Sift Command Line

Running Sift from the command line offers several advantages:

- With no need to update a GUI or plots, the application will run much faster
- With experience, it makes it possible to quickly execute commands
- Creating a bat file or python script makes it possible to completely automate processing

Running Sift From Command Line

To start sift in command line mode, open a command line console, navigate to Sift's install directory and run sift with any argument that starts with a single dash (-) if you do not want to run any commands as Sift is launched you can instead pass **-NoGUI**

Command Line Overview

- Commands are prefixed with a dash these are considered a reserved character, but Sift will ignore any dashes that are within double quotes so file-name.txt will cause an error, where “file-name.txt” will not.
- Commands and parameters are case insensitive
- any parameters containing a space or a dash (e.g. a folder path) must be wrapped in double quotes (“”)
- Command parameters are named not positional, so the order they are passed does not matter
- Some commands have a default parameter, in these cases the parameter name can be omitted, for example with -loadLib the directory parameter name is optional. so either of the following will work: -loadLib directory “folder path” or -loadLib “folder path”. These parameters are marked as default in the list below
- Commands can be entered all at once in the same command that launches sift, or one at a time
- To exit pass the command **-Exit**, or press **Ctrl + C** to quickly exit at any time (Sift will exit once the current command finishes executing)
- Most commands have one or more aliases that will be accepted

Help Command

If at any point you need help remembering a command or its parameters you can use the help function. Enter the command **-Help** to receive a list of all available commands within the command line:

```
**********************************************************************
**  Enter command, -exit to close, or -help for a list of commands  **
**********************************************************************
 >> -Help

LoadLib | l
==================================
Search the provided directory and all sub directories for .cmz files and load them
        ~ directory
        ~ libQuery
        ~ libSubjTags


LoadQuery | q
==================================
Load and calculate a predifined query
        ~ file


RunPCA | pca
==================================
Run Principal Compnent Analysis
        ~ name
        ~ numPCs
        ~ workspaceMean
```

This will display the commands default name and any aliases separated by |'s, below each will be a brief description of the command as well as a list of all it's parameters

From here, if you want some more information about a specific command and its parameters you can enter the command of interest and pass it the **help** parameter, this will give a more detailed description of the command and its parameters:

```
**********************************************************************
**  Enter command, -exit to close, or -help for a list of commands  **
**********************************************************************
 >> -RunPCA help

 RunPCA | pca
================================
 Run Principal Compnent Analysis

 Parameters
       ~ name
               - The name of the new PCA being computed
               - Required: True
               - Default Value: N/A
               - Data Type: String
       ~ numPCs
               - The number of dimensions to reduce to
               - Required: False
               - Default Value: 4
               - Data Type: Integer
       ~ workspaceMean
               - If passed PCA will be run on the mean value of each workspace, and not individual traces
               - Required: False
               - Default Value: false
               - Data Type: True / False
```

This will display the command name and any accepted aliases, and below that a list of all parameters complete with a description and some more details about the parameter:

- Whether or not this parameter is required for the command to run
- The default value of the parameter if its not passed
- The expected data type of the parameter

Command Reference

-LoadLib / -l

Search the provided directory and all sub directories for .cmz files and load them into the library

Parameters

**directory (DEFAULT) (REQUIRED) **
A path to the root directory to be searched recursively for .cmzs

- **Data Type:** String (Directory)
- **Default Value:** N/A

**libQuery **
The query used to refine the files loaded into the library

- **Data Type:** String
- **Default Value:** NULL

**libSubjTags **
A list of subject tags that must be included within the .cmzs

- **Data Type:** String
- **Default Value:** NULL

```
 -LoadLib "C:\Library Location\Data" libQuery "RUN AND NOT(OLD)" libSubjTags
"RUN"
```

-LoadLib / -l

Search the provided directory and all sub directories for .cmz files and load them into the library

Parameters

**directory (DEFAULT) (REQUIRED) **
A path to the root directory to be searched recursively for .cmzs

- **Data Type:** String (Directory)

- **Default Value:** N/A

**libQuery **
The query used to refine the files loaded into the library

- **Data Type:** String
- **Default Value:** NULL

**libSubjTags **
A list of subject tags that must be included within the .cmzs

- **Data Type:** String
- **Default Value:** NULL

```
 -LoadLib "C:\Library Location\Data" libQuery "RUN AND NOT(OLD)" libSubjTags
"RUN"
```

-LoadND / -lnd

Takes in the filepath for a Sift Normal Database .Sift file and loads it into the current project.

Parameters

**File (DEFAULT) (REQUIRED) **
A filepath with the Normal Database .sift file to be loaded into the workspace

- **Data Type:** String (File Path)
- **Default Value:** N/A

```
 -LoadND "C:\Library Location\Data\ND.sift"
```

-LoadQuery / -q

Load and calculate a predifined query

Parameters

**file (DEFAULT) (REQUIRED) **
Path to the .q3d containing query definitions

- **Data Type:** String (File Path)
- **Default Value:** N/A

```
-LoadQuery file "C:\Data\query.q3d"
```

-LoadProject / -ld

Load a previously saved project

Parameters

**file (DEFAULT) (REQUIRED) **
The path and name of the project

- **Data Type:** String (File Path)
- **Default Value:** N/A

**loadLib **
If passed Sift will attempt to load the library associated with the project

- **Data Type:** Boolean (True / False)
- **Default Value:** false

```
-LoadProject "C:\Saved Projects\test_project.i3d" loadLib
```

-LoadNDQuery / -ndq

Load and calculate a predifined Normal Database query

Parameters

**file (DEFAULT) (REQUIRED) **
Path to the .q3d containing query definitions

- **Data Type:** String (File Path)
- **Default Value:** N/A

```
-LoadNDQuery file "C:\Data\NDquery.q3d"
```

-SaveProject / -sv

Save the current project

Parameters

**file (DEFAULT) (REQUIRED) **
The path and name of the file

- **Data Type:** String (File Path)
- **Default Value:** N/A

```
-SaveProject file "C:\Project Files\test_project.i3d"
```

-ClearProject / -clr

Clear and create a new project workspace (All unsaved progress will be lost)

```
-ClearProject
```

-SelectSignals / -sig

Select queried signals (if no parameters are passed all signals are selected)

Parameters

**group **
The name of a group to be selected (pass multiple times to select more than one)

- **Data Type:** List
- **Default Value:** NULL

**workspace **
The name of a workspace to be selcted (pass multiple time to select more than one)

- **Data Type:** List
- **Default Value:** NULL

```
-SelectSignals group "KneeAngleX"
```

-SelectMetrics / -met

Select queried metrics (if no parameters are passed all metrics are selected)

Parameters

**group **
The name of the group to be selected (pass multiple times to select more than one)

- **Data Type:** List
- **Default Value:** NULL

**workspace **
The name of the workspace to be selected (pass multiple times to select more than one)

- **Data Type:** List
- **Default Value:** NULL

```
 -SelectMetrics group "AnkleAngleX" group "AnkleAngleY" workspace "P002"
```

-RunTheiaBatch / -RunTheia / -RTB

Make a call to Theia3D.exe and pass an instruction file

Parameters

**settingsFile (DEFAULT) (REQUIRED) **
The instruction set for Theia3D

- **Data Type:** String (File Path)
- **Default Value:** N/A

**theiaLocation **
The location of Theia3D.exe, if not passed a default value will be used, either the last successful location used or the default install location

- **Data Type:** String (File Path)
- **Default Value:** NULL

```
 -RunTheiaBatch theiaLocation "C:\Program Files\Theia\Theia3D\Theia3D.exe"
settingsFile "C:\Data\Theia\The3DSettingsFile.txt"
```

-BuildNormalDatabase / -BuildND

Build a normal database using currently queried data

Parameters

**excludedData **
Pass to use excluded data when creating normal database

- **Data Type:** Boolean (True / False)
- **Default Value:** false

**filePath (DEFAULT) (REQUIRED) **
Location to save the ND

- **Data Type:** String (File Path)
- **Default Value:** N/A

**group **
Group to build normal database with, pass multiple time to select more than one, do not pass to select all

- **Data Type:** List
- **Default Value:** NULL

**librarySummary **
Pass to include a library summary in the normal database, if no other summaries are passed this is the default

- **Data Type:** Boolean (True / False)
- **Default Value:** false

**summaryStats **
What statistics to build the normal database with, pass multiple times to select more than one, do not pass to select all

- **Data Type:** List
- **Default Value:** NULL
- **Options:** Mean, Median, Mode, Trimean, Geometric Mean, Trimmed Mean, Standard Deviation, Variance, Range, 1st Quartile, 3rd Quartile, Interquartile Range, 5th Percentile, 95th Percentile, Mean Absolute Deviation, Median Absolute Deviation

**trialSummary **
Pass to include a trial summary in the normal database, if no other summaries are passed librarySummbary is the default

- **Data Type:** Boolean (True / False)

- **Default Value:** false

**workspaceSummary **
Pass to include a workspace summary in the normal database, if no other summaries are passed librarySummary is the default

- **Data Type:** Boolean (True / False)
- **Default Value:** false

```
 -BuildNormalDatabase "C:\Library\ND.sift" group "AnkleAngleX" summaryStats
"Mean" summaryStats "Mode" librarySummary
```

-MakeHybridModel

Adds the MakeHybridModel module to the build CMZ function.

