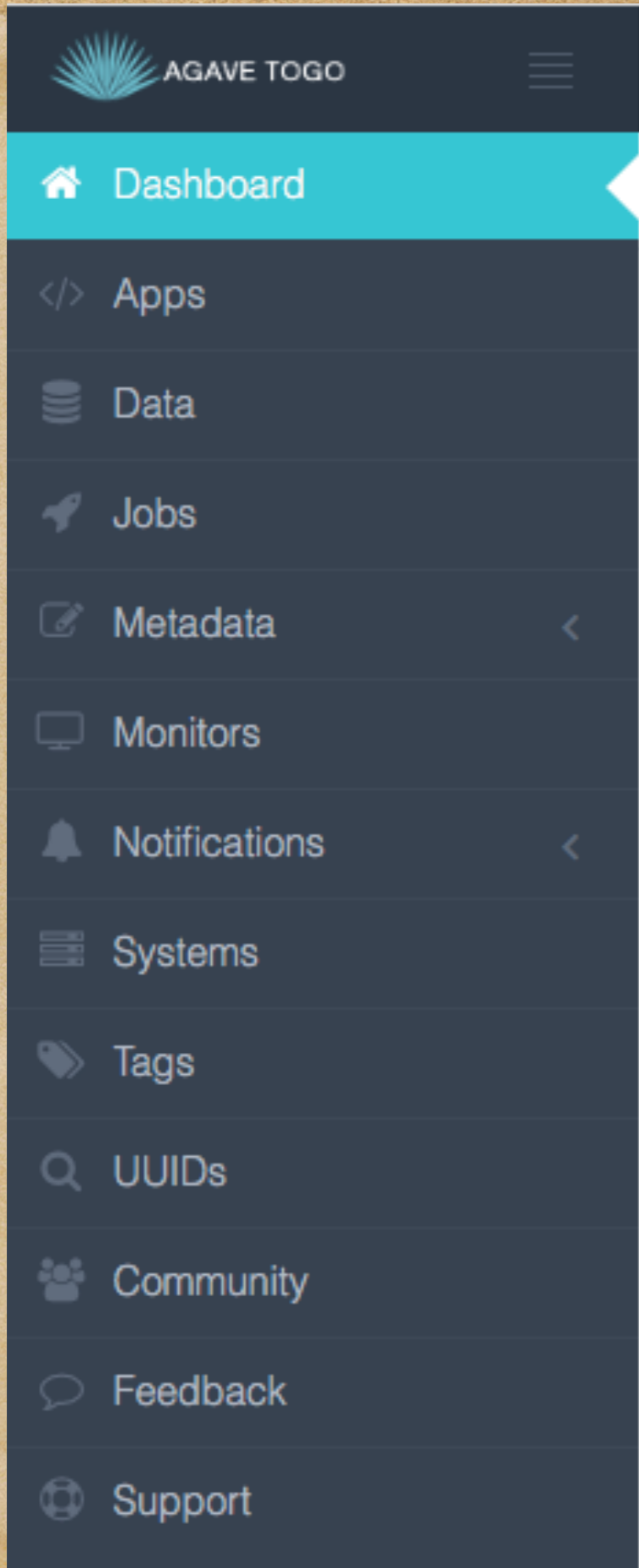
The left side of the dashboard

This is where we will do our work!

# Create the Systems Needed

- We will first create the Storage System description

- Then create the Execution System description

- Use the Dashboard and choose the Systems item
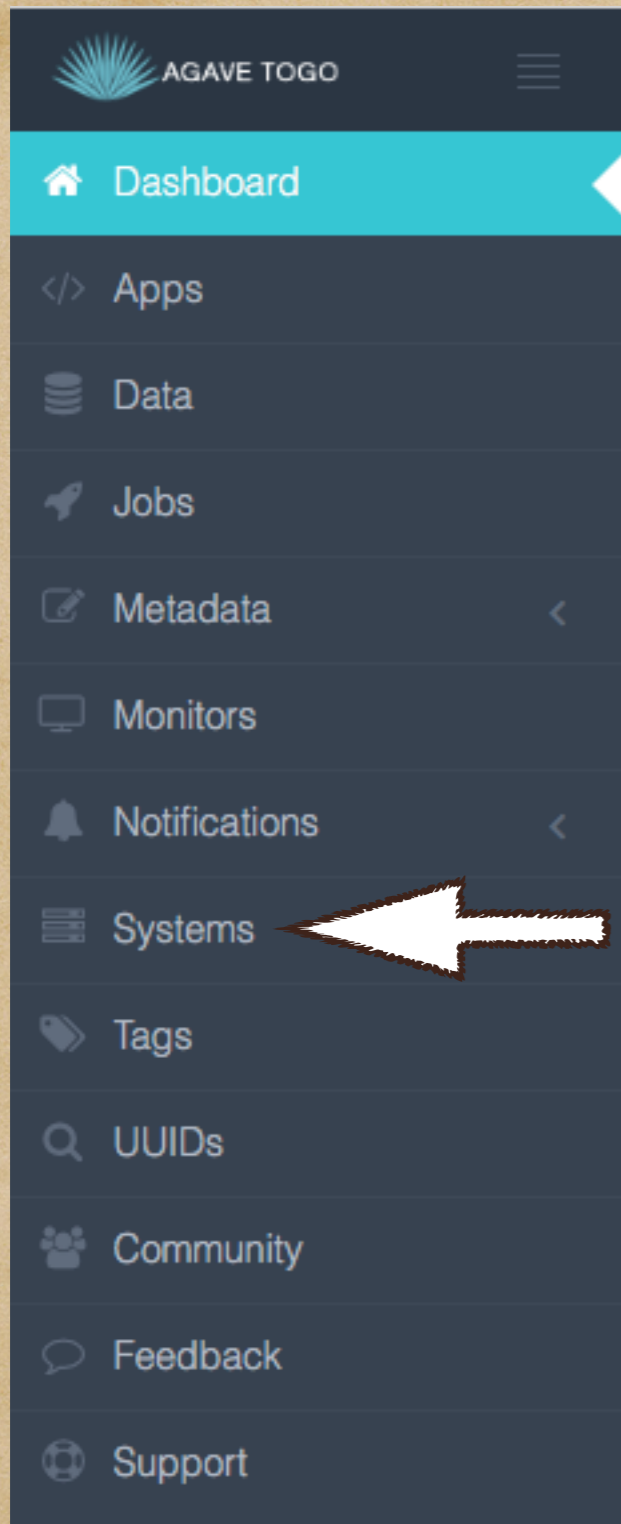
The left side of the dashboard

Click on the "Systems" link

This will take you to the page where you will create your execution and storage systems

Agave ToGo | Login Success    Agave ToGo | Systems Manager    My Library | Audible.com

**AGAVE TOGO**

- Dashboard
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- Notifications
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- Tags
- UUIDs
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- Feedback
- Support

