



Exercise: Working as an Operator in Supervise and Alarm


Contents We want to see how a completed IGSS SCADA system appears to plant operator personnel to get an idea of the various elements in the system and how they work. Therefore, in the following, we assume the role of an operator and perform monitoring and control tasks.

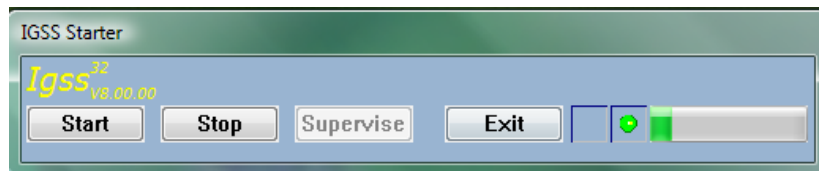
Duration 45 minutes.

Start the Demo Configuration

Purpose The IGSS system or project we will be monitoring is called the **Demo** configuration which is installed from the IGSS32 CD when the “Demo system” option is chosen. Now we want to go online with the system.

Task 1:
Load and start the Demo configuration

Step	Action
1.	In the IGSS program group find the following icon,  IGSS32 Starter, and double-click it to start the IGSS Demo configuration.
2.	The starter bar now appears...



and by right clicking on the bar a right click menu appears.



Click on **Detailed status** to view the workstation name and program components activated by the **Starter**.



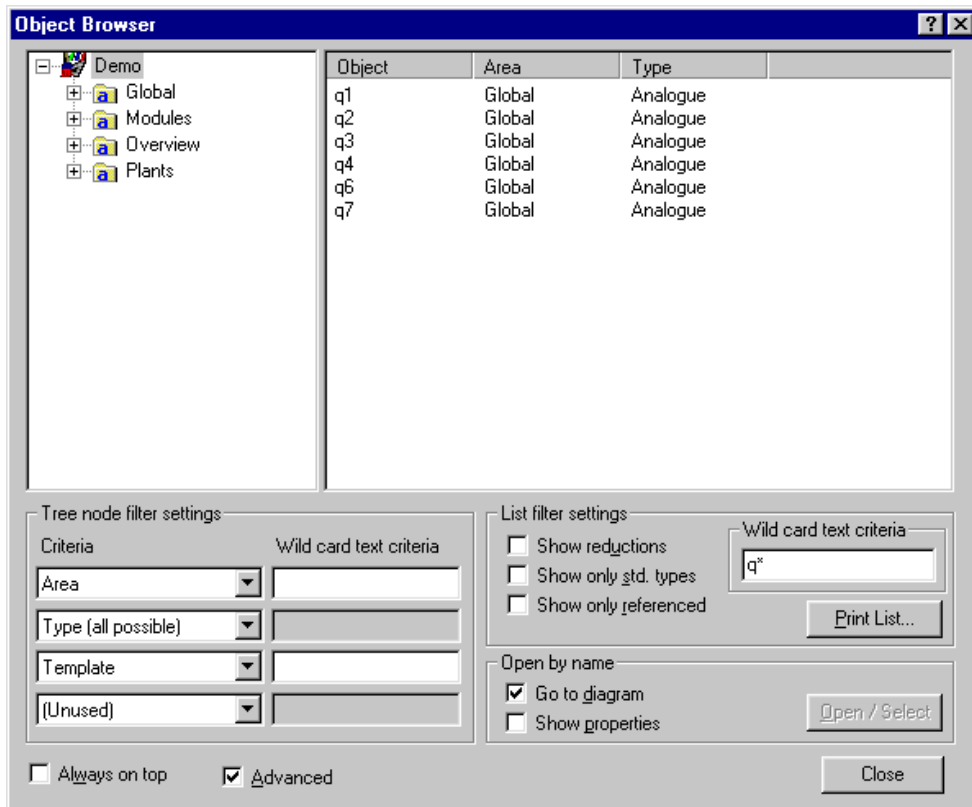
Online in Supervise mode

Purpose To learn how to monitor and control different types of IGSS objects.

**Task 1:
Change
alarm limits
(analog)**

Step Action

1. We start by locating the object named **q3**, which is located somewhere in the plant mimic but we don't know exactly where. From the **Edit** menu select **Open by Name...** and the **Object Browser** dialogue appears.
2. At the bottom left locate and check the box **Advanced** to expand the dialogue with more fields. Under the right pane, find the field **Wild card text criteria** and key in **q*** as search criterion and all objects starting with the letter **q** appear.