Parameters

**currentFileDirectory (DEFAULT) (REQUIRED) **
Path to library directory

- **Data Type:** String (Directory)
- **Default Value:** N/A

**modelTemplateFile (REQUIRED) **
Path to MDH settings file

- **Data Type:** String (File Path)
- **Default Value:** N/A

```
 -MakeHybridModel modelTemplateFile "C:\Data Folder\ModelFile.mdh"
currentFileDirectory "C:\Data Folder\DataFiles\"
```

-MergeData / -Merge

Adds the MergeData module to the build CMZ function.

Parameters

**mergeScriptFile (DEFAULT) (REQUIRED) **
Path to V3S script file

- **Data Type:** String (File Path)
- **Default Value:** N/A

```
-MergeData mergeScriptFile "C:\Data Folder\Merge Script.v3s"
```

-AddMetaData / -Merge

Adds the AddMetaData module to the build CMZ function.

Parameters

**metaFile (REQUIRED) **
Path to CSV metadata file

- **Data Type:** String (File Path)
- **Default Value:** N/A

**settingsFile (DEFAULT) **
Path to XML settings file for metaData selections

- **Data Type:** String (File Path)
- **Default Value:** NULL

```
-AddMetaData metaFile "C:\Data Folder\MetaData.csv" settings File "C:\Data Folder\Meta Settings File.xml"
```

-TagByFile

Adds the TagByFile module to the build CMZ function.

Parameters

**MaskAndTag (DEFAULT) (REQUIRED) **
String containing the file mask followed by the tag to assign the file. These should be separated with a colon ':'

- **Data Type:** List
- **Default Value:** N/A

```
- TagByFile MaskAndTag "*run.c3d:run"
```

-AddV3DScript

Adds the V3D Script module to the build CMZ function.

Parameters

**scriptFile (DEFAULT) (REQUIRED) **
Path to script file

- **Data Type:** List
- **Default Value:** N/A

```
-AddV3DScript scriptFile "C:\Data Folder\pipeline.v3s"
```

-BuildCMZ

Main function for building CMZ workspaces. Calls sub functions

```
    ~ directory
    ~ settingsFile
    ~ preview
```

Parameters

**directory (DEFAULT) (REQUIRED) **
A path to the root directory to be searched recursively for .c3ds

- **Data Type:** String (Directory)
- **Default Value:** N/A

settingsFile
A .xml file containing buildCMZ dialog settings saved from the GUI

- **Data Type:** String (File Path)
- **Default Value:** N/A

preview
If passed Sift will provide a preview of the build it will run and ask the user if they wish to continue.

- **Data Type:** Boolean (True / False)
- **Default Value:** false

```
-BuildCMZ directory ".../../" settingsFile "/.../buildSettings.xml" preview
```

-RunPCA / -pca

Run Principal Compnent Analysis on selected groups / workspaces

Parameters

**name (DEFAULT) (REQUIRED) **
The name of the PCA

- **Data Type:** String
- **Default Value:** N/A

**numPCs **
The number of principal components calculated

- **Data Type:** Integer
- **Default Value:** 4

**workspaceMean **
If passed run PCA on workspace mean instead of individual traces

- **Data Type:** Boolean (True / False)
- **Default Value:** false

```
-RunPCA name "Sample_PCA" numPCs "4" workspaceMean
```

-RunLOF / -lof

Run Local Outlier Factor on currently active PCA

Parameters

**autoExclude **
If passed any outliers found will be excluded automatically

- **Data Type:** Boolean (True / False)
- **Default Value:** false

**grouping **

How should data be grouped before looking for outliers

- **Data Type:** String
- **Default Value:** combined group
- **Options:** combined group, group, workspace

**manualThreshold **
The threshold to consider when searching for outliers

- **Data Type:** Decimal
- **Default Value:** 3

**numNeighbors **
How many neighbors should each point be compared to

- **Data Type:** Integer
- **Default Value:** 14

**numPasses **
How many iterations of the test should be run

- **Data Type:** Integer
- **Default Value:** 1

**numPCs **
How many principal components should the test be run on

- **Data Type:** Integer
- **Default Value:** 2

**PCsVariance **
Determine the numbe of PCs by variance explained

- **Data Type:** Decimal
- **Default Value:** 95

**scaleToVariability **
Scale all calculated values to the variavility explained by the PC

- **Data Type:** Boolean (True / False)
- **Default Value:** false

```
 -RunLOF grouping "combined group" numPasses "2" numNeighbors "7"
autoExclude
```

-RunKMeans / -kmeans

Run K-Means clustering on currently actve PCA

Parameters

**clusters **
How many clusters generated

- **Data Type:** Integer
- **Default Value:** 2

**customSeed **
Provide a seed for the random first centroid (produces repeatable results)

- **Data Type:** Integer
- **Default Value:** 0

**grouping **
How should data be grouped before being clustered

- **Data Type:** String
- **Default Value:** combined group
- **Options:** combined group, group, workspace

**iterations **
How many iterations of the test should be run

- **Data Type:** Integer
- **Default Value:** 1

**numPCs **
The number of principal components to run the test on

- **Data Type:** Integer
- **Default Value:** 2

**PCsVariance **
Determine the number of PCs by variance explained

- **Data Type:** Decimal
- **Default Value:** 95

**scaleToVariability **
Scale all calculated values to the variability explained by the PC

- **Data Type:** Boolean (True / False)
- **Default Value:** false

```
-RunKMeans clusters "4" scaleToVariability
```

-RunSPE / -spe

Run Squared Prediction Error on the currently active PCA

Parameters

**alphaValue **
The alpha threshold used to determine outliers

- **Data Type:** Decimal
- **Default Value:** 0.1
- **Options:** 0.1, 0.05, 0.025, 0.01, 0.005

**autoExclude **
If passed any outliers found will be exclude automatically

- **Data Type:** Boolean (True / False)
- **Default Value:** false

**numPCs **
The number of principal components to run the test on

- **Data Type:** Integer
- **Default Value:** 2

**PCsVariance **
scale calculated values to variability explained

- **Data Type:** Decimal
- **Default Value:** 95

```
-RunSPE alphaValue "0.005" PCsVariance "80.0"
```

-RunMah / -mah

Run Mahalanobis Distance test on the currently active PCA

Parameters

**alphaValue **
The alpha threshold used to determine outliers

- **Data Type:** Decimal
- **Default Value:** 0.1
- **Options:** 0.1, 0.05, 0.025, 0.01, 0.005

**autoExclude **
If passed any outliers found will be excluded automatically

- **Data Type:** Boolean (True / False)
- **Default Value:** false

**grouping **
How should data be grouped before running

- **Data Type:** String
- **Default Value:** combined group
- **Options:** combined group, group, workspace

**numPasses **
How many iterations of the test should be run

- **Data Type:** Integer
- **Default Value:** 1

**numPCs **
The number of principal components to run the test on

- **Data Type:** Integer
- **Default Value:** 2

**PCsVariance **
Determing the number of PCs by variance explained instead of number

- **Data Type:** Decimal
- **Default Value:** 95

**scaleToVariance **
scale calculated values to variability explained

- **Data Type:** Boolean (True / False)
- **Default Value:** false

```
-RunMah grouping "group" alphaValue "0.5" autoExclude
```

-RunGDI

Calculate Gait Deviation Index (GDI)

Parameters

**computeComponents **
If passed compute all component queries

- **Data Type:** Boolean (True / False)
- **Default Value:** false

**computeQueries **
If passed compute generated queries after running

- **Data Type:** Boolean (True / False)
- **Default Value:** false

**leftEvent **
The left gait event used

- **Data Type:** String
- **Default Value:** NULL

**normalDatabase (REQUIRED) **
The normal database used to run GDI

- **Data Type:** String (File Path)
- **Default Value:** N/A

**normalizedPoints **
The number of points to normalize to

- **Data Type:** Integer
- **Default Value:** 0

**rightEvent **
The right gait event used

- **Data Type:** String
- **Default Value:** NULL

**settingsFile (DEFAULT) (REQUIRED) **
The settings XML file containing the calculate instructions, to overwrite the settings within the file pass the associated parameter

- **Data Type:** String (File Path)
- **Default Value:** N/A

**signalFolder **
What folder to search for signals

- **Data Type:** String
- **Default Value:** NULL

-RunV3D / -s / -plpath

Run pipelines via the Visual3D engine

Parameters

**exportLog **
If passed a processing log will be exported to the file path provided

- **Data Type:** String (File Path)
- **Default Value:** NULL

**onLib **
If passed the scripts will be run on the loaded library

- **Data Type:** Boolean (True / False)
- **Default Value:** false

**script (DEFAULT) (REQUIRED) **
A path to the script file, multiple scripts can be passed by repeating the parameter (Scripts are executed in the order passed)

- **Data Type:** List
- **Default Value:** N/A

```
 -RunV3D script "C:\Scripts\v3d_script.v3s" exportLog
"C:\Scripts\v3d_script_export.txt"
```

-RunV3DCommand / -c

Run a single V3D pipeline command (Can be used multiple times to execute multiple commands

Parameters

**command (DEFAULT) (REQUIRED) **
The pipeline command executed

- **Data Type:** String
- **Default Value:** N/A

```
 -RunV3DCommand command "Set_Default_Folders / DEFAULT_DATA = C:\Users\Shane
Granger\Desktop\Intro_Project\SPL - Open - Data -
main\basketball\freethrowdata; "
```

