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# Directory Structure



# Configuration Files

Simple configuration files are used to set user preferences and controll the behavior of different processes.

The general syntax is:

# Comment  
VARIABLE value

Where there is a tab delimination between VARIABLE and value.

## Root Config

The main configuration file is expected to be on the project root and named config (with no extension).

# VMA MAIN Configuration File  
# Version 1.0  
  
DATA\_DIR data  
  
STRUCTURE\_NO 123456789  
STRUCTURE\_DESCRIPTION Bridge 4  
  
USER\_NAME John  
USER\_EMAIL john@email.com

## Data Acquisition Config

DAQ configuration files are assumed to be in the path: ~/data/bin/<daq\_name>.conf. Note the .conf extension.

DAQ’s can be utilized in one of two modes, trigger or logger.

### Trigger Mode

DAQ’s in trigger mode are expected to have **1** input record per file. The files are expected to have the naming convention: somethingsomething\_<fileid>\_<avg>

Below is an example of a trigger configuration file:

# VMA DAQ Configuration  
# Version 0.1.0  
  
# daq scanning mode  
MODE trigger  
  
# daq sampling info  
FS 3200  
BLOCKSIZE 3200  
  
# trigger window  
LB 50  
RB 31950  
  
# daq channel to data column mapping. the time stamp column is zero indexed to avoid confusion with the physical daq channels  
TIMEID 0  
INID 1, 2, 3  
OUTID 4  
TRIGGERID 1  
  
# units per channel  
UNITS lb, lb, lb, g  
# channel scalling mv/v -> EU  
SENSITIVITY .25, .25, .25, 1000  
# scaled already? boolean  
SCALED 0

### Logger Mode

DAQ’s in logger mode are exected to have a series of files saved in a named folder.

Below is an example of a logger configuration file:

# VMA DAQ Configuration  
# Version 0.1.0  
  
# daq scanning mode  
MODE logger  
  
# daq sampling info  
FS 3200  
BLOCKSIZE 3200  
  
# daq channel to data column mapping. the time stamp column is zero indexed to avoid confusion with the 'physical' daq channels  
TIMEID 0  
OUTID 1, 2, 3, 4, 5, 6  
  
# units per channel  
UNITS g, g, g, g, g, g  
# channel scalling mv/v -> EU  
SENSITIVITY 1000, 1000, 1000, 1000, 1000, 1000  
# scaled already? boolean  
SCALED 0

## Global Degree-of-Freedom File

The global DOF file is used to map the fileids (recorded in the filename by a trigger DAQ) to the global DOF in the modal model. It is expected to be a comma deliminated table located on the project root and named dof.csv.

Below is an example of a dof configuration file. Note the channel = -1 in the last four rows signals that all force channels for that DAQ are to sum.

id,record,axis,orientation,daq,type,channel,x,y,z,input,output  
1,0,3,1,ref2,fixed,1,10,0,0,0,1  
2,0,3,1,ref2,fixed,2,20,0,0,0,1  
3,0,3,1,ref2,fixed,3,60,0,0,0,1  
7,0,3,1,ref1,fixed,1,8.28,40,0,0,1  
8,0,3,1,ref1,fixed,2,18.28,40,0,0,1  
9,0,3,1,ref1,fixed,3,68.28,40,0,0,1  
13,1,3,1,rov1,roving,-1,8.53,5,0,1,1  
14,2,3,1,rov1,roving,-1,18.53,5,0,1,1  
15,3,3,1,rov2,roving,-1,28.53,5,0,1,1  
16,4,3,1,rov2,roving,-1,58.53,5,0,1,1