Home • Systems

# Systems Manage your collection of systems

## System Management

**+ New System**

Filter

**Q Search Tools**

| ID ▾ | Name | Type | Actions |
|------|------|------|---------|
| condor.opensciencegrid.org | Open Science Grid | EXECUTION | Actions ⌄ |
| data.agaveapi.co | Agave Cloud Storage | STORAGE | Actions ⌄ |
| docker.tacc.utexas.edu | Demo Docker VM | EXECUTION | Actions ⌄ |
| ktraxler-qb | QB at LONI | EXECUTION | Actions ⌄ |
| qb-ktraxler | qb (ktraxler) | EXECUTION | Actions ⌄ |
| qb-storage-ktraxler | qb storage (ktraxler) | STORAGE | Actions ⌄ |
| shelob-sbrandt | Shelob LSU (sbrandt) | EXECUTION | Actions ⌄ |

Agave ToGo | Login Success    Agave ToGo | System Builder Wizard    My Library | Audible.com

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## System Builder Wizard

You can re-use an existing System definition template and provide your own ID, Name and Auth:

### SYSTEM BUILDER WIZARD - STEP 1 OF 3

Form    Code    Split

① Type    ② Details    ③ Connectivity

```
1  {
2    "type": "STORAGE",
3    "storage": {
4      "protocol": "SFTP",
5      "proxyTunnel": "NO"
6    }
7  }
```

**Select System Type**

STORAGE    ❓

Previous    Next    Submit

Back to Systems

Click on menu and choose storage for your system.

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System Editor Wizard

## ☰ SYSTEM EDITOR WIZARD - STEP 2 OF 2

[Form] [Code] [Split]

(1) — (2) — (3)

Type      Details      Connectivity

**ID**
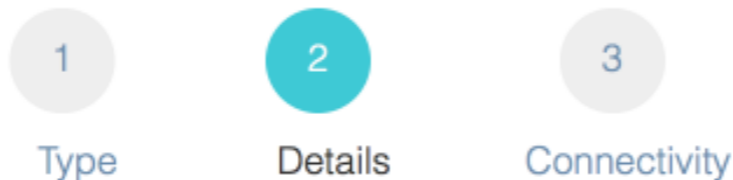
shelob-storage-hpctrn20  ✓    ❓

**Name**

Shelob at LSU  ✓    ❓

**Status**

UP  ⬍    ❓

**Description**

The Shelob supercompu  ✓    ❓

**Site**

hpc.lsu.edu  ✓    ❓

[Previous]          [Next]  [Submit]

```
 1  {
 2    "owner": "ktraxler",
 3    "available": true,
 4    "description": "The Shelob
    supercomputer at LSU",
 5    "storage": {
 6      "proxy": null,
 7      "protocol": "SFTP",
 8      "mirror": false,
 9      "port": 22,
10      "auth": {
11        "type": "PASSWORD"
12      },
13      "publicAppsDir": null,
14      "host": "shelob.hpc.lsu.edu",
15      "rootDir": "/",
16      "homeDir": "/home/hpctrn20",
17      "proxyTunnel": "NO"
```

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## ⊗ SYSTEM EDITOR WIZARD - STEP 3 OF 2

Form   Code   Split

**1** Type    **2** Details    **3** Connectivity

### Storage

**Protocol**

SFTP   ❓

**Host**

shelob.hpc.lsu.edu ✔   ❓

**System Auth Server Port**

22 ✔   ❓

**Root Directory**

/ ✔   ❓

**Home Directory**

/home/hpctrn20 ✔   ❓

**Proxy Tunnel**

NO   ❓

```
1   {
2     "owner": "ktraxler",
3     "available": true,
4     "description": "The Shelob
      supercomputer at LSU",
5     "storage": {
6       "proxy": null,
7       "protocol": "SFTP",
8       "mirror": false,
9       "port": 22,
10      "auth": {
11        "type": "PASSWORD",
12        "username": "ktraxler",
13        "password":
        "#SSdalejr#88amp2017"
14      },
15      "publicAppsDir": null,
16      "host": "shelob.hpc.lsu.edu",
17      "rootDir": "/",
18      "homeDir": "/home/hpctrn20",
19      "proxyTunnel": "NO"
20    },
21    "type": "STORAGE",
22    "site": "hpc.lsu.edu",
23    "default": false,
24    "public": false,
25    "globalDefault": false,
26    "name": "Shelob at LSU",
27    "id": "shelob-storage-hpctrn20",
28    "status": "UP"
29  }
```

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**AGAVE TOGO**

## System Auth Server Port

```
22
```

## Root Directory

```
/
```

## Home Directory

```
/home/hpctrn20
```

## Proxy Tunnel

```
NO
```

## Storage Authentication

### Type

```
PASSWORD
```

### Username

```
hpctrn20
```

### Password

```
••••••••••••••
```

Previous          Next     Submit

```
20        },
21        "type": "STORAGE",
22        "site": "hpc.lsu.edu",
23        "default": false,
24        "public": false,
25        "globalDefault": false,
26        "name": "Shelob at LSU",
27        "id": "shelob-storage-hpctrn20",
28        "status": "UP"
29  }
```

Back to Systems     Use Definition

Agave ToGo | Login Success          Agave ToGo | System Editor Wizard          Kindle Cloud Reader          +

AGAVE TOGO

# System Builder Wizard

**You have successfully created your system**

| | |
|---|---|
| ID | shelob-storage-hpctrn20 |
| Name | Shelob at LSU |
| Status | UP |
| Type | STORAGE |
| Description | The Shelob supercomputer at LSU |

Close          Browse Systems

Previous          Next          Submit

Back to Systems          Use Definition

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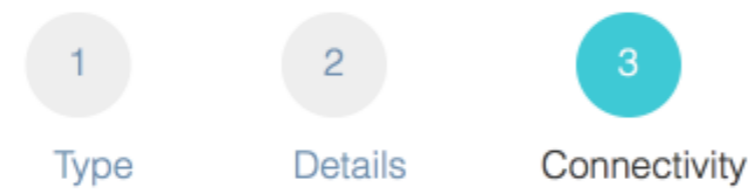Agave ToGo | Login Success    Agave ToGo | File Explorer    Kindle Cloud Reader    +

## AGAVE TOGO

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Home    Data Explorer

QUICK ACTIONS ⌄

# File Browser

Shelob at LSU : /                                   + CREATE FOLDER    ⬆ U

| | Name ▼ | Size | Date |
|---|---|---|---|
| ☐ | 📁 .gnome2 | 4KB | 3 days ago |
| ☐ | 📁 .mozilla | 4KB | 3 days ago |
| ☐ | 📁 .pki | 4KB | 8 hours ago |
| ☐ | 📁 .ssh | 4KB | 9 hours ago |
| ☐ | 📁 .subversion | 4KB | 3 days ago |
| ☐ | 📁 agave-deployment | 4KB | 2 hours ago |
| ☐ | 📁 drawgau | 4KB | 7 hours ago |
| ☐ | 📄 .bash_history | 28.1KB | a few seconds ago |
| ☐ | 📄 .bash_history3 | 364B | 6 hours ago |
| ☐ | 📄 .bash_logout | 18B | 3 days ago |
| ☐ | 📄 .bash_profile | 176B | 3 days ago |
| ☐ | 📄 .bashrc | 124B | 3 days ago |
| ☐ | 📄 .emacs | 500B | 3 days ago |

