A MITEL
PRODUCT
GUIDE

Unify OpenScape Alarm Response Professional

OScAR-Pro V5
Classic Applications
OScAR-Pro Customized Operator

Administrator Documentation
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Mitel

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1 Conventions and Operating Instructions

Readers and requirements

This User Manual is designed for all customers and service providers involved in creating and editing customized interfaces for the OScAR-Pro-TT Operator-Tool.

To successfully carry out the operations described in this document, you need to be familiar with Windows® and you should know how to operate OScAR through the OScAR-Pro-TT Operator-Tool.

Contents

The chapter covers the following sections:

1.1 Overview of chapters

This document contains the following chapters:

Chapter 2, "Functions"	This chapter gives you a first overview of the product itself. It explains the product's underlying philosophy and covers the different components that are needed for its full operation.
Chapter 3, "Install and Uninstall the OScAR Customized Operator"	This chapter shows you how to install OScAR Customized Operator (DCO) and remove it again from you system.
Chapter 4, "Operating Instructions for OScAR-Pro-TT DCO-Designer"	This chapter gives you general operation instructions for the OScAR-TT DCO-Designer. It also covers the special functions of the system.
Chapter 5, "Elements of the DCO Script"	This chapter covers in detail the elements, properties, values etc. of the DCO script and shows you how to apply it.
Chapter 6, "Plan and Realize DCO Projects"	This chapter gives you general instructions that show you how to plan and realize a DCO project. The chapter also includes an example project and walks you through the first steps to create a new DCO script.
Chapter 7, "Apply the OScAR Customized Operator in the OScAR-Pro-TT Operator-Tool"	This chapter shows you how to load and run, in the OScAR-TT Operator-Tool, a DCO script that was created with the OScAR-TT DCO-Designer.

1.2 Reference manuals

The below-listed document offers information that can be of additional assistance when working with OScAR-Pro-TT DCO-Designer:

- OScAR-TT User Manual

1.3 Notations and Symbols

Conventions

The following definitions are used in this document:

`text`	All texts copied from files that are described in this document and all entries that are added to these files are output in the monospace font Courier.
The password 123456...	Details and instructions in the continuous text that are of particular importance or must be heeded are output in bold print. Buttons are also in bold print.
The file `global.cfg`	`Files` and `directories` are output in the monospace font Courier.
"Name"	Field names, menu names and window descriptions are placed in "quotation marks".
<Place holder>	Entries and outputs, both of which may vary depending on the individual situation in which they appear, are placed in <angle brackets> and output in italics.

Table 1-1 Notations

Symbols

The following symbols are used in this User Manual:

Note:
The info "i" is used to indicate additional helpful information.

Important information and warnings
The exclamation mark is used to indicate important information which the reader should treat with particular caution.

1.4 Data Protection and Data Security

This system processes and uses, among other things, personal data, e.g. for billing purposes, display outputs and to create subscriber data.

In Germany, the processing and application of use of such personal data is subject to various regulations, including the Federal Data Protection Act (Bundesdatenschutzgesetzes, BDSG). Please be careful to follow the laws and regulations for the protection of personal data that are in force in the country in which you work.

The purpose of data protection is to protect the individual against any infringement of his or her personal rights through the misuse of personal data.

In addition, the purpose of the data protection regulations is to safeguard the data from misuse during the different processing phases, and to counter any impairment caused to external or internal legitimate interests.

Please help ensure complete data protection and data security by being aware of these issues as you work:

- Always make sure that only authorized persons have access to personal data.
- Assign passwords whenever you can. Do not grant unauthorized persons access to your passwords, for example by writing them down.
- Always make sure that no unauthorized persons can process or utilize personal data in any way, for example by saving, communicating, blocking or deleting this information.
- Always make sure that no unauthorized persons have access to data storage media, for example to backup disks or printouts of logfiles or reports. This applies both to service work provided directly at the customer and to the storage and transport of data carriers.
- Always make sure that every data storage medium that is no longer needed is properly and fully destroyed. Also be careful not to leave behind any papers that could become openly accessible to others.

2 Functions

Overview

This chapter gives you a first overview of the product itself. It explains the product's underlying philosophy and covers the different components that are needed for its full operation.

Contents

The chapter covers the following sections:

2.1 Overview

The OScAR Customized Operator (DCO) enables you to tweak the operation and output of OScAR-Pro-TT Operator-Tool to the individual needs and requirements of your business.

Frequently, the operating staff who work with OScAR-Pro-TT Operator-Tool have found the system's standard visual output too complex to respond quickly and efficiently enough in an emergency situation or crisis. It is against this background that the demand was put forward for us to develop a customized interface with an overseeable number of buttons, where needed with underlying company, floor and works maps.

This is exactly where DCO steps in. Even without specific programming skills, trained staff can now utilize OScAR-Pro-TT DCO-Designer to easily create an individual and customized interface for OScAR-Pro-TT Operator-Tool, and if needed edit that interface at any later point in time to meet new corporate needs and requirements.

2.2 Example application

The below example is taken from a real-life application and demonstrates the user-friendliness of the system.

In this example, the company styled 'EXP Chemical Industries Inc.' ("EXP" short for: Example) invested in a OScAR server for their in-house fire brigade on the company site 'Yoursite' to help their fire brigade fighters to respond to an emergency situation in the fastest and most efficient way possible.

The company is strategically organized in four (4) different areas (Management, Administration & Technology, Production 1, and Production 2), and all imaginable emergency scenarios have been defined and grouped into corresponding alarm plans.

These alarm plans were then realized accordingly in OScAR through the OScAR-Pro-TT Administrator-Tool:

- For each department, a broadcast group was created with subscribers.
- for every imaginable emergency situation, a voice message was created and recorded, and
- An additional ad hoc (or current) voice message was created to also cover unforeseen incidents.

At this point, the company-own fire-brigade requested that the different departments and announcements be output together, so that they could be monitored in parallel. The aim was to make sure that alarms could be raised quickly via touchscreen, with as few mouse clicks as possible.

The IT manager of the fire brigade was trained on the OScAR-Pro-TT DCO-Designer in a corresponding training course and able to implement the aforementioned "Requirements" as described below:

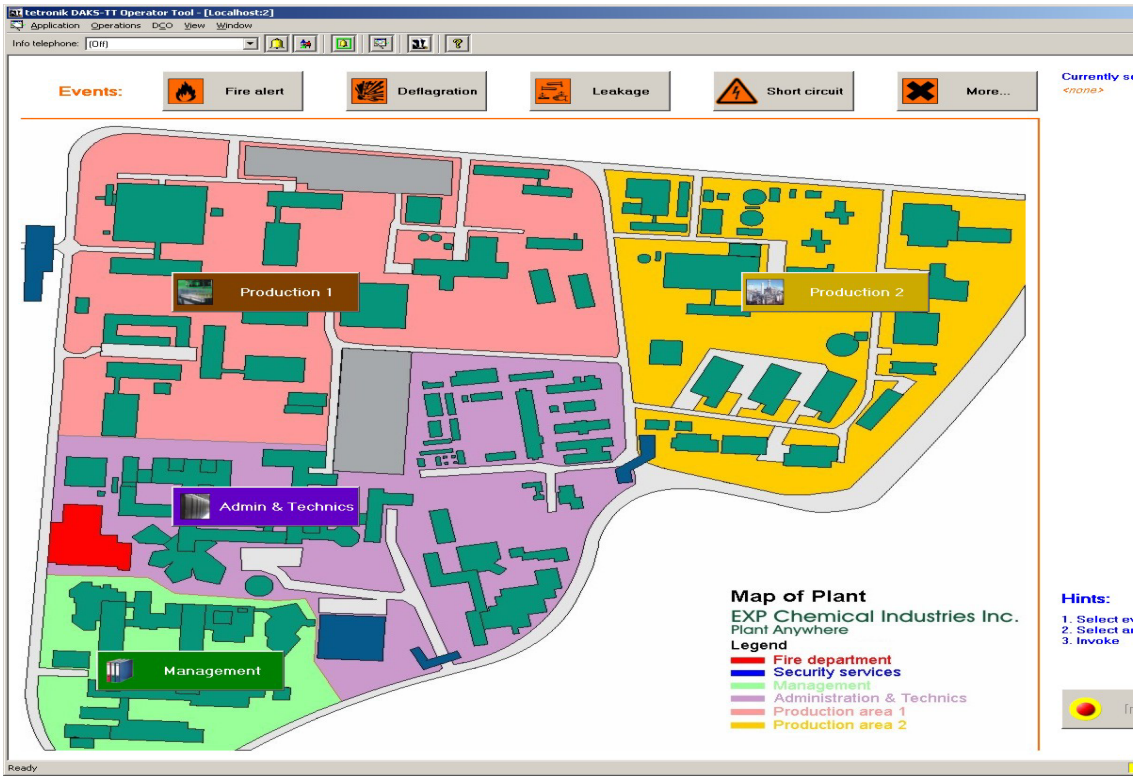


Image 2-1 Example of a DCO output in the OScAR-Pro-TT Operator-Tool

2.3 Basic system components

OScAR Customized Operator (DCO) normally consists of the following components::

- OScAR-Pro-TT DCO-Designer: Editor to create, edit and validate DCO scripts.
- DCO scripts: This is the file that describes the customized interface and its functions, and that also includes a corresponding directory for the embedded images.
- OScAR-Pro-TT Operator-Tool: This is the user application that shows the customized interface of the DCO script and that executes its implemented functions.

The below image illustrates the basic system components:

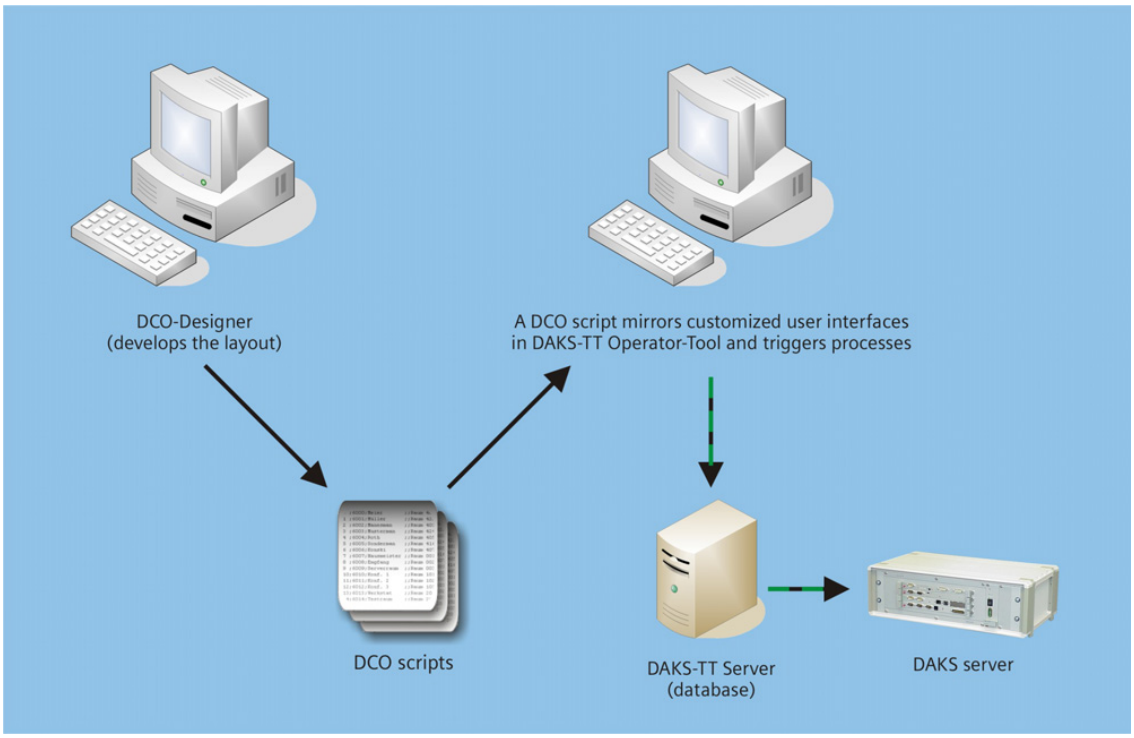


Image 2-2 Basic system components

2.4 The tasks of the OScAR-Pro-TT DCO-Designer

OScAR-Pro-TT DCO-Designer is partly a text-based and structured editor, but also a graphics-based editor to create DCO scripts and to package the images that are used therein.

As a rule, users need no specific programming skills to create a customized user interface, but this being said, it will surely be helpful to have a global understanding of variables, constants, functions or ad procedures, and filters.

The OScAR-Pro-TT DCO-Designer enables you to:

- create customized interfaces (also multi-level) and design their layout.
- adjust the properties of the objects that are used in these interfaces (e.g. fonts, colors).
- import images.
- create and use constants, variables, functions and filters.
- validate and simulate the results.

2.5 The tasks of the DCO script

A DCO script is an XML-based text file that is created by the OScAR-Pro-TT DCO-Designer and that can also be edited by the same whenever needed.

It can be compared to a small database that contains all the information that is needed by the OScAR-Pro-TT Operator-Tool to output the customized interface and to execute its commands.

In addition, each DCO script has a sub-directory titled 'Images' where all the imported images are stored.

2.6 The tasks of the OScAR-Pro-TT Operator-Tool

The OScAR-Pro-TT Operator-Tool reads and interprets the DCO script, and outputs the customized interface in exactly the same way as it was created and simulated in the OScAR-Pro-TT DCO-Designer.

In addition, the OScAR-Pro-TT Operator-Tool interprets the OScAR commands contained in the DCO script and transmits these commands to the OScAR server via the OScAR-Pro-TTProcess-Server.

All OScAR application processes that are activated by a DCO script, e.g. broadcasts, are automatically shown in the OScAR-Pro-TT Operator-Tool.

The DCO script can query at any time the events and results of processes, and also visualize these events and results accordingly in the DCO interface.

3 Install and Uninstall the OScAR Customized Operator

Overview

This chapter shows you how to install OScAR Customized Operator (DCO) and remove it again from you system.

Contents

The chapter covers the following sections:

3.1 Install the OScAR-Pro Customized Operator (DCO)

The entire OScAR-Pro Customized Operator (DCO) can be installed in a single process.

To install the software on your computer, the following requirements must be fulfilled:

- Windows 10, Windows Server 2016 or Windows Server 2019 is already installed on your computer.
- You need to be familiar with the Windows® operating system and you must know how to install software.
- DAKS Release 8 is already installed on your computer or in your network (DAKS-TT Installation Manual, DAKS Release 8).
- OScAR-Pro-TTProcessServer has previously been connected at least once with the corresponding OScAR server (online).

Note:
Follow the system instructions that are output to you during the installation. Click Back if you want to return to a previous window, for example to add changes. If you want to abort and not complete the installation, click Cancel.

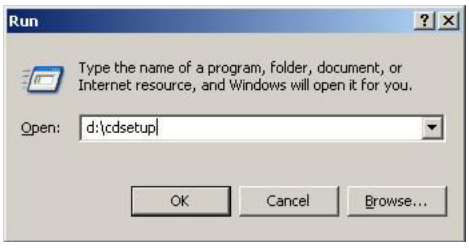
No.	Task	Window
1.	Insert the installation CD in the CD-ROM drive. If the installation software fails to start automatically, please start the CD installation manually from the Windows® interface with the command "Run menu". To do so, enter this command in the command line above Start. <CD-Rom drive>:\cdsetup e.g.: d:\cdsetup In the command line, click Ok.	

Table 3-1 Install OScAR Customized Operator (DCO)

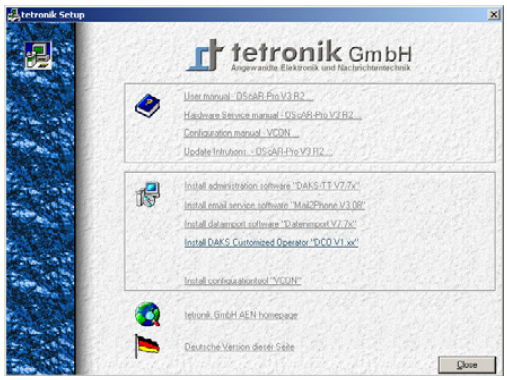
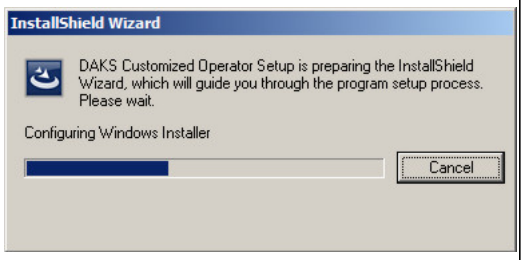
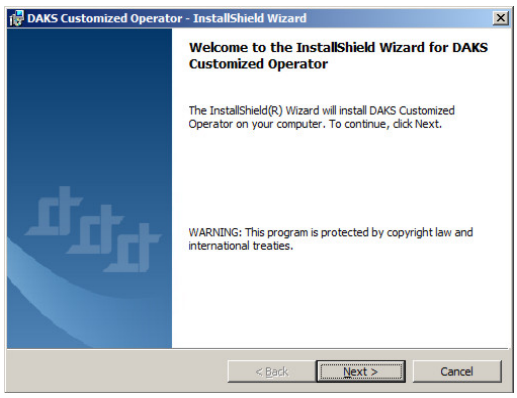
No.	Task	Window
2.	Click the menu item: "Install OScAR-Pro Customized Operator (DCO) V1xx".	
3.	Select the language you want to use and click OK.	
4.	The installation is now initialized.	
5.	Click on Next to make all installation settings.	

Table 3-1 Install OScAR Customized Operator (DCO)

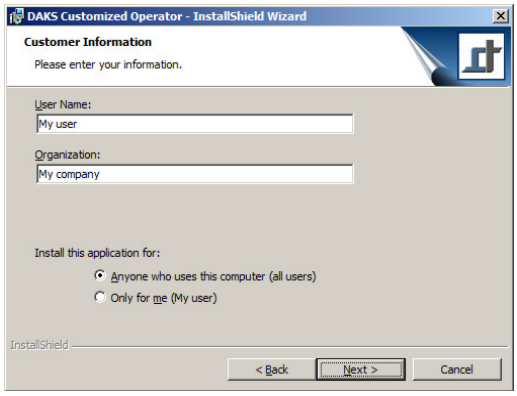
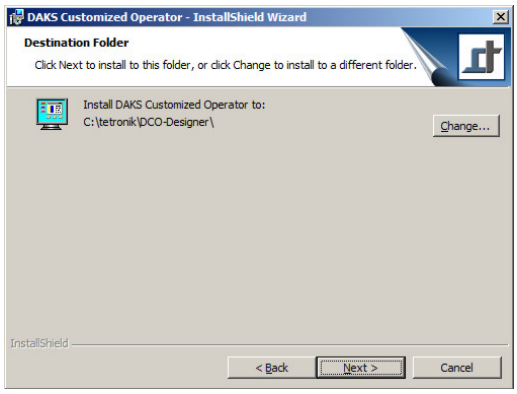
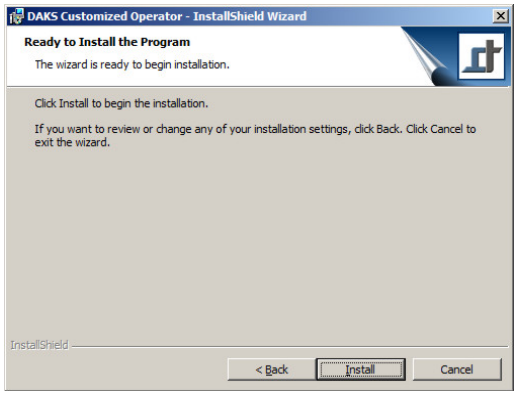
No.	Task	Window
6.	Enter the user name and the name of the organization or company. Specify if you want the software to be installed for all users of this computer or only for you. Now click Next.	
7.	If needed, change the installation path where you want DCO to be saved. To change a path, click Path... next to the corresponding field and select a new path in the window that opens next. Now click Next.	
8.	Click Install to install OScAR-Pro Customized Operator (DCO) on your PC. Now click Next.	

Table 3-1 Install OScAR Customized Operator (DCO)

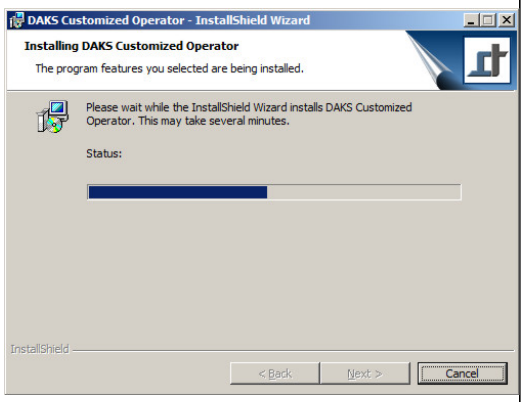
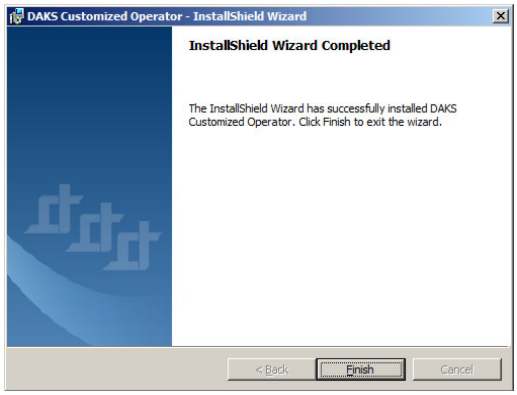
No.	Task	Window
9.	The software is now installed in the selected directory. The progress of the installation is shown with a progress bar.	
10.	Click Finish to complete the installation. After the installation, the program symbol for the OScAR-Pro Customized Operator (DCO) is listed in the Windows® Program Manager, and there in the program group "tetronik OScAR-TT".	

Table 3-1 Install OScAR Customized Operator (DCO)

3.2 Uninstall OScAR-Pro Customized Operator (DCO)

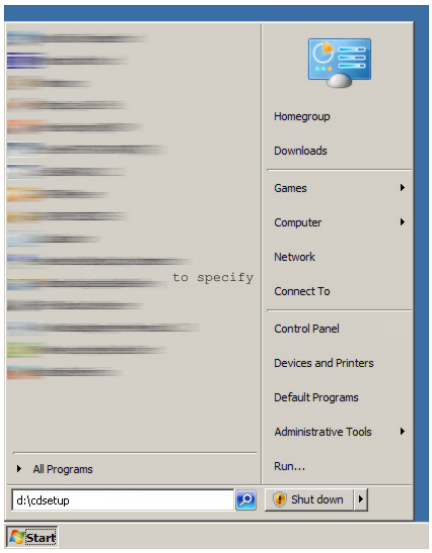
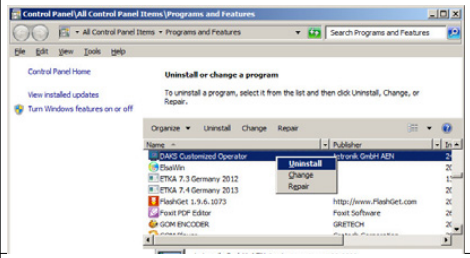
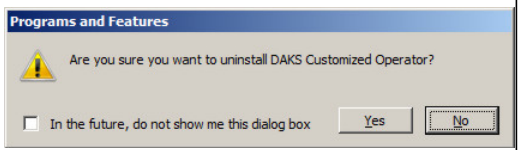
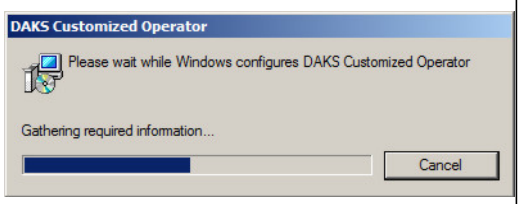
No.	Task	Window
1.	Opens the Windows® Control Panel.	
2.	Open "Programs and Features".	
3.	Select the entry "OScAR-Pro Customized Operator (DCO)". Click Uninstall. This will start the uninstaller.	
4.	Confirm the uninstall prompt with Yes.	
5.	The selected software is now removed.	

Table 3-2 Uninstall OScAR Customized Operator (DCO)

3.3 Special entries in the Windows® registry

The below table lists the entries that are created in the Windows® registry of the OScAR Customized Operator (DCO) when the OScAR-Pro-TT Operator-Tool is used:

Entry	Description
HKEY_CURRENT_USER\Software\tetronik GmbH\tetronik OScAR-TT Operator Tool\Settings	
LastGUIOpened	Entry of the type REG_SZ, that is used to store the path of the currently assigned DCO script.
LastGUIReOpen	Entry of the type REG_DWORD that is used to store the information if the DCO-Script is automatically loaded at the program start, yes (1) or no (0).
GUIBar	Entry of t he type REG_DWORD that is used store the information if the DCO script is shown as a docking window (1) or as a child window (0).

Table 3-3 DCO registry entries in the OScAR-Pro-TT Operator-Tool

4 Operating Instructions for OScAR-Pro-TT DCO-Designer

Overview

This chapter gives you general operation instructions for the OScAR-Pro-TT DCO-Designer. It also covers the special functions of the system.

Contents

The chapter covers the following sections:

4.1 Start the OScAR-Pro-TT DCO-Designer

Follow the below steps to start the OScAR-Pro-TT DCO-Designer:

No.	Task
1.	Invoke the OScAR-TT DCO-Designer through the corresponding entry in the program group "tetronik" "OScAR-TT DCO-Designer".
2.	This will open the main window of the OScAR-Pro-TT DCO-Designer.

Table 4-1 Start the OScAR-Pro-TT DCO-Designer

4.2 Layout of the interface of OScAR-Pro-TT DCO-Designer

After you have started the OScAR-Pro-TT DCO-Designer and created a new or opened an already existing project, the project window will automatically pop up (in this example with an already designed interface).

Layout of the user interface

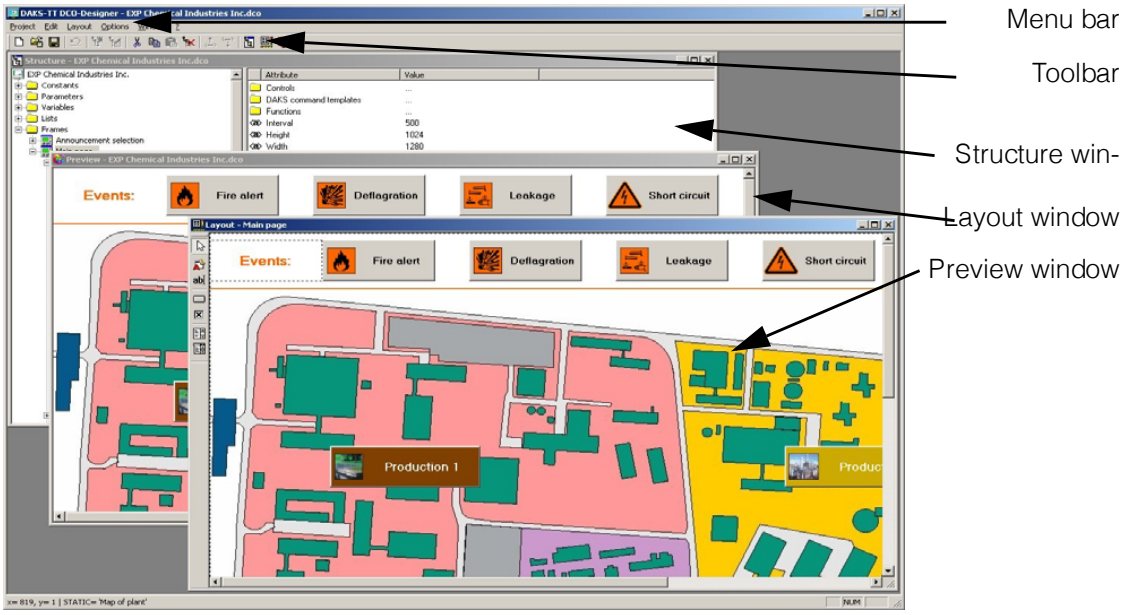


Image 4-1 Layout of the interface of the OScAR-Pro-TT DCO-Designer

4.2.1 Child windows

There are 3 different child windows for the editing and testing, namely:

- The Structure window is where the entire project data is output in a hierarchical structure. This window is similar to the Microsoft Windows® Explorer user interface and allows you to directly edit all entries.
- The Layout window is where you can edit both the frames that are created within the projects and their elements.
- The Preview window is where you validate the DCO script and check it for errors, but also where you can subject a project to extensive testing.

4.2.2 Menu bar

The menu bar contains the pull-down menus. Use the menu bar to access the different functions of OScAR-Pro-TT DCO-Designer.

All menu commands that contain additional user dialogs are followed by 3 dots (e.g. "New..."). Certain menu commands can also be reached quickly and easily via keyboard shortcuts (e.g. "Ctrl+N" to create a new project).

A description of the menus and menu commands can be found here:

see Section 4.2.4, "Menu commands and buttons"

4.2.3 Toolbar and Command bar

Use the buttons of the toolbar and command bar to activate the functions of the OScAR-Pro-TT DCO-Designer directly with a mouse click. The buttons and fields represent commands that can also be reached through the corresponding menu commands.

see Section 4.2.4, "Menu commands and buttons"

4.2.4 Menu commands and buttons

The below table describes the individual menu commands of OScAR-Pro-TT DCO-Designer, including their assigned keyboard shortcuts and symbols.

The table is divided into:

- generic entries, i.e. entries that apply to each of the 3 child windows.
- special entries that only appear in the Structure window.
- special entries that only appear in the Layout window.
- special entries that only appear in the Preview window.

Menu command	Description
Generic entries	
Summary of the pull-down menu "Project"	
New... Ctrl+N 	Opens a window to create a new project (i.e. empty DCO script directory). Should a project be already open at this moment, the system will close it, where necessary after a security prompt for confirmation to the user.
Open... Ctrl+O 	Opens a window to open an already existing project (i.e. a DCO script file in a project directory). Should a project be already open at this moment, the system will close it, where necessary after a security prompt for confirmation to the user.
Save as... Ctrl+S 	Saves a project after editing.
Save as...	Saves the DCO script of a project under a different name.
Close	Closes the project that is presently open.
Pop-up menu "Settings"	
Properties...	Opens the window to define the properties of the project. see Section 4.6.1, "Edit project properties"
Image list... F12	Opens the window to administrate the project image list. see Section 4.6.2, "Administration of the Project images list"
End program... Alt+F4	Ends the OScAR-Pro-TT DCO-Designer after the user confirms positive to a security prompt.
Summary of the pull-down menu "Options"	
Toolbar	Shows or hides the toolbar.
Status bar	Shows or hides the status bar.
Default colors...	Opens the window to edit the default color selection for new projects.
Pop-up menu "Languages"	
German	Sets the language of OScAR-Pro-TT DCO-Designer to German.

Table 4-2 Description of the menu commands and buttons of OScAR-Pro-TT DCO-Designer

Menu command	Description
English	Sets the language of OScAR-Pro-TT DCO-Designer to English.
Summary of the pull-down menu "Windows"	
Structure window Ctrl+T 	Opens the Structure window and/or brings it to the front.
Layout Window Ctrl+L 	Opens the Layout window and/or brings it to the front. The Layout window can only be opened if you select a child node under the node "Frame" in the Structure window.
Preview window Ctrl+R 	Opens the Preview window and/or brings it to the front. In this process, the present project is saved and validated after a security prompt.
Cascade Tile vertically Tile horizontally Arrange icons	Specifies the way in which the child windows are arranged if more than one window is open. Only one option can be selected.
Summary of the pull-down menu "?"	
About tetronik OScAR-Pro-TT DCO-Designer F1	Opens the about box with details on OScAR-Pro-TT DCO-Designer.
Special entries of the Structure window	
Summary of the pull-down menu "Edit"	
New... Add Make a doubleclick in an empty area of the list view. 	Creates a new element in the structure of the DCO script.
Edit Alt+Enter Doubleclick the cell you want to edit in the list field view. 	Opens the selected parameter of a structure element for editing. These are usually input or selection fields that are output directly in the list view.
Undo Alt+Z 	Undoes the last action. Use this command e.g. to re-enter an entry at its last position if deleted by mistake.
Cut Ctrl+X 	Cuts the selected entries and adds them to the Windows® clipboard. Use Paste to insert the entries from the clipboard, if needed at another place in the project.
Copy Ctrl+C 	Copies the selected entries and copies them to the Windows® clipboard. Use Paste to insert entries from the clipboard at another place in the project.
Paste Ctrl+V 	Pastes entries from Windows® clipboard to the position in your project that is presently marked.
Delete Ctrl+Del 	Deletes the selected element from the structure of the DCO script.
Move up Ctrl+Arrow up 	Moves an entry up in the order of the list view.

Table 4-2 Description of the menu commands and buttons of OScAR-Pro-TT DCO-Designer

Menu command	Description
Move down Ctrl+Arrow down 	Moves an entry down in the order of the list view.

Table 4-2 Description of the menu commands and buttons of OScAR-Pro-TT DCO-Designer

Menu command	Description
Special entries in the Layout window	
Summary of the pull-down menu "Edit"	
Delete Ctrl+Del 	Deletes the selected element from the structure of the DCO script.
Summary of the pull-down menu "Layout"	
Pop-up menu "Toolbar"	
Pointer Ctrl+1 	Selects the tool 'Pointer'. Use this tool to move graphical objects to a new position or to change their size.
Static control Ctrl+2 	Selects the tool "Static control". Use this tool to place new Static elements in the present Frame, e.g. images or static texts.
Edit field Ctrl+3 	Selects the tool "Edit field". Use this tool to add new edit fields to the present frame.
Button Ctrl+4 	Selects the tool "Button". Use this tool to place new button objects in the present Frame.
Checkbox Ctrl+5 	Selects the tool "Checkbox". Use this tool to place new checkboxes onto the present frame.
Listbox Ctrl+6 	Selects the tool "Listbox". Use this tool to place new listboxes in the present frame.
Combobox Ctrl+7 	Selects the tool "Combobox". Use this tool to place new drop-down comboboxes in the present frame.
Pop-up menu "Align"	
Left Ctrl+Arrow left	Left-aligns the selected objects to the main selected object.
Right Ctrl+Arrow right	Right-aligns the selected objects to the main selected object.
Top Ctrl+Arrow up	Aligns several selected objects to the upper border line of the main selected object.
Bottom Ctrl+Arrow down	Aligns the selected objects to the bottom border line of the main selected object.
Horiz. center Ctrl+Z	Centers the selected objects to the horizontal center line of the main selected object.
Vert. center Ctrl+V	Centers several selected objects to the vertical center line of the main selected object.
Frame center	Centers the selected objects both vertically and horizontally to the middle of the frame.
Horizontal frame center	Centers the selected objects horizontally to the middle of the frame.

Table 4-2 Description of the menu commands and buttons of OScAR-Pro-TT DCO-Designer

Menu command	Description
Vertical frame center	Centers the selected objects vertically to the middle of the frame.
Pop-up menu "Space evenly"	
Across Alt+Arrow right	Arranges all selected objects evenly and horizontally between the outer left and the outer right selected object.
Down Alt+Arrow up	Arranges all selected objects evenly between the highest and lowest selected object.
Pop-up menu "Make same size"	
Width Ctrl+B	Sets the width of all selected objects to the width of the main selected object.
Height Ctrl+H	Matches the height of all selected objects to the height of the main selected object.
Both Ctrl+G	Sets the height and width of all selected objects to the height and width of the main selected object.
Summary of the pop-up menu "Frame size"	
320 x 240 Ctrl+F7	Sets the size of the frame to 320 x 240 pixels.
640 x 480 Ctrl+F8	Sets the size of the frame to 640 x 480 pixels.
800 x 600 Ctrl+F9	Sets the size of the frame to 800 x 600 pixels.
1024 x 768 Ctrl+F10	Sets the size of the frame to 1024 x 768 pixels.
1280 x 1024 Ctrl+F10	Sets the size of the frame to 1280 x 1024 pixels.
User defined... Ctrl+F12	Opens a window to adjust the frame size to your own demands.
Special entries of the Preview window	
Summary of the pull-down menu "Project"	
Parameter editor SHIFT+Ctrl+P	Opens the editor to edit the parameters within the DCO script.

Table 4-2 Description of the menu commands and buttons of OScAR-Pro-TT DCO-Designer

4.2.5 Functions of the mouse

The functions of the mouse are largely Windows®-compliant. However, the Structure window and the Layout window of OScAR-Pro-TT DCO-Designer offer several additional functions that are covered below.

The left mouse key

- Drag & Drop with the left mouse key
  In the tree/list view of the Structure window, entries can be moved and copied by "Dragging" them with the left mouse key. In this way you can e.g. move Controls of the Structure window to a new frame, or copy them by keeping the Ctrl key pressed at the same time.
  In the Layout window, you can duplicate Controls (see below) by keeping the Ctrl key pressed at the same time.

The right mouse key

- Context menu
  A right mouse key click opens the context menu for the window that is presently open. Usually, this enables you to quickly access functions that can also be reached through the pull-down menus or buttons (e. g. "New", "Edit", "Copy" etc.). However, you will additionally be offered functions that are only available in the current context, because it is only here that they make sense.
  The most important differences are:
  – "Move up" and "Move down" in the Structure window
  – "Tools", "Align", "Make same size" and "Space evenly" in the Layout window
  – "New", "Edit" etc. in the Structure- as well as in the Layout window
  The functions of the context menu commands correspond to those of the matching pop-up menu commands.
  see Section 4.2.4, "Menu commands and buttons"

4.2.6 Status bar

The status bar is located at the lower end of the main window. It gives you additional information on the various menu commands and outputs status messages of the program.

4.3 Setup and application of the Structure window

The Structure window constitutes the main work station of the OScAR-Pro-TT DCO-Designer. It is this window that outputs the entire content of the DCO script in a hierarchical tree structure.

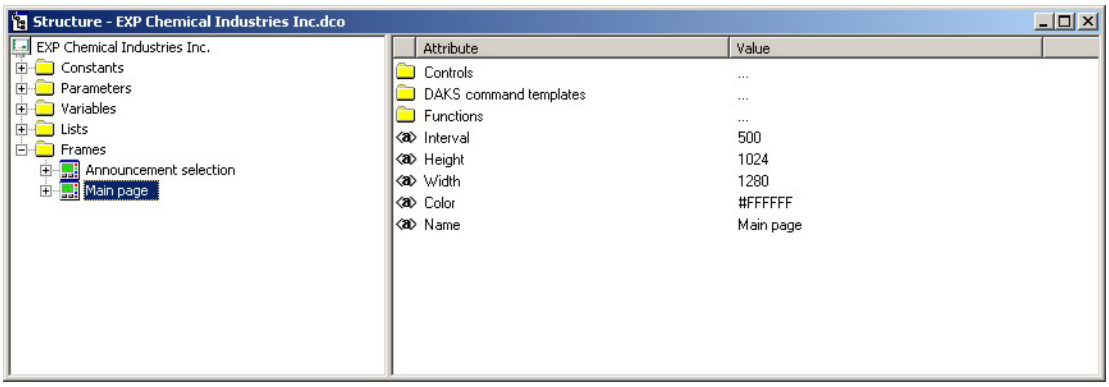


Image 4-2 Image of the Structure window with example

The Structure window is divided into two separate areas:

- the tree view
- the list view

4.3.1 The tree structure of the Structure window

The tree structure is located underneath the root (with the project name) and has the below five nodes:

- Constants
  see Section 5.4, "Constants"
- Parameters
  see Section 5.5, "Parameters"
- Variables
  see Section 5.6, "Variables"
- Lists
  see Section 5.7, "Lists"
- Frames
  see Section 5.8, "Frames"

Nodes that have child nodes are pened by clicking "+" and closed by clicking "-". In this way, you can e.g. open the node "Frames" and get a direct overview of its child nodes (underlying Frames).

When you select a node or child node in the tree structure, its underlying nodes or subentries are, if available, automatically shown in the list view. For example, when you select a specific frame, its underlying child nodes "Attributes", "OScAR commands templates" etc. are automatically shown in the list view.

4.3.2 The list view of the Structure window

As a rule, the details that are shown in the list view depend on the child node that is currently selected in the tree structure. For example, when you select "Attributes" in the tree structure the list view will output the corresponding all attributes.

Change the order of the columns

You can also easily change the order of the columns to best meet the own requirements.

Follow the below steps to change the column order:

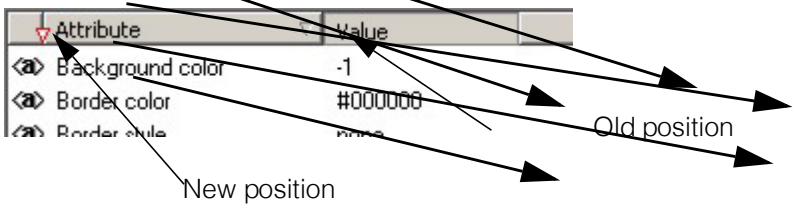
No.	Task
1.	Make a left mouse key click on the column header and keep the key pressed.
2.	Move the column header to the new position. The new position is indicated with a small arrow: 
3.	Release the mouse key. The column is shifted.

Table 4-3 Change the column order

Sort the list

The list is sorted in the same way as you sort in other Windows® programs, namely by making as single mouse click into the column header. Every further mouse click into the same header will sort the entries of this column, alternating between ascending and descending order.

Edit entries

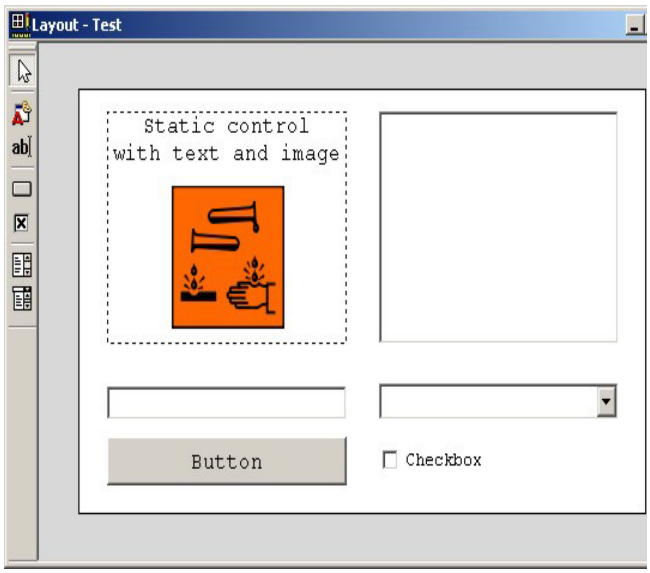
For a number of entries in the tree structure, the list view contains at least one column whose entries can be edited. If you want to edit any of these entries use the left mouse key and doubleclick the entry you want to edit. This will either take you to a user window in which you can edit the entry, or open an entry or selection field directly in the column itself (where applicable with the option to add a new entry).

