Sedona Range Controllers
Application Note – CPT Tool

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1 Introduction

This user guide will help you to program any SyxthSense Sedona controller in a fast and efficient manner.

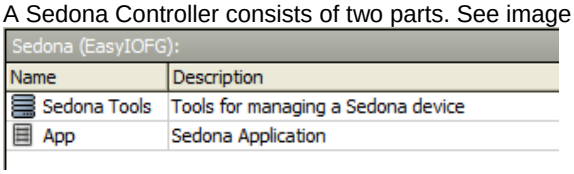
This User Guide is compatible with both the SDC-30G and the SDC-xG Graphics Series controllers. Only the SDC-xG Graphics series will utilize or deploy any of the Web Browser Graphics functions.

This user guide covers the programming and Graphics in an SDC-xG Controller utilizing the 'CPT Tool' built by Online Tools Inc.

Sedona is an Open Source product and a developing industry ecosystem is beginning to provide third party configuration and management tools for the Sedona environment. The Online Tools Incorporated 'CPT Tool' is one such tool that is presently available.

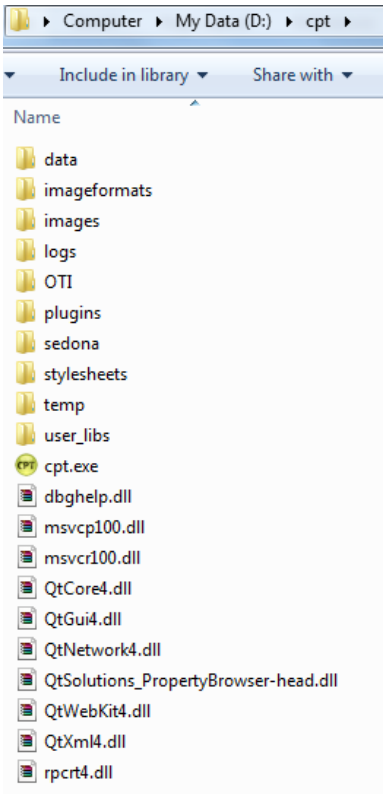
2 CPT Tool Overview

A Sedona Controller consists of two parts. See image below.



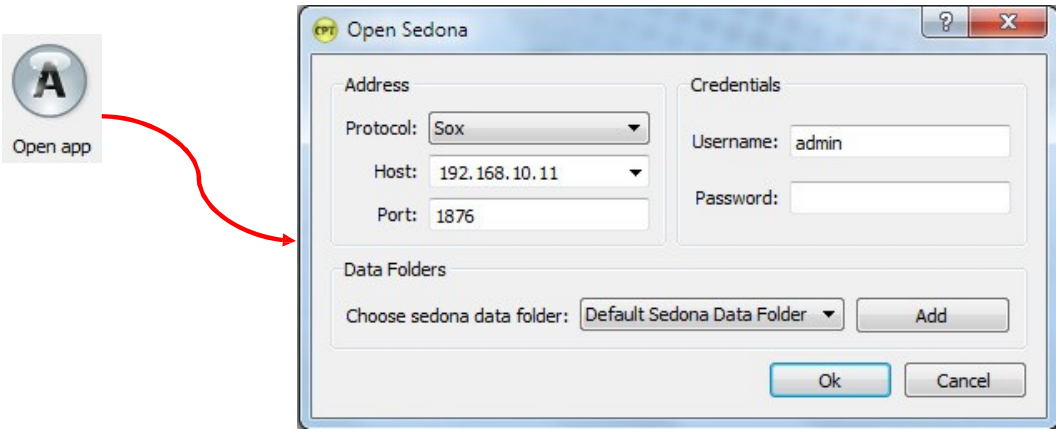
The image used above is from 'Sedona Workbench' and is used as a reference to clarify the topics discussed below.

CPT Tool is an executable file and does not require installation. The package is supplied as a zip file. Extracting the zipped file will create the file structure indicated below. All the files need to be located in the same folder in order for CPT to run correctly.



Step 1
To launch the application, just double click the cpt.exe file.

Step 2
To connect to a Sedona controller, go to File>Open or use the shortcut in the middle of the screen.

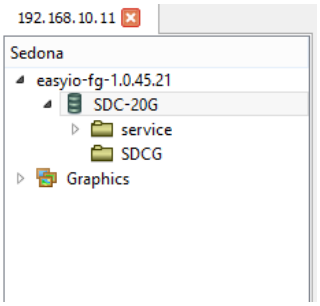


Enter the IP address of the device you are connecting to. Default IP address for SDC-30 controller is
IP address : 192.168.10.10
Subnet Mask : 255.255.255.0

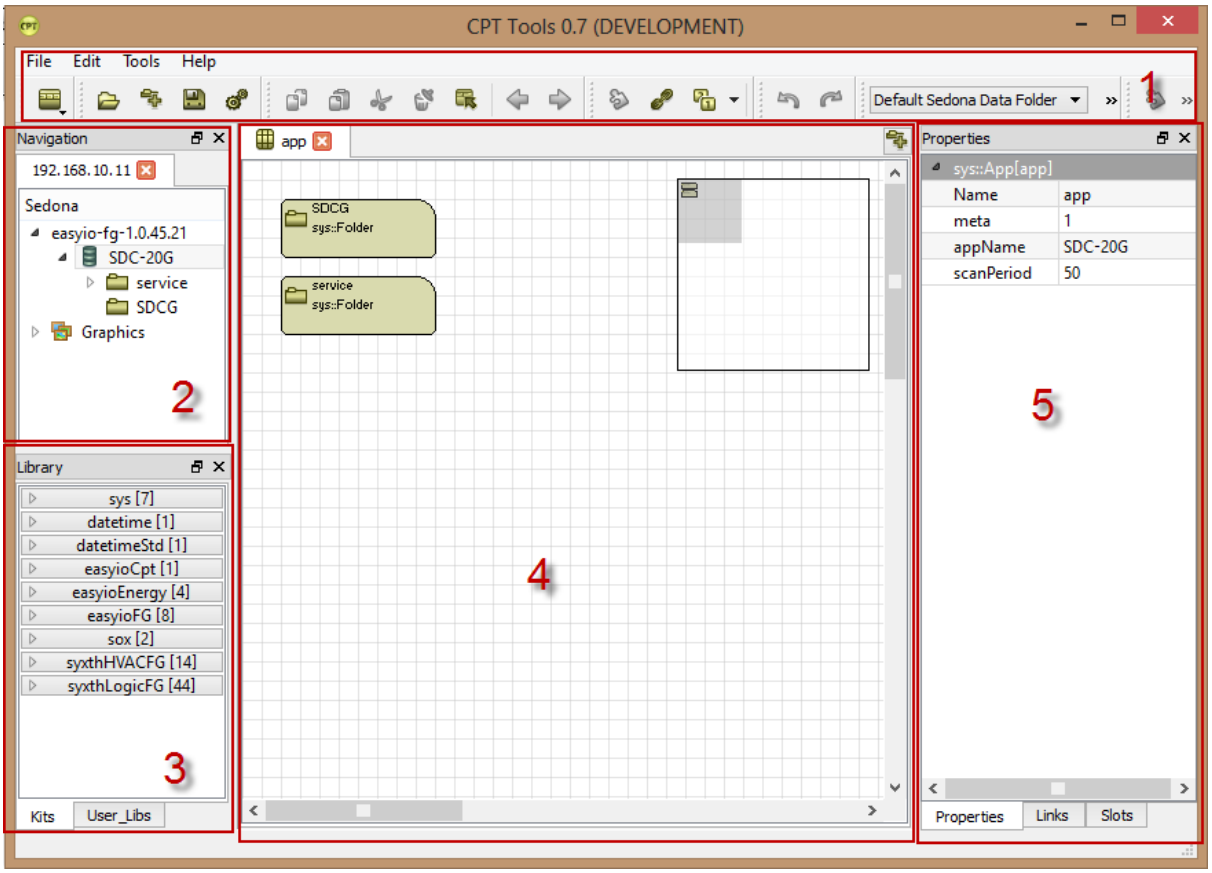
Default IP address for SDC-20G/32G Graphics Series
IP address : 192.168.10.11
Subnet Mask : 255.255.255.0

For all these Sedona controller models, the Sedona login Username is “admin” and Password is left blank (do not enter a password).

Step 3
On successful connection to the controller, you will see a controller in the Navigation (Nav) tree on the left of the screen, as shown below.



Step 4
To help describe the 'CPT Tools' environment, the toolbars and shortcut buttons are highlighted in the numbered red frames and explained further below.



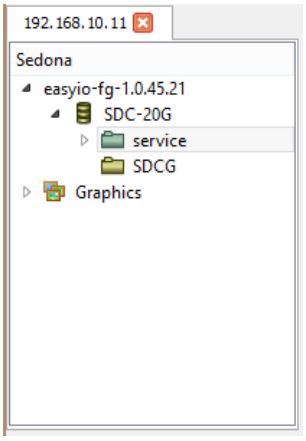
Tool Bar (1)
This tool bar contains all the shortcuts for the application.

Icon	Description	Remarks
	Side Bar Selection	Show or hide side bars.
	Open Application	Open or Connect to a Sedona Controller
	Multi Tab	Open Multiple Tabs in the CPT Tool
	Save	Save the Sedona application.
	Kit Management	Manage kits, install or uninstall. Also used for kit upgrading.
	Copy Selection	Copy a selected object or folder
	Paste Selection	Paste a copied object or folder
	Cut	Cut a selected object or folder
	Delete	Delete a selected object or folder
	Select All	Select all objects in the current view
	Create user library	Create a user defined library of objects for reuse in other applications
	Make link	Link between objects. A new window will pop and allow users to select within the Sedona Apps.
	Arrange	Automatically arrange objects in the view horizontally or vertically.
	Undo	Undo the last action
	Redo	Redo the last action
Default Sedona Data Folder	Change the Default Sedona folder to another folder	User can manage the Sedona folder manually. The Sedona folder can be a common folder shared between Niagara Workbench and CPT Tool.

Navigation (2)

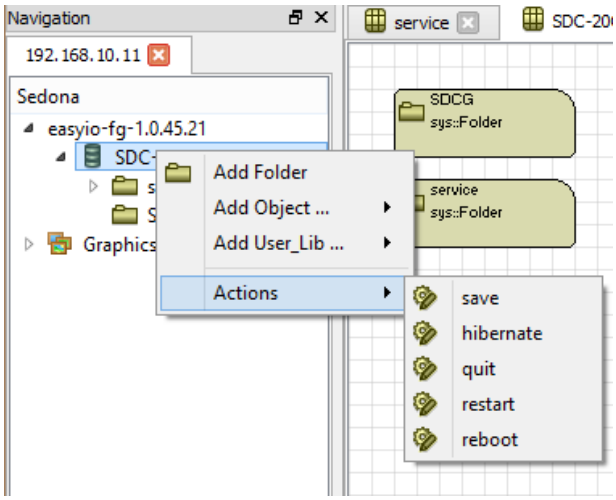
Navigation is possible via the side bar view of a connected Sedona Controller. The Navigation view shows the application content in a folder tree structure.

A User can shortcut directly to the Sedona controller 'Kit Manager' via double clicking the 'easyio-fg' – topline descriptor at the top of the sidebar menu.

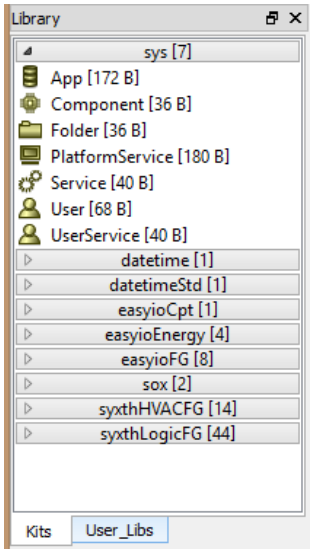


If multiple controllers are connected simultaneously, the navigation window will show multiple IP address tabs.

Right clicking the“SDC-20G” station icon displays additional shortcuts and actions.



Library (3)
The ‘Library’ side bar displays the Sedona kits installed in the connected Sedona controller. The kits are expandable and collapsible showing the content of the kit.



If a required kit is not shown in the view it indicates that the kit is not installed in the Sedona Controller. Refer to next chapter for the kit installation steps.

