

MASsoft Sockets Reference Manual

**Hidden Analytical Limited
420 Europa Boulevard
Warrington
WA5 7UN
England**

**Tel: +44 (0)1925 445225
Fax: +44 (0)1925 416518**

**E-mail: info@hidden.co.uk
Web site: <http://www.HiddenAnalytical.com>**



Welcome

This manual provides a technical reference for MASsoft Sockets.

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Warnings and Cautions are placed immediately before the text to which they refer; they are headed by **WARNING** or **CAUTION** respectively. The associated explanatory text is in **bold**. If several Warnings or Cautions apply at one point in the text, they are numbered with the most important appearing first.

Technical assistance

Technical assistance can be obtained from the Hidden Analytical Limited Service Department which can be contacted on:

Email: service@hidden.co.uk

Tel: +44 (0)1925 445225

Fax: +44 (0)1925 416518

In the U.S.A. and Canada, technical assistance can be obtained from Hidden Analytical Inc.:

Email: service@hiddeninc.com

Tel: 603 924 5008

Fax: 603 924 5009

Toll-free phone: 1-888-96 HIDEN

Option 1 U.S.Sales Office

Option 2 U.S.A. & Canada Corporate Office & Service Department

Option 3 U.K. Manufacturing Facility

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1 Introduction

The manual provides a technical reference for the MASsoft Sockets feature and is intended to be used by programmers familiar with Sockets.

The aim is to provide a generalized process where MASsoft will mimic DDE (dynamic data exchange) operations via the command line and/or socket interface.

1.1 What is a socket?

A socket represents one end of a communication link and holds or points to all information associated with the link. Therefore, there will be one socket on the server (MASsoft) and one socket on the client. These two sockets will be bound together to form a socket pair. Essentially a socket pair can be interpreted as a dedicated communication link between the server and the client.

MASsoft sockets will always be created on a port specified by the user, typically 5026. This is configurable by using the TCP/IP tab on the preferences dialog box within MASsoft. It is irrelevant what port number is used on the client side as this will be assigned dynamically by the Windows operating system when the client socket connects to the server. It is important to note that although multiple sockets can use the same port number, each socket is still independent of any other socket.

It is important to note that MASsoft uses TCP/IP as the underlying mechanism in order to provide access to its resources. Sockets are provided as part of the TCP/IP protocol. As long as any client application uses TCP/IP to connect to MASsoft, then they will be able to gain access.

1.2 Using the socket interface

It is beyond the scope of this manual to describe the procedure of creating and establishing connections using sockets. The user should refer to the documentation supplied with the compiler they are using. The purpose of this section is to mention some techniques and observations on the process of building an application that will interact with MASsoft.

The first step is to create a socket and connect to MASsoft. Once this connection has been established, it is then possible to send commands. MASsoft will send back a string consisting of a two or three digit number upon the client successfully connecting to MASsoft. This response can be discarded.

Note

ALL command strings MUST be terminated by the use of CRLF. All response strings, sent from MASsoft, will also be CRLF terminated.

To be able to perform anything useful the socket has to be associated with an experiment file. This socket-file association ensures that any commands sent to MASsoft will be performed on this experiment file. This is accomplished by sending a 'file open' command. If you create multiple sockets and each socket issues the same 'file open'

command then this would result in all of the sockets being associated with the same experiment file. Note that only one experiment file is opened by MASsoft.

MASsoft's ability to support multiple socket connections allows for the creation of sockets specifically to hot link to a particular item. Once the hot link has been established no further commands can be sent to MASsoft via this socket. One advantage of having dedicated sockets is the ability to establish a status monitor to a particular mass spectrometer interface unit (MSIU). This would then allow the detection of state changes as commands are being issued and thereby allowing you to react to any developing situation(s). An example would be if the status monitor returned a **StoppedShutdown** state whilst an experiment file is running, indicating that there has been a problem during the run, i.e. Over pressure trip etc. Your client application can then take the appropriate steps immediately. A cold link can be used to poll the status but the hot link is far more efficient as MASsoft will only send state information when it changes.

All commands will result in a response from MASsoft so make sure that your socket receives one before attempting to send another command. If you receive an error then perform the appropriate error handling. For example, if you receive a "0" in response to a file open command then you need to determine why this command failed. However do not assume that the command has failed outright from the first attempt as it could just mean that MASsoft was too busy to process the command request. Either keep sending the request for a specified number of times, interspersed with a short delay so as not too bombard MASsoft, or alternatively add the `-d<x>` parameter to the command request string and let MASsoft handle the retry for you.