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# Systems Manage your collection of systems

## ☰ System Management

**+ New System**

▼ Filter

🔍 Search Tools

| ID ▼ | Name | Type | Actions |
|---|---|---|---|
| condor.opensciencegrid.org | Open Science Grid | EXECUTION | Actions ⌄ |
| data.agaveapi.co | Agave Cloud Storage | STORAGE | Actions ⌄ |
| docker.tacc.utexas.edu | Demo Docker VM | EXECUTION | Actions ⌄ |
| ktraxler-qb | QB at LONI | EXECUTION | Actions ⌄ |
| qb-ktraxler | qb (ktraxler) | EXECUTION | Actions ⌄ |
| qb-storage-ktraxler | qb storage (ktraxler) | STORAGE | Actions ⌄ |
| shelob-sbrandt | Shelob LSU (sbrandt) | EXECUTION | Actions ⌄ |

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AGAVE TOGO

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# System Builder Wizard

You can re-use an existing System definition template and provide your own ID, Name and Auth:

## ⬙ SYSTEM BUILDER WIZARD - STEP 1 OF 3

Form   Code   Split

1 — Type

2 — Details

3 — Connectivity

Select System Type

EXECUTION

```
1  {
2    "type": "EXECUTION",
3    "storage": {
4      "protocol": "SFTP",
5      "proxyTunnel": "NO"
6    },
7    "queues": [
8      {
9        "default": false
10     }
11   ]
12 }
```

Previous    Next    Submit

Back to Systems

Choose Execution this time

Metadata

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| 1 | 2 | 3 |
|---|---|---|
| Type | Details | Connectivity |

**ID**

shelob-execu-hpctrn20 ✓  ?

**Name**

Shelob supercomputer at ✓  ?

**Status**

UP  ?

**Description**

Shelob supercomputer at ✓  ?

**Site**

hpc.lsu.edu ✓  ?

**Execution Type**

HPC  ?

**Scheduler**

TORQUE  ?

**Maximum System Jobs**

```
1  {
2    "maxSystemJobs": 50,
3    "executionType": "HPC",
4    "available": true,
5    "description": "Shelob
   supercomputer at LSU",
6    "storage": {
7      "proxy": null,
8      "protocol": "SFTP",
9      "mirror": false,
10     "port": 10,
11     "auth": {
12       "type": "PASSWORD"
13     },
14     "host": "shelob.hpc.lsu.edu",
15     "rootDir": "/",
16     "homeDir": "/home/hpctrn20",
17     "proxyTunnel": "NO"
18   },
```

AGAVE TOGO

## Scheduler

TORQUE ⬍          ❓

## Maximum System Jobs

50 ✔ ⬍          ❓

## Scratch Directory

/work/hpctrn20/ ✔          ❓

## Work Directory

/work/hpctrn20/ ✔          ❓

## Environment

❓

## Startup Script

❓

## Queues

❓

### Name ✕

shelob ✔

Arbitrary name for the queue. This will be used in the job submission process, so it should line up with the name of an actual queue on the execution system

### Maximum Jobs

20 ✔ ⬍

AGAVE TOGO

## Queues

### Name                                          ×

shelob                                          ✔

Arbitrary name for the
queue. This will be used in
the job submission process,
so it should line up with the
name of an actual queue on
the execution system

### Maximum Jobs

20                                              ✔

Maximum number of jobs
that can be queued or
running within this queue at
a given time. Defaults to 10.
-1 for no limit

### Maximum Nodes

203                                             ✔

Maximum number of nodes
that can be requested for
any job in this queue. -1 for
no limit

### Maximum Memory Per Node

64GB                                            ✔

Maximum memory per node
for jobs submitted to this
queue in ###.#[E|P|T|G]B
format

### Maximum Processors Per
Node

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AGAVE TOGO

**Maximum Memory Per Node**

64GB ✔

Maximum memory per node for jobs submitted to this queue in ###.#[E|P|T|G]B format

**Maximum Processors Per Node** ✔

16

Maximum number of processors per node that can be requested for any job in this queue. -1 for no limit

**Maximum Requested Time**

72:00:00 ✔

Maximum run time for any job in this queue given in hh:mm:ss format

**Custom directive**

Arbitrary text that will be appended to the end of the scheduler directives in a batch submit script. This could include a project number, system-specific directives, etc

**Default**

True if this is the default queue for the system, false

# Type following lines into the "Custom Directives" box

## Table 1

| | | |
|---|---|---|
| #PBS | -A | hpc_cmr (your allocation) |
| #PBS | -q | checkpt |
| #PBS | -l | nodes=${AGAVE_JOB_NODE_COUNT}:ppn=16 |

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can be requested for any job in this queue. -1 for no limit

Maximum Requested Time

72:00:00  ✔

Maximum run time for any job in this queue given in hh:mm:ss format

Custom directive

Arbitrary text that will be appended to the end of the scheduler directives in a batch submit script. This could include a project number, system-specific directives, etc

☐ Default

True if this is the default queue for the system, false otherwise

+ Add

Previous                Next    Submit

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## Login Authentication

**Type**

PASSWORD ⇅   ❓

**Username**

hpctrn20 ✔   ❓

**Password**

•••••••••••••• ✔   ❓

## Storage

**Protocol**

SFTP ⇅   ❓

**Host**

shelob.hpc.lsu.edu ✔   ❓

**System Auth Server Port**

10 ✔⇅   ❓

**Root Directory**

/ ✔   ❓

**Home Directory**

/home/hpctrn20 ✔   ❓

**Proxy Tunnel**

NO ⇅   ❓

27      type · PASSWORD ,
28        "username": "hpctrn20",
29        "password": "f=ma&one23four"
30      },
31      "host": "shelob.hpc.lsu.edu",
32      "proxyTunnel": "NO"
33    },
34    "startupScript": null,
35    "scheduler": "TORQUE",
36    "default": false,
37    "public": false,
38    "maxSystemJobsPerUser": 10,
39    "id": "shelob-execu-hpctrn20",
40    "workDir": "/work/hpctrn20/",
41    "owner": "ktraxler",
42    "site": "hpc.lsu.edu",
43    "environment": "",
44    "queues": [
45      {
46        "maxJobs": 20,
47        "maxMemoryPerNode": "64GB",
48        "default": false,
49        "maxRequestedTime": "72:00:00",
50        "name": "shelob",
51        "description": null,
52        "maxNodes": 203,
53        "maxProcessorsPerNode": 16,
54        "mappedName": null,
55        "maxUserJobs": -1,
56        "customDirectives": null
57      }
58    ],
59    "globalDefault": false,
60    "name": "Shelob supercomputer at
LSU",
61    "status": "UP",
62    "scratchDir": "/work/hpctrn20/"
63 }