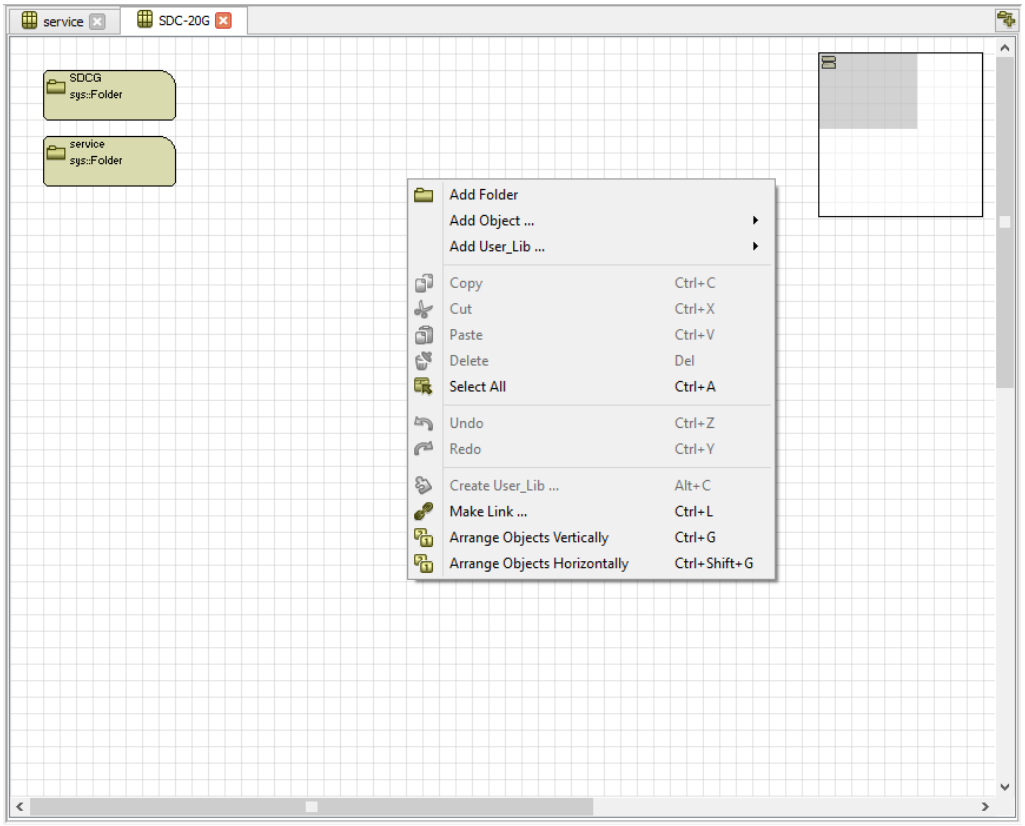
Workspace (4)

The ‘Workspace’ is the location for developing application programs. The Workspace sheet size is not resizable.

There is a view finder in the top right corner of the Workspace sheet. The view finder enables simple object location and worksheet navigation within the workspace.

A right click on the Workspace sheet displays a dropdown menu. This menu employs shortcuts to help speed up programming tasks.

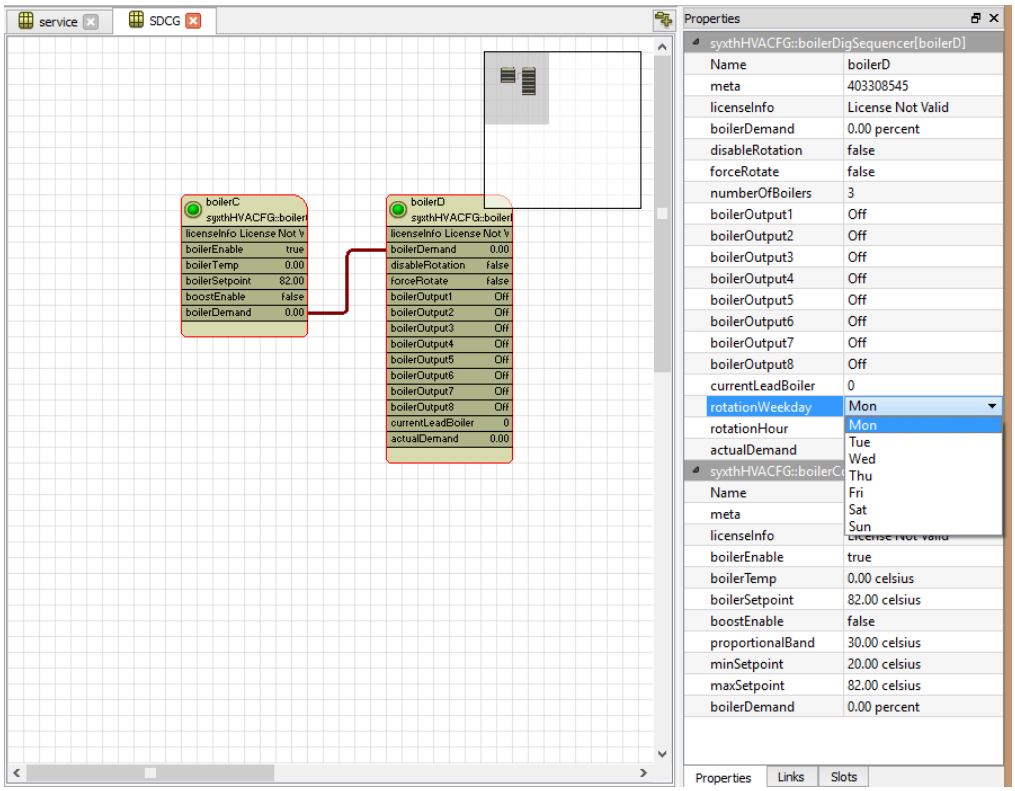
Objects can be added to the Workspace from this menu.



Properties (5)

On the right of the screen is the ‘Properties’ side bar. This view shows the selected object(s) properties. This view is capable of displaying the properties of multiple objects.

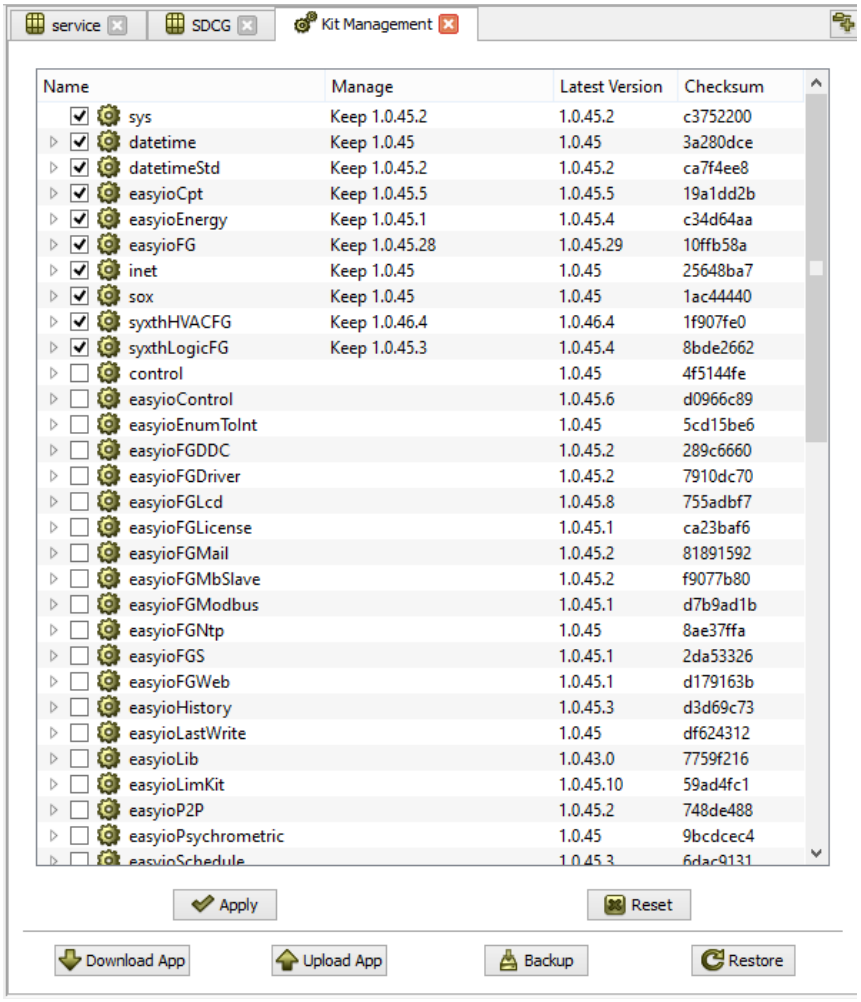
Objects properties can be edited directly from the sidebar view. Renaming of objects and/or folders can also be completed in the Properties side bar.



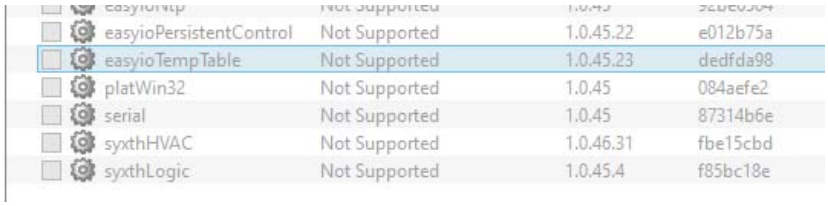
3 Kit Management

'Kit Management' in the CPT Tool is used to manage the Sedona kits in a Sedona Controller. To open the Kit Manager double click the icon or the shortcut icon, shown on the tool bar.

The Kit Manager will be displayed as indicated below. The Kit Manager will display all the kits that are installed in the CPT Tool Sedona folder or in the Sedona folder selected.



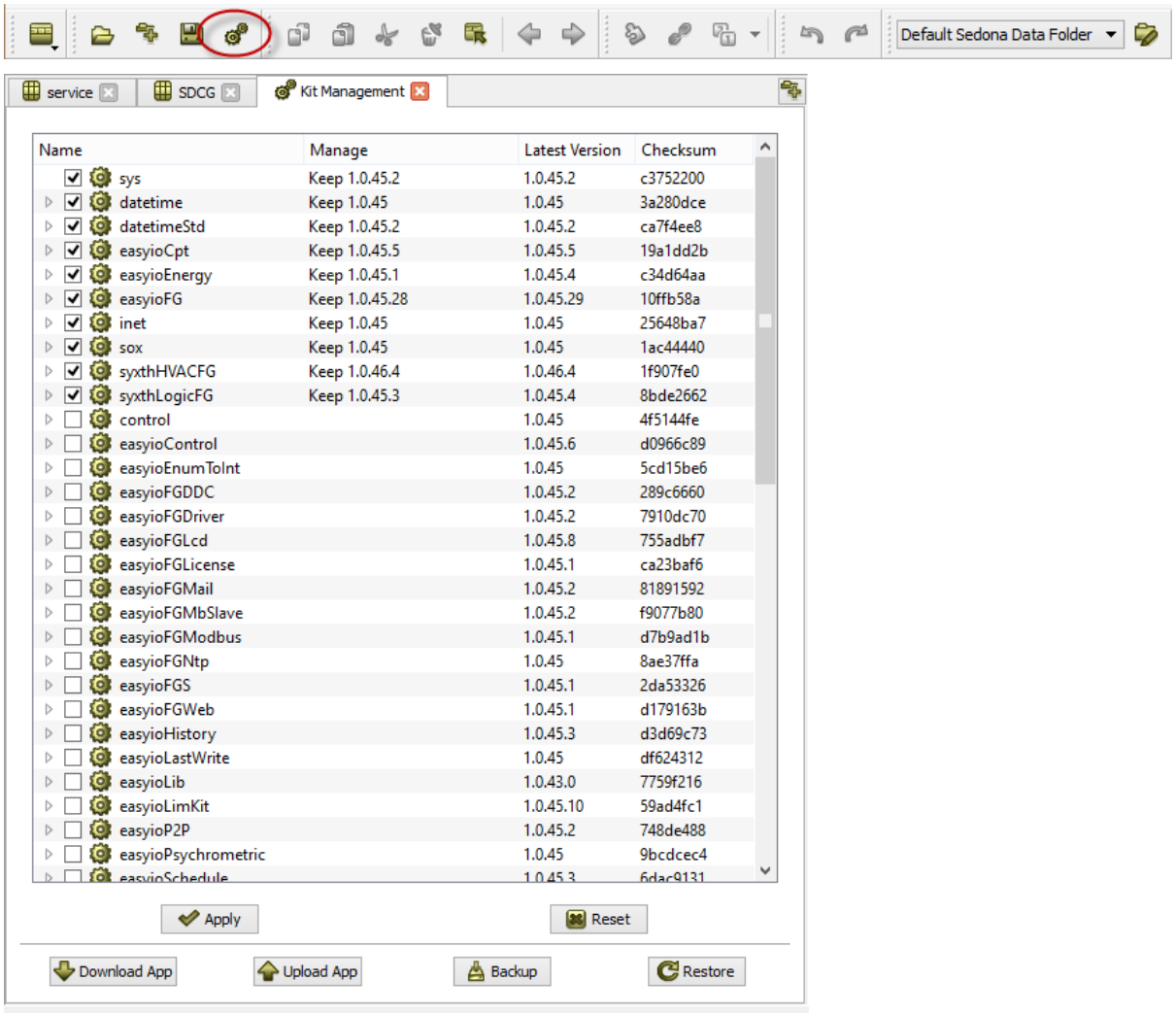
Some kits are hardware dependent, and therefore some selections may be either grayed out or indicated as "not supported". This is not an error. This occurs when the hardware platform does not support the application kits.



