

ESFVISU calendar, version 1.2

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1 Technical requirements

1.1 Hardware

Processor	Pentium IV or equal, running at 1200 MHz.
Main memory	256 MB
Free disk space (additional disc space requirements depend on the configured archives)	40 GB
Screen resolution	1024 x 768 Pixel
Colors	Color depth min. 16 Bit per Pixel.
Interfaces	Serial or USB interface to connect EIB with EIBA FALCON driver.

1.2 Software

WINDOWS 95	NO
WINDOWS 98, First Edition	NO
WINDOWS 98, Second Edition	YES
WINDOWS ME	YES
WINDOWS NT	NO
WINDOWS 2000, all versions	YES
WINDOWS XP, all versions	YES

1.3 Process interface

For the purpose of European Installation Bus (EIB), the FALCON driver of the EIBA (EIB Association) is used.

Optional the ESFVISU is equipped with an OPC (OLE for Process Control)- client, so that instead of EIB, or additional to EIB, OPC- servers, that are available for a multitude of automation systems, can be used for the processing connection.

Attention: Under Windows 2000 the FALCON driver has to be installed manually from the setup CD !

1.4 Import from ETS (EIBA Tool Software)

ETS 2 version 1.3	YES, use ETS, "OPC - Export"
ETS 2 versions 1.1, 1.2 and 1.3	YES, use print report redirected to file.
Older ETS - versions	NO

1.5 Microsoft Internet Explorer, Version 6; DirectX, Version 9.0b

These applications are required; they can be installed or updated from the setup CD.

2 First steps

The ESFVISU calendar application is part of the ESFVISU visualization package. It is used to plan actions for technical processes based on day programs and calendars.



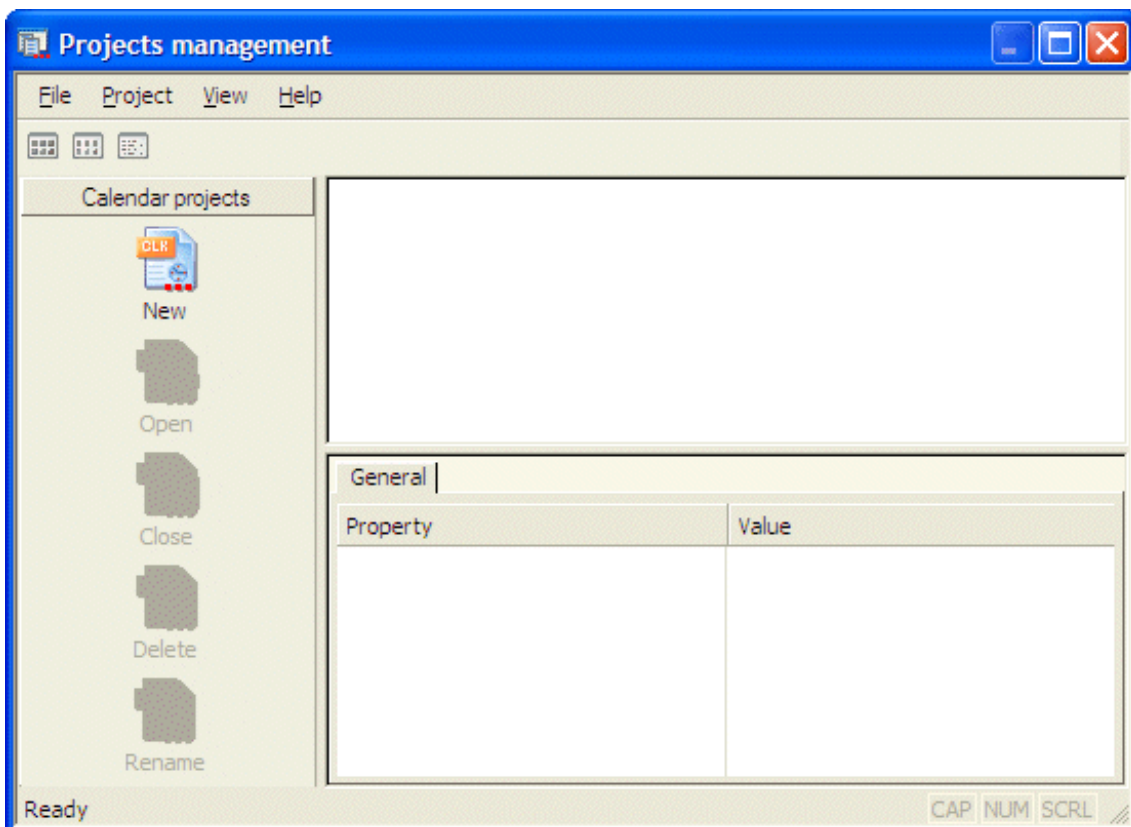
In order to clearly distinguish different applications, we use different colors for the application's icons, **yellow** for **calendar** program.

After installation of the calendar program, a program group is sited in the start menu. The standard options can be adopted or manually changed during installation.

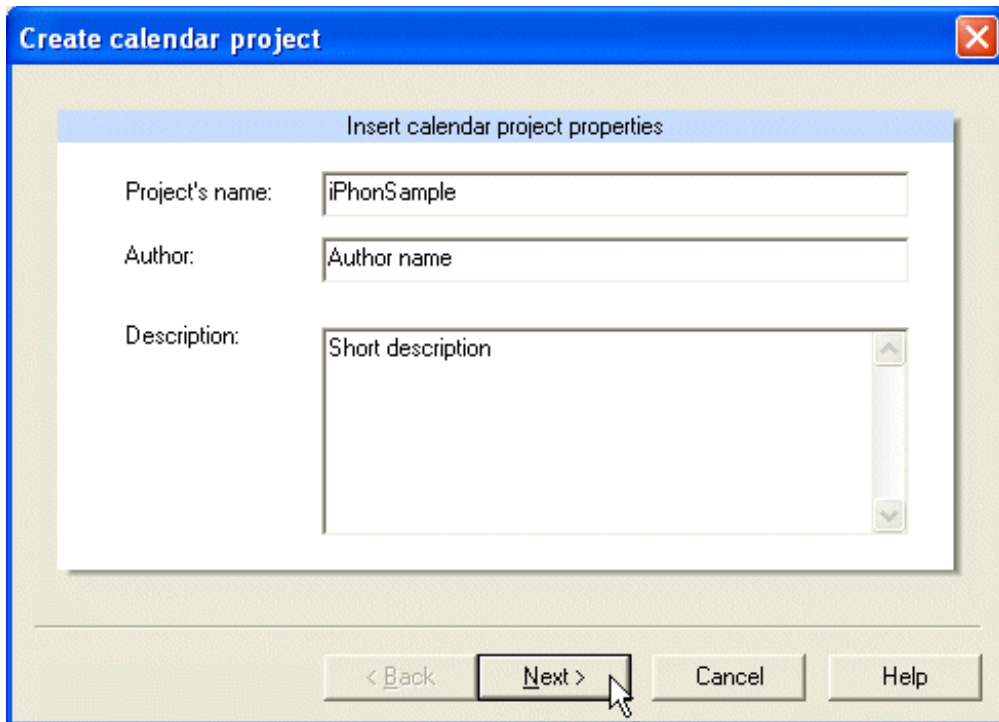
You may start the calendar program from the WINDOWS program manager or from the ESFVISU control panel application.

2.1 Step 1: Create project

Menu option **File - Projects** opens the calendar projects management dialog. Alternatively, click on **Organize..** in the tasks tool window. In this dialog you may create, open, delete or rename calendar projects.



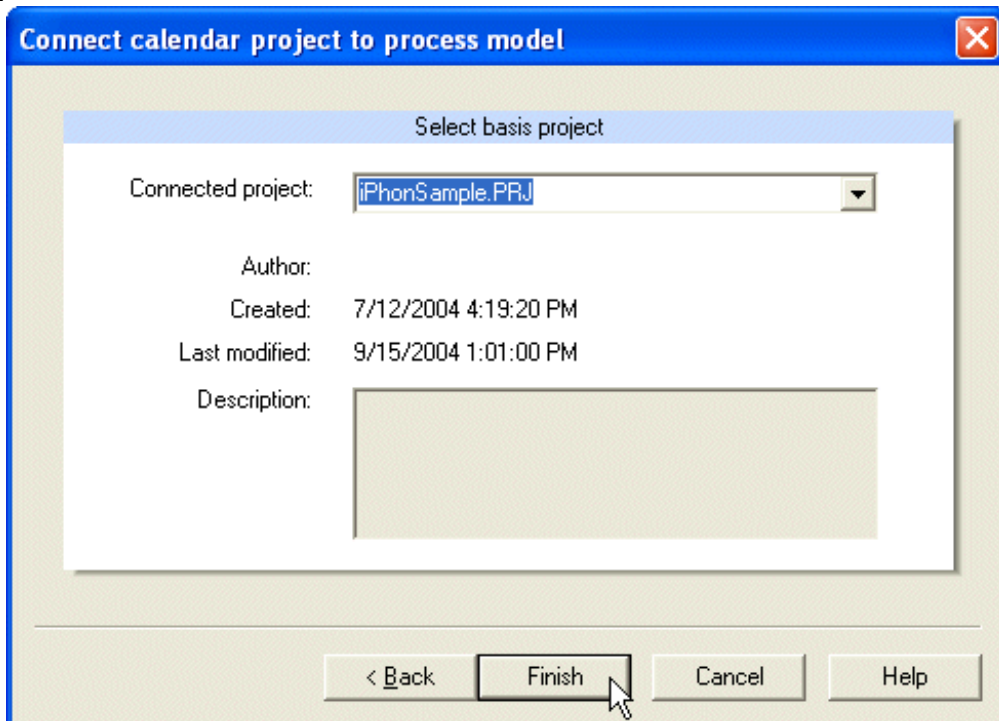
New: Click on button **New** opens a dialog to create a new calendar project.



Project's name: Unique name of the calendar project.

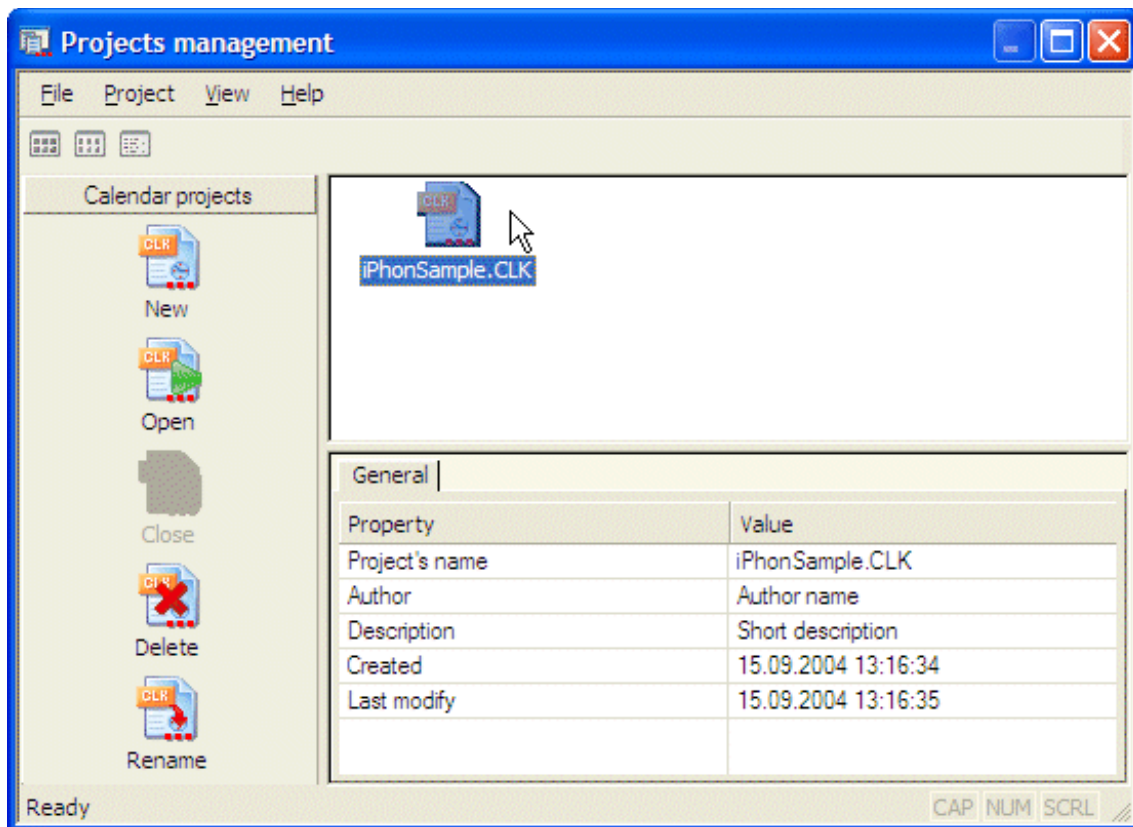
Author and description: It is useful but not mandatory to enter the author's name or the project description. These entries can be changed later.

Continue: Click on button **Continue** to continue with the creation of the calendar project.



Select a process model, to which the calendar program will be connected.


Finish: Click on button **Finish** to complete the creation of the calendar project. The calendar project will appear in the calendar projects management dialog and can be opened there.

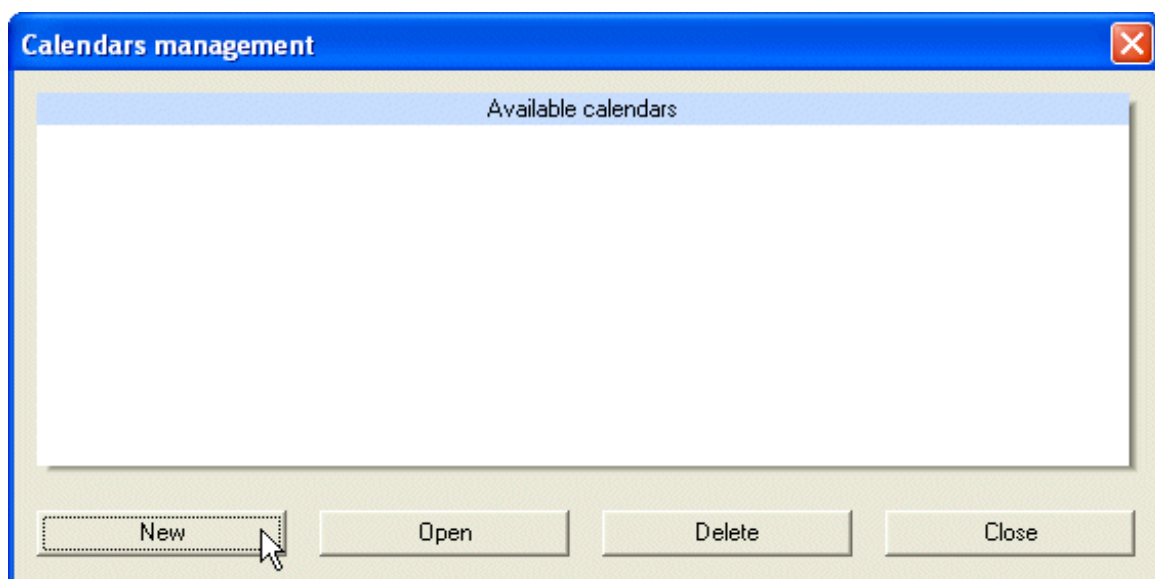


Open: Click **Open** to open the selected project. Alternatively double click on the project's symbol or use menu option **Project - Open**.

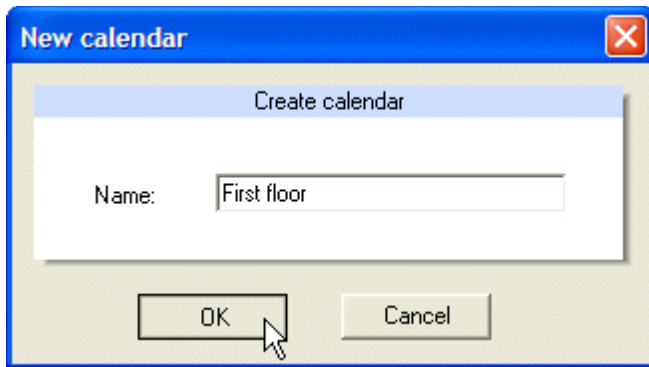
2.2 Step 2: Create calendar

One calendar project may contain several calendars.

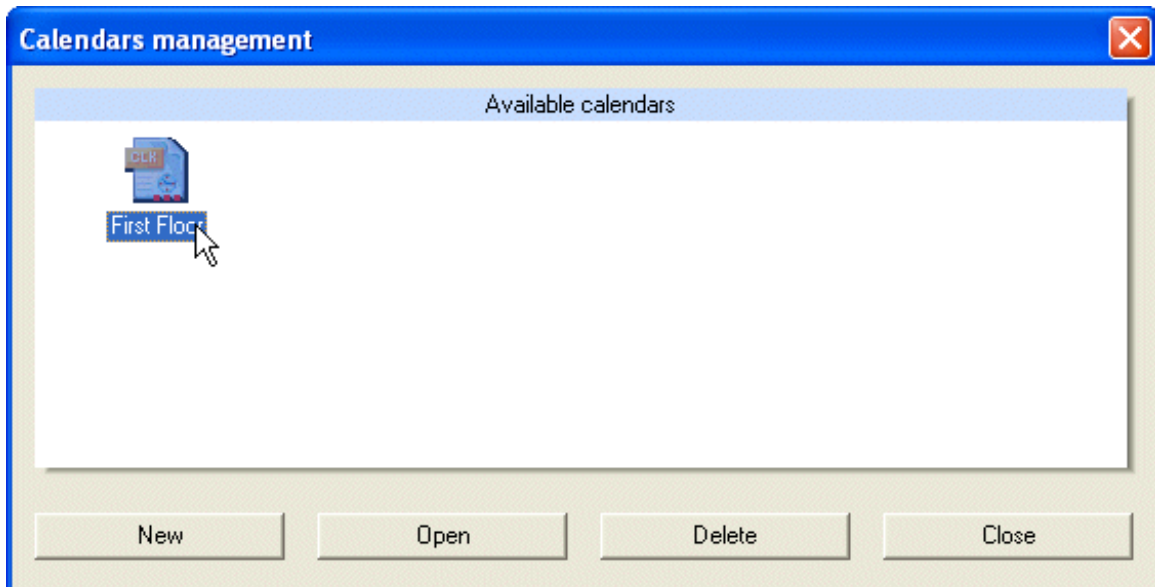
Use menu option **File - Calendars..** to open the calendars management dialog. Alternatively click on symbol  **Organize..** in the tasks tool window, or, click on the same symbol in the toolbar. In the calendars management dialog you can create, delete or rename calendars of the current calendar project.



Press button **New** to open a dialog to create a new calendar.



Enter a unique calendar name and press button **OK**. The dialog closes and the newly created calendar appears in the calendars management dialog, where it can be opened.




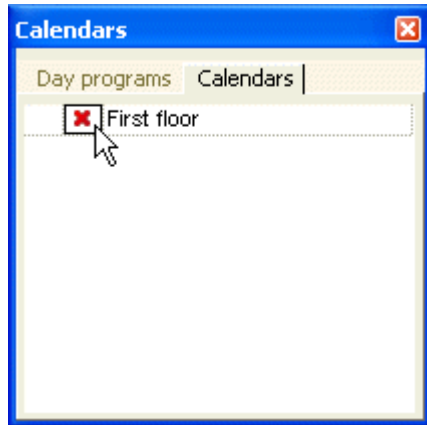
Press button **Open** to open the selected calendar. Alternatively double click on the calendar's symbol.





2.2.1 Activate calendar

The individual calendars of a calendar project can be activated or deactivated. If the calendar is not active, it's time schedule will not be evaluated.

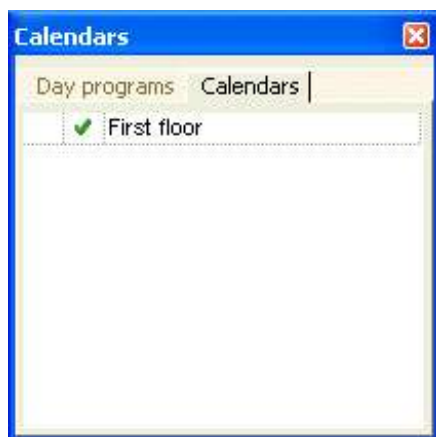
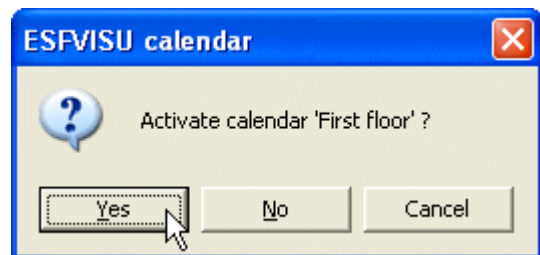
Use menu option **Calendar – Activate** to toggle the activation state of the calendar. Alternatively click on symbol  in the toolbar.



In the calendars tool window you can overview the different calendars with their activation state  (for active,  for inactive). As an alternative to menu and toolbar functions, you may just double click the activation symbol to change the activation state.


To change the activation state of a calendar, a dialog is opened.

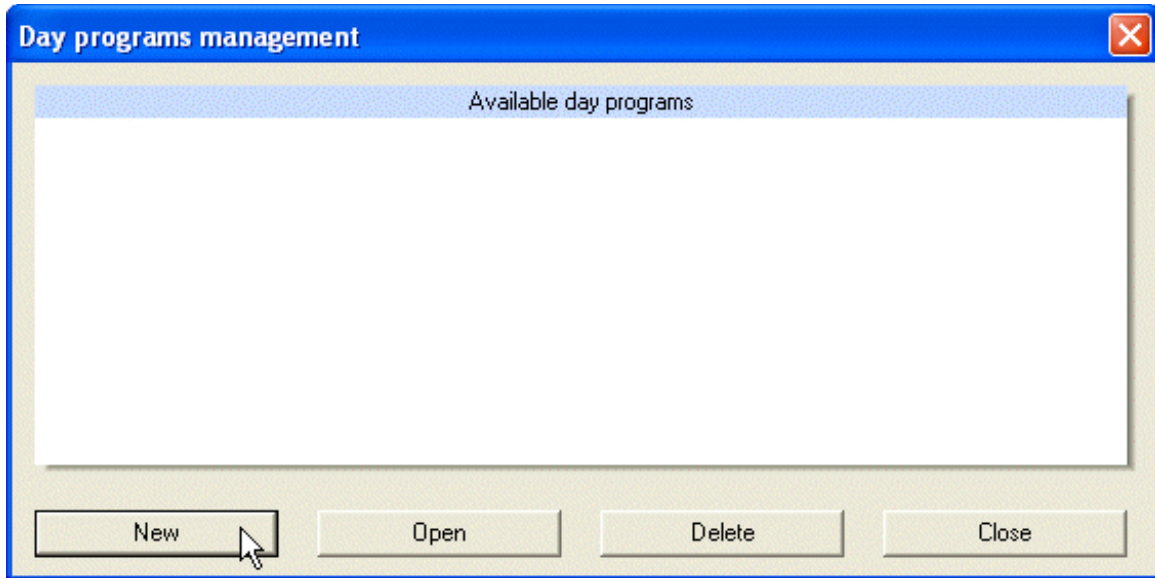
Press **Yes** if you want to activate the calendar, press **No** to deactivate the calendar.