## System Auth Server Port

```
10
```

## Root Directory

```
/
```

## Home Directory

```
/home/hpctrn20
```

## Proxy Tunnel

```
NO
```

## Storage Authentication

### Type

```
PASSWORD
```

### Username

```
hpctrn20
```

### Password

```
••••••••••••••
```

Previous    Next    Submit

```
52      "maxNodes": 203,
53      "maxProcessorsPerNode": 16,
54      "mappedName": null,
55      "maxUserJobs": -1,
56      "customDirectives": null
57    }
58  ],
59  "globalDefault": false,
60  "name": "Shelob supercomputer at
LSU",
61  "status": "UP",
62  "scratchDir": "/work/hpctrn20/"
63 }
```

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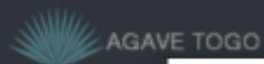
# System Builder Wizard

**You have successfully created/updated your system**

| | |
|---|---|
| ID | shelob-execu-hpctrn20 |
| Name | Shelob supercomputer at LSU |
| Status | UP |
| Type | EXECUTION |
| Description | Shelob supercomputer at LSU |

Close    Browse Files    Create App

Username

hpctrn20    ✓    ❓

Password

••••••••••••    ✓    ❓

Previous          Next    Submit

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## AGAVE TOGO

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Home  ●  Data Explorer

Quick Actions ⌄

# File Browser

⚙

**Shelob at LSU : /**

**+ Create folder**

| | Name ▼ | Size | Date |
|---|---|---|---|
| ☐ | 📁 .gnome2 | 4KB | 3 days ago |
| ☐ | 📁 .mozilla | 4KB | 3 days ago |
| ☐ | 📁 .pki | 4KB | 8 hours ago |
| ☐ | 📁 .ssh | 4KB | 9 hours ago |
| ☐ | 📁 .subversion | 4KB | 3 days ago |
| ☐ | 📁 agave-deployment | 4KB | 2 hours ago |
| ☐ | 📁 drawgau | 4KB | 7 hours ago |
| ☐ | 📄 .bash_history | 28.5KB | a few seconds ago |
| ☐ | 📄 .bash_history3 | 364B | 7 hours ago |
| ☐ | 📄 .bash_logout | 18B | 3 days ago |
| ☐ | 📄 .bash_profile | 176B | 3 days ago |
| ☐ | 📄 .bashrc | 124B | 3 days ago |
| ☐ | 📄 .emacs | 500B | 3 days ago |

# Create an Agave App

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AGAVE TOGO

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| ID | Name | Version | Label | Short Description | Exec. System | Public | Revision | Last Modified ▲ | Actions |
|----|------|---------|-------|------------------|--------------|--------|----------|-----------------|---------|
| drawgau-ktraxler-0.1.0 | drawgau-ktraxler | 0.1.0 | draw curve | gaussian curve | qb-exec-ktraxler | false | 1 | 2 days ago | Actions ˅ |
| shell-runner-0.1.0 | shell-runner | 0.1.0 | Execute a command at a shell | This will execute whatever command you give in the command parameter | qb-exec-ktraxler | false | 4 | 2 days ago | Actions ˅ |
| cloud-runner-0.1.0u1 | cloud-runner | 0.1.0 | Run your code in the cloud | Generic template for running arbitrary code in Agave's Dockerized cloud. | docker.tacc.utexas.edu | true | 1 | 5 months ago | Actions ˅ |
| jfonner-fork-1.0 | jfonner-fork | 1.0 | Remote command execution script | Simple app for running a user-defined command on a remote system | stampede-fonner | false | 1 | 5 months ago | Actions ˅ |
| cactus- | cactus- | 1.0 | Cactus | Solves PDEs | shelob- | false | 3 | 5 months | Actions ˅ |

● ● ●  ◁ ▷  ⊞  |  ⬡  🔒 togo.agaveapi.co/app/#/apps/new  ⟳  |  ⬇ ⬆ ⧉

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# App Builder Wizard                                                     ⚙

You can re-use an existing App definition template and provide your own Name and Dependencies:

[                                                                    ▼ ]

## ≋ APP BUILDER WIZARD - STEP 1 OF 6                    ( Form ) ( Code ) ( Split )

( 1 )        ( 2 )           ( 3 )          ( 4 )
Basics    Dependencies   Environment    Parameters

▨▨▨▨

### Name

[ shell-runner                                              ✔ ]

The name of the application. The name does not have to be unique,
but the combination of name and version does.

### Version

[ 0.1.0                                                     ✔ ]

The version of the application in #.#.# format. While the version does
not need to be unique, the combination of name and version does
have to be unique.

### Label

[ Execute a command at a shell                              ✔ ]

Label for use in forms generated by the jobs service

```
 1  {
 2    "name": "shell-runner",
 3    "version": "0.1.0",
 4    "helpURI": "http://developer.agaveapi.co/",
 5    "label": "Execute a command at a shell",
 6    "defaultNodeCount": 1,
 7    "defaultMaxRunTime": "01:00:00",
 8    "shortDescription": "This will execute
    whatever command you give in the command
    parameter",
 9    "longDescription": "This will execute
    whatever command you give in the command
    parameter",
10    "executionSystem": "",
11    "executionType": "CLI",
12    "parallelism": "SERIAL",
13    "deploymentPath": "ktraxler/apps/shell-
    runner-0.1.0",
14    "deploymentSystem": "storage.example.com",
15    "templatePath": "wrapper.sh",
16    "testPath": "test/test.sh",
17    "tags": [
18      "execute",
19      "awesome",
20      "demo"
21    ],
```

● ● ●   〈 〉 ⊟                         ⌾         🔒 togo.agaveapi.co/app/#/apps/edit/drawgau2-shelob-hpctrn20-0    ↻                      ⬇ ⬆ ⊡

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# App Edit Wizard                                                          ⚙

( 1 )        ( 2 )        ( 3 )        4

**Basics**    Dependencies    Environment    Param

▨▨▨▨

**Name**

| drawgau2-shelob-hpctrn20                               ✓ |

The name of the application. The name does not have to
be unique, but the combination of name and version does.

**Version**

| 0.1.0                                                  ✓ |

The version of the application in #.#.# format. While the
version does not need to be unique, the combination of
name and version does have to be unique.

**Label**

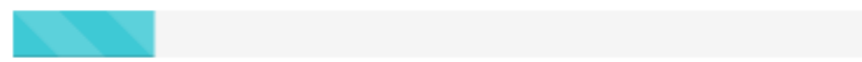| Drawgau                                                ✓ |

Label for use in forms generated by the jobs service

**Short description**

| draw curve                                             ✓ |

Short description of this app

**Long description**

| Draw Gaussian Curve (points only)                      ✓ |

```json
1  {
2      "id": "drawgau2-shelob-hpctrn20-
    0.1.0",
3      "name": "drawgau2-shelob-hpctrn20",
4      "icon": null,
5      "parallelism": "SERIAL",
6      "defaultProcessorsPerNode": 2,
7      "defaultMemoryPerNode": 64,
8      "defaultNodeCount": 1,
9      "defaultMaxRunTime": "00:10:00",
10     "defaultQueue": "shelob",
11     "version": "0.1.0",
12     "isPublic": false,
13     "helpURI":
    "http://developer.agaveapi.co/",
14     "label": "Drawgau",
15     "owner": "ktraxler",
16     "shortDescription": "draw curve",
17     "longDescription": "Draw Gaussian
    Curve (points only)",
18     "tags": [
19         "execute",
20         "awesome",
21         "demo"
22     ],
23     "ontology": [
24         "execute",
25         "awesome",
26         "demo"
27     ],
28     "executionType": "HPC",
29     "executionSystem": "shelob-execu-
    hpctrn20",
30     "deploymentPath": "agave-
    deployment",
```

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**AGAVE TOGO**

**Short description**

draw curve ✔

Short description of this app

**Long description**

Draw Gaussian Curve (points only) ✔

Full description of this app

**Tags**

tags ✕
execute ✔

tags ✕
awesome ✔

tags ✕
demo ✔

＋ Add

Array of terms you may associate with this app

**Help URL**

http://developer.agaveapi.co/ ✔

The URL where users can go for more information about the app.

