
Fusion Data Framework Documentation

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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>

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

CHAPTER
TWO

USER GUIDE

CODE REFERENCE

3.1 Class Machine

class `factory.Machine` (*name='nstx', shotlist=[], xp=[], date=[]*)

Factory root class that contains shot objects and MDS access methods.

Basic class initialization is performed as follows: `>>>nstx = Machine(name='nstx')`

the Machine class contains a model shot object: `nstx.s0`

shot data can be accessed directly through the Machine class: `>>> nstx.s141398 >>> nstx.s141399`

alternatively, a list of shot #'s may be provided during initialization: `>>>nstx = Machine(name='nstx', shotlist=[141398, 141399])`

or added later using the addshot method: `>>>nstx.addshot([141398, 141399])`

3.2 Class Shot

class `factory.Shot` (*shot, root=None, parent=None*)

3.3 Class Logbook

class `factory.Logbook` (*name='nstx', root=None*)

3.4 Class Signal

class `fdf_signal.Signal` (***kwargs*)

`sig=fdf.Signal(signal_ndarray, units='m/s', axes=['radius','time'], axes_values=[ax1_1Darray, ax2_1Darray], axes_units=['s','cm'])`

e.g.: `mds.Signal(np.arange((20*10)).reshape((10,20)), units='keV', axes=['radius','time'], axes_values=[100+np.arange(10)*5, np.arange(20)*0.1], axes_units=['s','cm'])`

or an empty signal: `s=mds.Signal() default axes order=[time, space] sig=fdf.Signal(units='m/s', axes=['radius','time'], axes_values=[radiusSignal, timeSignal])`

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