

Description: Guide to setting up ScheduleWorX32.
OS Requirement: Win 2000, XP Pro, Server 2003, Vista, Server 2008, Windows 7
General Requirement: Genesis32 v9.10 Installation (or earlier), SQL Server (optional)

Introduction

ScheduleWorX32 is a scheduling management program to control many of industries’ needs for scheduling automation, such as controlling building lights, HVAC, machine operation time, and many others.

ScheduleWorX32 and UDM

ScheduleWorX32 and the Unified Data Manager (UDM) operate under the same single configuration file. Unlike other modules of GENESIS32 that uses separate configuration file, ScheduleWorX32 will store all of its Schedules, ValueSets, and Holiday information in the same configuration file that is used by the UDM. With this in mind, when you open ScheduleWorX32, any configuration that is currently active in UDM will be loaded automatically.

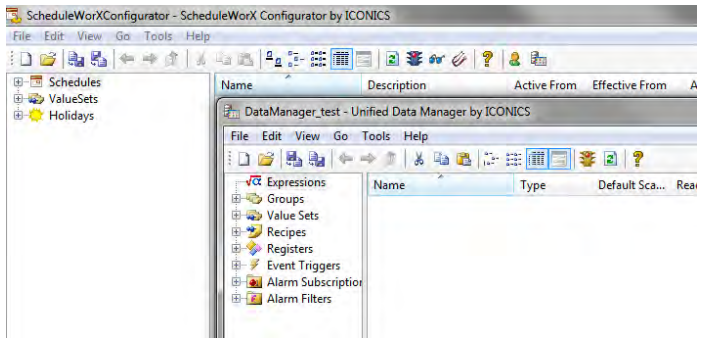


Figure 1 - ScheduleWorX32 and UDM Configurations

You will not be able to create new configuration file in ScheduleWorX32. If you want to create a completely new configuration file, you will have to do so in UDM. You can, however, export/import all of your previously made schedules to the new configuration file, using the CSV Export/Import feature.

Schedules in ScheduleWorX32

Schedule is where you put in your events. By assigning valueset to a schedule, you will be able to modify each valueset’s behavior for specified events. You can also create weekly recurring schedule, exceptions, and holiday events, as well.

Creating a new Schedule

1. Launch the ScheduleWorX32 by going to Start → Programs → ICONICS GENESIS32 → ScheduleWorX32
2. Create a new schedule by right-clicking on the Schedule in the left pane tree-control window, select **New → Schedule**

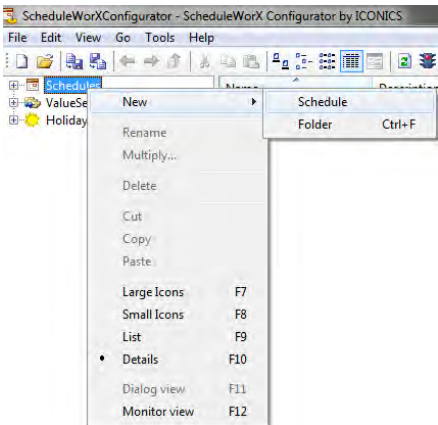


Figure 2 - New Schedule in ScheduleWorX32

3. You should now have a new schedule.

NOTE: You can select to create a new Folder also. Folders are used to logically organize the groups.

Configuring a Simple Schedule

1. After creating a new schedule, General tab will be open by default. You can give a name to the schedule and also a brief description.
2. When you create a schedule, it should already be enabled by default (“Enable Schedule” checkbox checked). This gives you option when you want to deactivate a schedule.
3. You can change the scan rate (default at 500ms). Default rate is a rate in which the OPC tags are retrieved and refreshed for schedule changes.
4. Select the Effective Period that you prefer. By default, it will be running forever unless you deactivate the schedule. If you want the schedule to start at specific date or to end at specific date (or to run in between those dates), you can set it up in this box.
5. In the valuesets box, you can assign a valueset to the schedule by typing the valueset name, or click on the “...” button to open up Unified Data Browser to select your valueset. Once you have a valueset assigned, you can click “Configure” to go to that Valueset property window.
6. You can set the default valueset value if there is no specific event described in your schedules.