**Ontology**

```
25      "awesome",
26      "demo"
27    ],
28    "executionType": "HPC",
29    "executionSystem": "shelob-execu-
hpctrn20",
30    "deploymentPath": "agave-
deployment",
31    "deploymentSystem": "shelob-
storage-hpctrn20",
32    "templatePath": "drawgau-
wrapper.txt",
33    "testPath": "test.txt",
34    "checkpointable": false,
35    "modules": [],
36    "inputs": [
37      {
38        "id": "parfile",
39        "value": {
40          "validator": "",
41          "visible": true,
42          "required": true,
43          "order": 0,
44          "enquote": false,
45          "default": "input.txt"
46        },
47        "details": {
48          "label": "input for the
program",
49          "description": null,
50          "argument": "input.txt",
51          "showArgument": false,
52          "repeatArgument": false
53        },
54        "semantics": {
55          "minCardinality": 1,
56          "maxCardinality": 1,
57          "ontology": [],
58          "fileTypes": []
59      }
```

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AGAVE TOGO

Array of terms you may associate with this app

Help URL

```
http://developer.agaveapi.co/                    ✓
```

The URL where users can go for more information about
the app.

Ontology

| ontology | ✕ |
|---|---|

```
execute                                          ✓
```

| ontology | ✕ |
|---|---|

```
awesome                                          ✓
```

| ontology | ✕ |
|---|---|

```
demo                                             ✓
```

➕ Add

An array of ontology terms describing this app.

Previous                    Next        Submit
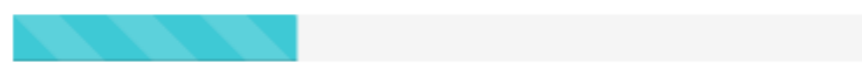
```
          description : null,
50        "argument": "input.txt",
51        "showArgument": false,
52        "repeatArgument": false
53      },
54      "semantics": {
55        "minCardinality": 1,
56        "maxCardinality": 1,
57        "ontology": [],
58        "fileTypes": []
59      }
60    }
61  ],
62  "parameters": [],
63  "outputs": [
64    {
```

Back to Apps        Use Definition

togo.agaveapi.co/app/#/apps/edit/drawgau2-shelob-hpctrn20-0.

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# App Edit Wizard

1 — Basics    2 — Dependencies    3 — Environment    4 — Param

**Deployment path**

agave-deployment ✔

The path to the folder on the deployment system containing the application wrapper and dependencies.

**Deployment system**

shelob-storage-hpctrn20

The ID of the storage system where this app's assets should be stored.

**Wrapper script**

drawgau-wrapper.txt ✔

The path to the wrapper script relative to the deploymentPath.

**Test script**

test.txt ✔

The path to the test script relative to the deploymentPath.

+ Add

```
1  {
2    "id": "drawgau2-shelob-hpctrn20-
   0.1.0",
3    "name": "drawgau2-shelob-hpctrn20",
4    "icon": null,
5    "parallelism": "SERIAL",
6    "defaultProcessorsPerNode": 2,
7    "defaultMemoryPerNode": 64,
8    "defaultNodeCount": 1,
9    "defaultMaxRunTime": "00:10:00",
10   "defaultQueue": "shelob",
11   "version": "0.1.0",
12   "isPublic": false,
13   "helpURI":
   "http://developer.agaveapi.co/",
14   "label": "Drawgau",
15   "owner": "ktraxler",
16   "shortDescription": "draw curve",
17   "longDescription": "Draw Gaussian
   Curve (points only)",
18   "tags": [
19     "execute",
20     "awesome",
21     "demo"
22   ],
23   "ontology": [
24     "execute",
25     "awesome",
26     "demo"
27   ],
28   "executionType": "HPC",
29   "executionSystem": "shelob-execu-
   hpctrn20",
30   "deploymentPath": "agave-
   deployment",
```

● ● ●    [<] [>] [⬚]   🔒 **togo.agaveapi.co**/app/#/apps/edit/drawgau2-shelob-hpctrn20-0⟲   [⬇] [⬆] [⬚]

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Basics    **Dependencies**    Environment    Param

**Deployment path**

> agave-deployment ✔

The path to the folder on the deployment system containing the application wrapper and dependencies.

**Deployment system**

> shelob-storage-hpctrn20 ⬍

The ID of the storage system where this app's assets should be stored.

**Wrapper script**

> drawgau-wrapper.txt ✔

The path to the wrapper script relative to the deploymentPath.

**Test script**

> test.txt ✔

The path to the test script relative to the deploymentPath.

**+ Add**

An array of modules to load prior to the execution of the application. This is only relevant when you use the unix Modules or LMOD utilities to manage dependencies on the app execution system.

```
        0.1.0",
    3     "name": "drawgau2-shelob-hpctrn20",
    4     "icon": null,
    5     "parallelism": "SERIAL",
    6     "defaultProcessorsPerNode": 2,
    7     "defaultMemoryPerNode": 64,
    8     "defaultNodeCount": 1,
    9     "defaultMaxRunTime": "00:10:00",
   10     "defaultQueue": "shelob",
   11     "version": "0.1.0",
   12     "isPublic": false,
   13     "helpURI":
        "http://developer.agaveapi.co/",
   14     "label": "Drawgau",
   15     "owner": "ktraxler",
   16     "shortDescription": "draw curve",
   17     "longDescription": "Draw Gaussian
        Curve (points only)",
   18     "tags": [
   19       "execute",
   20       "awesome",
   21       "demo"
   22     ],
   23     "ontology": [
   24       "execute",
   25       "awesome",
   26       "demo"
   27     ],
   28     "executionType": "HPC",
   29     "executionSystem": "shelob-execu-
        hpctrn20",
   30     "deploymentPath": "agave-
        deployment",
   31     "deploymentSystem": "shelob-
        storage-hpctrn20",
   32     "templatePath": "drawgau-
        wrapper.txt",
   33     "testPath": "test.txt",
   34     "checkpointable": false,
```

● ● ●   〈 〉 ▢                ⓑ        🔒 togo.agaveapi.co/app/#/apps/edit/drawgau2-shelob-hpctrn20-0   ↻                    ⊕   ⬆   ▢

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agave-deployment  ✔

The path to the folder on the deployment system containing the application wrapper and dependencies.