Following is a description of the kit install/uninstall procedures.

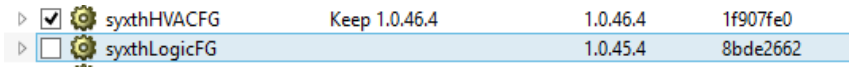
Step 1

Connect to the Sedona Controller. Once connected access the Kit Management windows via one of following methods; Open the Kit Manager via a the shortcut icon, shown on the tool bar or double-clicking the first menu Navigation menu line.

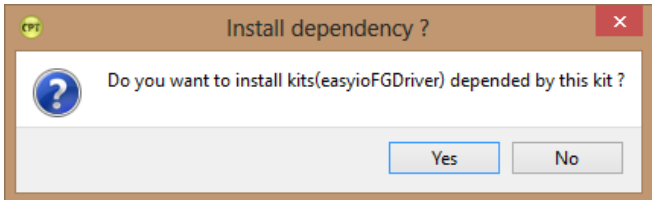


Step 2

To install a required kit, check the square selection box beside the kit name. To uninstall a kit, uncheck the selection box beside the kit name.



If the kit to be installed has a dependency of other kits, and these kits are not installed, the CPT Tool will automatically prompt the user for installation of the dependent kit. Hit “YES” to accept it.



Note

DO NOT attempt to install non SyxthSense or EasyIO kits that are not Sedona Framework version 1.0.45. Only Non SyxthSense and Easy IO kits that are Sedona Framework 1.0.45 should be installed. Non SyxthSense kits do not use word “sixth” as a kit name prefix and non EasyIO kits do not use the word “easyio” as a kit name prefix. Examples of non EasyIO kits are sys, sox, control, inet, dateTime and dateTimeStd. These kits do not carry the “sixth” or “easyio” prefix. Ensure that if such kits are installed that they are revision 1.0.45 kits ONLY.

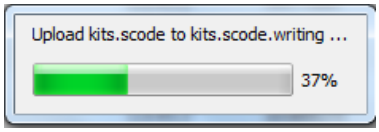
Kits that carry a prefix with another vendors’ name are owned by that particular vendor. Please refer to that vendor for any technical support issues regarding the kit.

SyxthSense Sedona Products ONLY support Sedona Framework 1.0.45. This is not a system drawback; if kits other than version 1.0.45 are offered for use in the SyxthSense Sedona controllers please ignore them.

Step 3

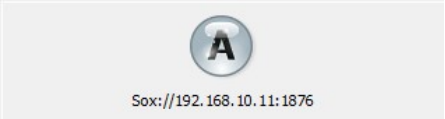
If you are satisfied with the kits selected for installation, click Apply.

The CPT Tool will begin to install the selected kits into the controller. A progress bar shows the status of the kits installation.



Step 4

On completion of the kit installation, the controller will automatically reboot and disconnect. You will need to manually reconnect to the controller again.



4 Backup and Restore

The CPT Tools platform provides a feature to backup and restore a Sedona application (app).

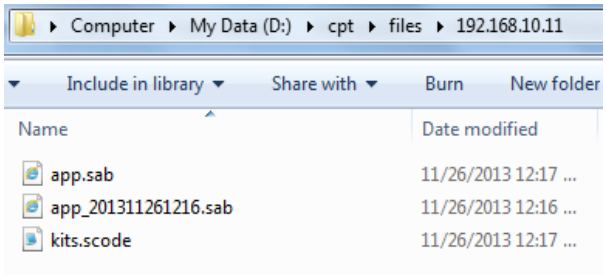
These functions are available from the Kit Management window.

The menu button selections are at the bottom of the page and operate as follows:

Icon	Function	Remarks
Download App	Download an app from a Sedona Controller into the PC	This function only 'gets' the app.sab file. It does not get the kit.scode file.
Upload App	Uploading an app into a Sedona Controller	This function only 'puts' the app.sab file. Kits needed has to be manually installed via the Kit Manager.
Backup	Backup a Sedona app from a Sedona Controller	This function will back up both the Sedona app and kit.scode file at the simultaneously.
Restore	Restore a backup into a Sedona Controller	This function will restore the app and kit.scode files simultaneously. Kits will be automatically installed during the restore process.

All backup files are stored in a folder named "files" in the CPT Tool installation directory. The files are stored with a predefined name determined by the IP address of the device.

Below is an example of the folder contents for a "Backup" of a Sedona controller with an IP address of 192.168.10.11.



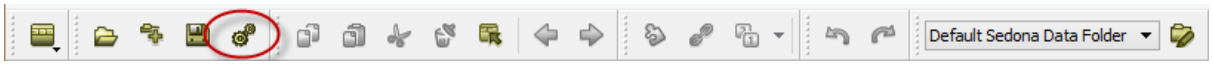
4.1 Download and Upload

To avoid confusion please note that the ‘Download’ action means to retrieve a file from a Sedona device, and the ‘Upload’ action means to send a file to a Sedona device. To download a Sedona App from a Sedona controller to the PC follow the instructions below.

Step 1

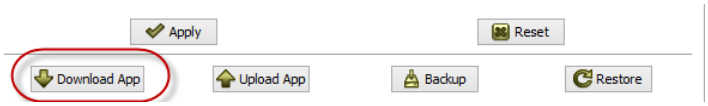
Connect to a Sedona controller using the CPT Tool.

Click Kit Management shortcut icon on the tool bar to access the Kit Management window.



Step 2

Click Download at the bottom of the window.



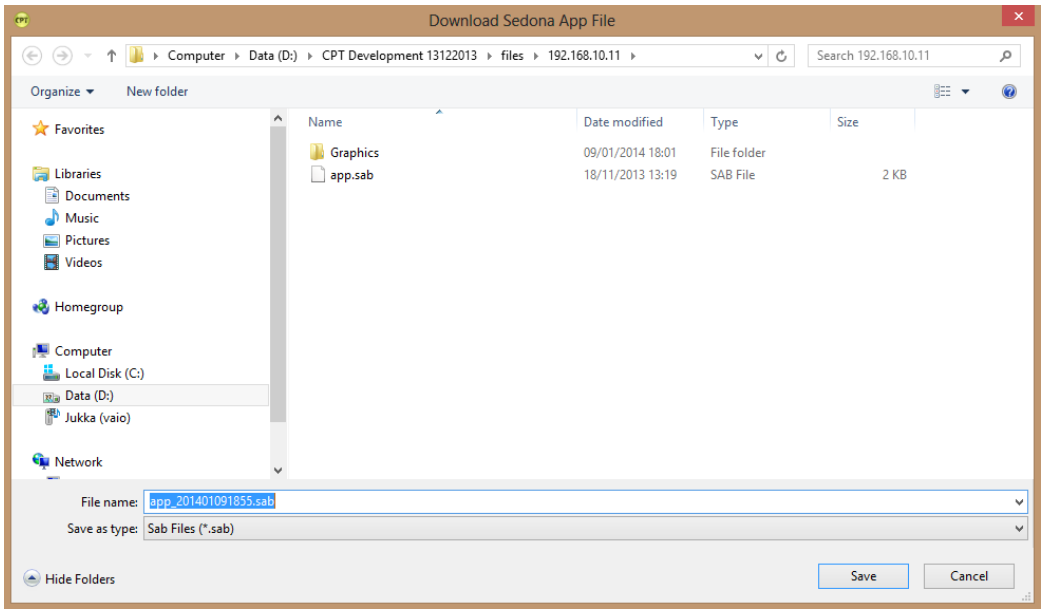
This function performs a ‘get application’ request from the controller. After clicking this button, another window (shown in Step 3 below) will be displayed.

Step 3

Give the backup application a name. By default CPT Tool will assign the App with the date and time the ‘get’ function was performed as the filename.

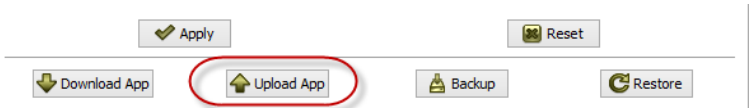
You can replace this with a name of your choice as the filename. The “.sab” extension must remain unchanged.

By default the Sedona app file will be saved in the file path/directory shown below

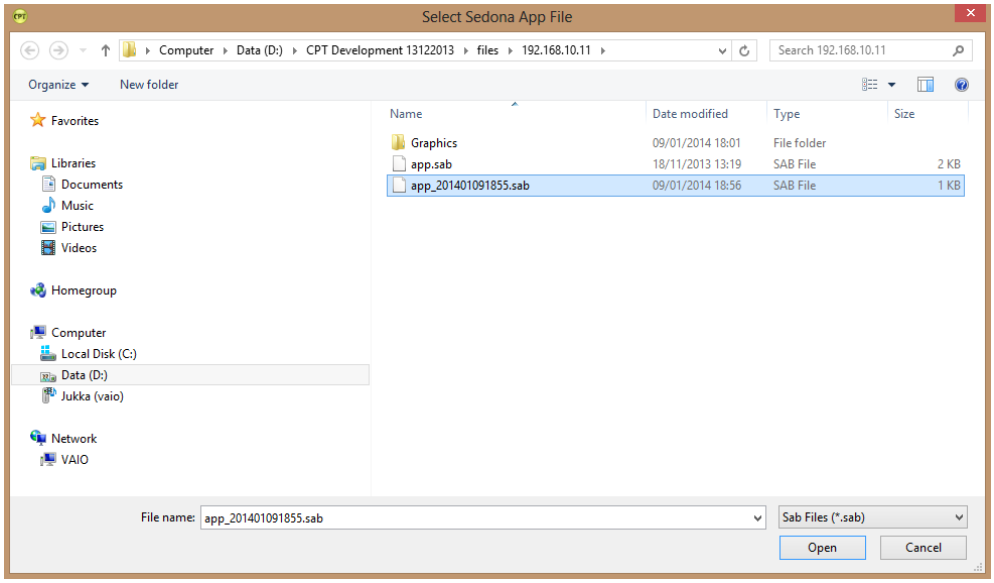


Step 4

To upload an app to a Sedona controller from the PC, click Upload App in the Kit Manager window and CPT Tool will prompt for the user for an app selection to upload.



Choose the xxx.sab file to upload to the controller (where xxx represents the filename you want to upload from the location where your files is stored) and click “Open”.



Step 5

The CPT Tool will prompt you to install kits that are required for the app. The CPT Tool will automatically select the required kits based on the application contents. Hit “Apply” to proceed.

Step 6

The CPT Tool will begin the upload process and on completion will restart the controllers’ Sedona VM (Virtual Machine), reconnection to the device will be required.

4.2 Backup and Restore

Unlike the “Upload” and “Download” functions the “Backup” and “Restore” functions provide for storage and restoration of both the app.sab and the kit.scode files to/from a Sedona Controller. This provides a full controller back up.

The “Upload” and “Download” functions provide storage and restoration files of the app.sab files only. The kits files will need to be reinstalled manually as required by the App.

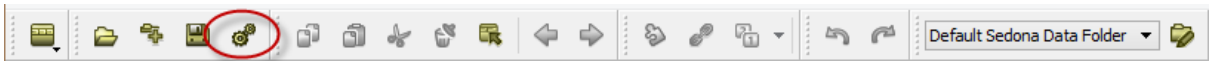
During the “Restore” process, the user will not be prompted for kits management by the CPT Tool. Kit Management is provided automatically along with the app Restore.

To Backup and Restore a Sedona app from a Sedona controller follow the instructions below.

Step 1

Connect to the Sedona controller via CPT Tool.

Click Kit Management shortcut icon on the tool bar to access the Kit Management window.



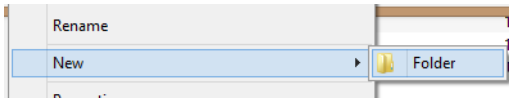
Step 2

Click Backup at the bottom of the window.