3. In the list highlight the object name **q3**. Look in the **Open by name** group underneath and remove the check in the box **Show properties**, and finally click the button **Open/Select** and you are taken to the diagram where the **q3** object resides. (The “found” object is identified by a thin dotted line around it.)



4. Now, click directly on the name **q3** to bring up the object's command menu.
 Select the **HA** (High Alarm) setting and click on it to bring up a so-called spin box.
 Change the **HA** limit from its present value to, let's say, 80, and click **OK**.
 Click on the **q3** name again to see the result of your change.

5. Right click on the name **q3** yet again and this time choose **Properties...** on the command menu to bring up the **q3** dialogue box.
 Go to the tab **Analog** and in the **High Alarm** field, change the value back to the original setting of 88.
 Click **OK** to finish.

**Task 2:
Send
commands
(digital object)**

Step	Action
1.	Find the object p1 in the same way you found q3 above.
2.	The p1 object is a pump to which you now send the command STOP using the button under p1 or by right clicking on the object name to bring up the command menu where STOP also can be clicked.
3.	Find the object PST01-P1start Send the command Release by clicking the item called Release .



Alarm Handling

Purpose

To learn how to:

- Acknowledge alarms in both **Active Alarms** list and on the object name in the mimic.
- Find objects in the mimic that are in a state of alarm.
- Create alarm list filters
- Customize the alarm list.

Task 1: Acknowledge alarms

Step	Action
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- | | |
|----|--|
| 1. | Find the object q2 and acknowledge its alarm. This can be done in four different ways:
a) Right click <i>object name</i> or <i>object symbol</i> to bring up the command menu, then left click "Acknowledge Alarm".
b) Double-click on the square shaped alarm icon appearing on the process picture to go into the Alarm List, find the object name, right click on it, then right click again on "Acknowledge".
c) Open the Alarm List by clicking on "Active Alarms" in the task bar at the bottom of the screen and follow procedure in b).
d) Open the Alarm List by clicking on the small square shaped icon on the system tray at the bottom right hand corner of the screen and follow procedure in b). |
| 2. | Open the Active Alarms list, select an object right click and choose Find from the command menu and you're taken to the diagram where the object is located. |

Task 2: Create a new alarm list filter

Step	Action
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- | | |
|----|---|
| 1. | Go into the Active Alarms and bring up the tree view by placing the mouse cursor at the extreme left edge of the box, then drag the inner bar to the right until the tree comes into view. |
|----|---|



2. In the tree view, select the **Active Alarms** branch.
On the menu above choose **Customize** → **New Filter...** to create a filter named **Flow gauges** with the following characteristics:
 - **Property** Object Name
 - **Condition** begins with
 - **Value** q

Object Name	S.No.	Alarm Number	Alarm Text	Area Name	Priority	Start Date	Start Time	Acknowledge Date
q3	1	210	High alarm limit exceeded	Global	12	20/06/02	11:13:17.008	
q2	2	211	Low alarm limit exceeded	Global	9	20/06/02	11:07:01.008	
q4	3	211	Low alarm limit exceeded	Global	9	20/06/02	09:14:17.008	
t1	4	211	Low alarm limit exceeded	Global	9	19/06/02	16:25:28.436	20/06/02
v1	5	205	Valve blocking	Global	7	20/06/02	14:44:39.008	20/06/02
v11	6	205	Valve blocking	Global	7	19/06/02	13:23:15.014	19/06/02
b1	7	200	Maintenance alarm	Global	5	20/06/02	14:44:39.945	20/06/02
m1	8	200	Maintenance alarm	Global	5	20/06/02	14:44:23.664	20/06/02
PST01-A6	9	337	Communication failed	Plants	5	19/06/02	13:23:01.014	20/06/02
q1	10	212	High alarm level exceeded	Global	4	20/06/02	14:38:23.008	

