

CALL_MFILE

Overview

The CALL_MFILE command performs the following tasks:

- Exports data to a MAT file.
- Runs a compiled Matlab-based .exe file to load the data, process the data, and create a new MAT file containing the processed data.
- Imports the data from the second MAT file back into Visual 3D.

Pipeline Command

```
! CALL_MFILE
! - save specified signals to a mat file
! - run an exe compiled from Matlab that
! reads a mat file
! creates a new mat file
! - load the new mat file into Visual3D
!
!/MFILE_NAME= name of the Matlab executable
! specify the entire directory path
!/OUTPUT_FILE= name of the mat file exported
! from Visual3D
!/OUTPUT_SIGNAL_NAMES= Visual3D Signals to export
!/OUTPUT_SIGNAL_TYPES= Visual3D Signal Type
!/OUTPUT_SIGNAL_PROCESSED= Visual3D Processed Flag
!
!/OUTPUT_NAMES= Signal names used in the exported
! file. These are the names that
! the .m file will see
!
!/INPUT_FILE= name of the mat file save by the Matlab exe
!/INPUT_NAMES= signals stored by the Matlab exe
!
!/INPUT_SIGNAL_NAMES= names assigned to these signals
! when they are imported to Visual3D
!/INPUT_SIGNAL_TYPES= types of signals imported to Visual3D
!
```

Examples

This example uses this [sample data](#).

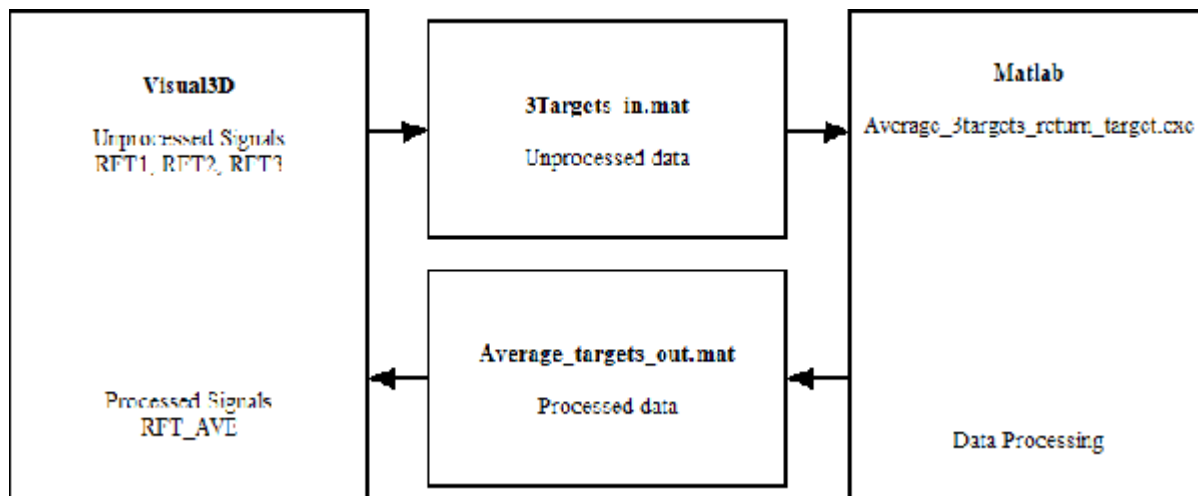
```
CALL_MFILE
/MFILE_NAME= average_3targets_return_target.exe
```

```
/OUTPUT_FILE= c:temp3Targets_in.mat
/OUTPUT_SIGNAL_NAMES= RFT1+RFT2+RFT3
/OUTPUT_SIGNAL_TYPES= TARGET+TARGET+TARGET
/OUTPUT_SIGNAL_PROCESSED= FALSE+FALSE+FALSE
/OUTPUT_NAMES= SIGNAL1_IN+SIGNAL2_IN+SIGNAL3_IN
/INPUT_FILE= c:tempaveraged_targets_out.mat
/INPUT_SIGNAL_NAMES=RFT_AVE
/INPUT_SIGNAL_TYPES=TARGET
/INPUT_NAMES= SIGNAL_OUT;
```

The OUTPUT_FILE parameter specifies the name of the MAT file to create.

- OUTPUT_SIGNAL_NAMES, OUTPUT_SIGNAL_TYPES, and OUTPUT_SIGNAL_PROCESSED refer to the cell array variables that the Matlab function is expecting.
- MFILE_NAME specifies the name of the compiled Matlab function to run (this must be an .exe file).
- INPUT_FILE specifies the MAT file from which the processed data is imported
- INPUT_NAMES are the variable names (in the m-file) that are read.
- The processed data is placed in the signals specified by INPUT_SIGNAL_NAMES and INPUT_SIGNAL_TYPES (this data is considered “processed” by default).

To clarify, the basic algorithm of the above CALL_MFILE command is illustrated below:



Note that, in order to pass the time signal to a MAT file, you should use “TIME” for the signal name, “FRAME_NUMBERS” for the signal type, and “FALS” for processed.

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Last update: 2025/09/12 18:37