A reason for "0" to be returned is if the command was directed to a specific view which does not exist in the experiment file. For example your client is sending commands to view 1 but there are no views attached to the experiment file or an operator/end user has closed view 1.

Additionally it is advised that you should send one command at a time in order to determine the cause of a failure response. For example sending the following command:

```
-f'c:\datafiles\filedoesnotexist.exp" -r -Odt
```

Would result in a failure because the file does not exist so the file could not be opened. However the client application does not know which part of the command failed; was it the file open or the file run command? Separating the commands eliminates this confusion.

Example

```
-f'c:\datafiles\filedoesnotexist.exp"
```

```
0
```

Guidelines

Open at least two socket links to MASsoft. Use the first for commands. Use this to open the file. It will automatically be associated with the file by the `-f` command. Use this socket for the `-xGo`, `-xAbort` and `-xClose` commands.

After opening the file, open a second socket to create a status hot link. Use the command `-f<file> -lStatus -v1`. the `-f<file>` associates the link with the already open file. The link persists after the file is renamed and run by the `xGo -Odt` command.

Do not open and close each socket before and after each command.

Use the `-d<t>` option to re-try commands until the timeout `<t>` expires.

Do not close a socket while a command is in progress - wait for it to return. The maximum time it may take to return will be determined by the `-d` option.

2 Communication Channels

Command Line	The command line currently supports the -f, -r, -x and -i(or -w) switches.
Sockets – TCPIP	Supports all options supported by DDE and command line.
DDE	<p>Currently supports Cold, Warm and Hot Linking.</p> <p>Currently supports the following commands; Go, Abort, Close, and LSet via the DDEExecute function.</p> <p>Refer to the MASsoft Dynamic Data Exchange (DDE) guide documentation for detailed information.</p>

Note

All commands are currently case sensitive.

2.1 Command descriptions

Currently whenever a DDE/Socket request is received MASsoft will create a new instance of a conversion object to handle the “conversation” between it and the client application. So, for each communication link it has, MASsoft can retain the appropriate state information required to support the client command requests. This means when a command is received, MASsoft knows to which Interface Unit or file it is to be applied.

2.1.1 File open

This command allows a specific file to be opened, or if the file is already open allows the file to be associated with the socket pair. This command is available for use on the command line OR via the sockets interface

Syntax

-f<filename> [-r[<save as filename>]] [-d<x>]

Parameters

-f<filename>	Specifies the filename of the MASsoft experiment file to be opened. A directory path can also be included as part of the filename. Note there is no space between the command and the parameter.
-r[<save as filename>]	Runs the file. The filename is optional .If not specified then a default filename will be applied to the acquired data. If there is a filename specified then the results will saved with that name.

-d<x> Requests that MASsoft keeps trying to execute the request for the duration of <x> seconds. Without this option, if MASsoft was busy it would return failure instantly

Returns (sockets only)

A string containing a non-zero value if successful or a 0 on failure.

Remarks

This command will associate a socket with a file. This association will continue until the file is closed. The association persists even if the file is removed by, for example, the **-xGo** command. A further file open command on the same socket to a different file will fail and return zero. A file open command on a different socket to the same file will associate the already opened experiment file with that socket as well.

A file open command to a different socket and to a different file will result in this file being opened. However, only one file can have control of an instrument at a time.

The filename needs to have both a directory and a filename. e.g.
c:\temp\MyFileName.exp

Examples

-f"c:\Data Files\Hiden Analytical\testfile.exp"

-fc:c:\Data Files\Hiden Analytical\testfile.exp

The above commands will cause the file called 'testfile.exp' located at the specified directory path to be opened.

-fc:c:\Data Files\Hiden Analytical\testfile.exp **-r**

Open the specified file and then runs it, using the default filename to store the results.

-fc:c:\Data Files\Hiden Analytical\testfile.exp **-r**NewName.exp

Open the specified file and then runs it, saving any data to a file called NewName.exp

Remarks

The file will be opened and associated with the current active MSIU. If the user wants to associate this with another MSIU then the **-I** command (see Section 2.1.2) must be used.

If using the sockets interface any subsequent commands after a file open will always refer to this file.

