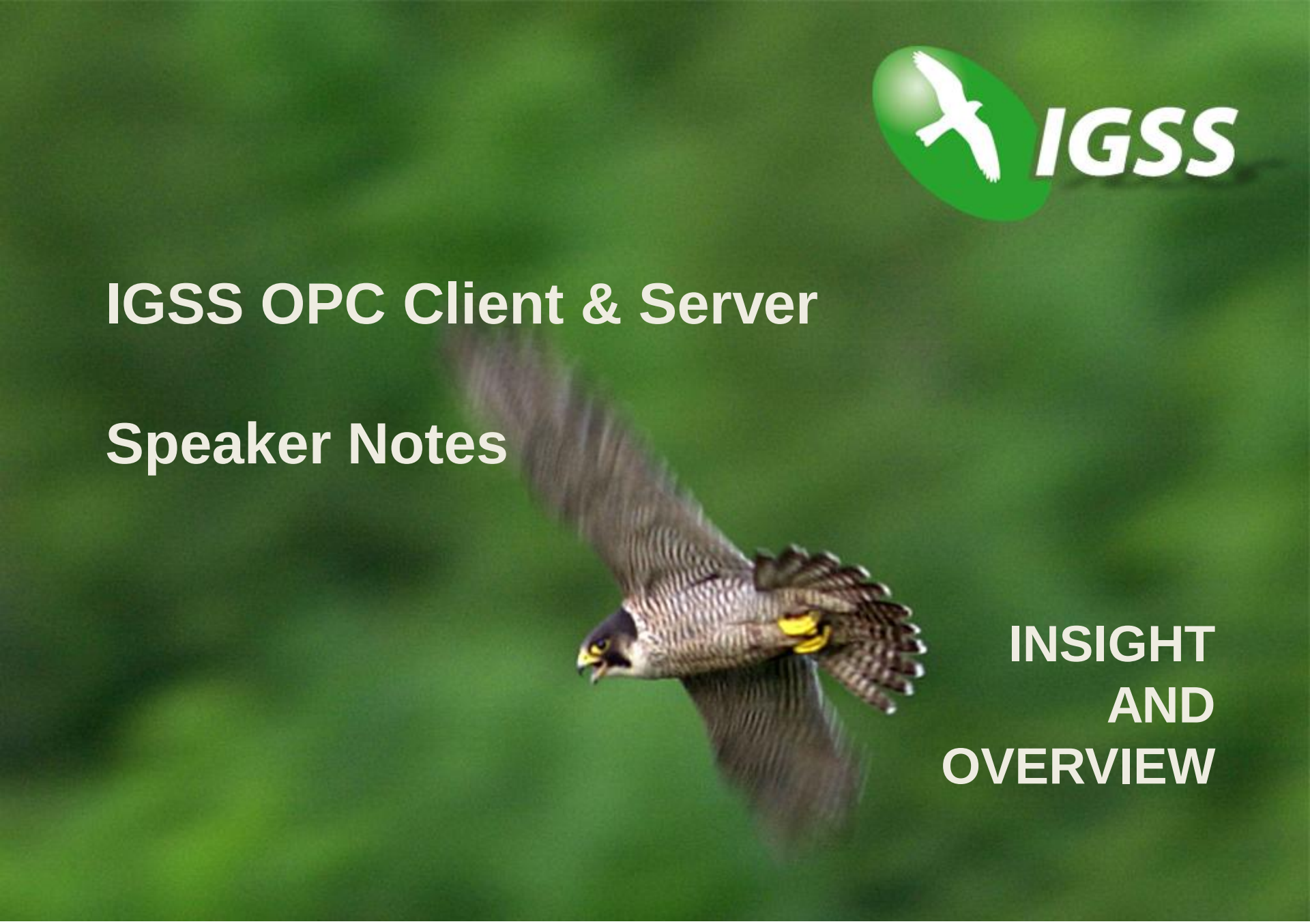


IGSS OPC Client & Server

Speaker Notes

INSIGHT
AND
OVERVIEW

List of topics

- What is OPC ? (slide)
- IGSS and OPC (slide)
- IGSS OPC Client-Side Driver
- IGSS OPC Server
- SCADA to SCADA with OPC

What is OPC ?