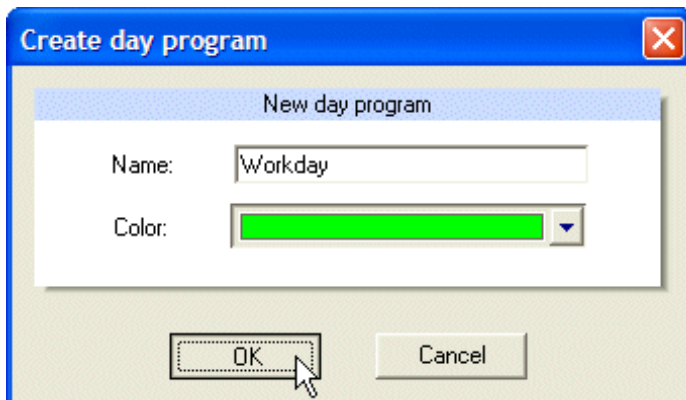
Now the calendar „First floor“ is **activated** .

2.3 Step 3: Create day program

Menu option **File – Day programs..** opens the day programs manager dialog. Alternatively click on symbol **Organize..** in the tasks tool window, section day programs, or click on the  symbol in the toolbar. In the day programs manager dialog you can create, open or delete day programs.

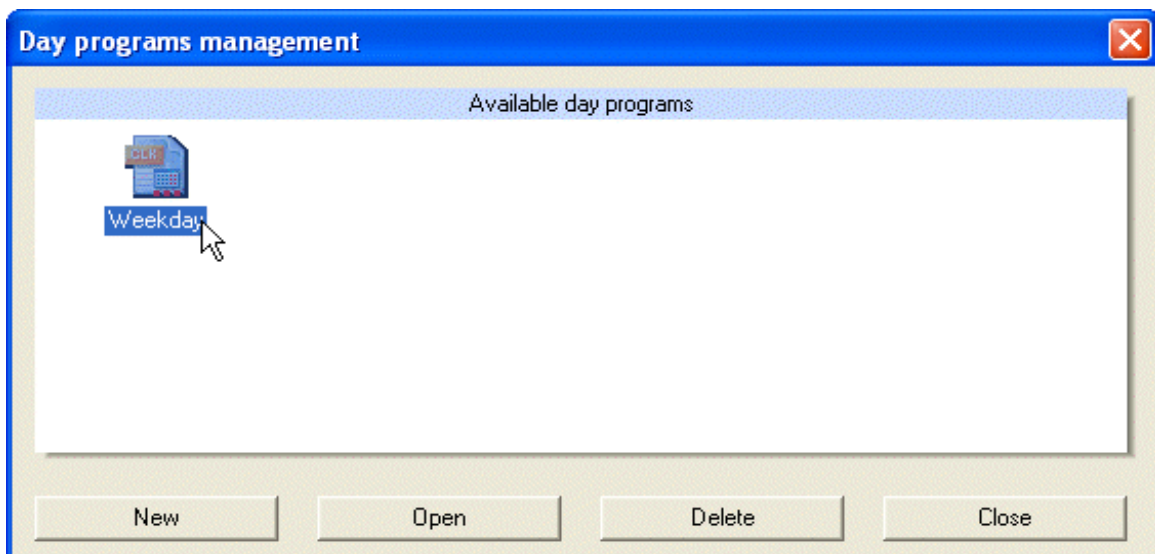


Button **New** opens a dialog to create a new day program.

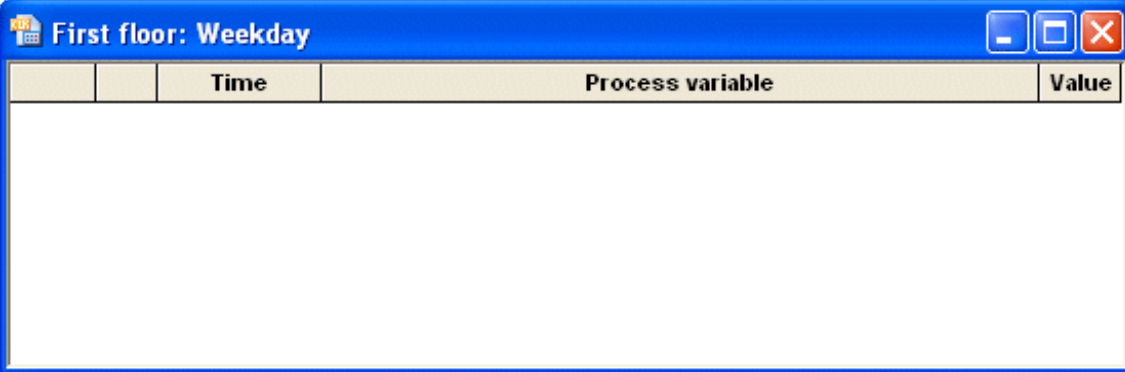


Enter a name for the day program and choose a color for the day program. In the calendar view the day program will be displayed with this color.

Press button **OK** to create the day program and close the dialog. The day program will appear in the day programs manager dialog.



Press button **Open** to open the selected day program. Alternatively double click the day program's symbol.



The screenshot shows a window titled "First floor: Weekday" with a blue header bar. Below the header is a table with three columns: "Time", "Process variable", and "Value". The table is currently empty.

	Time	Process variable	Value
--	------	------------------	-------

Now commands can be inserted into the day program. Please refer to chapter **Functions**, *Insert command into day program* to see how to do it.

You may continue with editing the calendar and define the contents of the day program later.

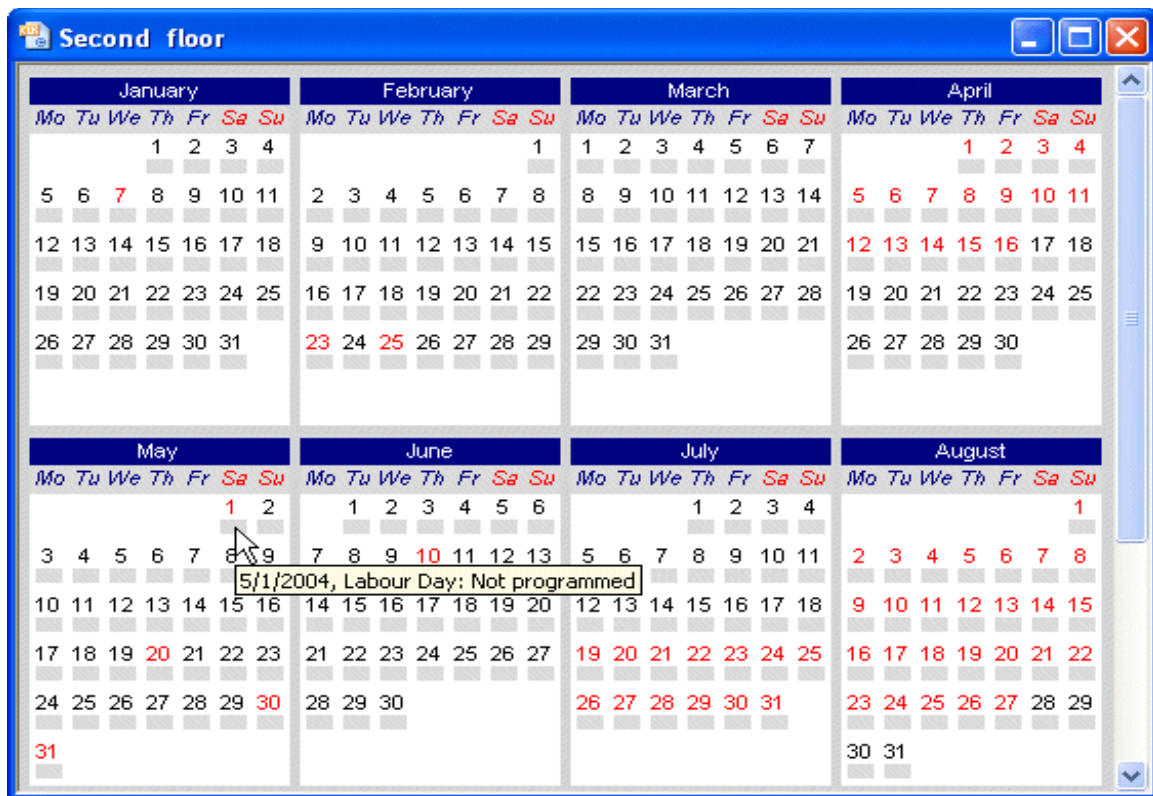
2.4 Step 4: Edit calendar

2.4.1 Assign standard day program

The calendars comprise a schedule of day programs. The day programs are assigned to calendar days or periods.

The following picture shows a calendar with no day programs assigned. Holidays, other special days and weekends are displayed with red color. Technically there is no difference between holidays and other special days that you can define yourself. We will see later, how they are defined. First, we see how they can be used.

When you move the mouse over a calendar, details regarding the day under the mouse cursor are displayed as a tool tip.

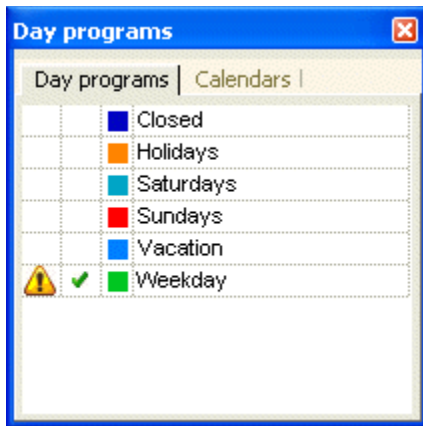


Open the dialog for the definition of holidays and special days with menu option **View – Holiday programming**.

The screenshot shows a dialog window titled "Holidays for calendar: Second floor". The dialog contains a table with the following columns: Holiday, Priority, and Day program.

	Holiday	Priority	Day program
1	Standard day		
2	Standard Monday		
3	Standard Tuesday		
4	Standard Wednesday		
5	Standard Thursday		
6	Standard Friday		
7	Standard Saturday		
8	Standard Sunday		
9	New Year's Day		
10	Carnival Monday		
11	Ash Wednesday		
12	Easter Holidays		
13	Good Friday		
14	Easter		
15	Easter Monday		
16	Labour Day		
17	Memorial Day		
18	Ascension Day		
19	Pentecost		
20	Whit Monday		
21	Corpus Christi		
22	Summer Holidays		

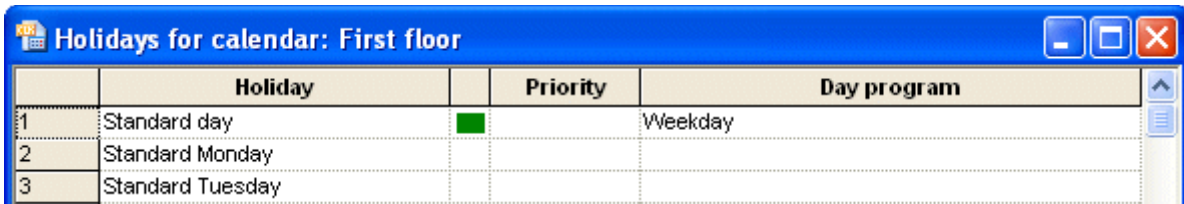
The holiday programming dialog shows a list of predefined special days. Among them is the standard day. The day program assigned to the standard day specifies the default commands, which are to be performed if no other special day applies.



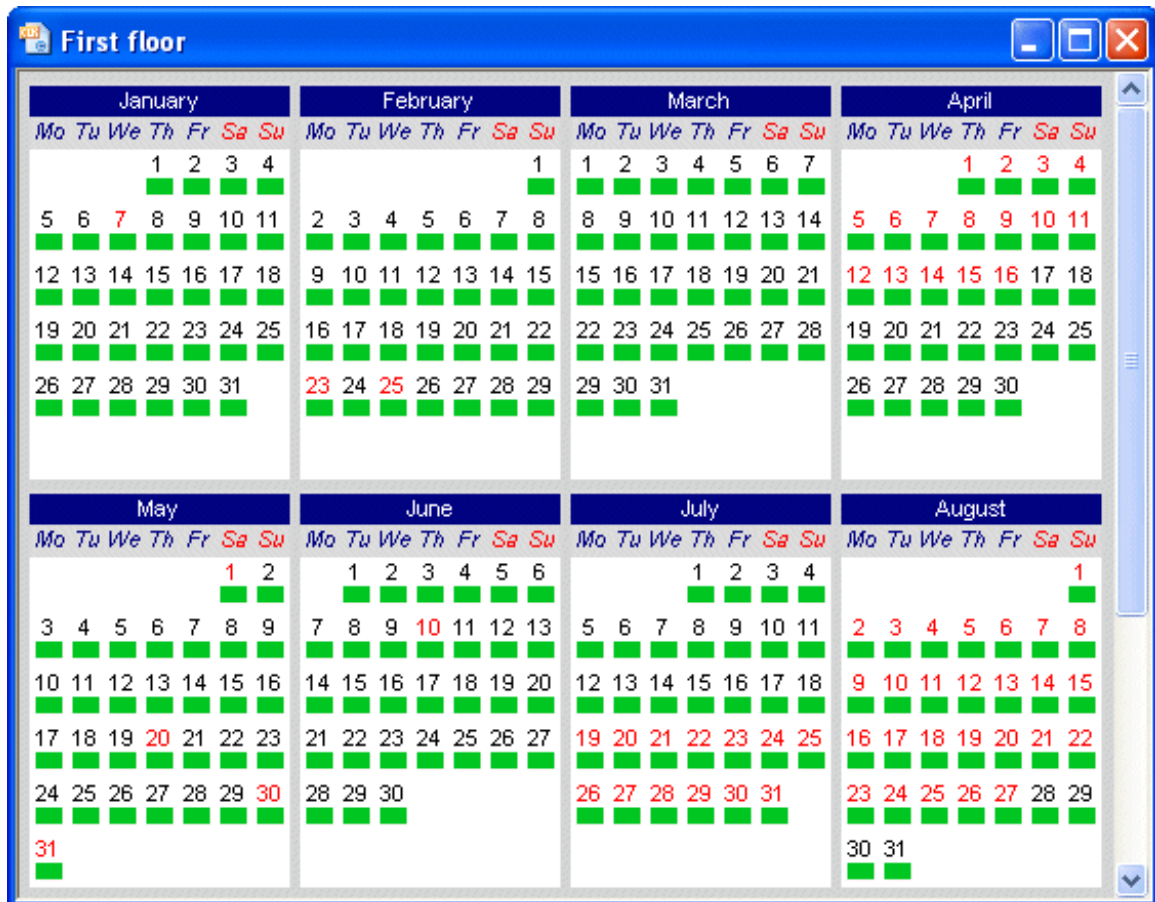
Defining the standard day program:

The day programs tool window shows already defined day programs. Click on the second column of a day program to make it the standard day program.

In the day programs list the standard day is marked with a small hook. Moreover, in the holiday program dialog you see the standard day program's name in column **Day program** of row **Standard day**.

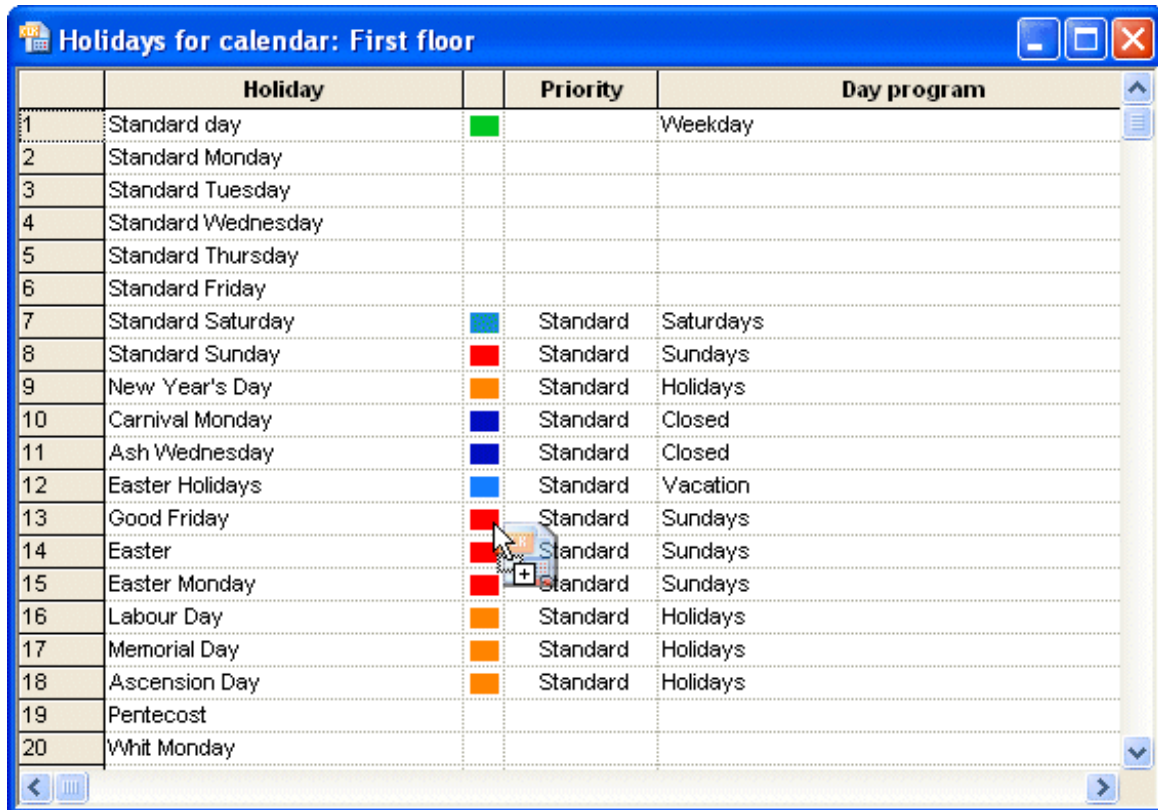


The standard day program is assigned to all days in the calendar, which are not *special*. Since no other special days have been programmed yet, at this step the standard day program's color appears for all days in the calendar.



2.4.2 Assign day programs to holidays

This example shows how day programs can be assigned to holidays and other special days.



	Holiday		Priority	Day program
1	Standard day	■		Weekday
2	Standard Monday			
3	Standard Tuesday			
4	Standard Wednesday			
5	Standard Thursday			
6	Standard Friday			
7	Standard Saturday	■	Standard	Saturdays
8	Standard Sunday	■	Standard	Sundays
9	New Year's Day	■	Standard	Holidays
10	Carnival Monday	■	Standard	Closed
11	Ash Wednesday	■	Standard	Closed
12	Easter Holidays	■	Standard	Vacation
13	Good Friday	■	Standard	Sundays
14	Easter	■	Standard	Sundays
15	Easter Monday	■	Standard	Sundays
16	Labour Day	■	Standard	Holidays
17	Memorial Day	■	Standard	Holidays
18	Ascension Day	■	Standard	Holidays
19	Pentecost			
20	Whit Monday			

In order to assign a day program to a special day, first select the day program in the day programs tool window and drag the day program to the special day's row program, in the holiday programming dialog.

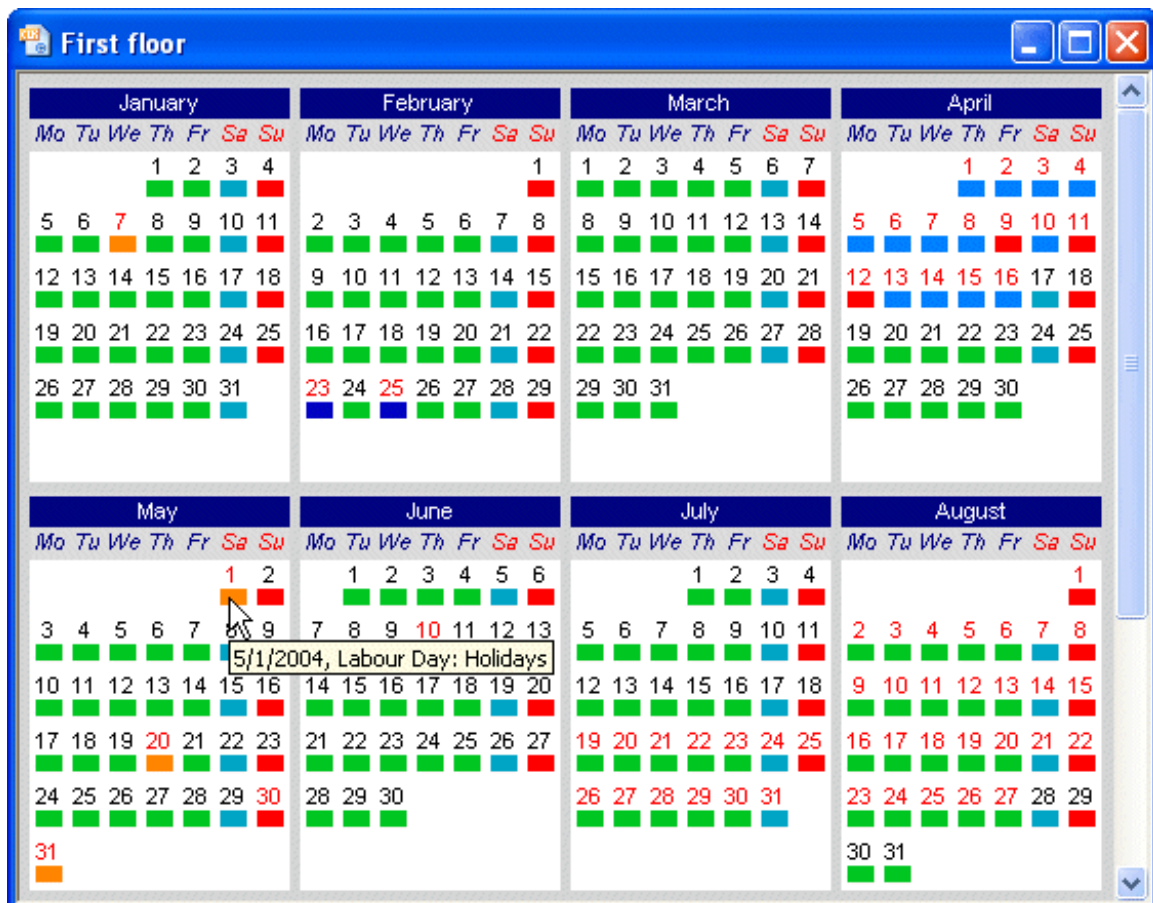
2.4.3 Assign priorities to day programs

You may assign a day program to Sundays and assign another different day program to the holiday **Easter Sunday**, which also is a Sunday. In these cases, priorities are used to resolve ambiguities.