4.4 Setup and application of the Layout window

The Layout window constitutes the work station for all graphic operations in the OScAR-Pro-TT DCO-Designerand enables you to edit the representation of the Frames within the DCO script.

Use the Layout window to add individual controls to your interface that are used for operation or to output of information.

- Toolbar
- Background
- Static control with image and text
- List area
- Frame area
- Edit field
- Combobox
- Checkbox
- Button



Which frame is output in the Layout window depends on the entry that is selected in the tree structure. If, for example, the Layout window is open and you select an entry in the tree structure outside of the node "Frames", the Layout window will show the frame that was selected last.

4.4.1 Toolbar and controls

The toolbar is usually located at the right-hand side of your screen. If you want it to float freely above your window or anchor at any other side of your screen, simply make a mouse click on the upper end of the toolbar, keep the mouse key pressed and drag it to the new position.

The actual frame area is located on the gray background screen of the Layout window. It is within the dimensions of this area that you can place controls.

By definition, controls are elements that stand for a function in keeping with their definition, and/or are used to realize the interface functions.

The Layout window includes the following controls:

Control	Description
Static control	A "Static control" allows you to add graphic elements with information or texts to your interface.
Edit field	An "Edit field" enables the later user (Operator) to enter alphanumeric and/or numeric information.
Button	A "Button" can set specific modes and trigger events. It can be compared to a switch.
Checkbox	A "Checkbox" is exclusively designed to set specific states.
Listbox	A "Listbox" serves to output lists in which the user can select individual entries.
Combobox	A "Combobox" is used to select exactly one entry from a list.

Table 4-4 Summary of all available controls

Both the Controls that are placed in a Frame and the Frame area itself can be modified in terms of their size. Also, you can move Controls to a new place and have them aligned or positioned automatically.

4.4.2 Mark a Frame area or a Control

Before you can edit a frame area or a control, you need to select the corresponding element (frame area or control). You can can also edit several controls at the same time.

The below table illustrates the different ways in which selected elements are output on the screen using the example of a Buttons:

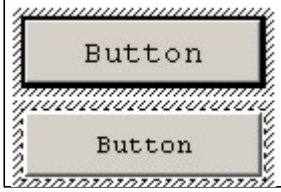
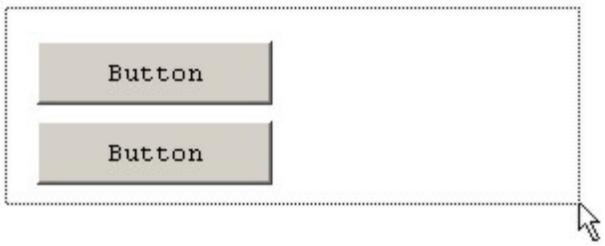
Button	Description
Not marked 	The element is neither selected nor surrounded by an extra frame.
One Button marked: 	If only one button is selected, it gets a frame with accented edges and with squares placed both at its corner points and at the center of each line.
More than one Button marked: 	If two or more Buttons are selected, each button gets a frame with accented edges but no squares. The Button that has the focus has an additional solid black frame on the inside of the accented frame.

Table 4-5 Rendition of marked objects

To select only one element, make a left mouse click on the element. This will give the element the bounding box.

There are two ways to select more than one element in one step:

1. Mark the first element, press the SHIFT key and keep it pressed, and make a left mouse click for each other element you want to select. To delete the marking from an element simply click the element once again.
2. Move the mouse cursor over your window or frame area and find a place where it does not collide with any other element. Then press the left mouse key, keep it pressed and pull a so-called bounding box around the elements you want to select. Now release the mouse key. Every element that is completely surrounded by the bounding box is selected:



4.4.3 Move controls

There are two ways to move one or several controls:

1. Mark the elements you want to move and use the arrow keys (←↑↓→) to shift them to the new position. Each time you press an arrow key, the elements are shifted in increments of 1 pixel. To increase these increments to 5 pixels, simply press the SHIFT key together with the arrow key.
2. Mark the elements you want to move to a new position and move the mouse cursor over one of the selected elements. This will change your mouse cursor to: ✥.
   Press the left mouse key and keep it pressed. Now move the elements to their new position.

4.4.4 Change the size of frame areas and controls

There are two ways to change the size of a control:

1. Mark the elements you want to select, press the SHIFT and Ctrl key and keep both keys pressed, and use the arrow keys ( ) to increase or decrease the size of the element. Every time an arrow key is pressed, the size of the selected elements will increase or decrease in increments of 1 pixel.
2. Mark the element you want to select and move the mouse cursor over one of the 8 black squares of the accented frame. This will change your mouse cursor in the following ways:

Position of the black square	Cursor
Upper left and lower right corner	⤡
Upper and lower center	↕
Left and right center	↔
Lower left and upper right corner	⤢

Table 4-6 Change the size of frame areas and controls

Now press the left mouse key, keep the key pressed and change the size as needed in the directions indicated by the mouse cursor.

You can also blend several elements in size. To do so, select at least two elements. Here, the first element that is selected has the focus.

Now go to the menu bar, open "Layout Make Same Size" and choose the way in which you want to blend the selected elements ("Width", "Height" or "Both").

The elements are now blended in size in keeping with this selection and on the basis of the element that has the focus, usually the one that was selected first.

4.4.5 Align and space elements automatically

OScAR-Pro-TT DCO-Designer makes it easy to align elements to another element:

To do so, select at least two objects, go to the menu bar and open "Layout Align" and select the way in which you want to align the objects ("Top", "Left", "Right", "Bottom", "Horiz. center", "Vert. center"). All selected objects are now aligned accordingly, to the element that has the focus.

Elements can also be aligned on the frame.

To do so, select at least 1 object, open the menu "Layout Align" and select the way in which you want to align the object/s ("Frame center", "Horiz. center", or "Vert. center"). The system will align the selected objects accordingly on the frame.

Just as easily you can also space elements evenly:

To do so, select at least 3 objects, go to the menu bar and open "Layout Space evenly" and select the way in which you want to space the objects ("Across", "Down"). The system will evenly space the selected elements:

- "Across", i.e. horizontally from side to side between the outer left and the outer right element,
- "Down", i.e. vertically from top to bottom between the highest and the lowest element.

4.5 Setup and utilization of the Preview window

The preview window constitutes the test area of the OScAR-Pro-TT DCO-Designer. It proofreads your settings within the DCO script for validity and consistency and that makes it possible to test the entire script.

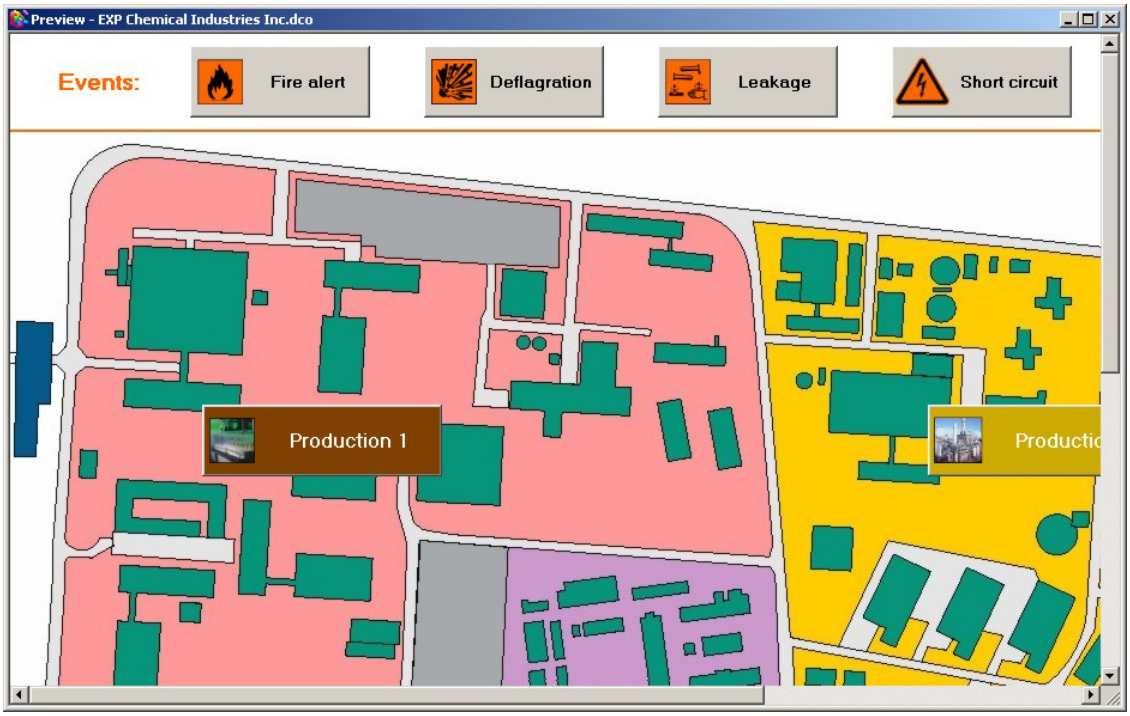


Image 4-3 Image of the Preview window with example project

In this test you can also carry out an easy simulation of the connection to a OScAR-Pro-TT Operator-Tool.

4.6 General user dialog windows

In addition to the 3 windows of the working area, there are modal user dialogs that enable you to enter or select individual values and properties.

4.6.1 Edit project properties

Follow the below steps to edit the project properties:

No.	Task
1.	Start OScAR-Pro-TT DCO-Designer.
2.	Select the menu command "Project" "Settings" "Properties...". The window "Project properties" will automatically pop up.
3.	Edit the properties as needed and in keeping with the below field descriptions.
4.	When you have finished click Ok to save the project properties.

Table 4-7 Edit project properties

Summary of the fields in the window "Project properties"

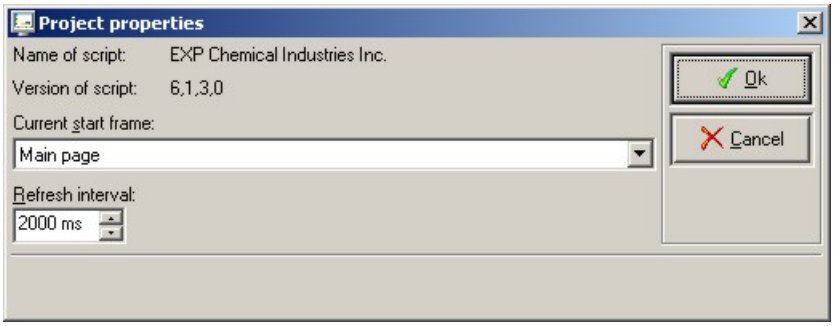
Edit field	Description
	
Script name	The field that displays the project name.
Script version	The field that displays the version number of the DCO script.
Current &start window	Selection field determines the frame with which the script will start when executed in the OScAR-Pro-TT Operator-Tool. (default: empty or the first created frame)
Refresh interval	Use this field to determine the time interval in milliseconds in which you want the DCO to query the OScAR-Pro-TT Operator-Tool for changes of the process status (e.g. Broadcast started/ended, Info Telephone profile switched etc). (default: 500 ms)

Table 4-8 Summary of the fields in the window "Project properties"

4.6.2 Administration of the Project images list

The window "Project images list" serves to administrate all images that are used in a project.

Follow the below steps to edit the Project images list:

No.	Task
1.	Start OScAR-Pro-TT DCO-Designer.
2.	Select the menu command "Project" "Settings" "Project images list...". This will open the window "Project images list".
3.	Add new images to the project or delete obsolete images from the project (see below). If you activated the Image list via the properties of a Control, select the image you want to assign to this Control.
4.	Now click Ok to close the Image list or copy the assigned image to the proper Control.

Table 4-9 Administration of the project images lists

Summary of the fields in the window "Project images list"

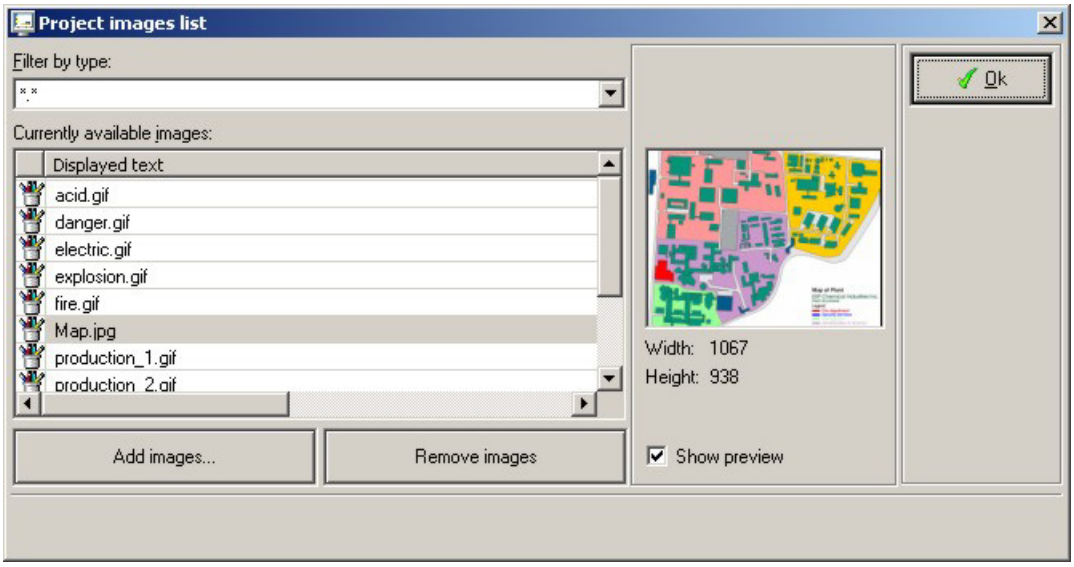
Edit field	Description
	
Filter by type	Use this editable selection field to determine the filter to restrict the output of the images that are currently available on the basis of their names or types (similar to a file name); "*.*" signifies that all are shown. (default: *.*)
Currently available images	This list outputs all images that are currently available, in keeping with the selected filter.
	Use this button to add new images to your Project images list. Upon clicking this button, a user dialog will automatically pop up and enable you to select the image file(s) that you want to add to your list.
	Use this button to delete the selected image(s) from the Image list.

Table 4-10 Summary of the fields in the window "Project images list"

4.6.3 Process colors and Standard colors for process lists

With the window "Standard colors for process lists", you can define the colors you want to use in new projects to signal the different process states. However, please bear in mind that the colors selected at this level are exclusively used for visual outputs within the controls of the type "Listbox".

Use the attribute "Process colors" of a listbox to customize the listbox process colors individually.

see Section 5.10.12, "Child nodes and special attributes of Listboxes"

Follow the below steps to customize standard colors for Process lists:

No.	Task
1.	Start OScAR-Pro-TT DCO-Designer.
2.	Select the menu command "Options" "Standard colors...". This will open the window "Standard colors for process lists".
3.	To change a color simply doubleclick the box with its sample next to the entry you want to edit (see below). This will open the window "Color" in which you can select the new color. see Section 4.6.5, "Edit colors"
4.	Click Ok to save your changes.

Table 4-11 Edit standard colors for Process lists

Summary of the fields in the windows "Standard colors for process lists" and "Process colors"

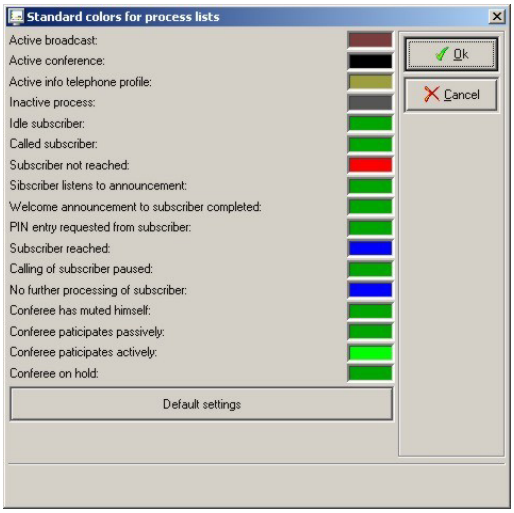
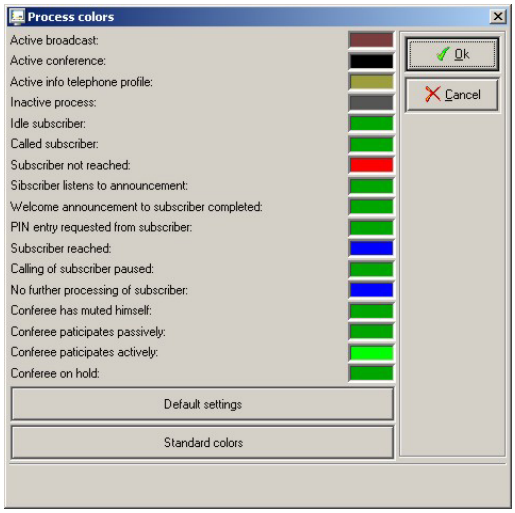
Edit field	Description
	
Active broadcast:	This color visualizes a Broadcast that is presently active.
Active Conference:	This color visualizes a Conference that is presently ongoing.
Active Info Telephone profile:	This color visualizes an Info Telephone profile that is presently active.
Inactive process:	This color visualizes an inactive Broadcast or Conference process.
Idle subscriber:	This color visualizes a Broadcast subscriber or conferee whose telephone line is idle.

Table 4-12 Summary of the fields in the windows "Standard colors for process lists" and "Process colors"

Edit field	Description
Calling subscriber	This color visualizes a Broadcast subscriber or conferee who is currently being called by the system.
Subscriber not reached:	This color stands for a Broadcast subscriber or conferee who could not be reached.
Subscriber listening to announcement	This color visualizes a subscriber who was reached and who is momentarily listening to the Broadcast announcement or the welcome message of the Conference.
Welcome announcement to subscriber completed	This color visualizes a subscriber who has been played the full Broadcast announcement or Conference welcome announcement.
Awaiting PIN entry from subscriber	This color visualizes a Broadcast subscriber or conferee who has been requested to enter his PIN.
Subscriber reached	This color visualizes a Broadcast subscriber or conferee who is has been successfully reached.
Calling of subscriber paused:	This color visualizes a Broadcast subscriber or conferee who is momentarily in a dialing pause.
No further processing of subscriber	This color visualizes a Broadcast subscriber or conferee whose processing has been fully completed.
Conferee has muted himself:	This color visualizes a conferee who has switched himself to mute (microphone OFF).
Conferee participates passively in conference	This color stands for a Conference member who is partaking passively in the Conference (i.e. listening only).
Conferee participates actively in conference	This color stands for a Conference member to is participating actively in the Conference (i.e. both listening and speaking).
Conferee is on hold	This color visualizes a subscriber who has temporarily left the Conference (hearing on-hold message).
Default settings	Button to reset all values to the default settings.
Standard colors	This button is only visible in the window "Process colors". Use this button to reset all values to the standard colors.

Table 4-12 Summary of the fields in the windows "Standard colors for process lists" and "Process colors"

4.6.4 Edit fonts

Use the window "Font" to define the fonts of the texts that are output in the various elements of the Frame.

Follow the below steps to select a font:

No.	Task
1.	Start OScAR-Pro-TT DCO-Designer.
2.	In the tree of the Structure window, open the attributes of the relevant Control and double-click "Font" in the list view. This will open the window "Font".
3.	Select the font, font style and the size you want to use (see below).
4.	Click Ok to save your changes.

Table 4-13 Add new font

Summary of the fields in the window "Font"

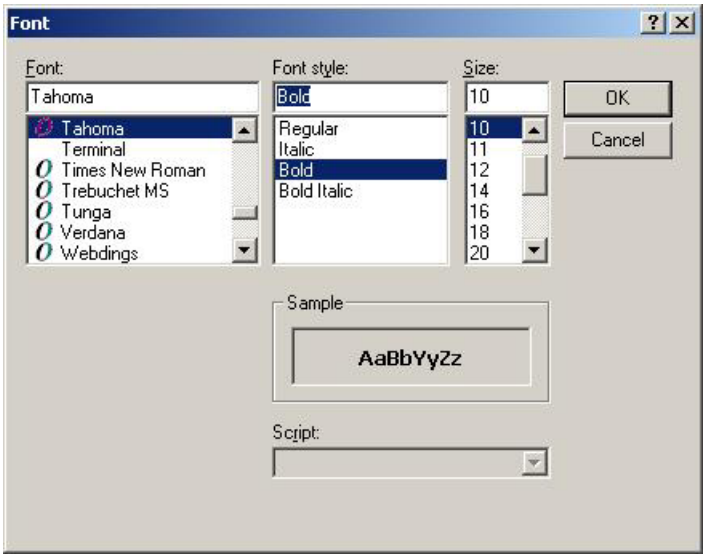
Edit field	Description
	
Font	Edit field to enter the font you want to use. Underneath this field you will find a list with all fonts that are available to you.
Font style	Edit field to enter the font style you want to use. Underneath this field you will find a list with all font styles that are available.
Size	Edit field to enter the font size you want to use. Underneath this field you will find a list with all font sizes that are available to you.

Table 4-14 Summary of the fields in the window "Font"

Note:
Each time you close this window with Ok, the system will save your changes and use these settings as a template for new controls.

4.6.5 Edit colors

Use the window "Colors" to define the background and foreground colors for the different control elements of a frame.

Follow the below steps to edit the color table:

No.	Task
1.	Start OScAR-Pro-TT DCO-Designer.
2.	In the tree of the Structure window, open the attributes of the relevant control and double-click "Text color" in the list view. This will activate a drop-down combobox. Unfold the combobox and click "Select color..." . The window "Color" will open.
3.	Select the color you want to use (see below).
4.	Click Ok to save your changes.

Table 4-15 Add new font

Summary of the fields in the window "Color"

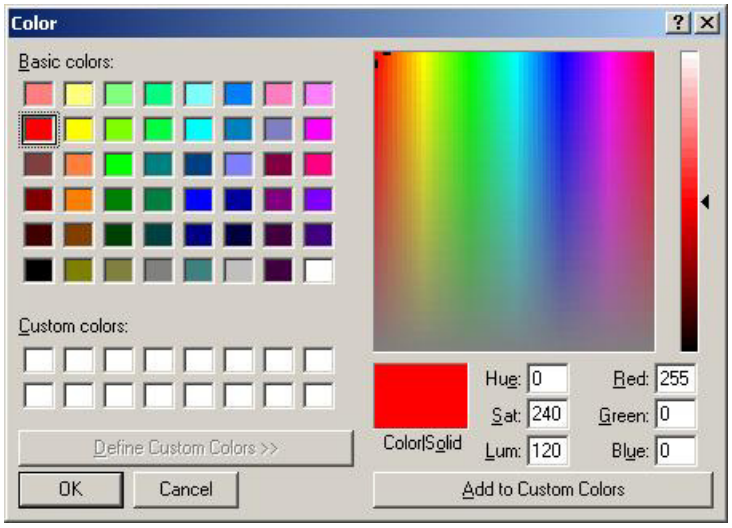
Edit field	Description
	
Basic colors	Table with the basic colors that are available in Windows®. To choose a color from this table simply make a left mouse click on the wanted color box.
Custom colors	Table with the customized colors you have defined so far. To choose a color from this table simply make a left mouse click on the wanted color box.
Color|Solid	Window with a sample of the color you are presently editing.
Hue	Edit field to enter the color hue represented by an integer in a scale from 0..239. If you change the value of this field, the crosshairs will move horizontally over the above prismatic color system.
Sat.	Edit field to enter the color saturation represented by an integer in a scale from 0..240. If you change the value of this field, the crosshairs will move vertically over the superimposed prismatic color system.
Lum.	Edit field to enter the brightness value represented an integer in a range from 0..240. As you change the lumination value, the arrow of the brightness scale next to the prismatic color system will move up and down.

Table 4-16 Summary of the fields in the window "Font"

Edit field	Description
Red	Edit field to enter directly the red components of a color represented by an integer in a scale from 0..255. If you modify this integer, the crosshairs will jump to the corresponding position in the above prismatic color system and brightness scale.
Green	Edit field to enter directly the green components of a color represented by an integer in a scale from 0..255. If you modify this integer, the crosshairs will jump to the corresponding position in the above prismatic color system and brightness scale.
Blue	Edit field to enter directly the blue components of a color represented by an integer in a scale from 0..255. If you modify this integer, the crosshairs will jump to the corresponding position in the above prismatic color system and brightness scale.
Add to custom colors	Use this button to add the present color to your list of "Custom colors".

Table 4-16 Summary of the fields in the window "Font"

Note:
You can also use the right mouse key to click the wanted color directly in the prismatic color system or brightness scale.

5 Elements of the DCO Script

Overview

This chapter covers in detail the elements, properties, values etc. of the DCO script and shows you how to apply it.

The descriptions and explanations in this chapter are based on the assumption that you have successfully started OScAR-Pro-TT DCO-Designer and opened an already existing or created a new project.

see Section 4.1, "Start the DAKS-TT DCO-Designer"

Contents

The chapter covers the following sections:

5.1 General structure

As mentioned above in Section 4.3, "Setup and application of the Structure window", the DCO script is output in the Structure Window in a hierarchical structure.

The below image illustrates the Structure window and its entries that are explained in full detail in this chapter:

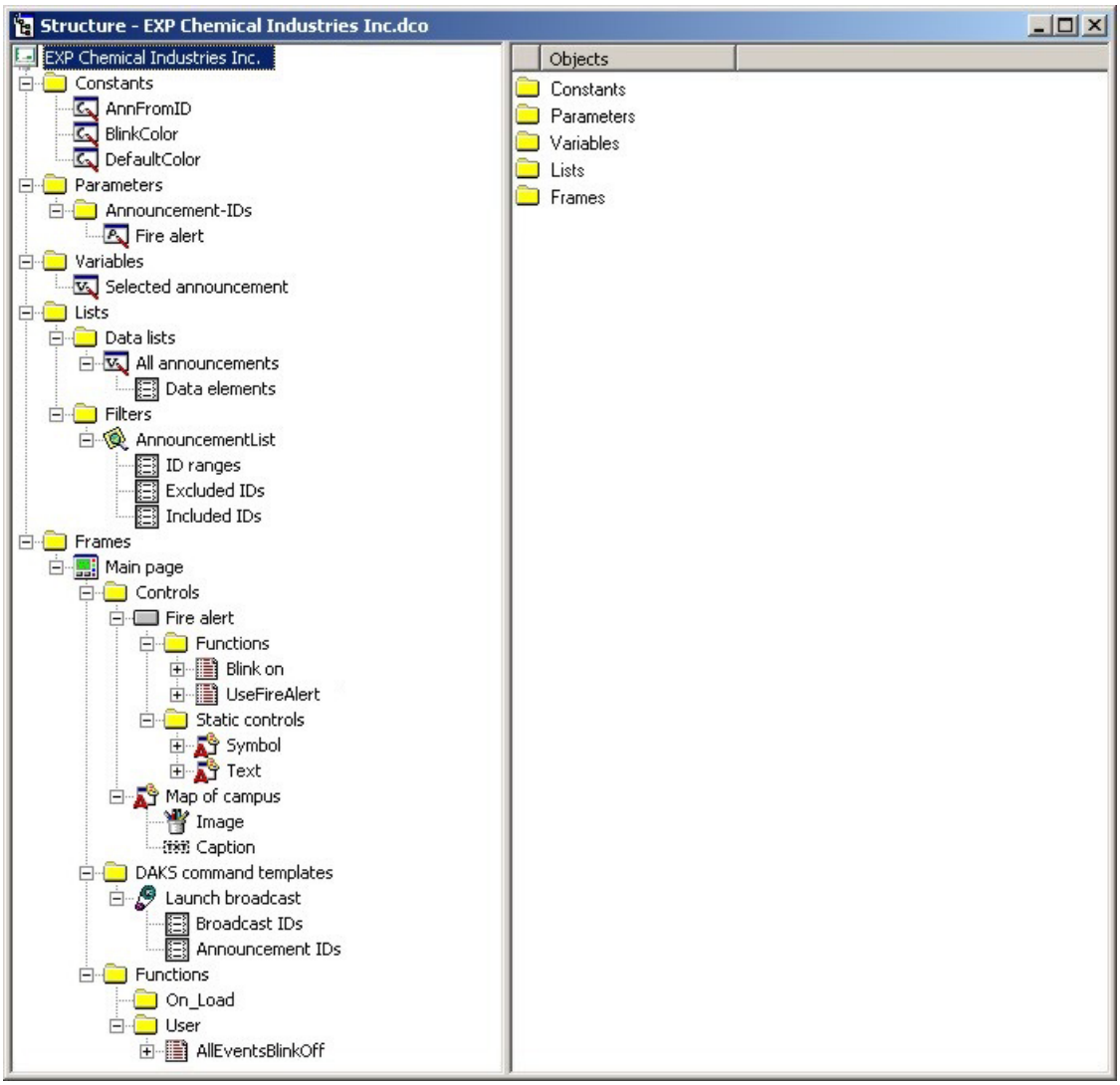


Image 5-1 View Structure window with numerous entries

Right below the root, the Structure window is divided into the following nodes:

Node	Description
Constants	Use the node "Constants" to create Static controls. These elements remain the same throughout the entire project and can be inserted into and used in the project any number of times and at any place. Their values are easily adjustable at a central location in OScAR-Pro-TT DCO-Designer.
Parameters	Use the node "Parameters" to create parameterizable elements. These elements can be used in the same way constants, with the only difference that their values can be adjusted easily through the parameter editor of the OScAR-Pro-TT Operator-Tool.
Variables	Use the node "Variables" to create global placeholders that can be used to exchange information between the elements of a frame, but also across several frames (global).
Lists	Use the node "Lists" to create lists of placeholders. These elements will help you to fill the controls "Listbox" and "Combobox" with data. You can either predefine the individual list entries in the DCO script (same as for Constants) or have them filled with data via various OScAR-Pro-TT Operator-Tool commands.
Frames	Use the node "Frames" to create the Frames that are output on the screen and their Controls. Within a project, the number of Frames that may be created and that the user may move between is unrestricted.

Table 5-1 Description of the predefined nodes of the tree structure

In addition, there are a number of different data types that are used in the DCO script, and therefore in the Structure window.

see Section 5.2, "The DCO data types and their value ranges"

5.2 The DCO data types and their value ranges

For the attributes of the various objects, the DCO script utilizes special data types or references to Controls, respectively that are of the same data type.

Also, OScAR-Pro-TT DCO-Designer only supports meaningful assignments of data types and references to the individual attributes and properties.

The below table summarizes the applicable data types with their respective values ranges:

Data type	Value range	Description
bool	`0, 1`	Data type for logic statements with `0` = false/untrue/not assigned/not enabled, and `1` = correct/true/assigned/enabled.
byte	Positive integer between `0..255`	Data type for various small integers.
int	Positive or negative integer between `-32768..32767`	Data type for overall integers.
uint	Positive integer between `0..65535`	Data type for overall and purely positive integers.
string	Any text, max. 256 characters	Data type for types of text.
phone_ number	Phone numbers, max. 24 characters	Phone numbers, consisting of: space character, #, (,), *, +, -, /, comma, 0, 1, 2, 3, 4, 5, 6, 7, 8, 9.

float	Floating point number between
	`±1,4 e-45 ..`
	`±3,4 e+38`
		Data type for very precise rational values.

bdc_id	ID entry request	Valid ID of a Broadcast administrated in OScAR-Pro-TT Administrator-Tool.
con_id	Conference ID	Valid ID of a Conference administrated in OScAR-Pro-TT Administrator-Tool.
cas_id	Call Profile ID	Valid ID of a Call Profile administrated in OScAR-Pro-TT Administrator-Tool.
msg_id	Announcement ID	Valid ID of an announcement administrated in OScAR-Pro-TT Administrator-Tool.
itl_id	Info Telephone ID	Valid ID of an Info Telephone administrated in OScAR-Pro-TT Administrator-Tool (0=OFF 1..9).
scn_id	Scenario ID	Valid ID of a Scenario administrated in OScAR-Pro-TT Administrator-Tool.
jkr_id	Joker Access ID	ID of a process that is active in the OScAR-TT Operator-Tool (and thus in the OScAR server).
dsp_txt	Display text, max. 160 characters	Text message for output on the display of a telephone handset.

Table 5-2 Summary of the different Data types

Data type	Value range	Description
color	`#000000`... `#FFFFFF`	Data type to identify color values in hexadecimal convention. The format is #<red><green><blue>. Each of the 3 color components may range between 00 .. ff. Examples: • `#000000`: black • `#FF0000`: most vibrant red • `#00FF00`: most vibrant green • `#0000FF`: most vibrant blue • `#FFFFFF`: white
process	Process ID	ID of a process that is active in the OScAR-TT Operator-Tool (and thus in the OScAR server).

Table 5-2 Summary of the different Data types

5.3 Formulas

Formulas can be used nearly everywhere, e.g. to describe the values of attributes or in functions (see below).

Formulas are computing instructions that are used to carry out logic operations with integers or concatenated strings.

All formulas that are applied during the execution of the DCO script are output in brackets `@(` and `)@.`

Every formula consists of a statement with at least two elements and a logic operation, and the operation must lie between these two elements.

For example, if you take the strictly numeric statement `@(1 + 2)@,` the integers `1` and `2` represent the elements, and the (+) sign represents the operation.

Operations can be mathematical characters or keywords. You can also add further brackets to a formula to append additional statements, e.g.:

`@(1 + ( 2 * 28 ) )@` or `@(1 ADD ( 2 MUL 28 ) )@.`

Note:
Within each formula, a space character must be entered in front of and after every operation and in front of and after each bracket.

The following rules apply:

- Parameters, Variables , Controls (see below) and/or direct entries can constitute elements of a statement.
- All elements in a formula must be of the same data type (e.g. `STRING`).
- Do not use any Control names in the Control attributes (see below).
- Every Formula is processed from left to right and in keeping with the mathematical rule "first multiplication and division, then addition and subtraction".

List of logical operations in Formulas

Logical operation	Effect on numeric elements	Effect on text elements
`+` or `ADD`	Adds the two integers.	Connects two texts.
`-` or `SUB`	Subtracts the second integer from the first.	(no function)
`*` or `MUL`	Multiplies the two integers with each other.	(no function)
`/` or `DIV`	Divides the first integer by the second.	(no function)
`&` or `AND`	Equals `1`, if both values are `1`. `0`, if at least one of the two values is `0`.	(no function)
`|` or `OR`	Equals `1`, if at least one of the two values is `1`. `0`, if both values are `0`.	(no function)
`=` or `EQL`	Equals `1`, if both values are identical `0`, if both values are different	Equals `1`, if both texts are identical `0`, if both texts are different
`!=` or `UEQ`	Equals `1`, if both values are different `0`, if both values are identical	Equals `1`, if both texts are different `0`, if both texts are identical
`>` or `GT`	Equals `1`, if the value of the first integer is greater than the value of the second integer `0`, if the value of the first integer is smaller than or equal to the value of the second integer	(no function)
`>=` or `GET`	Equals `1`, if the value of the first integer is greater than or equal to the value of the second integer, `0`, if the value of the first integer is smaller than the value of the second integer.	(no function)
`<` or `LT`	Equals `1`, if the value of the first integer is greater than the value of the second integer, `0`, if the value of the first integer is greater than or equal to the value of the second integer.	(no function)

Table 5-3 List of logical operations in formulas

Logical operation	Effect on numeric elements	Effect on text elements
<= or LET	Equals 1, if the value of the first integer is smaller than or equal to the value of the second integer. 0, if the value of the first integer is greater than the value of the second integer.	(no function)

Table 5-3 List of logical operations in formulas

Note:
After an entry, all operations that were entered as characters are automatically converted into letters.

5.4 Constants

Constants are placeholders and based on the data types described in Section 5.2, "The DCO data types and their value ranges".

Constants always remain the same throughout a Project. They can be used any number of times at any place within the Project, and their values can easily be edited at a central location in OScAR-Pro-TT DCO-Designer.

When using Constants during the execution of the DCO script, the name of the Constant is placed between %% characters. During the execution of the DCO script, these Constants are automatically substituted in the script with the values that are assigned to them.

Example

You can, for example, define a specific color for a specific type of button as a Constant, and then assign this Constant as text color to other buttons. If you want to change the color of the buttons of this type at a later point in time, please note that you do not need to edit every one of these buttons individually; instead, you can change the color of the Constant easily and centrally.

5.4.1 Attributes of Constants

Constants can have the following attributes:

Attribute	Description
Name	Edit field determines the name of the Constant. Select a name that is recognizable and unique among the other Constants and Parameters.
Type	Selection field to determine the data type of the Constant. see Section 5.2, "The DCO data types and their value ranges"
Value	Edit field determines the value of the Constant (in keeping with the pertinent Constant type).

Table 5-4 Attributes of Constants

5.4.2 Add a new Constant

Follow the below steps to create a new Constant

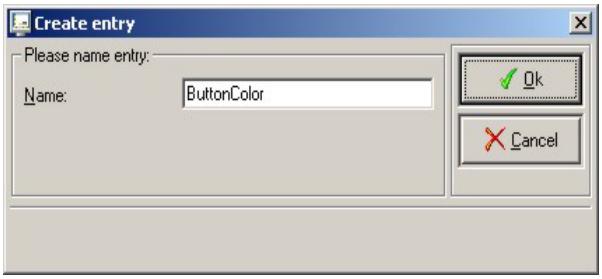
No.	Task
1.	Go to the tree view and select the node "Constants".
2.	Select the menu item "Edit" "New...". This will open the following user window to add the new entry: 
3.	Enter a unique name for the new Constant.
4.	Finally, click Ok to close the window. The new Constant is shown in the tree structure of the Structure window, and there under the node "Constants". To edit the attributes of the Constants, go to the list view and doubleclick the relevant item listed in the column "Value".

Table 5-5 Add a new Constant

5.4.3 Edit attributes of a Constant

Follow the below steps to edit the attributes of an already existing Constant:

No.	Task
1.	Go to the tree view and select the node "Constants".
2.	Select the Constant that you want to edit.
3.	To edit the attributes, go to the list view and doubleclick the relevant item listed in the column "Value".

Table 5-6 Edit the attributes of a Constant

5.5 Parameters

Just like the Constants, Parameters are placeholders based on the data types that are described in the Section 5.2, "The DCO data types and their value ranges".

Just like Constants, Parameters can be used any number of times and at any place wanted in the Project, but can edited through the Parameter editor of the OScAR-Pro-TT Operator-Tool, e.g. for each workstation.

see Section 7.3, "The DCO Parameter Editor"

When using the Parameters in the course of a DCO script, all Parameter names are output inbetween %% characters.

When the DCO script is loaded in the OScAR-Pro-TT Operator-Tool, the Parameters are initialized with their corresponding values as found in the Parameter file. If no entry is found for a Parameter in the matching Parameter file, the Parameter is automatically initialized with its default value as assigned in the DCO script.

Parameters are divided into logical groups. A Parameter is also always assigned to a specific Parameter group.

Example

For example, you can define an announcement ID as a Parameter and assign it to different Instructions.

see Section 5.12, "Instructions"

If the ID of the pertinent announcement is later changed through the OScAR-Pro-TT Administrator-Tool, you can easily adjust the corresponding Parameter with the Parameter editor of the OScAR-Pro-TT Operator-Tool without having to change the DCO script.

5.5.1 Add a new Parameter group

Follow the below steps to create a new Parameter group:

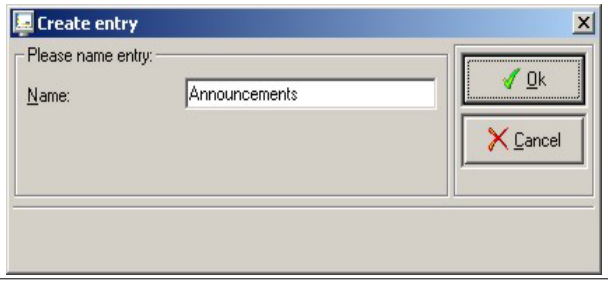
No.	Task
1.	Go to the tree structure on the right and select the node "Control Panel".
2.	Select the menu item "Edit" "New...". This will open the following user window to add the new entry: 
3.	Enter a unique name for the new Parameter group.
4.	Finally, click Ok to close the window. The new Parameter group is shown in the tree structure of the Structure window, and there under the node "Parameters".

Table 5-7 Add a new Parameter group

Note:
Note that when a name is given to a defined Parameter group, it cannot be changed later.
Instead, create a new Parameter group and move the Parameters from the previous group to the new group with Drag & Drop.
see Section 4.2.5, "Functions of the mouse"

5.5.2 Attributes of Parameters

Parameters have the following attributes:

Attribute	Description
Name	Edit field determines the name of the Parameter. It must be unique among the Constants and Parameters.
Type	Selection field to determine the data type of the Parameter. see Section 5.2, "The DCO data types and their value ranges"
Value	Edit field determines the initial value of the Parameter (in keeping with the pertinent Parameter type). You may leave this field empty. In this case, however, you will need enter the value through the Parameter editor in the OScAR-Pro-TT Operator-Tool.
Comment	Edit field determines an optional description, e.g. on the use of the Parameter within DCO script. The comment is output in the Parameter editor of the OScAR-Pro-TT Operator-Tool.

Table 5-8 Attributes of Parameters

5.5.3 Add a new Parameter

Follow the below steps to create a new Parameter:

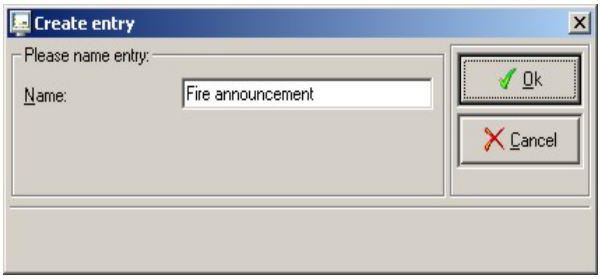
No.	Task
1.	Go to the tree structure on the right and open the node "Control Panel".
2.	In the tree, select the Parameter group to which you want to add the new Parameter.
3.	Select the menu item "Edit" "New...". This will open the following user window to add the new entry: 
4.	Enter a name for the Parameter that is clear and unique.
5.	Finally, click Ok to close the window. The new Parameter is shown in the tree structure of the Structure window, and there under the Parameter group. To edit the attributes of the Parameter, go to the list view and doubleclick the relevant item listed in the column "Value".