- OPC = Open Connectivity for Process Control
- OPC is an interface standard for the automation industry developed and maintained by the OPC Foundation (http://www.opcfoundation.org/)
- Winning greater acceptance – it is now an industry standard

OPC interfaces supported

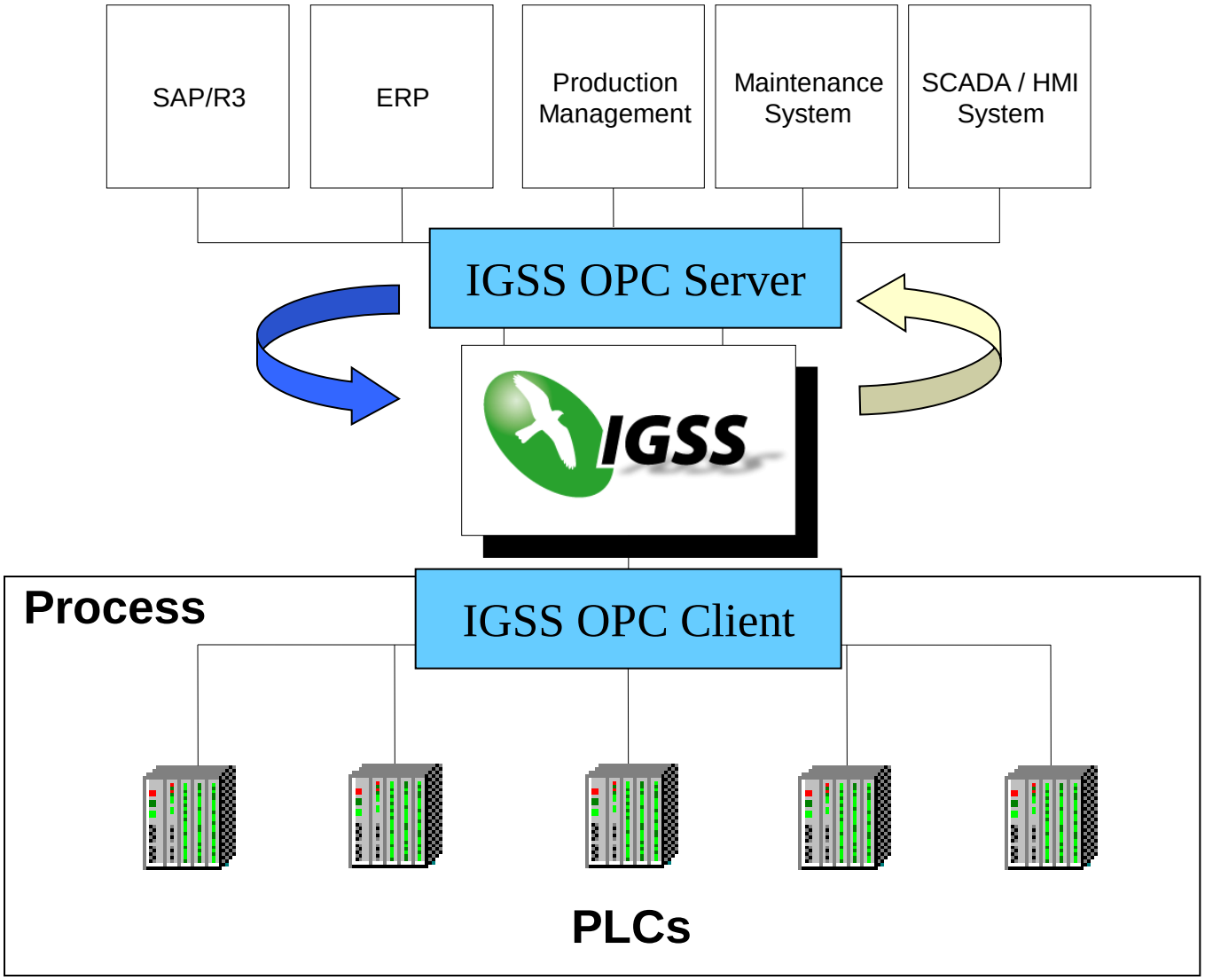
- **OPC Data Access (DA)**
- Data Access Version 1
- Data Access Version 2