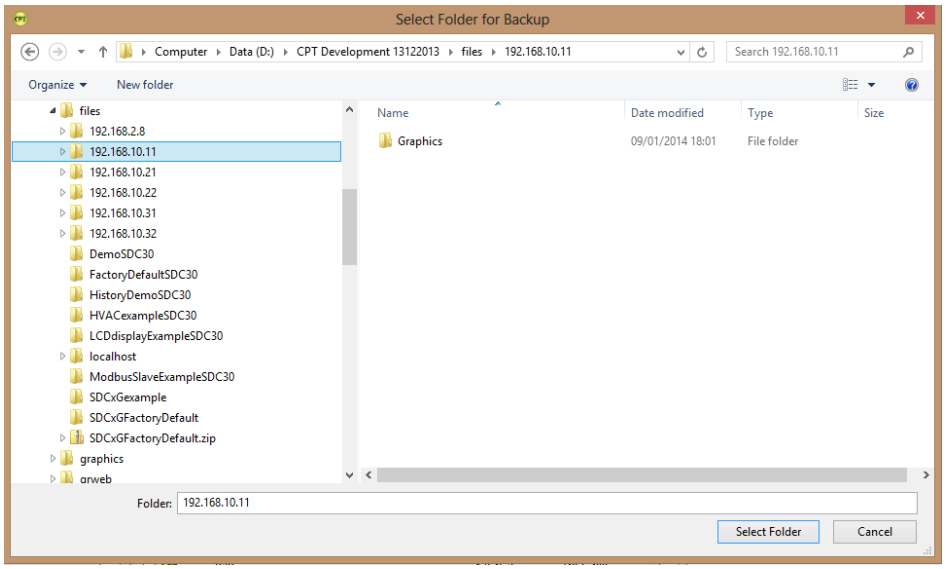
This function performs a ‘backup’ request from the controller for both the app.sab and the kit.scode. After clicking this button, another window (shown in Step 3 below) will be displayed.

Step 3

The backup will reside in a folder named with the IP address of the connected controller. Select that folder. You can also create new windows folders with different names.

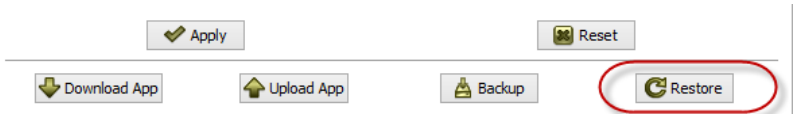


By default the Sedona backup file will be saved in the file path/directory shown below i.e. in the folder named as IP address of the controller in the /files/ sub-folder of the CPT tool.

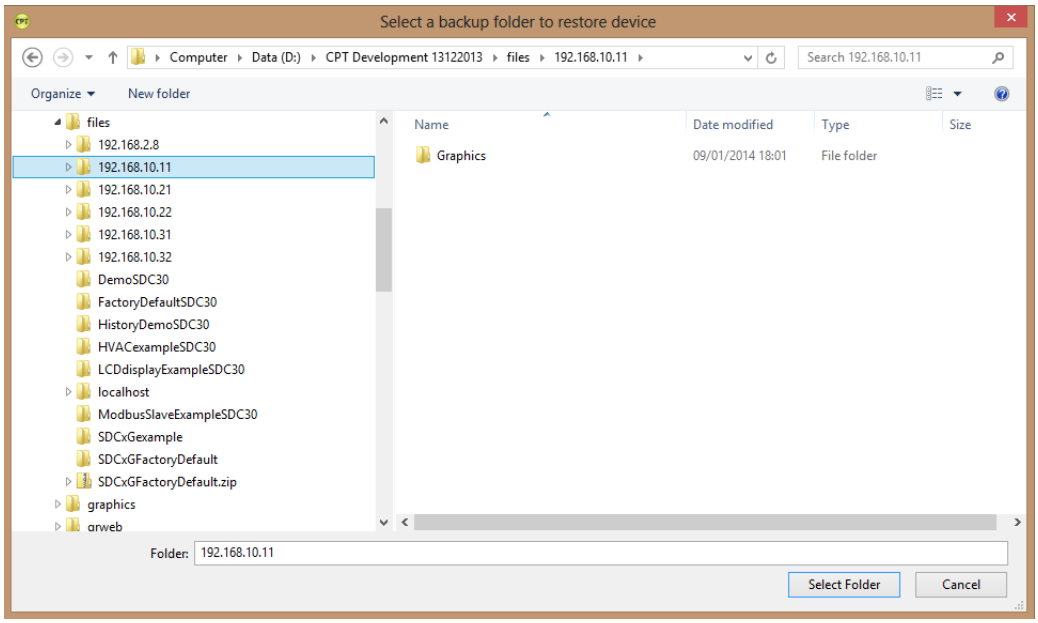


Step 4

To “Restore” a backup to a Sedona controller from the PC, click Restore in the Kit Manager window and CPT Tool will prompt for the user for the backup selection to restore.

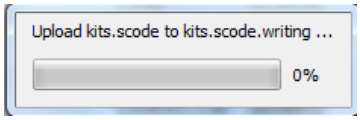


Choose the folder file to restore to the controller and click “Select Folder”.



Step 5

The CPT Tool will start to install the apps and kits. The progress of the restoring process will be shown as below image



5 Constructing Sedona Control Programs

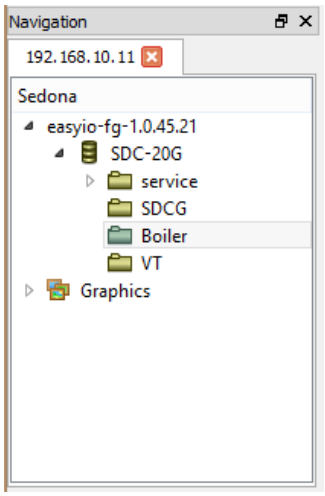
To build your Sedona programming application in the Sedona Controller, you will begin in the application tree.

Step 1
By default the application tree is populated with 2 default folders; a ‘Service’ folder and an ‘SDCG’ folder. You can add multiple folders to the app tree to assist in organizing your programs and applications.

Tip! Good “housekeeping” for your Apps will make life easier when debugging, fault finding and servicing your A pps. We DO recommend dropping all service objects in to the “service” folder.

All other control logic should be dropped in the “SDCG” folder or any other newly created folder(s)that identify the application or process involved.

The example below shows the app tree in the CPT Tool view. There are 2 additional folders created, namely “Boiler” and “VT” in which the associated application logic would be created.

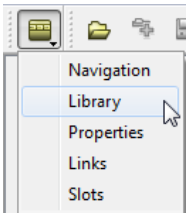


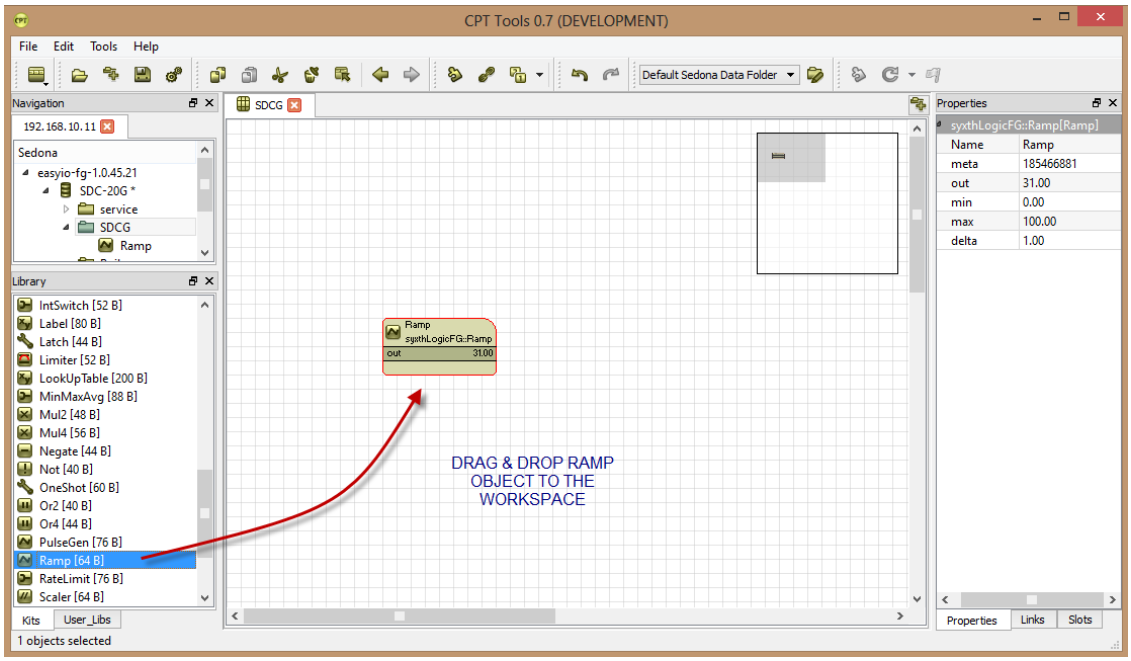
Step 2
In the following example, we are going to build a simple piece of logic that compares 2 Numerical Values. If one Numerical value is greater than the other Numerical value, it will provide a Boolea ‘True’ output.

Open the SDCG Folder by double clicking on the folder icon in the Navigation side bar. The Workspace for “SDCG” will be displayed. The Workspace is where control objects from the kits are placed and connected to produce your App. In Step 3 we will drop some objects into the Workspace ready for connection.

Step 3

Here we will select a “Ramp” object and Drag and Drop it into the Workspace. The Ramp object will immediately start to ramp up and ramp down at the default rate when dropped on the page. To find the “Ramp” object, At the Library Tab, expand the syxthLogic Library. If the Library Side bar is not seen, open it using the shortcut button at the tool bar.





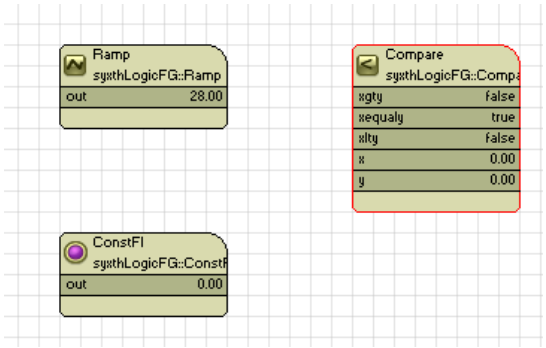
Locate the Ramp object select it with a single click and holding down the mouse button, ‘Drag’ the Ramp object into the workspace. When it is placed in the desired location release the mouse button and ‘Drop’ the object in place.

The properties side bar will automatically show the Ramp object properties.

Step 4
In the same syxthLogic object library, locate the object named “Compare” object. Select the object via a single held mouse click then Drag and Drop it in to the workspace with the Ramp object.

Additionally from the Library locate and select the “ConstantFloat” object dragging and dropping it into the Workspace with the other objects.

The Workspace should now contain 3 objects as shown in the example below.



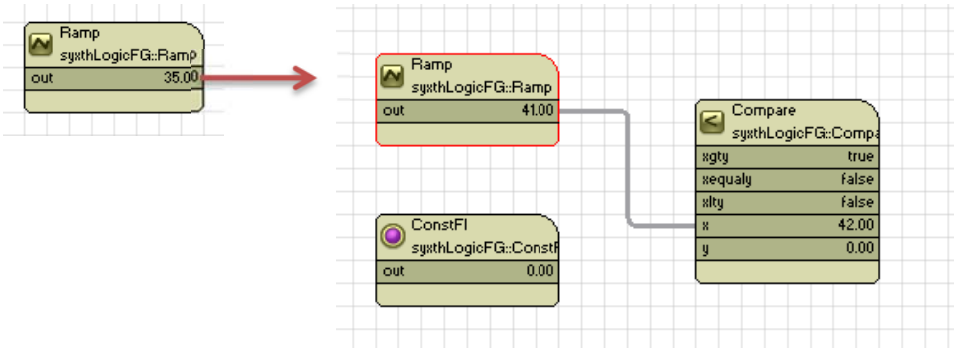
Step 5

To create link/links between objects in the same workspace, simply move the mouse pointer over the value slot you require.

A thumbnail will show, Click and hold on it the required point.

Drag the link (almost like a connection wire or line) from the source or output to the destination slot, connection point or input you require, then release the mouse button when the required input is reached (line connects the two points). The link will automatically be made.

In this example we will drag the Ramp 'output' slot from the output side of the control object to the 'x' input, on the input side of the Compare object. Starting from the Ramp object, click and hold on the output side of the object selecting the Ramp output slot. Next drag the connection to the Compare object, locate the slot marked 'x' and drag the connection over this slot.

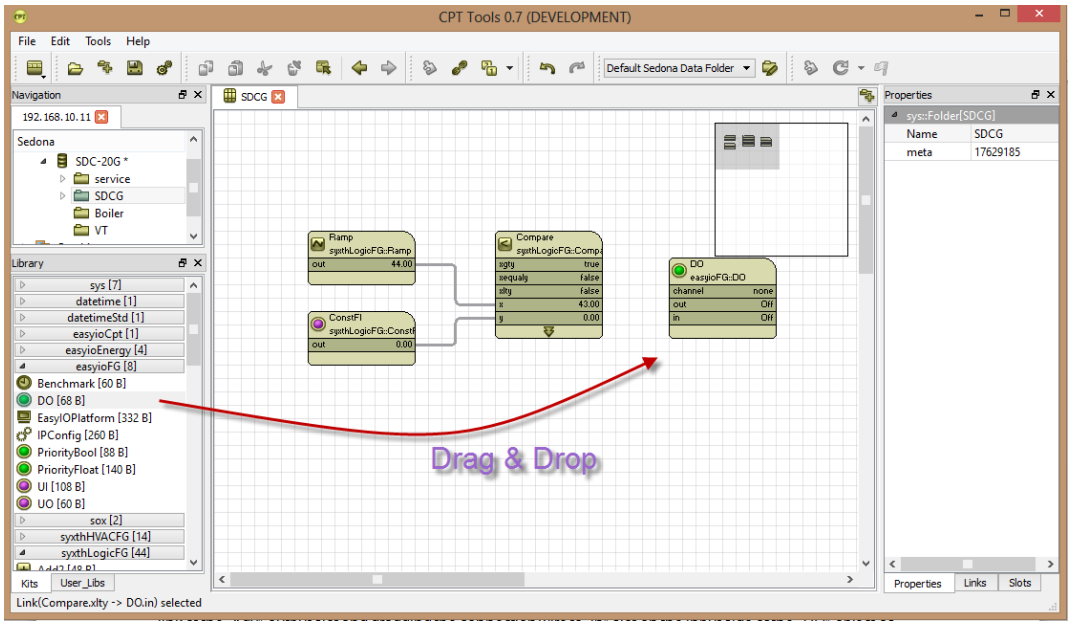


Once you are at the Compare destination slot 'x', release the mouse and the link will be made. Connect the ConstFl object to the Compare 'y' input in the same manner.