Table 5-9 Add a new Parameter

5.5.4 Edit the attributes of a Parameter

Follow the below steps to edit an existing Parameter:

No.	Task
1.	Go to the tree view of the Structure window and open the node "Parameters".
2.	Now open the Parameter group of the Parameter you want to edit.
3.	Select the Parameter you want to edit.
4.	To edit the attributes, go to the list view and doubleclick the relevant item listed in the column "Value".

Table 5-10 Edit the attributes of Parameters

5.6 Variables

Just like the Constants and Parameters, Variables are placeholders based on the data types that are described in the Section 5.2, "The DCO data types and their value ranges".

Variables can be used any number of times and at any place in a Project, but their first and foremost purpose is the exchange of information between the different elements of a Frame or also across different Frames (global).

In contrast to Parameters and Constants, whose values remain the same (Constant) in the OScAR-Pro-TT Operator-Tool during the execution of the DCO script, the values of a Variable can in fact change.

When using the Variable during the execution of the DCO script, its name is output inbetween $ characters.

Example

You can e.g. create a Variable to save announcements in a Frame that were used by a subscriber for a Broadcast. In a OScAR command template, you can insert the Variable at the beginning of a Broadcast so that the presently assigned value, namely the ID of the previously selected announcement, is transferred to the OScAR-Pro-TT Operator-Tool.

see Section 5.9, "OScAR command templates"

5.6.1 Attributes of Variables

Variables have the following attributes:

Attribute	Description
Name	Edit field determines the name of the Variable. It must be unique among all Variables.
Type	Selection field to determine the data type of the Variable. see Section 5.2, "The DCO data types and their value ranges"
Value	Editable selection field to determine the initial value of the Variable (in keeping with the pertinent Variable type).

Table 5-11 Attributes of Variables

5.6.2 Add a new Variable

Follow the below steps to create a new Variable:

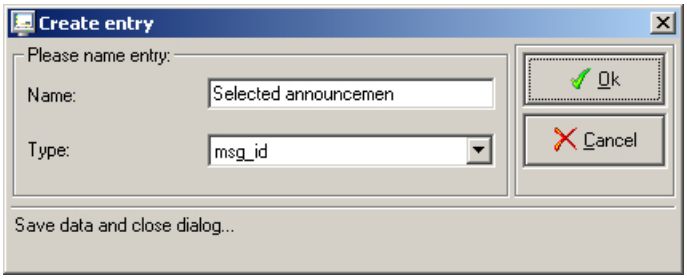
No.	Task
1.	Go to the tree view and select the node "Variables".
2.	Select the menu item "Edit" "New...". This will open the following user window to add the new entry: 
3.	Assign a unique and recognizable name to the new Variable.
4.	Specify the Variable type.
5.	Finally, click Ok to close the window. The DCO-Designer will output the newly created Variable in the tree structure of the Structure window, and there in the node "Variables". You can now edit the attributes of the Variable.

Table 5-12 Add a new Variable

5.6.3 Edit the attributes of a Variable

Follow the below steps to edit an existing Variable:

No.	Task
1.	Go to the tree view and select the node "Variables".
2.	Now select the Variable you want to edit.
3.	To edit the attributes, go to the list view and doubleclick the relevant item listed in the column "Value".

Table 5-13 Edit the attributes of a Variable

5.7 Lists

The node "Lists" does not have attributes but contains the following child nodes:

- "Data lists" and
- "Filters"

5.7.1 Short summary of the Data list

Data lists are placeholders for a certain data type and have subordinate Data elements. They serve to fill the Controls "Listbox" and "Combobox".

see Section 5.2, "The DCO data types and their value ranges"

Within the OScAR-Pro-TT DCO-Designer, data lists can be filled with constant Data elements, or receive such Data elements through the OScAR-Pro-TT Operator-Tool by invoking different Instructions.

see Section 5.12, "Instructions"

Apart from the attributes, each Data list also has Data elements that are output in the Controls "Listbox" and "Combobox", and administrated in the child node "Data elements".

5.7.2 Short summary of Filters

Filters are used to control and restrict the way in which Data lists are filled via the OScAR-Pro-TT Operator-Tool. For this purpose it is only the so-called IDs that can be used in Filters.

These IDs are assigned to Broadcast, Conference groups, Call Profiles, Scenarios, Info Telephone profiles, and announcements via the OScAR-Pro-TT Administrator-Tool.

You can use Filters for the following Instructions:

- GetMessages: Fills a Data list with the administrated announcements.
- GetBroadcasts: Fills a Data list with the administrated Broadcasts.
- GetConferences: Fills a Data list with the administrated Conferences.
- GetCallServices: Fills a Data list with the administrated Call Profiles.
- GetScenarios: Fills a Data list with the administrated Scenarios.
- GetInfotelephones: Fills a Data list with the administrated Info Telephone profiles.

see Section 5.12, "Instructions"

5.7.3 Attributes and child nodes of Data lists

Attributes of Data list

Data lists have the following attributes:

Attribute	Description
Name	Edit field determines the name of the Data list. Select a name that is recognizable and unique among the Data lists.
Type	Selection field to determine the Data type of the Data list. see Section 5.2, "The DCO data types and their value ranges"

Table 5-14 Attributes of Data list

Child nodes of the node "Data list" have the following attribute:

Child node	Description
Data elements	This child node can store an entire list of Data elements that are shown in form of entries when the Data list is assigned to a Listbox.

Table 5-15 Child nodes of "Data lists"

Attributes of Data elements

Data elements have the following attributes:

Attribute	Description
Displayed text	Edit field determines the text with which the Data element is shown in a Listbox or Combobox.
Value	Editable selection field to determine the initial value of the Data element (in keeping with the pertinent Data type). Here you can: • either enter the value of the Data element directly, • or assign a Constant, Parameter or Variable.
Color	Editable selection field to determine the color in which the entry shall be shown in a Listbox entry (ignored in Comboboxes). Here you can: • enter a color value, • click "Select color..." and use the next user window to choose a color. see Section 4.6.5, "Edit colors" • assign a Constant, Parameter or Variable of the data type color.

Table 5-16 Attributes of Data elements

5.7.4 Add a new Data list

Follow the below steps to create a new Data list:

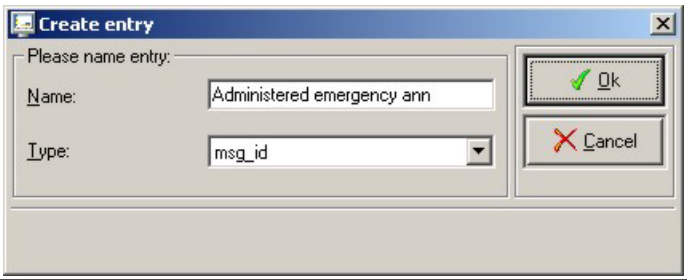
No.	Task
1.	Go to the tree view and open "Lists".
2.	Next, select the child node "Data list".
3.	Select the menu item "Edit" "New...". This will open the following user window to add the new entry: 
4.	Assign a unique and recognizable name to the new Data list.
5.	Specify the Data list type.
6.	Finally, click Ok to close the window. The new Data list is shown in the tree structure of the Structure window, and there under the node "Data list". You can now edit the attributes of the Data list and, if needed, add Data elements.

Table 5-17 Add a new new Data list

5.7.5 Edit the attributes of a Data list

Follow the below steps to edit an existing Data list:

No.	Task
1.	Go to the tree structure and open the node "Lists".
2.	Now open the child node "Data list".
3.	In the tree view, select the Data list you want to edit.
4.	To edit the attributes, go to the list view and doubleclick the relevant item listed in the column "Value".

Table 5-18 Edit Data list attributes

5.7.6 Add a new Data element

Follow the below steps to add a new Data element to a Data list:

No.	Task
1.	Go to the tree structure and open the node "Lists".
2.	Now open the child node "Data list".
3.	Now open the Data list to which you want to add new Data elements.
4.	In the tree click the child node "Data elements".
5.	Select the menu item "Edit" "New...". A new Data element is now automatically added to the list.
6.	In the active edit field, enter the text with which the Data element shall be output in a "Listbox" or "Combobox".
7.	To also edit the other attributes of the Data element, go to the list view and make a doubleclick in the relevant column.

Table 5-19 Add new Data element

5.7.7 Edit the attributes of a Data element

Follow the below steps to edit an existing Data element:

No.	Task
1.	Go to the tree structure and open the node "Lists".
2.	Now open the child node "Data list".
3.	Open the Data list whose Data elements you want to edit.
4.	In the tree click the child node "Data elements".
5.	To edit the attributes, go to the list view and doubleclick the relevant column.

Table 5-20 Edit the attributes of Data elements

5.7.8 Attributes and child nodes of Filters

Filters are created and stored in the child node "Lists" of the parent node "Filters". As a rule, every Filter has the following own child nodes:

- "ID ranges"
- "Included IDs"
- "Excluded IDs"

Attributes of Filters

Filters have the following attributes:

Attribute	Description
Name	Edit field determines the name of the Filter.
Type	Selection box determines the type of the Filter. Here you can select: • BDC, to query a list of all Broadcasts administrated in the database with the Instruction "GetBroadcasts". • CON, to query a list of all Conferences administrated in the database with the Instruction "GetConferences". • CAS, to query a list of all Call Profiles administrated in the database with the Instruction "GetCallServices". • ITL, to query a list of all Info Telephone profiles administrated in the database with the Instruction "GetInfotelephones". • MSG, to query a list of all Announcements administrated in the database with the Instruction "GetMessages". • SCN, to query a list of all Scenarios administrated in the database with the Instruction "GetScenarios".
Subtype	This attribute is only visible for the Filter type "MSG". Selection field to determine the list of announcements (physical announcements, composed announcements, or both) from which announcements are selected. Here you can select: • ALL, to query a list of all Announcements (composed and physical) that are administrated in the database. • PHYSICAL, to query a list of all physical Announcements that are administrated in the database. • LOGICAL, to query a list of all composed Announcements that are administrated in the database.

Table 5-21 Attributes of Filters

Attribute	Description
Use descriptions instead of names	This attribute is only shown for the Filter types "BDC" and "CAS". Selection field to determine which designations of the Broadcasts and Call Profiles shall be used. Here you can select: • 0, for the output of the Broadcast or Call Profiles with their names. • 1, for the output of the Broadcast or Call Profiles with their descriptions, instead.

Table 5-21 Attributes of Filters

The child nodes of the node "Filters"

Each "Filters" node has the following child nodes:

Child node	Description
ID ranges	This child node can store a list of the ID ranges that shall be considered in a query. ID range entries always have a "from" and "to" value.
Included IDs	This child node can store a list of Included IDs that shall be specifically considered in a query, e.g. to ensure that the ID 4000 is always included in the query if it is properly administrated in the database.
Excluded IDs	This child node can store a list of Excluded IDs that shall be neglected in a query, e.g. to ensure that the ID 1000 is never included in a query, even if it is properly administrated in the database.

Table 5-22 The child nodes of the node "Filters"

In a query, the lists of a Filter are processed in the following sequence:

- first the entries of the child node "ID ranges",
- then the entries of the child node "Included IDs", and
- finally the entries of the child node "Excluded IDs".

Consequently, every ID that is listed in an ID range or as an Included ID, but that is at the same time also specified as an Excluded ID, will NOT appear in the query result.

Attributes of ID ranges

ID ranges have the following attributes:

Attribute	Description
From	Editable selection field to determine the first ID, starting from which the filter lets pass the datasets. Here you can: • enter a valid ID with up to 4 digits, • assign a Constant, a Parameter or a Variable of the data type bdc_id, con_id, cas_id, itl_id, jkr_id, scn_id or msg_id.
to	Editable selection field to determine the last ID, up until which the filter lets pass the datasets. Here you can: • enter a valid ID, with up to 4 digits, • assign a Constant, a Parameter or a Variable of the data type bdc_id, con_id, cas_id, itl_id, jkr_id, scn_id or msg_id.

Table 5-23 Attributes of ID ranges

Attributes of Included IDs

Included IDs have the following attributes:

Attribute	Description
Value	Editable selection field to determine an individual ID, that is not recorded by the "ID ranges" and that is let pass by the Filter. Here you can: • enter a valid ID, with up to 4 digits, • assign a Constant, a Parameter or a Variable of the data type bdc_id, con_id, cas_id, itl_id, jkr_id, scn_id or msg_id.

Table 5-24 Attributes of Included IDs

Attributes of Excluded IDs

Excluded IDs have the following attributes:

Attribute	Description
Value	Editable selection field to determine an ID that is always blocked by the Filter. Here you can: • enter a valid ID, with up to 4 digits, • assign a Constant, a Parameter or a Variable of the data type bdc_id, con_id, cas_id, itl_id, jkr_id, scn_id or msg_id.

Table 5-25 Attributes of Excluded IDs

Example

Create a Filter with the name "Announcement list" as follows:

- Under "ID ranges", an entry has been created to cover the value range from "0000" to "1999".
- Under "Included IDs", an entry was created with the value "4000".
- Under "Excluded IDs", an entry was created with the value "1000".

When you invoke this Filter using the command "GetMessages", a Data list will be supplied and contain all administrated Announcements whose IDs lie between "0000" and "1999". In addition, this list will also include the announcement with the ID "4000", but leave out the Announcement with the ID "1000".

5.7.9 Add a new Filter

Follow the below steps to create a new Filter:

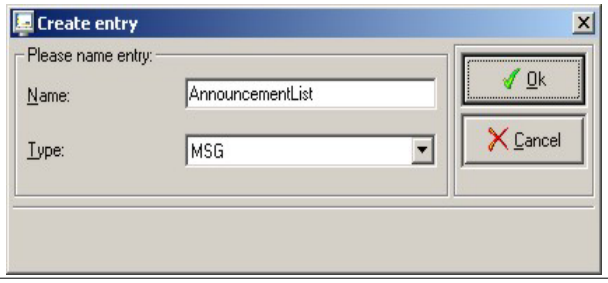
No.	Task
1.	Go to the tree structure and open the node "Lists".
2.	Now open the child node "Filters".
3.	Select the menu item "Edit" → "New...". This will open the below user window to add the new entry. 
4.	Enter a name for the Filter that is clear and unique.
5.	Specify the data type of the Filter.
6.	Finally, click Ok to close the window. The DCO-Designer outputs the newly created Filter in the tree structure of the Structure window, and there in the "Filters" child node of the node "Lists". If needed, you can now edit the attributes of the filters entries in the subordinate child nodes "ID ranges", "Included IDs" and "Excluded IDs".

Table 5-26 Create the Filter

5.7.10 Edit the attributes of a Filter

Follow the below steps to edit an already existing Filter:

No.	Task
1.	Go to the tree structure and open the node "Lists".
2.	Now open the child node "Filters" in the tree.
3.	In the tree view, select the Filter that you want to edit.
4.	To edit the attributes, go to the list view and doubleclick the relevant item listed in the column "Value".

Table 5-27 Edit the attributes of Filters

5.7.11 Add ID ranges

Follow the below steps to create ID ranges to an already existing Filter:

No.	Task
1.	Go to the tree structure and open the node "Lists".
2.	Now open the child node "Filters" in the tree.
3.	Next, select the Filter to which you want to add an ID range.
4.	In the tree structure, select the next child node "ID ranges".
5.	Select the menu item "Edit" "New...". The DCO-Designer now outputs a new ID range in the list view on the left.
6.	To edit the attributes, go to the list view and doubleclick the relevant item listed in the column "Value".

Table 5-28 Add an ID range

5.7.12 Edit the attributes of an ID range

Follow the below steps to edit the ID range of an already existing Filter:

No.	Task
1.	Go to the tree structure and open the node "Lists".
2.	Now open the child node "Filters" in the tree.
3.	Still in the tree, open the Filter that contains the Excluded ID you want to edit.
4.	In the tree structure, select the next child node "ID ranges".
5.	To edit the attributes, go to the list view and doubleclick the relevant item listed in the column "Value".

Table 5-29 Edit the attributes of ID ranges

5.7.13 Add Included IDs

Follow the below steps to add Included IDs to an already existing Filter:

No.	Task
1.	Go to the tree structure and open the node "Lists".
2.	Now open the child node "Filters" in the tree.
3.	Still in the tree, open the Filter to which you want to add an Included ID.
4.	Click the entry "Included IDs".
5.	Select the menu item "Edit" "New...". A new Included ID is added to the list view.
6.	To edit the attributes, go to the list view and doubleclick the relevant item listed in the column "Value".

Table 5-30 Add an Included ID

5.7.14 Edit the attributes of an Included ID

Follow the below steps to edit the attributes of the "Included IDs" of an already existing Filter:

No.	Task
1.	Go to the tree structure and open the node "Lists".
2.	Now open the child node "Filters" in the tree.
3.	Next, open the Filter whose Included IDs you want to edit.
4.	Click the entry "Included IDs".

Table 5-31 Edit the attributes of "Included IDs"

No.	Task
5.	To edit the attributes, go to the list view and doubleclick the relevant item listed in the column "Value".

Table 5-31 Edit the attributes of "Included IDs"

5.7.15 Add Excluded IDs

Follow the below steps to add "Excluded IDs" to an already existing Filter:

No.	Task
1.	Go to the tree view of the Structure window and open the node "Filters".
2.	Still in the tree, open the Filter to which you want to add an Excluded ID.
3.	Click the child node "Excluded IDs".
4.	Select the menu item "Edit" "New...". The new Excluded ID is shown in the list view.
5.	To edit the attributes, go to the list view and doubleclick the relevant item listed in the column "Value".

Table 5-32 Add Excluded IDs

5.7.16 Edit the attributes of an Excluded ID

Follow the below steps to edit the attributes of "Excluded IDs" of an already existing Filter:

No.	Task
1.	Go to the tree structure and open the node "Lists".
2.	Now open the child node "Filters" in the tree.
3.	Next, open the Filter whose Excluded IDs you want to edit.
4.	Click the child node "Excluded IDs".
5.	To edit the attributes, go to the list view and doubleclick the relevant item listed in the column "Value".

Table 5-33 Edit the attributes of Excluded IDs

5.8 Frames

Use the node "Frames" to create and edit the various screen Frames of the graphic user interface.

You can create any number of Frames and customize their design individually. Use the Layout window to tweak the graphic look of the Frames that are created here.

The Frames themselves are created in the node "Frames". Here, each "Frame" parent node has the following three child nodes:

- "Controls",
- "OScAR command templates", and
- "Functions".

5.8.1 Attributes and child nodes of Frames

Attributes of Frames

Frames have the following attributes:

Attribute	Description
Type	Selection field to determine the type of the Frame. Here you can select: • normal, to define a regular Frame. • toolbar, to define a toolbar Frame. Except for the properties that are covered below, toolbar Frames are no different from normal Frames.
Name	Edit field determines the name of the Frame. It must be unique among all names of Frames.
Color	Editable selection field to determine the background color of the Frame. Here you can: • enter a color value, • click "Select color..." and use the next user window to choose a color. see Section 4.6.5, "Edit colors" • assign a Constant, Parameter or Variable of the data type color.
Width	Editable selection field to determine the width of the Frame (in pixels). Here you can: • enter a numeric value. • assign a Constant, Parameter or Variable of the data type int. You can also define the size of the Frame width with the menu "Layout" in the Layout window.

Table 5-34 Attributes of Frames

Attribute	Description
Height	Editable selection field to determine the height of the Frame (in pixels). Here you can: • enter a numeric value. • assign a Constant, Parameter or Variable of the data type int. You can also define the Frame height with the menu "Layout" in the Layout window.
Interval	Editable selection field to enter a time interval which enables the synchronous blinking of all Controls of the Frame that have the type "Button", "Edit field" or "Listbox". Here you can: • enter a numeric value. • assign a Constant, Parameter or Variable of the data type int.
Execute functions as snapshot	Editable selection field to determine the behavior when loading a Variable to process functions. Here you can: • 0, enter this value to determine that the content of the Variable is always assessed anew when a function is invoked. • 1, enter this value to determine that the content of the Variable is only assessed upon the first invoke of a function.
Special attributes for Frames of the type normal	
Toolbar	Selection field to determine the toolbar Frame that is output together with this "normal" Frame. Here you can select here an already created toolbar Frame.
Special attributes for Frames of the type toolbar	
Position	Selection field to determine the position where the toolbar is shown relative to the normal Frame. Here you can select: • top, to define that the toolbar is shown at the upper (top) edge of the normal Frame. • bottom, to define that the toolbar is shown at the lower (bottom) edge of the normal Frame. • left, to define that the toolbar is shown at the left edge of the normal Frame. • right, to define that the toolbar is shown at the right edge of the normal Frame.

Table 5-34 Attributes of Frames

Attribute	Description
Toolbar size	Editable selection field to determine the toolbar's height (for Position top or bottom) or width (for Position left or right), in pixels. Here you can: • enter a numeric value. • assign a Constant, Parameter or Variable of the data type int.
Toolbar is fixed	Selection field to determine if the height or width of the toolbar can be adjusted during the runtime. Here you can: • 0, enter this value to protect the height and width from changes. • 1, enter this value to allow changes to the height and width. • assign a Constant, Parameter or Variable of the data type bool. • assign the reference to a Control that has the data type bool.

Table 5-34 Attributes of Frames

The child nodes of the node "Frames"

The node "Frames" has the following child nodes:

Child node	Description
Controls	This node is used to administrate the Controls that were created in this Frame. For a detailed description of the Controls: see Section 5.10, "Controls"
OScAR command templates	This node is used to administrate the command templates that are used to invoke queries at the OScAR-Pro-TT Operator-Tool, or to activate processes via the OScAR-Pro-TT Operator-Tool. For a detailed description of the OScAR command templates: see Section 5.9, "OScAR command templates"
Functions	Use this node to administrate the Functions of the Frame. This node is subdivided into further child nodes: • On_Load The Functions created in this child node are executed automatically when the Frame is loaded. • On_Message The functions in this node are executed with the command "BroadcastMessage" by doubleclicking an entry in the listbox, or by selecting a Combobox entry. see Section 5.12.8, "BroadcastMessage" • On_Timer The Functions created in this child node are executed automatically on a cyclical basis and depending on the value of the Frame interval.

Table 5-35 The child nodes of the node "Frames"

Child node	Description
Functions (Cont.)	• User The Functions created in this child node can only be invoked with commands of the type "Call". see Section 5.12.9, "Call" • On_Process The functions created in this child node are invoked upon process changes, e.g. upon the launch of a Broadcast. For a detailed description of the attributes of Functions: see Section 5.11, "Functions"

Table 5-35 The child nodes of the node "Frames"

5.8.2 Add a new Frame

Follow the below steps to create a new Frame:

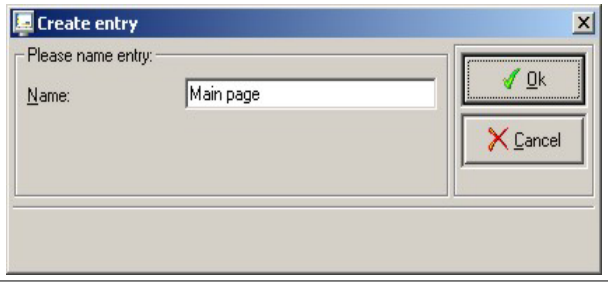
No.	Task
1.	Go to the tree view and select the node "Frames".
2.	Select the menu item "Edit" "New...". This will open the below user window to add the new entry. 
3.	Assign a unique name to the new Frame.
4.	Finally, click Ok to close the window. The DCO-Designer will output the new Frame in the tree structure of the Structure window, and there in the node "Frames". if you need to edit the Frame's attributes, go to the list view and doubleclick the relevant item listed in the column "Value".

Table 5-36 Add a new Frame

5.8.3 Edit attributes of a Frame

Follow the below steps to edit the attributes of an already existing Frame:

No.	Task
1.	Go to the tree structure and open the node "Frames".
2.	Select the Frame that you want to edit.
3.	To edit the attributes, go to the list view and doubleclick the relevant item listed in the column "Value".
4.	If needed, you can now also edit the Controls of the Frame. see Section 5.10, "Controls"
5.	If needed, you can now also edit the OScAR command templates of the Frame. see Section 5.9, "OScAR command templates"
6.	If needed, you can now also edit the Functions of the Frame. see Section 5.11, "Functions"

Table 5-37 Edit attributes of a Frame

5.8.4 Controls

The child node "Controls" of the parent node "Frames" is used to save and edit the Controls that are shown on the Frame.

As a rule, the number of Controls that can be created is unlimited.

5.8.4.1 Add a new Control through the Structure window

Follow the below steps to add a new Control to a Frame via the Structure window:

No.	Task
1.	Go to the tree structure and open the node "Frames".
2.	Open the Frame to which you want to add a new Control.
3.	Now go to the tree and open the child node "Controls".
4.	Select the menu item "Edit" "New...". This will open the below user window to add the new entry. 
5.	Select the Control type you want to add and close the window with Ok.
6.	This will open the following user window to add the new entry: 
7.	Assign a unique and recognizable name to the new Control.
8.	Finally, click Ok to close the window. The new Control is shown in the tree view of the Structure window, and there in the child node "Controls" of the pertinent Frame. If needed, you can now also edit the attributes of the Control. see Section 5.10, "Controls"

Table 5-38 Add a new Control through the Structure window

5.8.4.2 Add a new Control through the Layout window

Follow the below steps to add a new Control to a Frame via the Layout window:

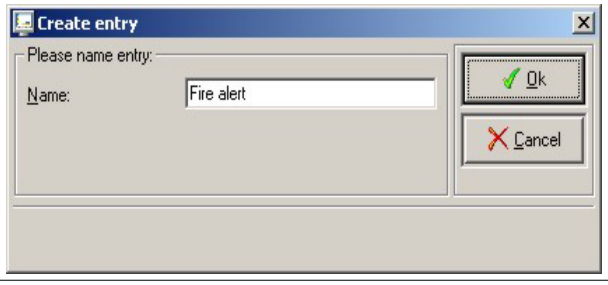
No.	Task
1.	Go to the tree view of the Structure window and open the node "Filters".
2.	In the tree of the Structure window, select the Frame to which you want to add a new Control.
3.	Now right click "Frame" Layout window" to switch to the Layout window, that will now show the Frame you selected.
4.	Go to the menu bar and open "Layout" "Tools" to select the Control you want to add to the Frame.
5.	Move your cursor to the top left position where the Control shall be placed. Press the left mouse key, keep it pressed and enlarge the rubber-band to the correct size of the new Control. Release the mouse key.
6.	This will open the following user window to add the new entry: 
7.	Assign a unique and recognizable name to the new Control.
8.	Finally, click Ok to close the window. The new Control is now shown in the Layout window, at the place and in the size of the rubber-band. In the tree view of the Structure window, the new Control is listed in the child node "Controls" of the relevant Frame. To edit the attributes of the Control, go to the list view of the Structure window and double-click the relevant item listed in the column "Value". see Section 5.10, "Controls"

Table 5-39 Add a new Control through the Layout window

5.8.4.3 Edit the attributes of a Control

Follow the below steps to edit the attributes of an already existing Control:

No.	Task
1.	Go to the tree structure and open the node "Frames".
2.	Open the parent Frame of the Control you want to edit.
3.	Still in the tree, open the child node "Controls" under "Frames" that contains the Control you want to edit.
4.	In the tree, select the Control whose attributes you want to edit.
5.	To edit the attributes, go to the list view and doubleclick the relevant item listed in the column "Value". see Section 5.10, "Controls" If needed, also edit the attributes or Instructions in the other child nodes of this Control.

Table 5-40 Edit the attributes of a Control

5.9 OScAR command templates

Commands are created and edited in the child node "OScAR command templates", and there under the node "Frames". With the help of Instructions, these commands are sent to the OScAR server via the OScAR-Pro-TT Operator-Tool, and set off processes in the OScAR server (Broadcasts, Conferences etc.).

see Section 5.12, "Instructions"

As a rule, the number of commands that can be created is unlimited. The attributes of the OScAR command templates are equivalent to the editable parameters of the correlating Frame in the OScAR-Pro-TT Operator-Tool.

5.9.1 Attributes and child nodes of the node "OScAR command templates"

Depending on their type, OScAR command templates have different attributes and child nodes:

Attribute	Description
Global attributes	
Name	Edit field determines the name of the OScAR command template.
Type	Selection field to determine the type of the OScAR command template. Depending on the commands, OScAR command templates can have additional attributes. Here you can select: • BDC, to set off a Broadcast or a Broadcast hunt group. • CON, to invoke a Conference. • ITL, to switch the Info Telephone profile that is presently active. • SCN, to start a Scenario.

Table 5-41 Attributes and child nodes of OScAR command templates

Attribute	Description
Type (Cont.)	• CALLWHI, to dial a phone number via Dial Assistant Interface (phone dialer) or USB-CallBridge. • CANCELWHI, to disconnect a call via Dial Assistant Interface (phone dialer) or USB-CallBridge. • KILLBDC, to end only specific active Broadcasts based on their IDs. • KILLCON, to end only specific active Conferences based on their IDs. • KILLPRC, to end active processes (Broadcasts and Conferences). • SET_PRM, to configure the output parameters for process windows in the OScAR-Pro-TT Operator-Tool. • JKR, to edit the dialthru code of a Joker access. • CAS, to edit the Active Number and the level of the call screening of a Call profile.
Additional attributes of the type "BDC"	
Display text	Edit field determines the text that is shown on the display of the handset of the called person. Here you can: • enter a text with up to 160 characters. • assign a Constant, a Parameter or a Variable of the data type dsp_text or string. • assign the reference to a Control that has the data type dsp_-text or string.

Table 5-41 Attributes and child nodes of OScAR command templates

Attribute	Description
Call subscribers	Selection field to determine the phone numbers that shall be dialed to call a subscriber. Here you can: • enter one of the following numeric values: 1: only the 1st call number 2: only the 2nd call number 3: the 1st and 2nd call number 4: only the 3rd call number 5: the 1st and 3rd call number 6: the 2nd and 3rd call number 7: the 1st, 2nd and 3rd call number 8: only the 4th call number 9: the 1st and 4th call number 10: the 2nd and 4th call number 11: the 1st, 2nd and 4th call number 12: the 3rd and 4th call number 13: the 1st, 3rd and 4th call number 14: the 2nd, 3rd and 4th call number 15: all phone numbers • assign a Constant, Parameter or Variable of the data type byte. • the reference to a Control that has the data type byte.
CorNet-NQ® features	Selection field to determine if Cornet-NQ®-specific features shall be applied for hunt groups or not. Here you can: • 0, select this value if you do not want to use any Cornet-N(Q)® features. • 1, select this value if you want to apply Cornet-N(Q)® features. • assign a Constant, Parameter or Variable of the data type bool. • assign the reference to a Control that has the data type bool.
Monitor conferee's connection status	Selection field to determine if the states of subscribers are monitored for hunt groups or not. Here you can: • 0, select this value if you do not want the system to monitor the states of subscribers. • 1, select this value if you want the system to monitor the states of the subscribers. • assign a Constant, Parameter or Variable of the data type bool. • assign the reference to a Control that has the data type bool.

Table 5-41 Attributes and child nodes of OScAR command templates

Attribute	Description
Key confirmation	Selection field to determine for hunt groups if subscribers shall confirm their call acceptance with a keystroke or not. Here you can: • 0, select this value if you do not want to utilize keystroke conformation. • 1, choose this value to apply the keystroke confirmation. • assign a Constant, Parameter or Variable of the data type bool. • assign the reference to a Control that has the data type bool.
High-priority Broadcast	Selection field to determine for hunt groups if the Broadcast shall be given a high-priority or with a low priority when activated. Here you can: • 0, select this value for a low priority Broadcast. • 1, select this value for a high-priority Broadcast. • assign a Constant, Parameter or Variable of the data type bool. • assign the reference to a Control that has the data type bool.
Message text for TTV	Edit field determines the text of the message you want the system to convert via speech synthesis (TTV = Text-To-Voice), into an ad hoc announcement for playback in the Broadcast. Here you can: • assign a Constant, Parameter or Variable of the data type string. • assign the reference to a Control that has the data type string.
OnMin	Editable selection field to determine the starter value of the serial number range reference that you want to use. Here you can: • enter a number between 0 and 255. • assign a Constant, Parameter or Variable of the data type byte. • assign the reference to a Control that has the data type byte.
OnMax	Editable selection field to determine the final value of the serial number range of reference that you want to use. Here you can: • enter a number between 0 and 255. • assign a Constant, Parameter or Variable of the data type byte. • assign the reference to a Control that has the data type byte.

Table 5-41 Attributes and child nodes of OScAR command templates

Attribute	Description
The child nodes of the type "BDC"	
Broadcast IDs	List with up to 16 entries determines the Broadcast IDs that shall be activated. If this list consists of one ID only, the pertinent Broadcast is launched with its administrated attributes. If the list, however, covers two or more IDs, the relevant Broadcasts will be joined together in a so-called hunt group in keeping with the attributes that were defined for such a group. Here you can: • enter a valid ID with up to 4 digits. • assign a Constant, Parameter or Variable of the data type bdc_id. • assign the reference to a Control that has the data type bdc_id.
Standard group announcements IDs	List for up to 16 entries, determines the standard announcement group to be used in the Broadcast. If two or more IDs are entered in this list, the corresponding announcements will be played back in form of a so-called "composed announcement" and in the order as listed here. Here you can: • enter a valid ID with up to 4 digits. • assign a Constant, Parameter or Variable. • assign the reference to a Control that has the data type msg_id.
Group announcement IDs	List for up to 4 entries, determines the additional announcement groups that shall be used in the Broadcast. Here you can: • enter a valid ID with up to 4 digits. • assign a Constant, Parameter or Variable. • assign the reference to a Control that has the data type msg_id.

Table 5-41 Attributes and child nodes of OScAR command templates

Attribute	Description
Additional attributes of the type "CON"	
Conference ID	Editable selection field to determine the ID of the Conference that shall be convened. Here you can: • enter a valid ID with up to 4 digits. • assign a Constant, Parameter or Variable. • assign the reference to a Control that has the data type con_id.
Call subscribers	Editable selection field to determine the phone numbers that shall be dialed to contact a subscriber. Here you can: • enter one of the following numeric values: 1: only the 1st call number 2: only the 2nd call number 3: the 1st and 2nd call number • assign a Constant, Parameter or Variable of the data type byte. • assign the reference to a Control that has the data type byte.
Dialing parameters	Editable selection field to determine if subscribers are called by the system or not. Here you can: • 0, enter this value to choose that NO subscribers are called. • 1, enter this value to call subscribers. • assign a Constant, Parameter or Variable of the data type bool. • assign the reference to a Control that has the data type bool.
Additional attributes of the type "CAS"	
Call Profile ID	Editable selection field to determine the ID of the Call profile whose Active Number and level of call screening shall be changed. Here you can: • enter a valid ID with up to 4 digits. • assign a Constant, Parameter or Variable. • assign the reference to a Control that has the data type cas_id.
Call Profile Active Number	Editable selection field to determine the call number that shall be entered for the Call profile as Active Number. Here you can: • enter up to 24 characters consisting of 0..9, * and #. • assign a Constant, Parameter or Variable of the data type phone_number. • assign the reference to a Control that has the data type phone_number.
Call Profile Screen Level	Editable selection field to determine the call screening level. Here you can: • enter a number between 0 and 9. • assign a Constant, Parameter or Variable of the data type uint. • assign the reference to a Control that has the data type uint.

Table 5-41 Attributes and child nodes of OScAR command templates

Attribute	Description
Additional attributes of the command "ITL"	
Info Telephone ID	Editable selection field to determine the ID of the Info Telephone profile that shall be activated. Here you can: • enter a valid ID with up to 4 digits. • assign a Constant, Parameter or Variable of the data type itl_id. • assign the reference to a Control that has the data type itl_id.
Additional attributes of the command "SCN"	
Scenario ID	Editable selection field to determine the ID of the Scenario that shall be activated. Here you can: • enter a valid ID with up to 4 digits. • assign a Constant, Parameter or Variable of the data type scn_id. • assign the reference to a Control that has the data type scn_id.
Additional attributes of the command "CALLWHI"	
WHI number (i.e. dial assistant/phone dialer number)	Editable selection field to determine the call number (phone number) that shall be called. Here you can: • enter a call number with up to 24 digits. • assign a Constant, Parameter or Variable of the data type phone_number. • assign the reference to a Control that has the data type phone_number.
Info text	Editable selection field to determine the name of the destination for the above call number. Here you can: • enter a call number with up to 24 digits. • assign a Constant, Parameter or Variable of the data type string. • assign the reference to a Control that has the data type string.
Show user window "Local call"	Editable selection field to determine if the system shows the user window "Local call" when calling the phone number or not. Here you can: • 0, enter this value if the system shall NOT show the user window. • 1, enter this value to have the system show the user window. • assign a Constant, Parameter or Variable of the data type bool. • assign the reference to a Control that has the data type bool.

Table 5-41 Attributes and child nodes of OScAR command templates

Attribute	Description
Additional attributes of the command "SET_PRM"	
Bring own Broadcasts to top	Editable selection field to determine if the windows of the user's own Broadcast processes are automatically brought to the front or not. Here you can: • 0, enter this value to keep process windows in the background. • 1, enter this value to bring the process window to the top. • assign a Constant, Parameter or Variable of the data type bool. • assign the reference to a Control that has the data type bool.
Bring all other Broadcasts to top	Editable selection field to determine if the windows of other Broadcasts processes are automatically brought to the top or not. Here you can: • 0, enter this value to keep process windows in the background. • 1, enter this value to bring the process window to the top. • assign a Constant, Parameter or Variable of the data type bool. • assign the reference to a Control that has the data type bool.
Bring own Conferences to top	Editable selection field to determine if the windows of the user's own Conference processes are automatically brought to the front or not. Here you can: • 0, enter this value to keep process windows in the background. • 1, enter this value to bring the process window to the top. • assign a Constant, Parameter or Variable of the data type bool. • assign the reference to a Control that has the data type bool.
Bring all other Conferences to top	Editable selection field to determine if the windows of Conference processes of others are automatically brought to the front or not. Here you can: • 0, enter this value to keep process windows in the background. • 1, enter this value to bring the process window to the top. • assign a Constant, Parameter or Variable of the data type bool. • assign the reference to a Control that has the data type bool.

Table 5-41 Attributes and child nodes of OScAR command templates

Attribute	Description
Additional attributes of the command "KILLPRC"	
Process context	Editable selection field to determine the context in which the process that you want to end must be presently running. Here you can: • 0, enter this value to end processes started by any users. • 1, enter this value to end all processes that were NOT started by the present user. • 2, enter this value to end all processes that were started by the present user. • 3, enter this value to end all processes that were started by the present user via OScAR-Pro-TT Operator-Tool. • 4, enter this value to end all processes that were started by the present user via OScAR-Pro Customized Operator (DCO). • assign a Constant, Parameter or Variable of the data type uint. • assign the reference to a Control that has the data type uint.
TAN	Editable selection field to determine the TAN of the process that you want to end. Here you can: • leave the entry blank to end ALL processes listed as active in "Process context". • assign the reference to a Listbox of the type process.

Table 5-41 Attributes and child nodes of OScAR command templates

Attribute	Description
Additional attributes of the command "KILLBDC"	
Process context	Editable selection field to determine the context in which the Broadcast that you want to end must be presently running. Here you can: • 0, enter this value to end Broadcasts started by any users. • 1, enter this value to end all Broadcasts that were NOT started by the present user. • 2, • enter this value to end all Broadcasts that were started by the present user. • 3, enter this value to end all Broadcasts that were started by the present user via the OScAR-Pro-TT Operator-Tool. • 4, enter this value to end all Broadcasts that were started by the present user via the OScAR-Pro Customized Operator (DCO). • assign a Constant, Parameter or Variable of the data type uint. • assign the reference to a Control that has the data type uint.
Broadcast ID	Editable selection field to determine the ID of the Broadcast that you want to end. Here you can: • leave the entry blank to end ALL Broadcasts listed as active in the "Process context", or • enter a valid ID of a Broadcast with up to 4 digits. • assign a Constant, Parameter or Variable of the data type bdc_id. • assign the reference to a Control that has the data type bdc_id.

Table 5-41 Attributes and child nodes of OScAR command templates

Attribute	Description
Additional attributes of the command "KILLCON"	
Process context	Editable selection field to determine the context in which the Conference that you want to end must be presently running. Here you can: • 0, enter this value to end Conferences started by any users. • 1, enter this value to end all Conferences that were NOT started by the present user. • 2, enter this value to end all Conferences that were started by the present user. • 3, enter this value to end all Conferences that were started by the present user via the OScAR-Pro-TT Operator-Tool. • 4, enter this value to end all Conferences that were started by the present user via the OScAR-Pro Customized Operator (DCO). • assign a Constant, Parameter or Variable of the data type uint. • assign the reference to a Control that has the data type uint.
Conference ID	Editable selection field to determine the ID of the Conference that you want to end. Here you can: • leave the entry blank to end ALL Conferences listed as active in the "Process context". • enter a valid ID of a Conference with up to 4 digits. • assign a Constant, Parameter or Variable of the data type con_id. • assign the reference to a Control that has the data type con_id.
Additional attributes of the command "JKR"	
Joker access ID	Editable selection field to determine the ID of the Joker access whose dialthru code you want to define. Here you can: • enter a number between 0 and 9. • assign a Constant, Parameter or Variable of the data type jkr_id. • assign the reference to a Control that has the data type jkr_id.
Joker dialthru code	Editable selection field to determine the dialthru code to which the Joker profile shall forward. Here you can: • enter up to 16 characters consisting of 0..9, * and #. • assign a Constant, Parameter or Variable of the data type phone_number. • assign the reference to a Control that has the data type: phone_number.

Table 5-41 Attributes and child nodes of OScAR command templates

5.9.2 Add a new OScAR command template

Follow the below steps to add a new OScAR command template to a Frame.

