



# FRIB

## CLOUD PLATFORM FOR PHYSICS APPLICATIONS DEVELOPMENT (**PHYAPPS-CLOUD**)

2017-11-28

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High-level Controls

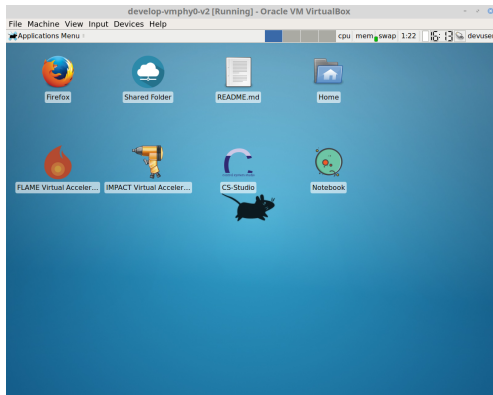
**MICHIGAN STATE**  
**UNIVERSITY**



U.S. DEPARTMENT OF  
**ENERGY**

Office of  
Science

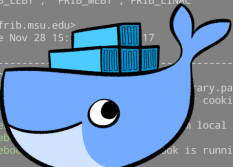
# VIRTUALBOX APPLIANCE (EARLY 2016)



- Distributed via .ova, ~ 3.0 GiB
- VirtualBox is required, cross-platform (Linux, macOS, Windows)
- Upgrade via redistribute .ova
- Troubleshooting Linux

# DOCKER CONTAINER IMAGE (AUG. 2017)

```
30322 /home/tong
[tong@xstation ~]$ docker run --rm -it -p 8888:8888 -v $(pwd)/phyapps:/phyapps \
> tonyzhang/phyapps:release-1.6-ss --mach 'FRIB_LEBT' -v
-----
This is the startup script of 'phyapps' docker image
Use --mach <mname> to run different VA.
Valid <mname>: 'FRIB_LEBT', 'FRIB_MEBT', FRIB_LINAC
-----
Tong Zhang <zhangt@frib.msu.edu>
Current time is: Tue Nov 28 15:17
Have fun!
-----
No directory, logging in
No handlers could be found for logger 'phantasy.library.parser.config'
[I 15:30:33.792 Note] cookie secret to /root/.local/share/jupyter/runtime
[I 15:30:33.851 Note] local directory: /phyapps
[I 15:30:33.851 Note]
[I 15:30:33.851 Note] Book is running at: http://0.0.0.0:8888/
[I 15:30:33.851 NotebookApp] Use Control-C to stop this server and shut down all
kernels (twice to skip confirmation).
INFO: 2017-11-28 15:30:34.604: phantasy.library.parser.config: Searching configuration in relative or absolute path: 'FRIB_LEBT'
INFO: 2017-11-28 15:30:34.604: phantasy.library.parser.config: Searching configuration in relative or absolute path: 'FRIB_LEBT'
```



- Distributed via docker image, < 1.0 GiB
- Docker Toolbox is required, cross-platform (Linux, macOS, Windows)
- Always keep updated
- Focus on the development



# CLOUD PLATFORM (Nov. 2017)

Welcome to the Computing Platform for High-level Physics Controls of  
FRIB Accelerator.

## Guideline

Login via [here](#), for new user, sign up first;

Click the user name to access user configuration management;

- Update basic user information via 
- Update service via 

Click **Service Name** to control service;

Click **Notebook URL** to get access into notebook.

- No overhead of distribution
- No required software except web browser (cross-platform)
- Always keep updated
- Focus on the development

# WALKTHROUGH OF PHYAPPS-CLOUD


Computing Platform

Home

Activity

Login

 user1

 .....

☐ Login as Administrator

Login

Sign Up

# WALKTHROUGH OF PHYAPPS-CLOUD

Computing Platform

User Information

CONTAINER\_ID

5ca84c2006

CONTAINER\_NAME

peaceful\_lichterman

CONTAINER\_STATUS

running

CREATOR

compadmin

DESCRIPTION

TBA

NAME

user1

NOTEBOOK\_URL

/user1/

TIMESTAMP

2017-11-28 10:05:34 EST

URI

/users/user1

user1

Logout

User Configuration

Username:

Password:

Description:

Container Name:

Notebook URL:

User URL:

Cancel

Update

# WALKTHROUGH OF PHYAPPS-CLOUD

Computing Platform

User Information

CONTAINER\_ID

5ca84c2006

CONTAINER\_NAME

peaceful\_lichterman

CONTAINER\_STATUS

running

CREATOR

compadmin

DESCRIPTION

I'm the first user

NAME

user1

NOTEBOOK\_URL

/user1/

TIMESTAMP

2017-11-28 10:26:05 EST

URI

/users/user1

user1

Logout

Container Configuration

Username

user1

Container Name

peaceful\_lichterman

Container ID

5ca84c2006

Notebook URL

/user1/

Service

phyapps-1.6-ss

Section

LEBT

LEBT

MEBT

LS1

Data Path

Start

Cancel

Update

[Computing Platform](#)[Home](#)[Activity](#)[user1](#)[Logout](#)

## Users

Name	Description	Notebook URL	Service Name	Status	Last Updated
<a href="#">user1</a>	TBA	<a href="/user1/">/user1/</a>	<a href="#">peaceful_lichterman</a>	<span>RUNNING</span>	2017-11-28 10:05:34 EST



# WALKTHROUGH OF PHYAPPS-CLOUD

[Logout](#)[Files](#)[Running](#)[Clusters](#)

Select items to perform actions on them.

[Upload](#)[New](#)[Name](#) [Last Modified](#)

Notebook list empty.

Computing Platform

Home

Activity

user1

Logout

peaceful\_lichterman

Status

RUNNING

Stop

Start

Pause

Resume

Owner

user1

Image

tonyzhang/phyapps:release-1.6-ss

ID

5ca84c2006944677e8b513b7a9ee9b082f82255394306cfa5b00bee072a1d51d

Uptime

0:01:12.573517

Ports

[u'31020', u'32020']

Thank you for your attention!



**Facility for Rare Isotope Beams**  
U.S. Department of Energy Office of Science  
Michigan State University