Example: *Easter vacation, Good Friday, Easter Sunday, Easter Monday*

Good Friday, Easter Sunday and Easter Monday are holidays in the Easter vacation. In the example, there are day programs assigned to Good Friday, Easter Sunday and Easter Monday and another different day program, assigned to the Easter vacation. If the day programs of Good Friday, Easter Sunday and Easter Monday are supposed to run instead of the day program of Easter vacation, they must have higher priorities. Their priority number must be higher than the priority number of the Easter vacation.

Click on column **Priority** to assign a priority to the row. *Standard* is the lowest priority (priority 0). Other priorities range from 1 to 9, with 9 as the highest priority.



The programming of holidays is always updated in the calendar view.

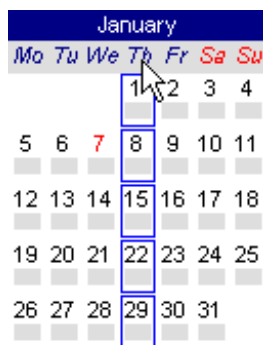
2.4.4 Manually insert day programs



A day program can be manually assigned to dates in the calendar. Just select the day program in the day programs **tool window** and drag the day program to the desired date in the calendar.

However, you may assign the day program not only to a specific date, but you may assign it to a whole selection of dates.

Date selections in the calendar:



Select a column:

Click on the weekday's name.



Select multiple columns:

Extend the selection with a second click on another weekday's name but with CTRL- key pressed.



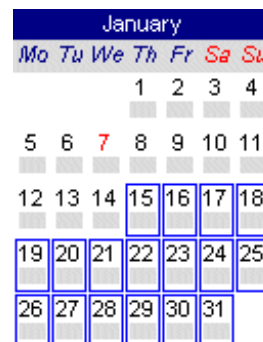
Select a month:

Click on the month's name, if desired extend the selection with CTRL- key pressed and other selections.



Select several days:

Start with the selection of one day and extend the selection with more clicks but CTRL- key pressed.

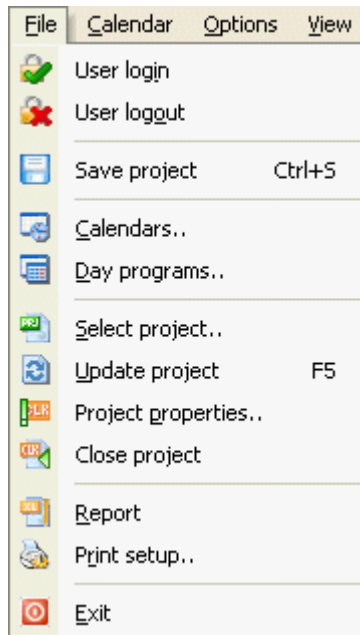


Select a range:

Click on the first day of the selection, and then click on the last day of the selection with SHIFT- key pressed. It works over month's boundaries.

3 User interface

3.1 Menu



User login: Opens a dialog to login a user to the system.

User logout: Logout current user from the system.

Save project: Saves the current project.

Calendars..: Opens the calendars management dialog, used to create new calendars and maintain existing calendars.

Day programs..: Opens the day programs management dialog, used to create new day programs and maintain existing ones.

Select project..: Opens dialog to connect a logical process model with the current project.

Update project: Updates data imported from the logical process model.

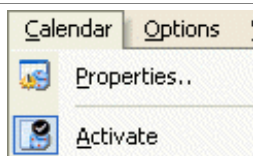
Project properties..: Opens dialog to change general properties of the project.

Close project: Closes the calendar project.

Report: Generates report for the project.

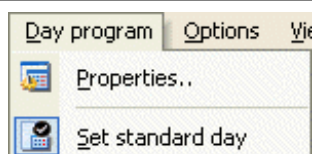
Print setup..: Select printer and printer properties.

Exit: Closes the editor. Shortcut ALT + F4.



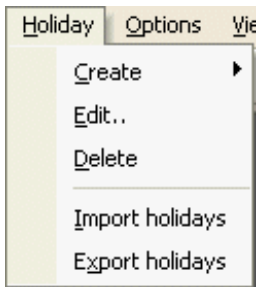
Properties..: Opens dialog to change general properties of the calendar.

Activate: Activates the calendar.



Properties..: Opens dialog to change general properties of the day program.

Set standard day: Assign day program to standard day.



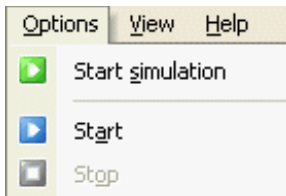
Create: Opens dialog to create a new holiday, respectively special day.

Edit: Opens dialog to edit the selected holiday.

Delete: Delete selected holiday.

Import holidays: Opens dialog to import holiday definitions from an existing file (*.esfclk).

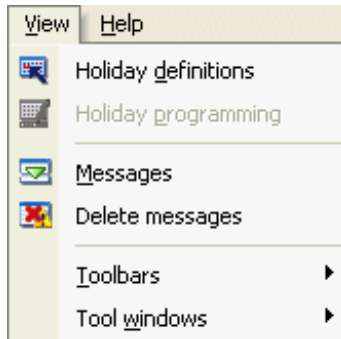
Export holidays: Opens dialog to save holiday definitions in a file (*.esfclk).



Start simulation: Starts simulation of the calendar project.

Start: Starts the calendar project.

Stop: Stops the running calendar project.

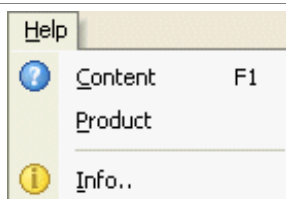


Holiday definitions: Opens holiday definitions dialog.

Holiday programming: Opens holiday programming dialog. Day programs are assigned to holidays and other special days.

Messages: Toggles the visibility of the messages window.

Delete messages: Deletes the contents of the messages list.

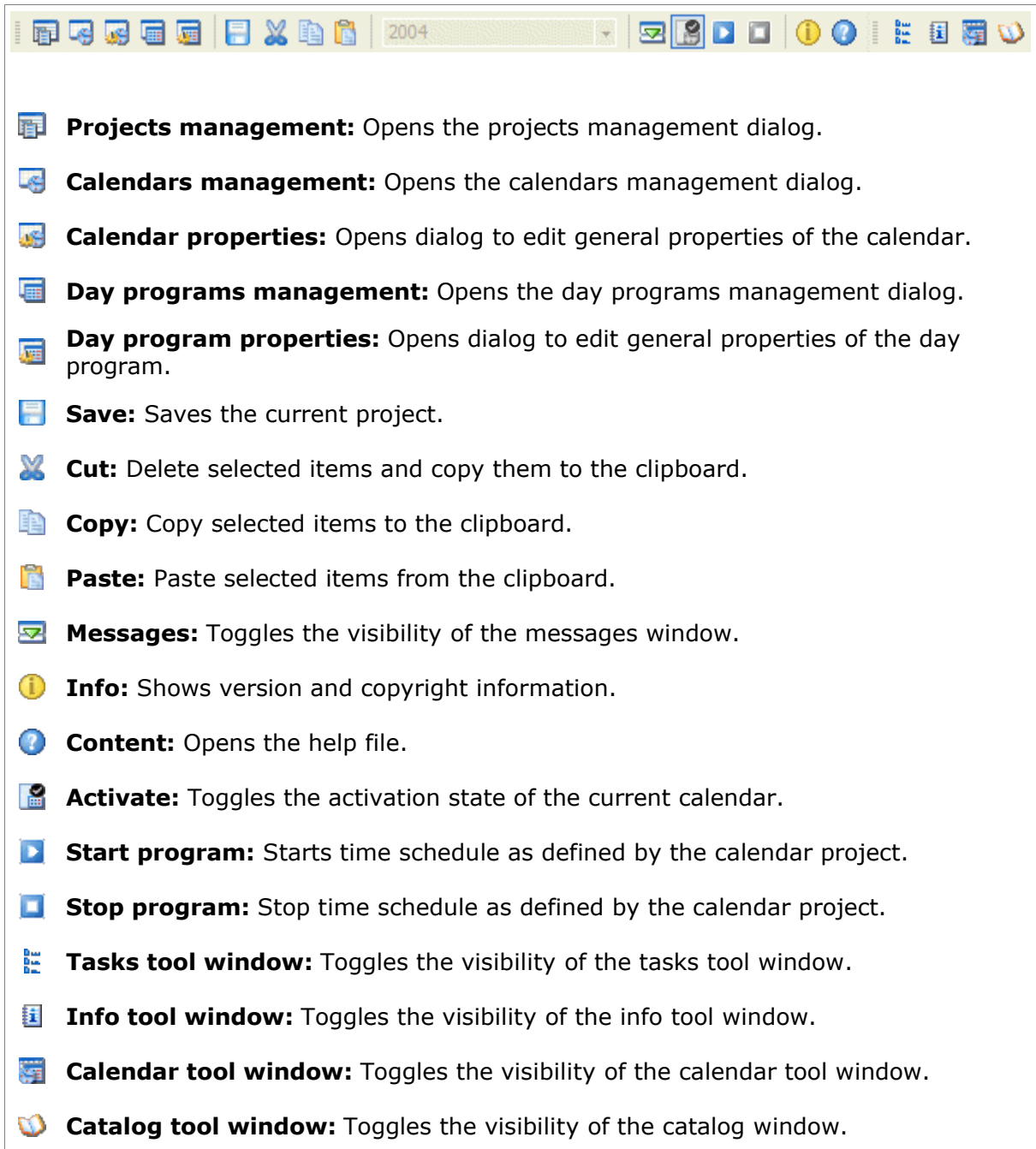


Content: Opens help file.




















Product: Shows product and license information.

Info: Shows version and copyright information.

3.2 Toolbar



The image shows a software toolbar with a dropdown menu set to '2004'. Below the toolbar is a list of icons and their corresponding functions:

-  **Projects management:** Opens the projects management dialog.
-  **Calendars management:** Opens the calendars management dialog.
-  **Calendar properties:** Opens dialog to edit general properties of the calendar.
-  **Day programs management:** Opens the day programs management dialog.
-  **Day program properties:** Opens dialog to edit general properties of the day program.
-  **Save:** Saves the current project.
-  **Cut:** Delete selected items and copy them to the clipboard.
-  **Copy:** Copy selected items to the clipboard.
-  **Paste:** Paste selected items from the clipboard.
-  **Messages:** Toggles the visibility of the messages window.
-  **Info:** Shows version and copyright information.
-  **Content:** Opens the help file.
-  **Activate:** Toggles the activation state of the current calendar.
-  **Start program:** Starts time schedule as defined by the calendar project.
-  **Stop program:** Stop time schedule as defined by the calendar project.
-  **Tasks tool window:** Toggles the visibility of the tasks tool window.
-  **Info tool window:** Toggles the visibility of the info tool window.
-  **Calendar tool window:** Toggles the visibility of the calendar tool window.
-  **Catalog tool window:** Toggles the visibility of the catalog window.

3.3 Tool windows

The calendar application shows different tool windows, which provide tools and information according to the current state in the editor.

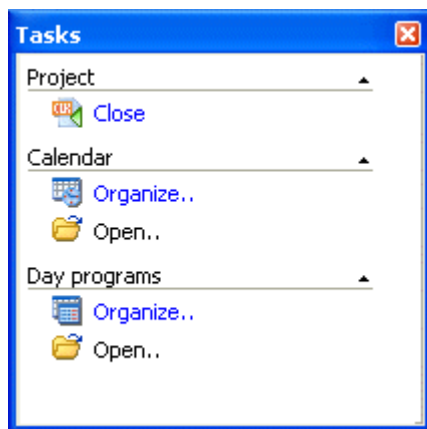
Menu option **View – Tool windows** can be used to toggle the visibility of the different tool windows.



As an alternative, you may use the tool windows toolbar to toggle the visibility of different tool windows. Use menu option **View – Toolbars** to toggle the visibility of this toolbar.

3.3.1 Tasks tool window

The tasks tool window provides easy access to common tasks. Click on an item in the tasks list to start the task. The content differs according to the editor's state.



When no calendar project has been loaded:

Start project's management dialog; open project out of recently used project's list.

When a calendar project has been opened but no calendar has been opened yet:

Close calendar project; Open calendars management dialog.

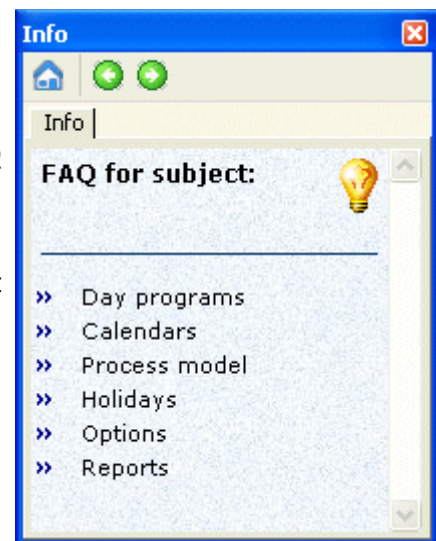
When a calendar has been opened:

Close calendar project; open calendars management dialog; open day programs management dialog.

3.3.2 Info tool window

This window provides information similar to a FAQ (Frequently Asked Question) list.

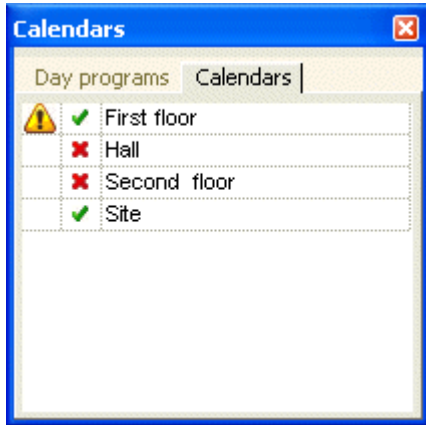
The content changes according to the current situation in the editor and can be navigated with the built-in Internet Explorer.



3.3.3 Calendar tool window

This window has two tabs: The tab **Day programs** shows a list of day programs, tab **Calendar** shows a list of calendars.

Calendars:



The **Calendar** tab has the following properties:

- The second column shows the activation state of the calendar. Symbol ✓ indicates that the calendar is active, symbol ✗ indicates that the calendar is not active.

The activation state of a calendar can be changed with double click on this column. Alternatively, you may use the menu or the toolbar.

- Double click on the calendar's name opens the calendar.

⚠ Problem indication:

The first column is reserved to indicate a possible problem.

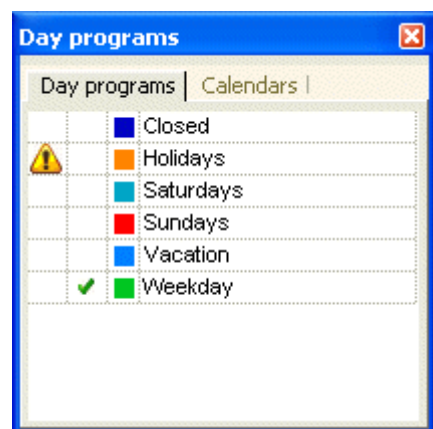
Possible causes:

- The calendar comprises of day programs, which comprise of erroneous commands or include no commands. In the day program, erroneous commands will be displayed with red color.

Day programs:

The **Day programs** tab shows the available day programs.

- The second column shows whether the day program has been assigned to the standard day. Symbol ✓ indicates that the day program has been assigned to the standard day.
- Double click on this cell of a row will assign the day program in this row to the standard day. Alternatively, you may use the menu or the toolbar.
- Double click on the color opens a dialog to change the color of the day program.
- The day program can be dragged to a calendar or to a holiday in the holiday programming dialog.



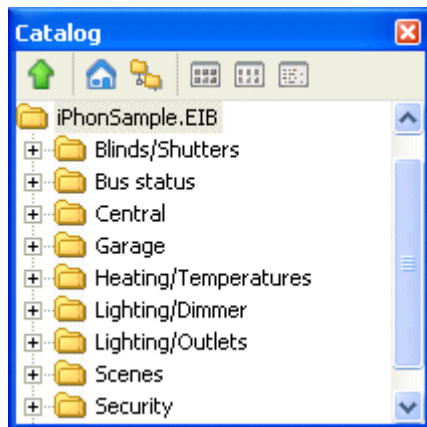
Problem indication:

The first column is reserved to indicate a possible problem.

Possible causes:

- Commands for a process variable have been used, which is no longer available or the command is no longer allowed.
- The day program does not contain any commands.
- Two values for a single process variable are to be sent at the same time. In the day program, erroneous commands will be displayed with red color.

3.3.4 Catalog tool window



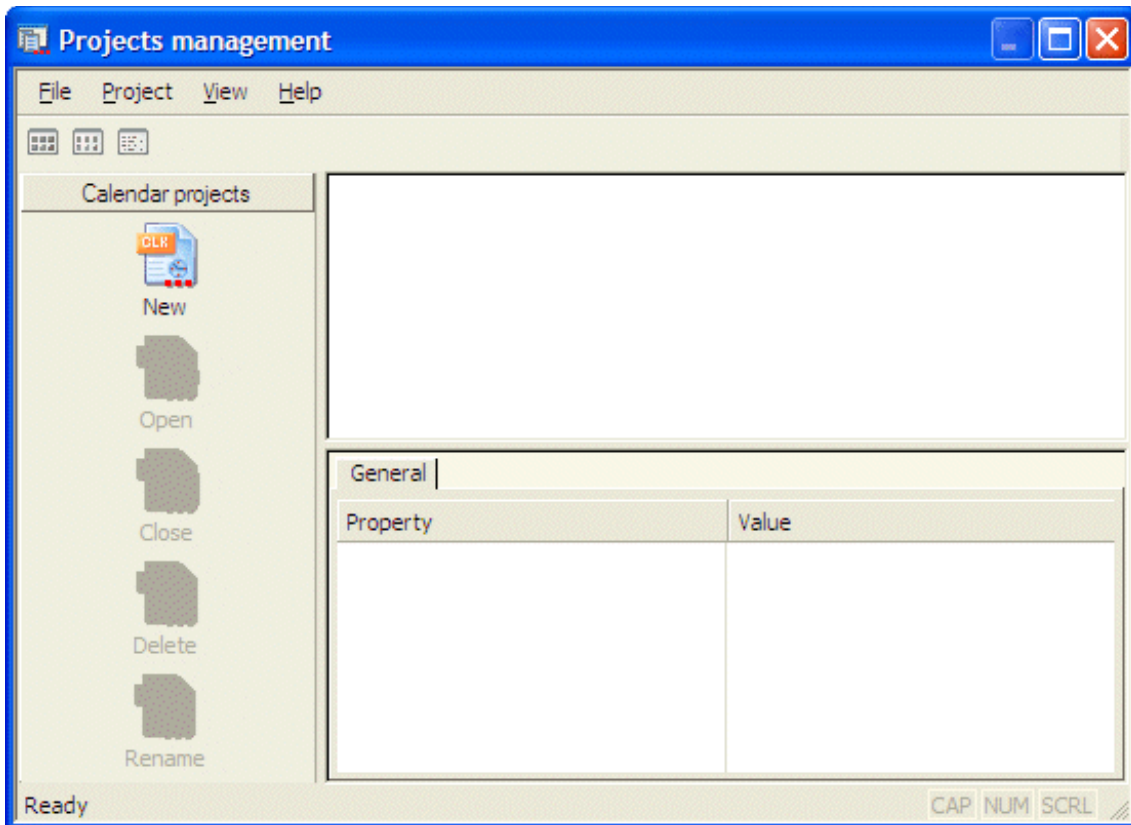
The catalog comprises of connected process model and it's process variables. To insert a command into a day drag the process variable to the day command window.

4 Functions

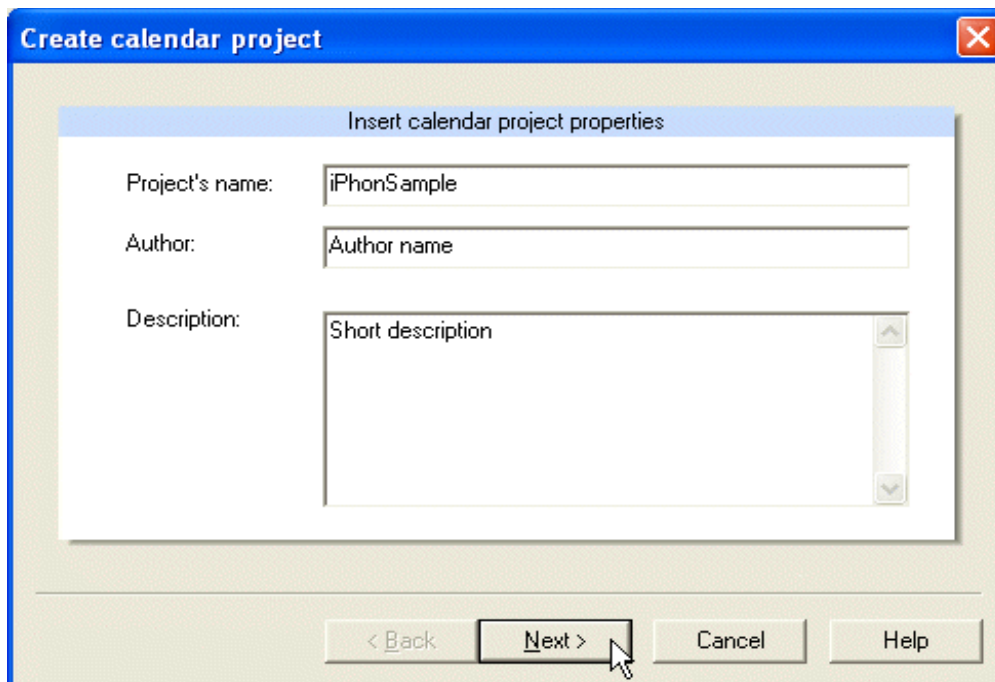
4.1 Create and maintain calendar projects

Create calendar project:

Menu option **File - Projects** opens the calendar projects management dialog. Alternatively, click on **Organize..** in the tasks tool window. In this dialog you may create, open, delete or rename calendar projects.