- **OPC Alarms & Events (AE)**
- Alarms & Events Version 1

IMPORTANT:
The new OPC Unified Architecture (UA) interface will also be supported in the future. OPC UA collects all the existing interfaces in one common interface.

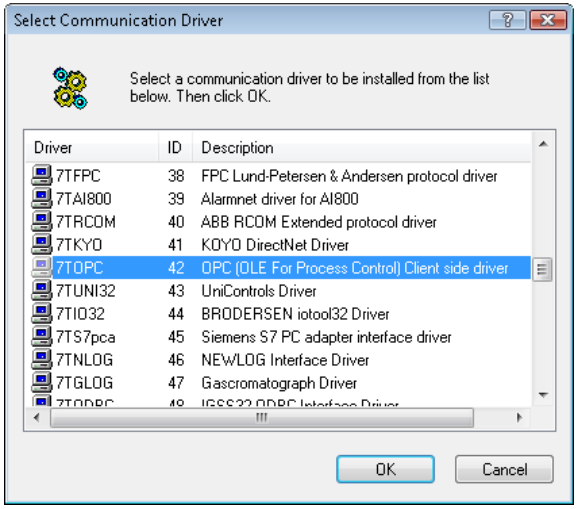
OPC UA promises to be able to work around the DCOM security layer in Windows. DCOM is used when you are using OPC across different PCs.

IGSS and OPC


SAP/R3
ERP
Production Management
Maintenance System
SCADA / HMI System
IGSS OPC Server
IGSS
IGSS OPC Client
Process
PLCs

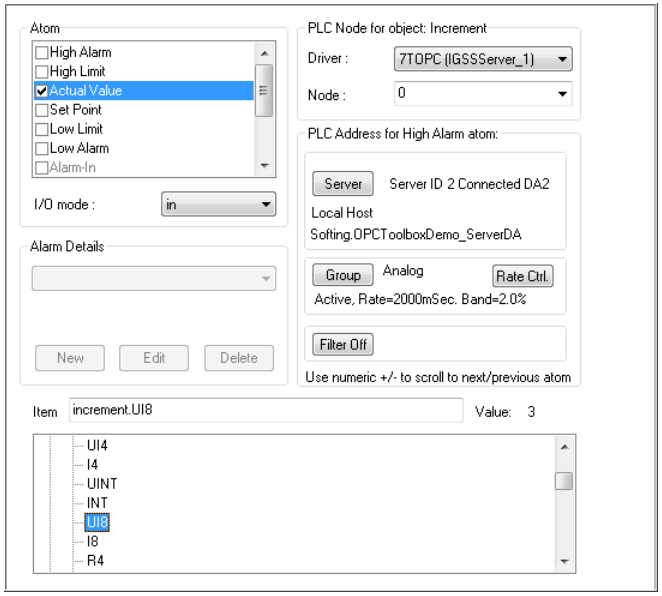
OPC Client-Side Driver (1)

1. The OPC Server for the PLC you want to communicate with must be installed and must be tested thoroughly before use. In this demo, we're using the Softing OPC Server Demo, which is a free download.
2. Open **System Configuration**.
3. Select the station which communicates with the OPC Server.
4. Click **Add New Driver**.
5. Select Driver no. 42.
6. No more setup in **System Configuration**.
7. Select **File** > **Save and Start Definition**.