Task 3:
Customize the alarm list

Step Action

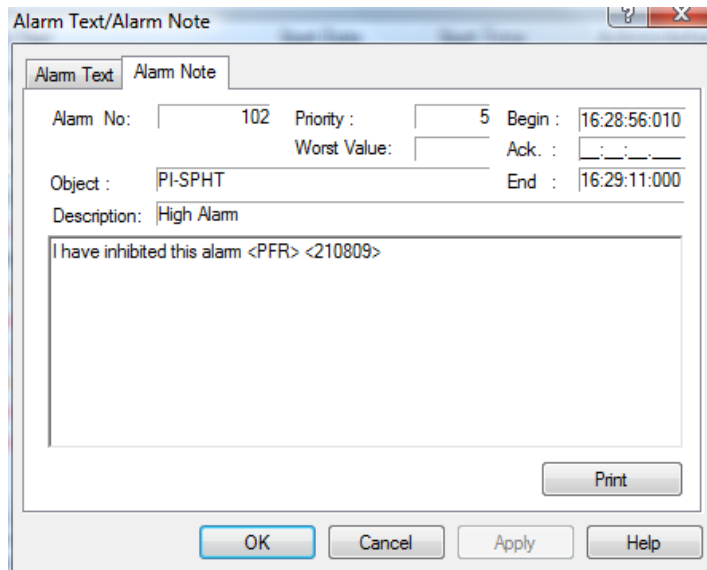
1. Go into **Customize** and change the column sequence in **Alarm List Format** as follows:

Area name, Object name, Description, Alarm number, Alarm text, Priority, Value, Start date, End date, Acknowledge time
Click **OK**.
2. Go into **Customize – Set Sort Order** and do the following:
 - **Priority** -- **Descending** (to show the alarms of highest priority first)
 - **Area name** -- **Ascending**
 - **Object name** -- **Ascending**
 Click **OK**.



**Task 4:
Inhibit alarms
and alarm note**

- | Step | Action |
|------|---|
| 1. | Find the object q1 . |
| 2. | Right click on it to bring up the command menu and select Inhibit alarms....
Put a check mark in the first listed alarm text and remember its number. Click OK . |
| 3. | Bring up the Active Alarms list, find q1 in the list and note the Alarm Number and Alarm Text now attached. |
| 4. | Right click on q1 in the Alarm list and select Note...
Click on the tab Alarm Note and in the white field underneath write I inhibited this alarm <your initials><date> and click OK .
Check to see if an icon appears to the left of the object line in the list. |



**Task 5:
Create Object
Note**

- | Step | Action |
|------|---|
| 1. | Find the object q4 and select Object Note in the command menu. Key in a short message, for instance I have a message about this object for operators on duty. Click OK . |
| 2. | Go to the Alarm list and look for q4 and observe how it looks. What alarm number does it have? |
| 3. | To remove q4 from the Alarm list , go back to the object and bring up its Object Note... again and click the button Terminate . |



Working with Graphs

Purpose

Learn how to:

- Open predefined graphs
- Create and open dynamic graphs
- Save static graphs

Task 1: Open a predefined graph

Step	Action
1.	Go to the area Cases and open the predefined graph PST01-Levels from the Graph menu.
2.	Look at the list of values that the graph is based on. (In the graph window, right-click to open the command menu, select Show Values List...).
3.	In the graph, zoom in on some of the values and zoom out again (Use Rezoom in the command menu.)
4.	Right click to bring up the command menu and select Edit Parameters... Change the data source for the graph from LOG to BCL and observe how the “index” changes. Click OK and in the dialog Define graph period set the Begin Time : to one hour previous to the time shown. Click OK .
5.	Return to the dialog Define graph parameters and experiment with the layout of the graph window (e.g., suppress some of the y-axes, change background colours and filling patterns, etc). Close the graph.

Task 2: Create a dynamic graph

Step	Action
1.	On the menu select Graph – Create Dynamic Graph... and the Object Selection for Dynamic Graph dialog box appears.



2. In the list on the right, select the object **q1** and click the **Add** button. Do the same for **q2** and **q3** and finish by clicking **OK** and a new dialog box appears.
3. In the **Define Graph Period** dialog box set the **Begin Time:** for one hour ago and click **OK** and the graph is shown.
4. Right click inside the graph and select **Save As Dynamic Graph...**, name the graph **Flows.usr**, accept the hard disk location shown and click **Save**.
5. Close the graph window by clicking on the **X** at the top right of the dialog box.
6. Go back to the menu **Graph** and select **Open Dynamic Graph...** and open the **Flows.usr** you just created.
7. Right click inside the graph and this time select **Save As Static Graph...**, give it the name **StaticFlows.gph**, accept the hard disk location shown and click **Save**.

YOU HAVE SUCCESSFULLY COMPLETED THE EXERCISE !!