



Schedule Control Quick Start



APPLICATION NOTE

October 2015

Description: A guide to configuring the Schedule Control to display information from ScheduleWorX64 Server.

General Requirement: A working ScheduleWorX64 Server configuration.

Introduction

This Application note provides a guide on how to create and use a Schedule Control in GraphWorX64, WebHMI and PortalWorX-SL. It also demonstrates how to monitor and update existing schedules. A Schedule Control can also be used to override currently running schedules, though the control does not allow adding or deleting schedules. ScheduleWorX64 schedules can be created, deleted, and maintained in the Workbench. If you need to find more about ScheduleWorX64 please consult help files or other documentation.

Schedule Control in GraphWorX64

Schedule Control can be added to a GraphWorX64 display as following:

1. Open up **GraphWorX64**
2. In GraphWorX64, click on Controls tab in the ribbon, and select **Schedule Control**
3. Drop it on the canvas; you can resize it to a suitable size

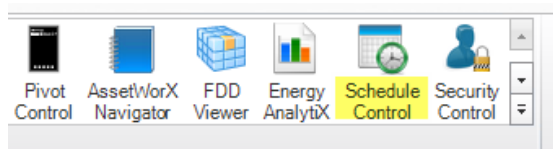


Figure 1 – Schedule Control in GraphWorX64

Configuring a Schedule Control to Connect to a ScheduleWorX64 Server

1. Click on the Schedule Control. You will see a new tab appears on the ribbon which is called **Schedule Control Configuration**. Click **Edit** to bring up the configuration dialog box

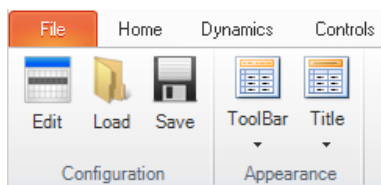


Figure 2 – Schedule Control Ribbon

2. Click **ScheduleWorX View** to show its properties on the Right side. By default Schedule Control will show six tabs during Runtime. You can toggle these by clicking items under the **Visible** column.

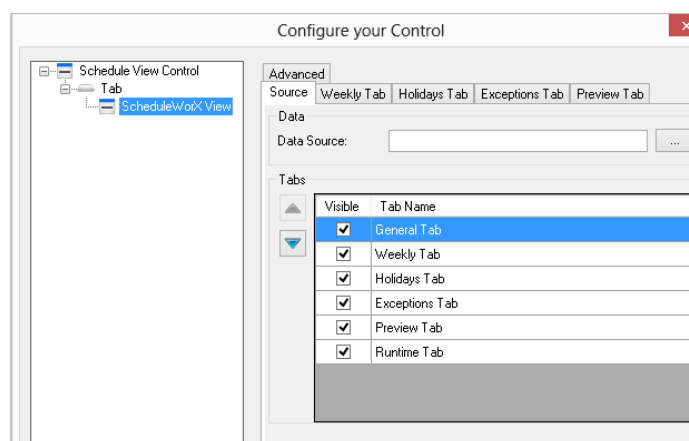


Figure 3 – Schedule Control Design Mode

3. The **Source** Tab allows you to connect to a Schedule **Data Source**. Click on the ... button next to Data Source and it will show a Data Browser. Select a schedule to show in Schedule Control. Browse to Home → OPC Classic Server → My Server → ScheduleWorX64 Schedules → ... for examples.

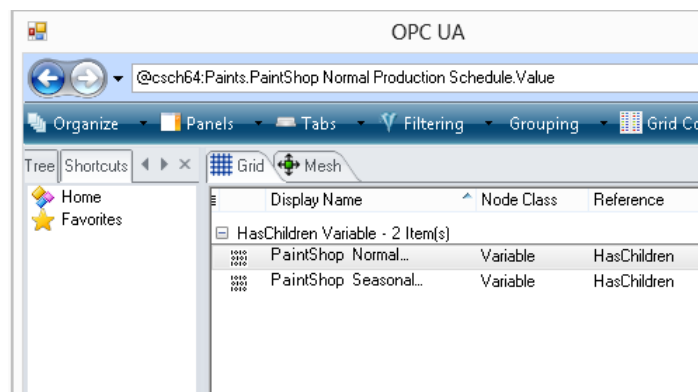


Figure 4 - Unified Data Browser Schedule Sources

Runtime Properties

After configuring basic properties of Schedule Control you can go into runtime. Once in runtime, it will allow you to View and update the selected schedule on the GraphWorX64 display. During runtime you can apply any changes by clicking on the **Apply Schedule** button on the runtime ribbon.

NOTE: Right click in the header region and you can refresh the schedule, apply changes, connect to a different configuration (i.e. a different schedule), save configuration, or show the toolbar.

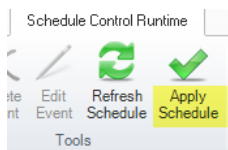


Figure 5 - Schedule Control Runtime Ribbon

General Tab

On this tab you can view general properties and perform the following actions:

- The *Enable Schedule* checkbox gives you the option to Activate/Deactivate a schedule.
- You can change the *Scan Rate* (default at 500ms). Scan rate is the rate at which the OPC tags are retrieved and refreshed for schedule changes.
- 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 a specific date or to end at a specific date (or to run in between those dates), you can set it up in this box.
- You can set the default *ValueSet* value from drop down list; if there is no specific event described in your schedules, this will be the value given.