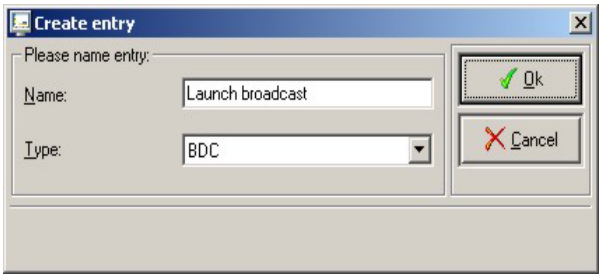
No.	Task
1.	Go to the tree structure and open the node "Frames".
2.	Open the Frame under which you want to add a new OScAR command template.
3.	Still in the tree, click the child node "OScAR command templates" (under the node "Frames".
4.	Select the menu item "Edit" "New...". This will open the below user window to add the new entry. 
5.	Assign a name for the new OScAR command template that is unequivocal and unique from the other templates in this Frame.
6.	Select the type for the OScAR command template.
7.	Finally, click Ok to close the window. The newly created frame is shown in the tree view of the Structure window, and there in the child node "OScAR command templates". To edit the attributes of the OScAR command template, go to the list view and doubleclick the relevant item listed in the column "Value".

Table 5-42 Add a new OScAR command template

5.9.2.1 Edit the attributes of a OScAR command template

Follow the below steps to edit the attributes of an existing OScAR command template:

No.	Task
1.	Go to the tree structure and open the node "Frames".
2.	Open the Frame under which you want to add a new OScAR command template.
3.	Still in the tree, click the child node "OScAR command templates" under "Frames".
4.	In the tree, select the OScAR command template that you want to edit.
5.	To edit the attributes, go to the list view and doubleclick the relevant item listed in the column "Value".

Table 5-43 Edit the attributes of a OScAR command template

5.9.3 Functions

The child node "Functions" below the parent node "Frames" is used to save and edit the Functions. Functions group a list of commands that shall be carried out during the execution of the DCO script.

see Section 5.11, "Functions"

5.9.3.1 Add a new Function to a Frame

Follow the below steps to add a new Function to a Frame:

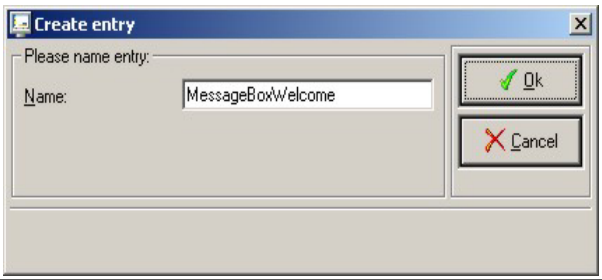
No.	Task
1.	Go to the tree structure and open the node "Frames".
2.	Open the Frame to which you want to add a new Function.
3.	Under the Frame you selected, open the child node "Functions" to add a new Function.
4.	Here you can choose from the nodes: • On_Load, if you want the new Function to be executed whenever the Frame is loaded. • On_Message, if the function you want to create shall be executed with the command "Broadcast-Message", by doubleclicking an entry in the listbox, or by selecting a Combobox entry. see Section 5.12.8, "BroadcastMessage" • On_Process, if the functions that shall be created shall respond to process changes, e.g. to the launch of a Broadcast. • On_Timer, if you want the new Function to be executed automatically on a cyclical basis and depending on the value of the Frame interval. see Section 5.8.1, "Attributes and child nodes of Frames" • User, if you want the new Function only to be available when the commands of this Frame are invoked.
5.	Select the menu item "Edit" "New...". This will open the below user window to add the new entry. 
6.	Enter a name for the new Function that is clear and distinct in this Frame.
7.	Finally, click Ok to close the window. The new Function is shown in the tree structure of the Structure window, and there in the child nodes "On_Load", "On_Message", "On_Process", "On_Timer", or "User". To edit the Functions attributes, go to the list view and doubleclick the relevant item listed in the column "Value". see Section 5.11.1, "Attributes and child nodes of Functions"

Table 5-44 Add a new Function to a Frame

5.9.3.2 Edit the attributes of the Functions of a Frame

Follow the below steps to edit the attributes of an existing Function of a Frame:

No.	Task
1.	Go to the tree structure and open the node "Frames".
2.	Open the parent Frame of the Function you want to edit.
3.	Now open the child node "Functions" that contains the Function that you want to edit.
4.	Go to the tree view and open the node: • On_Load, if the Function you want to edit is also executed when the Frame is loaded. • On_Message, if the function you want to create shall be executed with the command "Broadcast-Message", by doubleclicking an entry in the listbox, or by selecting a Combobox entry. see Section 5.12.8, "BroadcastMessage" • On_Process, if the functions that shall be created shall respond to process changes, e.g. to the launch of a Broadcast. • On_Timer, if the Function you want to edit is executed automatically on a cyclical basis and depending on the value of the Frame interval. see Section 5.8.1, "Attributes and child nodes of Frames" • User, if the Function you want to edit is only available when the commands of this Frame are invoked.
5.	To edit the attributes of the Function, go to the list view and doubleclick the relevant item listed in the column "Value". see Section 5.11.1, "Attributes and child nodes of Functions" If needed, you can now also edit the commands of the Function. see Section 5.12, "Instructions"

Table 5-45 Edit the attributes of the Functions of a Frame

5.10 Controls

Controls are graphic object elements of a Frame and used to makes entries, define selections and activate commands.

For a detailed list of all Controls that are available:

see Section 4.4, "Setup and application of the Layout window"

5.10.1 The use of Controls

The below table gives you an overview of the way in which the different Controls are used:

Attribute	Description
Static control	Static controls are used to place info graphics and texts, e.g. a floor plan or site map, and to add symbols representing specific Functions, or merely a caption. Apart from the Static controls that can be added to the child node "Controls" under the node "Frame", every "Button" child node under the node "Controls" may contain up to 4 own Static controls. These four elements are located under the child node "Static controls" under the controls "Button".
Edit field	Use the "Edit field" to enter the numeric or alphanumeric values that are needed for the later operation, e.g. display texts that shall be output to the alerted subscribers during Broadcasts.
Button	The "Button" control is used to execute Functions that are triggered by the user, e.g. the launch of Broadcasts in OScAR. In addition to its attributes, every Button also has a child node that is used to administrate the Functions that shall be executed when the Button is pressed.
Checkbox	The "Checkbox" is used for Yes/No, True/False as well as Enabled/Blocked arguments, e.g to define that previously selected Broadcasts are started individually or together in a hunt group.
Listbox	The "Listbox" is used to select an entry from a list of several entries, e.g. to choose a specific announcement from the global list of all announcements that are presently available. Entries in a Listbox can have different colors.
Combobox	Just like the "Listbox", the "Combobox" is used to select an entry from a list of several entries, but with a more compact rendition. Before you can choose an entry, you must first open the global list by clicking the Button that is located on the right-hand edge of the Combobox.

Table 5-46 Application of Controls

5.10.2 References to Controls

The following Controls possess, similar to Constants, Parameters and Variables, an attribute that assigns them to a data type.

- Edit field
- Checkbox
- Listbox
- Combobox

see Section 5.2, "The DCO data types and their value ranges"

For each Edit field, Listbox and Combobox, the type is assigned individually, while Checkboxes always have the data type bool.

This makes it possible to add references to these Controls for Instructions and arguments, and to read-out their contents.

see Section 5.12, "Instructions"
see Section 5.11.2, "Setup and syntax of Conditions"

To do so, use the name of the Control and, if needed, prepend a new declaration to the name.

For each Control use the corresponding declaration as described below:

Control	Declaration and description
Edit field	(EDIT) <Name of the edit field> e.g. for an Edit field with the name "TelNumber": `(EDIT)TelNumber` A reference to an Edit field always delivers as result the content of that field.
Checkbox	(CHECKBOX) <Name of the checkbox> e.g for a Checkbox with the name "Hunt group“: `(CHECKBOX)Huntgroup` A reference to a Checkbox always delivers as result the status of that Checkbox.
Listbox	(LISTBOX) <Name of the listbox> e.g. for a Listbox with the name "Broadcasts": `(LISTBOX)Broadcasts` A reference to a Listbox always delivers as result the entries that are selected for that Listbox.
Combobox	(COMBOBOX) <Name of the combobox> e.g. for a Combobox with the name "Announcements": `(COMBOBOX)Announcements` A reference to a Combobox always delivers as result the entry that is selected for that Combobox.

Table 5-47 Reference declarations for Controls

5.10.3 Attributes shared by all Controls

The below attributes are shared by all Controls:

Attribute	Description
Name	Edit field determines the name of the Control. Select a name that is recognizable and unique among the Controls of a Frame.
Links Top Width Height	Editable selection field to determine the left and upper (top) edge, the width and the height in pixels. Here you can: • enter a numeric value. • assign a Constant, Parameter or Variable of the data type int. The width, height and the distance to the left-hand and upper (top) edge can be edited during the execution of the DCO script for: • a Static control with the Instruction: "SetStaticRect". • an edit field with the Instruction: "SetEditRect´". • a Button with the Instruction: "SetButtonRect". • a Static control on a Button with the Instruction: "SetButtonStaticRect". • a Checkbox with the Instruction: "SetCheckBoxRect". • a Listbox with the Instruction: "SetListBoxRect". • a Combobox with the Instruction: "SetComboBoxRect".

Table 5-48 Attributes shared by all Controls

Attribute	Description
Background color	Editable selection field to determine the background color of the Control. Here you can: • enter a color value, • click "Select color..." and use the next user window to choose a color. see Section 4.6.5, "Edit colors" • assign a Constant, Parameter or Variable of the data type color. The background color can be edited during the execution of the DCO script for: • a Static control with the Instruction: "SetStaticBackColor". • an edit field with the Instruction: "SetEditBackColor". • a Button with the Instruction: "SetButtonColor". • a Static control on a Button with the Instruction: "SetButtonStaticBackColor". • a Checkbox with the Instruction: "SetCheckBoxBackColor". • a Listbox with the Instruction: "SetListBoxBackColor". • a Combobox with the Instruction: "SetComboBoxBackColor".

Table 5-48 Attributes shared by all Controls

Attribute	Description
Status	Editable selection field to determine how a Control is rendered and its operability. Here you can: • 0, enter this value to hide the Control. • 1, enter this value to show the Control and enable entries. • 2, enter this value to show the Control and block entries. • assign a Constant, Parameter or Variable of the data type uint. The status can be edited while the DCO script is being executed for: • a Static control with the Instruction: "SetStaticStatus". • an edit field with the Instruction: "SetEditStatus". • a Button with the Instruction: "SetButtonStatus". • a Static control on a Button with the Instruction: "SetButtonStaticStatus". • a Checkbox with the Instruction: "SetCheckBoxStatus". • a Listbox with the Instruction: "SetListBoxStatus". • a Combobox with the Instruction: "SetComboBoxStatus".

Table 5-48 Attributes shared by all Controls

5.10.4 Child nodes and special attributes of Static controls

Special attributes of Static controls

Static controls have the following additional attributes:

Attribute	Description
Border style	Selection field to determine the style of the border around the Static control. Here you can select: • none, if you do not want the Static control to have a border. • simple, if you want the Static control's border to be a simple black line.
Border width	Editable selection field to determine the width of the border around the Static control, in pixels. Here you can: • enter a numeric value. • assign a Constant, Parameter or Variable of the data type int.
Border color	Editable selection field to determine the color of the border around the Static control. Here you can: • enter a color value. • click "Select color..." and use the next user window to choose a color. see Section 4.6.5, "Edit colors" • assign a Constant, Parameter or Variable of the data type color. The color of the border around the Static control can be changed during the execution of the DCO script for: • a Static control with the Instruction: "SetStaticBorderColor". • a Static control on a Button with the Instruction: "SetButtonStaticBorderColor".

Table 5-49 Special attributes of Static controls

The child nodes of Static controls

Static controls have the following child nodes:

Attribute	Description
Image	This node is used to administrate the attributes of the image of the Static control.
Caption	This node is used to administrate the attributes of the text for the Static control.
On_Click	This node is used to administrate the Functions of the Button. For a detailed description of Functions: see Section 5.11, "Functions"

Table 5-50 The child nodes of Static controls

Attributes of the child node "Image" of a Static control

The images of Static controls have the following attributes:

Attribute	Description
File name	Editable selection field to determine the image assigned to the Static control. Here you can: • enter a file name from the list of known images. • select an image in the user window that opens as you click the entry "Select image...". see Section 4.6.2, "Administration of the Project images list" • assign a Constant, Parameter or Variable of the data type string. The image assigned to the Static control can be replaced during the execution of the DCO script for: • a Static control with the Instruction: "SetStaticPictureName". • a Static control on a Button with the Instruction: "SetButtonStaticPictureName".

Table 5-51 Attributes of the child node "Image" of a Static control

Attribute	Description
Position	Selection field to determine the position of the image in the Static control. Here you can select: • left, top, to place the image in the upper left-hand corner of the Static control. • h-center, top, to place the image at the upper (top) edge of the Static control, and there centered horizontally. • right, top, to place the image in the upper right-hand corner of the Static control. • left, v-center, to place the image at the left-hand edge of the Static control, and there vertically in the center. • h-center, v-center, to position the image in the vertical and horizontal center of the Static control. • right, v-center, to place the image at the right-hand edge of the Static control, and there vertically in the center. • left, bottom, to place the image in the lower (bottom) left-hand corner of the Static control. • h-center, bottom, to place the image at the lower (bottom) edge of the Static control, and there horizontally in the center. • right, bottom, to place the image in the lower right-hand corner of the Static control. • or assign a Constant, Parameter or Variable of the data type string.
Position (Cont.)	The position of the image can be edited during the execution of the DCO script for: • a Static control with the Instruction: "SetStaticPicturePos". • a Static control on a Button with the Instruction: "SetButtonStaticPicturePos".

Table 5-51 Attributes of the child node "Image" of a Static control

Attribute	Description
Scaling in %	Editable selection field to determine the scaling factor in % for the image assigned to the Static control. Here you can: • enter a scaling factor in %. • proportional, use this scaling to align the image with the size of the Static control in keeping with the Static control's height/width proportion. • unproportional, use this scaling to adjust the image to the full scale of the Static control's surface, irrespective of the height/width proportion. The position of the image assigned to a Static control can be changed during the execution of the DCO script for: • a Static control with the Instruction: "SetStaticPictureScale". • a Static control on a Button with the Instruction: "SetButtonStaticPictureScale".

Table 5-51 Attributes of the child node "Image" of a Static control

Attributes of the child node "Caption" of a Static control

The captions of Static controls have the following attributes:

Attribute	Description
text	Edit field determines the text that shall appear on the Static control. The text entered for a Static control can be changed during the execution of the DCO script with the Instruction "SetStaticText".
Text color	Editable selection field to determine the text color of the Static control. Here you can: • enter a color value. • click "Select color..." and use the next user window to choose a color. see Section 4.6.5, "Edit colors" • assign a Constant, Parameter or Variable of the data type color. The text color entered for a Static control can be changed during the execution of the DCO script with the Instruction "SetStaticTextColor".

Table 5-52 Attributes of the child node "Caption" of a Static control

Attribute	Description
Position	Selection field to determine the position of the text in the Static control. Here you can select: • left, top, to place the image in the upper left-hand corner of the Static control. • h-center, top, to place the image at the upper (top) edge of the Static control, and there centered horizontally. • right, top, to place the image in the upper right-hand corner of the Static control. • left, v-center, to place the image at the left-hand edge of the Static control, and there vertically in the center. • h-center, v-center, to position the image in the vertical and horizontal center of the Static control. • right, v-center, to place the image at the right-hand edge of the Static control, and there vertically in the center. • left, bottom, to place the image in the lower left-hand corner of the Static control. • h-center, bottom, to place the image at the lower (bottom) edge of the Static control, and there horizontally in the center. • right, bottom, to place the image in the lower right-hand corner of the Static control. • or assign a Constant, Parameter or Variable of the data type string. The position of the text that shall be output on a Static control can edited during the execution of the DCO script with the Instruction "SetStaticTextPosition".
Font	Field determines the font currently used for the text of the Static control. To change the font, font size or font style, make a doubleclick on this line to open the corresponding user window with the name "Font". see Section 4.6.4, "Edit fonts"

Table 5-52 Attributes of the child node "Caption" of a Static control

5.10.5 Special attributes of Edit fields

Edit fields have the following additional attributes:

Attribute	Description
Font	Field determines the font presently selected for the text of the Edit field. To change the font, font size or font style, make a doubleclick on this line to open the corresponding user window with the name "Font". see Section 4.6.4, "Edit fonts"
Border style	Selection field to determine the style of the border around the Edit field. Here you can select: • none, if you do not want the edit field to have a border. • simple, if you want the edit field's border to be a simple black line. • sunken, if you want the edit field to have a two-color border.
Text color	Editable selection field to determine the color for the text of the edit field. Here you can: • enter a color value. • click "Select color" and use the next user window to choose a color for the text. see Section 4.6.5, "Edit colors" • assign a Constant, Parameter or Variable of the data type color. The color of the text of an Edit field can be edited during the execution of the DCO script with the Instruction "SetEditTextColor".
text	Editable selection field to determine the text of the Edit field. Here you can: • assign a string in keeping with the type that is selected for the Edit field (see below). • assign a Constant, Parameter or Variable of the data type string. The default text of an Edit field can be edited during the execution of the DCO script with the Instruction "SetEditText".
Multiple lines	Selection field to determine if the Edit field shall have multiple lines or not. Here you can: • 0, select this value for the edit field to consist of only one line. • 1, select this value for the Edit field to consist of multiple lines. • assign a Constant, Parameter or Variable of the data type bool.
Type	Selection field to determine the data type of the edit field. see Section 5.2, "The DCO data types and their value ranges"

Table 5-53 Special attributes of Edit fields

5.10.6 Special attributes and child nodes of Buttons

Special attributes of Buttons

Buttons have the following additional attributes:

Attribute	Description
Layout	Selection field to determine how the text and image shall be arranged. Here you can select: • Image + Text (horizontal), to position first the image and then the text, from left to right. • Image + Text (vertical), to position first the image and then the text, from top to bottom. • Text + Image (horizontal), to position first the text and then the image, from left to right. • Text + Image (vertical), to position first the text and then the image, from top to bottom.
Text	Editable selection field to determine the caption of the Button. Here you can: • enter up to 256 characters as the Button title. • assign a Constant, Parameter or Variable of the data type string. The caption of the Button can be changed during the execution of the DCO script with the Instruction "SetButtonText". Note: If you add a `&` character to your string, the character that comes after this sign will automatically be underlined. To actually show the character & on a Button, it must be added in a set of two (`&&`). Note: To realize multiline captions on a Button, you can enforce line breaks with `\n`.
Font	Selection field to determine the font of the Button's caption. To change the font, font size or font style, make a doubleclick on this line to open the corresponding user window with the name "Font". see Section 4.6.4, "Edit fonts"

Table 5-54 Special attributes of Buttons

Attribute	Description
Text color	Editable selection field to determine the color of the Button's caption. Here you can: • enter a color value. • click "Select color..." and use the next user window to choose a color. see Section 4.6.5, "Edit colors" • assign a Constant, Parameter or Variable of the data type color. The color of the Button text can be changed during the execution of the DCO script with the Instruction "SetButtonTextColor".
Image scaling in %	Editable selection field to determine the scaling factor for the image assigned to the Button. Here you can: • enter a scaling factor in %. • proportional, use this scaling to align the image with the size of the Button in keeping with the Button's height/width proportion. • unproportional, use this scaling to adjust the image to the full scale of the Button's surface, irrespective of the height/width proportion. The image assigned to a Button can also be scaled during the execution of the DCO script with the Instruction "SetButtonPictureScal".
Image	Editable selection field to determine the image shown on the Button. Here you can: • enter a file name from the list of known images. • select an image in the user window that opens as you click the entry "Select image...". see Section 4.6.2, "Administration of the Project images list" • assign a Constant, Parameter or Variable of the data type string. The image of the Button can be changed during the execution of the DCO script with the Instruction"SetButtonPicture".

Table 5-54 Special attributes of Buttons

The child nodes of Buttons

Buttons have the following child nodes:

Child node	Description
On_Click	This node is used to administrate the Functions of the Button. For a detailed description of Functions: see Section 5.11, "Functions"
Static controls	In addition to the attributes, a Button can also have up to 4 "Static controls" that are output on the Button. This makes it possible to place several texts in different colors or fonts, and/or several images on one Button. For a detailed descriptions of Static controls: see Section 5.10.4, "Child nodes and special attributes of Static controls"

Table 5-55 The child nodes of Buttons

5.10.7 Add Functions to a Button

Follow the below steps to add a new Function to a Button:

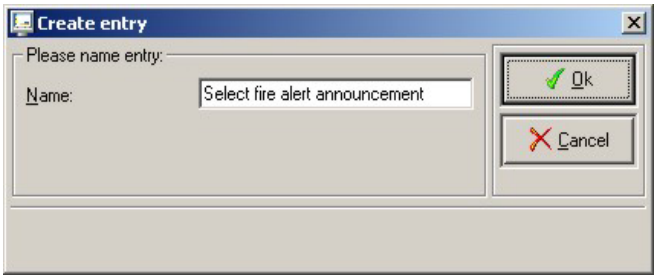
No.	Task
1.	Go to the tree structure and open the node "Frames".
2.	Open the parent Frame of the Button to which you want to add a new Function.
3.	Now open the child node "Controls".
4.	Open the Button to which you want to add the new Function.
5.	In the tree, select the node "On_Click".
6.	Select the menu item "Edit" → "New...". This will open the following user window to add the new entry: 
7.	Assign a unique and recognizable name to the new Function.
8.	Finally, click Ok to close the window. In the tree of the structure window, the Function is shown under the child node "On_Click" of the parent Button. If needed, you can now also edit the attributes of the Function. see Section 5.11.1, "Attributes and child nodes of Functions" If needed, you can now also edit the commands of the Function. see Section 5.12, "Instructions"

Table 5-56 Add a new Function to a Button

5.10.8 Edit the attributes of the Functions of a Button

Follow the below steps to edit the attributes of an existing Function of a Button:

No.	Task
1.	Go to the tree structure and open the node "Frames".
2.	Open the parent Frame of the Button whose Function you want to edit.
3.	Now open the child node "Controls".
4.	Open the Button whose Function you want to edit.
5.	Open the node "On_Click".
6.	In the tree, select the Function whose attributes you want to edit.
7.	To edit the attributes of the Function, go to the list view and doubleclick the relevant item listed in the column "Value". see Section 5.11.1, "Attributes and child nodes of Functions" If needed, edit the Instructions of the Function by going to the list view and doubleclicking the relevant item listed in the column "Value". see Section 5.12, "Instructions"

Table 5-57 Edit the attributes of the Functions of a Button

5.10.9 Add Static controls to a Button

Follow the below steps to add Static controls to a Button:

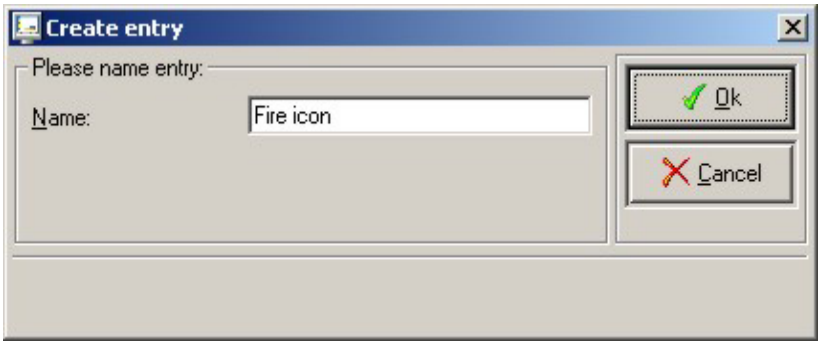
No.	Task
1.	Go to the tree structure and open the node "Frames".
2.	Open the parent Frame of the Button to which you want to add a new Static control.
3.	Now open the child node "Controls".
4.	Open the Button to which you want to add a new Static control.
5.	Click the child node "Static controls".
6.	Select the menu item "Edit" "New...". This will open the below user window to add the new entry. 
7.	Assign a unique and recognizable name to the new Static control.
8.	Finally, click Ok to close the window. The DCO-Designer will output the new Static control in the tree view of the Structure window, and there in the child node "Static control" of the pertinent Button. If needed, edit the attributes of the Static Element by going to the list view and doubleclicking the relevant item listed in the column "Value". see Section 5.10.4, "Child nodes and special attributes of Static controls"

Table 5-58 Add a new Function to a Button

5.10.10 Edit the attributes of a Button's Static controls

Follow the below steps to edit the attributes of an existing Static control of a Button:

No.	Task
1.	Go to the tree structure and open the node "Frames".
2.	Open the parent Frame of the Button whose Static control you want to edit.
3.	Now open the child node "Controls".
4.	Open the Button whose Static control you want to edit.
5.	Click the child node "Static controls".
6.	In the tree, select the Static control whose attributes you want to edit.
7.	Edit the attributes of the Static control by going to the list view and doubleclicking the relevant item listed in the column "Value". see Section 5.10.4, "Child nodes and special attributes of Static controls"

Table 5-59 Edit the attributes of a Button's Static controls

5.10.11 Special attributes of Checkboxes

Checkboxes have the following additional attributes:

Attribute	Description
Font	Selection field to determine the font of the Checkbox' caption. To change the font, font size or font style, make a doubleclick on this line to open the corresponding user window with the name "Font". see Section 4.6.4, "Edit fonts"
Border style	Selection field to determine the type of the border around the Checkbox. Here you can select: • none, if you do not want the Checkbox to have a border. • simple, if you want the Checkbox's border to be a simple black line. • sunken, if you want the Checkbox to have a two-color border.
Text color	Editable selection field to determine the color of the Checkbox' caption. Here you can: • enter a color value. • click "Select color..." and use the next user window to choose a color. see Section 4.6.5, "Edit colors" • assign a Constant, Parameter or Variable of the data type color. The color assigned to a Checkbox text can be changed during the execution of the DCO script with the Instruction "SetCheckBoxTextColor".

Table 5-60 Special attributes of Checkboxes

Attribute	Description
Text	Editable selection field to determine the caption of the Checkbox. Here you can: • enter up to 256 characters as Checkbox title or • assign a Constant, Parameter or Variable of the data type string. The Checkbox' caption can be changed during the execution of the DCO script with the Instruction "SetCheckBoxCaption". Note: If you add a & character to your string, the character that comes after this sign will automatically be underlined. To actually show the character & on a Button, it must be added in a set of two (&&).
State	Selection field to determine if the Checkbox is marked or not. Here you can: • 0, choose this value to remove a marking from a Checkbox. • 1, choose this value to mark a Checkbox. • assign a Constant, Parameter or Variable of the data type bool. The state of a Checkbox can be changed during the execution of the DCO script with the Instruction "SetCheckBoxState".

Table 5-60 Special attributes of Checkboxes

5.10.12 Child nodes and special attributes of Listboxes

Listboxes have the following additional attributes:

Attribute	Description
Font	Selection field to determine the font of the Listbox entries. Here you can: • To change the font, font size or font style, make a double-click on this line to open the corresponding user window with the name "Font". see Section 4.6.4, "Edit fonts"
Text color	Editable selection field to determine the general color of the Listbox entries. Here you can: • enter a color value. • click "Select color..." and use the next user window to choose a color. see Section 4.6.5, "Edit colors" • assign a Constant, Parameter or Variable of the data type color. The color of the general entries of Listboxes can be changed during the execution of the DCO script with the Instruction "SetListBoxTextColor".

Table 5-61 Special attributes of Listboxes

Attribute	Description
Border style	Selection field to determine the type of the border around the Listbox. Here you can select: • none, if you do not want the Listbox to have no border. • simple, if you want the Listbox' border to be a simple black line. • sunken, if you want the Listbox to have a two-color border.
Type	Selection field to determine the data type of the Listbox entries. see Section 5.2, "The DCO data types and their value ranges" In addition, this field includes the special type "process". Listboxes of this type can import entries from the OScAR-Pro-TT Operator-Tool with the help of Data lists and Filters.
Blink interval	Editable selection field to determine the blink interval of Listboxes entries, calculated in milliseconds (1000 millisecond = 1 second). Here you can: • -1, enter this value to use the interval of the parent Frame. • enter a numeric value. • assign a Constant, Parameter or Variable of the data type int. The blink interval of Listboxes entries can be changed during the execution of the DCO script with the Instruction "SetListBoxBlinkTime".
Special attributes of the type "process"	
TAN	Selection field to create a relation between several Listboxes of the type process. Here you can: • -1, choose this value to retain all existing entries, or • assign a reference to a Listbox of the type process. If you enter a reference to a Listbox, this attribute will refer to the entry that is selected there. As a rule, it is this entry that will be used to query subordinate process information, e.g. the subscribers of a Broadcast that is marked in another Listbox.
Process colors	Field determines the configured process colors. Doubleclick the column "Value" to open the user window and customize the process colors. see Section 4.6.3, "Process colors and Standard colors for process lists" If no individual process colors are yet defined for this Listbox, the default standard colors will be applied.

Table 5-61 Special attributes of Listboxes

The child nodes of Listboxes

Irrespective of the configured type, Listboxes have the following child nodes:

Child node	Description
For the type "process"	
Process Filters	This node serves to administrate the process filters. Each filter that is created is listed as a new child node. The purpose of process filters is to control or restrict the way in which Data lists are filled through the OScAR-Pro-TT Operator-Tool. In contrast to the Filters of the lists, it is only the active processes that are considered here.
For all other types	
Data elements	This child node can store a list of Data elements that are output in the Listbox in form of entries. For a detailed description of the attributes of Functions: see Section 5.7.3, "Attributes and child nodes of Data lists"
On_Select	This node is used to administrate the Functions of Listbox entries which are invoked when an entry is selected in a Listbox. For a detailed description of Functions: see Section 5.11, "Functions"
On_DblClick	This node is used to administrate the Functions of Listbox entries which are invoked when an entry is selected in a Listbox with a doubleclick. For a detailed description of Functions: see Section 5.11, "Functions"

Table 5-62 The child nodes of Listboxes

Attributes of Process filters

Child node	Description
Name	Edit field determines the name of the Process filter. Select a name that is recognizable and unique in this list.
Type	Selection field to determine which types of active processes shall be filtered. Here you can select: • PROCESS_BDC, to query all active Broadcasts. • PROCESS_BDCMBR. to query all subscribers of an active broadcast. • PROCESS_CAS, to query the Call Profiles for which an Active Number and/or a call screening level is presently configured. • PROCESS_CON, to query all active Conferences. • PROCESS_CONMBR, to query all subscribers of an active Conference. • PROCESS_CONTACTS, to query the states of digital inputs and outputs. • PROCESS_IT, to query the Info Telephone profile that is presently active. The filter options of the attribute "State" change in correlation with the type that is selected here.

Table 5-63 Attributes of Process filters

Child node	Description
For the types "PROCESS_BDC" and "PROCESS_CON"	
Process status	Selection field to determine the state in which the currently active processes must be to be read out. Here you can: • 0, choose this value to query only those processes who are still active and being processed. • 1, choose this value to query only those processes whose processing has already been completed, but for which active windows still exist in the OScAR-Pro-TT Operator-Tool. • -1, choose this value to query all processes (both active and completed) for which active windows still exist in the OScAR-Pro-TT Operator-Tool. • assign a Constant, Parameter or Variable of the data type bool.
For the type "PROCESS_BDCMBR"	
Process status	Selection field to determine the state in which the currently active processes must be to be read out. Here you can select: • -1, to query all subscribers. • 0, to query only those subscribers whose processing has not yet started. • 1, to query only those subscribers who are presently in the process of being called. • 2, to query only those subscribers who could either not be reached or who confirmed negative. • 3, to query only those subscribers to whom the system is presently playing the Broadcast announcement. • 4, to query only those subscribers for whom the system is presently waiting to enter their PIN. • 5, to query only those subscribers who were either reached or who confirmed positive. • 6, to query only those subscribers whose dial-up by the system is momentarily in a pause. • 7, to query only those subscribers whose processing has not been fully completed.

Table 5-63 Attributes of Process filters

Child node	Description
Process status (Cont.)	• 256, to query only those subscribers for whom no final result has yet been received (i.e. neither 2 or 7). • or assign a Constant, Parameter or Variable of the data type string.
For the type "PROCESS_CONMBR"	
Process status	Selection field to determine the state in which the currently active processes must be to be read out. Here you can select: • -1, to query all conferees. • 1, to query only those conferees whose processing has not started or whose dial-up by the system is momentarily in a pause. • 2, to query only those conferees who are presently in the process of being called. • 3, to query only those conferees who could not be reached. • 4, to query only those conferees who are presently receiving the welcome message. • 5, to query only conferees for whom the welcome message has been completed. • 6, to query only those conferees who have switched themselves to mute. • 8, to query only those conferees who are participating passively in the conference (i.e. who do not have the right to speak). • 10, to query only those conferees who are currently active in the conference (i.e. who have the right to speak). • 11, to query only those subscribers who are presently parked,

Table 5-63 Attributes of Process filters

Child node	Description
For the type "PROCESS_CONTACTS"	
Process status	Selection field to determine the status of the digital inputs and outputs be to be read out. Here you can select: • -1, to query all digital inputs and outputs. • 0, to exclusively query the Optocoupler inputs. • 1, to exclusively query the Profibus® inputs. • 2, to exclusively query the EIBus® inputs. • 3, to exclusively query the Optocoupler outputs.

Table 5-63 Attributes of Process filters

5.10.13 Results when doubleclicking Listbox entries

As a rule, a doubleclick on a Listbox entry leads to a dispatch of a message, the processing of which, however, only takes place at the Frame where the Listbox is created.

see Section 5.12.8, "BroadcastMessage"

Here, the node "On_Message" is used to invoke the Function that carried the same name as the Listbox.

5.10.14 Add new Process filters to Listboxes

Please bear in mind that Process filters can only be added to a Listbox if that Listbox is of the type process.

Follow the below steps to create a new Process filter for a Listbox:

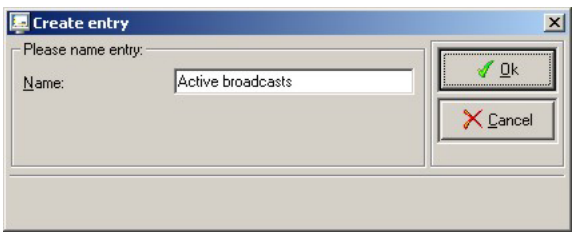
No.	Task
1.	Go to the tree structure and open the node "Frames".
2.	Open the parent Frame of the Listbox to which you want to add a new new Process filter.
3.	Now open the child node "Controls".
4.	Open the Listbox to which you want to add a new process Filter.
5.	Now open the child node "Process filters".
6.	Select the menu item "Edit" "New...". This will open the below user window to add the new entry. 
7.	Assign a unique and recognizable name to the new process Filter.

Table 5-64 Add Process filters to a Listbox

No.	Task
8.	Finally, click Ok to close the window. The new Process filter is shown in the tree view of the Structure window, and there in the child node "Process filters" of the pertinent Listbox. To edit the attributes of a Process filter, go to the list view and doubleclick the relevant item listed in the column "Value".

Table 5-64 Add Process filters to a Listbox

5.10.15 Edit the attributes of Process filters

Follow the below steps to edit the attributes of an already existing Process filter:

No.	Task
1.	Go to the tree structure and open the node "Frames".
2.	Open the parent Frame of the Listbox whose Process filters you want to edit.
3.	Now open the child node "Controls".
4.	Open the Listbox whose Process filters you want to edit.
5.	Now click the child node "Process filters".
6.	In the tree, select the Process filter whose attributes you want to edit.
7.	To edit the attributes, go to the list view and doubleclick the relevant item listed in the column "Value".

Table 5-65 Edit the attributes of the Process filters of a Listbox

5.10.16 The child nodes and special attributes of Comboboxes

Comboboxes have the following additional attributes:

Attribute	Description
Font	Selection field to determine the font of the Combobox' text. To change the font, font size or font style, make a doubleclick on this line to open the corresponding user window with the name "Font". see Section 4.6.4, "Edit fonts"
Text color	Editable selection field to determine the general color of the Combobox' entries. Here you can: • enter a color value. • click "Select color..." and use the next user window to choose a color. see Section 4.6.5, "Edit colors" • assign a Constant, Parameter or Variable of the data type color. The color of the entries in a Combobox can be changed during the execution of the DCO script with the Instruction "SetComboBoxTextColor".
Type	Selection field determines the data type of the Combobox entries. see Section 5.2, "The DCO data types and their value ranges"

Table 5-66 Special attributes of Comboboxes

The child nodes of Comboboxes

Each Combobox has the following child node:

Child node	Description
Data elements	This child node can store a list of Data elements that are output in the Combobox in form of entries. For a detailed description of the attributes of the Data elements: see Section 5.7.3, "Attributes and child nodes of Data lists"

Table 5-67 The child nodes of Comboboxes

5.10.17 Results when selecting Combobox

When you select a Combobox entry the system will, by implication, dispatch a message, the processing of which however only takes place on the Frame where that Combobox is created.

see Section 5.12.8, "BroadcastMessage"

Here, the node "On_Message" is used to invoke the Function that carried the same name as the Combobox.

5.11 Functions

Functions group a list of commands that shall be carried out during the execution of the DCO script.

see Section 5.12, "Instructions"

Use "Condition" and "Messagebox" to specify if the Instructions of the Function are executed or not.

Only Frames and Buttons own and/or use Functions.

For Buttons, the Functions are invoked in the order in which they are numbered under the column "Index".

In the list view of the structure window, you can use these menus to change the order of the Functions (for Frames and Buttons):

- "Edit" "Move up" and
- "Edit" "Move down".

5.11.1 Attributes and child nodes of Functions

Attributes of Functions

Functions have the following attributes:

Attribute	Description
Name	Assign a unique and recognizable name to the new Function. Please bear in mind that the name must be unique among the other Functions of the Frame or Button.
Condition	Edit field determines a logical algorithm that is verified when the Function is invoked. The Instructions of the Function are only carried out if the value check has as result TRUE or `1`.
Messagebox	Edit field determines a text for a Message box with the Buttons Yes and No. Example of a messagebox  Note: The messagebox is only shown to the user upon invoking the function if the algorithm entered under "Condition" delivered as result: TRUE. The instructions of the Function are only carried out when the user confirms the messagebox with Yes.

Table 5-68 Attributes of Functions

Attribute	Description
The following attributes only become visible under "On_Process".	
Process type	This edit field determines the process type (BDC for the Broadcast process, CON for the Conference process and ITL for Info Telephone processes).
Process ID	The edit field determines the Process ID (e.g. the ID for the Broadcast group).
Process TAN	The edit field determines the Process TAN (-1 equals: undefined).
Process status	The edit field determines the Process status: • started The process has started. • ended The process has ended.
The following predefined Variables are available:	
§PrcID§	This Variable saves the process ID.
§PrcTyp§	This Variable saves the process type.
§PrcTan§	This Variable saves the process TAN.
§PrcText§	This Variable saves the process text.
§PrcSubs§	This Variable saves the process' number of subscribers.
§PrcPos§	This Variable saves the process' number of subscribers who have confirmed positive.
§PrcNeg§	This Variable saves the process' number of subscribers who have confirmed negative.
§PrcStatus§	This Variable saves the process status.
§PrcName§	This Variable saves the process calling name.
§PrcNumber§	This Variable saves the process calling number.

Table 5-68 Attributes of Functions

The child nodes of the node "Functions"

Functions have the following child nodes:

Child node	Description
Instructions	This node serves to create and administrate the Instructions of Functions. see Section 5.11, "Functions"

Table 5-69 The child nodes of the node "Functions"

5.11.2 Setup and syntax of Conditions

General details

A Condition consists of at least one operation which itself comprises operators plus one or two operands.

In keeping with the operators, the logical connection of the operands leads to the Boolean result TRUE or 1, or UNTRUE or 0.

Operands

Operands can be:

- Constants
- Parameters
- Variables
- Controls
- fixed numeric values and texts (texts are output inbetween inverted commas)
- another operation, placed in brackets.

Note:
Variables must be bracketed in `$` characters, Constants and Parameters in `%%` characters.

If you want to use Controls, please be careful to add a corresponding reference.
see Section 5.10.2, "References to Controls"

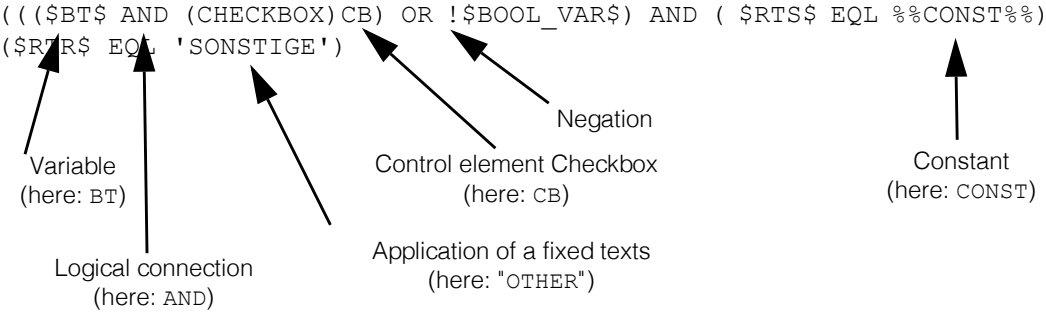
Operators

The following operators can be used in conditions:

Operators	No. Operands	Example	Description
`!`	1	`!$VAR_A$`	Negation
`GT`	2	`$VAR_A$ GT $VAR_B$`	Greater Than (Greater Than)
`LT`	2	`$VAR_A$ LT $VAR_B$`	Less Than (Less Than)
`GET`	2	`$VAR_A$ GET $VAR_B$`	Greater Than or Equal To (Greater than or Equal To)
`LET`	2	`$VAR_A$ LET $VAR_B$`	Less Than or Equal To (Less than or Equal To)
`EQL`	2	`$VAR_A$ EQL $VAR_B$`	Same as (EQuaL)
`UEQ`	2	`$VAR_A$ UEQ $VAR_B$`	Different from (UnEQual)
`AND`	2	`$VAR_A$ AND $VAR_B$`	Logical AND operation (AND)
`OR`	2	`$VAR_A$ OR $VAR_B$`	Logical OR operation (OR)

Example of a condition with several elements

```
(($BT$ AND (CHECKBOX)CB) OR !$BOOL_VAR$) AND ( $RTS$ EQL %%CONST%%)) AND
($RTR$ EQL 'SONSTIGE')
```



Note:

Before the Functions are executed, a copy is made of the content of each Variable that is used in a condition.