-DirPath

Set a global variable within the V3D Engine to the passed path

Parameters

**path (DEFAULT) (REQUIRED) **
The path to set

- **Data Type:** String (Directory)
- **Default Value:** N/A

```
-DirPath path "C:\Work Directory\Data"
```

-SetEnginePluginsFolder / -SEPF

Set the location the engine will look for plugins e.g Meta-Commands

Parameters

**folderPath (DEFAULT) (REQUIRED) **
The path to the engine plugins folder

- **Data Type:** String (Directory)
- **Default Value:** N/A

```
-SetEnginePluginsFolder folderPath "C:\Engine Resources"
```

-RegisterCurves / -rc

Register time series data to allign certain landmarks / events

Parameters

**eventSequence **
Register by events

- **Data Type:** Boolean (True / False)

- **Default Value:** false

**localMax **
Register by local maximum

- **Data Type:** Boolean (True / False)
- **Default Value:** false

**localMaxLower **
The lower bounds of the local max

- **Data Type:** Integer
- **Default Value:** -1

**localMaxUpper **
The upper bounds of the local max

- **Data Type:** Integer
- **Default Value:** -1

**localMin **
Register by local minimum

- **Data Type:** Boolean (True / False)
- **Default Value:** false

**localMinLower **
The lower bounds of the local minimum

- **Data Type:** Integer
- **Default Value:** -1

**localMinUpper **
The upper bounds of the local minimum

- **Data Type:** Integer
- **Default Value:** -1

**max **
Register by maximum

- **Data Type:** Boolean (True / False)
- **Default Value:** false

**min **
Register by minimum

- **Data Type:** Boolean (True / False)
- **Default Value:** false

**name (DEFAULT) (REQUIRED) **
The name for the new group created

- **Data Type:** String

- **Default Value:** N/A

```
-RegisterCurves name "Knee Angle X Reg" max min
```

-CreateGLM / -glm

Create a General Linear Model using the selected groups / workspaces

Parameters

**grouping **
The grouping used for the model

- **Data Type:** String
- **Default Value:** group
- **Options:** workspace, group

**name (DEFAULT) (REQUIRED) **
The name of the GLM

- **Data Type:** String
- **Default Value:** N/A

**test **
The intended test type for the model

- **Data Type:** String
- **Default Value:** two_sample
- **Options:** one_sample, two_sample, paired, one_way_anova

**workspaceMeans **
If passed use workspace means, instead of the individual traces

- **Data Type:** Boolean (True / False)
- **Default Value:** false

```
-CreateGLM name "GLM_ONE" test "one_sample" grouping "group" workspaceMeans
```

-RunSPM1ttest

Run Statistical Parameteric Mapping One-Sample T-Test

Parameters

**alpha (REQUIRED) **
The alpha value to threshold with

- **Data Type:** Decimal
- **Default Value:** N/A

**glm (REQUIRED) **
The name of the GLM to use when creating the SPM

- **Data Type:** String
- **Default Value:** N/A

**group (REQUIRED) **
The name of the group to test

- **Data Type:** String
- **Default Value:** N/A

**name (REQUIRED) **
The name of the SPM being created

- **Data Type:** String
- **Default Value:** N/A

**twoTailed **
If two-tailed inference (as opposed to one-tailed)

- **Data Type:** Boolean (True / False)
- **Default Value:** false

```
 -RunSPM1TTest name "SPM_1_Test" glm "GLM_ONE" alpha "0.7" group
"AnkleAngleX"
```

-RunSPM2ttest / -spm

Run Statistical Parameteric Mapping Two-Sample T-Test

Parameters

**alpha (REQUIRED) **
The alpha value to threshold with

- **Data Type:** Decimal
- **Default Value:** N/A

**glm (REQUIRED) **
The name of the GLM to use when creating the SPM

- **Data Type:** String
- **Default Value:** N/A

**group1 (REQUIRED) **
The name of the first group to test

- **Data Type:** String
- **Default Value:** N/A

**group2 (REQUIRED) **
The name of the second group to test

- **Data Type:** String
- **Default Value:** N/A

**name (REQUIRED) **
The name of the SPM being created

- **Data Type:** String
- **Default Value:** N/A

**twoTailed **
If two-tailed inference (as opposed to one-tailed)

- **Data Type:** Boolean (True / False)
- **Default Value:** false

```
 -RunSPM2TTest name "spm_two_sample" glm "GLM_TWO" group1 "KneeAngleX"
group2 "HipAngleX"
```

-RunSPMpairedttest

Run Statistical Parameteric Mapping Paired T-Test

Parameters

**alpha (REQUIRED) **
The alpha value to threshold with

- **Data Type:** Decimal
- **Default Value:** N/A

**glm (REQUIRED) **
The name of the GLM to use when creating the SPM

- **Data Type:** String
- **Default Value:** N/A

**group1 (REQUIRED) **
The name of the first group to test

- **Data Type:** String
- **Default Value:** N/A

**group2 (REQUIRED) **
The name of the second group to test

- **Data Type:** String
- **Default Value:** N/A

**name (REQUIRED) **
The name of the SPM being created

- **Data Type:** String
- **Default Value:** N/A

**twoTailed **
If two-tailed inference (as opposed to one-tailed)

- **Data Type:** Boolean (True / False)
- **Default Value:** false

```
 -RunSPMPairedTTest name "spm_pair" glm "GLM_ONE" group1 "AnkleAngleX"
group2 "KneeAngleX"
```

-RunSPMOneWayAnova

Run Statistical Parameteric Mapping one way Anova test

Parameters

**alpha (REQUIRED) **
The alpha value to threshold with

- **Data Type:** Decimal
- **Default Value:** N/A

**glm (REQUIRED) **
The name of the GLM to use when creating the SPM

- **Data Type:** String
- **Default Value:** N/A

**name (REQUIRED) **
The name of the SPM being created

- **Data Type:** String
- **Default Value:** N/A

**twoTailed **
If two-tailed inference (as opposed to one-tailed)

- **Data Type:** Boolean (True / False)
- **Default Value:** false

```
-RunSPMOneWayAnova name "anova_spm" glm "GLM_2" twoTailed
```

-RunDTW / -dtw

Run Dynamic Time Warping

Parameters

**DTWType **
The type of DTW test to run.

- **Data Type:** String
- **Default Value:** FindOutliers
- **Options:** FindOutliers, FindTrace

**exclude **
Do you want to exclude the found traces?

- **Data Type:** Boolean (True / False)
- **Default Value:** false

**framesOfTrace **
The frames of the trace you want to compare the dataset to. Example input frames: [1,100]

- **Data Type:** String
- **Default Value:** NULL

**groupOfTrace **
The group of the trace you want to compare the dataset to.

- **Data Type:** String
- **Default Value:** NULL

**groups (REQUIRED) **
Groups to run DTW on

- **Data Type:** List
- **Default Value:** N/A

**standardDeviations **
How many standard deviation to test for: 1-3

- **Data Type:** Integer
- **Default Value:** 1
- **Options:** 1, 2, 3

**testName (REQUIRED) **
The name of the DTW test being run.

- **Data Type:** String
- **Default Value:** N/A

**trialOfTrace **
The trial of the trace you want to compare the dataset to.

- **Data Type:** String
- **Default Value:** NULL

**workspaceOfTrace **
The workspace of the trace you want to compare the dataset to.

- **Data Type:** String
- **Default Value:** NULL

**workspaces **
Workspaces to run DTW on, if left blank all workspaces will be used.

- **Data Type:** List
- **Default Value:** NULL

```
-RunDTW name "SAMPLE_DTW" standardDeviations "3"
```

-DeleteGLM / -DGLM

Delete an existing GLM and all of its associated SPMs

Parameters

**name (DEFAULT) (REQUIRED) **
The name of the GLM to delete

- **Data Type:** String
- **Default Value:** N/A

```
-DeleteGLM "GLM_ONE"
```

-DeleteSPM / -DSPM

Delete an existing SPM from the passed GLM

Parameters

**glm (REQUIRED) **
The name of the GLM that contains the SPM to delete

- **Data Type:** String
- **Default Value:** N/A

**spm (REQUIRED) **
The name of the SPM to delete

- **Data Type:** String
- **Default Value:** N/A

```
-DeleteSPM glm "GLM_ONE" spm "SPM_ONE"
```

-SelectGLM / -SGLM

Select an existing GLM

Parameters

**name (DEFAULT) (REQUIRED) **
The name to the GLM to select

- **Data Type:** String
- **Default Value:** N/A

```
-SelectGLM name "GLM_ONE"
```

-SelectSPM / -SSPM

Select and existing SPM from the active GLM

Parameters

**glm (REQUIRED) **
The name of the GLM containing the SPM to select

- **Data Type:** String
- **Default Value:** N/A

**spm (REQUIRED) **
The name of the SPM to select

- **Data Type:** String
- **Default Value:** N/A

```
-SelectSPM glm "GLM_ONE" spm "SPM_ONE"
```

-RunGPS / -GPS

Calulates GPS metrics for the loaded data.