Note

*The filename can be specified using environment variables. These environment variables would then be expanded to their respective values. E.g. %HIDEN_TEMPLATE% could correspond to c:\Data Files\Hiden Analytical\Templates\. So a **<filename>** parameter of %HIDEN_TEMPLATE%power.exp would be expanded to c:\Data Files\Hiden Analytical\Templates\power.exp.*

Interface	Availability
Command Line	YES
Sockets	YES

MASsoft Professional V7.17.x.x or later now has a permanent environment variable called %HIDEN_Lastfile%. MASsoft will always set this variable to the filename of the last used file.

Example

-f"%HIDEN_LastFile%"

2.1.2 Activate MSIU

This enables the selection of a particular MSIU. This is a useful command if there are multiple MSIUs present as it allows the user to direct a command string to the relevant MSIU.

Syntax

-i<wr>

Parameters

-i<wr> Activates the specified WR. The WR will correspond to the works reference of the MSIU and only the digits are required. The WR number is typically a four or five digit number.

Returns (sockets only)

A string containing a '1' if successful or a '0' on failure.

Examples

-f'c:\Data Files\Hiden Analytical\testfile.exp" -i11851

-f'c:\Data Files\Hiden Analytical\otherfile.exp" -i8767

Remarks

This command has the highest priority and will always be performed first regardless of position in the command string.

Interface	Availability
Command Line	YES
Sockets	YES

2.1.3 Execute commands

This allows various commands to be sent to the MSIU.

Syntax

-x<command> [-d<x>]

<command> corresponds to one of the following sub-commands; Status, Go, LSet, Abort and Close.

Parameters

-d<x> Requests MASsoft to keep trying to execute the request for the duration of <x> seconds. Without this option, if MASsoft was busy it would return failure immediately.

Interface	Availability
Command Line	SOME*
Sockets	YES

* Export and Close

2.1.3.1 Status

This command requests the current status of the MSIU.

Returns

Available	Ready to be used.
Unavailable	Not ready; no communication.
StoppedShutdown	Stopped after acquisition.

StoppedActive	The experiment file has stopped running and the MSIU is in the current mode (ie not 'shutdown').
StartingActive	Experiment file has been downloaded to the MSIU and started running but has yet to receive any data.
ScanningActive	Acquiring data.
StoppingActive	Acquisition will finish at the end of the current cycle.
Degas	Degassing.
Disconnected	Running independently from MASsoft.

Note

'StartingActive' is available in MASsoft V7.23.0.81 onwards.

Example

-xStatus

The return string will consist of the appropriate MSIU state. i.e. if running a file then the value will be "ScanningActive".

2.1.3.2 Go

This will start the experiment file associated with this socket. The various options control the filename where the acquired results will be stored.

Syntax

Go [<filename>] [-O[[d][t]]]

Parameters

filename	Starts the file associated with the socket. The filename is optional. If a filename is not specified, and no other parameters are supplied, then the filename is generated from the filename of the experiment currently running. Refer to the Creating a Template section in the MASsoft <i>Professional</i> Manual.
O[d][t]	Generate the filename using the current time and date. The d option requests that a directory be created using the current date. The t option requests that the filename is created using the current time. The format is xxHxxMxx.exp. The hours is formatted by using the 24 hour clock.

There must be at least one parameter specified when using this sub-command.

Remarks

There must be a file associated with the socket (see file open command).

If a **filename** parameter is specified as well as the **-Ot** parameter, the **-Ot** parameter will take precedent and the **filename** will be ignored.

There must be a space between the Go and the first, if any, parameters specified.

Examples

-xGo

This will run the experiment file and store the acquired data in the default filename generated by MASsoft.

-xGo MyNewFileName.exp

This will run the experiment file storing the acquired data in a file called 'MyNewFileName.exp'

-xGo -Od

This will run the experiment file storing the acquired data in a file generated by MASsoft, in a directory created using the current date. If the date were 12th May 2007 the directory created would be *12052007*. The date format will depend on the local Windows settings. For example in the USA, the month is specified before the day, so the above example would be *05122007*.

-xGo MyNewFileName.exp -Od

This will run the experiment file storing the acquired data in a file named MyNewFileName.exp. This file will be saved in a directory with the current date.

-xGo -Odt

This will run the experiment file storing the acquired data in a filename constructed from the time the run started. The file will be saved in a directory with the current date.

2.1.3.3 LSet

This provides the ability to set a logical device that is present on the MSIU. (For more details on the logical devices present consult the HAL Firmware manual HA085006)

Syntax

LSet <devicename> <value> -v<x>

Parameters

devicename	The name of the Local or Global Environment logical device to use.
value	The new value to apply to the specified logical device.