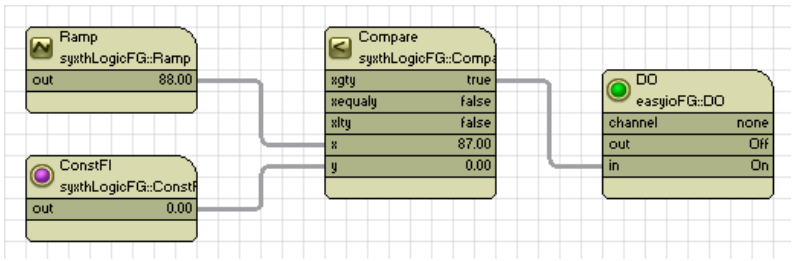
Step 6

Next, locate and expand the easyioFG object Library in the Library sidebar.

Locate, Drag and Drop a DO object from the easyioFG Library into the Workspace.

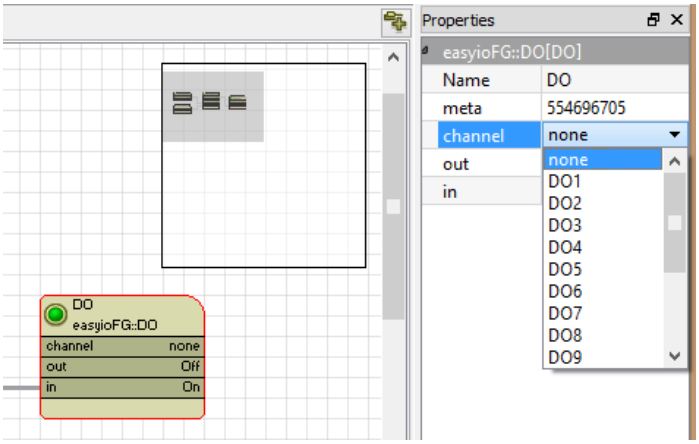


Using the method described in Step 6, link the output “Xgy” slot of “Compare” object to the “DO” input via creating a link at the “Xgy” output slot and dragging the connection wire to “in” slot on the input side of the “DO” object as shown below. The completed logic example should look like this;



Step 7
Click on the DO object to display the properties at the properties side bar. From the properties selections choose the DO ‘channel’ required. The channel identifier relates to the physical digital output on the controller.

In this example, DO1 as the channel required.

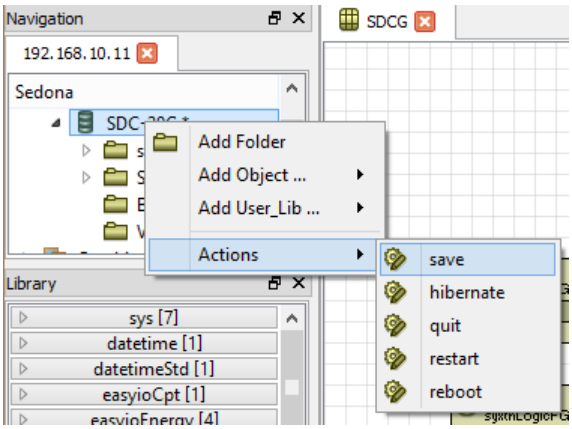


Step 8
You should now notice that DO1 will start to toggle states (change from off state to on state) when the logic condition is fulfilled (x is greater than zero).

Step 9
At this point in the programming process, your Sedona app programmed in the controller is not saved to the flash memory. It is resident in the controller and running in the controller RAM.

To write the program to flash memory, a forced save or manual save of the application is required. If a program save is not completed, any power cycle of the controller will lose all the programmed applications as presently they have not been written to Flash memory only RAM.

In order to save the Sedona App, right click the App object and select 'Actions' and choose 'save'.



Step 10
The Actions menu displays some other options. See the table below for a description of these selections and the result of selecting these actions.

Tip! Please note that if the controller is power cycled or rebooted before a save is applied all work programmed after the last controller save (if any) will be lost. A regular Action, save selection during the programming process is advised to prevent inadvertent loss of work.

Action Functions	Description
Save	It saves the Sedona application into the flash memory.
Hibernate	SyxthSense Sedona Controllers does not support this function
Quit	To disconnect from the Sedona Controller
Restart	It will restart the Sedona VM
Reboot	It will reboot the hardware including the Sedona VM

6 Constructing Graphics pages for Web Browser

Please note that this section does not apply to SDC-30 controllers.

CPT Tool comes with a built in feature for building/creating graphics pages.

Specific to the SyxthSense SDC-xG Graphics Series is the ability for graphics pages to be built into the controller. In order to have graphics pages on board the controller, the SDC-xG controllers require a micro SD card to be installed in the micro SD card slot to carry the graphics.

Please note that the Micro SD card in the SDC-xG Series is optional although the controllers are available as 4GB Micro SD fitted as standard.. The SD Micro card can also be purchased separately that have the following specifications.

Specifications	Remark
Brands Tested	Transend, Kingston
Capacity Tested	2GB, 4GB, 8GB, 16GB

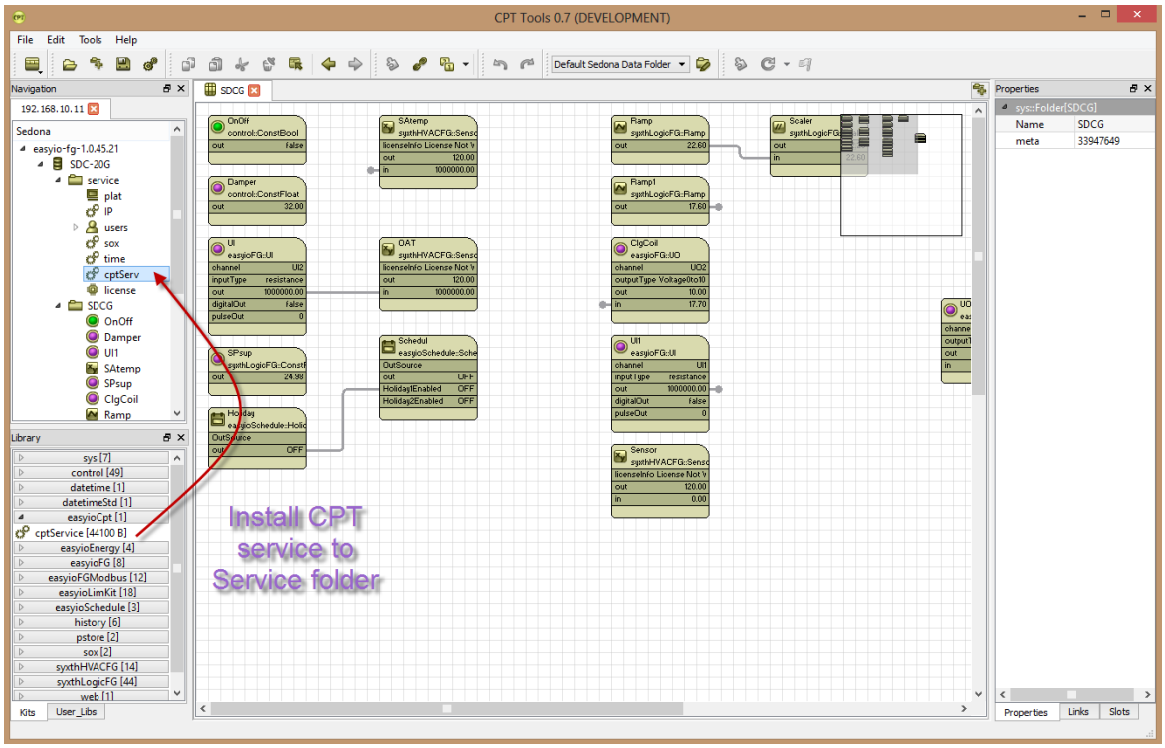
Step 1
Referring to the previous topic in “Constructing a Sedona Control Program”, we will be using the simple program created in the example to build a simple Graphic Page.

A Graphics page in CPT Tools is called a “Gr page”.

Step 2
The Sedona app requires the “easyioCpt” kit for the graphics pages. Using the Kit Manager you will need to install the “easyioCpt” kit before proceeding.

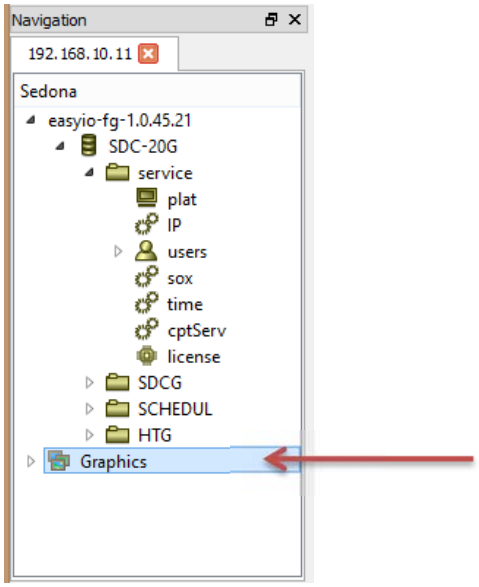
Once the kit is installed and the controller rebooted, locate drag and drop the cptService object into the service folder. The service folder should now look like this.

Note: With CPT Tool from 31-01-2014 you should make sure that he cptService kit is updated to the 1.0.45.5 or later.



Step 3
Once the cptService is installed a further Menu selection called ‘Graphics’ should appear in the Nav tree.

Graphics construction in CPT Tools, using the Gr page, is carried out under the ‘Graphics’ directory icon as shown below.

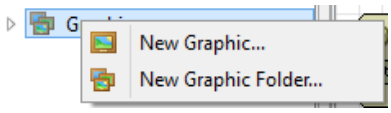


.gr Graphics pages are created here. Multiple pages can be constructed under the Graphics menu.

This menu will be reflected on the web-page.

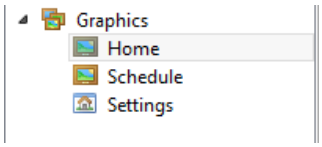
Step 4

Right clicking on the graphics icon, in the navigation tree will display a set of options as shown below.



Step 5
Choose New Graphic and assign a name for the Gr page in the pop up window. In this example we use the name “Home” for the Gr page.

The user can create multiple Gr pages by simply repeating step 4 to create multiple Gr pages as required. Each page name must be unique.

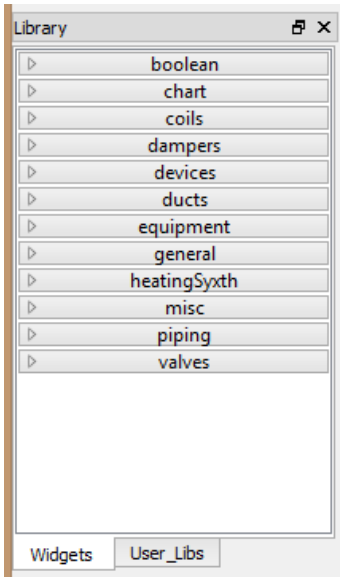


Step 6
To construct the graphics, double click any of the Gr page created under the Graphics directory. In this example, the “Home” is used.

