# Fusion Data Framework Documentation Release 0.0.0

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## CONTENTS

1	About FDF	
2	User Guide	3
3	Modules and classes  3.1 factory.py module	<b>4</b> 4 4 4
4	License	6
5	Classes	7
6	Usage	8
7	Classes	9
8	Indices and tables	10
Py	thon Module Index	11
In	dex	12

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

CONTENTS 1

## **ONE**

## **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

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- 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**

THREE

## **MODULES AND CLASSES**

# 3.1 factory.py module

factory.py - root module for the FDF package.

#### 3.1.1 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

#### 3.1.2 **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

# 3.2 fdf\_signal.py module

fdf-signals.py - module containing Signal class

#### 3.2.1 Classes

Signal - signal class for data objects

Created on Tue Jun 23 2015

@author: hyuh

# 3.3 fdf\_globals.py module

fdf\_globals.py contains package-level constants

Created on Thu Jun 18 11:18:16 2015

@author: ktritz

**FOUR** 

#### **LICENSE**

The MIT License (MIT)

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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.

# **FIVE**

# **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

SIX

# **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

# **SEVEN**

# **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

# **EIGHT**

# **INDICES AND TABLES**

- genindex
- modindex
- search

#### PYTHON MODULE INDEX

```
f
factory,4
fdf_globals,4
fdf_signal,4
```

# F

factory (module), 4, 6 fdf\_globals (module), 4, 9 fdf\_signal (module), 4, 8