-v<x> The view identifier of the devicename to be set. If the view has a Local Environment then the value will be applied to the Local Environment otherwise it will be applied to the Global Environment.

Returns

String containing a '1' if successful or a '0' on failure.

Remarks

There must be a file currently associated with the socket and the file must have at least one view.

Examples

-xLSet electron-energy 70 -v1

Sets the electron energy to 70v.

2.1.3.4 Abort

This command will stop an experiment from running.

Returns

A string containing a '1' if successful or a '0' on failure.

Examples

-xAbort

This will stop the experiment file from running.

2.1.3.5 Filename

This command will return the filename of the file that is currently associated with the socket.

Returns

A string containing the full path/filename on success or a '0' on failure.

Remarks

A new command only available in MASsoft Professional V7.17.x.x or later.

Examples

-xFilename

2.1.3.6 Tag

This command will allow for the association of descriptive information to an experiment file.

Syntax

Tag <id>[, <value>]

Parameters

id The Tag id key.
value The value to be associated with the tag id.

Returns

String containing a '1' if successful or a '0' on failure.

Remarks

Available in MASsoft versions V7.25 onwards.

A tag takes the form of an *id*, *value* pair. If this file is exported, to a CSV file, then any tags will also be exported.

ALL or **all** is a reserved word and cannot be used as a Tag id.

id and *value* are both string types.

id is case sensitive. E.g. Wafer is different to wafer.

The first element of *id* must be alphanumeric as Hiden Analytical reserves the use of symbols for future versions.

Examples

To insert a tag;

-xTag Wafer,A1

To modify the value associated to an existing tag

-xTag Wafer,A2

To delete a tag, omit using the <value> parameter.

-xTag Wafer

To delete ALL tags then set the <id> parameter to the reserved word 'ALL'

-xTag ALL

2.1.3.7 Close

This will close the file that has been opened by the socket. Any association with the socket is therefore terminated and a new file can be opened.

Returns

A string containing a '1' if successful or a '0' on failure.

A '1' will be returned even if there is no file associated with the socket. This ensures that a '0' will always mean that there was a problem trying to close the file and that the file is still open.

Examples**-xClose**

Closes the file associated with the socket.

2.1.3.8 Export**Syntax**

Export [-v<x>]

Parameters

-v<x> The view identifier of the view to be exported.

Returns

String containing a '1' if successful or a '0' on failure.

Remarks

Export is available in MASsoft Versions 7.23 onwards

Specifying a zero in the view ensures all views in the experiment are exported.

When using the sockets interface there must be a file currently associated with the socket.

If command line is being used there must be a valid file open command as well as the export command.

If no view is specified then View 1 is automatically exported.

The exported file, if successful, is in the format <experiment filename>View<x>.csv and will be created in the same directory as the experiment file.

The exception to this is for View 1. This format is <experiment filename>.csv

Examples**Sockets Interface****-xExport -v2**

Data from View 2 are exported in file <experimentfile>view2.csv

-xExport -v5

Data from View 5 are exported in file <experimentfile>view5.csv

-xExport

Data from View 1 are exported in file <experimentfile>.csv

Command Line**-f<filename.exp> -xExport -v2**

Data from View 2 are exported in file <filename>view2.csv.

-xExport

No data are exported as there is no filename specified.

-f<filename.exp> -xExport -v0

All views attached to the <filename.exp> are exported.

Notice that you **must** supply a filename which will be exported. Additionally, MASsoft will not close the file after exporting so the close command will have to be added.

e.g. **-f<filename.exp> -xExport -v0 -xClose**

2.1.4 Link command**Syntax****-l<item> -v<x> [-d<x>]**

v<x> This indicates to which data view the link command should be used with. Each scan view will have a unique view number associated with it. This can be found in the view's window header.

Examples**-lStatus -v1**

Interface	Availability
Command Line	NO
Sockets	YES

2.1.5 Help**Syntax****-h[<Key>]****Parameters**

<Key> specifies the 'Key' whose value should be returned.

Supported Key values are:

FileVersion,

CompanyName,

FileDescription,

LegalCopyright,

LegalTrademarks,

ProductName,
ProductVersion,
Comments,
Help.

Returns

String containing the result if successful or a '0' on failure.

Remarks

Available in MASsoft Versions 7.25 onwards.

If a key is not specified 'help' is assumed.

Examples

-h

Available commands are: CompanyName, FileDescription, FileVersion, LegalCopyright, LegalTrademarks, ProductName, ProductVersion, Comments, Help,

-hCompanyName

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-hFileVersion

7.25.0.85.