Parameters

**computeComponentQueries **
If passed calculate individual component queries generated by results

- **Data Type:** Boolean (True / False)
- **Default Value:** false

**computeQueries **
If passed calculate all queries generated by results

- **Data Type:** Boolean (True / False)
- **Default Value:** false

**leftEvent **
The left cycle event to use for gait

- **Data Type:** String
- **Default Value:** NULL

**normalDatabase (REQUIRED) **
Path to normal database file

- **Data Type:** String (File Path)
- **Default Value:** N/A

**normalizedPoints **
How many points to normalize to

- **Data Type:** Integer
- **Default Value:** 0

**p2dFolder **
The normal database folder (only used for .vnd files)

- **Data Type:** String
- **Default Value:** NULL

**rightEvent **
The right cycle event to use for gait

- **Data Type:** String
- **Default Value:** NULL

**settingsFile (DEFAULT) (REQUIRED) **
Path to XML settings file, to overwrite any settings within the file pass the associated parameter

- **Data Type:** String (File Path)
- **Default Value:** N/A

**signalFolder **
The folder the singal can be found in

- **Data Type:** String
- **Default Value:** NULL

**signalType **
The signal type the signal can be found in

- **Data Type:** String
- **Default Value:** NULL

```
-RunGPS "C:\Data Folder\GPS Settings File.xml" leftEvent "RTO"
```

-RunGGA / -GGA

Execute the GGA process on all loaded .cmz files in the library using the configured parameters and settings.

Parameters

**computeQuery **
Compute query after calculation

- **Data Type:** Boolean (True / False)
- **Default Value:** false

**leftCycleEvent **
The left cycle event to be evaluated

- **Data Type:** String
- **Default Value:** NULL

**leftSelects **
Select the left side signals for GGA processing

- **Data Type:** List
- **Default Value:** NULL

**pelvis **
Select pelvis signal to use for GGA computation

- **Data Type:** String
- **Default Value:** NULL

**settingsFile **
A path to a LGGA settings file

- **Data Type:** String (File Path)
- **Default Value:** NULL

**signalFolder **
The folder of signals you would like to process for LGGA

- **Data Type:** String
- **Default Value:** ORIGINAL
- **Options:** ORIGINAL, PROCESSED

**signalMagnitude **
Use signal magnitude for LGGA

- **Data Type:** Boolean (True / False)
- **Default Value:** false

**trunk **
Select trunk signal to use for GGA computation

- **Data Type:** String
- **Default Value:** NULL

```
 -runGGA leftCycleEvent "LHS" leftSelects "LAnklePower" rightCycleEvent
"RHS" computeQuery
```

-ExportData / -ex

Export queried data

Parameters

**allSequencesNorm **
CommandExport all sequences normalized

- **Data Type:** Boolean (True / False)
- **Default Value:** false

**allSequencesTime **
CommandExport all time based sequences

- **Data Type:** Boolean (True / False)
- **Default Value:** false

**eventsNorm **
CommandExport all events normalized

- **Data Type:** Boolean (True / False)
- **Default Value:** false

**eventsOrig **
CommandExport all time based events

- **Data Type:** Boolean (True / False)
- **Default Value:** false

**exportFormat **
What format should be exported: Standard ASCII, Transposed ASCII, SPSS ASCII, P2D, CSV

- **Data Type:** String
- **Default Value:** standard
- **Options:** standard, transposed, spss, p2d, csv, json, xml

**file (REQUIRED) **
Desired path for the text export to be saved

- **Data Type:** String (File Path)
- **Default Value:** N/A

**groupMean **
CommandExport the mean value of each group

- **Data Type:** Boolean (True / False)
- **Default Value:** false

**groupStdDev **
CommandExport the standard deviation of each group

- **Data Type:** Boolean (True / False)
- **Default Value:** false

**normalizedTo **
Normalize values to...

- **Data Type:** String
- **Default Value:** 101

**precision **
How many decimal places should values be displayed to

- **Data Type:** String
- **Default Value:** 4

**workspaceMean **
CommandExport the mean of each workspace

- **Data Type:** Boolean (True / False)
- **Default Value:** false

**workspaceStdDev **
CommandExport the standard deviation of each workspace

- **Data Type:** Boolean (True / False)
- **Default Value:** false

```
 -ExporData file "C:\Data\Export Folder\data_export.txt" precision "2"
exportFormat "transposed" groupMean groupStdDev workspaceMean
workspaceStdDev
```

-ExportSummaryStatistics

Export summary statistics

Parameters

**addMetrics **
Export metrics

- **Data Type:** Boolean (True / False)
- **Default Value:** false

**exportFormat **

What format should be exported: Standard ASCII, Transposed ASCII, SPSS ASCII, P2D, CSV

- **Data Type:** String
- **Default Value:** standard
- **Options:** standard, transposed, spss, p2d, csv, json, xml

**file (REQUIRED) **
Desired path for the text export to be saved

- **Data Type:** String (File Path)
- **Default Value:** N/A

**max **
Export the maximum value

- **Data Type:** Boolean (True / False)
- **Default Value:** false

**maxEventPoint **
Export the maximum event point

- **Data Type:** Boolean (True / False)
- **Default Value:** false

**maxStdDev **
Export the maximum standard deviation

- **Data Type:** Boolean (True / False)
- **Default Value:** false

**mean **
Export the mean value

- **Data Type:** Boolean (True / False)
- **Default Value:** false

**meanStdDev **
Export the mean standard deviation

- **Data Type:** Boolean (True / False)
- **Default Value:** false

**min **
Export the minimum value

- **Data Type:** Boolean (True / False)
- **Default Value:** false

**minEventPoint **
Export the minimum event point

- **Data Type:** Boolean (True / False)
- **Default Value:** false

**minStdDev **
Export the minimum standard deviation

- **Data Type:** Boolean (True / False)
- **Default Value:** false

**normalizeMetrics **
Normalize exported metrics

- **Data Type:** Boolean (True / False)
- **Default Value:** false

**precision **
How many decimal places should values be displayed to

- **Data Type:** String
- **Default Value:** 4

**results **
Export results for: Groups, Workspaces, Instances

- **Data Type:** String
- **Default Value:** groups
- **Options:** groups, workspaces, instances

```
 -ExportSummaryStatistics file "C:\Exports\summary_stats.txt" results
"workspaces" mean min max
```

-ExportStatsTestResults

Export results from statistical tests

Parameters

**exportFormat **
What format should be exported: Standard ASCII, Transposed ASCII, SPSS ASCII, P2D, CSV

- **Data Type:** String
- **Default Value:** standard
- **Options:** standard, transposed, spss, p2d, csv, json, xml

**file (REQUIRED) **
Desired path for the text export to be saved

- **Data Type:** String (File Path)
- **Default Value:** N/A

**groupResults **

Export group results: Mean, Standard Deviation, Standard Error, N

- **Data Type:** Boolean (True / False)
- **Default Value:** false

**precision **
How many decimal places should values be displayed to

- **Data Type:** String
- **Default Value:** 4

**testInfo **
Export test information: Statistical Test, Significance Level, Population Mean, Group1 : Name of group used

- **Data Type:** Boolean (True / False)
- **Default Value:** false

**testResults **
Export test results:Degrees of Freedom, T Stat, Null Hypothesis

- **Data Type:** Boolean (True / False)
- **Default Value:** false

```
 -ExportStatsTestResults file "C:\Exports\stats_results.txt" testInfo
groupResults testResults
```

-ExportRegisteredCurves

Export results of curve registration

Parameters

**exportFormat **
What format should be exported: Standard ASCII, Transposed ASCII, SPSS ASCII, P2D, CSV

- **Data Type:** String
- **Default Value:** standard
- **Options:** standard, transposed, spss, p2d, csv, json, xml

**file (REQUIRED) **
Desired path for the text export to be saved

- **Data Type:** String (File Path)
- **Default Value:** N/A

**landmarkAll **

Export all landmarks

- **Data Type:** Boolean (True / False)
- **Default Value:** false

**landmarkMeans **
Export the landmark mean value

- **Data Type:** Boolean (True / False)
- **Default Value:** false

**precision **
How many decimal places should values be displayed to

- **Data Type:** String
- **Default Value:** 4

**registeredCurves **
Export registered curves

- **Data Type:** Boolean (True / False)
- **Default Value:** false

**warpingFunctions **
Export all warping functions

- **Data Type:** Boolean (True / False)
- **Default Value:** false

```
 -ExportRegisteredCurves file "C:\Export Folder\registered_curves.txt"
registeredCurves warpingFunctions landmarkMeans
```

-ExportDTW

Export Dynamic Time Warping results

Parameters

**costFunctions **
Export cost functions

- **Data Type:** Boolean (True / False)
- **Default Value:** false

**exportFormat **
What format should be exported: Standard ASCII, Transposed ASCII, SPSS ASCII, P2D, CSV

- **Data Type:** String

- **Default Value:** standard
- **Options:** standard, transposed, spss, p2d, csv, json, xml

**file (REQUIRED) **
Desired path for the text export to be saved

- **Data Type:** String (File Path)
- **Default Value:** N/A

**foundAnomalies **
Export all outliers found with dynamic time warping

- **Data Type:** Boolean (True / False)
- **Default Value:** false

**precision **
How many decimal places should values be displayed to

- **Data Type:** String
- **Default Value:** 4

```
-ExportDTW file "C:\DTW DATA\export.txt" costFunctions foundAnomalies
```

