

## Chapter IV

### How to work with the *isegHVOPCScriptLoader*

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## 1 Preview

The aim of the *iseqHVOPCScriptLoader* is to send commands and to receive responses from an *iseqHVOPCServer*.

The commands are read from a simple script file in ASCII notation, the responses are written as ASCII file too. A properly working OPC server is necessary to work with the Script Loader .

## 2 Installation of the *iseqHVOPCScriptLoader*

Run ".\setup\Win2000\_WinXP\ setup.exe "

During the installation procedure reply to the normal questions of the InstallShield® process. Select *iseqHVOPCScriptLoader* for installation in Custom setup dialog.

## 3 Set up the configuration

The *iseqHVOPCScriptLoader* is an OPC client and will browse the namespace at the beginning of the run.

## 4 Structure of the command file

The command file is a simple ASCII coded text file and should carry the extension ".txt".

The command structure is line oriented (one structure per line).

Each command consists of up to 3 parts:

1. Data item of the OPC server
2. Wait time in ms following the command
3. Write data (if a write command has to be done)

**These items are separated by a Tab character (→).**

In order to repeat the whole script a "Repeat" as instruction has to be set at the last line.

Example

```

can1.ma52.DeviceID      →10
can1.ma52.RampSpeed     →10  → 40
can1.ma52.SoftwareID    →10
can1.ma52.NominalV      →10
can1.ma52.Nominall      →10
can1.ma52.ch01.VSet     →10  →500
can1.ma52.ch01.VSet     →10
can1.ma52.RampSpeed     →10  →40
can1.ma52.RampSpeed     →10
can1.ma52.On            →30  →2
can1.ma52.On            →30
can1.ma52.On            →30  →10
can1.ma52.On            →30

```

You can also communicate with more than one module and with more than one CAN line which depends on the file "EHQ3216Svr.opc".

Where to get the OPC server data items?

These items are described in the OPC server manual, the properties of the iseg HV module, read or written by CAN bus corresponding to a OPC server item.

To interpret the first two lines :

**can1.ma52.DeviceID →10**

<b>can1.ma52.DeviceID</b>	OPC server data item	→	serial number of module
<b>can1</b>			data access on CAN line 1
<b>ma52</b>			module address 52 (in this CAN line)
<b>DeviceID</b>			module property
<b>10</b>	waiting time	→	10 ms
(no third part)	command type	→	read command

**can1.ma52.RampSpeed →10 →40**

<b>can1.ma52.RampSpeed</b>	OPC server data item	→	serial number of module
<b>can1</b>			data access on CAN line 1
<b>ma52</b>			module address 52 (in this CAN line)
<b>RampSpeed</b>			module property
<b>10</b>	waiting time	→	10 ms
<b>40</b>	command type	→	write command, write property 40 V/s

If the module address mayy is not clear, you can start the isegHVOPCScriptLoader program.

The item "Transmit a single instruction" can be found in the menu "Communication" . Test the response of the module with a fully qualified item ID. The values for x and y are properly set in the canx.mayy.

## 5 How to run the *isegHVOPCScriptLoader*

There are two possibilities to run the *isegHVOPCScriptLoader*.

### 5.1 Work in a window

The first step is to start it as a Windows program. (Start→programs→isegOPC→*isegHVOPCScriptLoader*).

The easiest way to test your OPC system is to get a message for one fully qualified item ID. Select from file menu "Transmit a single instruction". A dialog "Communication with OPC server" will be displayed. Write to input line "Item" e.g. "can1.ma38.DeviceID". Push "Read" button. You will get e.g. "471212 active alarms" if all is O.K.

Load your script file. Run this file with "Communication"→"Run script".

The script output of the OPC commands are written in the window.

The output line has following structure:

1. line number
2. OPC server item
3. type of data access (read or write)
4. value (read or written)
5. system time stamp of data access

The running script can be stopped by pushing the "Esc" key. The requested call backs from the hardware are temporary stored in a list that can be stored in a file by "Save as" from file menu. The running script will also stopped by a mouse click on the "Erase" button from the toolbar line the but the requested call backs from the hardware are erased.

## 5.2 Work as a command line processor

This option is a possibility to start the **iseqHVOPCScriptLoader** from a text editor in a separate system shell.

We prefer to work with the freeware "Programmer's File Editor (pfe)" by Alan Phillips

(A.Phillips@lancaster.ac.uk).

It is possible to edit the script. The fixed script can be run by a simple command.

The command structure of the **iseqHVOPCScriptLoader** is position oriented at this actual state . Please do not change

the several parameters.

The command is:

```
"iseqHVOPCScriptLoader.exe -.\data\samplescript.txt -.\data\script.scr -min -run"
```

wherein

- the command is started in the binaries directory of **iseqHVOPCScriptLoader**
- .\data\samplescript.txt : the script to be run is in the subdirectory .\data of the binaries directory
- .\data\script.scr: the output is written to a file script.scr in this .\data directory
- -min: the window is started as minimised
- -run: the **iseqHVOPCScriptLoader** is running the script immediately

The parameters for the output file, for minimisation and start are optionally.

At this state of program the file extensions should be as explained above.