GeneralWeeklyHolidaysExceptionsPreview

Schedule Name:

NewSchedule

...

Schedule Description:

test schedule

...

☒ Enable Schedule

Scan Rate (ms): 500

Effective Period

From:

2/25/2010

...

☐ Active

To:

2/25/2010

...

☐ Active

ValueSet

ValueSet Name:

...

Configure

Default ValueSet Value:

...

Figure 3 - Schedule Properties

- Click on the Weekly tab. You will be able to insert events in here by double-clicking on the timeslot you want and then fill in the details. You can also right-click on the desired timeslot to select the time span that you want and also add a new event. Note that every event that is inserted in the Weekly tab will reoccur automatically every week. You can also select the start/end time of the event if it is not exactly occur in 1-hour format.
- Event priority can also be set up to set different importance to events. For example, if on Monday at 1 – 2PM there are two **weekly events**. The one with higher event priority setting will take precedence over the lower priority.

GeneralWeeklyHolidaysExceptionsPreview

Calendar work week:

Day view:

Time scale: 60 minutes

Week view:

Month view:

First Day of week:

Sunday

Other:

ToolTips:

Standard

Advanced...

Start time:

08:00

End time:

17:00

Weekly work:

4

Sunday

Monday

Tuesday

Wednesday

Thursday

Friday

Saturday

Event properties

Subject:

Location:

Label:

White

Start time:

2:00:00 AM

End time:

3:00:00 AM

Event Priority:

1

ValueSet Value:

Apply

Reset

OK

Cancel

Figure 4 - Week Events in ScheduleWorX32

- You can click on the details  button to see more options that are available for calendar view. You can select the days you want to view, the time span to view (1 hour, 30 minutes, 15 minutes, etc), and the time zones among many others. Please consult the help files for further information.
- After you added all of the required information, you can click Apply, and your schedule is set to run.

NOTE: You can view your entire schedule events, complete with the exceptions and holiday schedule by selecting the Preview tab.

Adding Holiday to your schedule

- Click on the Holiday tab in your schedule property window.
- To select the Holiday list that you want, select “Holiday List” tab and select all the available holiday list from the drop-down menu.
- As soon as you select one list, all the holidays in the holiday list will be listed in the screen. Click Apply to confirm any changes. You can also modify each individual holiday by selecting “Configure” to go to that holiday property window.

GeneralWeeklyHolidaysExceptionsPreview

Holiday Time Settings

Holiday List

Holiday List:

US Holidays

Configure

Holiday Name	Start Date	Multi-Day	Recurring	Holiday ID
<NONE>				
Australia Holidays	Monday, January 01, 2007	False	True	4294964252
Brazil Holidays	Monday, January 01, 2007	False	True	4294964256
Canada Holidays	Monday, January 01, 2007	False	True	4294964259
Czech Republic Holidays	Monday, January 01, 2007	False	True	4294964287
France Holidays	Monday, January 01, 2007	False	True	4294964280
Germany Holidays	Monday, January 01, 2007	False	True	4294964273
Greece Holidays	Monday, January 01, 2007	False	True	4294964294
Italy Holidays	Monday, January 01, 2007	False	True	
Japan Holidays	Monday, January 01, 2007	False	True	
Mexico Holidays	Monday, January 01, 2007	False	True	
Norway Holidays	Monday, January 01, 2007	False	True	
Portugal Holidays	Monday, January 01, 2007	False	True	
Russia Holidays	Monday, January 01, 2007	False	True	
Spain Holidays	Monday, January 01, 2007	False	True	
Sweden Holidays	Monday, January 01, 2007	False	True	
Switzerland Holidays	Monday, January 01, 2007	False	True	
UK Holidays	Monday, January 01, 2007	False	True	
US Holidays	Monday, January 01, 2007	False	True	

Figure 5 - Holiday List in ScheduleWorX32

- Select the “Holiday Time Settings” tab and create one time setting for your holiday by clicking on “Add”. Give the newly created time setting a name and click OK.
- You can then add events in here just like you do in the Weekly tab. Click OK to save changes.