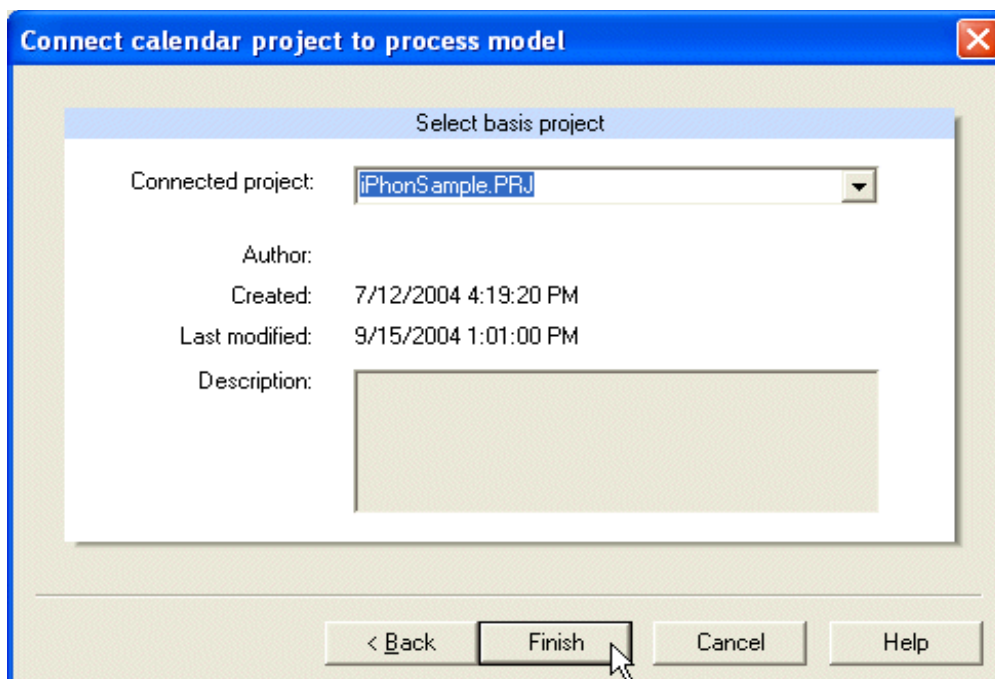
New: Click on button **New** opens a dialog to create a new calendar project.



Project's name: Unique name of the calendar project.

Author and description: It is useful but not mandatory to enter the author's name or the project description. These entries can be changed later.

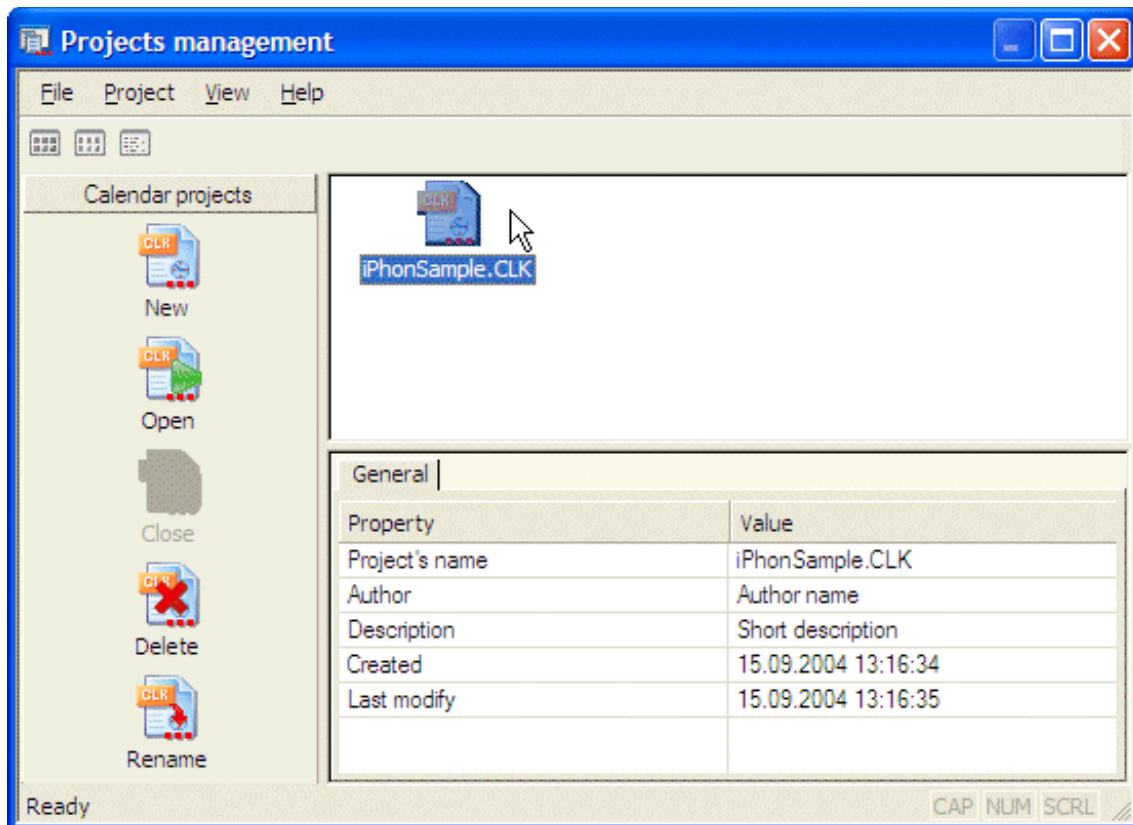
Continue: Click on button **Continue** to continue with the creation of the calendar project.



Select a process model, to which the calendar program will be connected.

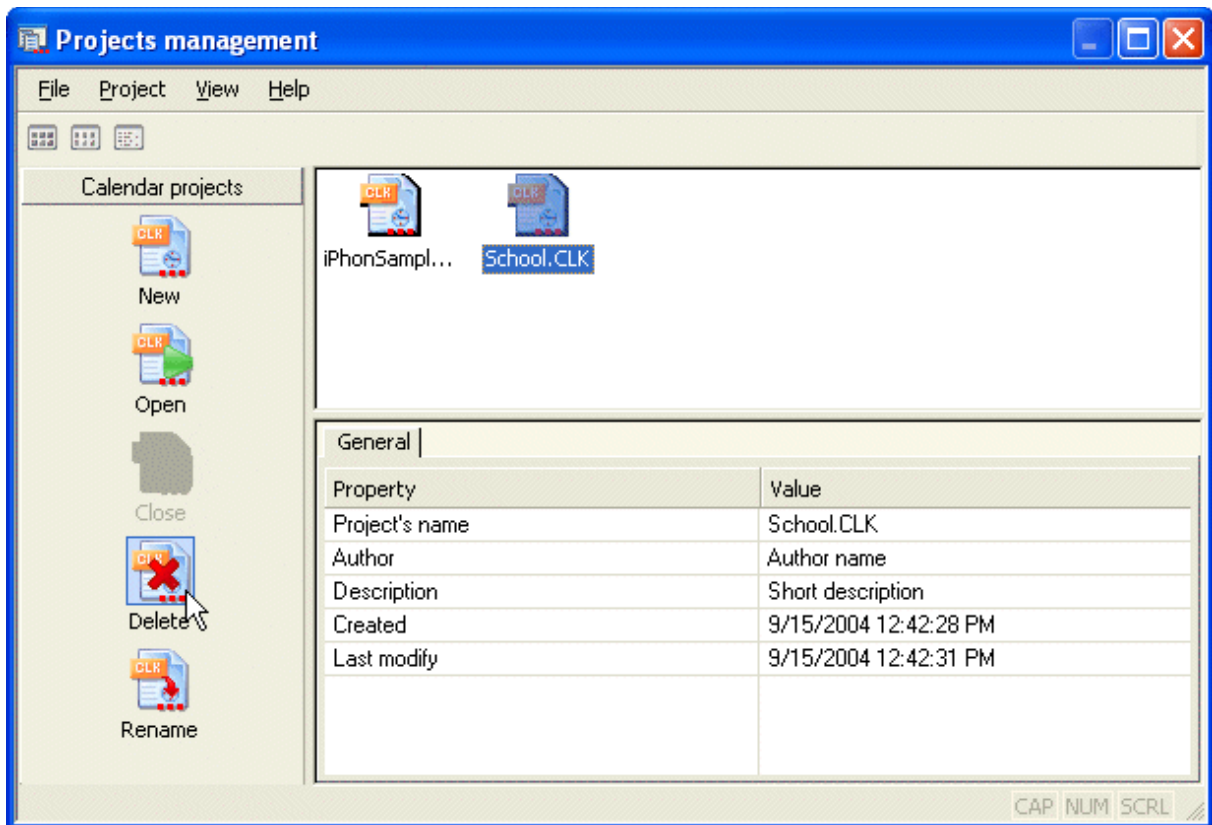
Finish: Click on the button **Finish** to complete the creation of the calendar project. The calendar project will appear in the calendar projects management dialog and can be opened there.

Open calendar project:



Open: Press button **Open** to open the selected project. Alternatively double click the project's icon or use menu option **Project - Open**.

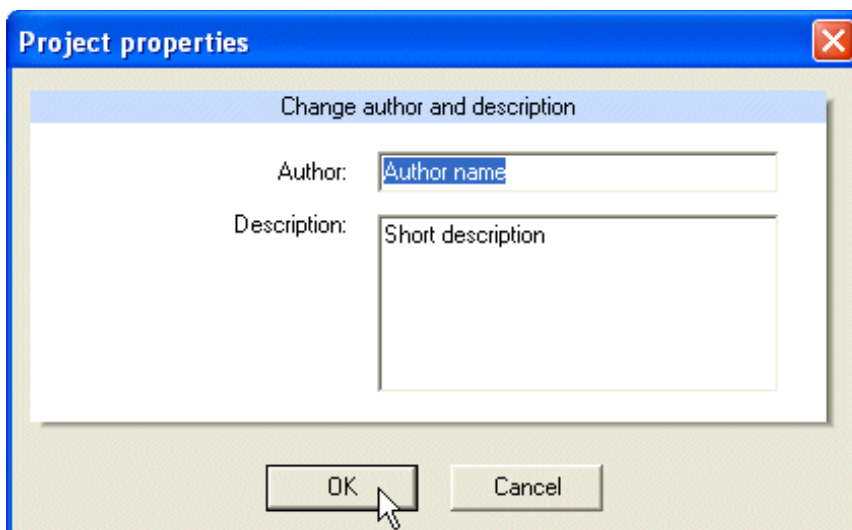
Delete calendar project:



Press button **Delete** to delete the selected calendar program. Alternatively use menu option **Project – Delete**.

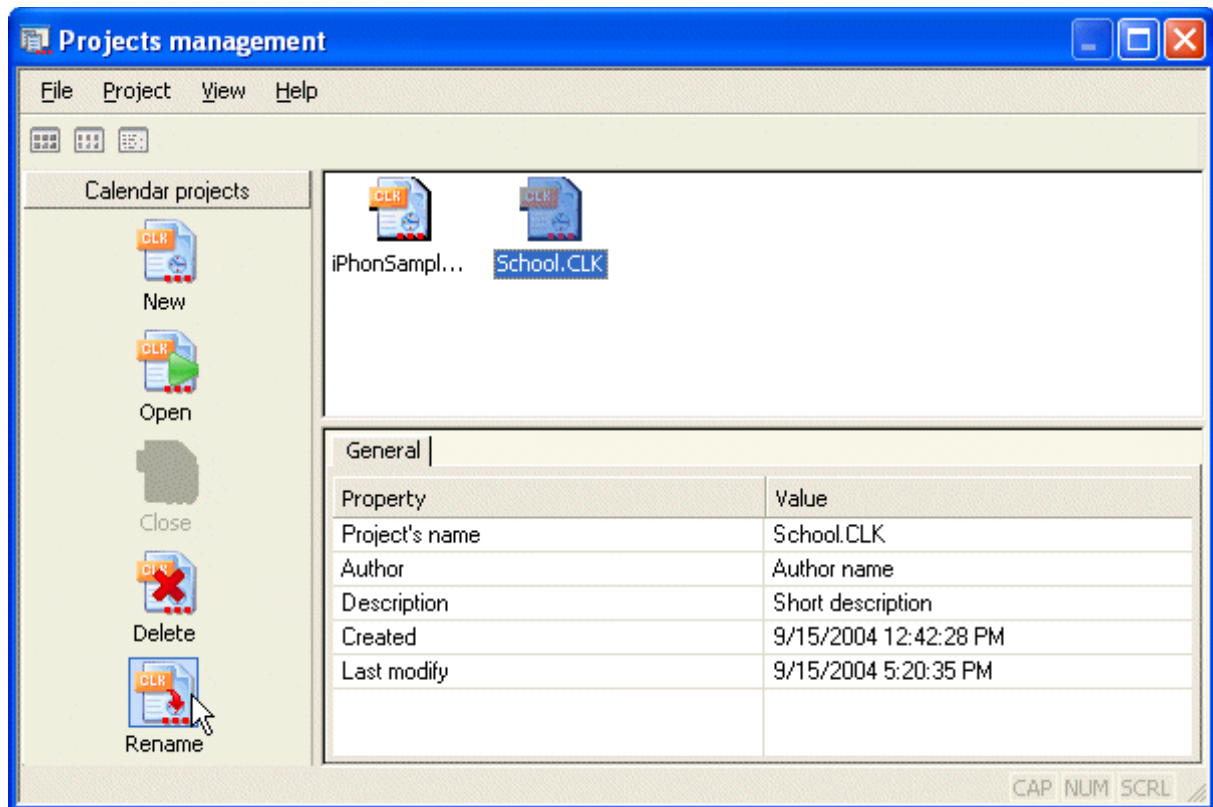
Edit project properties:

Menu option **File – Project properties..** opens the dialog to change the project's author and description.

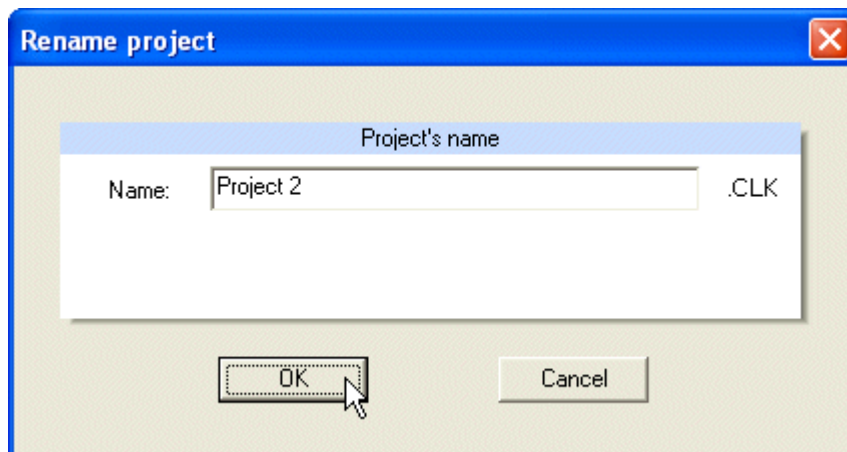


Press button **OK** to commit the changes and to close the dialog.

Rename calendar project:



Press button **Rename** to open a dialog to rename the project. The project must be closed before the project can be renamed.




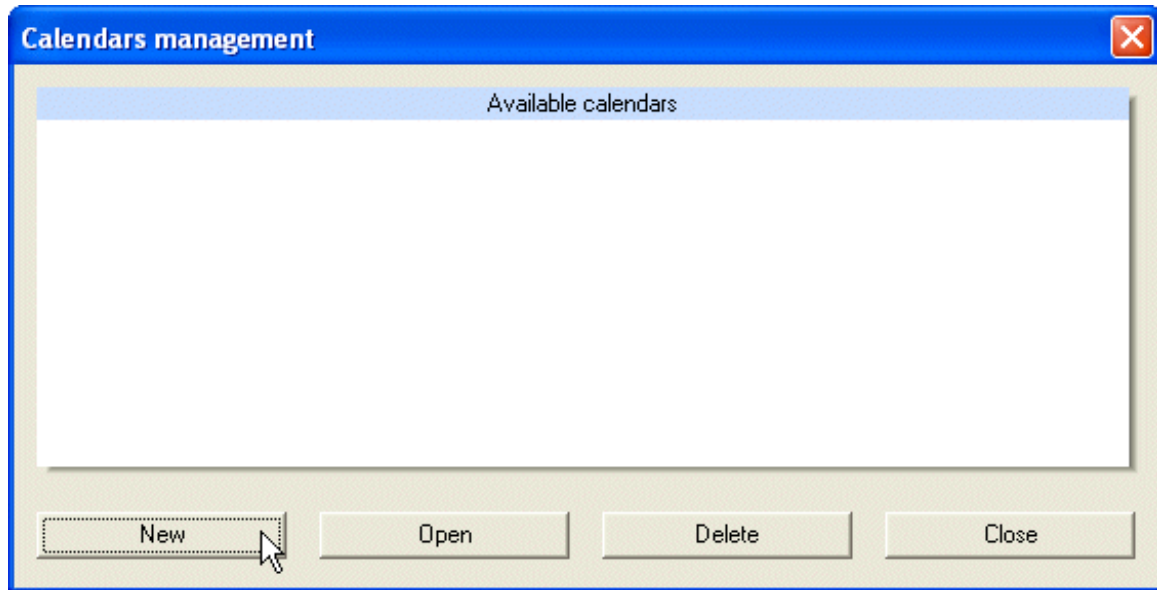
Press button **OK** to commit the changes and to close the dialog.

4.2 Create and maintain calendars

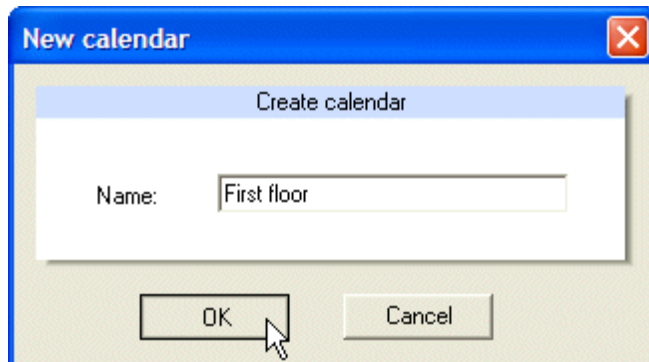
Create calendar:

One calendar project may contain several calendars.

Use menu option **File – Calendars..** to open the calendars management dialog. Alternatively click on symbol  **Organize..** in the tasks tool window, or, click on the same symbol in the toolbar. In the calendars management dialog you can create, delete or rename calendars of the current calendar project.




Press button **New** to open a dialog to create a new calendar.





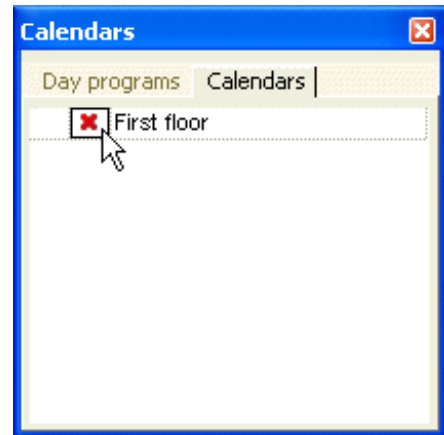
Enter a unique calendar name and press button **OK**. The dialog closes and the newly created calendar appears in the calendars management dialog, where it can be opened.

Activate/deactivate calendar:

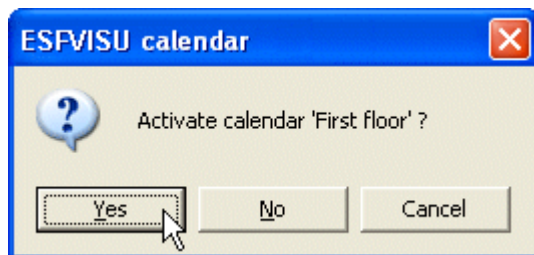
The individual calendars of a calendar project can be activated or deactivated. If the calendar is not active, its time schedule will not be evaluated.

Use menu option **Calendar – Activate** to toggle the activation state of the calendar. Alternatively click on symbol  in the toolbar.

Another alternative is to use the calendar's tool window. Symbol  indicates that the calendar is active, symbol  indicates that the calendar is not active. The activation state of a calendar can be changed with double click on this column.



A dialog to activate or deactivate the calendar is opened.

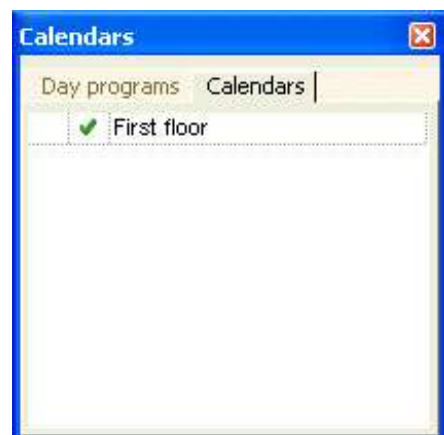


Yes: the calendar will be activated.

