

“Anything is possible”

Automation solutions with cadett ELSA means that the software cadett ELSA is controlled remotely to generate a documentation that would otherwise be created manually.

This automation may be very extensive. A complete documentation can be created and maintained fully automatic, without any human interference.

The base for this kind of solutions is the ActiveX interface that cadett ELSA is equipped with, and which enables remote control. An external program may in other words control cadett ELSA in the same way as a user under normal circumstances would have done.

The most simple solutions uses this standard interface of cadett ELSA combined with specially written programs or macros in for example Microsoft Excel.

More advanced solutions would require vast programming, and therefore result in substantial costs, if they would be created using that method. Therefore cadett has developed an additional product, an automation module for cadett ELSA. It is simply called cadett ELSA Automation module and it contains the basic functionality needed to create advanced automation solutions. It is a toolbox aimed at creating the most effective and complete automation solutions imaginable.

cadett ELSA Automation module

The cadett ELSA Automation module is the base of automation solutions with cadett ELSA. The most important parts of it are the following:

- **The Configurator**

The Configurator contains the rules that control how current input is translated to the commands that will create a complete documentation in cadett ELSA.

The Configurator uses single or multiple configurations, which calls each other – so called hierarchic configurations. As a result of the input in combination with the hierarchic configurations an AXM file is generated (ActiveX Macro File), which will automatically be transferred to the Macro file Executer to be executed.

- **The Macro file Executer**

The Macro file Executer runs the AXM file. In other words it will send the necessary ActiveX commands to the different modules of cadett ELSA that in turn will create the documentation. The entire functionality of cadett ELSA and of AutoCAD is available for the Macro file Executer.

Besides this, the Macro file Executer is also equipped with another feature, namely the possibility to create complete DXF files (drawing sheets) directly without the use of AutoCAD. This will result in very good performance since the creation of a drawing sheet can take place in less than one second, even if the hardware used is moderate.

- **AXM Generator**

The AXM Generator generates AXM files to automatically create drawing sheets without using AutoCAD. This may be done manually as well, but with the assistance of the AXM Generator inside AutoCAD this procedure is considerably simplified. The AXM Generator



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is an effective tool to create the configurations that the automation process is based on.

■ Automatic Documentation Tool

With the automatic documentation tool – AutoDok – a documentation of the hierarchic configurations is automatically created. The relation between the different configurations is shown graphically. This tool also is an effective aid to maintain the configurations.

Customized solutions with the cadett ELSA Automation Module

Regardless of on which level you place your automation solution, an effort is required to define the configurations that the automatic generation is based on, that is the set of rules that is going to be used. Using the cadett ELSA Automation module this task will mainly be a matter of configuration. It is also possible to perform this work by programming in for example VBA/Excel or using other appropriate tools.

The input that should control the automatic generation may for example originate from existing systems, like MPS-systems or offering systems, or be created directly by specially designed input programs or using standard tools like Microsoft Excel.

Regardless of which solution you choose, cadett is ready to assist you with any customization work or support needed to accomplish a complete solution, and putting it to work. Even when the solution is in full use, cadett offers assistance and support.

Doing the configuration work together with you, makes it possible for you to handle maintenance

and extension of the set of rules and the configurations yourself. You will receive full control of the complete solution.

Solution Examples

Here a few examples of automation solutions with cadett ELSA are presented:

1. Simplest Automation solution

Necessary macros are handled in Microsoft Excel or similar. The commands needed to create the documentation are extracted from there and sent directly to cadett ELSA.

The basic functionality needed for this type of solution is included in the standard product cadett ELSA.

2. Using the Macro file Executer

In Microsoft Excel or in another suitable tool the macros needed for the current generation are handled. A complete macro file is put together in this way and thereafter sent to the Macro file Executer to be executed. This will among other things give access to the technology where drawing sheets are assembled outside of AutoCAD.

3. Using both Configurator and Macro file Executer

The Configurator uses input in the format that has been defined for it to generate the macro file. The input is entered manually accordingly. The Macro file Executer finally executes the macro file.

4. Complete solution

A complete solution is similar to the previously described, but the input file for the Configurator is automatically created by a specially developed input program, by converting existing data or in other ways.



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