GeneralWeeklyHolidaysExceptionsPreview

Holiday Time Settings

Holiday List

Name:

Settings 1

Add

Remove

Rename

Instructions for using holidays:

1) Create the Holiday Time Settings on this tab to determine what to do on each holiday date.

2) Create the Holiday List with dates of all holidays.

3) Assign the Holiday List to a schedule(s) by selecting that list in the Holiday List tab. Then assign Holiday Time Settings to each date on the Holiday List tab.

Holiday Time Settings must be assigned to each holiday date in the Holiday List or that date will be ignored. Also, a Time Setting that contains no events will have no effect.

Event1

Event2

Apply

Reset

Add New

Figure 6 - Holiday Time Settings in ScheduleWorX32

- Go back to the Holiday List. In here, you can then assign any time setting that you have set up on a holiday of your choosing. When this holiday comes, it will operate based on the time setting that you created. To do this, simply click on

the Holiday name that you want to assign the time setting on, and click again under the “Time Setting” column. Select the Time Setting that you want. Click OK to confirm any changes.

Holiday Time Settings
Holiday List

Holiday List: US Holidays
Configure

Holiday Name	Time Settings	Start Date	Multi-Day	Recurring	Holiday ID
Christmas Day	Settings1	Monday, January 01, 2007	False	True	4294964252
Labor Day		Monday, January 01, 2007	False	True	4294964266
Thanksgiving Day		Monday, January 01, 2007	False	True	4294964259
Martin Luther King Day		Monday, January 01, 2007	False	True	4294964287
Memorial Day		Monday, January 01, 2007	False	True	4294964280
Independence Day		Monday, January 01, 2007	False	True	4294964273
New Year's Day		Monday, January 01, 2007	False	True	4294964294

Figure 7 - Holiday Name Based on Time Settings

Adding Exception to Your Schedule

Exception events works exactly like events inserted in Weekly tab. The difference is that if in a timeslot exists an exception event and weekly event, the one that will run will be exception event since it is a higher priority. The other difference is that Exception by default will not recur weekly unless you set it up yourself.

Exception gives greater flexibility by allowing the events to be set to reoccur daily, weekly, monthly, annually, or any of those combinations (occur on the third Friday every October, occur on the first week of Monday every 2 months, etc). Exception also gives the option to set the start/end date of the recurrence of a particular exception event (example: Annual meeting on the third week of August occur until August 2010).

General
Weekly
Holidays
Exceptions
Preview

2/22/2010 - 2/26/2010

	Monday	Tuesday	Wednesday	Thursday	Friday
1:00					
2:00					
3:00					
4:00					
5:00					
6:00					
7:00					
8:00					
9:00					
10:00	Exception 1				
11:00					
12:00					
1:00					
2:00					
3:00					
4:00					
5:00					

Apply
Reset
Add New

Figure 8 - Exception Events

Value sets in the ScheduleWorX32

Value sets allows you to write a set of values to a group of tags. This is similar to the concept of groups, but with more flexibility, because you can write different values to different tags at once.

Configuring new Value Set in ScheduleWorX32

- In the tree-control in the left-hand pane, right-click on Value Sets and select **New → ValueSets**
- Under the ValueSet properties, you can give the valueset a name and a brief description. You can also create a parameter to be used with the tag. Parameters are a way of using the same valueset in multiple schedules. You pass the parameter to each schedule using the parameter name as part of the valueset reference. Parameters let you easily set many instances of the same valueset. For example, use parameters to assign a valueset to the lighting on many floors, with one parameter assigned to each floor.
- Under ValueSet Tags tab you define your grouped tags and their aliases. You do not have to use aliases, but they will help you identify the tags under ValueSet Values tab

ValueSet Properties
ValueSet Tags
ValueSet Values
Import/Export

ValueSet Tags:

Label	Tag Name	Array
Light Status	ICONICS.Simulator.1\SimulatePLC.OUTPUTS.BIT1	False
Value 1	ICONICS.Simulator.1\SimulatePLC.OUTPUTS.FLOAT1	False
	ICONICS.Simulator.1\SimulatePLC.OUTPUTS.FLOAT2	False
	ICONICS.Simulator.1\SimulatePLC.OUTPUTS.STRING	False

Add ...