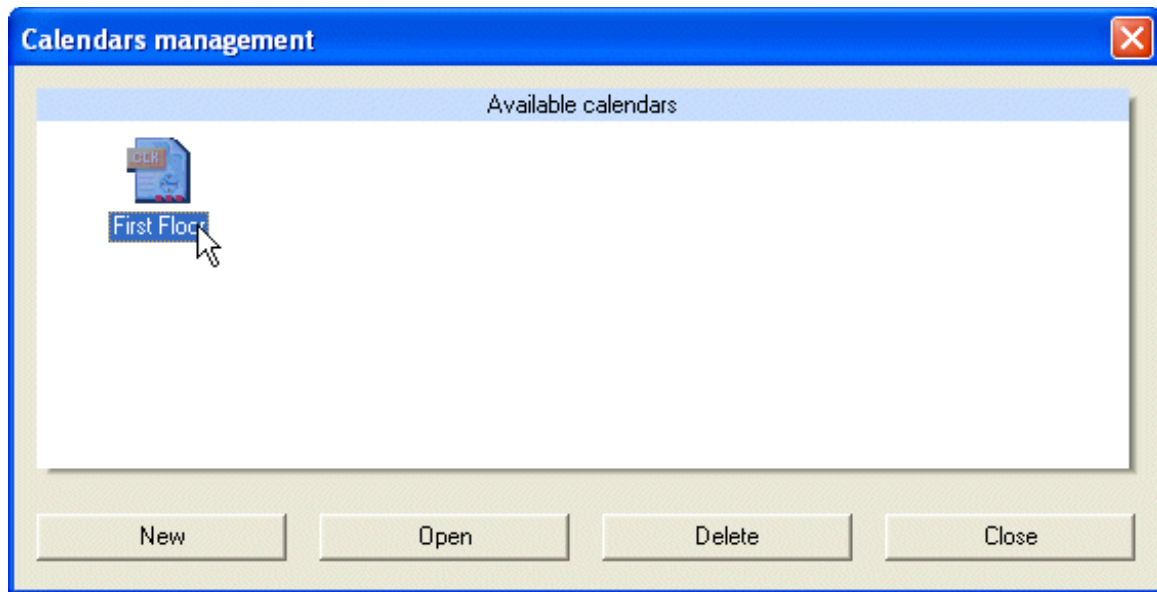
No: the calendar will be deactivated.

Cancel: no change.

Now the calendar „First floor“ is **activated** .



Open calendar:




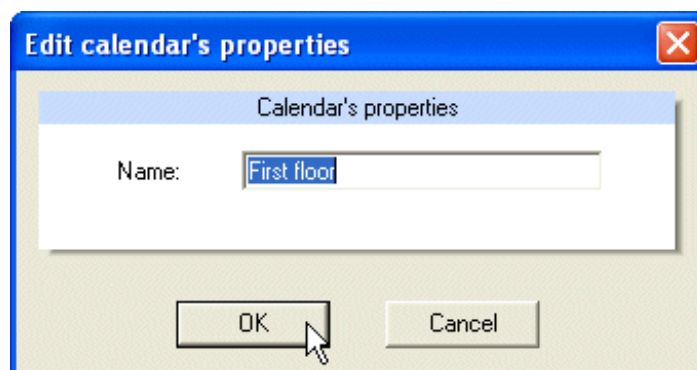
Press button **Open** to open the selected calendar. Alternatively double click on the calendar's icon.

Delete calendar:

Press button **Delete** to delete the selected calendar.

Edit the calendar's name:


Use menu option **Calendar – Properties..** to change the name of the calendar. Alternatively click on symbol  in the toolbar.

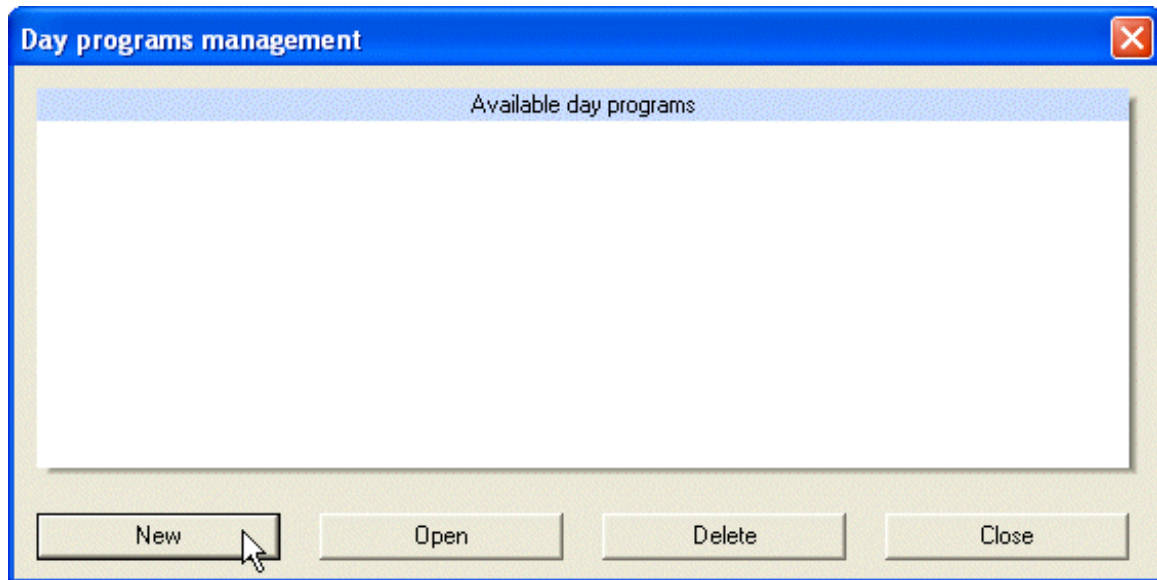


Enter the new name of the calendar and press button **OK** to commit the change.

4.3 Create and maintain day programs

Create day program:

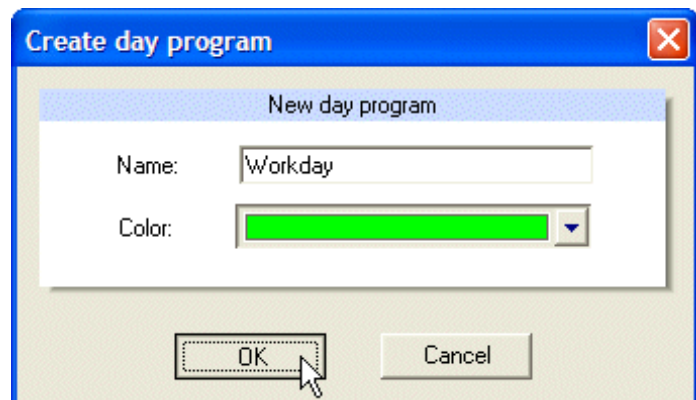
Use menu option **File – Day programs..** to open the day programs management dialog. Alternatively click on symbol  **Organize..** in the tasks tool window, or, click on the same symbol in the toolbar. In the day programs management dialog you can create and maintain day programs.



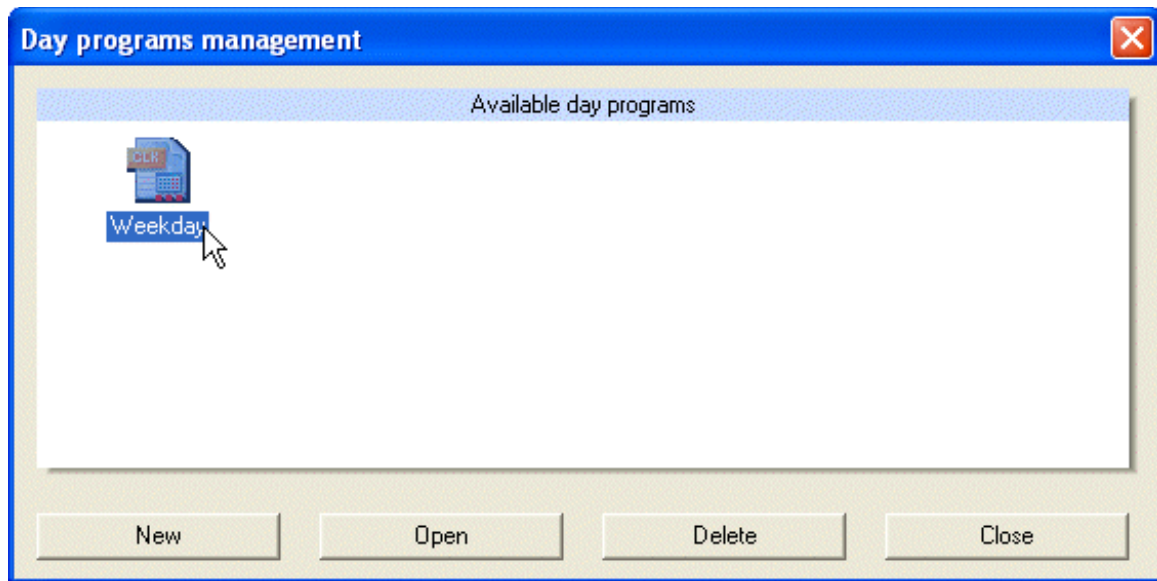
Button **New** opens a dialog to specify name and color of the new day program.

Enter a name for the day program and choose a color for the day program. In the calendar view the day program will be displayed with this color.

Press button **OK** to create the day program and close the dialog. The day program will appear in the day programs manager dialog.

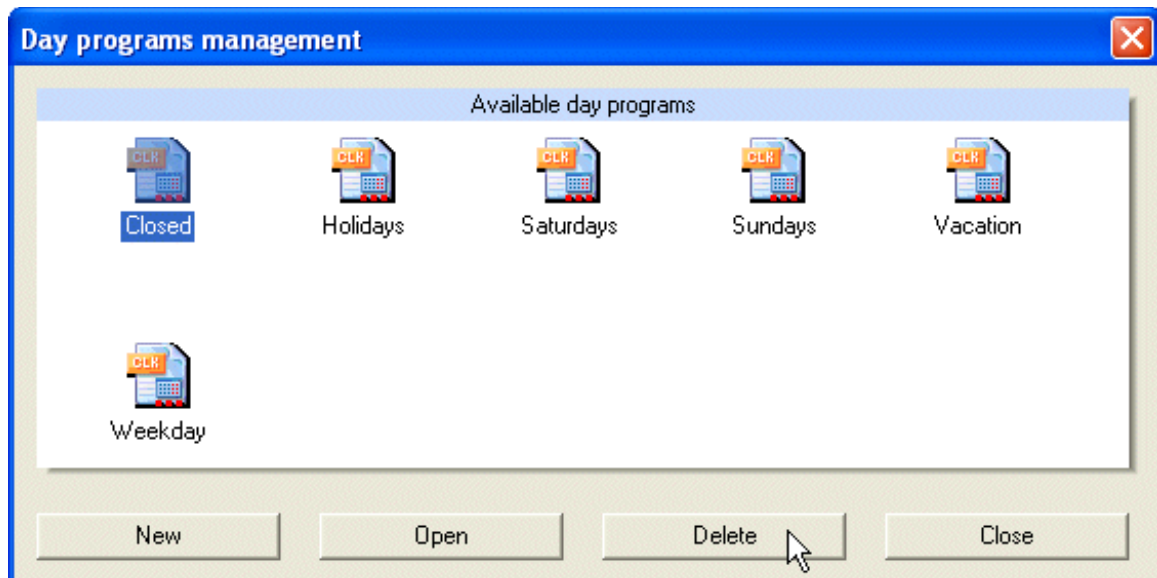


Open day program:



Press button **Open** to open the selected day program. Alternatively double click on the day program's icon.

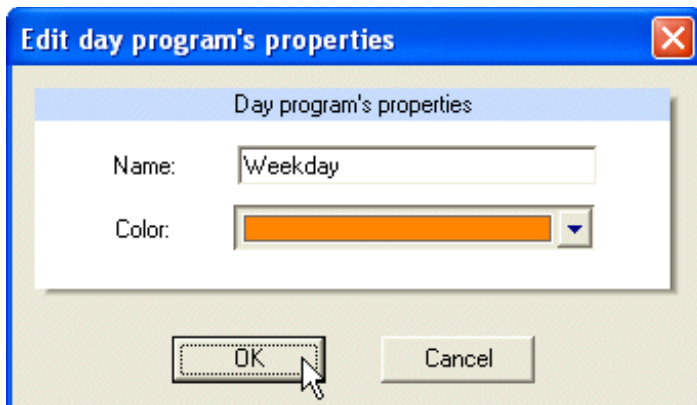
Delete day program:



Press button **Delete** to delete the selected day program.

Edit the day program's properties:

Menu option **Day program – Properties..** opens a dialog to edit the day program's name and color.



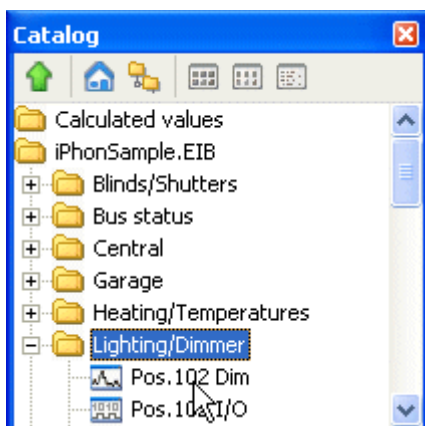
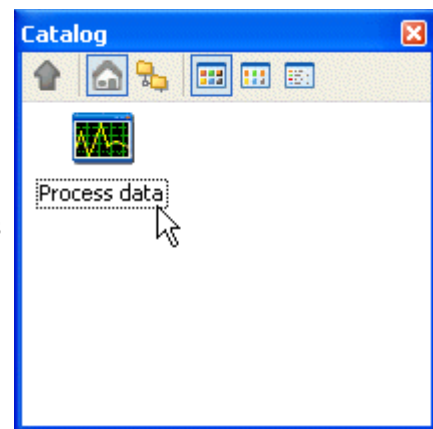
Enter the new name or change the color and press button **OK** to commit the changes and to close the dialog.

4.4 Insert command into day program

In order to insert a command into the day program first open the day program's window. The day program can be opened with a double click on a day program in the day programs tool window.

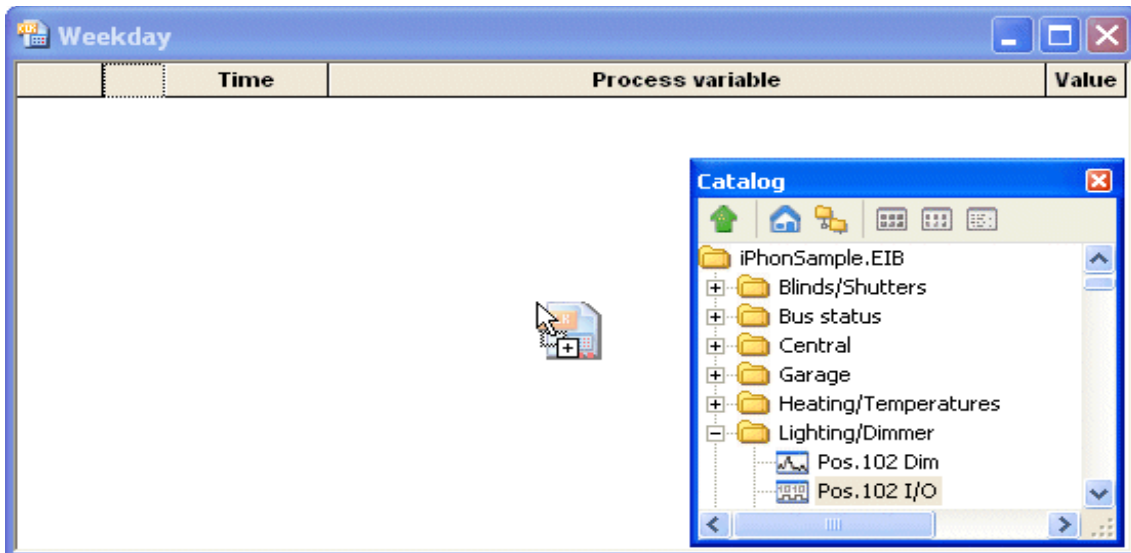
Catalog:

In the catalog tool window double click on the icon **Process data**. The catalog will switch to a tree view with the process variables of the connected process model.

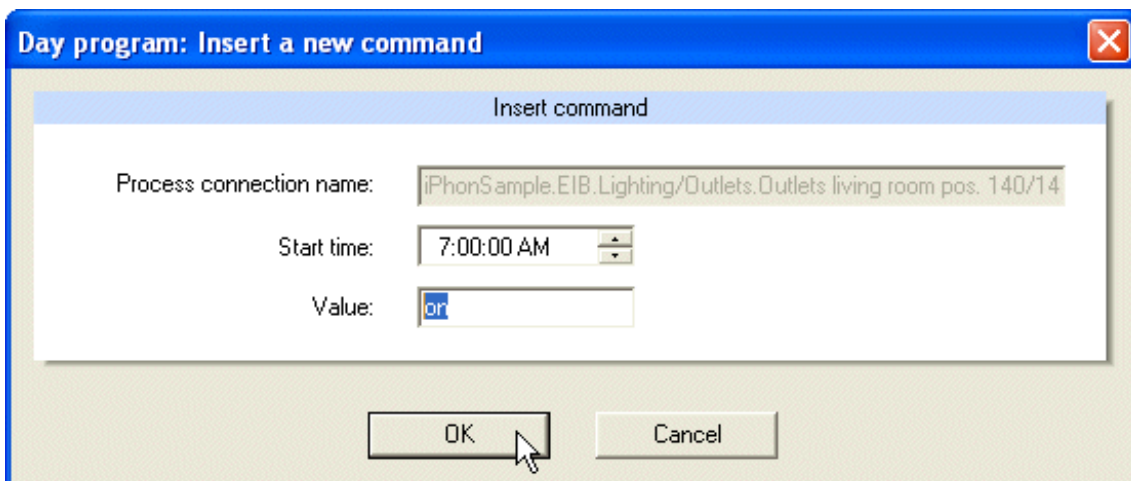


Process variable:

Drag a process variable to the day program's window.

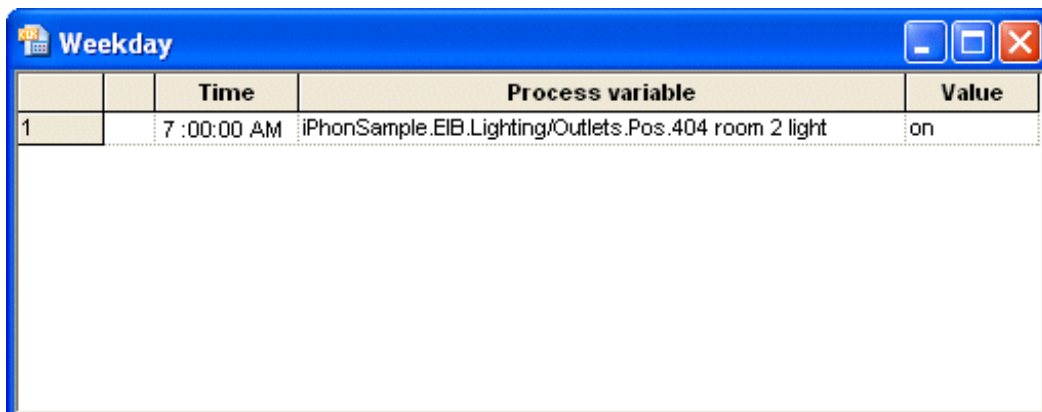


Releasing the mouse button over the day program will insert a command for the process variable in the day program's command list and a dialog opens to specify the details of the inserted command.



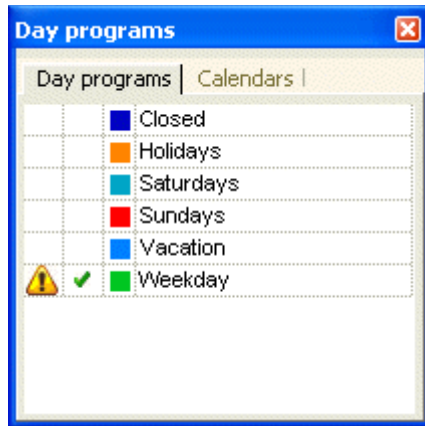
Enter the time and value of the command. At the specified time the value will be sent to the process variable. For binary variables use **0** for **off** and **1** for **on**. Then press **OK** to commit the changes and to close the dialog. If you press **Cancel**, no command will be inserted.

The command appears in the day program's command list.



4.5 Edit day program

In order to edit the day program first open the day program's window.

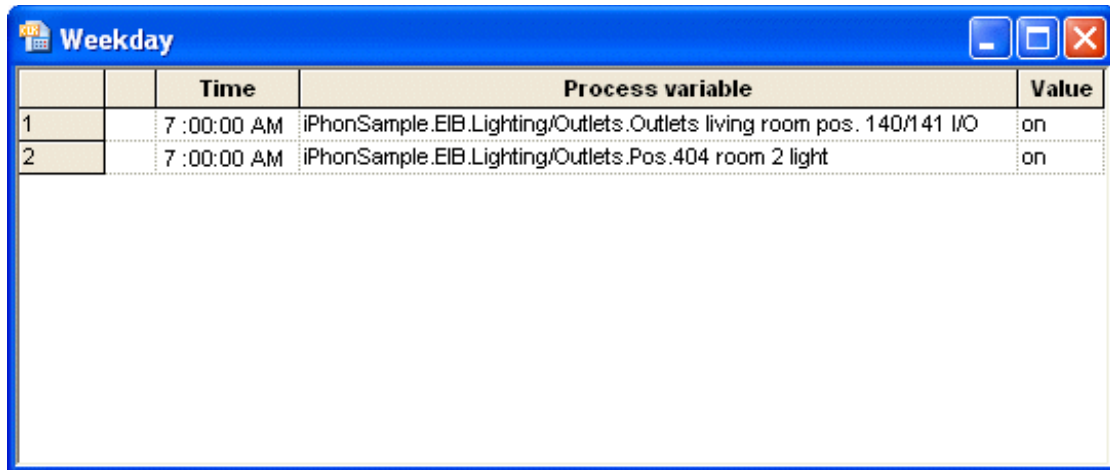


The day program can be opened with a double click on a day program in the day programs tool window.