If a Variable is edited within the Functions, the changes will only enter into effect when the conditions are verified again during the next execution of the Functions.

This, however, does not apply to Functions that are invoked with the Instruction "CALL".

Example:

A Button has the Functions `func_1` and `func_2`. In addition, a Variable `number` was created with the type int and the initial value `2`.

The Function `func_1` has the condition (`$Number$ EQU 2`), and the Instruction to set the Variable `number` to the value `5`.

The Function `func_2` has the condition (`$Number$ UEQ 2`), and the Instruction to set the Variable `number` to the value `2`.

The user presses the Button and thereby initiates the execution phase.

The Function `func_1` is executed. The Function `func_2`, however, is not performed as the condition is checking a copy of the Variable `number` which still has the value `2`.

When the Button is pressed a second time, the `func_2` will be executed while the `func_1` will not, because the copy of the Variable `number` now has the value `5`.

5.12 Instructions

Instructions are orders with which the system responds to user inputs, and that help to Control the sequence of the DCO script.

The Instructions are administrated under Functions, with each Function designed to have an unlimited number of Instructions.

see Section 5.11, "Functions"

Within the Functions, the Instructions are performed in the order in which they are numbered in the column "Index".

In the list view of the structure window, you can use these menus to change the order of the Instructions:

- "Edit" "Move up" and
- "Edit" "Move down".

5.12.1 The arguments of Instructions

Please note that Instructions do not have attributes but so-called arguments. The number and type of the Arguments that are available differ from Instruction to Instruction, and are described in detail below.

5.12.2 Overview of Instructions

The below table summarizes the Instructions that are available in the system, and organizes them in groups according to their logic proportion:

Instruction	Description
Control Instructions	
GetBroadcastMembers	Use this Instruction for the system to read out all administrated Broadcast members from the OScAR database.
GetCallServiceInfo	Presents the currently administrated or selected Call Profile parameters.
GetCallServices	Use this Instruction for the system to read out the name, the Active Number that is presently set and the level of call screening that is presently selected for a specific Call Profile, and to save these values in the Variables.
GetConferenceMember	Use this Instruction for the system to read out all administrated Conference members (conferees) from the OScAR database.
GetJokerDialing	Use this Instruction for the system to read out all administrated Joker Accesses.
GetMessageDisplayText	Use this Instruction for the system to read out the field "Display output" or "Comment" from an announcement administrated in OScAR.
SendAccelerator	Use this Instruction for the system to simulate keystrokes.
StartProgram	Use this Instruction to start another Windows program.
BroadcastMessage	Use this Instruction to send a message to the own Frame and, where applicable, to a connected Frame (e.g. assigned toolbar).
Call	Triggers Functions.
Execute	Starts and controls OScAR processes and queries them.
GetBroadcasts	Use this Instruction for the system to read out all administrated Broadcasts from the OScAR database.

Table 5-70 Overview of Instructions

Instruction	Description
GetConferences	Use this Instruction for the system to read out all administrated Conferences from the OScAR database.
GetInfotelephones	Use this Instruction for the system to read out all administrated Info Telephone profiles from the OScAR database.
GetMessages	Use this Instruction for the system to read out all administrated Announcements from the OScAR database.
GetScenarios	Use this Instruction for the system to read out all administrated Scenarios from the OScAR database.
GetTTVLanguages	Use this Instruction to query which Text-To-Voice languages are available.
GotoFrame	Invokes another Frame.
SetToolbar	Use this Instruction to define the toolbar that shall be shown on a Frame.
Instructions to set Variables	
SetCheckBoxToVariable	Sets a Variable to the state of a Checkbox.
SetComboToVariable	Sets a Variable to the selected Combobox entry.
SetEditToVariable	Sets a Variable to the content of an Edit field.
SetListBoxSelectionToVariable	Sets a Variable to the selected Listbox entry.
SetListBoxToVariable	Copies the available List elements of a Listbox to a Data list.
SetVariable	Set a Variable to a certain value.
Instructions to change the attributes of Frames	
SetFrameColor	Changes the background color.
Instructions for Static controls	
SetStaticBackColor	Changes the background color.
SetStaticBorderColor	Changes the border color.
SetStaticPictureName	Changes the assigned image.
SetStaticPicturePos	Changes the positioning of the image.
SetStaticPictureScale	Changes the scaling of the image.
SetStaticRect	Changes the position and size.
SetStaticStatus	Changes the output and operability.
SetStaticText	Changes the text.
SetStaticTextColor	Changes the text color.
SetStaticTextPosition	Changes the positioning of the text.
Instructions for Edit fields	
OffEditBackColorBlink	Turns off the background blinking.
OffEditTextColorBlink	Turns off the blinking of the text.
SetEditBackColor	Changes the background color.
SetEditBackColorBlink	Turns on the background blinking.
SetEditRect	Changes the position and size.
SetEditStatus	Changes the output and operability.
SetEditText	Changes the content.
SetEditTextColor	Changes the color of the content.
SetEditTextColorBlink	Turns on the blinking of the content.
SetEditToVariable	Sets a Variable to the content.

Table 5-70 Overview of Instructions

Instruction	Description
Instructions for Buttons	
OffButtonBlink	Turns off the blinking.
SetButtonBlink	Turns on the blinking.
SetButtonColor	Changes the color of the Button.
SetButtonPicture	Changes the assigned image.
SetButtonPictureScal	Changes the scaling of the image.
SetButtonRect	Changes the position and size.
SetButtonStaticBackColor	Changes the background color of one of the Static controls of a Button.
SetButtonStaticBorderColor	Changes the color of the border that surrounds one of the Static controls of a Button.
SetButtonStaticPictureName	Changes the image assigned to one of the Static controls of a Button.
SetButtonStaticPicturePos	Changes the positioning of the image of one of the Static controls of a Button.
SetButtonStaticPictureScale	Changes the scaling of the image of one of the Static controls of a Button.
SetButtonStaticStatus	Changes the way in which one of the Static controls of a Button is output and its operability.
SetButtonStaticRect	Changes the position and size of one of the Static controls of a Button.
SetButtonStaticText	Changes the text of one of the Static controls of a Button.
SetButtonStaticTextColor	Changes the text color of one of the Static controls of a Button.
SetButtonStaticTextPosition	Changes the positioning of the text of one of the Static controls of a Button.
SetButtonStatus	Changes the output and operability.
SetButtonText	Changes the caption.
SetButtonTextColor	Changes the caption's color.
SetButtonLayout	Changes the layout of the Button.
SetButtonFont	Changes the font, font size and font style of a Button.
Instructions for Checkboxes	
SetCheckBoxBackColor	Changes the background color.
SetCheckBoxCaption	Changes the caption.
SetCheckBoxRect	Changes the position and size.
SetCheckBoxState	Changes the state.
SetCheckBoxStatus	Changes the output and operability.
SetCheckBoxTextColor	Changes the caption's color.
SetCheckBoxToVariable	Sets a Variable to the state.
Instructions for Listboxes	
AddListToListBox	Adds Data elements to a Listbox.
ClearListBox	Deletes Data elements from a Listbox.
GetListBoxSelText	Sets a Variable to the first selected text.
OffAllListBoxItemBlink	Turns off the blinking for all List elements.
OffListBoxItemBlink	Turns off the blinking for one list element.
SetListBoxBackColor	Changes the background color.
SetListBoxBlinkTime	Changes the blink interval of the List elements.

Table 5-70 Overview of Instructions

Instruction	Description
SetListBoxItemBlink	Turns on the blinking for one List element.
SetListBoxItemColor	Changes the color of the text of a list element.
SetListBoxList	Fills the Listbox from a Data list.
SetListBoxRect	Changes the position and size.
SetListBoxSelectionToVariable	Fills a Data list with the selected List elements.
SetListBoxStatus	Changes the output and operability.
SetListBoxTextColor	Changes the general text color.
SetListBoxToVariable	Fills a Data list with the Listbox.
SetListBoxSelect	Selects a Listbox entry.
SetListBoxMultiSelect	Selects several Listbox entries.
Instructions for Comboboxes	
AddListToComboBox	Adds a Data list to the existing elements.
ClearComboBox	Deletes all elements.
GetComboBoxSelText	Sets a Variable to the selected text.
SetComboBoxBackColor	Changes the background color.
SetComboBoxList	Fills the Combobox from a Data list.
SetComboBoxRect	Changes the position and size.
SetComboBoxStatus	Changes the output and operability.
SetComboBoxTextColor	Changes the text color.
SetComboToVariable	Sets a Variable to the selected Combobox entry.
SetComboBoxSelect	Selects a Combobox entry.

Table 5-70 Overview of Instructions

5.12.3 Add a new Instruction

Follow the below steps to add a new Instruction to a Function:

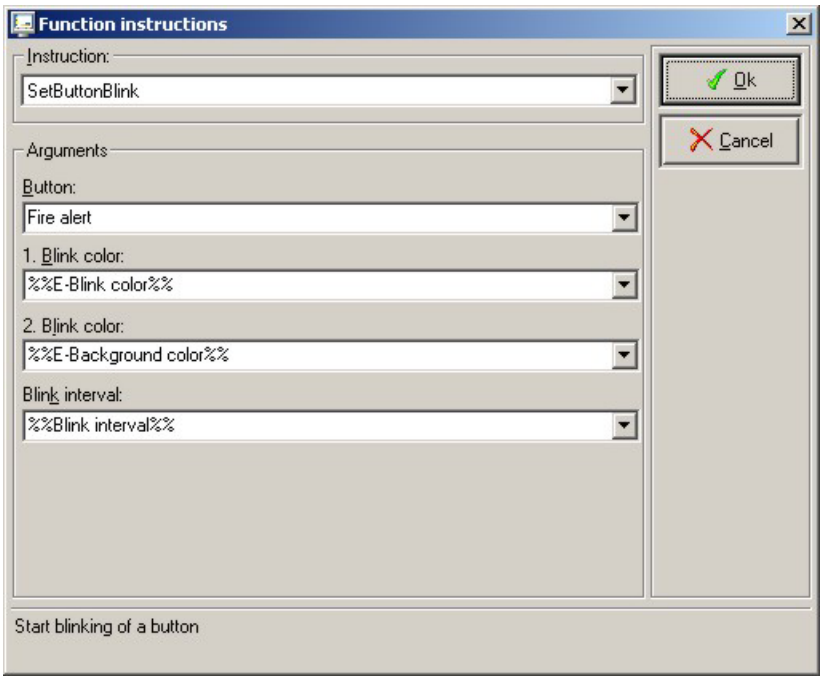
No.	Task
1.	Go to the tree structure and open the node "Frames".
2.	In the tree, open the parent Frame of the Function to which you want to add a new Instruction.
3.	In the tree, open either the node "Functions" and select one of these child nodes: • the node "On_Load". • the node "On_Message". • the node "On_Process". • the node "On_Timer". • the node "User". Or go to the tree, open the Control and select one of these nodes (dependent on the Control you open): • the node "On_Click". • the node "On_Select". • the node "On_DblClick". • the node "On_Change".
4.	Go to the tree and open the Function to which you want to add a new Instruction.
5.	In the tree, open the child node "Instructions".
6.	Select the menu item "Edit" "New...". This will open a user window to edit the Instruction: 
7.	Select the Instruction you want to add and choose arguments for it.
8.	Finally, click Ok to close the window. The DCO-Designer outputs the newly added instruction in the child node "Instructions" of the pertinent parent function.

Table 5-71 Add a new Instruction to a Function

5.12.4 Edit Instructions

Follow the below steps to edit an already existing Instruction of a Function:

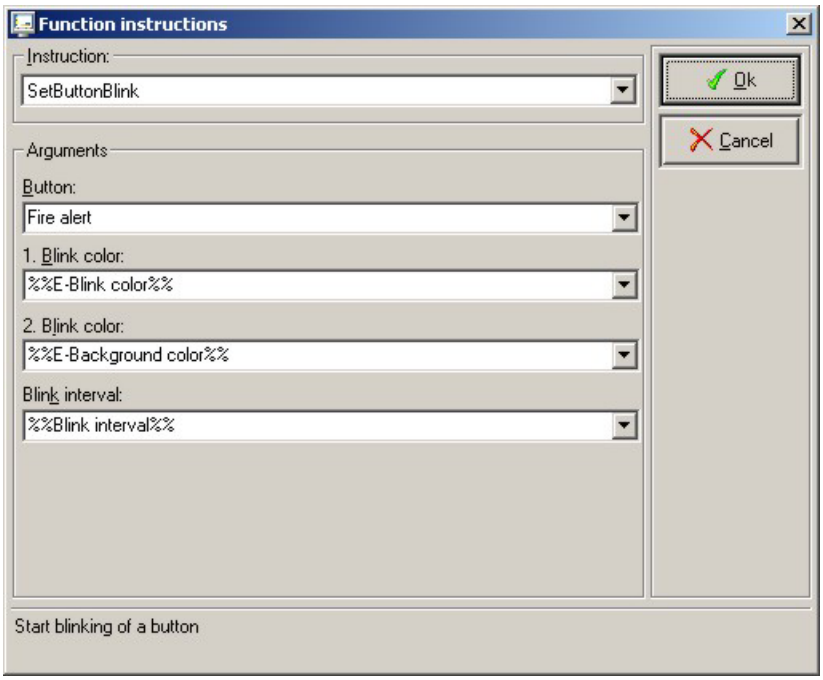
No.	Task
1.	Go to the tree structure and open the node "Frames".
2.	In the tree, open the parent Frame of the Function to which you want to add a new Instruction.
3.	In the tree, open either the node "Functions" and select one of these child nodes: • the node "On_Load". • the node "On_Message". • the node "On_Process". • the node "On_Timer". • the node "User". Or go to the tree, open the Control and select one of these nodes (dependent on the Control you open): • the node "On_Click". • the node "On_Select". • the node "On_DblClick". • the node "On_Change".
4.	Now open the child node "Functions" that contains the Instruction that you want to edit.
5.	Now open the child node "Instructions" in the tree.
6.	In the list, select the Instruction that you want to edit.
7.	Select the menu command "Edit" "Edit". This will open a user window to edit the Instruction: 
8.	Edit the Instructions and/or arguments as required.
9.	Finally, click Ok to save your changes and close the user window.

Table 5-72 Edit an Instruction of a Function

5.12.5 Change the order in which Instructions are executed

Follow the below steps to change, in a Function, the order in which the already existing Instructions are executed :

No.	Task
1.	Go to the tree structure and open the node "Frames".
2.	In the tree, open the parent Frame of the Function whose Instructions you want edit with regard to the order in which they are executed.
3.	In the tree, open either the node "Functions" and select one of these child nodes: • the node "On_Load". • the node "On_Message". • the node "On_Process". • the node "On_Timer". • the node "User". Or go to the tree, open the Control and select one of these nodes (dependent on the Control you open): • the node "On_Click". • the node "On_Select". • the node "On_DblClick". • the node "On_Change".
4.	In the tree, open the Function whose Instructions you want edit with regard to the order in which they are executed.
5.	Now open the child node "Instructions" in the tree.
6.	In the list, select the Instruction that you want to be executed earlier or later, relative to the other Instructions.
7.	Here you can select: • the menu item "Edit" "Move up", to move the execution of the Instruction further up in the order. • the menu item "Edit" "Move down", to move the execution of the Instruction further down in the order.

Table 5-73 Edit an Instruction of a Function

5.12.6 AddListToComboBox

Description

Use this Instruction to add the Data elements of a Data list to the existing List elements of a Combobox.

Note:
To do so, the Data list and the Combobox must be of the same type.

see Section 5.2, "The DCO data types and their value ranges"

Arguments:

Argument	Description
Combobox	Editable selection field to determine the Combobox to which the Data elements of the Data list are added. Here you can: • enter the name of a Combobox. • select one of the Comboboxes that are available.
Data list	Editable selection field to determine the Data list whose Data elements shall be added to the Combobox. Here you can: • enter the name of a Data list. • select one of the Data lists that are available.

Table 5-74 Arguments of AddListToComboBox

5.12.7 AddListToListBox

Description

Use this Instruction to add the Data elements of a Data list to the already existing List elements of a Listbox.

Note:
To do so, the Data list and the Listbox must be of the same type!

see Section 5.2, "The DCO data types and their value ranges"

Arguments:

Argument	Description
Listbox	Editable selection field to determine the Listbox to which the Data elements from the Data list shall be added. Here you can: • enter the name of a Listbox. • select one of the Listboxes that are available.
Data list	Editable selection field to determine the Data list whose Data elements shall be added to the Listbox. Here you can: • enter the name of a Data list. • select one of the Data lists that are available.

Table 5-75 Arguments of AddListToListBox

5.12.8 BroadcastMessage

Description

This Instruction sends a message to the own Frame and, where applicable, to the toolbar Frame connected to it, or from the toolbar Frame to the connected Frame. The message that is sent is processed in the Function under the child node "On_Message of both Frames, whose name is indicated as argument.

Arguments:

Argument	Description
Message	Editable selection field to determine the name of the Function under the child node "On_Message", whose Instructions shall be executed. Here you can: • enter the name of an "On_Message" Function. • select an "On_Message" Function from the "On_Message" Functions that are available.

Table 5-76 Arguments of BroadcastMessage

5.12.9 Call

Description

Use this Instruction to carry out the Instructions of another Function.

Please note that this feature only applies to the Functions that are stored in the child node "User" of a Frame that is also the parent Frame of the Instruction you are presently editing.

Arguments:

Argument	Description
Function	Editable selection field to determine the Function that shall be executed. Here you can: • enter the name of a Function. • select one of Functions that are available.

Table 5-77 Arguments of Call

5.12.10 ClearComboBox

Description

Use this Instruction to clear a Combobox, i.e. to remove all list entries.

Arguments:

Argument	Description
Combobox	Editable selection field to determine the Combobox that shall be emptied. Here you can: • enter the name of a Combobox. • select one of the Comboboxes that are available.

Table 5-78 Arguments of ClearComboBox

5.12.11 ClearListBox

Description

Use this Instruction to clear a Listbox, i. e. to remove all list entries.

Arguments:

Argument	Description
Listbox	Editable selection field to determine the Listbox that shall be emptied. Here you can: • enter the name of a Listbox. • select one of the Listboxes that are available.

Table 5-79 Arguments of ClearListBox

5.12.12 Execute

Description

Use this Instruction to carry out a OScAR command template with which you can trigger the below processes in OScAR:

- launch Broadcasts.
- convene Conferences.
- switch the Info Telephone.
- start Scenarios.
- Set the output parameters of the Process windows in the OScAR-Pro-TT Operator-Tool.

Note that this feature only applies to the OScAR command templates that are stored in the Frame that is also the parent Frame of the Instruction you are presently editing.

see Section 5.9, "OScAR command templates"

Arguments:

Argument	Description
OScAR command template	Editable selection field to determine the OScAR command template that shall be executed. Here you can: • enter the name of a OScAR command template. • select a OScAR command template from the list OScAR command templates that are available.

Table 5-80 Arguments of Execute

5.12.13 GetBroadcasts

Description

Use this Instruction to invoke a list of all Broadcasts administrated by the OScAR-Pro-TT Administrator-Tool, and to fill the Data list with the obtained entries. Please note that the Data list is automatically cleared (emptied) before it is filled with the new entries.

In this process, the system applies, where available, the Filter that is specified.

see Section 5.7, "Lists"

Note:
A list that is invoked with this Instruction only contains those Broadcasts for which the field "ID to trigger via telephone" is enabled.

Arguments:

Argument	Description
Data list	Editable selection field to determine the Data list to which the received Broadcast data is added. Here you can: • enter the name of a Data list. • select a Data list from the Data lists of the data type bdc_id that are available.
Filter	Editable selection field to determine the Filter that shall be applied to limit the received Broadcasts. Here you can: • enter the name of a Filter. • select one of the Filters of the type BDC that are available.

Table 5-81 Arguments of GetBroadcast

Note:
To have the received list of Broadcasts output with this Instruction at the top, you need to place a Listbox or a Combobox in the Frame and, in the second step, you must fill the box(es) with the Instruction "SetListBoxList" or "SetComboBoxList", respectively, and also add this Data list.

5.12.14 GetBroadcastMembers

Description

Use this Instruction to invoke a list of all Broadcasts administrated by the OScAR-Pro-TT Administrator-Tool, and to fill the Data list with the obtained entries. Please note that the Data list is automatically cleared (emptied) before it is filled with the new entries.

In this process, the system applies, where available, the Filter that is specified.

see Section 5.7, "Lists"

Arguments:

Argument	Description
Data list	Editable selection field to determine the Data list to which the received Broadcast members is added. Here you can: • enter the name of a Data list. • select a Data list from the Data lists of the data type string that are available.
Broadcast ID	Editable selection field to determine the Broadcast ID Here you can: • enter the name of a Filter. • select one of the Filters of the type BDC_ID that are available.

Table 5-82 Arguments of GetBroadcast

Note:
To have the received list of Broadcasts output with this Instruction at the top, you need to place a Listbox or a Combobox in the Frame and, in the second step, you must fill the box(es) with the Instruction "SetListBoxList" or "SetComboBoxList", respectively, and also add this Data list.

5.12.15 GetCallServiceInfo

Description

Use this Instruction to read the name, the Active Number that is presently set and the level of call screening that is presently selected for a specific Call Profile, and to save these values in the Variables.

Arguments:

Argument	Description
ID	Editable selection field to determine the ID of the Call Profile whose selected values you want be to read out. Here you can: • enter a valid ID with up to 4 digits. • select a Variable from the Variables of the data type string that are available.
Variable	Editable selection field to determine the Variable in which the name of the Call Profile shall be saved. Here you can: • enter the name of a Variable. • select a Variable from the Variables of the data type string that are available.
Variables	Editable selection field to determine the Variable in which the Active Number, that is presently configured for the Call Profiles shall be saved. Here you can: • enter the name of a Variable. • select a Variable from the Variables of the data type phone_number that are available.
Variable	Editable selection field to determine the Variable in which the level of call screening (Screen level) that is presently configured for the Call Profile shall be saved. Here you can: • enter the name of a Variable. • select a Variable from the Variables of the data type uint that are available.

Table 5-83 Arguments of GetCallServiceInfo

5.12.16 GetCallServices

Description

Use this Instruction to invoke a list of all Call Profiles that are administrated through the OScAR-Pro-TT Administrator-Tool, and to fill the Data list with the received entries. Please note that the Data list is automatically cleared (emptied) before it is filled with the new entries.

In this process, the system applies, where available, the Filter that is specified.

see Section 5.7, "Lists"

Note:
The queried list contains only Call Profiles for which neither an Active Number nor a call screening level is presently set.

Arguments:

Argument	Description
Data list	Editable selection field to determine the Data list to which the received Call Profile data is added. Here you can: • enter the name of a Data list. • select a Data list from the Data lists of the data type cas_id that are available.
Filter	Editable selection field to determine the Filter that shall be applied to limit the received Call Profiles. Here you can: • enter the name of a Filter. • select one of the Filters of the type CAS that are available.

Table 5-84 Arguments of GetCallServices

Note:
To have the received list of Call Profiles output with this Instruction at the top, you need to place a Listbox or a Combobox in the Frame and, in the second step, you must fill the box(es) with the Instruction "SetListBoxList" or "SetComboBoxList", respectively, and also add this Data list.

5.12.17 GetComboBoxSelText

Description

Use this Instruction to read out a selected Combobox text and save it in a Variable.

Arguments:

Argument	Description
Combobox	Editable selection field to determine the Combobox whose selected text you want be to read out. Here you can: • enter the name of a Combobox. • select one of the Comboboxes that are available.
Variable	Editable selection field to determine the Variable in which the selected Combobox text shall be saved. Here you can: • enter the name of a Variable. • select a Variable from the Variables of the data type string that are available.

Table 5-85 Arguments of GetComboBoxSelText

5.12.18 GetConferences

Description

Use this Instruction to invoke a list of all Conferences administrated by the OScAR-Pro-TT Administrator-Tool, and to fill the Data list with the obtained entries. Please note that the Data list is automatically cleared (emptied) before it is filled with the new entries.

In this process, the system applies, where available, the Filter that is specified.

see Section 5.7, "Lists"

Note:
The list invoked with this Instruction only contains Conferences for which the field "ID to trigger via telephone" is enabled.

Arguments:

Argument	Description
Data list	Editable selection field to determine the Data list to which the received Conferences are added. Here you can: • enter the name of a Data list. • select a Data list from the Data lists of the data type con_id that are available.
Filter	Editable selection field to determine the Filter that shall be applied to limit the received Conferences. Here you can: • enter the name of a Filter. • select one of the Filters of the type CON that are available.

Table 5-86 Arguments of GetConferences

Note:
To have the received list of Conferences output with this Instruction at the top, you need to place a Listbox or a Combobox in the Frame and, in the second step, you must fill the box(es) with the Instruction "SetListBoxList" or "SetComboBoxList", respectively, and also add this Data list.

5.12.19 GetConferenceMember

Description

Use this Instruction to invoke a list of all Conference members that are administrated through the OScAR-Pro-TT Administrator-Tool, and to fill the Data list with the obtained entries. Please note that the Data list is automatically cleared (emptied) before it is filled with the new entries.

In this process, the system applies, where available, the Filter that is specified.

see Section 5.7, "Lists"

Arguments:

Argument	Description
Data list	Editable selection field to determine the Data list to which the received Conference members are added. Here you can: • enter the name of a Data list. • select a Variable from the Variables of the data type con_id that are available.
Filter	Editable selection field to determine the Filter that shall be applied to limit the received Conference members. Here you can: • enter the name of a Filter. • select one of the Filters of the type CON that are available.

Table 5-87 Arguments of GetConferenceMember

Note:
To have the received list of Conferences members output with this Instruction at the top, you need to place a Listbox or a Combobox in the Frame and, in the second step, you must fill the box(es) with the Instruction "SetListBoxList" or "SetComboBoxList", respectively, and also add this Data list.

5.12.20 GetInfotelephones

Description

Use this Instruction to invoke a list of all Info Telephone profiles administrated by the OScAR-Pro-TT Administrator-Tool, and to fill the Data list with the obtained entries. Please note that the Data list is automatically cleared (emptied) before it is filled with the new entries.

In this process, the system applies, where available, the Filter that is specified.

see Section 5.7, "Lists"

Arguments:

Argument	Description
Data list	Editable selection field to determine the Data list to which the received Info Telephone profile data is added. Here you can: • enter the name of a Data list. • select a Data list from the Data lists of the data type itl_id that are available.
Filter	Editable selection field to determine the Filter that shall be applied to limit the received Info Telephone profiles. Here you can: • enter the name of a Filter. • select one of the Filters of the type ITL that are available.

Table 5-88 Arguments of GetInfotelephones

Note:
To have the received list of Info Telephone profiles output with this Instruction at the top, you need to place a Listbox or a Combobox in the Frame and, in the second step, you must fill the box(es) with the Instruction "SetListBoxList" or "SetComboBoxList", respectively, and also add this Data list.

5.12.21 GetJokerDialing

Description

Use this Instruction to query the dialthru code that is presently used for a Joker access, and to save this value in a Variable.

Arguments:

Argument	Description
ID	Editable selection field to determine the Joker access whose dialthru code you want to query. Here you can: • enter a number between 0 and 9. • assign a Constant, Parameter or Variable of the data type phone_number. • assign the reference to a Control that has the data type phone_number.
Variable	Editable selection field to determine the Variable in which the dialthru code, that is presently entered, shall be stored. Here you can: • enter the name of a Variable of the type phone_number. • select a Variable from the Variables of the data type phone_number that are available.

Table 5-89 Arguments of GetJokerDialing

Note:
To have the received dialthru code of a Joker access output with this Instruction on the top, you need to place a Static control or an Edit field in the Frame and, in a second step, you must fill this element and/or field with the Instruction "SetStaticText" or "SetEditText", respectively, and also with this Variable.

5.12.22 GetMessageDisplayText

Description

Use this Instruction to invoke the current "Display output" of an announcement, and to save this value in a Variable.

Arguments:

Argument	Description
Announcement ID	Editable selection field to determine the announcement ID whose display text or short description shall be read out. Here you can: • enter a valid ID with up to 4 digits. • select a Data list from the Data lists of the data type msg_id that are available.
Short description instead of display text	Selection field to determine if the data of the announcement's "Short description" shall be read out, or of the announcement's "Display text". Here you can: • 0, choose this value to select the Display output. • 1, choose this value to select the Short description. • assign a Constant, Parameter or Variable of the data type bool. • assign the reference to a Control that has the data type bool.
Variable	Editable selection field to determine the Variable in which the presently entered Short description or Display text shall be stored. Here you can: • enter the name of a Variable of the type string. • select a Variable from the Variables of the data type string that are available.

Table 5-90 Arguments of GetMessageDisplayText

Note:
To have the received announcement texts output with this Instruction on the top, you need to place a Static control or an Edit field in the Frame and, in a second step, you must fill this element and/or field with the Instruction "SetStaticText" or "SetEditText", respectively, and also with this Variable.

5.12.23 SendAccelerator

Description

Use this Instruction to simulate keystrokes.

Arguments:

Argument	Description
Ctrl	Selection field to determine if the keystroke is simulated in combination with Ctrl. Here you can: • 0, choose this value to select the combination without Ctrl. • 1, choose this value to select the combination with Ctrl. • assign a Constant, Parameter or Variable of the data type bool. • assign the reference to a Control that has the data type bool.
Alt	Selection field to determine if the keystroke is simulated in combination with Alt. Here you can: • 0, choose this value to select the combination without Alt. • 1, choose this value to select the combination with Alt. • assign a Constant, Parameter or Variable of the data type bool. • assign the reference to a Control that has the data type bool.
Shift	Selection field to determine if the keystroke is simulated in combination with Shift. Here you can: • 0, choose this value to select the combination without Shift. • 1, choose this value to select the combination with Shift. • assign a Constant, Parameter or Variable of the data type bool. • assign the reference to a Control that has the data type bool.
Key	Selection field to determine if the keystroke is simulated in combination with Key. Here you can select: • any key.

Table 5-91 Arguments of SendAccelerator

5.12.24 StartProgram

Description

Use this Instruction to start another Windows program.

Arguments:

Argument	Description
Executable program	Selection field to determine the program that shall be started Here you can: • select any program, incl. the path. • assign a Constant, Parameter or Variable of the data type string. • assign the reference to a Control that has the data type string.
Parameters	Editable selection field to determine the parameters will be handed over to the program that shall be started. Here you can: • select any program, incl. the path. • assign a Constant, Parameter or Variable of the data type string. • assign the reference to a Control that has the data type string.
Wait for end	Selection field to determine if the next Instructions in the DCO script are only completed when the invoked program has ended again. Here you can: • 0, choose this value to carry out the next Instructions of the DCO script directly after the program that shall be started is invoked. • 1, choose this value to carry out the next Instructions in the DCO script only after the program that shall be started has ended. • assign a Constant, Parameter or Variable of the data type bool. • assign the reference to a Control that has the data type bool.

Table 5-92 Arguments of StartProgram

5.12.25 GetListBoxSelText

Description

Use this Instruction to read out the text of the first selected element of a Listbox, and to save it in a Variable.

Arguments:

Argument	Description
Listbox	Editable selection field to determine the Listbox whose first selected entry shall be read out. Here you can: • enter the name of a Listbox. • select one of the Listboxes that are available.
Variable	Editable selection field to determine the Variable in which the name of the first selected Listbox entry shall be saved. Here you can: • enter the name of a Variable. • select a Variable from the Variables of the data type string that are available.

Table 5-93 Arguments of GetListBoxSelText

5.12.26 GetListBoxSelText

Description

Use this Instruction to add data elements of a data list to a Listbox.

Arguments:

Argument	Description
Listbox	Editable selection field to determine the Listbox to which entries shall be added. Here you can: • enter the name of a Listbox. • select one of the Listboxes that are available.
Data list	Editable selection field to determine the Variable to include the entries that you want to add. Here you can: • enter the name of a Variable. • select a Variable from the Variables of the data type string that are available.

Table 5-94 Arguments of AddListToListBox

5.12.27 GetMessages

Description

Use this Instruction to invoke a list of all announcements administrated through the OScAR-Pro-TT Administrator-Tool, and to fill the Data list with the obtained entries. Please note that the Data list is automatically cleared (emptied) before it is filled with the new entries.

In this process, the system applies, where available, the Filter that is specified.

see Section 5.7, "Lists"

Arguments:

Argument	Description
Data list	Editable selection field to determine the Data list to which the received Announcement data is added. Here you can: • enter the name of a Data list. • select a Data list from the Data lists of the data type msg_id that are available.
Filter	Editable selection field to determine the Filter that shall be applied to limit the received announcements. Here you can: • enter the name of a Filter. • select one of the Filters of the type MSG that are available.

Table 5-95 Arguments of GetMessages

Note:
To have the received list of Announcements output with this Instruction at the top, you need to place a Listbox or a Combobox in the Frame and, in the second step, you must fill the box(es) with the Instruction "SetListBoxList" or "SetComboBoxList", respectively, and also add this Data list.

5.12.28 GetScenarios

Description

Use this Instruction to invoke a list of all Scenarios administrated by the OScAR-Pro-TT Administrator-Tool, and to fill the Data list with the obtained entries. Please note that the Data list is automatically cleared (emptied) before it is filled with the new entries.

In this process, the system applies, where available, the Filter that is specified.

see Section 5.7, "Lists"

Note:
The list invoked with this Instruction only contains Scenarios for which the field "ID" is enabled.

Arguments:

Argument	Description
Data list	Editable selection field to determine the Data list to which the received Scenarios are added. Here you can: • enter the name of a Data list. • select a Data list from the Data lists of the data type scn_id that are available.
Filter	Editable selection field to determine the Filter that shall be applied to limit the received Scenarios. Here you can: • enter the name of a Filter. • select one of the Filters of the type SCN that are available.

Table 5-96 Arguments of GetScenarios

Note:
To have the received list of Scenarios output with this Instruction at the top, you need to place a Listbox or a Combobox in the Frame and, in the second step, you must fill the box(es) with the Instruction "SetListBoxList" or "SetComboBoxList", respectively, and also add this Data list.

5.12.29 GetTTVLanguages

Description

Use this Instruction to query a list with all languages that are available for the Text-To-Voice conversion (TTV), and to add the entries that are received to a Data list with. Please note that the Data list is automatically cleared (emptied) before it is filled with the new entries.

In this process, the system applies, where available, the Filter that is specified.

see Section 5.7, "Lists"

Arguments:

Argument	Description
Listbox	Editable selection field to determine the Listbox to which the received TTV languages are added. Here you can: • enter the name of a Listbox. • select one of the Listboxes that are available.

Table 5-97 Arguments of GetTTVLanguages

5.12.30 GotoFrame

Description

Use this Instruction to open a new Frame.

Note:
Whenever a new Frame is opened with this Instruction, the current Frame with the present output is automatically cleared. If you want to save the different states of these Controls or other elements, please save them in corresponding Variables before you open the new Frame.

see Section 5.12.2, "Overview of Instructions"

Arguments:

Argument	Description
Frame	Editable selection field to determine the Frame that shall be invoked. Here you can: • enter the name of a Frame. • select one of the Frames that are available.

Table 5-98 Arguments of GotoFrame

5.12.31 OffAllListBoxItemBlink

Description

Use this Instruction to turn off the blinking of all items of a Listbox.

Arguments:

Argument	Description
Listbox	Editable selection field to determine the Listbox whose blinking shall be turned off. Here you can: • enter the name of a Listbox. • select one of the Listboxes that are available.

Table 5-99 Arguments of OffAllListBoxItemBlink

5.12.32 OffButtonBlink

Description

Use this Instruction to turn off the blinking of a Button.

Arguments:

Argument	Description
Button	Editable selection field to determine the Button whose blinking shall be turned off. Here you can: • enter the name of a Button. • select one of the Buttons that are available.

Table 5-100 Arguments of OffButtonBlink

5.12.33 OffEditBackColorBlink

Description

Use this Instruction to turn off the blinking of the background of a Listbox.

Arguments:

Argument	Description
Edit field	Editable selection field to determine the Edit field whose background blinking shall be turned off. Here you can: • enter the name of an Edit field. • select one of the Edit fields that are available.

Table 5-101 Arguments of OffEditBackColorBlink

5.12.34 OffEditTextColorBlink

Description

Use this Instruction to turn off the blinking of the text (content) of an Edit field.

Arguments:

Argument	Description
Edit field	Editable selection field to determine the Edit field whose blinking of the text (content) shall be turned off. Here you can: • enter the name of an Edit field. • select one of the Edit fields that are available.

Table 5-102 Arguments of OffEditTextColorBlink

5.12.35 OffListBoxItemBlink

Description

Use this Instruction to turn off the blinking of a single item of a Listbox.

Arguments:

Argument	Description
Listbox	Editable selection field to determine the Listbox whose blinking shall be turned off. Here you can: • enter the name of a Listbox. • select one of the Listboxes that are available.
List element	Editable selection field to determine the index of the List element, the blinking of which shall be turned off. Here you can: • enter the index of the List element. • select one of the Listboxes that are available. • assign a Constant, Parameter or Variable of the data type int. • assign a reference to a Control that has the data type int.

Table 5-103 Arguments of OffListBoxItemBlink

5.12.36 SetButtonBlink

Description

Use this Instruction to turn on the blinking of a Button.

Arguments:

Argument	Description
Button	Editable selection field to determine the Button whose blinking shall be turned on. Here you can: • enter the name of a Button or • select one of the Buttons that are available.
1. Blink color	Editable selection field to determine the primary blink color. Here you can: • enter a color value. see Section 5.2, "The DCO data types and their value ranges" • click "Select color..." and use the next user window to choose a color. see Section 4.6.5, "Edit colors" • assign a Constant, Parameter or Variable of the data type color. • assign a reference to a Control that has the data type color.
2. Blink color	Editable selection field to determine the secondary blink color. Here you can: • enter a color value. see Section 5.2, "The DCO data types and their value ranges" • click "Select color..." and use the next user window to choose a color. see Section 4.6.5, "Edit colors" • assign a Constant, Parameter or Variable of the data type color. • assign a reference to a Control that has the data type color.
Blink interval	Editable selection field to determine the interval in which the system shall alternate between the two colors, calculated in milliseconds (1000 milliseconds = 1 second). Here you can: • -1, enter this value to apply the interval of the parent Frame. • enter a numeric value. • assign a Constant, Parameter or Variable of the data type int.

Table 5-104 Arguments of SetButtonBlink

Note:
If you want the colors of a Button to alternate between the regular background color (e.g. light gray), and a second indicator color (e.g. red), we recommend you assign the indicator color (red) to the argument "1. Blink color" and the background color (light gray) to the argument "2. Blink color".

This will provide an immediate and well-visible reaction whenever the Button is pressed.

5.12.37 SetButtonColor

Description

Use this Instruction to specify the background color of a Button.

Arguments:

Argument	Description
Button	Editable selection field to determine the Button whose background color you want to edit. Here you can: • enter the name of a Button. • select one of the Buttons that are available.
Color	Editable selection field to determine the background color of the Button. Here you can: • enter a color value. see Section 5.2, "The DCO data types and their value ranges" • click "Select color..." and use the next user window to choose a color. see Section 4.6.5, "Edit colors" • assign a Constant, Parameter or Variable of the data type color. • assign a reference to a Control that has the data type color.

Table 5-105 Arguments of SetButtonColor

5.12.38 SetButtonLayout

Description

Use this Instruction to set the layout of a Button, i.e. the way in which symbols and captions are arranged with regard to one another.

Arguments:

Argument	Description
Button	Editable selection field to determine the Button whose background color you want to edit. Here you can: • enter the name of a Button. • select one of the Buttons that are available.
Layout	Editable selection field to determine the layout of the Button. Here you can: • Image + Text (horizontal), choose this value to position first the image and and then the text, from left to right. • Image + Text (vertical), choose this value to position first the image and then the text, from top to bottom. • Text + Image (horizontal), choose this value to position first the text and then the image, from left to right. • Text + Image (vertical), choose this value to position first the text and then the image, from top to bottom. • assign a Constant, Parameter or Variable of the data type string. • assign the reference to a Control that has the data type string.

Table 5-106 Arguments of SetButtonLayout

5.12.39 SetButtonPicture

Description

Use this Instruction to assign a new or a different image to a Button .

Arguments:

Argument	Description
Button	Editable selection field to determine the Button to which you want to assign a different image. Here you can: • enter the name of a Button. • select one of the Buttons that are available.
Image	Editable selection field to determine the image that is shown on the Button. Here you can: • enter a file name from the list of known images. • click "Select image..." and use the next user window to choose an image. see Section 4.6.2, "Administration of the Project images list" • assign a Constant, Parameter or Variable of the data type string. • assign the reference to a Control that has the data type string.

Table 5-107 Arguments of SetButtonPicture

5.12.40 SetButtonFont

Description

Use this Instruction to assign a new/different font to a Button.

Arguments:

Argument	Description
Button	Editable selection field to determine the Button to which you want to assign a different font. Here you can: • enter the name of a Button. • select one of the Buttons that are available.
Font	Editable selection field to determine font (e.g. Arial) that shall be used for the Button's text. Here you can: • enter the name of a font. • assign a Constant, Parameter or Variable of the data type string. • assign the reference to a Control that has the data type string.
Style	Editable selection field to determine font (e.g. Arial) that shall be used for the Button's text. Here you can: • enter the name of a font style. • assign a Constant, Parameter or Variable of the data type int. • assign a reference to a Control that has the data type int.
Size	Editable selection field to determine font (e.g. Arial) that shall be used for the Button's text. Here you can: • enter the font size. • assign a Constant, Parameter or Variable of the data type int. • assign a reference to a Control that has the data type int.

Table 5-108 Arguments of SetButtonFont

5.12.41 SetButtonPictureScal

Description

Use this Instruction to edit the scaling of an image on a Button.

Arguments:

Argument	Description
Button	Editable selection field to determine the Button for which you want to scale the image. Here you can: • enter the name of a Button. • select one of the Buttons that are available.
Scaling in %	Editable selection field to determine the scaling factor for the image on the Button. Here you can: • enter a scaling factor in %. • proportional, use this scaling to align the image with the size of the Static control in keeping with the Static control's height/width proportion. • unproportional, use this scaling to adjust the image to the full scale of the Static control's surface, irrespective of the height/width proportion. • assign a reference to a Control that has the data type int.