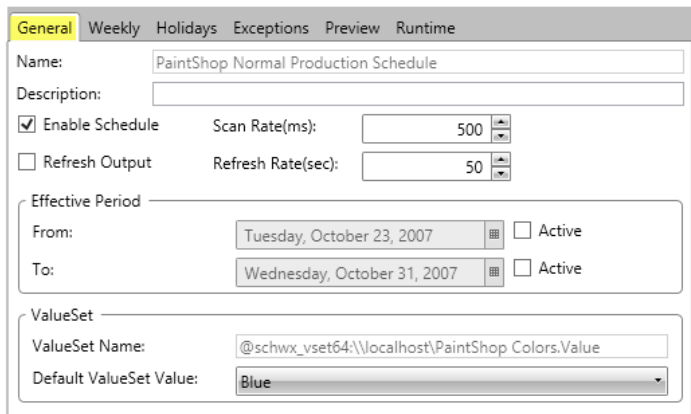


Figure 6 – General Properties

Weekly Tab

On the Weekly tab you can insert events by double-clicking on the timeslot you want and then filling 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 repeat automatically every week. You can also select the start/end time of the event from this popup.

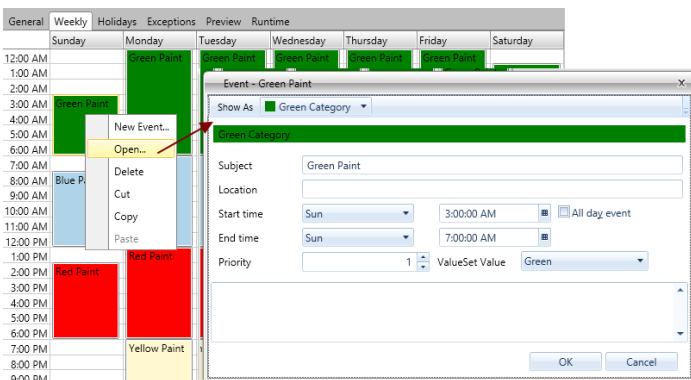


Figure 7 – Add/Update Schedules on Weekly tab

Event priority can also be set up to set different importance to events. For example: if on Sunday at 3 – 7AM there are two weekly events, the one with higher priority setting will take precedence over the lower priority.

After adding all of the required information, you can click **Apply** and your schedule is set to run.

Holiday Tab

Click on the Holiday tab in your Schedule control to determine what do on each holiday date

- On a Holiday list you will be able to view current Holidays associated with each Schedule. You can associate Holidays to a holiday list for ScheduleWorX64 inside Workbench. You must associate a Holiday List before you can apply it to any Schedules.

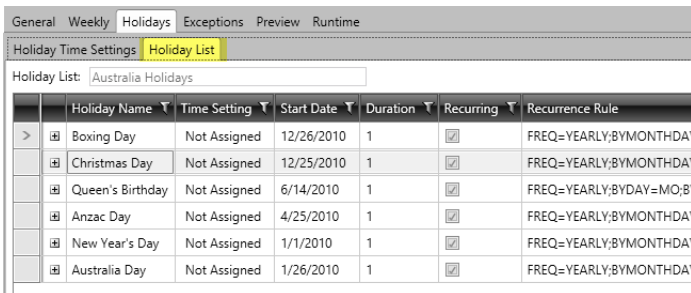


Figure 8 - View Holiday List

- On the Holiday Time Settings tab, you can create the Schedule Events that you would like to use on each holiday. Press  button to add a Time Setting and then on the right side calendar add a new Event associated with a value set.



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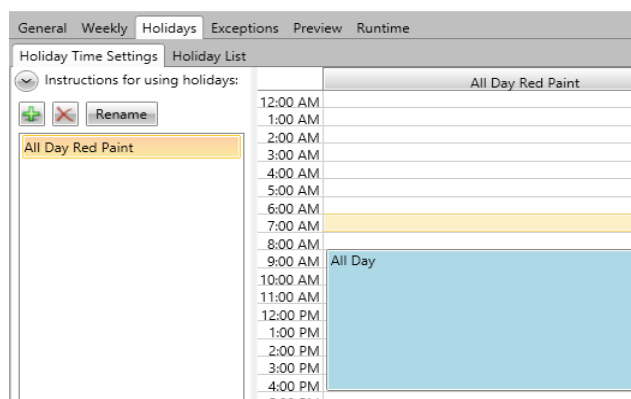


Figure 9 - Mange Holiday Time Settings

Click on the Holiday list tab again and associate Time Settings created in previous step with each holiday. You can do this by clicking on dropdown list under Time Setting column.