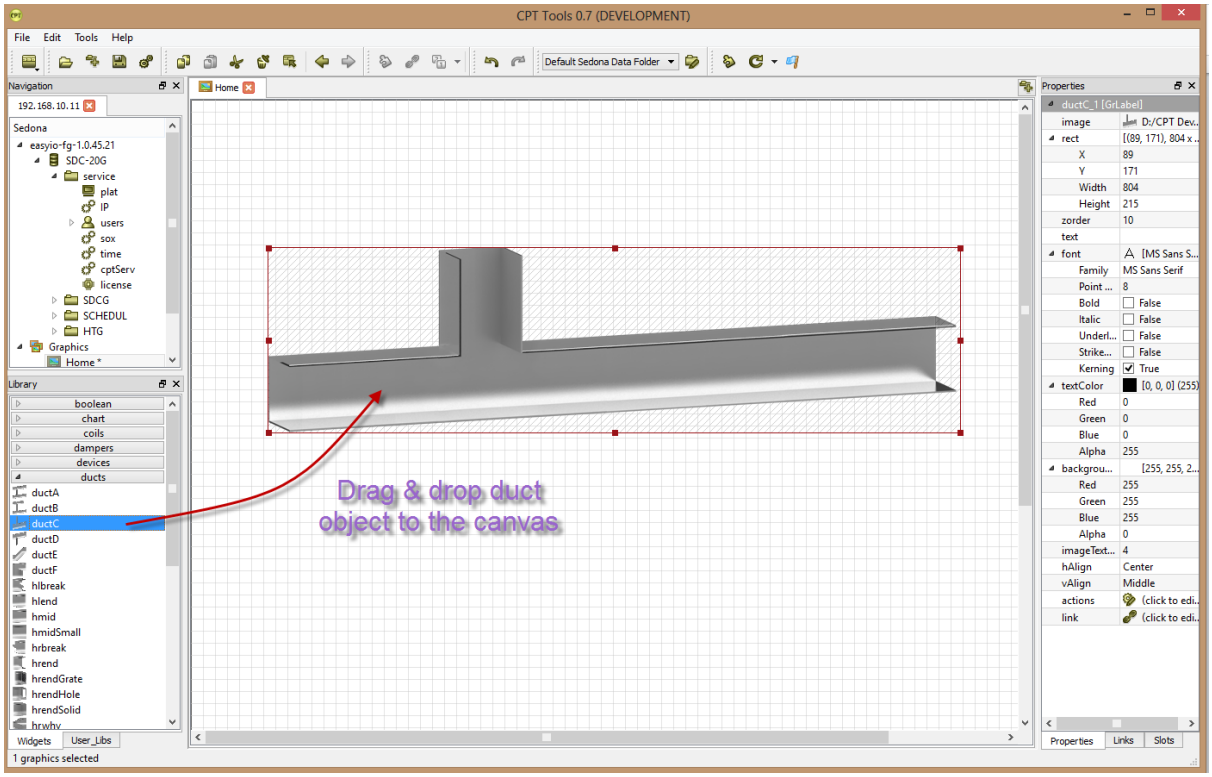
On selection of the “Home” Gr page the Gr page Workspace will be display and the Library in the sidebar view will automatically change to Gr Library.

The Gr page library contains a number of default image libraries and graphics widgets.

There is an icon displayed next to each image/object which serves as a preview to the display item.



Step 7
The following steps are an example of how to construct a Gr page for a simple Air Handling Unit. Firstly locate and expand the “ducts” menu in the Graphics Library, then drag and drop the duct image in to the Gr Workspace. In this example, “duct C” is used.

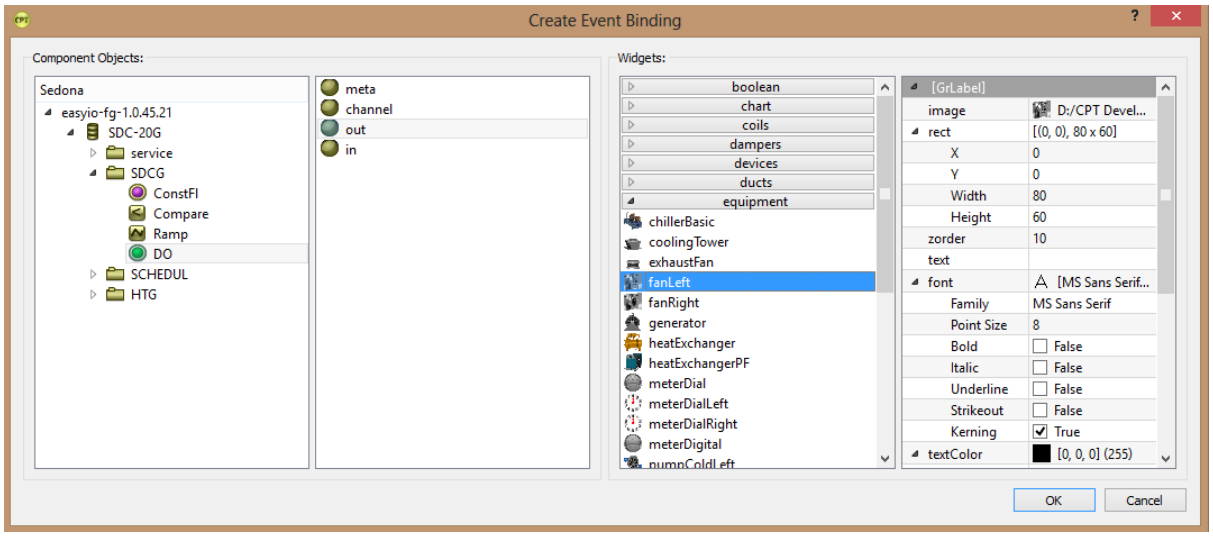


Images and objects that do not require value bindings such as but not limited to ducts, arrows and text labels are dragged and dropped directly from the Gr library.

Step 8
In order to create an animated image or object, a point or object from the Sedona App must be dragged and dropped into the Gr workspace to provide the point context or Event Binding.

In the example below, the DO object (created in the earlier example) is used to create the Event Binding. Once the point or object is dragged and dropped into the Gr Workspace a new window will display, prompting the user to choose the object slot to be selected and also to select a related widget to bind to the DO object slot from the Gr Library.

The example selection is shown in the image below.



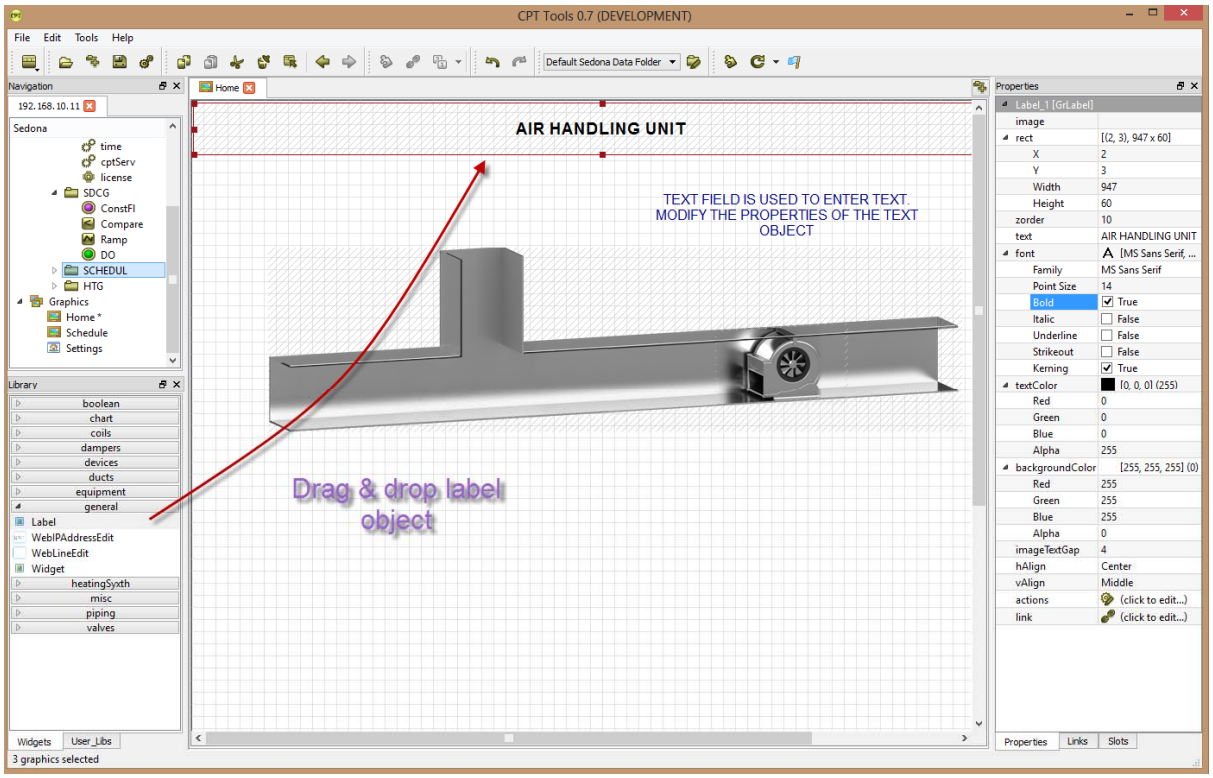
Step 9
Click OK after selecting the slots required.

The Gr Workspace will now be complete with the Fan image selected. The Fan image will be animated or stopped according to the value/status of the DO object ‘out’ property.

Select and Drag the Fan object to align it correctly within the duct object on the Gr page.

Step 10
For text display either animated (displaying an App point status) or just plain static text, such as a label or descriptor, use the Label object located under the general tab in the Gr Library.

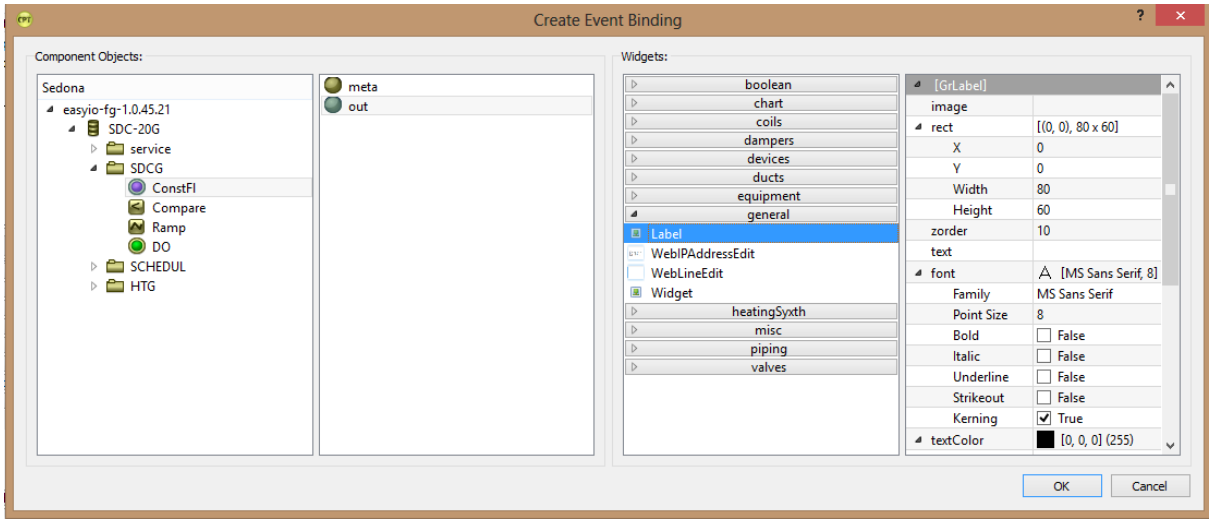
The placement of the object on the page is the same “Drag and Drop” technique used in previous steps. To insert static text into the object for display as a label or descriptor on the graphic, select the text Label object required in the right Sidebar and enter the text string desired in the text property. In the example used here the Label object is used as a static text descriptor and the description string “Air Handling Unit” is used in the text property.



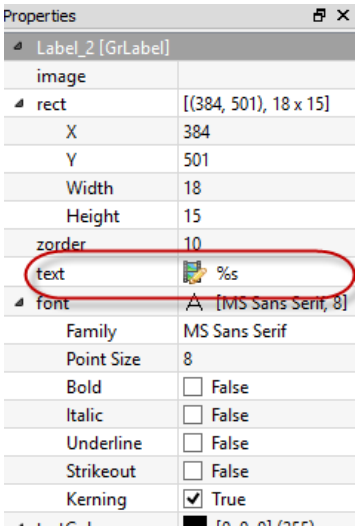
Step 11
For animated text display (displaying an App point status} such as a label or descriptor, use the Label object located under the general tab in the Gr Library.

The placement of the object on the page is the same 11Drag and Drop" technique used in previous steps (Step 8}.

This time instead of selecting a image widget, choose the text Label widget.

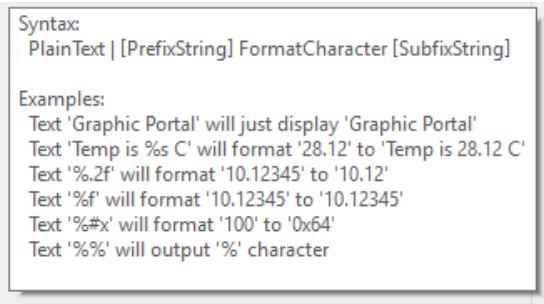


Step 12
Within the Label object all text value formatting can be edited. To edit these properties, select the text Label at the properties bar and click on the 'text' property.