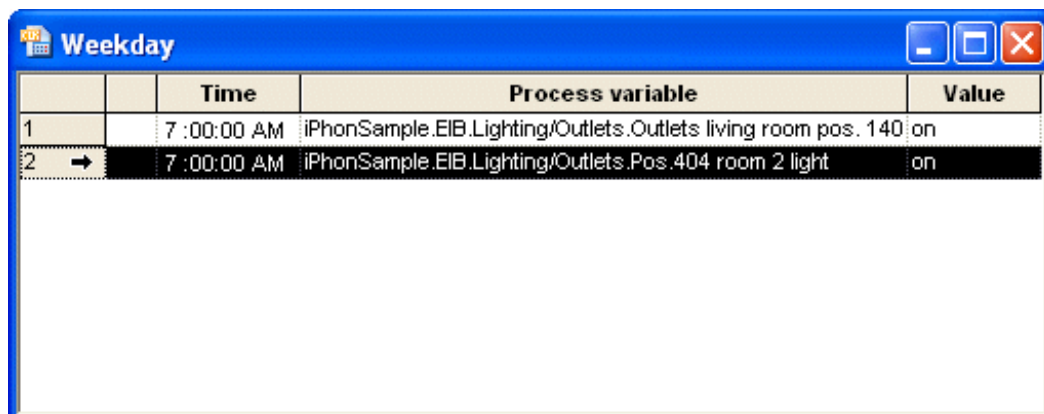


Alternatively you may double click on a day in the calendar.



Copy a day command:





Click on the first column of a day command.




Click on symbol **Copy** in the toolbar to copy the selected command to the clipboard. Alternatively use keyboard keys CTRL + C. Use symbol **Paste** in the toolbar or keyboard keys CTRL + V to paste the day program in the clipboard to the day program.




		Time	Process variable	Value
1		7 :00:00 AM	iPhonSample.EIB.Lighting/Outlets.Outlets living room pos. 140	on
2		7 :00:00 AM	iPhonSample.EIB.Lighting/Outlets.Pos.404 room 2 light	on
3		7 :00:00 AM	iPhonSample.EIB.Lighting/Outlets.Pos.404 room 2 light	on

Since the copy of the day command has the same time, the day commands list indicates a problem with symbol  in the first column. It does not make sense to send two commands to a process variable at the same time. Click on the time field and change the time.

		Time	Process variable	Value
1		7 :00:00 AM	iPhonSample.EIB.Lighting/Outlets.Outlets living room pos. 140	1.00
2		7 :00:00 AM	iPhonSample.EIB.Lighting/Outlets.Pos.404 room 2 light	on
3		9 :00:00 PM	iPhonSample.EIB.Lighting/Outlets.Pos.404 room 2 light	on

The symbol  indicates that the day command is invalid because the process variable does not exist or cannot be set. This situation cannot occur when a new day command has been inserted, because only valid day commands can be created. However, this situation may occur when the process model has been changed.

Multiple selections of day commands:

-  Click on the first column of a row and move the mouse vertically while the left button remains pressed.
-  Click on the first column of a row and click on the first column of another row together with keyboard key SHIFT pressed.
-  Select a single row with a click on the first column. Extend the selection with click on the first column of another row with keyboard key CTRL pressed.

Weekday				
		Time	Process variable	Value
1		7 :00:00 PM	iPhonSample.EIB.Lighting/Outlets.Outlets living room pos. 140/141	on
2	⇒	7 :00:00 PM	iPhonSample.EIB.Lighting/Outlets.Pos.404 room 2 light	on

The clipboard commands always apply to the whole selection. Hence you may select multiple commands and paste them to a day program. In particular you can use the clipboard to copy day commands of one day program to another day program.

Insert commands into day program

Modify time and value

Time:

Value:

If you paste day commands in the clipboard to a day program, a dialog opens to optionally modify the time and the value of the day commands to be inserted.

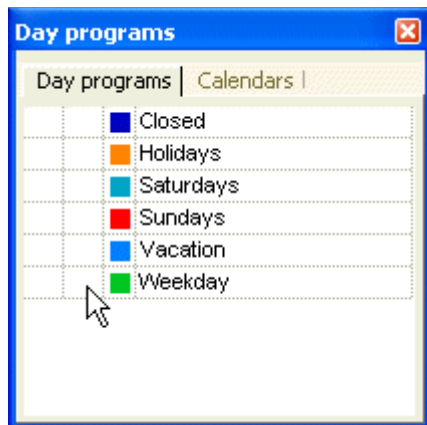
In case of analog variables, the value will be just a number. In case of binary variables use **0** for **off** and **1** for **on**.

Weekday				
		Time	Process variable	Value
1		7 :00:00 AM	iPhonSample.EIB.Lighting/Outlets.Outlets living room pos. 140/141	on
2		7 :00:00 AM	iPhonSample.EIB.Lighting/Outlets.Pos.404 room 2 light	on
3		6 :00:00 PM	iPhonSample.EIB.Lighting/Outlets.Outlets living room pos. 140/141	off
4		6 :00:00 PM	iPhonSample.EIB.Lighting/Outlets.Pos.404 room 2 light	off


Delete day command:

Select the day command and press the keyboard DEL key.

Assign day program to standard day:



The second column of the day program's list shows whether the day program has been assigned to the standard day.

Symbol  indicates that the day program has been assigned to the standard day.

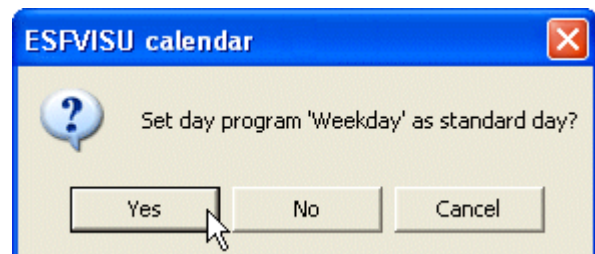
Double click on this cell of a row will assign the day program in this row to the standard day. Alternatively, you may use the menu or the toolbar.

A dialog asks you whether the day program should be assigned to the standard day.

Yes: Assign day program to standard day.

No: If the day program has been assigned to the standard day, the connection will be removed.


Cancel: No change.



Note:

If, for example, the day program 'saturday' has been assigned to the standard day, you may double click in the second column in front of the day program 'weekday' to set the standard day.

Then the standard day will be removed from 'saturday' and assigned to the day program 'weekday'.

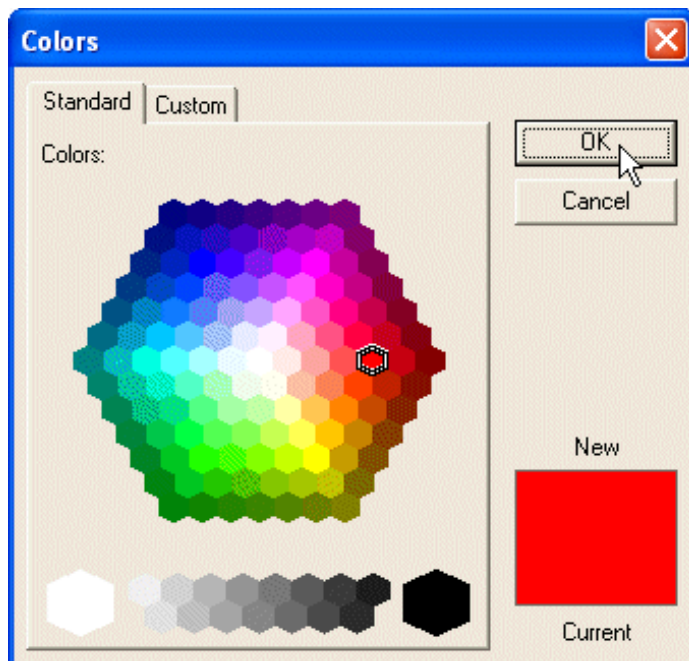
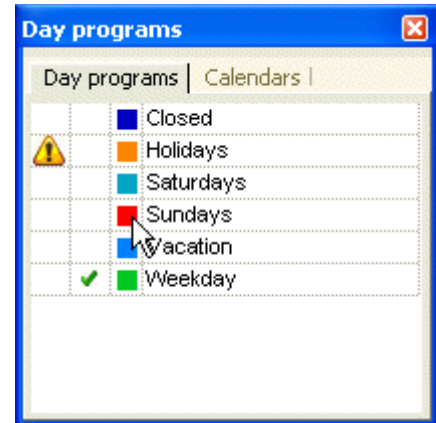
	Holiday	Priority	Day program
1	Standard day		Weekday
2	Standard Monday		
3	Standard Tuesday		

First floor

January							February							March							April						
Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa	Su
			1	2	3	4							1	1	2	3	4	5	6	7				1	2	3	4
5	6	7	8	9	10	11	2	3	4	5	6	7	8	8	9	10	11	12	13	14	5	6	7	8	9	10	11
12	13	14	15	16	17	18	9	10	11	12	13	14	15	15	16	17	18	19	20	21	12	13	14	15	16	17	18
19	20	21	22	23	24	25	16	17	18	19	20	21	22	22	23	24	25	26	27	28	19	20	21	22	23	24	25
26	27	28	29	30	31	23	24	25	26	27	28	29	29	30	31	26	27	28	29	30							
May							June							July							August						
Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa	Su
					1	2	1	2	3	4	5	6				1	2	3	4							1	
3	4	5	6	7	8	9	7	8	9	10	11	12	13	5	6	7	8	9	10	11	2	3	4	5	6	7	8
10	11	12	13	14	15	16	14	15	16	17	18	19	20	12	13	14	15	16	17	18	9	10	11	12	13	14	15
17	18	19	20	21	22	23	21	22	23	24	25	26	27	19	20	21	22	23	24	25	16	17	18	19	20	21	22
24	25	26	27	28	29	30	28	29	30	26	27	28	29	30	31	23	24	25	26	27	28	29					
31																			30	31							

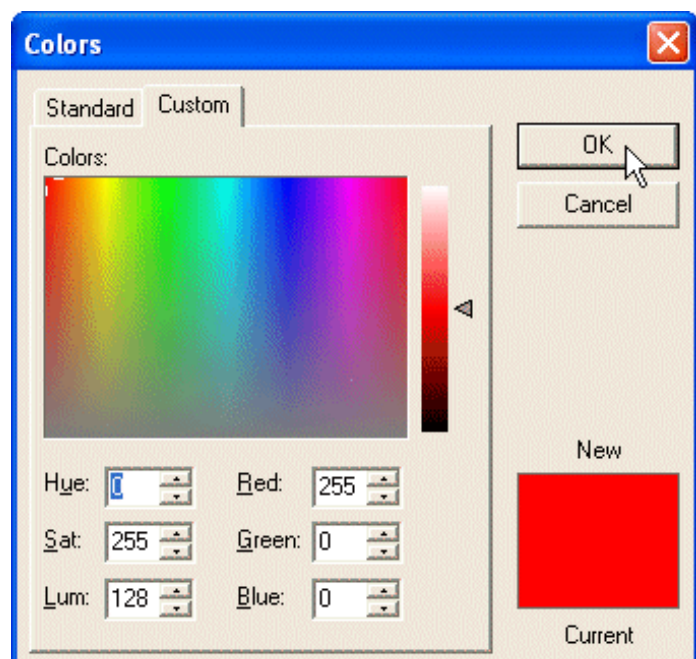
Change the color of a day program:

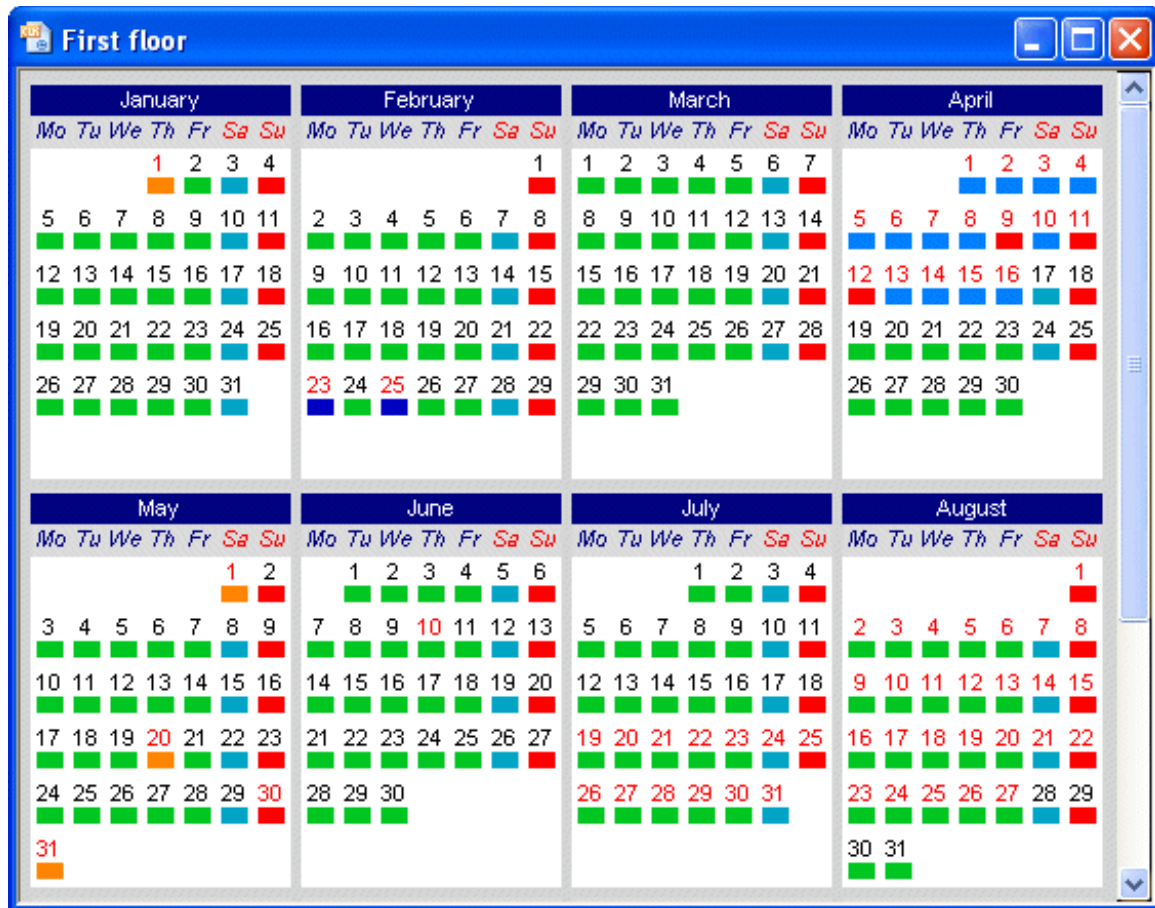
Double click on the day program's color in the third column to open a color dialog.



Select the desired color and click **OK** to commit the change.

Tab **Customize** allows defining colors more precisely.





The colors of day programs are automatically updated in the calendar.

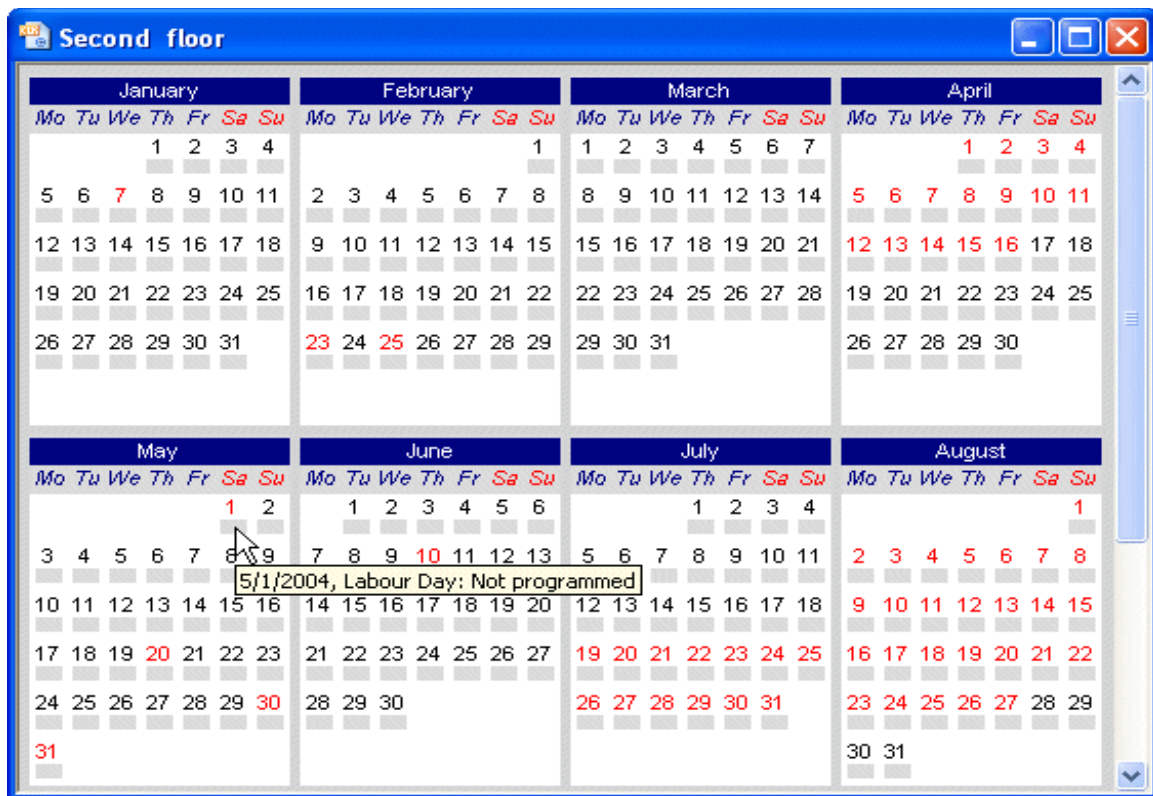
4.6 Calendar configuration

4.6.1 Assign standard day program

The calendars comprise a schedule of day programs. The day programs are assigned to calendar days or periods.

The following picture shows a calendar with no day programs assigned. Holidays, other special days and weekends are displayed with red color. Technically there is no difference between holidays and other special days that you can define yourself. We will see later, how they are defined. First, we see how they can be used.

When you move the mouse over a calendar, details regarding the day under the mouse cursor are displayed as a tool tip.

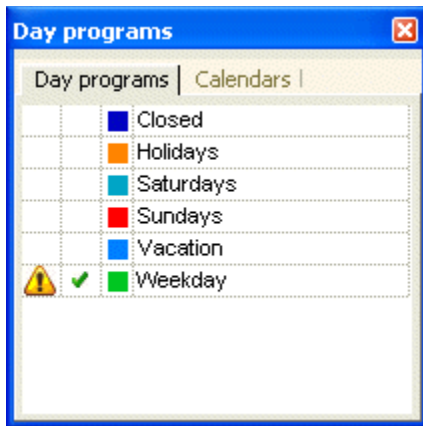


Open the dialog for the definition of holidays and special days with menu option **View – Holiday programming**.

The screenshot shows a dialog box titled "Holidays for calendar: Second floor". The dialog contains a table with the following columns: Holiday, Priority, and Day program.

	Holiday	Priority	Day program
1	Standard day		
2	Standard Monday		
3	Standard Tuesday		
4	Standard Wednesday		
5	Standard Thursday		
6	Standard Friday		
7	Standard Saturday		
8	Standard Sunday		
9	New Year's Day		
10	Carnival Monday		
11	Ash Wednesday		
12	Easter Holidays		
13	Good Friday		
14	Easter		
15	Easter Monday		
16	Labour Day		
17	Memorial Day		
18	Ascension Day		
19	Pentecost		
20	Whit Monday		
21	Corpus Christi		
22	Summer Holidays		

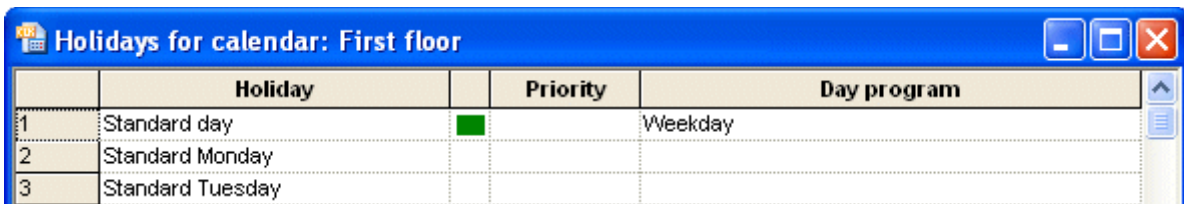
The holiday programming dialog shows a list of predefined special days. Among them is the standard day. The day program assigned to the standard day specifies the default commands, which are to be performed if no other special day applies.



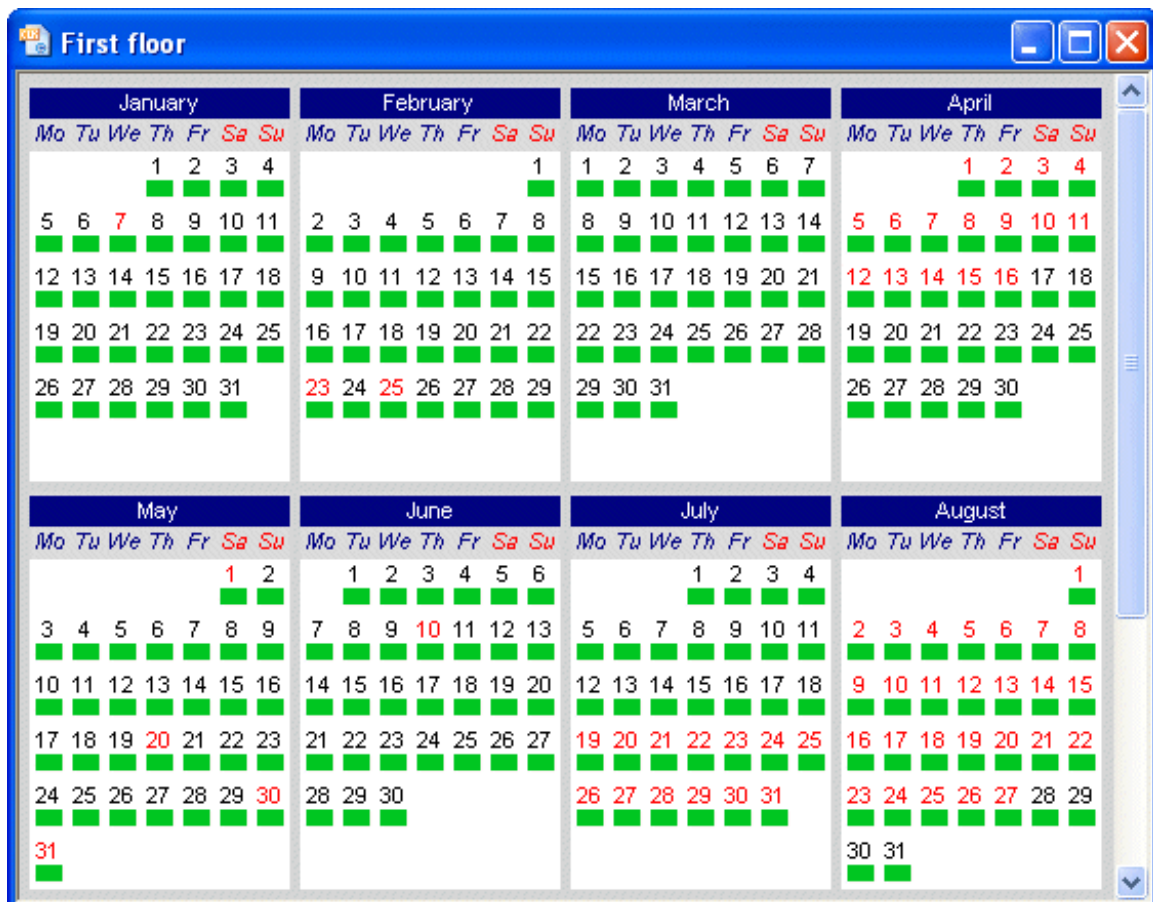
Defining the standard day program:

The day programs tool window shows already defined day programs. Click on the second column of a day program to make it the standard day program.