**Deployment system**

shelob-storage-hpctrn20  ⇕

The ID of the storage system where this app's assets should be stored.

**Wrapper script**

drawgau-wrapper.txt  ✔

The path to the wrapper script relative to the deploymentPath.

**Test script**

test.txt  ✔

The path to the test script relative to the deploymentPath.

➕ Add

An array of modules to load prior to the execution of the application. This is only relevant when you use the unix Modules or LMOD utilities to manage dependencies on the app execution system.

Previous            Next    **Submit**

```
11    "version": "0.1.0",
12    "isPublic": false,
13    "helpURI":
   "http://developer.agaveapi.co/",
14    "label": "Drawgau",
15    "owner": "ktraxler",
16    "shortDescription": "draw curve",
17    "longDescription": "Draw Gaussian
   Curve (points only)",
18    "tags": [
19       "execute",
20       "awesome",
21       "demo"
22    ],
23    "ontology": [
24       "execute",
25       "awesome",
26       "demo"
27    ],
28    "executionType": "HPC",
29    "executionSystem": "shelob-execu-
   hpctrn20",
30    "deploymentPath": "agave-
   deployment",
31    "deploymentSystem": "shelob-
   storage-hpctrn20",
32    "templatePath": "drawgau-
   wrapper.txt",
33    "testPath": "test.txt",
34    "checkpointable": false,
35    "modules": [],
```

togo.agaveapi.co/app/#/apps/edit/drawgau2-shelob-hpctrn20-0.

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# App Edit Wizard

1 Basics    2 Dependencies    3 Environment    4 Param

## Execution type

HPC

The execution type of the application. If you're unsure, it's probably HPC.

## Execution system

shelob-execu-hpctrn20

The ID of the execution system where this app should run.

## Default queue

Default queue to use when submitting this job if none is provided in the job request. Can be left blank and a queue will be determined at run time

## Default node count

1

Default number of nodes to be used when running this app if no node count is given in the job request

```
1  {
2    "id": "drawgau2-shelob-hpctrn20-
   0.1.0",
3    "name": "drawgau2-shelob-hpctrn20",
4    "icon": null,
5    "parallelism": "SERIAL",
6    "defaultProcessorsPerNode": 2,
7    "defaultMemoryPerNode": 64,
8    "defaultNodeCount": 1,
9    "defaultMaxRunTime": "00:10:00",
10   "defaultQueue": "shelob",
11   "version": "0.1.0",
12   "isPublic": false,
13   "helpURI":
   "http://developer.agaveapi.co/",
14   "label": "Drawgau",
15   "owner": "ktraxler",
16   "shortDescription": "draw curve",
17   "longDescription": "Draw Gaussian
   Curve (points only)",
18   "tags": [
19     "execute",
20     "awesome",
21     "demo"
22   ],
23   "ontology": [
24     "execute",
25     "awesome",
26     "demo"
27   ],
28   "executionType": "HPC",
29   "executionSystem": "shelob-execu-
   hpctrn20",
30   "deploymentPath": "agave-
```

● ● ●   〈 〉   ⊞                  ⑤        🔒 togo.agaveapi.co/app/#/apps/edit/drawgau2-shelob-hpctrn20-0⌄   ↻                    ⊕  ⬆  ⊡

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### Default node count

| 1 | ✔ ⌃⌄ |
|---|---|

Default number of nodes to be used when running this app
if no node count is given in the job request

### Default memory (GB)

| 64 | ✔ ⌃⌄ |
|---|---|

Default memory in GB to be used when running this app if
no memory is given in the job request

### Default processor count

| 2 | ✔ ⌃⌄ |
|---|---|

Default number of processors per node to be used when
running this app if no processor count is given in the job
request

### Default run time

| 00:10:00 | ✔ |
|---|---|

Default max run time to be used when running this app if
no requested run time is given in the job request

### Parallelism

| SERIAL | ⇡⇣ |
|---|---|

The parallelism type of the application. If you're unsure, it's
probably SERIAL.

### Checkpointable

| True | **False** |
|---|---|

Does this app support checkpointing?

Previous                    Next    **Submit**

```
26      "demo"
27    ],
28    "executionType": "HPC",
29    "executionSystem": "shelob-execu-
      hpctrn20",
30    "deploymentPath": "agave-
      deployment",
31    "deploymentSystem": "shelob-
      storage-hpctrn20",
32    "templatePath": "drawgau-
      wrapper.txt",
33    "testPath": "test.txt",
34    "checkpointable": false,
35    "modules": [],
36    "inputs": [
37      {
38        "id": "parfile",
39        "value": {
40          "validator": "",
```

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# App Edit Wizard

**1** Basics   **2** Dependencies   **3** Environment   **4** Param

+ Add parameter

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```
1  {
2    "id": "drawgau2-shelob-hpctrn20-
   0.1.0",
3    "name": "drawgau2-shelob-hpctrn20",
4    "icon": null,
5    "parallelism": "SERIAL",
6    "defaultProcessorsPerNode": 2,
7    "defaultMemoryPerNode": 64,
8    "defaultNodeCount": 1,
9    "defaultMaxRunTime": "00:10:00",
10   "defaultQueue": "shelob",
11   "version": "0.1.0",
12   "isPublic": false,
13   "helpURI":
   "http://developer.agaveapi.co/",
14   "label": "Drawgau",
15   "owner": "ktraxler",
16   "shortDescription": "draw curve",
17   "longDescription": "Draw Gaussian
   Curve (points only)",
18   "tags": [
19     "execute",
20     "awesome",
21     "demo"
22   ],
23   "ontology": [
24     "execute",
25     "awesome",
26     "demo"
27   ],
28   "executionType": "HPC",
29   "executionSystem": "shelob-execu-
   hpctrn20",
```

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# App Edit Wizard

1 Basics    2 Dependencies    3 Environment    4 Param

## parfile    + Add input

### ID

parfile ✔

The unique identifier for this input file. This will be referenced in the wrapper script.

## Details

Descriptive details about this app inputs used in form generation.

### Label

input for the program ✔

The label displayed for this input.

### Prepend command line argument?

True    **False**

Should this command line argument be injected into the