A new window will display.

The text formatting examples are as below.



Step 13
When the user is satisfied with the construction of the Gr pages, the Gr pages need to be uploaded to the EasyIO FG controller. To complete this process use the following procedure.

Make sure there is a micro SD card inserted into the micro SD card slot on the target Controller.

When the controller is being written with GR pages for the first time it will require the "Full Deploy" command (write) on the initial graphics load to the device.

Subsequent changes to graphics on the controller will only require a normal "Deploy" command.

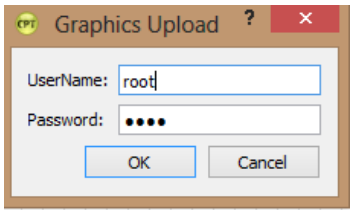
At the toolbar, locate the Deploy icon . The icon will be enabled when a Gr page is active in the Workspace view.

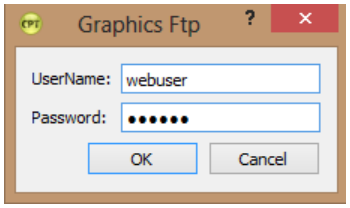
Choose the "Full Deploy" option.

A login credential is required to perform a deploy.

Username: root / webuser
Password: project320 / 123456

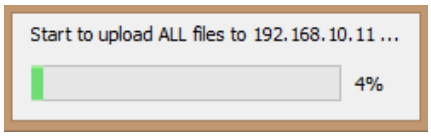
Note. From CPT Tool version 31-01-2014 the login credentials are: Username: webroot; Password: 123456





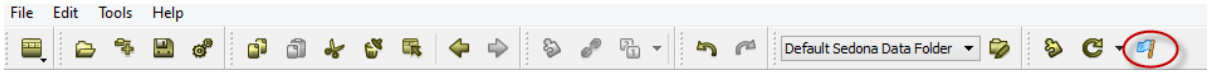
Log-in credentials are required to perform a "deploy" of any type.

Hit OK and the CPT Tool will start to deploy Gr pages and all necessary files into the SD card. During the deploying process, a status bar showing the deploying process in percentage can be seen.



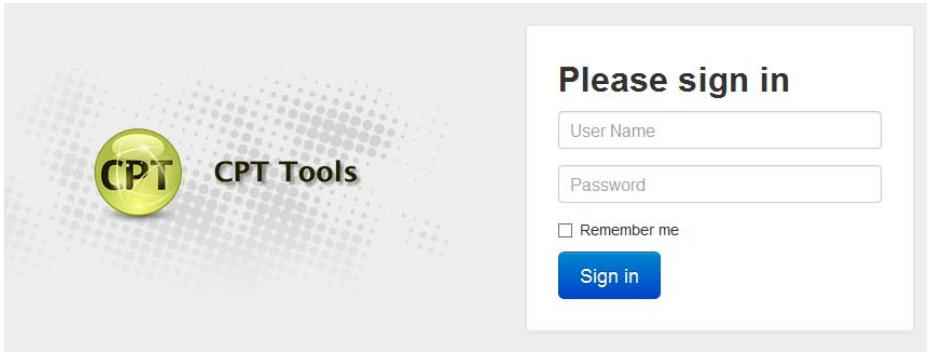
Step 14
To preview the Gr pages on the controller, launch a web browser and enter the URL as per below; URL : http://<IP Address>/sdcard/cpt/app/signin.php

OR access the controller graphics by clicking the preview icon on the CPT Tools tool bar. The default login for the web server is as per below.



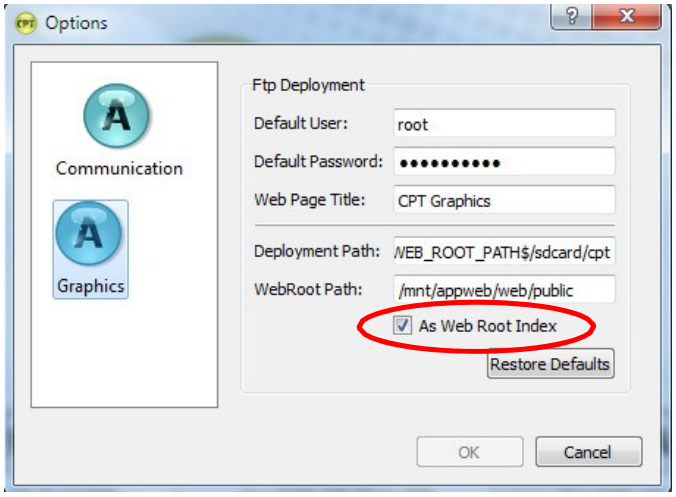
Username: admin
Password: hellocpt

Step 15
Another login option for CPT graphics and to bypass the default login page that every Sedona SDC-xG Graphics series has is to force the home page of the web to be the CPT login page.



To change the default home page for the controller follow the steps below.

Go to CPT Tools > Option > Graphics.
Check the tick box for “As Web Root Index”
This process will replace the index.html file in the web user folder. There will be no backup in the web user folder anymore.



Step 16
Run a "Full Deploy" again. Login now with the IP address.

URL : http://<IP Address>

6.1 Live Trend Graph and Data Table on Web Page

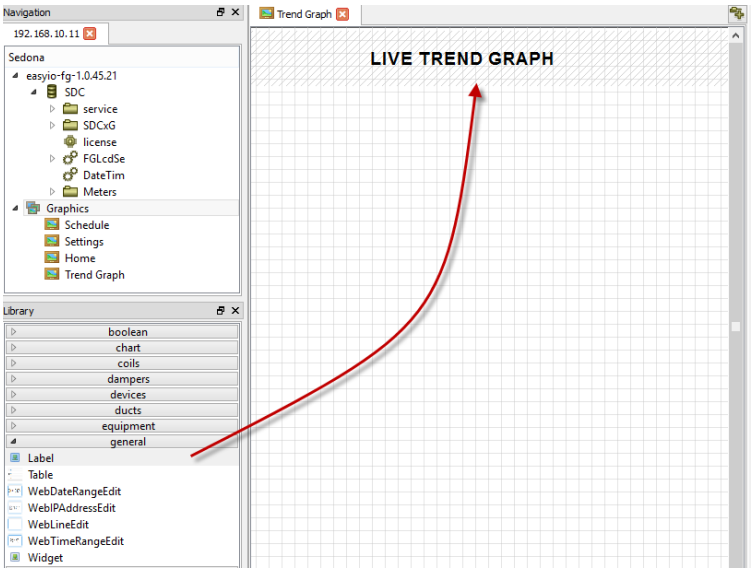
With the CPT tool it is possible to build live trend pages and live data tables for the e.g. temperature measurements. The data is displayed in trend format, and it is stored in the RAM memory of the controller (not historical trend, not permanently stored).

Step 1

Create another Gr pages under Graphics folder and named it "***TREND GRAPH***".

Step 2

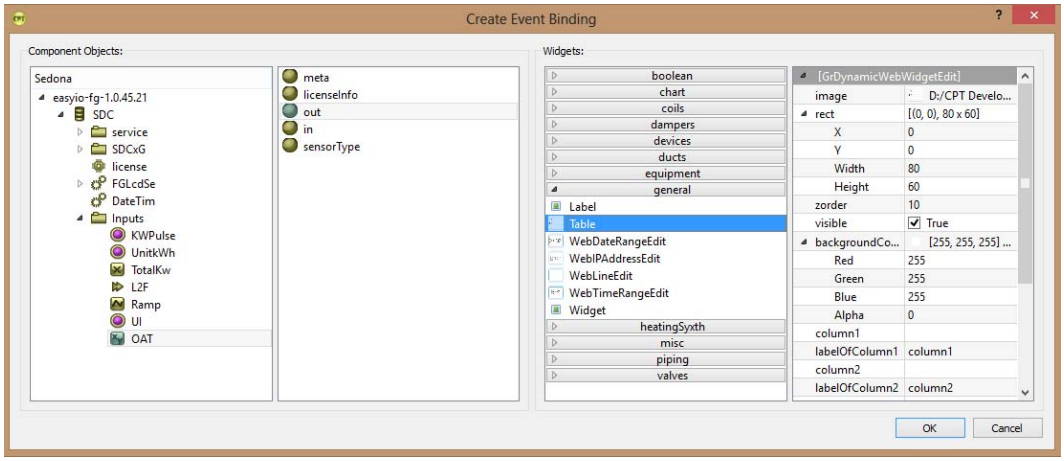
Create the page title for the Gr page using the General/Label widget. Give the title "***Live Trend Graph***".



Step 3 – Create Live Data Table

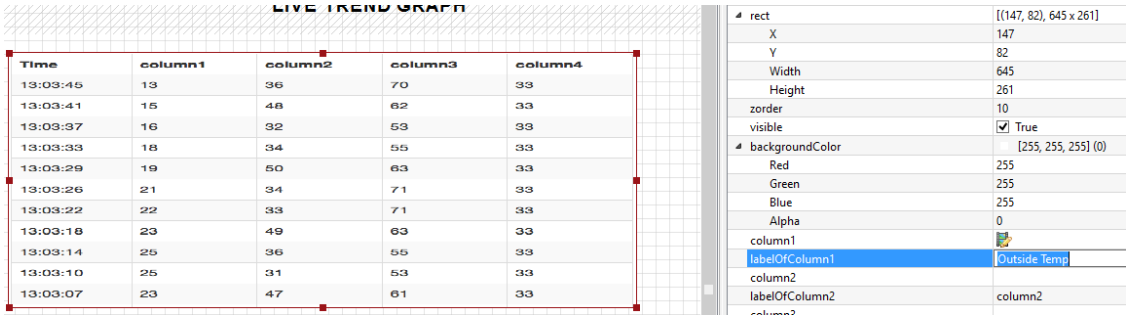
Drag and drop the object that is to be monitored to the graph page. In this example ***OAT*** Outside Temperature is dragged & dropped from ***Inputs*** folder.

In the pop up folder choose the ***Out*** slot and ***Table*** from General Library. Click OK.



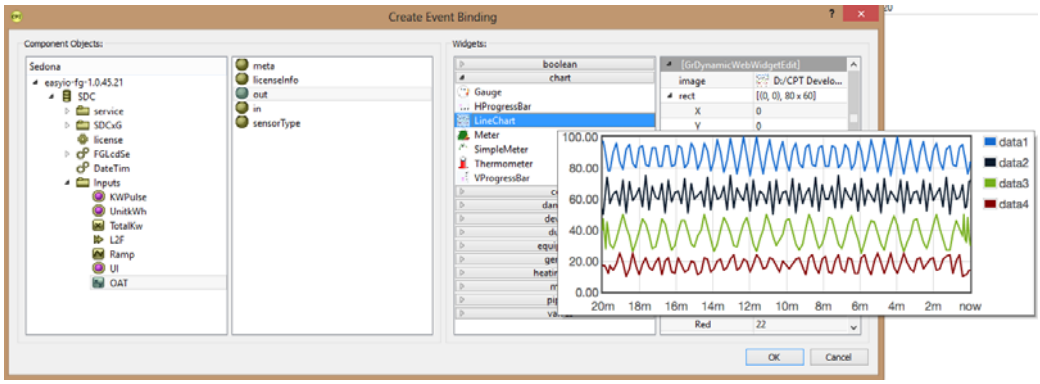
Step 4

Resize the Table height to half of the original height. Rename the Column 1 name to the variable that you are monitoring (in hthis case Outside Temp).



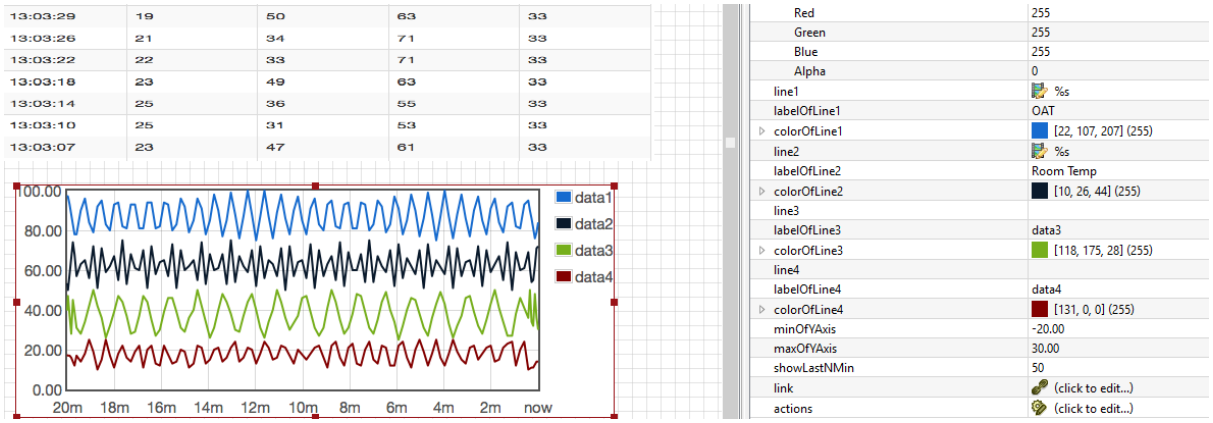
Step 5 – Create Live Trend Graph

Drag and drop the object to be monitored (e.g. ***OAT***) again into the Gr page workspace. Select Out slot and ***Line Chart*** from Chart library in the pop up.