In the day programs list the standard day is marked with a small hook. Moreover, in the holiday program dialog you see the standard day program's name in column **Day program** of row **Standard day**.

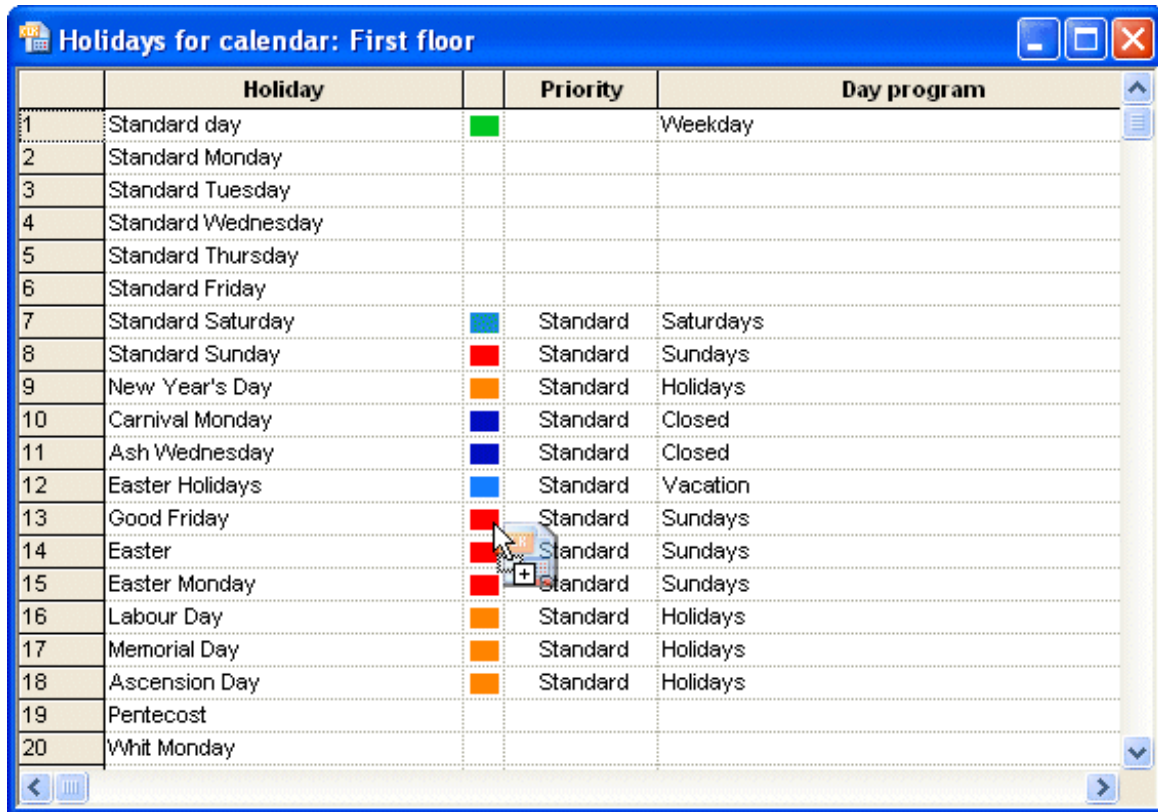


The standard day program is assigned to all days in the calendar, which are not *special*. Since no other special days have been programmed yet, at this step the standard day program's color appears for all days in the calendar.



4.6.2 Assign day programs to holidays

This example shows how day programs can be assigned to holidays and other special days.



	Holiday		Priority	Day program
1	Standard day	■		Weekday
2	Standard Monday			
3	Standard Tuesday			
4	Standard Wednesday			
5	Standard Thursday			
6	Standard Friday			
7	Standard Saturday	■	Standard	Saturdays
8	Standard Sunday	■	Standard	Sundays
9	New Year's Day	■	Standard	Holidays
10	Carnival Monday	■	Standard	Closed
11	Ash Wednesday	■	Standard	Closed
12	Easter Holidays	■	Standard	Vacation
13	Good Friday	■	Standard	Sundays
14	Easter	■	Standard	Sundays
15	Easter Monday	■	Standard	Sundays
16	Labour Day	■	Standard	Holidays
17	Memorial Day	■	Standard	Holidays
18	Ascension Day	■	Standard	Holidays
19	Pentecost			
20	Whit Monday			

In order to assign a day program to a special day, first select the day program in the day programs tool window and drag the day program to the special day's row program, in the holiday programming dialog.

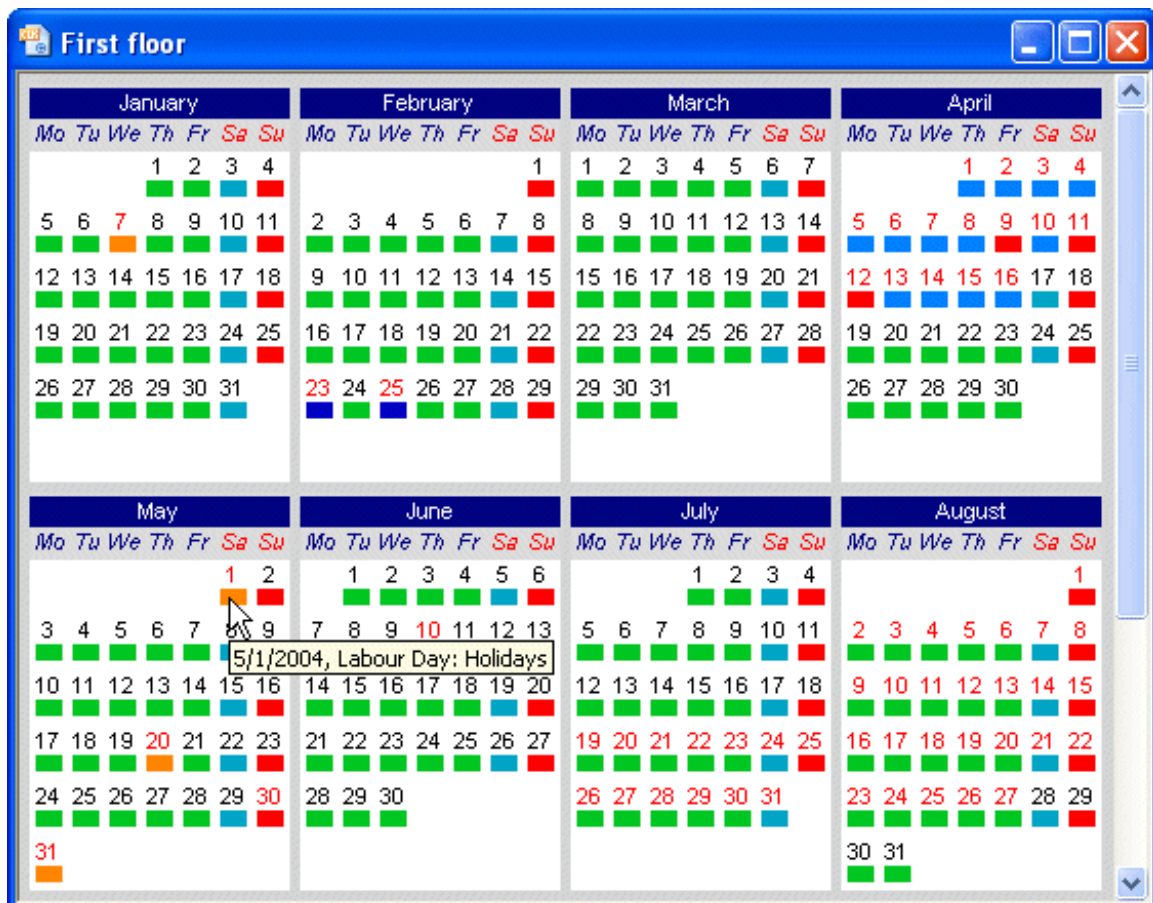
4.6.3 Assign priorities to day programs

You may assign a day program to Sundays and assign another different day program to the holiday **Easter Sunday**, which also is a Sunday. In these cases, priorities are used to resolve ambiguities.

Example: *Easter vacation, Good Friday, Easter Sunday, Easter Monday*

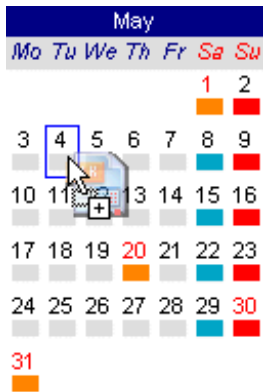
Good Friday, Easter Sunday and Easter Monday are holidays in the Easter vacation. In the example, there are day programs assigned to Good Friday, Easter Sunday and Easter Monday and another different day program, assigned to the Easter vacation. If the day programs of Good Friday, Easter Sunday and Easter Monday are supposed to run instead of the day program of Easter vacation, they must have higher priorities. Their priority number must be higher than the priority number of the Easter vacation.

Click on column **Priority** to assign a priority to the row. **Standard** is the lowest priority (priority 0). Other priorities range from 1 to 9, with 9 as the highest priority.



The programming of holidays is always updated in the calendar view.

4.6.4 Manually insert day programs



A day program can be manually assigned to dates in the calendar. Just select the day program in the day programs **tool window** and drag the day program to the desired date in the calendar.

However, you may assign the day program not only to a specific date, but you may assign it to a whole selection of dates.

Date selections in the calendar:



Select a column:
Click on the weekday's name.



Select multiple columns:

Extend the selection with a second click on another weekday's name but with CTRL- key pressed.

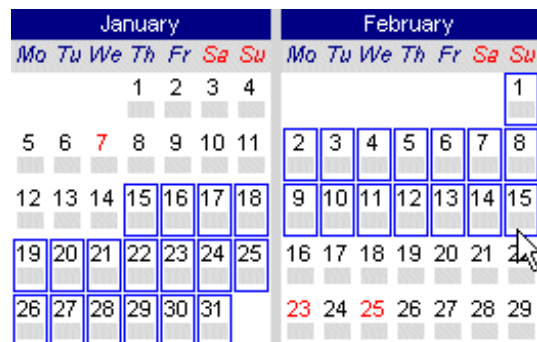


Select a month:
Click on the month's name, if desired extend the selection with CTRL- key pressed and other selections.



Select several days:

Start with the selection of one day and extend the selection with more clicks but CTRL- key pressed.

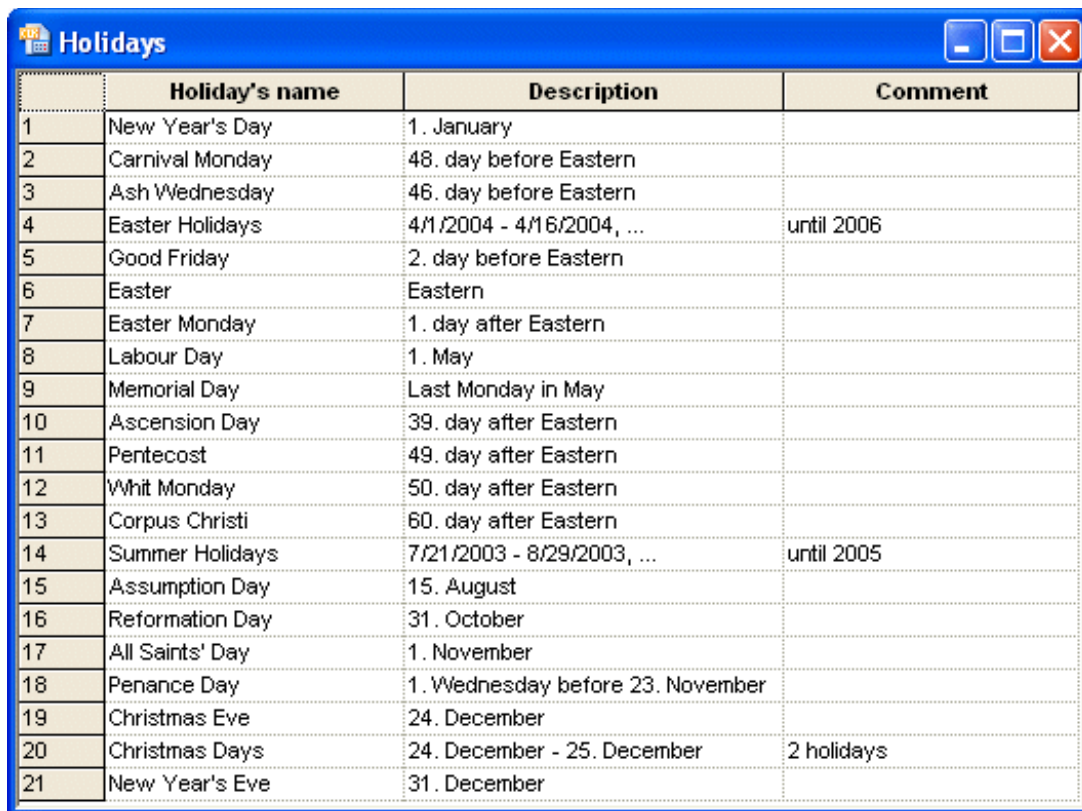


Select a range:

Click on the first day of the selection, and then click on the last day of the selection with SHIFT- key pressed. It works over month's boundaries.

4.7 Holiday definitions

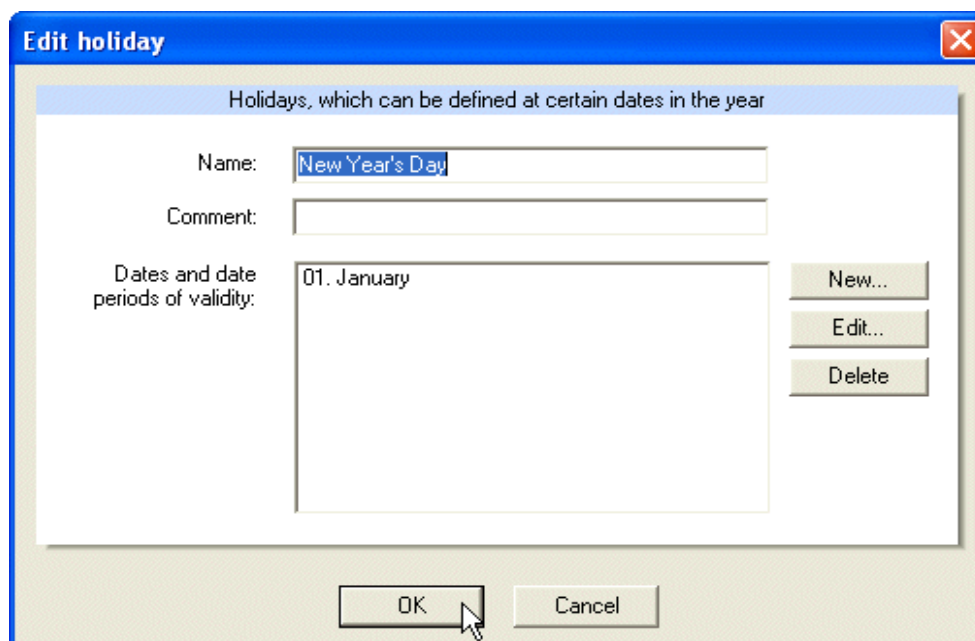
Use menu option **View – Holiday definitions** to open the holiday definitions dialog.



	Holiday's name	Description	Comment
1	New Year's Day	1. January	
2	Carnival Monday	48. day before Eastern	
3	Ash Wednesday	46. day before Eastern	
4	Easter Holidays	4/1/2004 - 4/16/2004, ...	until 2006
5	Good Friday	2. day before Eastern	
6	Easter	Eastern	
7	Easter Monday	1. day after Eastern	
8	Labour Day	1. May	
9	Memorial Day	Last Monday in May	
10	Ascension Day	39. day after Eastern	
11	Pentecost	49. day after Eastern	
12	Whit Monday	50. day after Eastern	
13	Corpus Christi	60. day after Eastern	
14	Summer Holidays	7/21/2003 - 8/29/2003, ...	until 2005
15	Assumption Day	15. August	
16	Reformation Day	31. October	
17	All Saints' Day	1. November	
18	Penance Day	1. Wednesday before 23. November	
19	Christmas Eve	24. December	
20	Christmas Days	24. December - 25. December	2 holidays
21	New Year's Eve	31. December	

4.7.1 Define annually holidays as days of the year

Menu option **Holiday – Create – „annual holidays as days of the year“** will open a dialog enter annually holidays, which can be defined at certain dates in the year. The calendar will assign the holiday's dates or date periods to each year.



Edit holiday

Holidays, which can be defined at certain dates in the year

Name:

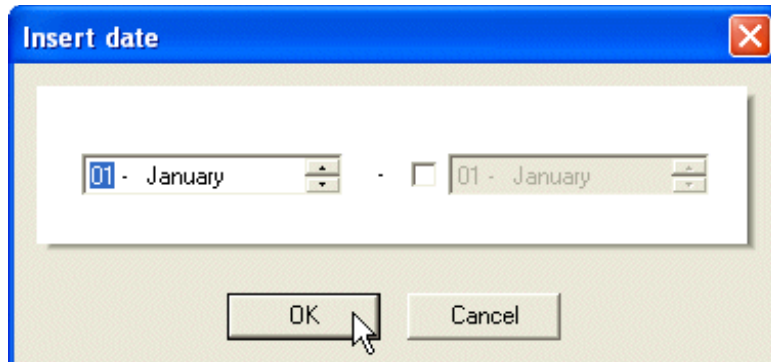
Comment:

Dates and date periods of validity:

To change a date, first mark the date in the holiday's dates list and then press button **Edit**.

To delete a date first mark the date in the holiday's dates list and then press button **Delete**.

To create a new date or date period press button **New**.



Press button **OK** to close the dialog. The date or date period appears in the holiday's list of dates and date periods.

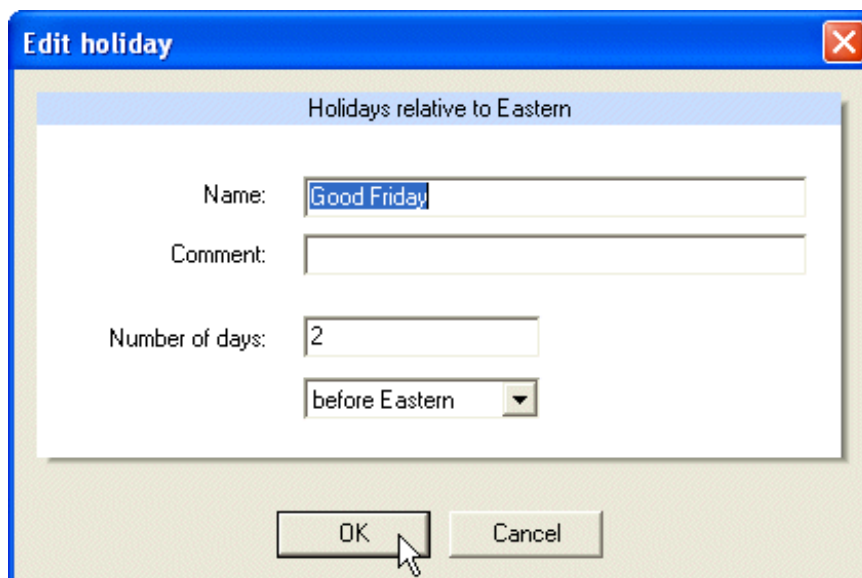
4.7.2 Define holiday relative to Easter

Many holidays don't have a fixed day of the year but relate to Easter, which itself is not a fixed day of the year.

Menu option **Holiday – Create – „as relative to Easter“** will open a dialog to enter holidays relative to Easter.

The calendar will calculate the holiday's date for each year.

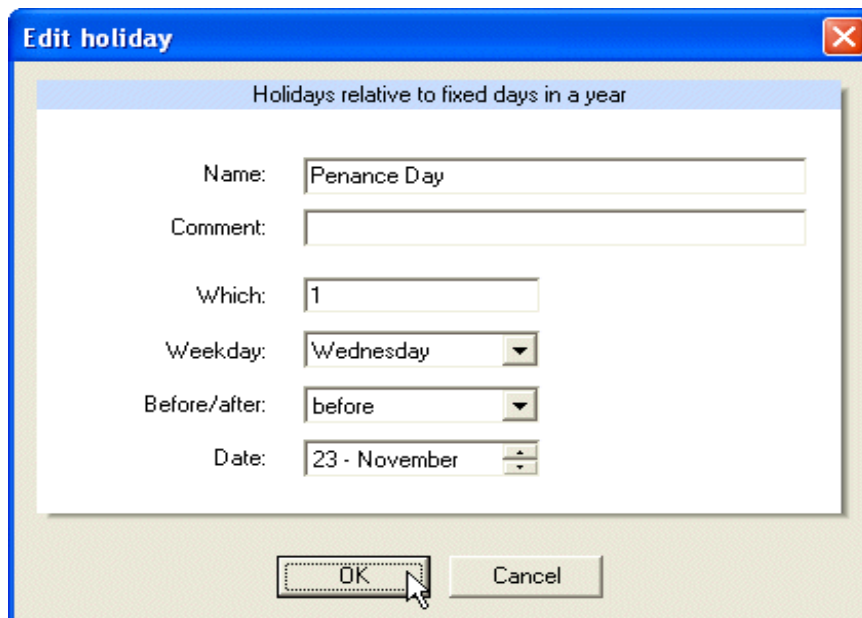
Enter the name of the holiday, optionally a comment and the number of days relative to Easter, i.e. Good Friday is always 2 days before Easter.