-ExportSPM

Export Statistical Parameteric Mapping results

Parameters

**bMatrix **
Export the B Matrix used

- **Data Type:** Boolean (True / False)
- **Default Value:** false

**exportFormat **
What format should be exported: Standard ASCII, Transposed ASCII, SPSS ASCII, P2D, CSV

- **Data Type:** String
- **Default Value:** standard
- **Options:** standard, transposed, spss, p2d, csv, json, xml

**file (REQUIRED) **
Desired path for the text export to be saved

- **Data Type:** String (File Path)
- **Default Value:** N/A

**precision **
How many decimal places should values be displayed to

- **Data Type:** String
- **Default Value:** 4

**residualMatrix **
Export the residual matrix

- **Data Type:** Boolean (True / False)
- **Default Value:** false

**spm **
Export the statistical parameteric map

- **Data Type:** Boolean (True / False)
- **Default Value:** false

```
-ExportSPM file "C:\Export Folder\SPM.txt" bMatrix residualMatrix spm
```

-ExportPCA

Export Principal Component Analysis results

Parameters

**eigenVectors **
Export the eigen vectors

- **Data Type:** Boolean (True / False)
- **Default Value:** false

**exportFormat **
What format should be exported: Standard ASCII, Transposed ASCII, SPSS ASCII, P2D, CSV

- **Data Type:** String
- **Default Value:** standard
- **Options:** standard, transposed, spss, p2d, csv, json, xml

**file (REQUIRED) **
Desired path for the text export to be saved

- **Data Type:** String (File Path)
- **Default Value:** N/A

**groupScores **
Export group scores

- **Data Type:** Boolean (True / False)
- **Default Value:** false

**groupStdDev **
Export group standard deviation

- **Data Type:** Boolean (True / False)
- **Default Value:** false

**kMeans **
Export K-Means results

- **Data Type:** Boolean (True / False)
- **Default Value:** false

**lof **
Export local outlier factor results

- **Data Type:** Boolean (True / False)
- **Default Value:** false

**lofThreshold **
Export threshould to determine an LOF outlier

- **Data Type:** Boolean (True / False)
- **Default Value:** false

**mahDis **
Export the mahalanobis distance results

- **Data Type:** Boolean (True / False)
- **Default Value:** false

**mahDisThreshold **
Export the threshold used to determine a mahalanobis distance outlier

- **Data Type:** Boolean (True / False)
- **Default Value:** false

**mean595 **
Export the mean plus or minus 5 and 95%

- **Data Type:** Boolean (True / False)
- **Default Value:** false

**meanSD **
Export the mean plus or minus one standard deviation

- **Data Type:** Boolean (True / False)
- **Default Value:** false

**precision **
How many decimal places should values be displayed to

- **Data Type:** String
- **Default Value:** 4

**spe **
Export squared prediction error results

- **Data Type:** Boolean (True / False)
- **Default Value:** false

**speThreshold **
Export the threshold to determine an SPE outlier

- **Data Type:** Boolean (True / False)
- **Default Value:** false

**varianceExplained **
Export the variance explained

- **Data Type:** Boolean (True / False)
- **Default Value:** false

**workspaceScores **
Export workspace scores

- **Data Type:** Boolean (True / False)
- **Default Value:** false

```
 -ExportPCA file "C:\Processing Folder\PCA\export.txt" groupScores
workspaceScores lof spe
```

-ExportND

Export Principal Component Analysis results

Parameters

**exportFormat **
What format should be exported: Standard ASCII, Transposed ASCII, SPSS ASCII, P2D, CSV

- **Data Type:** String
- **Default Value:** standard
- **Options:** standard, transposed, spss, p2d, csv, json, xml

**file (REQUIRED) **
Desired path for the text export to be saved

- **Data Type:** String (File Path)
- **Default Value:** N/A

**ndSignals **
Export Normal Database Signals

- **Data Type:** Boolean (True / False)
- **Default Value:** false

**precision **
How many decimal places should values be displayed to

- **Data Type:** String
- **Default Value:** 4

```
-ExportND file "C:\Processing Folder\ND\export.txt" ndSignals
```

-ExportPlotSignalTime / -ExportPlotST / -EPST

Export a signal time plot using the currently selected groups / workspaces

Parameters

**dataStyle **
The data style to use when generating plot.

- **Data Type:** String
- **Default Value:** Workspace
- **Options:** Workspace, Group, Sub Group, Cluster

**filePath (DEFAULT) (REQUIRED) **
The file path the plot will be saved to.

- **Data Type:** String (File Path)
- **Default Value:** N/A

**groupDispersion **
If passed group dispersion will be plotted

- **Data Type:** Boolean (True / False)
- **Default Value:** false

**groupDispersionType **
The type of dispersion to be displayed for groups

- **Data Type:** String
- **Default Value:** One Standard Deviation
- **Options:** One Standard Deviation, Two Standard Deviations, Interquartile Range

**groupMean **

If passed group mean will be plotted

- **Data Type:** Boolean (True / False)
- **Default Value:** false

**height **
The height of the image exported.

- **Data Type:** Integer
- **Default Value:** 1000

**legend **
Which corner should the legend be displayed in, if not passed no legend will be displayed

- **Data Type:** String
- **Default Value:** NULL
- **Options:** , Top Left, Top Right, Bottom Left, Bottom Right

**rawTraces **
If passed indivdual traces will be plotted

- **Data Type:** Boolean (True / False)
- **Default Value:** false

**title **
The title of the plot.

- **Data Type:** String
- **Default Value:** ###

**width **
The width of the image exported.

- **Data Type:** Integer
- **Default Value:** 1000

**workspaceDispersion **
If passed workspace dispersion will be plotted

- **Data Type:** Boolean (True / False)
- **Default Value:** false

**workspaceDispersionType **
The type of dispersion to be displayed for workspaces

- **Data Type:** String
- **Default Value:** One Standard Deviation
- **Options:** One Standard Deviation, Two Standard Deviations, Interquartile Range

**workspaceMean **
If passed workspace mean will be plotted

- **Data Type:** Boolean (True / False)
- **Default Value:** false

**xLabel **
Label for the X-Axis.

- **Data Type:** String
- **Default Value:** ###

**XRange **
The display range of the X Axis: “Max,Min”

- **Data Type:** String
- **Default Value:** ###

**yLabel **
Label for the Y-Axis.

- **Data Type:** String
- **Default Value:** ###

**YRange **
The display range of the Y Axis: “Max,Min”

- **Data Type:** String
- **Default Value:** ###

```
 -ExportPlotSignalTime filePath "C:\Plots\signal_time.png" groupMean
WorkspaceMean groupDispersion workspaceDispersion
```

-ExportPlotMetric / -ExportPlotM / -EPM

Export a metric plot using the currently selected groups / workspaces

Parameters

**dataStyle **
The data style to use when generating plot.

- **Data Type:** String
- **Default Value:** Workspace
- **Options:** Workspace, Group, Sub Group, Cluster

**filePath (DEFAULT) (REQUIRED) **
The file path the plot will be saved to.

- **Data Type:** String (File Path)
- **Default Value:** N/A

**groupDispersion **

If passed group dispersion will be plotted

- **Data Type:** Boolean (True / False)
- **Default Value:** false

**groupDispersionType **
The type of dispersion to be displayed for groups

- **Data Type:** String
- **Default Value:** One Standard Deviation
- **Options:** One Standard Deviation, Two Standard Deviations, Interquartile Range

**groupMean **
If passed group mean will be plotted

- **Data Type:** Boolean (True / False)
- **Default Value:** false

**height **
The height of the image exported.

- **Data Type:** Integer
- **Default Value:** 1000

**legend **
Which corner should the legend be displayed in, if not passed no legend will be displayed

- **Data Type:** String
- **Default Value:** NULL
- **Options:** , Top Left, Top Right, Bottom Left, Bottom Right

**meanPlotStyle **
How should means be displayed

- **Data Type:** String
- **Default Value:** Bar Chart
- **Options:** Bar Chart, Stacked Bar Chart, Box Plot

**metricGrouping **
How should workspace means be grouped?

- **Data Type:** String
- **Default Value:** No Group
- **Options:** No Group, Group, Workspace

**rawTraces **
If passed indivdual traces will be plotted

- **Data Type:** Boolean (True / False)
- **Default Value:** false

**title **
The title of the plot.

- **Data Type:** String
- **Default Value:** ###

**width **
The width of the image exported.

- **Data Type:** Integer
- **Default Value:** 1000

**workspaceDispersion **
If passed workspace dispersion will be plotted

- **Data Type:** Boolean (True / False)
- **Default Value:** false

**workspaceDispersionType **
The type of dispersion to be displayed for workspaces

- **Data Type:** String
- **Default Value:** One Standard Deviation
- **Options:** One Standard Deviation, Two Standard Deviations, Interquartile Range

**workspaceMean **
If passed workspace mean will be plotted

- **Data Type:** Boolean (True / False)
- **Default Value:** false

**xLabel **
Label for the X-Axis.

- **Data Type:** String
- **Default Value:** ###

**XRange **
The display range of the X Axis: “Max,Min”

- **Data Type:** String
- **Default Value:** ###

**yLabel **
Label for the Y-Axis.

- **Data Type:** String
- **Default Value:** ###

**YRange **
The display range of the Y Axis: “Max,Min”

- **Data Type:** String
- **Default Value:** ###

```
-ExportPlotMetric file "C:\Plot Exports\metric_plot.png" groupMean
```

```
meanPlotStyle "Stacked Bar Chart"
```