```
1  {
2    "id": "drawgau2-shelob-hpctrn20-
     0.1.0",
3    "name": "drawgau2-shelob-hpctrn20",
4    "icon": null,
5    "parallelism": "SERIAL",
6    "defaultProcessorsPerNode": 2,
7    "defaultMemoryPerNode": 64,
8    "defaultNodeCount": 1,
9    "defaultMaxRunTime": "00:10:00",
10   "defaultQueue": "shelob",
11   "version": "0.1.0",
12   "isPublic": false,
13   "helpURI":
     "http://developer.agaveapi.co/",
14   "label": "Drawgau",
15   "owner": "ktraxler",
16   "shortDescription": "draw curve",
17   "longDescription": "Draw Gaussian
     Curve (points only)",
18   "tags": [
19     "execute",
20     "awesome",
21     "demo"
22   ],
23   "ontology": [
24     "execute",
25     "awesome",
26     "demo"
27   ],
28   "executionType": "HPC",
29   "executionSystem": "shelob-execu-
     hpctrn20",
```

● ● ● | ‹ › | ⊡ | ℔ | 🔒 togo.agaveapi.co/app/#/apps/edit/drawgau2-shelob-hpctrn20-0 ↻ | ⊕ 🗂 🗔

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✺ AGAVE TOGO          ≡          🔍                                    🕐  ⚏  🔵 ∨  ⏻

## Semantics

Semantic information about the input field.

Ontology

**+ Add**

Array of ontology terms describing this input.

**Min cardinality**

| 1 | ✔ ⌃⌄ |

Minimum number of instances of this input per job.

**Max cardinality**

| 1 | ✔ ⌃⌄ |

Max number of instances of this input per job.

## Values

Default value and validations for the input field.

**Default value**

| input.txt | ✔ |

**Default value**

**Validator regex**

|  |

The regular expression used to validate this parameter value.

**Visible**

| Yes | No |

```
         deployment",
31    "deploymentSystem": "shelob-
      storage-hpctrn20",
32    "templatePath": "drawgau-
      wrapper.txt",
33    "testPath": "test.txt",
34    "checkpointable": false,
35    "modules": [],
36    "inputs": [
37      {
38        "id": "parfile",
39        "value": {
40          "validator": "",
41          "visible": true,
42          "required": true,
43          "order": 0,
44          "enquote": false,
45          "default": "input.txt"
46        },
47        "details": {
48          "label": "input for the
      program",
49          "description": null,
50          "argument": "input.txt",
```

⬆

togo.agaveapi.co/app/#/apps/edit/drawgau2-shelob-hpctrn20-0.

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AGAVE TOGO

## Prepend command line argument?

| True | **False** |

Should this command line argument be injected into the submit script preceding the input?

## Semantics

Semantic information about the input field.

Ontology

**+ Add**

Array of ontology terms describing this input.

**Min cardinality**

| 1 |

Minimum number of instances of this input per job.

**Max cardinality**

| 1 |

Max number of instances of this input per job.

## Values

Default value and validations for the input field.

**Default value**

| input.txt |

Default value

**Validator regex**

```
26        "demo"
27      ],
28      "executionType": "HPC",
29      "executionSystem": "shelob-execu-
   hpctrn20",
30      "deploymentPath": "agave-
   deployment",
31      "deploymentSystem": "shelob-
   storage-hpctrn20",
32      "templatePath": "drawgau-
   wrapper.txt",
33      "testPath": "test.txt",
34      "checkpointable": false,
35      "modules": [],
36      "inputs": [
37        {
38          "id": "parfile",
39          "value": {
40            "validator": "",
41            "visible": true,
42            "required": true,
43            "order": 0,
44            "enquote": false,
45            "default": "input.txt"
46          },
47          "details": {
48            "label": "input for the
   program",
49            "description": null,
50            "argument": "input.txt",
```

● ● ●   [<] [>] [⊡]            [G]    🔒 **togo.agaveapi.co**/app/#/apps/edit/drawgau2-shelob-hpctrn20-0.   ↻            [⊙] [⬆] [⊡]

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〰 AGAVE TOGO        ≡   🔍                                              🕐   ⇌   🔵 ⌄   ⇥

Default value and validations for the input field.

**Default value**

| input.txt                                          ✔ |

**Default value**

**Validator regex**

| |

The regular expression used to validate this parameter value.

**Visible**

| **Yes** | No |

Should this parameter be visible? If not, there must be a default and it will be required.

**Required**

| **Yes** | No |

Is this parameter required? If visible is false, this must be true.

**Order**

| 0                                                  ✔ ⬍ |

The order in which this parameter should be printed when generating an execution command for forked execution. This will also be the order in which paramters are returned in the response json.

🗑 **Remove**

Previous                    Next        **Submit**

↑

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# App Edit Wizard

1 — Basics  
2 — Dependencies  
3 — Environment  
4 — Param

**drawgau0.txt**    ➕ Add output

**ID**

drawgau0.txt ✔

The unique identifier for this input file. This will be referenced in the wrapper script.

## Details

Descriptive details about this app outputs used in form generation.

**Label**

output file ✔

The label displayed for this input.

**Prepend command line argument?**

True    False

Should this command line argument be injected into the

```
1  {
2    "id": "drawgau2-shelob-hpctrn20-
   0.1.0",
3    "name": "drawgau2-shelob-hpctrn20",
4    "icon": null,
5    "parallelism": "SERIAL",
6    "defaultProcessorsPerNode": 2,
7    "defaultMemoryPerNode": 64,
8    "defaultNodeCount": 1,
9    "defaultMaxRunTime": "00:10:00",
10   "defaultQueue": "shelob",
11   "version": "0.1.0",
12   "isPublic": false,
13   "helpURI":
   "http://developer.agaveapi.co/",
14   "label": "Drawgau",
15   "owner": "ktraxler",
16   "shortDescription": "draw curve",
17   "longDescription": "Draw Gaussian
   Curve (points only)",
18   "tags": [
19     "execute",
20     "awesome",
21     "demo"
22   ],
23   "ontology": [
24     "execute",
25     "awesome",
26     "demo"
27   ],
28   "executionType": "HPC",
29   "executionSystem": "shelob-execu-
   hpctrn20",
```

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## AGAVE TOGO

**Prepend command line argument?**

True    False

Should this command line argument be injected into the submit script preceding the input?

## Semantics

Semantic information about the output field.

Ontology

**+ Add**

Array of ontology terms describing this input.

**Min cardinality**

1

Minimum number of instances of this input per job.

**Max cardinality**

-1

Max number of instances of this input per job.

## Values

Default value and validations for the output field.

Default value

drawgau0.txt

Default value

Validator regex

```
26        "demo"
27      ],
28      "executionType": "HPC",
29      "executionSystem": "shelob-execu-
          hpctrn20",
30      "deploymentPath": "agave-
          deployment",
31      "deploymentSystem": "shelob-
          storage-hpctrn20",
32      "templatePath": "drawgau-
          wrapper.txt",
33      "testPath": "test.txt",
34      "checkpointable": false,
35      "modules": [],
36      "inputs": [
37        {
38          "id": "parfile",
39          "value": {
40            "validator": "",
41            "visible": true,
42            "required": true,
43            "order": 0,
44            "enquote": false,
45            "default": "input.txt"
46          },
47          "details": {
48            "label": "input for the
          program",
49            "description": null,
50            "argument": "input.txt",
51            "showArgument": false,
52            "repeatArgument": false
53          },
54          "semantics": {
55            "minCardinality": 1,
56            "maxCardinality": 1,
57            "ontology": [],
58            "fileTypes": []
59          }
60        }
```

Agave ToGo | Login Success          Agave ToGo | App Edit Wizard          Kindle Cloud Reader

AGAVE TOGO

## Values

Default value and validations for the output field.

**Default value**

```
drawgau0.txt                                    ✔
```

**Default value**

**Validator regex**