4.7.3 Define holiday relative to fixed day of the year

Menu option **Holiday – Create – „relative to fixed day of the year.“** will open a dialog to enter holidays relative to fixed days in a year.

The calendar will calculate the holiday's date for each year.



The screenshot shows a dialog box titled "Edit holiday" with a close button (X) in the top right corner. The main title of the dialog is "Holidays relative to fixed days in a year". The form contains the following fields:

- Name: Penance Day
- Comment: (empty)
- Which: 1
- Weekday: Wednesday
- Before/after: before
- Date: 23 - November

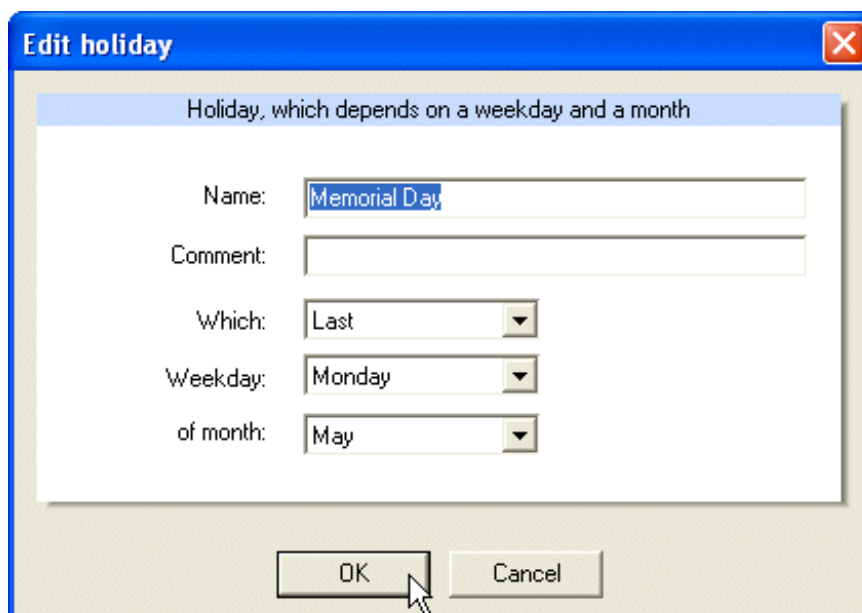
At the bottom of the dialog are two buttons: "OK" and "Cancel". A mouse cursor is pointing at the "OK" button.

4.7.4 Define holiday as weekday in a month

Menu option **Holiday – Create – „as weekday in a month“** will open a dialog to enter a holiday, which depends on a weekday and a month.

You can define that the first/second/./last weekday of a particular month should be the holiday respectively special day.

The calendar will calculate the holiday for each year.



The screenshot shows a dialog box titled "Edit holiday" with a close button (X) in the top right corner. The main title of the dialog is "Holiday, which depends on a weekday and a month". The form contains the following fields:

- Name: Memorial Day
- Comment: (empty)
- Which: Last
- Weekday: Monday
- of month: May

At the bottom of the dialog are two buttons: "OK" and "Cancel". A mouse cursor is pointing at the "OK" button.

4.7.5 Define holidays with fixed dates

Menu option **Holiday - Create - „as holidays with fixed dates“** will open a dialog to enter a holiday with fixed dates or date periods.

These dates and periods are not calculated but entered directly, but possibly in advance for several years.

Edit holiday

Holidays with fixed dates or date periods

Name:

Comment:

Date list:

- 3/21/2006 - 4/1/2006
- 4/1/2004 - 4/16/2004**
- 4/7/2005 - 4/21/2005

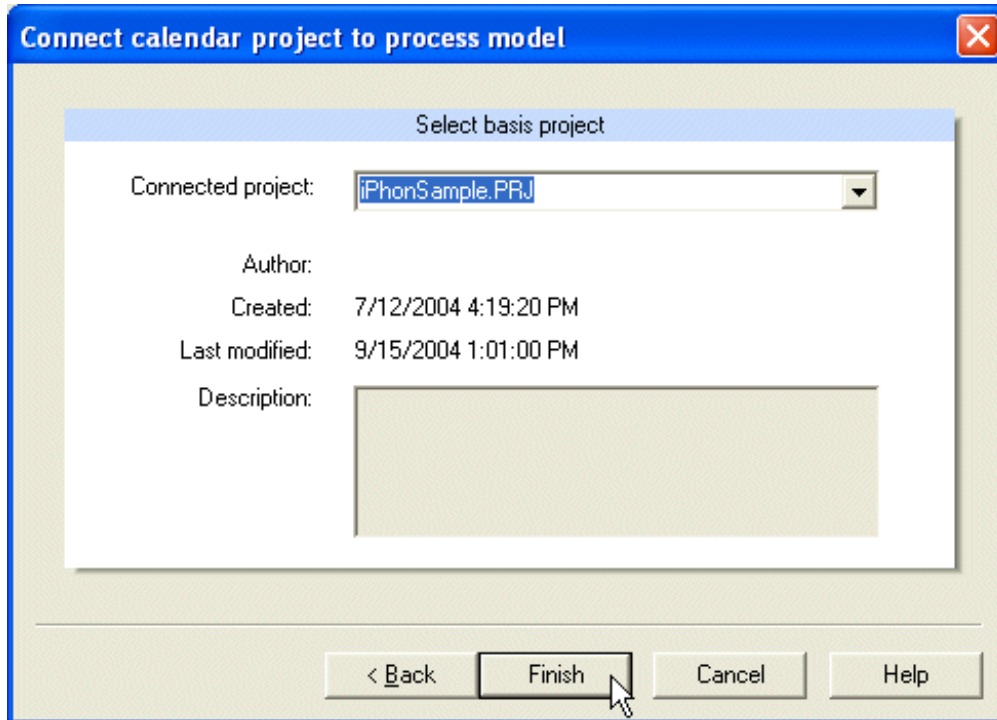
New...
Edit...
Delete

OK Cancel

4.8 The process model

The calendar project must be connected to a process model, which is the target of the day commands.

Menu option **File - Select project** opens the dialog to connect a process model.



Select the process model and press button **OK** to commit the connection to the process model and to close the dialog.

Update process model:

Important:

When the process model has been changed, the calendar project must update the definitions of process variables.

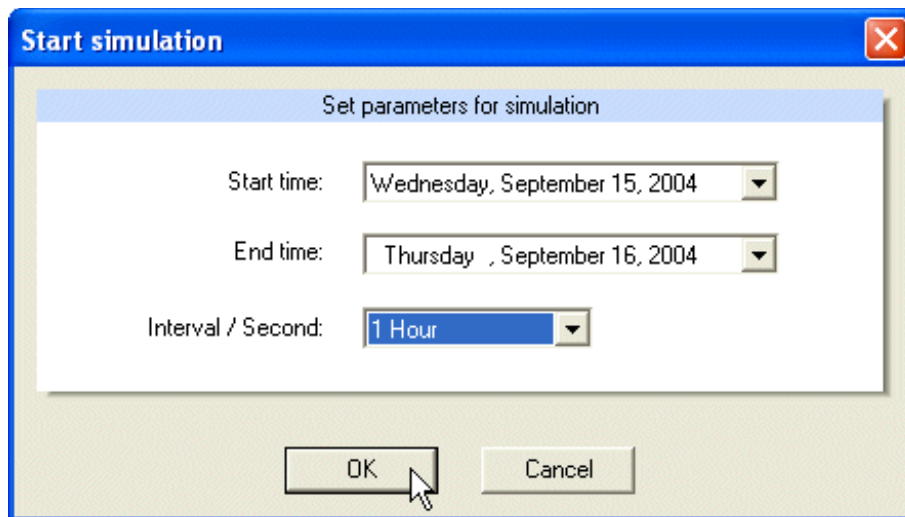
Use menu option **File - Update project** or function key F5 to update the calendar project from the process model. Then you should check the validity of the day programs.

4.9 Simulation

The calendar application comprises a simulation, which can be used to see the effects of the planning in fast motion.

Starting the simulation:

Use menu option **Options - Start simulation** to specify simulation properties.



Enter the start and the end time of the simulation and set a scaling for the time schedule. The sample screenshot above specifies that one hour should be simulated in one second.

Press button **OK** to start the simulation.

Simulation active: 9/15/2004 8:00:00 AM The simulation state will be indicated in the status bar.

In the messages list you can see the commands, which would be sent to the process model.

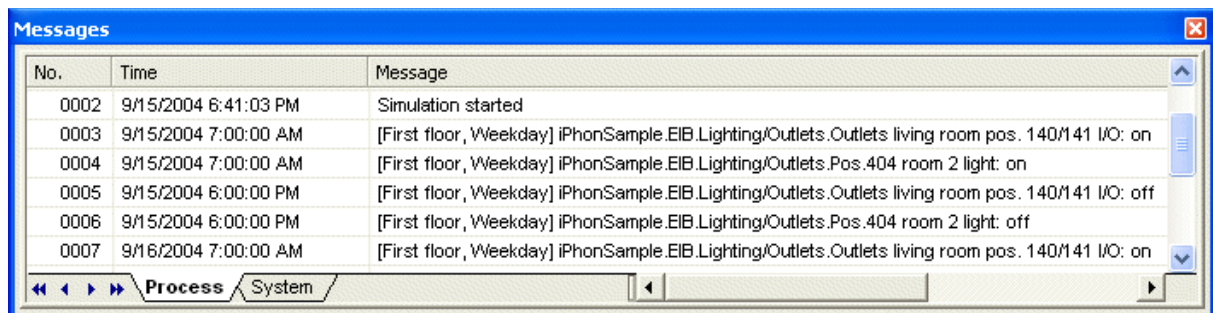
Show messages:

Use menu option **View – Messages** to toggle the visibility of the messages window.

Clear messages:

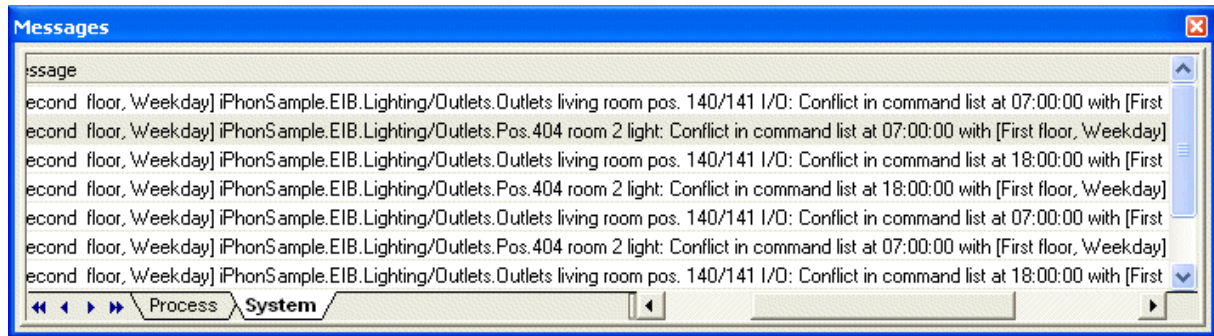
Use menu option **View – Delete messages** to delete the messages in the messages window.

Process messages:




Tab **Process** displays operations issued by the time schedule of the calendar project.

System messages:





Tab **System** displays conflicts of the time schedule. A conflict happens if two commands are sent to one process variable at the same time.


Stopping the simulation:

You may stop the simulation any time with menu option **Options – Stop** or with a click on the symbol  in the toolbar.

4.10 Applying the calendar project

The time schedule of the calendar project can be started with menu option **Options – Start** or with a click on toolbar symbol .

Calendar active: 9/15/2004 7:00:54 PM  The running of the time schedule will be indicated in the status bar.

The time schedule can be stopped with menu option **Options - Stop** or alternatively a click on symbol  in the toolbar.

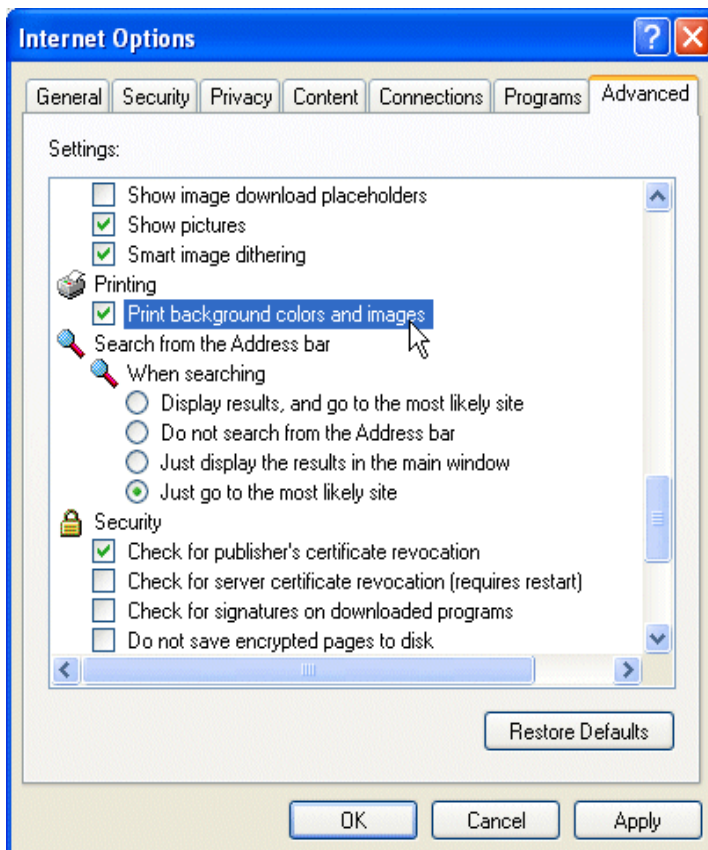
5 Reports

- Reports provide overviews of the project, including calendars, day programs, holidays and connections to a process model.
- Reports may be printed (with print preview).

5.1 Create report

The Microsoft Internet Explorer is used to create and print reports.

Internet options:

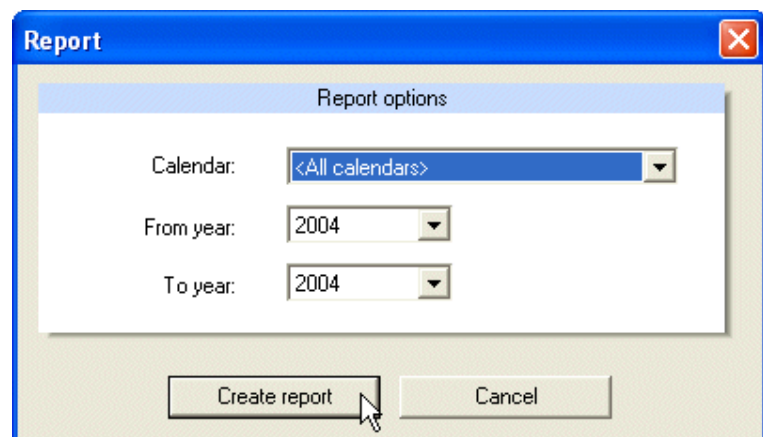


The reports background will be printed if the Internet Explorer has been configured accordingly:

- Select the menu option **Tools – Internet Options**.
- Select the tab **Advanced**.
- Under the **Settings – Printing** check option **Print background colors and images**.

Use menu option **File – Report** to create a report.

After selecting options for the report generation click on button **Create report**.



The report provides different views.



Year calendar: Shows the calendars for selected years in a compact format along with day programs.

Report

File Help
Process model : iPhonSample.PRJ
Date : 2004.09.15 15:51:26:705

Calendar : First floor

Year : 2004 Calendar : First floor Activation state : Active

Month/Day	Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa	Su
January				1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31								
February							1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29							
March	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31											
April				1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30									
May					1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31							
June	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30												
July				1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31								
August																																										
September				1	2																																					
October																																										
November	1	2	3	4																																						
December			1	2																																						

Special days : First floor	Day program	Priority
Special day	Weekday	Priority -1
Standard Saturday	Saturdays	Standard priority
Standard Sunday	Sundays	Standard priority
New Year's Day	Holidays	Standard priority
Carnival Monday	Closed	Standard priority
Ash Wednesday	Closed	Standard priority
Easter Holidays	Vacation	Standard priority
Good Friday	Sundays	Standard priority
Easter	Sundays	Standard priority
Easter Monday	Sundays	Standard priority
Labour Day	Holidays	Standard priority
Memorial Day	Holidays	Standard priority
Ascension Day	Holidays	Standard priority

Day programs : First floor	Day program	Priority
Weekday	iPhonSample.EIB.Lighting/Outlets.Outlets living room pos. 140/141 I/O	07:00:00 on
	iPhonSample.EIB.Lighting/Outlets.Pos.404 room 2 light	18:00:00 off
	iPhonSample.EIB.Lighting/Outlets.Outlets living room pos. 140/141 I/O	18:00:00 off
Saturdays	iPhonSample.EIB.Blinds/Shutters.Pos. 450,451,452,453 a/a	14:38:37 Read value
Closed	iPhonSample.EIB.Blinds/Shutters.Pops. 175 State JS	14:38:37 0.00

Month calendars: This is an alternative view of the year.

The screenshot shows a software window titled "Report" with a menu bar containing "File" and "Help". The main content area displays a calendar for the year 2004, specifically for the "First floor". The calendar is organized by month (January through September) and shows days of the week (Mon, Tue, Wed, Thu, Fri, Sat, Sun) with corresponding dates. The days are color-coded: green for weekdays, red for Saturdays, and blue for Sundays. Below the calendar, there are two tables:

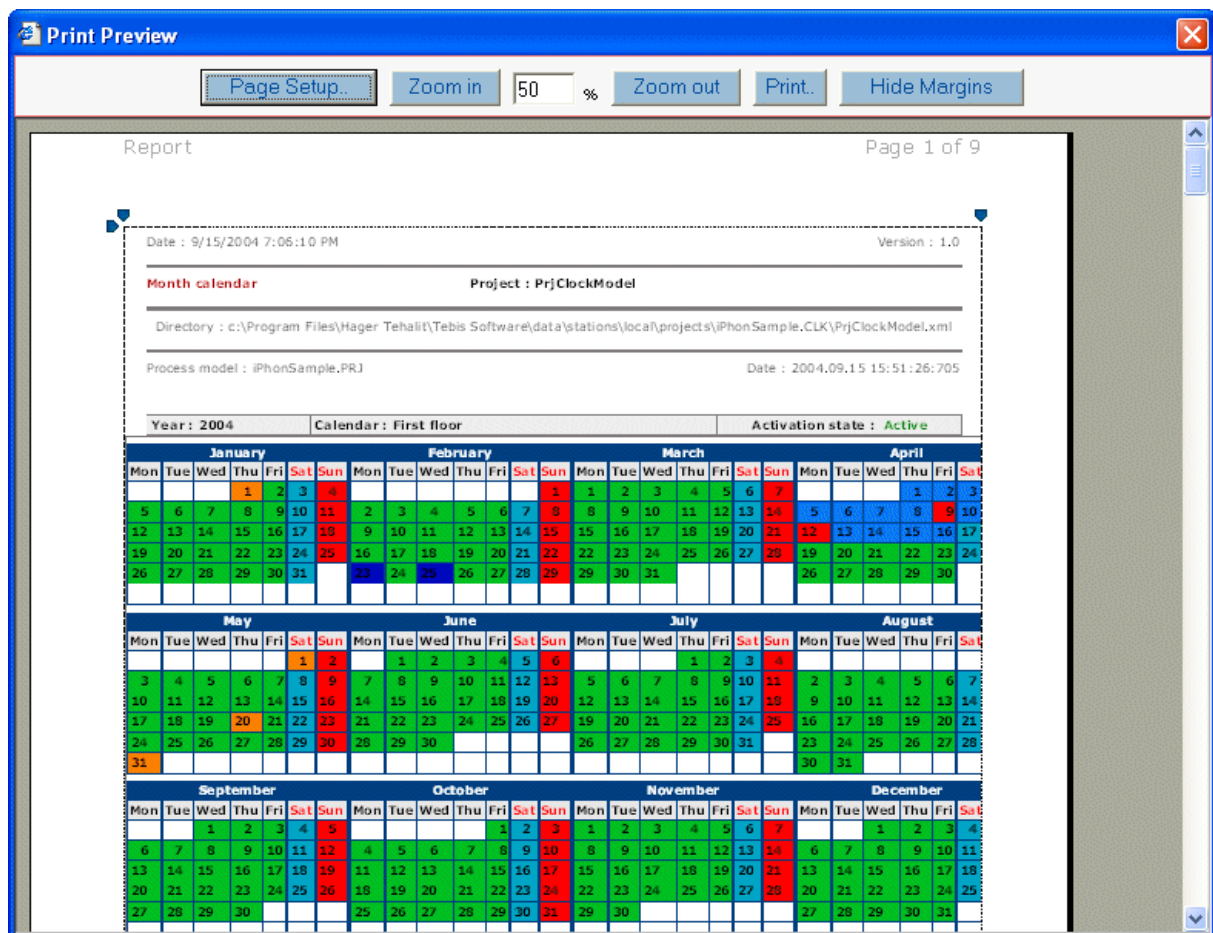
Special days : First floor		
Special day	Day program	Priority
Standard day	Weekday	Priority -1
Standard Saturday	Saturdays	Standard priority
Standard Sunday	Sundays	Standard priority
New Year's Day	Holidays	Standard priority
Carnival Monday	Closed	Standard priority
Ash Wednesday	Closed	Standard priority
Easter Holidays	Vacation	Standard priority
Good Friday	Sundays	Standard priority
Easter	Sundays	Standard priority
Easter Monday	Sundays	Standard priority
Labour Day	Holidays	Standard priority
Memorial Day	Holidays	Standard priority
Ascension Day	Holidays	Standard priority

Day programs : First floor			
Day program	Process variable	Time	Value
Vacation	iPhonSample.EIB.Blinds/Shutters.Pos. 180 State RS	14:38:37	0.00

Printer friendly: Calendars are displayed black and white.

Special day: Displays the definitions of holidays and other special days.

5.2 Print preview



The print preview may be scaled.

 Page Setup..

Opens the dialog **Page setup** to set the printer properties, page properties and the alignment.

 Zoom in

Enlarges the print preview.

 Zoom out

Reduces the print preview.

 Hide Margins

Button to hide the margin markers.

 Show Margins

Button to display the margin markers.

With these ,  markers the user has visual control over the margin settings.