Table 5-109 Arguments of SetButtonPictureScal

5.12.42 SetButtonRect

Description

Use this Instruction to edit the position and size of a Button.

Arguments:

Argument	Description
Button	Editable selection field to determine the Button whose position and size you want to edit. Here you can: • enter the name of a Button. • select one of the Buttons that are available.
Links	Editable selection field to determine the left-hand and upper (top) edge, the width and the height in pixels. Here you can: • enter a numeric value, • assign a Constant, Parameter or Variable of the data type int. • assign a reference to a Control that has the data type int.
Top	
Width	
Height	

Table 5-110 Arguments of SetButtonRect

5.12.43 SetButtonStaticBackColor

Description

Use this Instruction to change the background color of a Static control on a Button.

Arguments:

Argument	Description
Button	Editable selection field to determine the Button to whose Static control you want to give a different background color. Here you can: • enter the name of a Button. • select one of the Buttons that are available.
Static control	Editable selection field to determine the Static control of the Button, to which you want to assign a different background color. Here you can: • enter the name of a Static control. • select one of the Button's Static controls that are available.
Color	Editable selection field to determine the background color you want to assign to the selected Static control of the Button. Here you can: • enter a color value. see Section 5.2, "The DCO data types and their value ranges" • click "Select color..." and use the next user window to choose a color. see Section 4.6.5, "Edit colors" • assign a Constant, Parameter or Variable of the data type color. • assign a reference to a Control that has the data type color.

Table 5-111 Arguments of SetButtonStaticBackColor

5.12.44 SetButtonStaticBorderColor

Description

Use this Instruction to edit the color of the border surrounding a Static control on a Button.

Arguments:

Argument	Description
Button	Editable selection field to determine the Button to whose Static control you want to give a different border color. Here you can: • enter the name of a Button. • select one of the Buttons that are available.
Static control	Editable selection field to determine the Static control of the Button, to which you want to assign a different border color. Here you can: • enter the name of a Static control. • select one of the Button's Static controls that are available.
Color	Editable selection field to determine the border color you want to assign to the selected Static control of the Button. Here you can: • enter a color value. see Section 5.2, "The DCO data types and their value ranges" • click "Select color..." and use the next user window to choose a color. see Section 4.6.5, "Edit colors" • assign a Constant, Parameter or Variable of the data type color. • assign a reference to a Control that has the data type color.

Table 5-112 Arguments of SetButtonStaticBorderColor

5.12.45 SetButtonStaticPictureName

Description

Use this Instruction to change the image of a Static control on a Button.

Arguments:

Argument	Description
Button	Editable selection field to determine the Button to whose Static control you want to give a different image. Here you can: • enter the name of a Button. • select one of the Buttons that are available.
Static control	Editable selection field to determine the Static control of the Button, to which you want to assign a different image. Here you can: • enter the name of a Static control. • select one of the Button's Static controls that are available.
Image	Editable selection field to determine the Button on whose Static control the new image shall be shown. Here you can: • enter a file name from the list of known images. • click "Select image..." and use the next user window to choose an image. see Section 4.6.2, "Administration of the Project images list" • assign a Constant, Parameter or Variable of the data type string. • assign the reference to a Control that has the data type string.

Table 5-113 Arguments of SetButtonStaticPictureName

5.12.46 SetButtonStaticPicturePos

Description

Use this Instruction to change the positioning of the image placed of a Static control that is placed on a Button.

Arguments:

Argument	Description
Button	Editable selection field to determine the Button of the Static image whose image you want to reposition. Here you can: • enter the name of a Button. • select one of the Buttons that are available.
Static control	Editable selection field to determine the Static control of the Button, whose image you want to reposition. Here you can: • enter the name of a Static control. • select one of the Button's Static controls that are available.
Position	Selection field to determine the position of the image of the Static control that is placed on the Button. Here you can: • left, top, h-center, top, right, top, left, v-center, h-center, v-center, right, v-center, left, bottom, center, bottom, or right, bottom, choose this value to position the image of the Static control of the Button accordingly. • assign a Constant, Parameter or Variable of the data type string. • assign the reference to a Control that has the data type string.

Table 5-114 Arguments of SetButtonStaticPicturePos

5.12.47 SetButtonStaticPictureScale

Description

Use this Instruction to change the scaling of an image of a Static control on a Button.

Arguments:

Argument	Description
Button	Editable selection field to determine the Button of the Static control whose image you want to scale. Here you can: • enter the name of a Button. • select one of the Buttons that are available.
Static control	Editable selection field to determine the Static control of the Button, whose image you want to scale. Here you can: • enter the name of a Static control. • select one of the Button's Static controls that are available.
Scaling in %	Editable selection field to determine the scaling factor in % for the image that assigned to the Static control of the Button. Here you can: • enter a scaling factor in %. • proportional, use this scaling to align the image with the size of the Static control in keeping with the Static control's height/width proportion. • unproportional, use this scaling to adjust the image to the full scale of the Static control's surface, irrespective of the height/width proportion. • assign a reference to a Control that has the data type int.

Table 5-115 Arguments of SetButtonStaticPictureScale

5.12.48 SetButtonStaticRect

Description

Use this Instruction to edit the position and size of a Static control on a Button.

Arguments:

Argument	Description
Button	Editable selection field to determine the Button whose Static control you want to edit in position and size. Here you can: • enter the name of a Button. • select one of the Buttons that are available.
Static control	Editable selection field to determine the Static control of the Button, the position and size of which you want to edit. Here you can: • enter the name of a Static control. • select one of the Button's Static controls that are available.
Links	Editable selection field to determine the left-hand and upper (top) edge, the width and the height in pixels. Here you can: • enter a numeric value. • assign a Constant, Parameter or Variable of the data type int. • assign a reference to a Control that has the data type int.
Top	
Width	
Height	

Table 5-116 Arguments of SetButtonStaticRect

5.12.49 SetButtonStaticStatus

Description

Use this Instruction to edit the way in which a Static control on a Button is output and its operability.

Arguments:

Argument	Description
Button	Editable selection field to determine the Button whose Static control you want to edit with regard to the way in which the element is output and its operability. Here you can: • enter the name of a Button. • select one of the Buttons that are available.
Static control	Editable selection field to determine the Static control of the Button, the output and the operability of which you want to edit. Here you can: • enter the name of a Static control. • select one of the Button's Static controls that are available.
Status	Selection field to determine the way in which the Button's Static control is shown and its operability. Here you can: • 0, choose this value to hide the Static control. • 1, choose this value to show the Static control and enable entries. • 2, choose this value to show the Static control but disable any entries. • assign a Constant, Parameter or Variable of the data type uint. • assign the reference to a Control that has the data type uint.

Table 5-117 Arguments of SetButtonStaticStatus

5.12.50 SetButtonStaticText

Description

Use this Instruction to edit the text of a Static control on a Button.

Arguments:

Argument	Description
Button	Editable selection field to determine the Button of the Static control whose text you want edit. Here you can: • enter the name of a Button. • select one of the Buttons that are available.
Static control	Editable selection field to determine the Static control of the Button, the text of which you want to edit. Here you can: • enter the name of a Static control. • select one of the Button's Static controls that are available.
Text	Editable selection field to determine the text that shall be assigned to the selected Static control of the Button. Here you can: • enter a string. • assign a Constant, Parameter or Variable of the data type string. • assign the reference to a Control that has the data type string.

Table 5-118 Arguments of SetButtonStaticText

5.12.51 SetButtonStaticTextColor

Description

Use this Instruction to change the color of the text of a Button's Static control.

Arguments:

Argument	Description
Button	Editable selection field to determine the Button of the Static control whose text color you want edit. Here you can: • enter the name of a Button. • select one of the Buttons that are available.
Static control	Editable selection field to determine the Static control of the Button, the text color of which you want to edit. Here you can: • enter the name of a Static control. • select one of the Button's Static controls that are available.
Color	Editable selection field to determine the text color that shall be assigned to the Static control of the Button. Here you can: • enter a color value. see Section 5.2, "The DCO data types and their value ranges" • click "Select color..." and use the next user window to choose a color. see Section 4.6.5, "Edit colors" • assign a Constant, Parameter or Variable of the data type color. • assign a reference to a Control that has the data type color.

Table 5-119 Arguments of SetButtonStaticTextColor

5.12.52 SetButtonStaticTextPosition

Description

Use this Instruction to edit the positioning of the text of a Static control on a Button.

Arguments:

Argument	Description
Button	Editable selection field to determine the Button of the Static control whose text position you want edit. Here you can: • enter the name of a Button. • select one of the Buttons that are available.
Static control	Editable selection field to determine the Static control of the Button, the text position of which you want to edit. Here you can: • enter the name of a Static control. • select one of the Button's Static controls that are available.
Position	Selection field to determine the position of the text in the Button's Static control. Here you can: • left, top, h-center, top, right, top, left, v-center, h-center, v-center, right, v-center, left, bottom, center, bottom, or right, bottom, choose this value to position the text of the Static control of the Button accordingly. • assign a Constant, Parameter or Variable of the data type string. • assign the reference to a Control that has the data type string.

Table 5-120 Arguments of SetButtonStaticTextPosition

5.12.53 SetButtonStatus

Description

Use this Instruction to edit the way in which a Button is output and its operability.

Arguments:

Argument	Description
Button	Editable selection field to determine the Button you want to edit with regard to the way in which it is output and its operability. Here you can: • enter the name of the Button. • select one of the Buttons that are available.
Status	Selection field to determine the way in which the Button is shown and its operability. Here you can: • 0, choose this value to hide the Button. • 1, choose this value to show the Button and enable entries. • 2, choose this value to show the Button but disable any entries. • assign a Constant, Parameter or Variable of the data type uint. • assign the reference to a Control that has the data type uint.

Table 5-121 Arguments of SetButtonStatus

5.12.54 SetButtonText

Description

Use this Instruction to edit the caption (text) of a Button.

Arguments:

Argument	Description
Button	Editable selection field to determine the Button whose caption you want to edit. Here you can: • enter the name of a Button. • select one of the Buttons that are available.
Text	Editable selection field to determine the caption of the Button. Here you can: • enter a string. • assign a Constant, Parameter or Variable of the data type string. • assign the reference to a Control that has the data type string.

Table 5-122 Arguments of SetButtonText

5.12.55 SetButtonTextColor

Description

Use this Instruction to edit a Button's caption color (text color).

Arguments:

Argument	Description
Button	Editable selection field to determine the Button whose caption color you want to edit. Here you can: • enter the name of a Button. • select one of the Buttons that are available.
Color	Editable selection field to determine the color of the Button's caption. Here you can: • enter a color value. see Section 5.2, "The DCO data types and their value ranges" • click "Select color..." and use the next user window to choose a color. see Section 4.6.5, "Edit colors" • assign a Constant, Parameter or Variable of the data type color. • assign a reference to a Control that has the data type color.

Table 5-123 Arguments of SetButtonTextColor

5.12.56 SetCheckBoxBackColor

Description

Use this Instruction to change the background color of a Checkbox.

Arguments:

Argument	Description
Checkbox	Editable selection field to determine the Checkbox whose background color you want to edit. Here you can: • enter the name of a Checkbox. • select one of the Checkboxes that are available.
Color	Editable selection field to determine the background color of the Checkbox. Here you can: • enter a color value. see Section 5.2, "The DCO data types and their value ranges" • click "Select color..." and use the next user window to choose a color. see Section 4.6.5, "Edit colors" • assign a Constant, Parameter or Variable of the data type color. • assign a reference to a Control that has the data type color.

Table 5-124 Arguments of SetCheckBoxBackColor

5.12.57 SetCheckBoxCaption

Description

Use this Instruction to edit a Checkbox' caption (text).

Arguments:

Argument	Description
Checkbox	Editable selection field to determine the Checkbox whose caption you want to edit. Here you can: • enter the name of a Checkbox. • select one of the Checkboxes that are available.
Text	Editable selection field to determine the caption of the Checkbox. Here you can: • enter a string. • assign a Constant, Parameter or Variable of the data type string. • assign the reference to a Control that has the data type string.

Table 5-125 Arguments of SetCheckBoxCaption

5.12.58 SetCheckBoxRect

Description

Use this Instruction to change the position and size of a Checkbox.

Arguments:

Argument	Description
Checkbox	Editable selection field to determine the Checkbox whose position and size you want to edit. Here you can: • enter the name of a Checkbox. • select one of the Checkboxes that are available.
Links Top Width Height	Editable selection field to determine the left-hand and upper (top) edge, the width and the height in pixels. Here you can: • enter a numeric value. • assign a Constant, Parameter or Variable of the data type int. • assign a reference to a Control that has the data type int.

Table 5-126 Arguments of SetCheckBoxRect

5.12.59 SetCheckBoxState

Description

Use this Instruction to edit the state (marked/not marked) of a Checkbox.

Arguments:

Argument	Description
Checkbox	Editable selection field to determine the Checkbox whose marking you want to edit. Here you can: • enter the name of a Checkbox. • select one of the Checkboxes that are available.
State	Selection field to determine the state (marked/not marked) of the Checkbox. Here you can: • 0, choose this value to remove a marking from a Checkbox. • 1, choose this value to mark a Checkbox. • assign a Constant, Parameter or Variable of the data type bool. • assign the reference to a Control that has the data type bool.

Table 5-127 Arguments of SetCheckBoxState

5.12.60 SetCheckBoxStatus

Description

Use this Instruction to edit the way in which a Checkbox is output and its operability.

Arguments:

Argument	Description
Checkbox	Editable selection field to determine the Checkbox you want to edit with regard to the way in which it is output and its operability. Here you can: • enter the name of the Checkbox. • select one of the Checkboxes that are available.
Status	Selection field to determine the way in which the Checkbox is shown and its operability. Here you can: • 0, choose this value to hide the Checkbox. • 1, choose this value to show the Checkbox and enable entries. • 2, choose this value to show the Checkbox but disable any entries. • assign a Constant, Parameter or Variable of the data type uint. • assign the reference to a Control that has the data type uint.

Table 5-128 Arguments of SetCheckBoxStatus

5.12.61 SetCheckBoxTextColor

Description

Use this Instruction to edit a Checkbox' caption color (text color).

Arguments:

Argument	Description
Checkbox	Editable selection field to determine the Checkbox whose caption color you want to edit. Here you can: • enter the name of a Checkbox. • select one of the Checkboxes that are available.
Color	Editable selection field to determine the caption color for the selected Checkbox. Here you can: • enter a color value. see Section 5.2, "The DCO data types and their value ranges", • click "Select color..." and use the next user window to choose a color. see Section 4.6.5, "Edit colors" • assign a Constant, Parameter or Variable of the data type color. • assign a reference to a Control that has the data type color.

Table 5-129 Arguments of SetCheckBoxTextColor

5.12.62 SetCheckBoxToVariable

Description

Use this Instruction to save a Checkbox's current state (marked/not marked) in a Variable of the data type bool.

In this process, the Variable assumes one of the below integers:

- UNTRUE (=0) if the Checkbox is NOT marked.
- True (= 1) if the Checkbox is marked.

Arguments:

Argument	Description
Checkbox	Editable selection field to determine the Checkbox whose state (marked/not marked) you want to save in a Variable. Here you can: • enter the name of a Checkbox. • select one of the Checkboxes that are available.
Variable	Editable selection field to determine the Variable in which the Checkbox' state (marked/not marked) shall be saved. Here you can: • enter the name of a Variable. • select a Variable from the Variables of the data type bool that are available.

Table 5-130 Arguments of SetCheckBoxToVariable

5.12.63 SetComboBoxBackColor

Description

Use this Instruction to change the background color of a Combobox.

Arguments:

Argument	Description
Combobox	Editable selection field to determine the Combobox whose background color you want to edit. Here you can: • enter the name of a Combobox. • select one of the Comboboxes that are available.
Color	Editable selection field to determine the background color for the selected Combobox. Here you can: • enter a color value. see Section 5.2, "The DCO data types and their value ranges" • click "Select color..." and use the next user window to choose a color. see Section 4.6.5, "Edit colors" • assign a Constant, Parameter or Variable of the data type color. • assign a reference to a Control that has the data type color.

Table 5-131 Arguments of SetComboBoxBackColor

5.12.64 SetComboBoxSelect

Description

Use this instruction to select an entry from a Combobox.

Arguments:

Argument	Description
Combobox	Editable selection field to determine the Combobox whose entry shall be selected in advance. Here you can: • enter the name of a Combobox. • select one of the Comboboxes that are available.
Value type	Selection field to determine the field that the system shall browse for the value that was preselected in the Combobox. Here, you can choose a value type: • id this value type utilizes the field "Value" in the Data list. • index this value type utilizes the Data list's index (starting with 0). • name this value type utilizes the field "Displayed text" from the Data list.
Value	Editable selection field to determine, depending on the value type, the value that shall be selected in advance in the Combobox. Here you can: • enter a value. • assign a Constant, Parameter or Variable whose data type matches the selected value type. • assign the reference to a Control whose data type matches the selected value type.

Table 5-132 Arguments of SetComboBoxSelect

5.12.65 SetComboBoxList

Description

Use this Instruction to fill a Combobox with the elements of a Data list.

Note:
To do so, the Data list and the Combobox must be of the same type!

see Section 5.2, "The DCO data types and their value ranges"

Arguments:

Argument	Description
Combobox	Editable selection field to determine the Combobox that you want to fill with the Data elements of a Data list. Here you can: • enter the name of a Combobox. • select one of the Comboboxes that are available.
Data list	Editable selection field to determine the Data list that shall be used to fill the Combobox. Here you can: • enter the name of a Data list. • select one of the Data lists that are available.

Table 5-133 Arguments of SetComboBoxList

5.12.66 SetComboBoxRect

Description

Use this Instruction to change the position and size of a Combobox.

Arguments:

Argument	Description
Combobox	Editable selection field to determine the Combobox whose position and size you want to edit. Here you can: • enter the name of a Combobox. • select one of the Comboboxes that are available.
Links Top Width Height	Editable selection field to determine the left-hand and upper (top) edge, the width and the height in pixels. Here you can: • enter a numeric value. • assign a Constant, Parameter or Variable of the data type int. • assign a reference to a Control that has the data type int.

Table 5-134 Arguments of SetComboBoxRect

5.12.67 SetComboBoxStatus

Description

Use this Instruction to edit the way in which a Combobox is output and its operability.

Arguments:

Argument	Description
Combobox	Editable selection field to determine the Combobox you want to edit with regard to the way in which it is output and its operability. Here you can: • enter the name of the Combobox. • select one of the Comboboxes that are available.
Status	Selection field to determine the way in which the Combobox is shown and its operability. Here you can: • 0, choose this value to hide the Combobox. • 1, choose this value to show the Combobox and enable entries. • 2, choose this value to show the Combobox but disable any entries. • assign a Constant, Parameter or Variable of the data type uint. • assign the reference to a Control that has the data type uint.

Table 5-135 Arguments of SetComboBoxStatus

5.12.68 SetComboBoxTextColor

Description

Use this Instruction to change the color of the text of a Combobox.

Arguments:

Argument	Description
Combobox	Editable selection field to determine the Combobox whose text color you want to edit. Here you can: • enter the name of a Combobox. • select one of the Comboboxes that are available.
Color	Editable selection field to determine the text color for the selected Combobox. Here you can: • enter a color value. see Section 5.2, "The DCO data types and their value ranges" • click "Select color..." and use the next user window to choose a color. see Section 4.6.5, "Edit colors" • assign a Constant, Parameter or Variable of the data type color. • assign a reference to a Control that has the data type color.

Table 5-136 Arguments of SetComboBoxTextColor

5.12.69 SetComboToVariable

Description

Use this Instruction to save the element that is presently selected in a Combobox, in a Variable.

Note:
To do so, the Variable and the Combobox must be of the same data type.

see Section 5.2, "The DCO data types and their value ranges"

Arguments:

Argument	Description
Combobox	Editable selection field to determine the Combobox whose presently selected element you want to save in a Variable. Here you can: • enter the name of a Combobox. • select one of the Comboboxes that are available.
Variable	Editable selection field to determine the Variable in which the selected Combobox element shall be saved. Here you can: • enter the name of a Variable. • select one of the Combobox' Variables that are available (with the matching Variable type).

Table 5-137 Arguments of SetComboToVariable

5.12.70 SetEditBackColor

Description

Use this Instruction to edit the background color of an Edit field.

Arguments:

Argument	Description
Edit field	Editable selection field to determine the Edit field whose background color you want to edit. Here you can: • enter the name of an Edit field. • select one of the Edit fields that are available.
Color	Editable selection field to determine the background color for the selected Edit field. Here you can: • enter a color value. see Section 5.2, "The DCO data types and their value ranges" • click "Select color..." and use the next user window to choose a color. see Section 4.6.5, "Edit colors" • assign a Constant, Parameter or Variable of the data type color. • assign a reference to a Control that has the data type color.

Table 5-138 Arguments of SetEditBackColor

5.12.71 SetEditBackColorBlink

Description

Use this Instruction to turn on the blinking of the background of an Edit field.

Arguments:

Argument	Description
Edit field	Editable selection field to determine the Edit field whose background blinking you want to switch on. Here you can: • enter the name of an Edit field. • select one of the Edit fields that are available.
1. Blink color	Editable selection field to determine the primary blink color. Here you can: • enter a color value. see Section 5.2, "The DCO data types and their value ranges" • click "Select color..." and use the next user window to choose a color. see Section 4.6.5, "Edit colors" • assign a Constant, Parameter or Variable of the data type color. • assign a reference to a Control that has the data type color.
2. Blink color	Editable selection field to determine the secondary blink color. Here you can: • enter a color value. see Section 5.2, "The DCO data types and their value ranges" • click "Select color..." and use the next user window to choose a color. see Section 4.6.5, "Edit colors" • assign a Constant, Parameter or Variable of the data type color. • assign a reference to a Control that has the data type color.
Blink interval	Editable selection field to determine the interval in which the system shall alternate between the two colors, calculated in milliseconds (1000 milliseconds = 1 second). Here you can: • -1, enter this value to apply the interval of the parent Frame. • enter a numeric value. • assign a Constant, Parameter or Variable of the data type int.

Table 5-139 Arguments of SetEditBackColorBlink

5.12.72 SetEditRect

Description

Use this Instruction to change the position and size of an Edit field.

Arguments:

Argument	Description
Edit field	Editable selection field to determine the Edit field whose position and size you want to edit. Here you can: • enter the name of an Edit field. • select one of the Edit fields that are available.
Links Top Width Height	Editable selection field to determine the left-hand and upper (top) edge, the width and the height in pixels. Here you can: • enter a numeric value. • assign a Constant, Parameter or Variable of the data type int. • assign a reference to a Control that has the data type int.

Table 5-140 Arguments of SetEditRect

5.12.73 SetEditStatus

Description

Use this Instruction to edit the way in which an Edit field is output and its operability.

Arguments:

Argument	Description
Edit field	Editable selection field to determine the Edit field you want to edit with regard to the way in which it is output and its operability. Here you can: • enter the name of the Edit field. • select one of the Edit fields that are available.
Status	Selection field to determine the way in which the Edit field is shown and its operability. Here you can: • 0, choose this value to hide the Edit field. • 1, choose this value to show the Edit field and enable entries. • 2, choose this value to show the Edit field but disable any entries. • assign a Constant, Parameter or Variable of the data type uint. • assign the reference to a Control that has the data type uint.

Table 5-141 Arguments of SetEditStatus

5.12.74 SetEditText

Description

Use this Instruction to change the content (text) of the Edit field.

Arguments:

Argument	Description
Edit field	Editable selection field to determine the Edit field whose content you want to edit. Here you can: • enter the name of an Edit field. • select one of the Edit fields that are available.
Text	Selection field to determine the content of the Edit field. Here you can: • enter a string. • assign a Constant, Parameter or Variable of the data type string. • assign the reference to a Control that has the data type string.

Table 5-142 Arguments of SetEditText

5.12.75 SetEditTextColor

Description

Use this Instruction to change the color of the text of an Edit field.

Arguments:

Argument	Description
Edit field	Editable selection field to determines the Edit field whose content color you want to edit. Here you can: • enter the name of an Edit field. • select one of the Edit fields that are available.
Color	Editable selection field to determine the content color for the selected Edit field. Here you can: • enter a color value. see Section 5.2, "The DCO data types and their value ranges" • click "Select color..." and use the next user window to choose a color. see Section 4.6.5, "Edit colors" • assign a Constant, Parameter or Variable of the data type color. • assign a reference to a Control that has the data type color.

Table 5-143 Arguments of SetEditTextColor

5.12.76 SetEditTextColorBlink

Description

Use this Instruction to turn on the blinking of the content (text) of an Edit field.

Arguments:

Argument	Description
Edit field	Editable selection field to determine the Edit field whose text shall be blinking. Here you can: • enter the name of an Edit field. • select one of the Edit fields that are available.
1. Blink color	Editable selection field to determine the primary blink color. Here you can: • enter a color value. see Section 5.2, "The DCO data types and their value ranges" • click "Select color..." and use the next user window to choose a color. see Section 4.6.5, "Edit colors" • assign a Constant, Parameter or Variable of the data type color. • assign a reference to a Control that has the data type color.
2. Blink color	Editable selection field to determine the secondary blink color. Here you can: • enter a color value. see Section 5.2, "The DCO data types and their value ranges" • click "Select color..." and use the next user window to choose a color. see Section 4.6.5, "Edit colors" • assign a Constant, Parameter or Variable of the data type color. • assign a reference to a Control that has the data type color.
Blink interval	Editable selection field to determine the interval in which the system shall alternate between the two colors, calculated in milliseconds (1000 milliseconds = 1 second). Here you can: • -1, enter this value to apply the interval of the parent Frame. • enter a numeric value. • assign a Constant, Parameter or Variable of the data type int.

Table 5-144 Arguments of SetEditTextColorBlink

5.12.77 SetEditToVariable

Description

Use this Instruction to save the content of an Edit field in a Variable.

Note:
To do so, the Variable and the Edit field must be of the same data type.

see Section 5.2, "The DCO data types and their value ranges"

Arguments:

Argument	Description
Edit field	Editable selection field to determine the Edit field whose content shall be saved in a Variable. Here you can: • enter the name of an Edit field. • select one of the Edit fields that are available.
Variable	Editable selection field to determine the Variable in which the content of the selected Edit field shall be saved. Here you can: • enter the name of a Variable. • select one of the Variables with the same data type.

Table 5-145 Arguments of SetEditToVariable

5.12.78 SetFrameColor

Description

Use this Instruction to change the background color of a Frame. As a rule, this Instruction always applies to the parent Frame of the invoked Function, and therefore also to the Instruction that is carried out.

Arguments:

Argument	Description
Color	Editable selection field to determine the background color for the selected Frame. Here you can: • enter a color value. see Section 5.2, "The DCO data types and their value ranges" • click "Select color..." and use the next user window to choose a color. see Section 4.6.5, "Edit colors" • assign a Constant, Parameter or Variable of the data type color. • assign a reference to a Control that has the data type color.

Table 5-146 Arguments of SetFrameColor

5.12.79 SetListBoxBackColor

Description

Use this Instruction to change the background color of a Listbox.

Arguments:

Argument	Description
Listbox	Editable selection field to determine the Listbox field whose background color you want to edit. Here you can: • enter the name of a Listbox. • select one of the Listboxes that are available.
Color	Editable selection field to determine the background color for the selected Listbox. Here you can: • enter a color value. see Section 5.2, "The DCO data types and their value ranges" • click "Select color..." and use the next user window to choose a color. see Section 4.6.5, "Edit colors" • assign a Constant, Parameter or Variable of the data type color. • assign a reference to a Control that has the data type color.

Table 5-147 Arguments of SetListBoxBackColor

5.12.80 SetListBoxBlinkTime

Description

Use this Instruction to edit the interval in which you want the blinking Listbox items to change in terms of their color.

Arguments:

Argument	Description
Listbox	Editable selection field to determine the Listbox whose blink interval you want to edit. Here you can: • enter the name of a Listbox. • select one of the Listboxes that are available.
Blink interval	Editable selection field to determine the interval in which the system shall alternate between the two colors, calculated in milliseconds (1000 milliseconds = 1 second). Here you can: • -1, enter this value to apply the interval of the parent Frame. • enter a numeric value. • assign a Constant, Parameter or Variable of the data type int.

Table 5-148 Arguments of SetListBoxBlinkTime

5.12.81 SetListBoxItemBlink

Description

Use this Instruction to switch on the blinking of a List element of a Listbox.

Arguments:

Argument	Description
Listbox	Editable selection field to determine the Listbox field, an element of which shall be blinking. Here you can: • enter the name of a Listbox. • select one of the Listboxes that are available.
List element	Editable selection field to determine the index of the List element of a Listbox, the blinking of which you want to switch on. Here you can: • enter a numeric value. • assign a Constant, Parameter or Variable of the data type int. • assign a reference to a Control that has the data type int.
1. Blink color	Editable selection field to determine the primary blink color. Here you can: • enter a color value. see Section 5.2, "The DCO data types and their value ranges" • click "Select color..." and use the next user window to choose a color. see Section 4.6.5, "Edit colors" • assign a Constant, Parameter or Variable of the data type color. • assign a reference to a Control that has the data type color.
2. Blink color	Editable selection field to determine the secondary blink color. Here you can: • enter a color value. see Section 5.2, "The DCO data types and their value ranges" • click "Select color..." and use the next user window to choose a color. see Section 4.6.5, "Edit colors" • assign a Constant, Parameter or Variable of the data type color. • assign a reference to a Control that has the data type color.

Table 5-149 Arguments of SetListBoxItemBlink

5.12.82 SetListBoxItemColor

Description

Use this Instruction to change the text color of a List element of a Listbox.

Arguments:

Argument	Description
Listbox	Editable selection field to determine the Listbox, for which you want to change an element's text color. Here you can: • enter the name of a Listbox. • select one of the Listboxes that are available.
List element	Editable selection field to determine the index of the List element of a Listbox, the text color of which you want to edit. Here you can: • enter a numeric value. • assign a Constant, Parameter or Variable of the data type int. • assign a reference to a Control that has the data type int.
Color	Editable selection field to determine the color of the text for the selected Listbox element. Here you can: • enter a color value. see Section 5.2, "The DCO data types and their value ranges" • click "Select color..." and use the next user window to choose a color. see Section 4.6.5, "Edit colors" • assign a Constant, Parameter or Variable of the data type color. • assign a reference to a Control that has the data type color.

Table 5-150 Arguments of SetListBoxItemColor

5.12.83 SetListBoxList

Description

Use this Instruction to fill a Listbox with the elements of a Data list.

Note:
To do so, the Data list and the Listbox must be of the same type!
see Section 5.2, "The DCO data types and their value ranges"

Arguments:

Argument	Description
Listbox	Editable selection field to determine the Listbox that shall be filled from a Data list. Here you can: • enter the name of a Listbox. • select one of the Listboxes that are available.
Data list	Editable selection field to determine the Data list that shall be used to fill from the Listbox. Here you can: • enter the name of a Data list. • select one of the Data lists that are available.

Table 5-151 Arguments of SetListBoxList

5.12.84 SetListBoxRect

Description

Use this Instruction to change the position and size of a Listbox.

Arguments:

Argument	Description
Listbox	Editable selection field to determine the Listbox whose position and size you want to edit. Here you can: • enter the name of a Listbox. • select one of the Listboxes that are available.
Links	Editable selection field to determine the left-hand and upper (top) edge, the width and the height in pixels. Here you can: • enter a numeric value. • assign a Constant, Parameter or Variable of the data type int. • assign a reference to a Control that has the data type int.
Top	
Width	
Height	

Table 5-152 Arguments of SetListBoxRect

5.12.85 SetListBoxSelectionToVariable

Description

Use this Instruction to save the element presently selected in a Listbox, in a Variable.

Note:
To do so, the Variable and the Listbox must be of the same data type.

see Section 5.2, "The DCO data types and their value ranges"

Arguments:

Argument	Description
Listbox	Editable selection field to determine the Listbox whose presently selected element you want to save in a Variable. Here you can: • enter the name of a Listbox. • select one of the Listboxes that are available.
Variable	Editable selection field to determine the Variable in which the selected element shall be saved. Here you can: • enter the name of a Variable. • select one of Variables that are available.

Table 5-153 Arguments of SetListBoxSelectionToVariable

5.12.86 SetListBoxStatus

Description

Use this Instruction to edit the way in which a Listbox is output and its operability.

Arguments:

Argument	Description
Listbox	Editable selection field to determine the Listbox you want to edit with regard to the way in which it is output and its operability. Here you can: • enter the name of a Listbox. • select one of the Listboxes that are available.
Status	Selection field to determine the way in which the Listbox is shown and its operability. Here you can: • 0, choose this value to hide the Listbox. • 1, choose this value to show the Listbox and enable entries. • 2, choose this value to show the Listbox but disable any entries. • assign a Constant, Parameter or Variable of the data type uint. • assign the reference to a Control that has the data type uint.

Table 5-154 Arguments of SetListBoxStatus

5.12.87 SetListBoxMultiSelect

Description

Use this Instruction to select several Listbox entries.

Arguments:

Argument	Description
Listbox	Editable selection field to determine the Listbox whose entries shall be selected in advance. Here you can: • enter the name of a Listbox. • select one of the Listboxes that are available.
Value type	Editable selection field to determine the field that the system shall browse for the Data list values preselected in the Listbox. Here, you can choose a value type: • id this value type utilizes the field "Value" in the Data list. • index this value type utilizes the Data list's index (starting with 0). • name this value type utilizes the field "Displayed text" from the Data list.
Data list	Editable selection field to determine the Data list from which the values shall be taken that will be collated against the preselected Listbox entries. Here you can: • select a preselected Listbox from a list that is suggested to you. Note: Only lists whose data match the value type are suggested. • enter the name of a Data list, e.g. to create it later.

Table 5-155 Arguments of SetListBoxMultiSelect

5.12.88 SetListBoxTextColor

Description

Use this Instruction to set the text color of the elements of a Listbox to the color values of a correlating Data list.

Arguments:

Argument	Description
Listbox	Editable selection field to determine the Listbox whose elements you want to give a customized text color. Here you can: • enter the name of a Listbox. • select one of the Listboxes that are available.
Data list	Editable selection field to determine the Data list that shall be used to determine the text colors of the elements. Here you can: • enter the name of a Data list. • select one of the Data lists that are available.

Table 5-156 Arguments of SetListBoxTextColor

5.12.89 SetListBoxToVariable

Description

Use this Instruction to save all selected List elements of a Listbox in a Data list

Note:
To do so, the Data list and the Listbox must be of the same type!

see Section 5.2, "The DCO data types and their value ranges"

Arguments:

Argument	Description
Listbox	Editable selection field to determine the Listbox whose selected elements you want to save in a Data list. Here you can: • enter the name of a Listbox. • select one of the Listboxes that are available.
Data list	Editable selection field to determine the Data list in which you want to save the selected Listbox elements. Here you can: • enter the name of a Data list. • select one of the Data lists that are available.

Table 5-157 Arguments of SetListBoxToVariable

5.12.90 SetStaticBackColor

Description

Use this Instruction to change the background color of a Static control.

Arguments:

Argument	Description
Static control	Editable selection field to determine the Static control whose background color you want to edit. Here you can: • enter the name of a Static control. • select a Static control from the list of all Static controls that are available.
Color	Editable selection field to determine the background color you want to assign to the Static control. Here you can: • enter a color value. see Section 5.2, "The DCO data types and their value ranges" • click "Select color..." and use the next user window to choose a color. see Section 4.6.5, "Edit colors" • assign a Constant, Parameter or Variable of the data type color. • assign a reference to a Control that has the data type color.

Table 5-158 Arguments of SetStaticBackColor

5.12.91 SetStaticBorderColor

Description

Use this Instruction to edit the color of the border surrounding a Static control.

Arguments:

Argument	Description
Static control	Editable selection field to determine the Static control whose border color you want to edit. Here you can: • enter the name of a Static control. • select a Static control from the list of all Static controls that are available.
Color	Editable selection field to determine the color of the border surrounding the Static control. Here you can: • enter a color value. see Section 5.2, "The DCO data types and their value ranges" • click "Select color..." and use the next user window to choose a color. see Section 4.6.5, "Edit colors" • assign a Constant, Parameter or Variable of the data type color. • assign a reference to a Control that has the data type color.

Table 5-159 Arguments of SetStaticBorderColor

5.12.92 SetStaticPictureName

Description

Use this Instruction to change the image of a Static control.

Arguments:

Argument	Description
Static control	Editable selection field to determine the Static control whose image you want to edit. Here you can: • enter the name of a Static control. • select a Static control from the list of all Static controls that are available.
Image	Editable selection field to determine if the image on the Static control will be shown. Here you can: • enter a file name from the list of known images. • select an image in the user window that opens as you click the entry "Select image...". see Section 4.6.2, "Administration of the Project images list" • assign a Constant, Parameter or Variable of the data type string. • assign the reference to a Control that has the data type string.

Table 5-160 Arguments of SetStaticPictureName

5.12.93 SetStaticPicturePos

Description

Use this Instruction to change the positioning of the image of a Static control.

Arguments:

Argument	Description
Static control	Editable selection field to determine the Static control whose image you want to reposition. Here you can: • enter the name of a Static control. • select a Static control from the list of all Static controls that are available.
Position	Selection field to determine the position of the image within the Static control. Here you can: • left, top, h-center, top, right, top, left, v-center, h-center, v-center, right, v-center, left, bottom, center, bottom, or right, bottom choose this value to position the image of the Static control accordingly. • assign a Constant, Parameter or Variable of the data type string. • assign the reference to a Control that has the data type string.

Table 5-161 Arguments of SetStaticPicturePos

5.12.94 SetStaticPictureScale

Description

Use this Instruction to edit the scaling of the image of a Static control.

Arguments:

Argument	Description
Static control	Editable selection field to determine the Static control whose image you want to scale. Here you can: • enter the name of a Static control. • select a Static control from the list of all Static controls that are available.
Scaling in %	Editable selection field to determine the scaling for the image of a Static control. Here you can: • enter a scaling factor in %. • proportional, use this scaling to align the image with the size of the Static control in keeping with the Static control's height/width proportion. • unproportional, use this scaling to adjust the image to the full scale of the Static control's surface, irrespective of the height/width proportion. • assign a reference to a Control that has the data type int.

Table 5-162 Arguments of SetStaticPictureScale

5.12.95 SetStaticRect

Description

Use this Instruction to edit the position and size of a Static control.

Arguments:

Argument	Description
Static control	Editable selection field to determine the Static control whose position and size you want to edit. Here you can: • enter the name of a Static control. • select a Static control from the list of all Static controls that are available.
Links	Editable selection field to determine the left-hand and upper (top) edge, the width and the height in pixels. Here you can: • enter a numeric value. • assign a Constant, Parameter or Variable of the data type int. • assign a reference to a Control that has the data type int.
Top	
Width	
Height	

Table 5-163 Arguments of SetStaticRect

5.12.96 SetStaticStatus

Description

Use this Instruction to edit the way in which a Static control is output and its operability.

Arguments:

Argument	Description
Static control	Editable selection field to determine the Static control whose output and operability you want to edit. Here you can: • enter the name of a Static control. • select a Static control from the list of all Static controls that are available.
Status	Selection field to determine the way in which the Static control is shown and its operability. Here you can: • 0, choose this value to hide the Static control. • 1, choose this value to show the Static control and enable entries. • 2, choose this value to show the Static control but disable any entries. • assign a Constant, Parameter or Variable of the data type uint. • assign the reference to a Control that has the data type uint.

Table 5-164 Arguments of SetStaticStatus

5.12.97 SetStaticText

Description

Use this Instruction to edit the text of a Static control.

Arguments:

Argument	Description
Static control	Editable selection field to determine the Static control, the text of which you want to edit. Here you can: • enter the name of a Static control. • select a Static control from the list of all Static controls that are available.
Text	Editable selection field to determine the text that shall be assigned to the selected Static control. Here you can: • enter a string. • assign a Constant, Parameter or Variable of the data type string. • assign the reference to a Control that has the data type string.

Table 5-165 Arguments of SetStaticText

5.12.98 SetStaticTextColor

Description

Use this Instruction to change the color of the text of a Static control.

Arguments:

Argument	Description
Static control	Editable selection field to determine the Static control, the text color of which you want to edit. Here you can: • enter the name of a Static control. • select a Static control from the list of all Static controls that are available.
Color	Editable selection field to determine the text color you want to assign to the selected Static control. Here you can: • enter a color value. see Section 5.2, "The DCO data types and their value ranges" • click "Select color..." and use the next user window to choose a color. see Section 4.6.5, "Edit colors" • assign a Constant, Parameter or Variable of the data type color. • assign a reference to a Control that has the data type color.

Table 5-166 Arguments of SetStaticTextColor

5.12.99 SetStaticTextPosition

Description

Use this Instruction to change the positioning of the text of a Static control.

Arguments:

Argument	Description
Static control	Editable selection field to determine the Static control whose text you want to reposition. Here you can: • enter the name of a Static control. • select a Static control from the list of all Static controls that are available.
Position	Selection field to determine the position of the text in the Static control. Here you can: • left, top, h-center, top, right, top, left, v-center, h-center, v-center, right, v-center, left, bottom, center, bottom, or right, bottom, choose this value to position the text of the Static control accordingly. • assign a Constant, Parameter or Variable of the data type string. • assign the reference to a Control that has the data type string.

Table 5-167 Arguments of SetStaticTextPosition

5.12.100 SetToolbar

Description

Use this Instruction to assign a toolbar to the Frame that is the parent of this Instruction.

Arguments:

Argument	Description
Toolbar	Editable selection field to determine toolbar Frame that shall be assigned to the currently selected Frame. Here you can: • enter the name of a Frame. • select one of the toolbar Frames that are available.

Table 5-168 Arguments of SetToolbar

5.12.101 SetVariable

Description

Use this Instruction to save a value in a Variable.

Note:
Please bear in mind that the entry assigned in the argument "Value" must be of the same data type as the Variable itself.

see Section 5.2, "The DCO data types and their value ranges"

Arguments

Argument	Description
Variable	Editable selection field to determine the Variable to which you want to assign a new value. Here you can: • enter the name of a Variable. • select one of Variables that are available.
Value	Editable selection field to determine the value for the selected Variable. Here you can: • enter a numeric value or a string. • assign a Constant, Parameter or Variable. • assign a Control.