Interface	Availability
Command Line	NO
Sockets	YES

3 Data link items

3.1 Bar and Profile views

3.1.1 Data

This allows for the retrieval of the data acquired for a particular scan. The data is pushed onto the client at the end of each cycle.

Syntax

`-lData -v<x> [-d<x>]`

x,y co-ordinate pairs of a scan, corresponding to the selected output, input

Return Format:

`<x>\t<y>\r\n`

Example

`-lData -v1`

If the device being scanned is mass, from 1 to 100 with 1 amu step increment, with the input being Faraday then the result would be

```
1 1.38953e-08
2 1.50423e-08
...
...
100 1.54014e-08
```

3.1.2 AxesLabel

This allows the determination of the X and Y axis labels.

Syntax

`-lAxesLabels -v<x>[-d<x>]`

Return Format

`"X Values"\t<x axis Legend>\t"Y Values"\t<Y axis Legend>\r\n`

Example

“X Values:” mass “Y Values:” Faraday

3.1.3 ElapsedTime

This allows the determination of the elapsed time since acquisition started for the current cycle.

Syntax

-lElapsedTime -v<x> [-d<x>]

Return Format

“Elapsed Time:”\t<time value>\t“hh:mm:ss”\t<millisecond value>\t“ms”\r\n

Example

“Elapsed Time:” 00:00:48 “hh:mm:ss” 48427 “ms”

3.1.4 ScanParameters

This allows for the determination of the various scan parameters, such as: start, stop, increment values, modes etc

Syntax

-lScanParameters -v<x> [-d<x>]

Return Format

“name 1”\t”name 2”\t,”name n”\t...”name n+1”\r\n

“value 1”\t”value 2”\t,”value n”\t...”value n+1”\r\n

Example

-lScanParameters -v1

“Scan ID” “Mode” “Detector” “Scanned” “Start” “Stop” “Increment” “Dwell” “Settle”
“RS” “RelSEM”

“Scan 1” “RGA” “Faraday” “mass” “40” “50” “1” “100” “100” “1”

3.1.5 TimeDate

This allows for the determination of the real time date of the acquisition.

Syntax

-lTimeDate -v<x>

Parameters

v This option indicates to which data view the link command should be used with. If not specified then view:1 is used.

Return Format

“Date”\t<date>\t”Time”\t<time>\r\n

Example

-lTimeDate -v2

“Date” 21/05/2007 “Time” 11:35:55

3.1.6 Environment

This allows for the determination of the environment settings for the scan.

Syntax

-lEnvironment -v<x> [-d<x>]

Return Format

“<device name >”\t<value>\t”<unit>”\r\n

“<device name >”\t<value>\t”<unit>”\r\n

“<device name >”\t<value>\t”<unit>”\r\n

...

“<device name >”\t<value>\t”<unit>”\r\n

Examples

-lEnvironment -v2

3.1.7 Cycle

This allows for the determination of the current cycle number for the scan being acquired.

Syntax

-lCycle -v<x> [-d<x>]

Return Format

“Cycle”\t<cycle number>\r\n

Examples**-lCycle -v1**

“Cycle” 1

“Cycle” 2

“Cycle” 3

3.1.8 Status

This allows for the determination of the current state of the IU.

Syntax

-lStatus -v<x> [-d<x>]

Return Format

“<state>”\r\n

Examples**-lStatus**

ScanningActive

3.2 MID Graphical view

This has the same link item options as Bar/Profile views with the following additional commands and/or amendments.

3.2.1 Data

This performs the same task as described in Bar/Profile section except more options on the return data formatting are provided.

Syntax

-lData -v<x> [-c7] [-t0] [-m0] [-v1]

Parameters

v	This option indicates to which data view the link command should be used with. If not specified then view:1 is used.
c<x>	Sets the number of cycles that are returned at a time.
t<x>	Sets the time formatting ON(1) or OFF (0)
m<x>	Sets the MilliSecond formatting ON(1) or OFF (0)

Return Format

<Time Format>\t<Milliseconds>\t<Species 1>\t<Species 2>\t....<Species n+1>\r\n

Example

The experiment file is setup as a MID Scan with 4 species with Faraday detector

-lData -c7 -t0 -m0

6.6299e-08	2.32049e-07	4.80674e-07	-2.09949e-07
3.31499e-08	-1.98899e-08	1.54699e-08	-4.58574e-08
4.53049e-09	-2.15474e-09	-9.7792e-09	2.09949e-09
2.76249e-11	-1.60224e-10	1.71274e-10	2.07187e-10
-7.5913e-12	-5.6493e-10	1.09063e-11	-1.98899e-11
-2.69619e-12	5.19349e-13	-1.21549e-13	2.93045e-11
1.04864e-11	-7.9117e-12	5.18244e-12	-1.91164e-12