```

```

The regular expression used to validate this parameter value.

**Visible**

| Yes | No |

Should this parameter be visible? If not, there must be a default and it will be required.

**Order**

```
1                                               ✔ ⌄
```

The order in which this parameter should be printed when generating an execution command for forked execution. This will also be the order in which paramters are returned in the response json.

🗑 Remove

Previous                                    Next      Submit

```
48        label :  input ior the
      program",
49          "description": null,
50          "argument": "input.txt",
51          "showArgument": false,
52          "repeatArgument": false
53        },
54        "semantics": {
55          "minCardinality": 1,
56          "maxCardinality": 1,
57          "ontology": [],
58          "fileTypes": []
59        }
60      }
61    ],
62    "parameters": [],
63    "outputs": [
64      {
65        "id": "drawgau0.txt",
66        "value": {
67          "validator": "",
68          "order": 1,
69          "default": "drawgau0.txt"
70        },
71        "details": {
72          "label": "output file",
73          "description": null
74        },
75        "semantics": {
76          "minCardinality": 1,
77          "maxCardinality": -1,
```

Agave ToGo | Login Success                    Agave ToGo | App Edit Wizard                    Kindle Cloud Reader

## App Builder Wizard

**You have successfully created/updated your app**

| | |
|---|---|
| Name | drawgau2-shelob-hpctrn20 |
| Version | 0.1.0 |
| Label | Drawgau |
| Description | draw curve |
| Execution Type | HPC |
| Execution System | shelob-execu-hpctrn20 |
| Parallelism | SERIAL |
| Deployment System | shelob-storage-hpctrn20 |
| Deployment Path | agave-deployment |

Close    Browse Apps

77    "maxCardinality": -1,

🗑 Remove

Previous          Next    Submit

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Home ● Data Explorer

Quick Actions ⌄

## File Browser

⚙

▦ Agave Cloud Storage : ktraxler/archive/jobs/job-964575848630709785-242ac11c-0001-007

+ Create folder    ⬆ Up

📁 ktraxler /    📁 archive /    📁 jobs /    📁 job-964575848630709785-242ac11c-0001-007 /    ↵

| ☐ | Name ▼ | Size | Date |
|---|---|---|---|
| ☐ | 📄 .agave.log | 398B | 2 minutes ago |
| ☐ | 📄 drawgau-0612-0827-964575848630709785-242ac11c-0001-007.err | 1.1KB | 2 minutes ago |
| ☐ | 📄 drawgau-0612-0827-964575848630709785-242ac11c-0001-007.out | 5.8KB | 2 minutes ago |
| ☐ | 📄 nodefile.txt | 10B | 2 minutes ago |

Agave ToGo | Login Success          Agave ToGo | App Manager          Kindle Cloud Reader

AGAVE TOGO

Home ● Apps

Quick Actions ⌄

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- 🛠 Support

# Apps Management Manage your collection of apps

## </> Apps Management

**+ New App**

▼ | Filter

**🔍 Search Tools**

| ID | Name | Label | Short Description | Exec. System | Last Modified ▲ | Actions |
|---|---|---|---|---|---|---|
| drawgau2-shelob-hpctrn20-0.1.0 | drawgau2-shelob-hpctrn20 | Drawgau | draw curve | shelob-execu-hpctrn20 | a minute ago | Actions ⌄ |
| | | | | | | ▶ Run |
| drawgau-shelob-hpctrn20-0.10 | drawgau-shelob-hpctrn20 | draw curve | draw curve | shelob-execu-hpctrn20 | | ✏ Edit |
| | | | | | | ✖ Disable |
| | | | | | | 🗑 Delete |
| drawgau-shelob-hpctrn15-0.1.0 | drawgau-shelob-hpctrn15 | draw curve | draw curve | shelob-exec1-hpctrn15 | | ➥ Share |
| | | | | | | 🔔 Notifications |
| drawgau-lsu-tutorial-0.1.0 | drawgau-lsu-tutorial | draw curve | gaussian curve | shelob-hpctrn14 | | 📋 Clone |
| | | | | | | 👁 Publish |

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# ▤ DRAWGAU2-SHELOB-HPCTRN20-0.1.0

Details    **Run**

## *Drawgau*

Draw Gaussian Curve (points only)

▤ *Drawgau* Documentation

## Inputs

input for the program

| Select | agave://data.agaveapi.co/ktraxler/agave/input.txt |
|--------|---------------------------------------------------|

## Job details

Maximum job runtime

| 00:10:00                                          ✔ |

In HH:MM:SS format. The maximum time you expect this job to run for. After this amount of time your job will be killed by the job scheduler. Shorter run times result in shorter queue wait times. Maximum possible time is 48:00:00 (48 hours).

Job name

| drawgau-0611-728                                  ✔ |

A recognizable name for this job

Batch Queue

| |

System queue to which the job should be submited

☑ Archive output

Should the output be archived

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AGAVE TOGO

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## Inputs

input for the program

| Select | agave://data.agaveapi.co/ktraxler/agave/input.txt |

## Job details

Maximum job runtime

| 00:10:00 | ✔ |

In HH:MM:SS format. The maximum time you expect this job to run for. After this amount of time your job will be killed by the job scheduler. Shorter run times result in shorter queue wait times. Maximum possible time is 48:00:00 (48 hours).

Job name

| drawgau-0611-728 | ✔ |

A recognizable name for this job

Batch Queue

| |

System queue to which the job should be submited

☑ Archive output          *Uncheck the "Archive output" box*

Should the output be archived

Job output archive location (optional)

| <username>/archive/jobs/${YYYY-MM-DD}/${JOB_NAME}-${JOB_ID} |

Specify a location where the job output should be archived. By default, job output will be archived at:
`<username>/archive/jobs/${YYYY-MM-DD}/${JOB_NAME}-${JOB_ID}`.

Run

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Details    Run

## Successfully submitted job

| ID | 964575848630709785-242ac11c-0001-007 |
|---|---|
| Name | drawgau-0612-0827 |
| Owner | ktraxler |
| Status | PENDING |
| Execution System | shelob-hpctrn20-exec |
| Archive | true |
| Archive System | data.agaveapi.co |
| Archive Path | ktraxler/archive/jobs/job-964575848630709785-242ac11c-0001-007 |
| Batch Queue | shelob |
| Application ID | drawgau2-shelob-hpctrn20-0.1.0 |

Details    Exit

In HH:MM:SS format. The maximum time you expect this job to run for. After this amount of time your job will be killed by the job scheduler. Shorter run times result in shorter queue wait times. Maximum possible time is 48:00:00 (48 hours).

### Job name

A recognizable name for this job

### Batch Queue

shelob

# Output from Job Run

- Log into your HPC account

- cd into /work/username

- ls -l

# Conclusion

- Once you define your storage system, execution system, and app you have a working science gateway!

- We have successfully run a job without logging into our hardware system and using the command line.

- Save development time by using Agave.

# Final thoughts

- If you want a demo or hands on for your group let us know:

  - ktraxler@lsu.edu

  - sbrandt@cct.lsu.edu