Table 5-169 Arguments of SetVariable

5.12.102 StartProgram

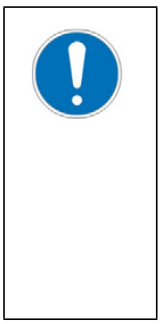
Description

Use this Instruction to trigger an external document or program and, if needed, wait for it to be closed again.

Provided you enter a document for the argument "Executable program", whose file extension is properly registered under Windows®, the system will start the corresponding program and open the document.

Argument	Description
Executable program	Editable selection field to determine the document or program that shall be carried out. Here you can: • enter a string. • assign a Constant, Parameter or Variable of the data type string.
Parameters	Editable selection field to determine the invoke parameters. Here you can: • enter a string. • assign a Constant, Parameter or Variable of the data type string.
Wait for completion	Selection field to determine if the you want the system to wait for the end of the selected program or not. Here you can: • 0, select this value if you do NOT want to wait for the program end. 1, • choose this value to wait for the program end. • assign a Constant, Parameter or Variable of the data type bool.

Table 5-170 Arguments of StartProgram



Note:
If you want to write e-mails from within the DCO script, add a new Button and assign to it a Function that has this Instruction. The argument "Executable program" then receives the entry mailto:<E-mail Address>, e.g.:

```
mailto:my.admin@my-company.de
```

In the same way, you can also open a PDF file by entering the full path of the file in the argument "Executable program", e.g:

```
\my-server\iso9001\instructions\alarms\alarmcalls.pdf.
```

6 Plan and Realize DCO Projects

Overview

This chapter gives you general instructions that show you how to plan and realize a DCO project. The chapter also includes an example project and walks you through the first steps to create a new DCO script.

Contents

The chapter covers the following sections:

6.1 Example Project

Using the example briefly presented in Section 2.2, "Example application", this part of the chapter shows you how to successfully plan, outline, create and bring together a DCO script, and how to incorporate it into the OScAR-Pro-TT Operator-Tool.

You can use the same objects and the same IDs, as well as your actual phone numbers to carry out this project yourself.

All files that are used in this case study are included ex-works on the Installation CD, and there in the directory:

```
<CD-ROM>:\OScAR-Pro-TT DCO-Designer\Example\English
```

6.1.1 Example requirements

The Example Project is designed to realize, for a fictitious chemical company styled 'EXP Chemical Industries Inc.' ('EXP' = short for: example), a DCO script that is both easy to operate and that can be used to invoke a number of different Broadcasts in order to respond to any kind of emergency in the best way possible, with various event-driven announcements.

This Project is designed for touch screens with a resolution of 1280 x 1024 pixels.

6.1.2 Example map of plant

The Project is based on the below plant map of the company premises:

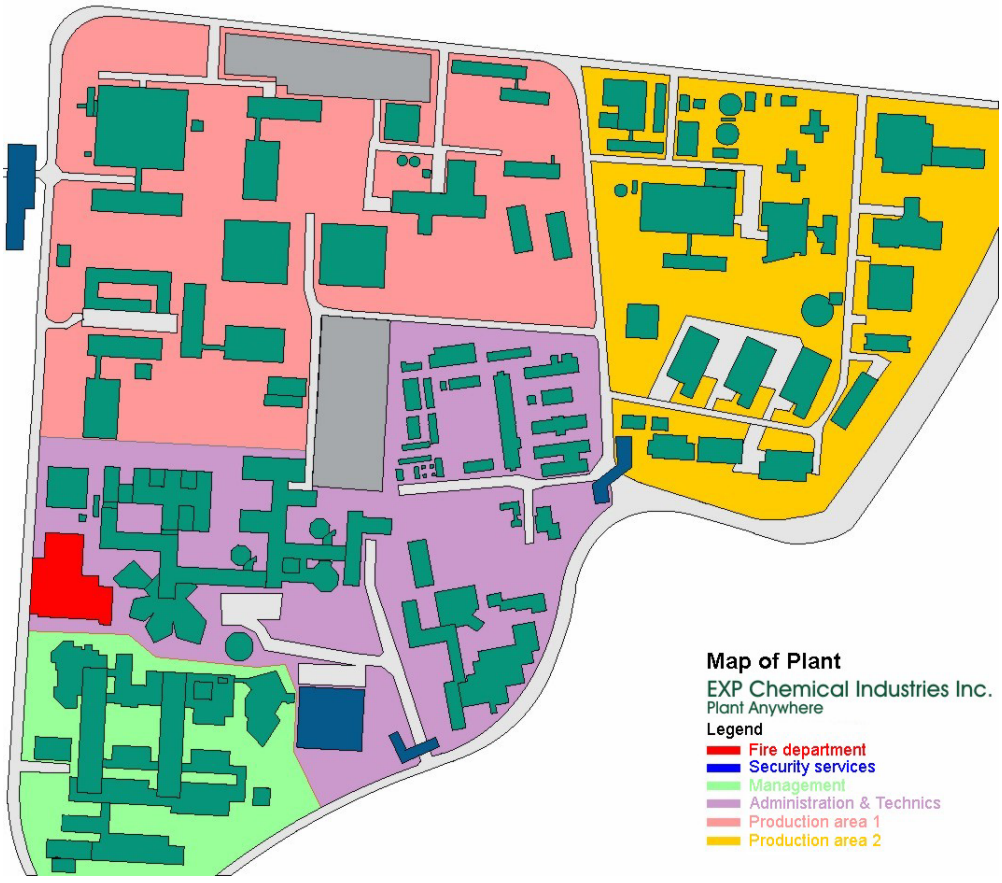


Image 6-1 Plant map of the premises and grounds of "Chemical Industries Inc".

The company is divided into 4 different areas:

- Management headquarter (set against a light green background)
- For the administrative and technical support area: Administration & Technics (set against a violet background)

- For the first production area: Production 1 (set against a light salmon background) and
- For the first production area: Production 2 (set against a light salmon background) and

6.1.3 Objects administrated in OScAR

To realize this Project the following objects were administrated through the OScAR-Pro-TT Administrator-Tool in addition to the default objects that are installed ex-works:

	ID	Name	Description
Subscribers			
		sysadm	System administrator with the PIN "9500" and full administrative and operative rights.
		Test Management	The test phone that represents the headquarter area "Management".
		Test A&P	The test phone that represents the area "Administration & Technics".
		Test P1	The test phone that represents the area "Production 1".
		Test P2	The test phone that represents the area "Production 2".
		Test Fire Alert	The test phone that represents the area of the fire brigade control center.
		Test Security	The test phone that represents the Security Services.
		Sabadillen	Operator with the PIN "9999" and full operative rights.
Announcements			
	1000	Fire alarm	Voice announcement with a text message to alert all called subscribers to a fire alarm.
	1001	Deflagration	Voice announcement with a text message to alert all called subscribers to a Deflagration in the production area.
	1002	Leakage	Voice announcement with a text message to alert all called subscribers to a leakage emergency or hazardous spill in the production area.
	1003	Short circuit	Voice announcement with a text message to alert all called subscribers to a short circuit.
	1004	Forceful entry	Voice announcement with a text message to alert all called subscribers of a break-in into the company premises.
	1999	Current announcement	Voice announcement with a text message to alert all called subscribers to other present emergencies. This announcement shall be recorded individually and ad-hoc before the Broadcasts are launched.
Broadcasts			
	1000	Management	Broadcast group to alert all called subscribers in the headquarter area "Management".
	1100	Administration & Technics	Broadcast group to alert all called subscribers in the area "Administration & Technics".
	1200	Production 1	Broadcast group to alert all called subscribers in the area "Production 1".
	1300	Production 2	Broadcast group to alert all called subscribers in the area "Production 2".

Table 6-1Administrated objects

6.1.4 Implementation of the Project

The implementation of the Example Project is divided into different, logically separated steps. In the first step, the user interface is created. In the next steps, the script is then filled with functional content.

see Section 6.3, "Create Frames and Controls"
see Section 6.4, "Create global objects"
see Section 6.6, "Create the functions of the Frame "Announcement selection""

6.1.5 The user interface structure

The user interface is divided into:

- The "Main Frame" that is used to create the various visual and information elements. These include:
  - several Event Buttons that enable the operator to select voice announcements for the most important emergencies.
  - an Event display to show the operator the voice announcement that is presently selected.
  - one Area Button for each area that enables the operator to select all areas that need to be alerted.
  - an Invoke Button that is blocked until a voice announcement and at least one area are selected, and that can be used by the operator to launch Broadcasts.
- The Frame "Announcement selection" that has the form of a user dialog. This Frame is opened through the Event Button "Other" and used to create:
  - a Listbox to select additional, event-driven announcements.
  - an "OK" button to confirm the selection.
  - a "Cancel" Button to close the Frame and discard all selections made.

6.1.6 Global Objects

The below-listed global objects are created for the internal storage of the data, and for the communication with OScAR:

- To render different possibilities of processing, the data of
  - the voice announcement "1000:Fire alert" is provided directly in form of values,
  - the voice announcement "1001:Deflagration" is created in form of a Constant, and
  - the voice announcements "1002:Leakage" and "1003:Short circuit" are created in form of Parameters.
- Here, the data of the Broadcast is created exclusively in form of Parameters.
- In order to be able to select the voice announcements administrated in OScAR through the Frame "Announcement selection", an index is created with a corresponding Data list and with a matching Filter.
- Variables are used to save the currently selected voice announcement and its name, as well as the Broadcast that is presently selected.
- Except for the Button to launch the Broadcast, a Variable is created for every single Button of the Main Frame and it is with the help of these Variables that the system saves the information whether the pertinent Buttons shall be blinking or not blinking.

6.1.7 Functions on the Main Frame

The following functions are implemented on the Main Frame:

- for each blinking Button, a function is created that switches the blinking to ON or OFF in keeping with the Button's matching Variable.
- a function to switch OFF the blinking of the Event Buttons.
- three functions to control the status (enabled/blocked) of the Invoke Button. the objective here is to ensure that the Invoke Button is not enabled unless at least one event and at least one area have been selected.
- one function that is invoked when the Main Frame is loaded, and that switches the blinking of the Buttons ON and OFF in keeping with the corresponding Variables. Please note that while the system supports the simultaneous blinking of several Area Buttons, it can only support the blinking of one Event Button at a time.
- the area and Event Buttons are supplied with the below functions that are automatically invoked when these Buttons are pressed.
- one function in case the Button is not yet blinking.
- one function in case the Button is already blinking.
- a function is assigned to the Event Button "Other" to jump to "Announcement selection".
- for each individual area, the Invoke Button is assigned a function that, depending on the blink state of the correlating Button, launches the matching Broadcast.

6.1.8 Functions of the Frame "Announcement selection"

The following is implemented for the Frame "Announcement selection":

- a function that is invoked you open this Frame and that automatically fills the Listbox with all administrated announcements within the ID range from 0000 to 1999.
- a function that is triggered when you click the "OK" Button without prior confirmation of the selected announcements, and also when the Button "Cancel" is clicked.
- a function is assigned to the "OK" Button to store the selected announcements, and to jump to the Main Frame.
- a function is assigned to the "Cancel" Button to jump directly to the Main Frame.

6.2 Project Management

6.2.1 Create your DCO project

Follow the below steps to create the DCO project:

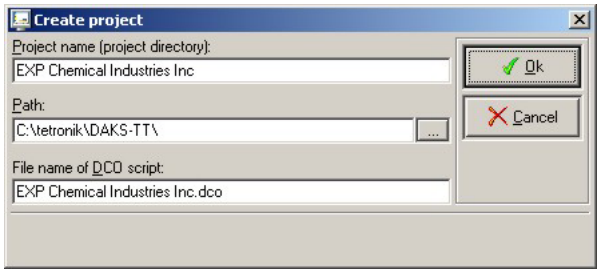
No.	Task	References
1.	Start OScAR-Pro-TT DCO-Designer.	see Section 4.1, "Start the DAKS-TT DCO-Designer"
2.	Go to the menu bar and select "Project" "New...". Next, confirm with the keyboard shortcut Ctrl+N or go to the toolbar and click:  . This will open the following window: 	
3.	Use the field "Project name (Project directory)" to give a unique and recognizable name to the project (max. 50 characters, DO NOT use: `\/:*?"<>`), e.g. "EXP Chemical Industries Inc.".	
4.	Use the field "Path" to enter the name of the directory (e.g. `c:\tetronik\OScAR-TT`), or select a path by clicking:  .  Note: The system will automatically create a directory with the above-mentioned Project name under the path you enter here.	
5.	Adjust, if necessary, the automatically generated name of the DCO script file.	
6.	Click Ok to have OScAR-Pro-TT DCO-Designer create the Project.	

Table 6-2 Create the Project

In the descriptions and explanations in this chapter, it is assumed that you have successfully started the OScAR-Pro-TT DCO-Designer and that you have created a new Project or opened an already existing one.

6.2.2 Open an already existing Project

Follow the below steps to open an already existing Project:

No.	Task	References
1.	Start OScAR-Pro-TT DCO-Designer.	see Section 4.1, "Start the DAKS-TT DCO-Designer"
2.	The menu item "Project" lists the 4 Projects that were edited last. From this list, select the project that you want to use, or open an already existing project through the menu with "Project" "Open". In the next user window, select the matching DCO script.	

Table 6-3 Open an already existing Project

Note:
If you decide to add changes to a project, we recommend you save it in regular intervals to ensure that none of these changes are lost.

6.3 Create Frames and Controls

To begin with, you need to first create the Frames and then add Controls to the Frames.

6.3.1 Create and customize Frames

Create the "Main Frame"

Follow the below steps to create the Main Frame:

No.	Task	References
1.	Create a new Frame with the following attributes: • Name: `Main Frame` • Interval: `500`	see Section 5.8.2, "Add a new Frame"
2.	Now specify if you want to start the OScAR-Pro-TT Operator-Tool with the Main Frame and set the refresh interval to `2000`.	see Section 4.6.1, "Edit project properties"
3.	Open the Layout window to edit the Main Frame in terms of its layout. To do so, select the child node "Main Frame" under the parent node "Frames" in the tree, and click:  .	see Section 4.4, "Setup and application of the Layout window"
4.	Next, go to the menu bar and select: "Layout" "Frame size" "1280x1024" so that the plant map will fit into the Frame.	see Section 4.4.4, "Change the size of frame areas and controls"
5.	Last, click  to save the Project.	

Table 6-4 Create and customize the Main Frame

6.3.2 Create the Frame "Announcement selection"

Follow the below steps to create the Frame "Announcement selection":

No.	Task	References
1.	Click  to switch to the Structure window.	
2.	Add a new Frame and give it the name `Announcement selection`. This Frame will later be opened with the click of a Button and has the form of a user dialog so that the user can easily select a voice announcement.	see Section 5.8.2, "Add a new Frame"
3.	In the tree, select the newly added Frame "Announcement selection", go to the toolbar and click:  .	
4.	Adjust the Frame through the menu: "Layout" "Frame size" "600x800", this time to a smaller Frame size.	see Section 4.4.4, "Change the size of frame areas and controls"
5.	Last, click  to save the Project.	

Table 6-5 Create and tweak the Frame "Announcement selection"

6.3.3 Add a background image to the "Main Frame"

Now you need to place the company map onto the "Main Frame" in form of a background image. This is achieved with the help of a "Static control" that is used to place images, captions or info texts anywhere onto a Frame.

Follow the below steps to create the company map through the Structure window:

No.	Task	References
1.	Go to the tree view of the Structure Window and open the node "Frames".	
2.	Go to the tree view of the Structure Window and open the node "Main Frame".	
3.	Go to the tree view of the Structure Window and open the child node "Controls".	
4.	Now add a new Static control with the following attribute values: • Name: `Map of plant` • Left: `0` • Top: `0` • Width: `1280` • Height: `1024`	see Section 5.8.4.1, "Add a new Control through the Structure window"
5.	Go to the tree view of the Structure Window and select the child node "Image".	
6.	In the list view of the Structure window, select the attribute "File name" and click the entry "Select image...".	
7.	In the window "Project image list", click the file `MAP.JPG` to add the image to your project's image list and close the dialog with Ok.	see Section 4.6.2, "Administration of the Project images list"
8.	In the list view of the Structure window, change the value of the attribute "Position" to: left, bottom.	
9.	Last, click  to save the Project.	
10.	Click  to switch to the Layout window and check the results.	

Table 6-6 Add background image to Main Frame

6.3.4 Add visual separator lines to the Main Frame

We recommend you use the areas above and on the right-hand side of the plant map for Buttons. For this reason, the areas are visually separated from the rest of the page with separator lines.

Follow the below steps to add a border line or separator through the Structure window:

No.	Task	References
1.	Go to the tree view of the Structure Window and open the node "Frames".	
2.	Go to the tree view of the Structure Window and open the node "Main Frame".	
3.	Now add a new Static control with the following attribute values: • Name: `Horizontal Line` • Left: `0` • Top: `80` • Width: `1080` • Height: `2` • Border style: simple • Border width: `1` • Border color: `#FF6800`	see Section 5.8.4.1, "Add a new Control through the Structure window"
4.	Now add a new Static control with the following attribute values: • Name: `Vertical line` • Left: `1080` • Top: `80` • Width: `2` • Height: `944` • Border style: simple • Border width: `1` • Border color: `#FF6800`	see Section 5.8.4.1, "Add a new Control through the Structure window"
5.	Last, click  to save the Project.	
6.	Click  to switch to the Layout window and check the results.	

Table 6-7 Add separator lines

6.3.5 Add descriptors to the Main Frame

This section shows you how to place Buttons on the map of the plant to select an event announcement for the pertinent incident. To make this especially user-friendly and easy to grasp for the operator, you can now add a corresponding caption.

Follow the below steps to create the caption "Events" through the Layout window:

No.	Task	References
1.	Go to the tree view of the Structure Window and open the node "Frames".	
2.	Go to the tree view of the Structure Window and open the node "Main Frame".	
3.	Now click  to switch to the Layout window.	
4.	Now add a new Static control with the following attribute values: • Name: `Event` • Left: `0` • Top: `10` • Width: `150` • Height: `60`	see Section 5.8.4.2, "Add a new Control through the Layout window" see Section 5.8.4.3, "Edit the attributes of a Control"
5.	Change the attribute values in the child node "Caption" to: • Text: `Events...` • Text color: `#FF6800` • Font: Microsoft Sans Serif • Font style: bold • Size: `14`	see Section 5.8.4.3, "Edit the attributes of a Control" see Section 4.6.4, "Edit fonts"
6.	Repeat steps 4 and 5 with the following attributes: • Name: `Event title` • Left: `1105` • Top: `10` • Width: `170` • Height: `15` • Text: `Hints...` • Text color: `#0000FF` • Position: Left, top • Font: Microsoft Sans Serif • Font style: bold • Font size: `10`	

Table 6-8 Add a caption

No.	Task	References
7.	Now repeat steps 4 and 5 with the following attributes: • Name: `Event name` • Left: `1105` • Top: `30` • Width: `170` • Height: `38` • Text: `Hints...` • Text color: `#FF6800` • Position: left, v-center • Font: Microsoft Sans Serif • Font style: Italics • Font size: `10`	
8.	Now repeat steps 4 and 5 with the following attributes: • Name: `Note title` • Left: `1105` • Top: `785` • Width: `150` • Height: `25` • Text: `Hints...` • Text color: `#0000FF` • Position: left, v-center • Font: Microsoft Sans Serif • Font style: bold • Size: `14`	

9.	Now repeat steps 4 and 5 with the following attributes:
	• Name: `Note text`
	• Left: `1105`
	• Top: `820`
	• Width: `150`
	• Height: `50`
	• Text: `1. Select event\n`
	`2. Select area\n`
	`3. Invoke`
	• Text color: `#0000FF`
	• Position: Left, top
	• Font: Microsoft Sans Serif
	• Font style: bold
	• Font size: `10`	

10.	Last, click  to save the Project.	
11.	Click  to switch to the Layout window and check the results.	

Table 6-8 Add a caption

6.3.6 Add Buttons to the Main Frame

This section shows you how to create:

- Event Buttons
- Area Buttons
- Invoke Buttons

All Buttons are filled with texts and images.

6.3.6.1 Create Event Buttons

Follow the below steps to insert Event Buttons through the Layout window:

No.	Task	References
1.	Go to the tree view of the Structure Window and open the node "Frames".	
2.	Go to the tree view of the Structure Window and open the node "Main Frame".	
3.	Add a Button with the following attribute values: • Name: `Fire alert` • Left: `150` • Text: `Fire alert` • Font: Microsoft Sans Serif • Font style: bold • Font size: `10` • Image scaling in %: `40` • Image: `FIRE.GIF`	see Section 5.8.4.2, "Add a new Control through the Layout window" see Section 5.8.4.3, "Edit the attributes of a Control" see Section 4.6.4, "Edit fonts" see Section 4.6.2, "Administration of the Project images list"
4.	Now click  to switch to the Layout window.	
5.	Select the tool  and click the Static control "Select event:". Now press the Ctrl key, keep it pressed and click the Button "Fire alert". Both Control elements are now marked, with the Static control "Select event:" receiving a two-line border.	see Section 4.4.2, "Mark a Frame area or a Control"
6.	Use the menu item "Layout" "Make same size" "Both" to bring both Controls to the same size.	see Section 4.4.4, "Change the size of frame areas and controls"
7.	Use the menu item "Layout" "Adjust" "Top" to align both Controls against the top border.	see Section 4.4.5, "Align and space elements automatically"
8.	Last, click  to save the Project.	
9.	Repeat steps 3 through 8 for the Button "Deflagration" and use the same attributes except for: • Name: `Deflagration` • Left: `310` • Text: `Deflagration` • Image file: `EXPLOSION.GIF`	

Table 6-9 Create Event Buttons

No.	Task	References
10.	Repeat steps 3 through 8 for the Button "Leakage" and use the same attributes except for: • Name: `Leakage` • Left: `490` • Text: `Leakage` • Image file: `ACID.GIF`	
11.	Repeat steps 3 through 8 for the Button "Short circuit" and use the same attributes except for: • Name: `Short circuit` • Left: `660` • Text: `Short circuit` • Image file: `ELECTRIC.GIF`	
12.	Repeat steps 3 through 8 for the Button "Other" and use the same attribute values except for: • Name: `Other` • Left: `920` • Text: `Other...` • Image file: `DANGER.GIF`	
13.	Now click  to switch to the Layout window.	
14.	Select the tool  , make a left mouse click into the area above the Static control "Select event:", keep the mouse key pressed, and draw a rubber-band around all Event Buttons. The Buttons are now marked.	see Section 4.4.2, "Mark a Frame area or a Control"
15.	Use the menu item "Layout" "Space evenly" "Across" to distribute all Controls evenly along the upper border.	see Section 4.4.5, "Align and space elements automatically"
16.	Click  to switch to the Layout window and check the results.	
17.	Last, click  to save the Project.	

Table 6-9 Create Event Buttons

6.3.6.2 Create Area Buttons

Follow the below steps to insert Area Buttons through the Layout window:

No.	Task	References
1.	Go to the tree view of the Structure Window and open the node "Frames".	
2.	Go to the tree view of the Structure Window and open the node "Main Frame".	
3.	Add a Button with the following attribute values: • Name: `Management` • Left: `80` • Top: `875` • Width: `200` • Height: `60` • Background color: `#008000` • Text: `Management` • Font: Microsoft Sans Serif • Font style: bold • Font size: `12` • Image file: `RING_FILES.GIF`	see Section 5.8.4.2, "Add a new Control through the Layout window" see Section 5.8.4.3, "Edit the attributes of a Control" see Section 4.6.4, "Edit fonts" see Section 4.6.2, "Administration of the Project images list"
4.	Add another Button with the following attributes: • Name: `AdminTechnics` • Left: `160` • Top: `630` • Width: `200` • Height: `60` • Background color: `#6300C6` • Text: `Administration & Technics` • Font: Microsoft Sans Serif • Font style: bold • Font size: `12` • Image file: `TECHNICS.GIF`	
5.	Add another Button with the following attributes: • Name: `Production 1` • Left: `160` • Top: `310` • Width: `200` • Height: `60` • Background color: `#804000` • Text: `Production 1` • Font: Microsoft Sans Serif • Font style: bold • Font size: `12` • Image file: `PRODUCTION_1.GIF`	

Table 6-10 Add Area Buttons

No.	Task	References
6.	Add another Button with the following attributes: • Name: `Production 2` • Left: `765` • Top: `310` • Width: `200` • Height: `60` • Background color: `#FF8040` • Text: `Production 2` • Font: Microsoft Sans Serif • Font style: bold • Font size: `12` • Image file: `PRODUCTION_2.GIF`	
7.	Click  to switch to the Layout window and check the results.	
8.	Last, click  to save the Project.	

Table 6-10 Add Area Buttons

6.3.6.3 Create Invoke Buttons

Follow the below steps to add an Invoke Button through the Layout window:

No.	Task	References
1.	Go to the tree view of the Structure Window and open the node "Frames".	
2.	Go to the tree view of the Structure Window and open the node "Main Frame".	
3.	Add another Button with the following attributes • Name: `Invoke` • Left: `1105` • Top: `932` • Width: `150` • Height: `60` • Status: 2 (disabled) • Text: `Invoke` • Font: Microsoft Sans Serif • Font style: bold • Size: `14` • Image file: `start.GIF`	see Section 5.8.4.2, "Add a new Control through the Layout window" see Section 5.8.4.3, "Edit the attributes of a Control" see Section 4.6.4, "Edit fonts" see Section 4.6.2, "Administration of the Project images list"
4.	Click  to switch to the Layout window and check the results.	
5.	Last, click  to save the Project.	

Table 6-11 Add Invoke Button

6.3.7 Add Controls to the Frame "Announcement selection"

This section shows you how to add the Controls to the dialog Frame "Announcement selection", and how to assign texts and images to these Controls.

Follow the below steps to add the Controls through the Layout window:

No.	Task	References
1.	Go to the tree view of the Structure Window and open the node "Frames".	
2.	Go to the tree view of the Structure Window and open the node "Announcement selection".	
3.	Now go to the tree and select the child node "Controls".	
4.	Now add a new Static control with the following attribute values: • Name: `Dialog title` • Left: `200` • Top: `70` • Width: `450` • Height: `25` • Text: `Please select announcement:` • Text color: `#0000FF` • Position: left, v-center • Font: Microsoft Sans Serif • Font style: bold • Size: `14`	see Section 5.8.4.2, "Add a new Control through the Layout window" see Section 5.8.4.3, "Edit the attributes of a Control" see Section 4.6.4, "Edit fonts"
5.	Next, create a Listbox with following attributes: • Name: `Announcement list` • Left: `200` • Top: `105` • Width: `450` • Height: `360` • Font: Microsoft Sans Serif • Font style: Standard • Font size: `10`	see Section 5.8.4.2, "Add a new Control through the Layout window" see Section 5.8.4.3, "Edit the attributes of a Control" see Section 4.6.4, "Edit fonts"
6.	Add a Button with the following attribute values: • Name: `Ok` • Left: `200` • Top: `470` • Width: `200` • Height: `60` • Font: Microsoft Sans Serif • Font style: bold • Size: `14` • Text: `Ok` • Image scaling in %: `70` • Image: `Ok.GIF`	see Section 5.8.4.2, "Add a new Control through the Layout window" see Section 5.8.4.3, "Edit the attributes of a Control" see Section 4.6.4, "Edit fonts"

Table 6-12 Add Controls to the Frame "Announcement selection"

No.	Task	References
7.	Add a Button with the following attribute values: • Name: `Cancel` • Left: `450` • Top: `470` • Width: `200` • Height: `60` • Font: Microsoft Sans Serif • Font style: bold • Size: `14` • Text: `Cancel` • Image scaling in %: `70` • Image: `CANCEL.GIF`	see Section 5.8.4.2, "Add a new Control through the Layout window" see Section 5.8.4.3, "Edit the attributes of a Control" see Section 4.6.4, "Edit fonts"
8.	Click  to switch to the Layout window and check the results.	
9.	Last, click  to save the Project.	

Table 6-12 Add Controls to the Frame "Announcement selection"

6.3.8 Screenshot of the completed interface

In the next step, compare the Project you have just created against the below screenshots.

Screenshot of the Structure window

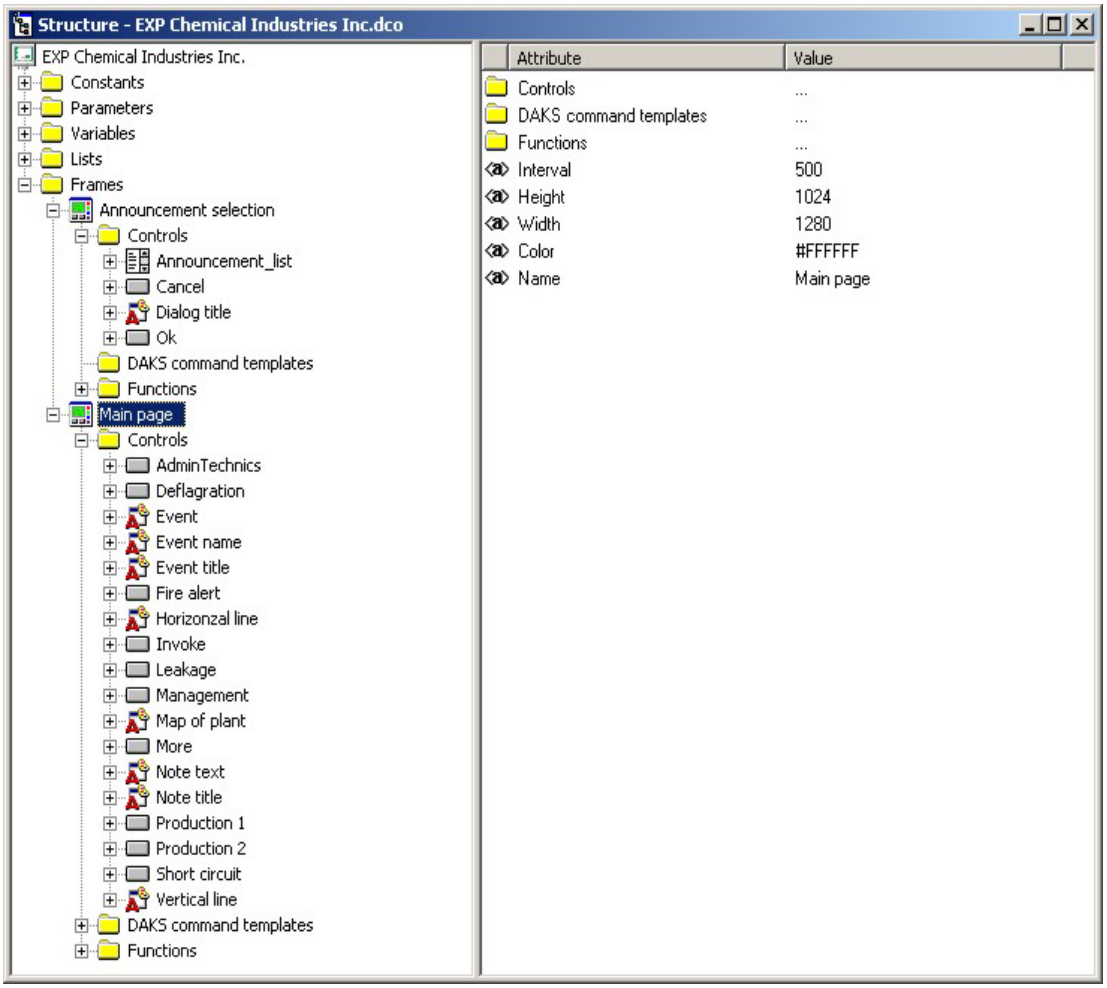


Image 6-2 Screenshot of the Structure window

Screenshot of the Main Frame

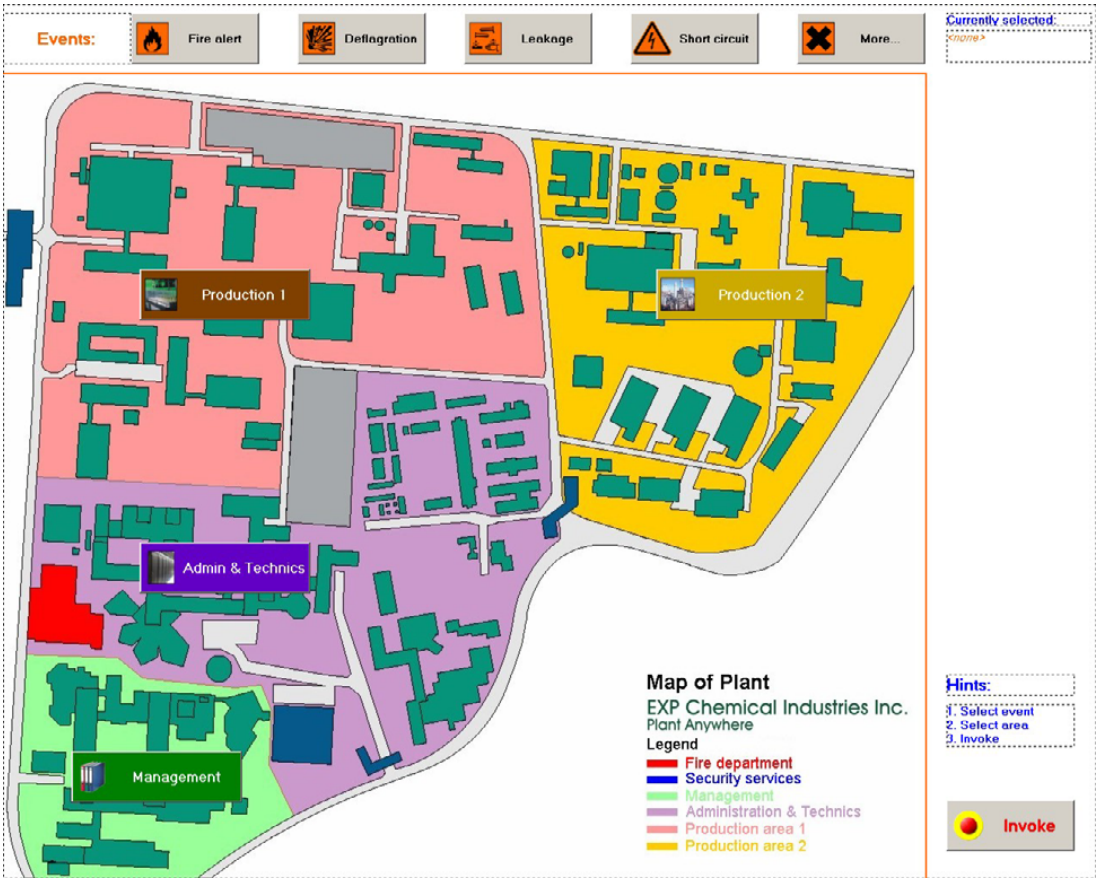


Image 6-3 Image of completed Main Frame

Screenshot of the Frame "Announcement selection"

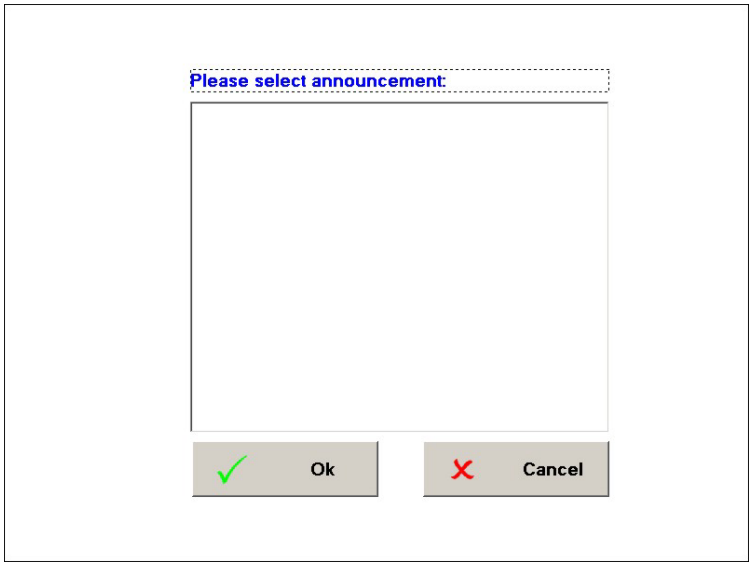


Image 6-4 Screenshot of the completed Frame "Announcement selection"

6.4 Create global objects

6.4.1 Create Constants

Add the below Constants.

see Section 5.4.2, "Add a new Constant"

Name	Data type	Value	Description
A-Blink color	color	#FF6800	Blink color of the Button "AdminTechnics".
A-Background color	color	#6300C6	Background color of the Button "AdminTechnics".
Blink interval	int	-1	Interval in which the colors change when blinking.
E-Blink color	color	#FF6800	Blink color of the Event Buttons.
E-Background color	color	#D4D0C8	Background color of the Event Buttons when blinking.
P1-Blink color	color	#FF6800	Blink color of the Button "Production 1".
P1-Back-ground color	color	#804000	Background color of the Button "Production 1".
P2-Blink color	color	#FF6800	Blink color of the Button "Production 2".
P2-Back-ground color	color	#804000	Background color of the Button "Production 2".
No event	string	<none>	Text for the Static control "Event name" if no event is presently selected.
M-Blink color	color	#FF6800	Blink color of the Button "Management".
Deflagration	msg_id	1001	ID of the announcement administrated in OScAR for the event "Deflagration".
Deflagration name	string	1001:Def-lagration	Text for the Static control "Event name" if the user has selected the event "Deflagration".
V-Background color	color	#804000	Background color of the Button "Management".

Table 6-13 Create Constants

6.4.2 Create Parameters and Parameter Groups

Now add the below-listed Parameter groups and Parameters.

see Section 5.5.1, "Add a new Parameter group"
see Section 5.5.3, "Add a new Parameter".

Name	Data type	Value	Description
Parameter group "Announcements"			
Short circuit	msg_id	1003	ID of the announcement administrated in OScAR for the event "Short circuit".
Short circuit name	string	1003: Short circuit	Text for the Static control "Event name" if the user has selected the event "Short circuit".
Leakage	msg_id	1002	ID of the announcement administrated in OScAR for the event "Leakage".
Leakage name	string	1002: Leakage	Text for the Static control "Event name" if the user has selected the event "Leakage".
Parameter group "Broadcasts"			
Admin & Technics	bdc_id	1100	ID of the Broadcast group administrated in OScAR for the area "Admin & Technics".
Production 1	bdc_id	1200	ID of the Broadcast group administrated in OScAR for the area "Production 2".
Production 2	bdc_id	1300	ID of the Broadcast group administrated in OScAR for the area "Production 2".
Management	bdc_id	1000	ID of the Broadcast group administrated in OScAR for the area "Management".

Table 6-14 Create parameters

6.4.3 Create Variables

Now add the following Variables.

see Section 5.6.2, "Add a new Variable"

Name	Data type	Value	Description
AdminTechnics blinking	bool	0	Info field to indicate that the Button "Admin & Technics" is presently blinking.
Production 1 blinking	bool	0	Info field to indicate that the Button "Production 1" is presently blinking.
Production 2 blinking	bool	0	Info field to indicate that the Button "Production 2" is presently blinking.
Fire alert blinking	bool	0	Info field to indicate that the Button "Fire alert" is presently blinking.
Short circuit blinking	bool	0	Info field to indicate that the Button "Short circuit" is presently blinking.
Leakage blinking	bool	0	Info field to indicate that the Button "Leakage" is presently blinking.
Selected announcement	msg_id	-1	Info field for the event that is presently selected.
Selected Broadcast	bdc_id	-1	Work area for the Broadcast that presently needs to attended.
Selected event	string	%%No event%%	Info field for the presently selected event text of the Static control "Event name".
Other blinking	bool	0	Info field to indicate that the Button "Other" is presently blinking.
Deflagration blinking	bool	0	Info field to indicate that the Button "Deflagration" is presently blinking.
Management blinking	bool	0	Info field to indicate that the Button "Management" is presently blinking.

Table 6-15 Create Variables

6.4.4 Create Lists

To fill the List field "Announcement list", located under the "Frames" child node "Announcement selection", and there under "Controls", you need a data container in form of a Data list. This Data list is filled with the Instruction "GetMessages" and then copied to the listbox with the Instruction"SetListBoxList".

To restrict the value range of the administrated announcements, you also need a matching Filter.

Create Data list

Create the following Data list.

see Section 5.7.4, "Add a new Data list"

Name	Data type	Description
Administrated announcements	msg_id	Data list to accept the announcements that are administrated in OScAR.

Table 6-16 Create Data lists

Create Filters

Create the below-listed Filter.

see Section 5.7.9, "Add a new Filter"

Name	Data type	IDs	Description
Emergency messages	msg_id	ID ranges • from: 0000 • to: 1999 Excluded IDs • 1000 • 1001 • 1002 • 1003	Info field for the event that is presently selected.

Table 6-17 Create Filters

6.4.5 Create the OScAR command template "Invoke broadcast"

To carry out Broadcasts on the basis of the events and the company areas that are selected, you need a so-called OScAR command template.

see Section 5.9.2, "Add a new DAKS command template"

Description

It is this command template that launches a Broadcast in keeping with the two Variables "Selected announcement" and "Selected Broadcast".

Attributes

Attribute	Contents
Name	`Invoke Broadcast`
Type	`BDC`
Display text	
Call subscribers	`15`
CorNet-NQ® features	`0`
Monitor conferee's connection status	`0`
High-priority Broadcast	`0`
OnMin	`0`
OnMax	`0`

Table 6-18 Create the OScAR command template "Invoke broadcast"

Broadcast IDs

Broadcast IDs
`$Selected Broadcast$`

Table 6-19 Broadcast IDs

Announcement IDs

Announcement IDs
`$Selected announcement$`

Table 6-20 Announcement IDs

6.5 Create the functions of the Main Frame

To successfully create these functions, and because the functions "Activate invoke" and "Blink Buttons" that are covered in this section utilize the functions described earlier in this chapter, it is especially important that you add the below-listed functions in the correct order.

6.5.1 User function: Fire alert blink on

Description

Use this function to activate the blinking of the Button "Fire alert".