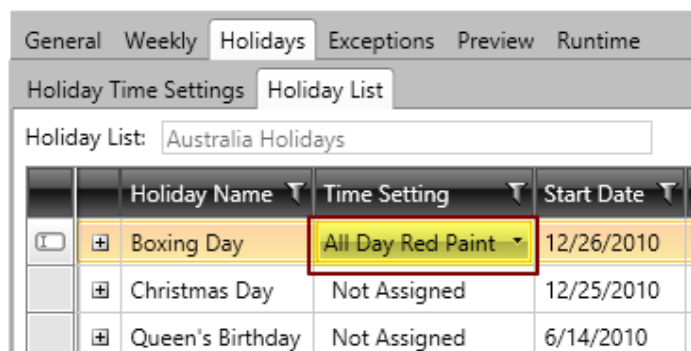


Figure 10 - Associate Holiday time with Holiday

Exceptions Tab

Exception events work similar to events inserted in the Weekly tab, but exceptions have a higher priority. Exception events will always occur instead of a weekly event if they share a time slot. Unlike events inserted in the Weekly tab, Exceptions do not repeat weekly by default.

Exceptions give greater flexibility by allowing the events to be set to repeat daily, weekly, monthly, annually, or any combinations thereof (occur on the third Friday every October, occur on the first Monday every 2 months, etc.). Exceptions also give 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 occurs until August 2015)

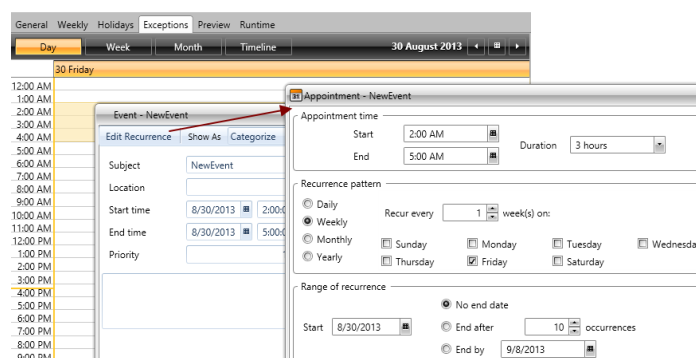


Figure 11 - Adding Exceptions

Preview Tab

The Preview Tab allows us to view all Scheduled events in Daily, Weekly, Monthly and Timeline view. This is view-only mode and does not allow editing of Events.

Runtime Tab

This Tab allows us to view which Event is currently active and it also allows us to override the event with another value.

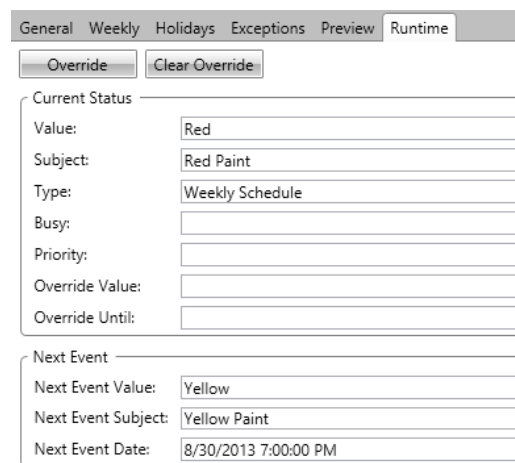


Figure 12 - View current Events and Overrides

Click on the Override button to select another Value. You can also override an event for a certain period of time.



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Figure 13 - Apply Overrides

You can clear any overrides by clicking on the Clear Override button.

Configuring a Schedule Control to Connect to a BACnet Schedule

You can use schedule control to connect to schedule object exposed by BACnet.

1. Insert the control and start editing the configuration as you did in the first section, but instead of editing the existing ScheduleWorX View, right click on **Tab** on the left navigation pane and add a new BACnet Schedule View.
2. In the Source tab you can browse for a schedule via connected BACnet devices. You can also select a data source by entering the desired BACnet device's Device ID and Schedule Instance.

NOTE: In case you want to connect to a remote FrameWorX Server you can specify a FrameWorX Server Location in the appropriate field.

3. When you enter runtime you may edit the schedule object the same as in Workbench-SL. For more information see the application note: Platform Services – BACnet Schedules.

Schedule Control in PortalWorX-SL

The following steps show you how to add the control into PortalWorX-SL. The Schedule Control configuration is the same as GraphWorX64 and you can follow the steps in previous sections to configure your Schedule Control.

1. Launch **PortalWorX-SL**
2. On the new screen, click **ScheduleWorX Viewer** link.

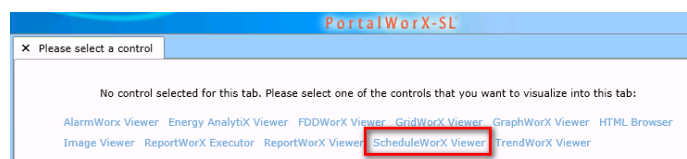


Figure 14 - Add ScheduleWorX Viewer

3. A popup comes up. You will be asked to define the configuration file. By default it will use Default.schxs to connect to the "Facility Management/Floor 1 Lighting" schedule in the sample database. You may browse for another file.

Figure 15 - Configure ScheduleWorX Viewer Connection

4. Press OK. It may take a few seconds to load and then you will see the schedule in PortalWorX-SL.