OPC Client-Side Driver (2)

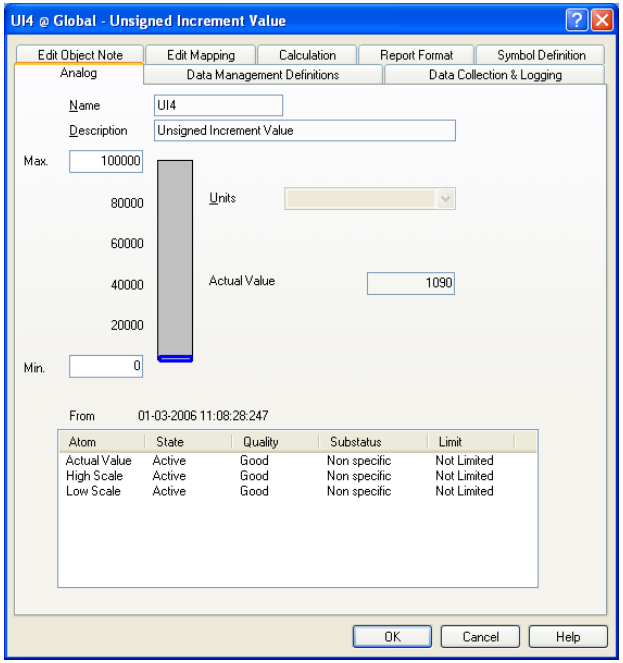
1. Go to the **OPC Client and Server** diagram
2. Create a new analog object, **Increment_UI8**.
3. On the **Edit Mapping** tab, disable all atoms except **Actual Value**.
4. Select **Actual Value** and choose the OPC driver.
5. Click the **Server** button and choose your local Softing OPC Server.
6. Create an OPC Group called **Analog** and choose an **Update Rate** of 2000 msec.
7. In the tree view at the bottom, select **Increment** > **UI8**.
8. Note that the values can be viewed directly in Definition.
9. Install and start the configuration.



OPC Client-Side Driver (3)

1. Click the OPC Client and Server button.
2. Watch the values coming in from the OPC Server.
3. Click and select **Properties**.
4. Explain that the operator can view the OPC quality stamps on the type-specific tab.

END OF IGSS OPC CLIENT



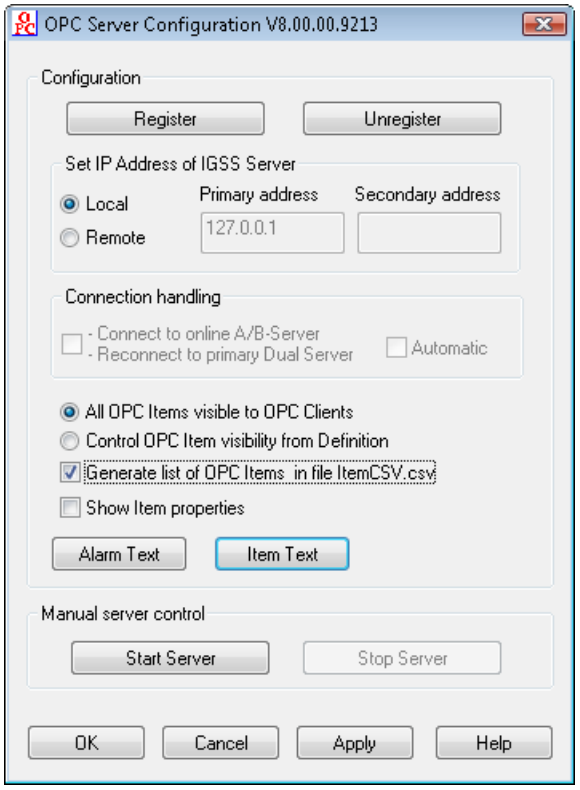
IGSS OPC Server
(Vis på skærm)

IGSS OPC Server (1)

- Allows any OPC client to connect to IGSS with the purpose of reading or writing values to the IGSS configuration
- Typical scenarios:
  - SCADA to SCADA data exchange
  - Enable non-IGSS users to get access to IGSS data