Attributes

Attribute	Contents
Name	`Fire alert blink on`
Condition	`($Fire alert blinking$ AND ($Selected announcement$ UEQ -1))`
Messagebox	

Table 6-21 Create function on Main Frame

Instructions

Instruction	Argument	Contents
SetButtonBlink	Button	`Fire alarm`
	1. Blink color	`%%E-Blink color%%`
	2. Blink color	`%%E-Background color%%`
	Blink interval	`%%Blink interval%%`

Table 6-22 Instructions for functions on Main Frame

6.5.2 User function: Deflagration blink on

Description

Use this function to switch on the blinking of the Button "Deflagration".

Attributes

Attribute	Contents
Name	`Deflagration blink on`
Condition	`($Deflagration blinking$ AND ($Selected announcement$ UEQ -1))`
Messagebox	

Table 6-23 User function: Deflagration blink on

Instructions

Instruction	Argument	Contents
SetButtonBlink	Button	`Deflagration`
	1. Blink color	`%%E-Blink color%%`
	2. Blink color	`%%E-Background color%%`
	Blink interval	`%%Blink interval%%`

Table 6-24 Instructions for the user function: Deflagration blink on

6.5.3 User function: Leakage blink on

Description

Use this function to switch on the blinking of the Button "Leakage".

Attributes

Attribute	Contents
Name	`Leakage blink on`
Condition	`($Leakage blinking$ AND ($Selected announcement$ UEQ -1))`
Messagebox	

Table 6-25 User function: Leakage blink on

Instructions

Instruction	Argument	Contents
SetButtonBlink	Button	`Leakage`
	1. Blink color	`%%E-Blink color%%`
	2. Blink color	`%%E-Background color%%`
	Blink interval	`%%Blink interval%%`

Table 6-26 Instruction for the user function: Leakage blink on

6.5.4 User function: Short circuit blink on

Description

Use this function to switch on the blinking of the Button "Short circuit".

Attributes

Attribute	Contents
Name	`Short circuit blink on`
Condition	`($Short circuit blinking$ AND ($Selected announcement$ UEQ -1))`
Messagebox	

Table 6-27 User function: Short circuit blink on

Instructions

Instruction	Argument	Contents
SetButtonBlink	Button	`Short circuit`
	1. Blink color	`%%E-Blink color%%`
	2. Blink color	`%%E-Background color%%`
	Blink interval	`%%Blink interval%%`

Table 6-28 Instructions for the user function: Short circuit blink on

6.5.5 User function: Activate Other blink on

Description

Use this function to activate the blinking of the Button "Other".

Attributes

Attribute	Contents
Name	`Activate Other blink on`
Condition	`($Other blinking$ AND ($Selected announcement$ UEQ -1))`
Messagebox	

Table 6-29 User function: Activate Other blink on

Instructions

Instruction	Argument	Contents
SetButtonBlink	Button	`Other`
	1. Blink color	`%%E-Blink color%%`
	2. Blink color	`%%E-Background color%%`
	Blink interval	`%%Blink interval%%`

Table 6-30 Instructions for the user function: Activate Other blink on

6.5.6 User function: Management blink on

Description

Use this function to switch on the blinking of the Button "Management".

Attributes

Attribute	Contents
Name	`Management blink on`
Condition	`$Management blinking$`
Messagebox	

Table 6-31 User function: Management blink on

Instructions

Instruction	Argument	Contents
SetButtonBlink	Button	`Management`
	1. Blink color	`%%V-Blink color%%`
	2. Blink color	`%%V-Background color%%`
	Blink interval	`%%Blink interval%%`

Table 6-32 Instructions for the user function: Management blink on

6.5.7 User function: AdminTechnics blink on

Description

Use this function to switch on the blinking of the Button "AdminTechnics".

Attributes

Attribute	Contents
Name	`AdminTechnics blink on`
Condition	`$AdminTechnics blinking$`
Messagebox	

Table 6-33 User function: AdminTechnics blink on

Instructions

Instruction	Argument	Contents
SetButtonBlink	Button	`AdminTechnics`
	1. Blink color	`%%A-Blink color%%`
	2. Blink color	`%%A-Background color%%`
	Blink interval	`%%Blink interval%%`

Table 6-34 Instructions for the user function: AdminTechnics blink on

6.5.8 User function: Production 1 blink on

Description

Use this function to activate the blinking of the Button "Production 1".

Attributes

Attribute	Contents
Name	`Production 1 blink on`
Condition	`$Production_1 blinking$`
Messagebox	

Table 6-35 User function: Production 1 blink on

Instructions

Instruction	Argument	Contents
SetButtonBlink	Button	`Production 1`
	1. Blink color	`%%P1-Blink color%%`
	2. Blink color	`%%P1-Background color%%`
	Blink interval	`%%Blink interval%%`

Table 6-36 Instructions for the user function: Production 1 blink on

6.5.9 User function: Production 2 blink on

Description

Use this function to activate the blinking of the Button "Production 2".

Attributes

Attribute	Contents
Name	`Production 2 blink on`
Condition	`$Production_2 blinking$`
Messagebox	

Table 6-37 User function: Production 2 blink on

Instructions

Instruction	Argument	Contents
SetButtonBlink	Button	`Production 2`
	1. Blink color	`%%P2-Blink color%%`
	2. Blink color	`%%P2-Background color%%`
	Blink interval	`%%Blink interval%%`

Table 6-38 Instructions for the user function: Production 2 blink on

6.5.10 User function: Disable invoke

Description

Use this function to block the Button "Invoke" against entries.

Attributes

Attribute	Contents
Name	`Disable invoke`
Condition	`(($Selected announcement$ EQL -1) OR ((!$Management blinking$ AND !$AdminTechnics blinking$) AND (!$Production_1 blinking$ AND !$Production_2 blinking$)))`
Messagebox	

Table 6-39 User function: Disable invoke

Instructions

Instruction	Argument	Contents
SetButtonStatus	Button	`Invoke`
	Status	2 (disabled)

Table 6-40 Instructions for the user function: Disable invoke

6.5.11 User function: Enable invoke

Description

Use this function to enable the Button "Invoke" to accept entries.

Attributes

Attribute	Contents
Name	`Enable invoke`
Condition	`($Selected announcement$ UEQ -1) OR ((!$Management blinking$ OR !$AdminTechnics blinking$) OR (!$Production_1 blinking$ OR !$Production_2 blinking$)))`
Messagebox	

Table 6-41 User function: Enable invoke

Instructions

Instruction	Argument	Contents
SetButtonStatus	Button	`Invoke`
	Status	1 (enabled)

Table 6-42 Instructions for the user function: Enable invoke

6.5.12 User function: Activate invoke

Description

Use this function to specify if the Button "Invoke" is enabled to accept entries of disabled from doing so.

Attributes

Attribute	Contents
Name	`Activate invoke`
Condition	
Messagebox	

Table 6-43 User function: Activate invoke

Instructions

Instruction	Argument	Contents
Call	Function	`Enable invoke`
Call	Function	`Disable invoke`

Table 6-44 Instructions for the user function: Activate invoke

6.5.13 User function: Blink Buttons

Description

Use this function to set all Buttons to blinking.

Attributes

Attribute	Contents
Name	Blink Buttons
Condition	
Messagebox	

Table 6-45 User function: Blink Buttons

Instructions

Instruction	Argument	Contents
OffButtonBlink	Button	`Fire alarm`
OffButtonBlink	Button	`Deflagration`
OffButtonBlink	Button	`Leakage`
OffButtonBlink	Button	`Short circuit`
OffButtonBlink	Button	`Other`
OffButtonBlink	Button	`Management`
OffButtonBlink	Button	`AdminTechnics`
OffButtonBlink	Button	`Production 1`
OffButtonBlink	Button	`Production 2`
Call	Function	`Fire alert blink on`
Call	Function	`Deflagration blink on`
Call	Function	`Leakage blink on`
Call	Function	`Short circuit blink on`
Call	Function	`Activate Other blink on`
Call	Function	`Management blink on`
Call	Function	`AdminTechnics blink on`
Call	Function	`Production 1 blink on`
Call	Function	`Production 1 blink on`
SetStaticText	Static control	`Event name`
	text	`$Selected event$`
Call	Function	`Activate invoke`

Table 6-46 Instructions for the user function: Blink Buttons

6.5.14 User function: Reset areas

Description

Use this function to reset all Variables that were tagged for the Area Buttons.

Attributes

Attribute	Contents
Name	`Reset areas`
Condition	
Messagebox	

Table 6-47 User function: Reset areas

Instructions

Instruction	Argument	Contents
SetVariable	Variable	`Management blinking`
	Value	`0`
SetVariable	Variable	`AdminTechnics blinking`
	Value	`0`
SetVariable	Variable	`Production 1 blinking`
	Value	`0`
SetVariable	Variable	`Production 2 blinking`
	Value	`0`

Table 6-48 Instructions for the user function: Reset areas

6.5.15 User function: Reset events

Description

Use this function to reset the flag Variables for Event Buttons, and to fill the Variable "Name of event" with the defaults.

Attributes

Attribute	Contents
Name	`Reset events`
Condition	
Messagebox	

Table 6-49 User function: Reset events

Instructions

Instruction	Argument	Contents
SetVariable	Variable	`Fire alert blinking`
	Value	`0`
SetVariable	Variable	`Deflagration blinking`
	Value	`0`
SetVariable	Variable	`Leakage blinking`
	Value	`0`
SetVariable	Variable	`Short circuit blinking`
	Value	`0`
SetVariable	Variable	`Other blinking`
	Value	`0`
SetVariable	Variable	`Selected announcement`
	Value	`-1`
SetVariable	Variable	`Selected event`
	Value	`%%No event%%`

Table 6-50 Instructions for the user function: Reset events

6.5.16 User function: Invoke Management

Description

This function launches a Broadcast for the area Management, provided the Variable "Management blinking" is filled with the value "1".

Attributes

Attribute	Contents
Name	`Invoke Management`
Condition	`($Management blinking$ AND ($Selected announcement$ UEQ -1))`
Messagebox	

Table 6-51 User function: Invoke Management

Instructions

Instruction	Argument	Contents
SetVariable	Variable	`Selected Broadcast`
	Value	`%%Management%%`
Execute	OScAR command template	`Invoke Broadcast`

Table 6-52 Instructions for the user function: Invoke Management

6.5.17 User function: Invoke AdminTechnics

Description

This function launches a Broadcast for the Administration & Technology area, provided the Variable "AdminTechnics blinking" is filled with "1".

Attributes

Attribute	Contents
Name	`Invoke AdminTechnics`
Condition	`($AdminTechnics blinking$ AND ($Selected announcement$ UEQ -1))`
Messagebox	

Table 6-53 User function: Invoke AdminTechnics

Instructions

Instruction	Argument	Contents
SetVariable	Variable	`Selected Broadcast`
	Value	`%%Admin & Technics%%`
Execute	OScAR command template	`Invoke Broadcast`

Table 6-54 Instructions for the user function: Invoke AdminTechnics

6.5.18 User function: Invoke Production 1

Description

This function launches a Broadcast for the production area "Production 1", provided the Variable "Production_1 blinking" is filled with "1".

Attributes

Attribute	Contents
Name	`Invoke Production 1`
Condition	`($Production_1 blinking$ AND ($Selected announcement$ UEQ -1))`
Messagebox	

Table 6-55 User function: Invoke Production 1

Instructions

Instruction	Argument	Contents
SetVariable	Variable	`Selected Broadcast`
	Value	`%%Production_1%%`
Execute	OScAR command template	`Invoke Broadcast`

Table 6-56 Instructions for the user function: Invoke Production 1

6.5.19 User function: Invoke Production 2

Description

This function launches a Broadcast for the production area "Production 2", provided the Variable "Production_2 blinking" is filled with "1".

Attributes

Attribute	Contents
Name	`Invoke Production 2`
Condition	`($Production_2 blinking$ AND ($Selected announcement$ UEQ -1))`
Messagebox	

Table 6-57 User function: Invoke Production 2

Instructions

Instruction	Argument	Contents
SetVariable	Variable	`Selected Broadcast`
	Value	`%%Production_2%%`
Execute	OScAR command template	`Invoke Broadcast`

Table 6-58 Instructions for the user function: Invoke Production 2

6.5.20 The On_Load function: Set Buttons

Description

Use this function to set the blink attributes of the Buttons in keeping with the blink states on-load, as specified in the matching Variables.

Attributes

Attribute	Contents
Name	`Set Buttons`
Condition	`($Fire alert blinking$ AND ($Selected announcement$ UEQ -1))`
Messagebox	

Image 6-5 On_Load function "Set Buttons"

Instructions

Instruction	Argument	Contents
Call	Function	`Blink Buttons`

Image 6-6 Instructions for the On_Load function: Set Buttons

6.5.21 Functions of the Button "Fire alert"

The functions of the Button "Fire alert" are automatically invoked when this Button is pressed.

6.5.21.1 Function: Delete

Description

Use this function to reset the flag that governs the blinking of the Button.

Attributes

Attribute	Contents
Name	`Delete`
Condition	`$Fire alert blinking$`
Messagebox	

Image 6-7 Functions of the Button "Fire alert": Delete

Instructions

Instruction	Argument	Contents
Call	Function	`Reset events`
Call	Function	`Blink Buttons`

Image 6-8 Instructions for the functions of the Button "Fire alert": Delete

6.5.21.2 Function: Set

Description

Use this function to set the flag that governs the blinking of the Button.

Attributes

Attribute	Contents
Name	`Set`
Condition	`!$Fire alert blinking$`
Messagebox	

Table 6-59 Functions of the Button "Fire alert": Set

Instructions

Instruction	Argument	Contents
Call	Function	`Reset events`
SetVariable	Variable	`Fire alert blinking`
	Value	`1`
SetVariable	Variable	`Selected announcement`
	Value	`1000`
SetVariable	Variable	`Selected event`
	Value	`1000:Fire alert`
Call	Function	`Blink Buttons`

Table 6-60 Instructions for the functions of the Button "Fire alert": Set

Note:
Please note that at this position, the Variable "Selected announcements" is directly given the ID "1000". If for any reason the ID of the Fire Alert announcement is changed in OScAR, it must be adjusted accordingly in all areas of the DCO script.
For this reason, we recommend you instead use a Parameter at this place, or at least a Constant.

see Section 6.5.23, "Functions of the Button "Leakage""
see Section 6.5.22, "Functions of the Button "Deflagration""

6.5.22 Functions of the Button "Deflagration"

The functions of the Button "Deflagration" are automatically invoked when this Button is pressed.

6.5.22.1 Function: Delete

Description

Use this function to reset the flag that governs the blinking of the Button.

Attributes

Attribute	Contents
Name	`Delete`
Condition	`$Deflagration blinking$`
Messagebox	

Table 6-61 Functions of the Button "Deflagration": Delete

Instructions

Instruction	Argument	Contents
Call	Function	`Reset events`
Call	function	`Blink Buttons`

Table 6-62 Instructions for the functions of the Button "Deflagration": Delete

6.5.22.2 Function: Set

Description

Use this function to set the flag that governs the blinking of the Button.

Attributes

Attribute	Contents
Name	`Set`
Condition	`!$Deflagration blinking$`
Message-box	

Table 6-63 Functions of the Button "Deflagration": Set

Instructions

Instruction	Argument	Contents
Call	Function	`Reset events`
SetVariable	Variable	`Deflagration blinking`
	Value	`1`
SetVariable	Variable	`Selected announcement`
	Value	`%%Deflagration%%`
SetVariable	Variable	`Selected event`
	Value	`%%Deflagration name%%`
Call	Function	`Blink Buttons`

Table 6-64 Instructions for the functions of the Button "Deflagration": Set

Note:
Here, the Variable "Selected announcement" is filled directly with the Constant %%Deflagration%%. If for any reason the ID of the Deflagration announcement changes in OScAR, the value of the Constant must be adjusted accordingly of the DCO script.
For this reason, we recommend you instead use a Parameter.
see Section 6.5.23, "Functions of the Button "Leakage""

6.5.23 Functions of the Button "Leakage"

The functions of the Button "Leakage" are automatically invoked when this Button is pressed.

6.5.23.1 Function: Delete

Description

Use this function to reset the flag that governs the blinking of the Button.

Attributes

Attribute	Contents
Name	`Delete`
Condition	`$Leakage blinking$`
Messagebox	

Table 6-65 Functions of the Button "Leakage": Delete

Instructions

Instruction	Argument	Contents
Call	Function	`Reset events`
Call	Function	`Blink Buttons`

Table 6-66 Instructions for the functions of the Button "Leakage": Delete

6.5.23.2 Function: Set

Description

Use this function to set the flag that governs the blinking of the Button.

Attributes

Attribute	Contents
Name	`Set`
Condition	`!$Leakage blinking$`
Messagebox	

Table 6-67 Functions of the Button "Leakage": Set

Instructions

Instruction	Argument	Contents
Call	Function	`Reset events`
SetVariable	Variable	`Leakage blinking`
	Value	`1`
SetVariable	Variable	`Selected announcement`
	Value	`%%Leakage%%`
SetVariable	Variable	`Selected event`
	Value	`%%Leakage name%%`
Call	Function	`Blink Buttons`

Table 6-68 Instructions for the Functions of the Button "Leakage": Set

Note:
Here, the Variable "Selected announcement" is filled directly with the Parameter %%Leakage%%.
If, for any reason, the ID of the Leakage Announcement should be changed in OScAR, you can adjust the Parameter value in the Parameter editor of the OScAR-Pro-TT Operator-Tool.
see Section 7.3, "The DCO Parameter Editor"

6.5.24 Functions of the Button "Short circuit"

The functions of the Button "Short circuit" are automatically invoked when this Button is pressed.

6.5.24.1 Function: Delete

Description

Use this function to reset the flag that governs the blinking of the Button.

Attributes

Attribute	Contents
Name	`Delete`
Condition	`$Short circuit blinking$`
Messagebox	

Table 6-69 Functions of the Button "Short circuit": Delete

Instructions

Instruction	Argument	Contents
Call	Function	`Reset events`
Call	Function	`Blink Buttons`

Table 6-70 Instructions for the functions of the Button "Short circuit": Delete

6.5.24.2 Function: Set

Description

Use this function to set the flag that governs the blinking of the Button.

Attributes

Attribute	Contents
Name	`Set`
Condition	`!$Short circuit blinking$`
Messagebox	

Table 6-71 Functions of the Button "Short circuit": Set

Instructions

Instruction	Argument	Contents
Call	Function	`Reset events`
SetVariable	Variable	`Short circuit blinking`
	Value	`1`
SetVariable	Variable	`Selected announcement`
	Value	`%%Short circuit%%`
SetVariable	Variable	`Selected event`
	Value	`%%Short circuit name%%`
Call	Function	`Blink Buttons`

Table 6-72 Instructions for the functions of the Button "Short circuit": Set

6.5.25 Functions of the Button "Other": Open announcement selection

Description

This function is automatically invoked when this Button is pressed, and opens the user window "Announcement selection".

Attributes

Attribute	Contents
Name	`Open announcement selection`
Condition	
Messagebox	

Table 6-73 Functions of the Button "Other": Open announcement selection

Instructions

Instruction	Argument	Contents
Call	Function	`Reset events`
GotoFrame	Page	`Announcement selection`

Table 6-74 Functions of the Button "Other": Open announcement selection

6.5.26 Functions of the Button "Management"

The functions of the Button "Management" are automatically invoked when this Button is pressed.

6.5.26.1 Function: Delete

Description

Use this function to reset the flag that governs the blinking of the Button.

Attributes

Attribute	Contents
Name	`Delete`
Condition	`$Management blinking$`
Messagebox	

Table 6-75 Functions of the Button "Management": Delete

Instructions

Instruction	Argument	Contents
SetVariable	Variable	`Management blinking`
	Value	`0`
Call	Function	`Blink Buttons`

Table 6-76 Instructions for the functions of the Button "Management": Delete

6.5.26.2 Function: Set

Description

Use this function to set the flag that governs the blinking of the Button.

Attributes

Attribute	Contents
Name	Set
Condition	!$Management blinking$
Messagebox	

Table 6-77 Functions of the Button "Management": Set

Instructions

Instruction	Argument	Contents
SetVariable	Variable	`Management blinking`
	Value	`1`
Call	Function	`Blink Buttons`

Table 6-78 Instructions for the functions of the Button "Management": Set

6.5.27 Functions of the Button "AdminTechnics"

The functions of the Button "AdminTechnics" are automatically invoked when this Button is pressed.

6.5.27.1 Function: Delete

Description

Use this function to reset the flag that governs the blinking of the Button.

Attributes

Attribute	Contents
Name	`Delete`
Condition	`$AdminTechnics blinking$`
Messagebox	

Table 6-79 Functions of the Button "AdminTechnics": Delete

Instructions

Instruction	Argument	Contents
SetVariable	Variable	`AdminTechnics blinking`
	Value	`0`
Call	Function	`Blink Buttons`

Table 6-80 Instructions for the functions of the Button "AdminTechnics": Delete

6.5.27.2 Function: Set

Description

Use this function to set the flag that governs the blinking of the Button.

Attributes

Attribute	Contents
Name	`Set`
Condition	`!$AdminTechnics blinking$`
Messagebox	

Table 6-81 Functions of the Button "AdminTechnics": Set

Instructions

Instruction	Argument	Contents
SetVariable	Variable	`AdminTechnics blinking`
	Value	`1`
Call	Function	`Blink Buttons`

Table 6-82 Instructions for the functions of the Button "AdminTechnics": Set

6.5.28 Functions of the Button "Production 1"

The functions of the Button "Production 1" are automatically invoked when the Button is pressed.

6.5.28.1 Function: Delete

Description

Use this function to reset the flag that governs the blinking of the Button.

Attributes

Attribute	Contents
Name	`Delete`
Condition	`$Production_1 blinking$`
Messagebox	

Table 6-83 Functions of the Button "Production 1": Delete

Instructions

Instruction	Argument	Contents
SetVariable	Variable	`Production 1 blinking`
	Value	`0`
Call	Function	`Blink Buttons`

Table 6-84 Instructions for the functions of the Button "Production 1": Delete

6.5.28.2 Function: Set

Description

Use this function to set the flag that governs the blinking of the Button.

Attributes

Attribute	Contents
Name	`Set`
Condition	`!$Production 1 blinking$`
Messagebox	

Table 6-85 Functions of the Button "Production 1": Set

Instructions

Instruction	Argument	Contents
SetVariable	Variable	`Production 1 blinking`
	Value	`1`
Call	Function	`Blink Buttons`

Table 6-86 Instructions for the functions of the Button "Production 1": Set

6.5.29 Functions of the Button "Production 2"

The functions of the Button "Production 2" are automatically invoked when the Button is pressed.

6.5.29.1 Function: Delete

Description

Use this function to reset the flag that governs the blinking of the Button.

Attributes

Attribute	Contents
Name	`Delete`
Condition	`$Production_2 blinking$`
Messagebox	

Table 6-87 Functions of the Button "Production 2": Delete

Instructions

Instruction	Argument	Contents
SetVariable	Variable	`Production 2 blinking`
	Value	`0`
Call	Function	`Blink Buttons`

Table 6-88 Instructions for the functions of the Button "Production 2": Delete

6.5.29.2 Function: Set

Description

Use this function to set the flag that governs the blinking of the Button.

Attributes

Attribute	Contents
Name	`Set`
Condition	`!$Production 2 blinking$`
Messagebox	

Table 6-89 Functions of the Button "Production 2": Set

Instructions

Instruction	Argument	Contents
SetVariable	Variable	`Production 2 blinking`
	Value	`1`
Call	Function	`Blink Buttons`

Table 6-90 Instructions for the functions of the Button "Production 2": Set

6.5.30 Functions of the Button "Invoke": Invoke Broadcast

Description

This function is automatically invoked when the Button "Invoke" is pressed, and activates the Broadcasts in keeping with the areas that are selected.

Attributes

Attribute	Contents
Name	`Invoke Broadcast`
Condition	`($Selected announcement $ UEQ -1)`
Messagebox	`Invoke Broadcast(s)?`

Table 6-91 Functions of the Button "Invoke": Invoke Broadcast

Instructions

Instruction	Argument	Contents
Call	Function	`Invoke Management`
Call	Function	`Invoke AdminTechnics`
Call	Function	`Invoke Production_1`
Call	Function	`Invoke Production_2`
Call	Function	`Invoke Events`
Call	Function	`Reset areas`
Call	Function	`Blink Buttons`

Table 6-92 Instructions for the functions of the Button "Invoke": Invoke Broadcast

6.6 Create the functions of the Frame "Announcement selection"

6.6.1 User function: On cancel

Description

Use this function to process the Instructions that are applied when the Button "OK" is pressed before a valid announcement was selected, and also when the "Cancel" Button is clicked.

Attributes

Attribute	Contents
Name	`On cancel`
Condition	
Messagebox	

Table 6-93 User function On cancel

Instructions

Instruction	Argument	Contents
SetVariable	Variable	`Other blinking`
	Value	`0`
SetVariable	Variable	`Selected announcement`
	Value	`-1`
GotoFrame	Page	`Main Frame`

Table 6-94 Instructions for the user function: On cancel

6.6.2 On_Load function: Fill Announcement list

Description

Use this function to use the Data list "Administrated announcements" to read out all announcements that are administrated in OScAR, and to copy them to the "Announcement list".

Attributes

Attribute	Contents
Name	`Fill Announcement list`
Condition	
Messagebox	

Table 6-95 On_Load function: Fill Announcement list

Instructions

Instruction	Argument	Contents
GetMessages	Data list	`Administrated announcements`
	Filter	`Emergency announcements`
SetListBoxList	Listbox	`Announcement list`
	Data list	`Administrated announcements`

Table 6-96 Instruction for the On_Load function: Fill Announcement list

6.6.3 Function of the Button "Cancel": Cancel dialog

Description

This function is automatically invoked when the Button is pressed, and immediately triggers the function "On cancel" for the Frame.

Attributes

Attribute	Contents
Name	`Cancel dialog`
Condition	
Messagebox	

Table 6-97 The function of the Button "Cancel": "Cancel dialog"

Instructions

Instruction	Argument	Contents
Call	Function	`On cancel`

Table 6-98 Instructions for the function of the Button "Cancel": Cancel dialog

6.6.4 Functions of the Button "Ok"

The functions of the Button "OK" are automatically invoked when this Button is pressed.

6.6.4.1 Function: With selection

Description

This function saves the selected announcement in the Variable "Selected announcement" and jumps back to the "Main Frame".

Attributes

Attribute	Contents
Name	`With selection`
Condition	`((LISTBOX)Announcement list UEQ '')`
Messagebox	

Table 6-99 Functions of the Button "Ok"

Instructions

Instruction	Argument	Contents
SetVariable	Variable	`Other blinking`
	Value	`1`
SetVariable	Variable	`Selected announcement`
	Value	`(LISTBOX)Announcement list`
GetListBoxSelText	Listbox	`Announcement list`
	Variable	`Selected announcement`
GotoFrame	Page	`Main Frame`

Table 6-100 Instructions for the functions of the Button "OK"

6.6.4.2 function: Without selection

Description

Use this function to detect if the Button was used before an announcement was properly selected. Whenever this is the case, this function will query the user in a message box to confirm if he/she really wants to cancel the dialog. If so, the system jumps right back to the "Main Frame".

Attributes

Attribute	Contents
Name	`Without selection`
Condition	`((LISTBOX)Announcement list EQL '')`
Messagebox	`No selection found. Cancel?`

Table 6-101 Function: Without selection

Instructions

Instruction	Argument	Contents
Call	Function	`On cancel`

Table 6-102 Instructions for the function: Without selection

6.7 Test the DCO script

Follow the below steps to test your DCO script:

No.	Task
1.	Click  to switch to the Layout window and verify the results.
2.	If you also want to save the Project, confirm the query with "Yes".
3.	Now press the Button "Fire alert". The Button must start to blink and the Static control "Event name" should read: "1000:Fire alert".
4.	Press the Button "Fire alert" again. The Button must now stop blinking.
5.	Repeat steps 3 and 4 for the Buttons "Deflagration", "Leakage" and "Short circuit".
6.	Repeat steps 3 and 4 for the Area Buttons.
7.	During steps 3 through 6, the Invoke Button may only be enabled if exactly one Event Button and at least one Area Button are blinking.
8.	Now press the Button "Other". The Frame "Announcement selection" should now open and the "Announcement list" under "Controls" should already be filled with dummy values.
9.	Select an announcement and click the Button "OK" This will again open the Main Frame with the Button "Other" must be blinking and the Static control "Event name" should include the announcement that was selected.
10.	Continue the testing as needed.
11.	Select one Event Button and at least one Area Button, and click the Event Button. One after another, a message window should now pop up for each selected Area Button, and contain an XML-structure view with both the IDs of the Broadcast and the announcement that was selected.

Table 6-103 Add a background image to the "Main Frame"

7 Apply the OScAR Customized Operator in the OScAR-Pro-TT Operator-Tool

Overview

This chapter shows you how to load and run, in the OScAR-Pro-TT Operator-Tool, a DCO script that was created with the OScAR-Pro-TT DCO-Designer.

It also shows you how to use the Parameter Editor to adjust the parameters to the current values, e.g. the process IDs (Broadcast IDs, Conference IDs etc.).

Please note that for the information in this chapter it is assumed that you are already well experienced with the OScAR-Pro-TT Operator-Tool.

Contents

The chapter covers the following sections:

7.1 Publish the DCO script

After a project has been completed in the OScAR-Pro-TT DCO-Designer, you need to "publish" the corresponding DCO script.

To do so, copy the project file:

- either directly onto the PC that is used to run the OScAR-Pro-TT Operator-Tool, or
- to a network drive for which the PC with the OScAR-Pro-TT Operator-Tool has full read and write permissions.

Note:
When you publish a DCO script, please be careful to copy not only the `.dco` files and the `.ini` file, but also the corresponding subdirectory "`images`" with the graphic files contained therein.

7.2 Layout in the OScAR-Pro-TT Operator-Tool

In the OScAR-Pro-TT Operator-Tool, the DCO script is executed like an individual program and follows the defined processes and instructions.

Every DCO script that has been created and tested in the OScAR-Pro-TT DCO-Designer is executed in the OScAR-Pro-TT Operator-Tool, and there in a special window, the so-called DCO Window.

DCO scripts are rendered in 2 different ways:

- in a child window
- as a toolbar
  see Section 7.2.3, "Summary of the enhanced menu bar in the DAKS-TT Operator-Tool"

Every OScAR-Pro-TT Operator-Tool workstation can run a separate and, if needed, individually customized DCO script. This makes it possible to configure several workstations, each with individual and specific interfaces.

7.2.1 DCO in the child window

When the DCO script runs in a child window, it automatically shares the so-called workspace with the other windows of the OScAR-Pro-TT Operator-Tool, namely:

- the Admin Window of the OScAR-Pro-TT Operator-Tool,
- all Broadcast Process Windows
- all Conference Process Windows

Please note that both the Process Windows and the Admin Window can cover the DCO Window in full or in in part. In return, Process Windows can also be covered by the DCO Window, which can lead to a situation in which the user of the OScAR-Pro-TT Operator-Tool fails to notice a new process that has started, unperceived, in the background.

If the DCO Window is in the background, you can bring it to the top instantly with the Button  , in the OScAR-Pro-TT Operator-Tool toolbar.

The essential advantage of using the DCO Window in a child window lies in the fact that this mode of operation will not minimize the workspace and, consequently, leave more room both for the frames of the DCO script and for the monitoring of processes.

7.2.2 DCO in the toolbar

If the DCO script is executed in a toolbar, the DCO Window is automatically and at all times visible on the top; it cannot be covered by any child window.

In the same way, this avoids of the risk of the DCO Window covering and hiding another child window.

Here, however, the workspace of the OScAR-Pro-TT Operator-Tool is qualified as follows:

- When the toolbar is not docked:
  No qualification; the toolbar floats above the OScAR-Pro-TT Operator-Tool.
- When the toolbar is docked at the left or right:
  The width of the workspace is qualified by the width that is currently defined for the toolbar.
- When the toolbar is docked at the top or bottom:
  The height of the workspace is qualified by the height that is currently defined for the toolbar.

The primary advantage of using the DCO Window in form of a toolbar lies in the fact that no other window can overlap or hide it.

Provided it is not docked anywhere, you can also move the DCO Window to a second screen.

Due to the fact that toolbars operate in a menu-free context, the DCO Window has in this case no menu of its own in the menu bar of the OScAR-Pro-TT Operator-Tool. Instead, you can open the "DCO" drop-down menu ith a right mouse click.

see Section 7.2.4, "Operation of the DCO Window"

7.2.3 Summary of the enhanced menu bar in the OScAR-Pro-TT Operator-Tool

The table below lists the menu commands of the OScAR-Pro-TT Operator-Tool that are automatically enhanced when DCO is enabled on the chip card of the OScAR server.

Menu command	Description
Pull-down menu "Windows":	
OScAR Customized Operator... CTRL+SHIFT+F4 	Opens a DCO script for output and execution.
All other entries	see DAKS-TT User Manual, DAKS Release 8

Table 7-1 Summary of the enhanced menu bar in the OScAR-Pro-TT Operator-Tool

7.2.4 Operation of the DCO Window

This section describes the general operation elements of the DCO Window.

The menu bar and buttons

The below table lists in detail the different menu commands of the DCO Window in the OScAR-Pro-TT Operator-Tool, including their corresponding keyboard shortcuts and symbols.

Menu command	Description
Pull-down menu "Application":	
all commands found here	see DAKS-TT User Manual, DAKS Release 8.
Pull-down menu "Operations"	
all commands found here	see DAKS-TT User Manual, DAKS Release 8.
Pull-down menu "DCO"	
Load DCO script... Ctrl+L	Opens a window to select an existing DCO script (`.dco` file).
Open DCO-Parameter Editor..	Opens a window to edit the Parameters of the DCO script that is currently loaded.
Load DCO on program start-up	Defines if the current DCO script is loaded automatically when the OScAR-Pro-TT Operator-Tool is started (= box is ticked) or not (= box is not ticked).
Show DCO as toolbar	Defines if the current DCO Window is output in a toolbar (= box is ticked) or not (= box is not ticked).
Pull-down menu "Windows":	
Standard view 	The DCO Window at the top. Use this command or button to bring the standard Admin window of the OScAR-Pro-TT Operator-Tool to the top.
OScAR Customized Operator 	The DCO Window at the back. Use this command or button to bring the DCO Window to the top.
all other commands found here	see DAKS-TT User Manual, DAKS Release 8
Summary of the pull-down menu "?"	
all commands found here	see DAKS-TT User Manual, DAKS Release 8

Table 7-2 Summary of the menu commands and buttons of the DCO Window

Note:
In either of the above-mentioned output versions, you can also access the pull-down menu "DCO" by making a right mouse click in an empty area of the DCO Window.

Please bear in mind that the menu commands in the pull down menu are only enabled for users who have the administrator right "Configure OScAR Custom. Operator".

7.2.5 Initial loading of the DCO script in the OScAR-Pro-TT Operator-Tool

As you start the OScAR-Pro-TT Operator-Tool, bear in mind that it at first has neither a configured DCO script nor will the DCO Window be shown.

Note:
To assign a DCO script to OScAR-Pro-TT Operator-Tool and configure or adjust the parameters, you need to have the full administrator right "Configure OScAR Custom. Operator". After the installation, the user with the user ID "sysadm" and the password "sysadm" is authorized to perform these operations.
see "DAKS-TT User Manual, DAKS Release 8"

Follow the below steps to open the DCO Window and configure a DCO script:

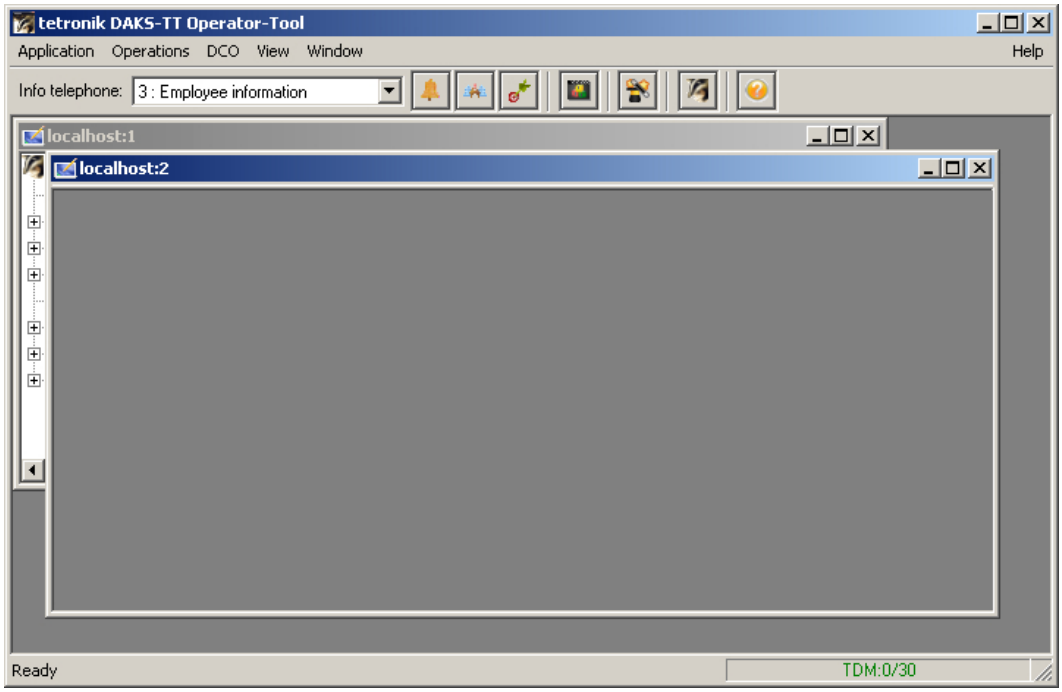
No.	Task
1.	Start the OScAR-Pro-TT Operator-Tool. see "DAKS-TT User Manual, DAKS Release 8"
2.	Go to the menu bar, click "Window" "OScAR Customized Operator..." and use the keyboard shortcut CTRL+SHIFT+F4, or go to the toolbar and click: .
3.	This will open the DCO Window as a child window: 
4.	In this window, select the menu command "Custom-Operator Load DCO script...". This will open a user window to select a file.
5.	Select the DCO script (.dco file) you want to open and close the window with Ok.
6.	If needed, adjust the parameters of the DCO script using the Parameter Editor. see Section 7.3, "The DCO Parameter Editor"

Table 7-3 Load a DCO script for the first time in the OScAR-Pro-TT Operator-Tool

Note:
If you create a DCO script in the above-mentioned way in the OScAR-Pro-TT Operator-Tool, it will automatically be loaded whenever the DCO Window is opened.
The Project properties of the DCO script specify the Frame with which the operation begins.
see Section 4.6.1, "Edit project properties"

7.3 The DCO Parameter Editor

Use the Parameter Editor to make local adjustments to the Parameters of the DCO script, e.g. to the IDs or colors.

Description of the window "DCO Parameter editor"

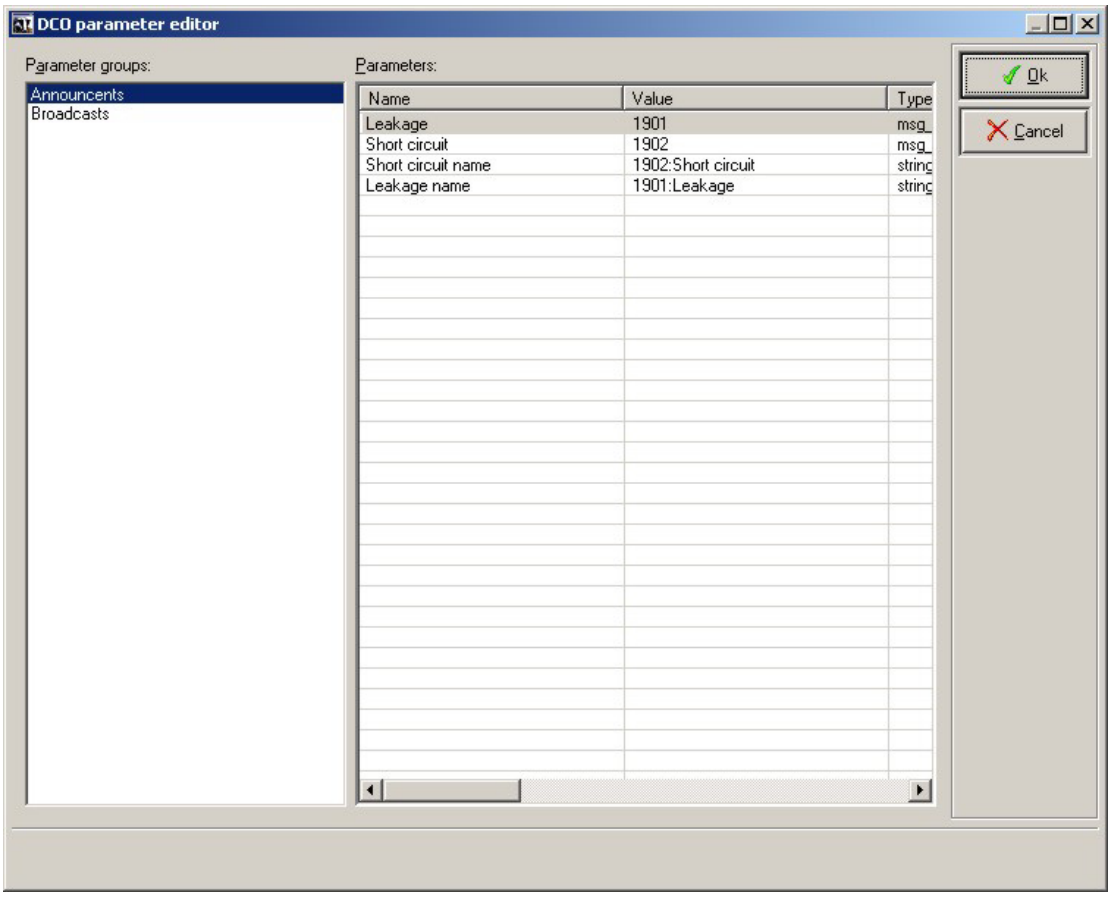
Edit field	Description
	
Parameter group	Listbox to select the parent parameter group of the parameter you want to edit.
Parameters	Listbox with all parameters that are currently created. To edit the values of one of these Parameters simply make a double click on it.

Image 7-1 Summary of the fields in the window "DCO Parameter editor"