-ExportPlotPairSignal / -ExportPlotPS / -EPPS

Export a Signal Signal plot using the currently selected groups / workspaces

Parameters

**dataStyle **
The data style to use when generating plot.

- **Data Type:** String
- **Default Value:** Workspace
- **Options:** Workspace, Group, Sub Group, Cluster

**filePath (DEFAULT) (REQUIRED) **
The file path the plot will be saved to.

- **Data Type:** String (File Path)
- **Default Value:** N/A

**groupDispersion **
If passed group dispersion will be plotted

- **Data Type:** Boolean (True / False)
- **Default Value:** false

**groupDispersionType **
The type of dispersion to be displayed for groups

- **Data Type:** String
- **Default Value:** One Standard Deviation
- **Options:** One Standard Deviation, Two Standard Deviations, Interquartile Range

**groupMean **
If passed group mean will be plotted

- **Data Type:** Boolean (True / False)
- **Default Value:** false

**height **
The height of the image exported.

- **Data Type:** Integer
- **Default Value:** 1000

**legend **

Which corner should the legend be displayed in, if not passed no legend will be displayed

- **Data Type:** String
- **Default Value:** NULL
- **Options:** , Top Left, Top Right, Bottom Left, Bottom Right

**pair (REQUIRED) **
Add a pair of two groups, seperare group names with '|' eg. “GROUP_1|GROUP_2”

- **Data Type:** List
- **Default Value:** N/A

**rawTraces **
If passed indivdual traces will be plotted

- **Data Type:** Boolean (True / False)
- **Default Value:** false

**title **
The title of the plot.

- **Data Type:** String
- **Default Value:** ###

**width **
The width of the image exported.

- **Data Type:** Integer
- **Default Value:** 1000

**workspaceDispersion **
If passed workspace dispersion will be plotted

- **Data Type:** Boolean (True / False)
- **Default Value:** false

**workspaceDispersionType **
The type of dispersion to be displayed for workspaces

- **Data Type:** String
- **Default Value:** One Standard Deviation
- **Options:** One Standard Deviation, Two Standard Deviations, Interquartile Range

**workspaceMean **
If passed workspace mean will be plotted

- **Data Type:** Boolean (True / False)
- **Default Value:** false

**xLabel **
Label for the X-Axis.

- **Data Type:** String
- **Default Value:** ###

**XRange **
The display range of the X Axis: “Max,Min”

- **Data Type:** String
- **Default Value:** ###

**yLabel **
Label for the Y-Axis.

- **Data Type:** String
- **Default Value:** ###

**YRange **
The display range of the Y Axis: “Max,Min”

- **Data Type:** String
- **Default Value:** ###

```
 -ExportPlotPairSignal filePath "C:\Plot Folder\signalSignal.pdf"
workspaceMean workspaceDispersion
```

-ExportPlotPairMetric / -ExportPlotPM / -EPPM

Export a Metric Metric plot using the currently selected groups / workspaces

Parameters

**dataStyle **
The data style to use when generating plot.

- **Data Type:** String
- **Default Value:** Workspace
- **Options:** Workspace, Group, Sub Group, Cluster

**filePath (DEFAULT) (REQUIRED) **
The file path the plot will be saved to.

- **Data Type:** String (File Path)
- **Default Value:** N/A

**groupDispersion **
If passed group dispersion will be plotted

- **Data Type:** Boolean (True / False)
- **Default Value:** false

**groupDispersionType **

The type of dispersion to be displayed for groups

- **Data Type:** String
- **Default Value:** One Standard Deviation
- **Options:** One Standard Deviation, Two Standard Deviations, Interquartile Range

**groupMean **
If passed group mean will be plotted

- **Data Type:** Boolean (True / False)
- **Default Value:** false

**height **
The height of the image exported.

- **Data Type:** Integer
- **Default Value:** 1000

**jitterX **
The random offset of each point on the X Axis

- **Data Type:** Decimal
- **Default Value:** 0

**jitterY **
The random offset of each pointer on the Y Axis

- **Data Type:** Decimal
- **Default Value:** 0

**legend **
Which corner should the legend be displayed in, if not passed no legend will be displayed

- **Data Type:** String
- **Default Value:** NULL
- **Options:** , Top Left, Top Right, Bottom Left, Bottom Right

**pair (REQUIRED) **
Add a pair of two groups, seperare group names with '|' eg. “GROUP_1|GROUP_2”

- **Data Type:** List
- **Default Value:** N/A

**rawTraces **
If passed indivdual traces will be plotted

- **Data Type:** Boolean (True / False)
- **Default Value:** false

**title **
The title of the plot.

- **Data Type:** String
- **Default Value:** ###

**width **
The width of the image exported.

- **Data Type:** Integer
- **Default Value:** 1000

**workspaceDispersion **
If passed workspace dispersion will be plotted

- **Data Type:** Boolean (True / False)
- **Default Value:** false

**workspaceDispersionType **
The type of dispersion to be displayed for workspaces

- **Data Type:** String
- **Default Value:** One Standard Deviation
- **Options:** One Standard Deviation, Two Standard Deviations, Interquartile Range

**workspaceMean **
If passed workspace mean will be plotted

- **Data Type:** Boolean (True / False)
- **Default Value:** false

**xLabel **
Label for the X-Axis.

- **Data Type:** String
- **Default Value:** ###

**XRange **
The display range of the X Axis: “Max,Min”

- **Data Type:** String
- **Default Value:** ###

**yLabel **
Label for the Y-Axis.

- **Data Type:** String
- **Default Value:** ###

**YRange **
The display range of the Y Axis: “Max,Min”

- **Data Type:** String
- **Default Value:** ###

```
 -ExportPlotPairMetric filePath "C:\Plot Folder\pair_metric_plot.jpg" pair
"Stride_Length_Start|Stride_Length_End" jitterX "0.2" jitterY "0.2"
```

-ExportPlotSPM / -EPSPM

Export the current SPM plot

Parameters

**dataStyle **
The data style to use when generating plot.

- **Data Type:** String
- **Default Value:** Workspace
- **Options:** Workspace, Group, Sub Group, Cluster

**filePath (DEFAULT) (REQUIRED) **
The file path the plot will be saved to.

- **Data Type:** String (File Path)
- **Default Value:** N/A

**height **
The height of the image exported.

- **Data Type:** Integer
- **Default Value:** 1000

**legend **
Which corner should the legend be displayed in, if not passed no legend will be displayed

- **Data Type:** String
- **Default Value:** NULL
- **Options:** , Top Left, Top Right, Bottom Left, Bottom Right

**title **
The title of the plot.

- **Data Type:** String
- **Default Value:** ###

**width **
The width of the image exported.

- **Data Type:** Integer
- **Default Value:** 1000

**xLabel **
Label for the X-Axis.

- **Data Type:** String

- **Default Value:** ###

**XRange **
The display range of the X Axis: “Max,Min”

- **Data Type:** String
- **Default Value:** ###

**yLabel **
Label for the Y-Axis.

- **Data Type:** String
- **Default Value:** ###

**YRange **
The display range of the Y Axis: “Max,Min”

- **Data Type:** String
- **Default Value:** ###

```
ExportPlotSPM filePath "C:\Plots\SPM\spm_plot"
```

-ExportPlotResiduals / -ExportPlotR / -EPR

Export the current GLMs residuals plot

Parameters

**dataStyle **
The data style to use when generating plot.

- **Data Type:** String
- **Default Value:** Workspace
- **Options:** Workspace, Group, Sub Group, Cluster

**filePath (DEFAULT) (REQUIRED) **
The file path the plot will be saved to.

- **Data Type:** String (File Path)
- **Default Value:** N/A

**height **
The height of the image exported.

- **Data Type:** Integer
- **Default Value:** 1000

**legend **

Which corner should the legend be displayed in, if not passed no legend will be displayed

- **Data Type:** String
- **Default Value:** NULL
- **Options:** , Top Left, Top Right, Bottom Left, Bottom Right

**title **
The title of the plot.

- **Data Type:** String
- **Default Value:** ###

**width **
The width of the image exported.

- **Data Type:** Integer
- **Default Value:** 1000

**xLabel **
Label for the X-Axis.

- **Data Type:** String
- **Default Value:** ###

**XRange **
The display range of the X Axis: “Max,Min”

- **Data Type:** String
- **Default Value:** ###

**yLabel **
Label for the Y-Axis.

- **Data Type:** String
- **Default Value:** ###

**YRange **
The display range of the Y Axis: “Max,Min”

- **Data Type:** String
- **Default Value:** ###

```
-ExportPlotResiduals filePath "C:\Plots\SPM\glm_residuals.png"
```

-ExportPlotB / -EPB

Parameters

**dataStyle **

The data style to use when generating plot.

