

---

# **Fusion Data Framework Documentation**

***Release 0.0.0***

**John Schmitt, David R. Smith, Kevin Tritz, Howard Yuh**

October 06, 2015

## CONTENTS

<b>1</b>	<b>About FDF</b>	<b>2</b>
<b>2</b>	<b>User Guide</b>	<b>3</b>
<b>3</b>	<b>License</b>	<b>4</b>
<b>4</b>	<b>Classes</b>	<b>5</b>
<b>5</b>	<b>Usage</b>	<b>6</b>
<b>6</b>	<b>Classes</b>	<b>7</b>
<b>7</b>	<b>Indices and tables</b>	<b>8</b>
	<b>Index</b>	<b>9</b>



Fusion Data Framework (FDF) is a data access, management, and visualization framework for magnetic fusion experiments.

Repository: <https://github.com/Fusion-Data-Framework/fdf>

Documentation: [PDF](#)

## ABOUT FDF

Fusion Data Framework (FDF) is a data access, management, and visualization framework for magnetic fusion experiments.

Repository: <https://github.com/Fusion-Data-Framework/fdf>

Documentation: [HTML](#) or [PDF](#)

Submit bugs or feature requests: <https://github.com/Fusion-Data-Framework/fdf/issues>

Created by:

- John Schmitt, Princeton Plasma Physics Lab
- David R. Smith, U. Wisconsin-Madison
- Kevin Tritz, The Johns Hopkins U.
- Howard Yuh, Nova Photonics

To contribute to the FDF project, please contact John, David, Kevin, or Howard.

---

CHAPTER  
**TWO**

---

**USER GUIDE**

## **LICENSE**

### The MIT License (MIT)

Copyright (c) 2015 David R. Smith, Kevin Tritz, Howard Yuh

Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the “Software”), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions:

The above copyright notice and this permission notice shall be included in all copies or substantial portions of the Software.

THE SOFTWARE IS PROVIDED “AS IS”, WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE. `factory.py` - root module for the FDF package.

**CLASSES**

Machine - root class for the FDF package Shot - shot container class Logbook - logbook connection class Container - diagnostic container class Node - mdsplus signal node class FdfError - error class for FDF package



## USAGE

```
>>> import fdf
>>> nstx = fdf.Machine('nstx')
>>> nstx.s140000.logbook()
>>> nstx.addshots(xp=1048)
>>> nstx.s140000.mpts.plot()
```

Created on Thu Jun 18 10:38:40 2015 @author: ktritz fdf-signals.py - module containing Signal class

## CLASSES

Signal - signal class for data objects

Created on Tue Jun 23 2015

@author: hyuh fdf\_globals.py contains package-level constants

Created on Thu Jun 18 11:18:16 2015

@author: ktritz

## INDICES AND TABLES

- `genindex`
- `modindex`
- `search`

**F**

factory (module), 4  
fdf\_globals (module), 7  
fdf\_signal (module), 6