-lData -c3 -t1 -m1

00:00:01	1299	6.6299e-08	2.32049e-07	4.80674e-07	-2.09949e-07
00:00:01	1734	3.31499e-08	-1.98899e-08	1.54699e-08	-4.58574e-08
00:00:02	2178	4.53049e-09	-2.15474e-09	-9.7792e-09	2.09949e-09

3.2.2 Legends

This allows the determination of the species legends on the views.

Syntax

-lLegends -v<x>

Parameters

v This option indicates to which data view the link command should be used with. If not specified then view:1 is used.

Return Format

“<legend 1>”\t“<legend 2>”\t“.....<legend n+1>”\r\n

Example

The experiment file is setup as a MID Scan with 4 species with Faraday detector

-lLegends -v2

mass 1 mass 2 mass 3 mass 4

3.2.3 MID Tabular view

This has the same link item options as MID graphical view with the following additional command.

3.2.3.1 Statistics

This allows for the determination of the statistics data of a view.

Syntax

-lStatistics -v<x>

Parameters

v This option indicates to which data view the link command should be used with. If not specified then view:1 is used.

Return Format

“<Statistic type 1>”\t<Species 1>\t<Species 2>\t....<Species n+1>\r\n

“<Statistic type 2>”\t<Species 1>\t<Species 2>\t....<Species n+1>\r\n

Remarks

The statistics option relies on the MID tabular options being set for the appropriate view. If there are no statistic options being displayed in the view then nothing can be returned via the link. Refer to the Tabular view options section in the MASsoft Professional Manual.

Example

The experiment file is setup as a MID Scan with 4 species with Faraday detector

Mean	8.13e-09	-2.14e-08	-3.32e-08	9.74e-09
Min	1.77e-09	-3.43e-07	-6.13e-07	-6.74e-09
Max	1.21e-07	7.2e-11	1.77e-08	1.88e-07
Range	1.23e-07	3.43e-07	6.31e-07	1.95e-07
Standard Deviation n	2.82e-08	7.84e-08	1.41e-07	4.33e-08
Standard Deviation -1	2.9e-08	8.07e-08	1.45e-07	4.45e-08
Peak integration	-2.03e-05	5.73e-05	0.000103	-3.15e-05

4 Client command example

The following example will open an experiment file and start it running. The experiment file has been configured to run for a short duration so we will use a status socket to monitor its status so as to close the file once it has finished running.

Note

For more information on a command, refer to earlier sections. Remember each command's result string must be tested to determine if the command was successful.

Create two sockets using the application program interface (API) with the client is being created.

Socket #1: **-xStatus -d15**

This requests the current status of the active MSIU. If this is available then we can proceed.

Socket #1: **-f" C:\Data\Hiden Analytical\MASsoft7\Templates\filename.exp"**

Socket #2: **-f" C:\Data\Hiden Analytical\MASsoft7\Templates\filename.exp"**

Open the specified file on both sockets. Remember that only one instance of the file will be opened by MASsoft. MASsoft will only create an association between the socket and the experiment file.

Socket #2: **-lStatus -v1**

This creates a status hotlink in order to monitor the experiment file state changes. As we have successfully issued a link command this means that this is now a listening Socket only. We can no longer send any more commands to MASsoft via this socket.

Socket #1: **-xGo -Odt**

This command will start the experiment file running with the data being stored in an experiment file consisting of the current time stored within a date subdirectory.

C:\Data\Hiden Analytical\MASsoft7\Templates\<date subdirectory>\<time>.exp

Socket #1 will receive a "1" result string indicating it has successfully started running
Socket #2 will also receive a string stating *ScanningActive*.

Note

If using MASsoft version v7.23 onwards there will be two status changes received. StartingActive followed by ScanningActive.

Monitor the socket #2 and when the experiment file has stopped running it will change status to *StoppedShutdown*. When this occurs the socket can be closed.

Socket #1: **-xClose -d15**

If successful the experiment file will close. When MASsoft closes an experiment file it will terminate ALL connections associated with it.

Destroy both sockets using the appropriate API of the language with which the client was created.