- **Data Type:** String
- **Default Value:** Workspace
- **Options:** Workspace, Group, Sub Group, Cluster

**filePath (DEFAULT) (REQUIRED) **
The file path the plot will be saved to.

- **Data Type:** String (File Path)
- **Default Value:** N/A

**height **
The height of the image exported.

- **Data Type:** Integer
- **Default Value:** 1000

**legend **
Which corner should the legend be displayed in, if not passed no legend will be displayed

- **Data Type:** String
- **Default Value:** NULL
- **Options:** , Top Left, Top Right, Bottom Left, Bottom Right

**title **
The title of the plot.

- **Data Type:** String
- **Default Value:** ###

**width **
The width of the image exported.

- **Data Type:** Integer
- **Default Value:** 1000

**xLabel **
Label for the X-Axis.

- **Data Type:** String
- **Default Value:** ###

**XRange **
The display range of the X Axis: “Max,Min”

- **Data Type:** String
- **Default Value:** ###

**yLabel **
Label for the Y-Axis.

- **Data Type:** String
- **Default Value:** ###

**YRange **
The display range of the Y Axis: “Max,Min”

- **Data Type:** String
- **Default Value:** ###

```
 -ExportPlotB filePath "C:\ProcessingPlots\bPlot.png dataStyle "Workspace"
legend "Bottom Right"
```

-ExportPlotVarianceExplained / -ExportPlotVE / -EPVE

Export the current PCAs variance explained plot

Parameters

**dataStyle **
The data style to use when generating plot.

- **Data Type:** String
- **Default Value:** Workspace
- **Options:** Workspace, Group, Sub Group, Cluster

**filePath (DEFAULT) (REQUIRED) **
The file path the plot will be saved to.

- **Data Type:** String (File Path)
- **Default Value:** N/A

**height **
The height of the image exported.

- **Data Type:** Integer
- **Default Value:** 1000

**legend **
Which corner should the legend be displayed in, if not passed no legend will be displayed

- **Data Type:** String
- **Default Value:** NULL
- **Options:** , Top Left, Top Right, Bottom Left, Bottom Right

**title **
The title of the plot.

- **Data Type:** String
- **Default Value:** ###

**width **

The width of the image exported.

- **Data Type:** Integer
- **Default Value:** 1000

**xLabel **
Label for the X-Axis.

- **Data Type:** String
- **Default Value:** ###

**XRange **
The display range of the X Axis: “Max,Min”

- **Data Type:** String
- **Default Value:** ###

**yLabel **
Label for the Y-Axis.

- **Data Type:** String
- **Default Value:** ###

**YRange **
The display range of the Y Axis: “Max,Min”

- **Data Type:** String
- **Default Value:** ###

```
 -ExportPlotVarianceExplained filePath "C:\Plots\PCA\variacen_explained.png"
```

-ExportPlotLoadingVector / -ExportPlotLV / -EPLV

Export the current PCAs loading vectors plot

Parameters

**dataStyle **
The data style to use when generating plot.

- **Data Type:** String
- **Default Value:** Workspace
- **Options:** Workspace, Group, Sub Group, Cluster

**filePath (DEFAULT) (REQUIRED) **
The file path the plot will be saved to.

- **Data Type:** String (File Path)

- **Default Value:** N/A

**flipPC **
If passed, invert PC

- **Data Type:** Boolean (True / False)
- **Default Value:** false

**height **
The height of the image exported.

- **Data Type:** Integer
- **Default Value:** 1000

**legend **
Which corner should the legend be displayed in, if not passed no legend will be displayed

- **Data Type:** String
- **Default Value:** NULL
- **Options:** , Top Left, Top Right, Bottom Left, Bottom Right

**pcNumber **
The principal component to plot.

- **Data Type:** Integer
- **Default Value:** 1

**title **
The title of the plot.

- **Data Type:** String
- **Default Value:** ###

**width **
The width of the image exported.

- **Data Type:** Integer
- **Default Value:** 1000

**xLabel **
Label for the X-Axis.

- **Data Type:** String
- **Default Value:** ###

**XRange **
The display range of the X Axis: “Max,Min”

- **Data Type:** String
- **Default Value:** ###

**yLabel **
Label for the Y-Axis.

- **Data Type:** String
- **Default Value:** ###

**YRange **
The display range of the Y Axis: “Max,Min”

- **Data Type:** String
- **Default Value:** ###

```
 -ExportPlotLoadingVector file "C:\Processing\PCA\loading_vector_plot.png"
xRange "20,70"
```

-ExportPlotWorkspaceScores / -ExportPlotWS / -EPWS

Export the current PCAs workspace scores plot

Parameters

**dataStyle **
The data style to use when generating plot.

- **Data Type:** String
- **Default Value:** Workspace
- **Options:** Workspace, Group, Sub Group, Cluster

**filePath (DEFAULT) (REQUIRED) **
The file path the plot will be saved to.

- **Data Type:** String (File Path)
- **Default Value:** N/A

**height **
The height of the image exported.

- **Data Type:** Integer
- **Default Value:** 1000

**legend **
Which corner should the legend be displayed in, if not passed no legend will be displayed

- **Data Type:** String
- **Default Value:** NULL
- **Options:** , Top Left, Top Right, Bottom Left, Bottom Right

**normalizeScores **
If passed workspace scores will be normalized

- **Data Type:** Boolean (True / False)

- **Default Value:** false

**title **
The title of the plot.

- **Data Type:** String
- **Default Value:** ###

**width **
The width of the image exported.

- **Data Type:** Integer
- **Default Value:** 1000

**XAxisPC **
Principal Component represented on the X Axis

- **Data Type:** Integer
- **Default Value:** 1

**xLabel **
Label for the X-Axis.

- **Data Type:** String
- **Default Value:** ###

**XRange **
The display range of the X Axis: “Max,Min”

- **Data Type:** String
- **Default Value:** ###

**YAxisPC **
Prinicipal Component represented on the Y Axis

- **Data Type:** Integer
- **Default Value:** 2

**yLabel **
Label for the Y-Axis.

- **Data Type:** String
- **Default Value:** ###

**YRange **
The display range of the Y Axis: “Max,Min”

- **Data Type:** String
- **Default Value:** ###

```
 -ExportPlotWorkspaceScores filePath "C:\Plots\PCA\workspace_scores.png"
xAxisPC "2" yAxisPC "3"
```

-ExportPlotGroupScores / -ExportPlotGS / -EPGS

Export the current PCAs groups scores plot

Parameters

**dataStyle **
The data style to use when generating plot.

- **Data Type:** String
- **Default Value:** Workspace
- **Options:** Workspace, Group, Sub Group, Cluster

**filePath (DEFAULT) (REQUIRED) **
The file path the plot will be saved to.

- **Data Type:** String (File Path)
- **Default Value:** N/A

**height **
The height of the image exported.

- **Data Type:** Integer
- **Default Value:** 1000

**legend **
Which corner should the legend be displayed in, if not passed no legend will be displayed

- **Data Type:** String
- **Default Value:** NULL
- **Options:** , Top Left, Top Right, Bottom Left, Bottom Right

**title **
The title of the plot.

- **Data Type:** String
- **Default Value:** ###

**width **
The width of the image exported.

- **Data Type:** Integer
- **Default Value:** 1000

**xLabel **
Label for the X-Axis.

- **Data Type:** String

- **Default Value:** ###

**XRange **
The display range of the X Axis: “Max,Min”

- **Data Type:** String
- **Default Value:** ###

**yLabel **
Label for the Y-Axis.

- **Data Type:** String
- **Default Value:** ###

**YRange **
The display range of the Y Axis: “Max,Min”

- **Data Type:** String
- **Default Value:** ###

```
 -ExportPlotGroupScores filePath "C:\Processing\PCA\group_scores_plot.png"
title "Group Scores Ankle Angle X"
```

-ExportPlotReconstruction / -ExportPlotR / -EPR

Export the current PCAs reconstruction plot

Parameters

**dataStyle **
The data style to use when generating plot.

- **Data Type:** String
- **Default Value:** Workspace
- **Options:** Workspace, Group, Sub Group, Cluster

**filePath (DEFAULT) (REQUIRED) **
The file path the plot will be saved to.

- **Data Type:** String (File Path)
- **Default Value:** N/A

**group **
What group to reconstruct, pass multiple times to select multiple groups, do not pass to select all

- **Data Type:** List
- **Default Value:** NULL

**groupMean **
If passed group mean will be plotted

- **Data Type:** Boolean (True / False)
- **Default Value:** false

**height **
The height of the image exported.

- **Data Type:** Integer
- **Default Value:** 1000

**legend **
Which corner should the legend be displayed in, if not passed no legend will be displayed

- **Data Type:** String
- **Default Value:** NULL
- **Options:** , Top Left, Top Right, Bottom Left, Bottom Right

**pc **
What PCs to reconstruct, pass multiple times to select multiple PCs, do not pass to select all

- **Data Type:** List
- **Default Value:** NULL

**title **
The title of the plot.

- **Data Type:** String
- **Default Value:** ###

**width **
The width of the image exported.

- **Data Type:** Integer
- **Default Value:** 1000

**workspace **
What workspace to reconstruct, pass multiple times to select multiple workspaces, do not pass to select all

- **Data Type:** List
- **Default Value:** NULL

**xLabel **
Label for the X-Axis.

- **Data Type:** String
- **Default Value:** ###

**XRange **
The display range of the X Axis: “Max,Min”

- **Data Type:** String

- **Default Value:** ###

**yLabel **
Label for the Y-Axis.

- **Data Type:** String
- **Default Value:** ###

**YRange **
The display range of the Y Axis: “Max,Min”

- **Data Type:** String
- **Default Value:** ###

```
 -ExportPlotReconstruction filePath "C:\Plots\PCA\reconstruction.jpg" group
"Ankle Angle X" workspace "P001.cmz"
```