Step 6

Position the chart under the Data Table. Modify the Chart Properties, and change the lableOfLine1 to the required text (e.g. OAT).



The text entered here will be the legend for the live chart at the right side of the chart. ***showLastNMin*** property is used to set how long period is displayed on the screen.

Step 7

Choose the ***maxOfYAxis*** property and set it to 30.00. Choose the ***minOfYAxis*** property and set it to -20.00. Optionally you can change the line stroke colour.

Step 8

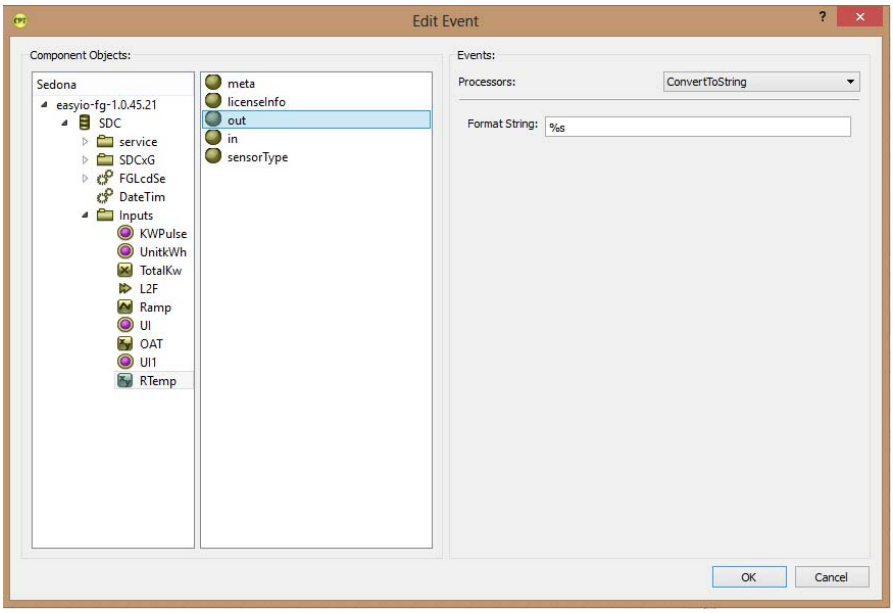
Right click the line2 property 

and choose ***edit event.***

Step 9

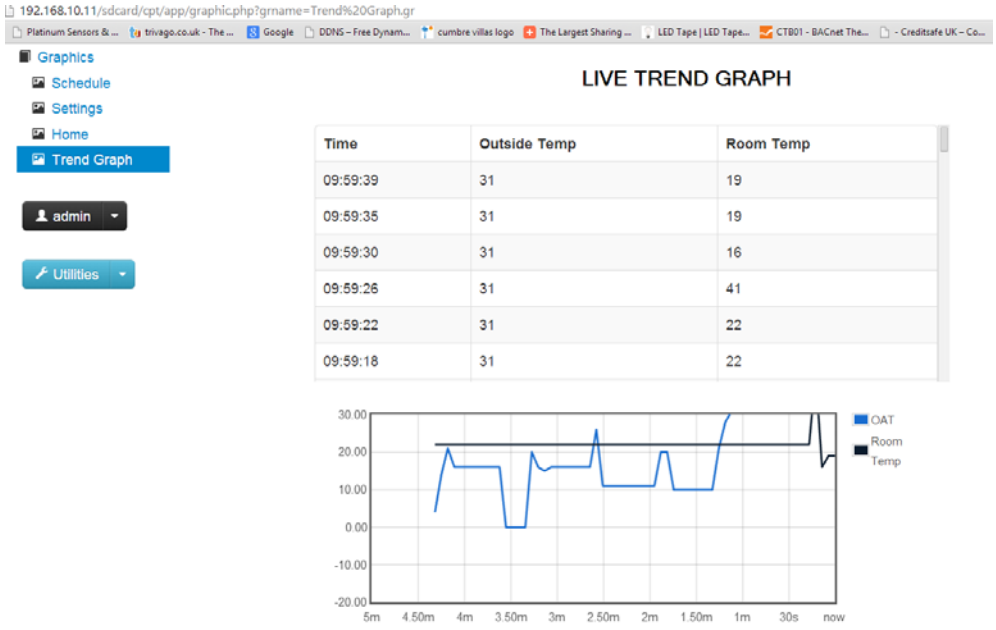
In the pop up window select the next reading to be monitored, e.g. ***RTemp*** from the ***Inputs*** folder.

Leave the Events binding as default.



Upload the latest changes to the SDC-xG controller.

The completed Gr page with live trend and live history table will display as below. The table and chart is not visible in the CPT Tool. Valid data can only be seen in the web browser.



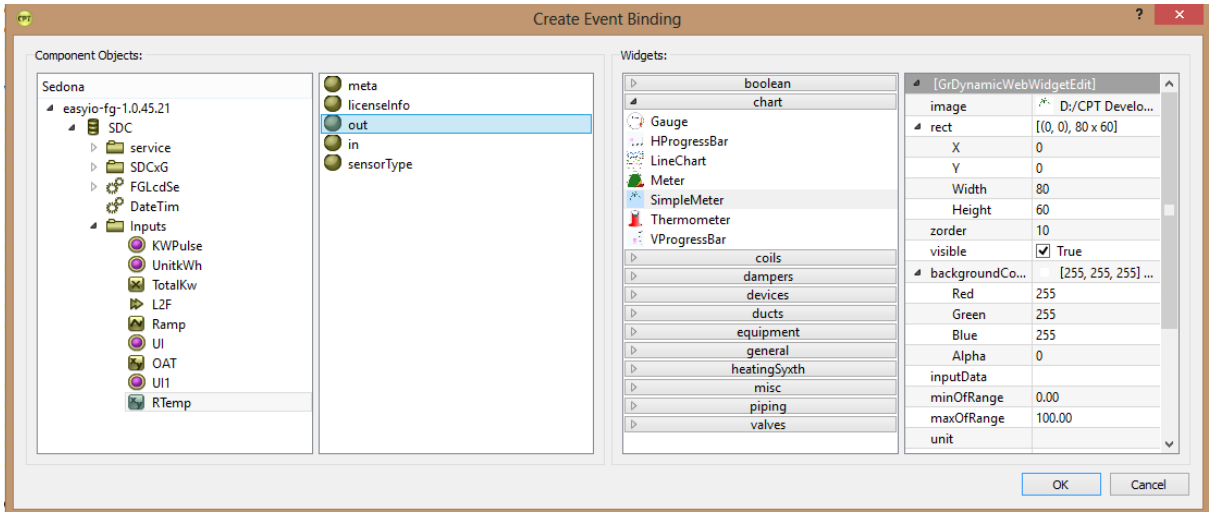
Step 10

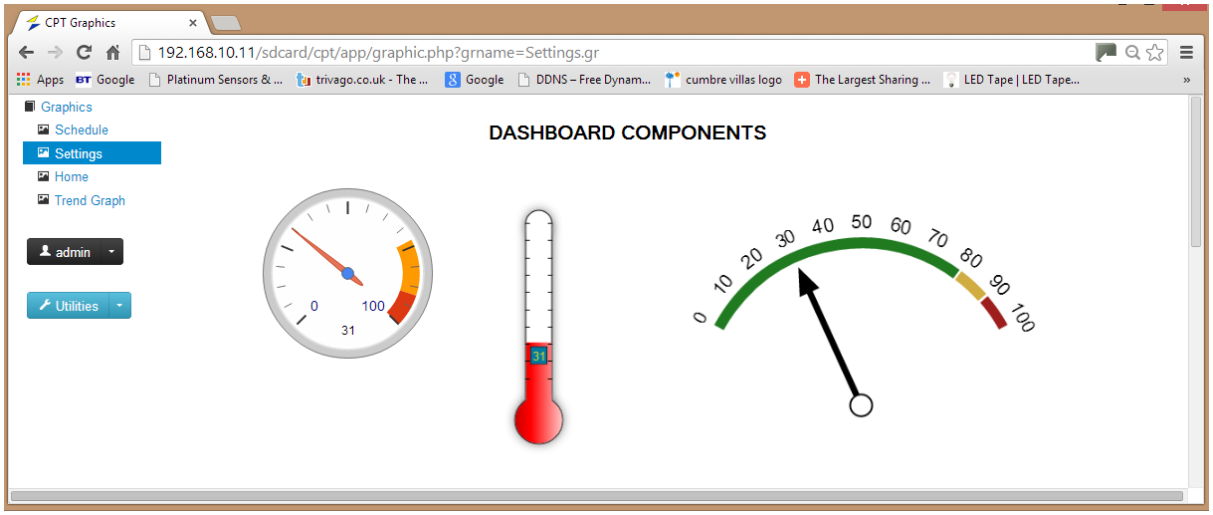
Save the Sedona app by invoking the Save or action keyboard shortcut key CtrL + S.

6.2 Dashboard Components for Web Pages

The CPT tool comes with a large number of graphical widget libraries that can be used to produce the HTML5 web-pages. The graphical library can be further expanded to include user specific components. One of the built-in widget libraries is Chart components. These components can be used to create graphical presentation of the system.

Drag & drop the required point to the graphics page and link the (e.g. ***/Inputs/RTemp***) components property to the graphical widget; in the example below t the ***SimpleMeter*** widget. Upload the configuration, and you will have HTML5 widget page ready for the users (see example graphic below).





7 Backup and Restore via Web

The CPT Tools web server has another option for “backups and restores” of the Sedona application. This option backs up the Sedona application as well as Graphics from the SD card. Follow the process outlined below to complete this backup and restore process.

Step 1
Using a Web Browser Login to the Sedona Controller via either one of the two links described below.

URL : http://<IP Address>/sdcard/cpt/app/signin.php

URL : http://<IP Address>

Step 2
You will need to login as the admin user.
The default Admin username and password are noted below.

User: admin
Password : hellocpt

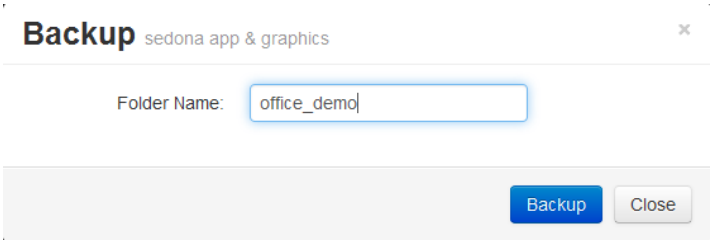
Step 3
When the admin log in has been successful, a ‘Utilities’ pull down button will be displayed on the left side of the web browser page, as indicated below.
.
This button will be visible only if admin level log on has been successful.

Step 4
The following menu options will displayed under the Utilities pull down;

Action Functions	Description
Backup	Backup a Sedona application including Gr Pages into the SD card.
Restore	Restore a Backup Application from the onboard SD card into the controller.
Restart	It will restart the Sedona VM
Reboot	It will reboot the hardware including the Sedona VM

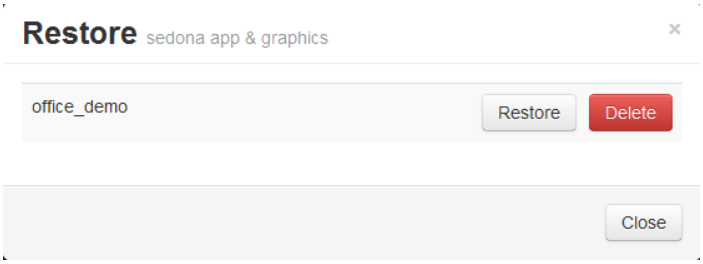
All backups are stored in the SD card and not in the Flash memory.

Step 5
Choose Backup option to backup the device and give the backup a filename. Multiple backup copies can be done depending to the micro SD card capacity.



Step 6
Choose Restore to restore a Sedona Application including the Gr pages to the controller. A restore option will trigger the Sedona controller to “Reboot”.

Make sure the watchdog jumper is enabled in order for the controller to reboot automatically. If required, a manual press at the Reset button will reboot the controller.



8 Disclaimer

The SDC-30, SDC-20G and SDC-32G controllers are was built on the Sedona Framework ®. Sedona Framework is a trademark of Tridium, Inc.

CPT Tool is by Online Tools Inc.

9 Document Control

Version	*Date*	*Change History*
0.1	*08-Jan-2014*	*Original Release*
0.2	*06-Feb-2014*	*HTML5 Graphics Generation Section Expanded*

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