Remove

Edit ...

Figure 9 - ValueSet Tags

- Under the ValueSet Values, you can define the values that will be written to the tags.

ValueSet Properties
ValueSet Tags
ValueSet Values
Import/Export

ValueSet Values:

Value	Name	Light Status	Value1	FLOAT2	STRIN
1	1	Undefined	Undefined	Undefined	Undefin
2	2	Undefined	Undefined	Undefined	Undefin
3	3	Undefined	Undefined	Undefined	Undefin

Add ...

Remove

Copy ...

Edit ...

Set as Tag ...

Set as Value

Set Undefined

Figure 10 - ValueSet Values

Holidays in the ScheduleWorX32

Holidays in ScheduleWorX32 functions as a container/group for all the holidays that user might have and want to use as part of the schedule.

Holiday is an advanced feature. Please refer to the help file for full instructions on how to use Holiday in your schedule.

Schedules in GraphWorX32

If you want to view the predefined schedules in GraphWorX32, you need to add ICONICS Schedule Viewer ActiveX and the ICONICS Tree Explorer ActiveX on your GraphWorX32 display and connect them to appropriate schedule.

You can add the ICONICS Schedule Viewer ActiveX can be from the ActiveX toolbar by clicking on the Schedule Viewer  icon. Similarly, you can add the ICONICS Tree Explorer ActiveX by clicking on the Tree Explorer  icon. You just need to bind them into appropriate schedule (e.g. Schedule1) as shown in Figure 11.

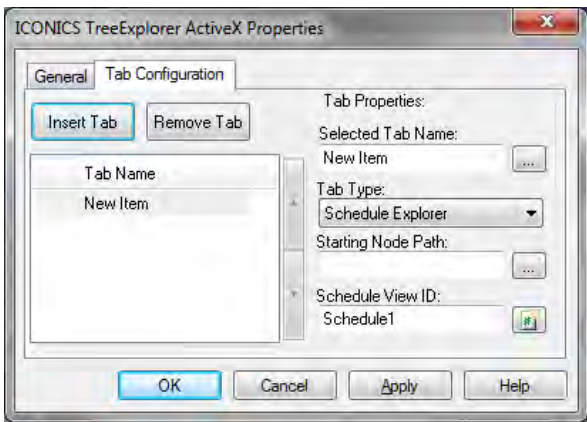


Figure 11 - Binding the Tree Explorer to the Schedule Viewer

Once that’s configured, you can go into runtime. Once in runtime, select the schedule in the Tree Explorer and it will allow you the selected schedule in the Schedule Explorer as shown in Figure 12.

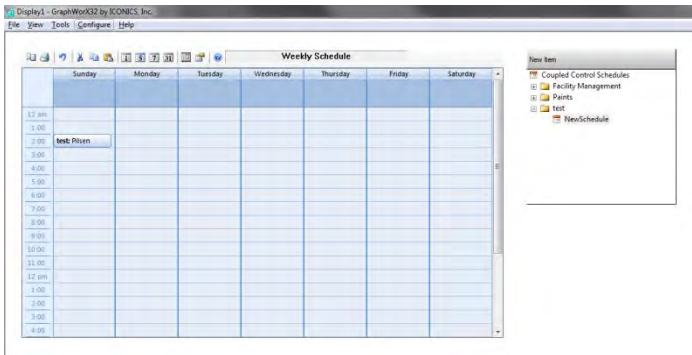


Figure 12 - Schedule Viewer (left) and Tree Explorer (right)