-ExportPlotExtreme / -ExportPlotE / -EPE

Export the current PCAs extreme plot

Parameters

**dataStyle **
The data style to use when generating plot.

- **Data Type:** String
- **Default Value:** Workspace
- **Options:** Workspace, Group, Sub Group, Cluster

**filePath (DEFAULT) (REQUIRED) **
The file path the plot will be saved to.

- **Data Type:** String (File Path)
- **Default Value:** N/A

**height **
The height of the image exported.

- **Data Type:** Integer
- **Default Value:** 1000

**legend **
Which corner should the legend be displayed in, if not passed no legend will be displayed

- **Data Type:** String
- **Default Value:** NULL
- **Options:** , Top Left, Top Right, Bottom Left, Bottom Right

**pcNumber **

- **Data Type:** Integer
- **Default Value:** 1

**plotType **

- **Data Type:** String
- **Default Value:** StdDevRecon
- **Options:** StdDevRecon, 595Recon, 595Raw

**title **
The title of the plot.

- **Data Type:** String
- **Default Value:** ###

**width **
The width of the image exported.

- **Data Type:** Integer
- **Default Value:** 1000

**xLabel **
Label for the X-Axis.

- **Data Type:** String
- **Default Value:** ###

**XRange **
The display range of the X Axis: “Max,Min”

- **Data Type:** String
- **Default Value:** ###

**yLabel **
Label for the Y-Axis.

- **Data Type:** String
- **Default Value:** ###

**YRange **
The display range of the Y Axis: “Max,Min”

- **Data Type:** String
- **Default Value:** ###

```
 -ExportPlotExtreme filePath "C:\Processing\PCA\extreme_plot.png" height
"600" width "1200" pcNumber "2"
```

-CreateWatcher / -cw

Creates a new directory watcher

Parameters

**delay **
The number of ms to wait before executing scripts after watcher is triggered

- **Data Type:** Integer
- **Default Value:** 3000

**directory (REQUIRED) **
The directories to be watched, pass multiple times to add more directories

- **Data Type:** List
- **Default Value:** N/A

**name (REQUIRED) **
The name of the watcher being created

- **Data Type:** String
- **Default Value:** N/A

**overwrite **
If passed and existing watchers with the same name will be overwritten

- **Data Type:** Boolean (True / False)
- **Default Value:** false

**recursive **
If passed all subdirectories will be watched as well

- **Data Type:** Boolean (True / False)
- **Default Value:** false

**script (REQUIRED) **
A list of paths to the scripts to execute when the watcher is triggered

- **Data Type:** List
- **Default Value:** N/A

**triggerOnDelete **
If passed watcher will be triggered when a file is deleted as well as added or edited

- **Data Type:** Boolean (True / False)
- **Default Value:** false

```
 -CreateWatcher name "WATCHER_ONE" directory "C:\Local Data Folder" script
"C:\Local Data Folder\Processing Script.v3s" delay "8000" recursive
```

-ActivateWatcher / -aw

Activate the passed watcher(s) if not already activated

Parameters

**name (DEFAULT) **
The name of the watcher to be activated, pass multiple times to activate multiple watchers. if not passed all watcher will be activated.

- **Data Type:** List
- **Default Value:** NULL

```
-ActivateWatcher name "WATCHER_ONE" name "WATCHER_TWO"
```

-DeactivateWatcher / -daw

Deactivate the passed watcher(s), if no watcher is passed deactivate all watchers

Parameters

**name (DEFAULT) **
The name of the watcher to be deactivated

- **Data Type:** List
- **Default Value:** NULL

```
-DeactivateWatcher name "WATCHER_ONE"
```

-DeleteWatcher / -dw

Deletes the passed watcher if it exists

Parameters

**name (DEFAULT) (REQUIRED) **

The name of the watcher to be deleted

- **Data Type:** String
- **Default Value:** N/A

```
-DeleteWatcher "WATCHER_ONE"
```

-ListWatchers / -lw

List all watchers

```
-ListWatchers
```

-LaunchMinimized

Set Sift to lauch minimized to the system tray by default.

Parameters

**disable **
If passed Sift will will no longer launch minimized to the system tray.

- **Data Type:** Boolean (True / False)
- **Default Value:** false

```
-LaunchMinimized disable
```

-LaunchBackgroundInstance / -LaunchTray

Immediatly launch a background instance of Sift in the system tray.

```
-LaunchBackgroundInstance
```

-SetEnginePluginsFolder / -SEPF

Set the location the engine will look for plugins e.g Meta-Commands

Parameters

**folderPath (DEFAULT) (REQUIRED) **
The path to the engine plugins folder

- **Data Type:** String (Directory)
- **Default Value:** N/A

```
-SetEnginePluginsFolder folderPath "C:\Engine Resources"
```

-RunSummaryMetrics / -ComputeSummaryMetrics / -SummaryMetrics

---

Compute Summary Metrics

Parameters

**EventIndex **
Index Event to compute Metrics at.

- **Data Type:** String
- **Default Value:** NULL

**GlobalMax **
Compute Global Max.

- **Data Type:** Boolean (True / False)
- **Default Value:** false

**GlobalMin **
Compute Global Min.

- **Data Type:** Boolean (True / False)
- **Default Value:** false

**Group (REQUIRED) **
The group you will calculate metrics for.

- **Data Type:** String
- **Default Value:** N/A

**LocalMax **
Compute Local Max.

- **Data Type:** Boolean (True / False)
- **Default Value:** false

**LocalMaxEnd **
Local Max End Range.

- **Data Type:** Integer
- **Default Value:** 0

**LocalMaxStart **
Local Max Start Range.

- **Data Type:** Integer
- **Default Value:** 0

**LocalMin **
Compute Local Min.

- **Data Type:** Boolean (True / False)
- **Default Value:** false

**LocalMinEnd **
Local Min End Range.

- **Data Type:** Integer
- **Default Value:** 0

**LocalMinStart **
Local Min Start Range.

- **Data Type:** Integer
- **Default Value:** 0

**MaxBetweenEvents **
Compute Maximum Between Events.

- **Data Type:** Boolean (True / False)
- **Default Value:** false

**MaxEventEndIndex **
Index of End Event for Maximum Between Events.

- **Data Type:** String
- **Default Value:** NULL

**MaxEventStartIndex **
Index of Start Event for Maximum Between Events.

- **Data Type:** String
- **Default Value:** NULL

**Mean **
Compute Mean.

- **Data Type:** Boolean (True / False)
- **Default Value:** false

**MetricAtEvent **
Compute Metric at Event.

- **Data Type:** Boolean (True / False)
- **Default Value:** false

**MinBetweenEvents **
Compute Minimum Between Events.

- **Data Type:** Boolean (True / False)
- **Default Value:** false

**MinEventEndIndex **
Index of End Event for Minimum Between Events.

- **Data Type:** String
- **Default Value:** NULL

**MinEventStartIndex **
Index of Start Event for Minimum Between Events.

- **Data Type:** String
- **Default Value:** NULL

**StandardDeviation **
Compute Standard Deviation.

- **Data Type:** Boolean (True / False)
- **Default Value:** false

**StandardError **
Compute Standard Error.

- **Data Type:** Boolean (True / False)
- **Default Value:** false

**UseExcludedData **
Use Excluded Data to compute metrics.

- **Data Type:** Boolean (True / False)
- **Default Value:** false

**Workspaces **
Workspaces you will calculate metrics for. If left blank all workspaces will be used.

- **Data Type:** List
- **Default Value:** NULL

-RunSummaryStatistics / -ComputeSummaryStatistics / -SummaryStatistics / -RunSumStats

Compute Summary Statistics on selected groups / workspaces

Parameters

**group (REQUIRED) **
The group you will calculate summary statistics for.

- **Data Type:** List
- **Default Value:** N/A

**popMean **
Mean of the population you are comparing against for your summary statistical test.

- **Data Type:** Decimal
- **Default Value:** -9999

**sigLevel **
The is the signifigance level used for the chosen statistical test.

- **Data Type:** Decimal
- **Default Value:** 0.05
- **Options:** 0.1, 0.05, 0.025, 0.01, 0.005, 0.001, 0.2, 0.02, 0.002

**statTest (REQUIRED) **
The is the type of statistcal test that will be performed.

- **Data Type:** String
- **Default Value:** N/A
- **Options:** One Sample T-Test, Two Sample T-Test, Paired T-Test

**testName (REQUIRED) **
The result name for your summary statistical test.

- **Data Type:** String
- **Default Value:** N/A

**useExcludedData **
Use Excluded Data to compute summary statistics.

- **Data Type:** Boolean (True / False)
- **Default Value:** false

**workspace **
Workspaces you will calculate summary statistics for. If left blank all workspaces will be used.

Workspaces need to be written as group:workspace

- **Data Type:** List
- **Default Value:** NULL

```
  - Summary Statistics Test Name "Example_SummaryStatistics" Statistical
Test "One Sample T-Test" Signifigance Level "0.05"
```

-Exit / -x

Exit Sift

```
-Exit
```