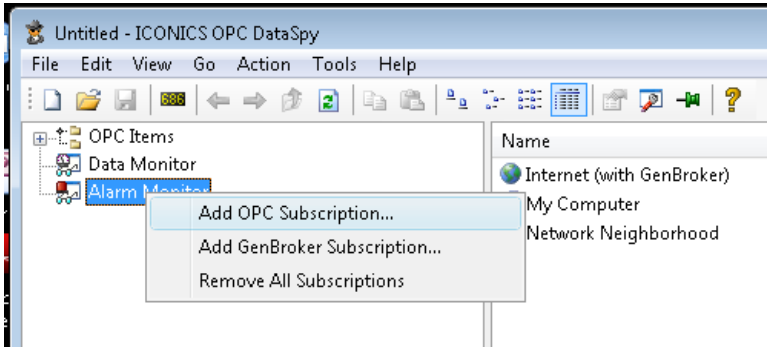
IGSS OPC Server (2)

1. First, we need to set up the IGSS OPC Server.
2. In the **IGSS 8.0** Start menu, double-click the **OPC Server Configuration** icon.
3. Select **Local** and make sure that **All OPC items visible to OPC clients** is enabled.
4. Close the **OPC Server Configuration** module again.



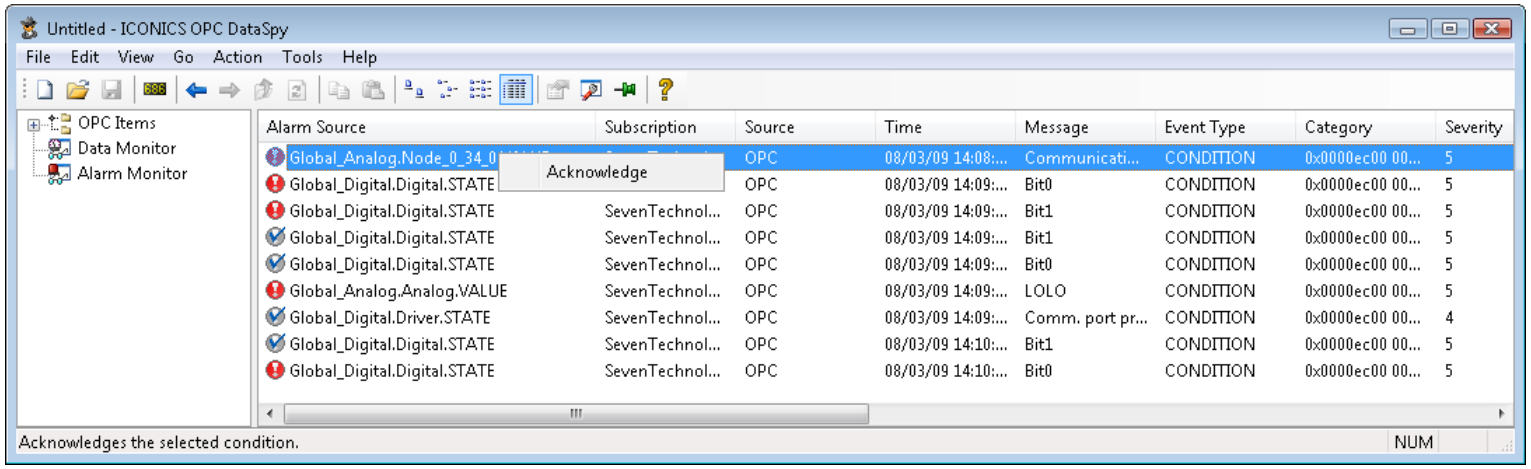
IGSS OPC Server (3)

1. Start the **Iconics OPC Data Spy** program.
2. Right-click the **Alarm Monitor** item and select **Add OPC Subscription**.
3. At first, no alarms occur. We need to trigger new alarms.

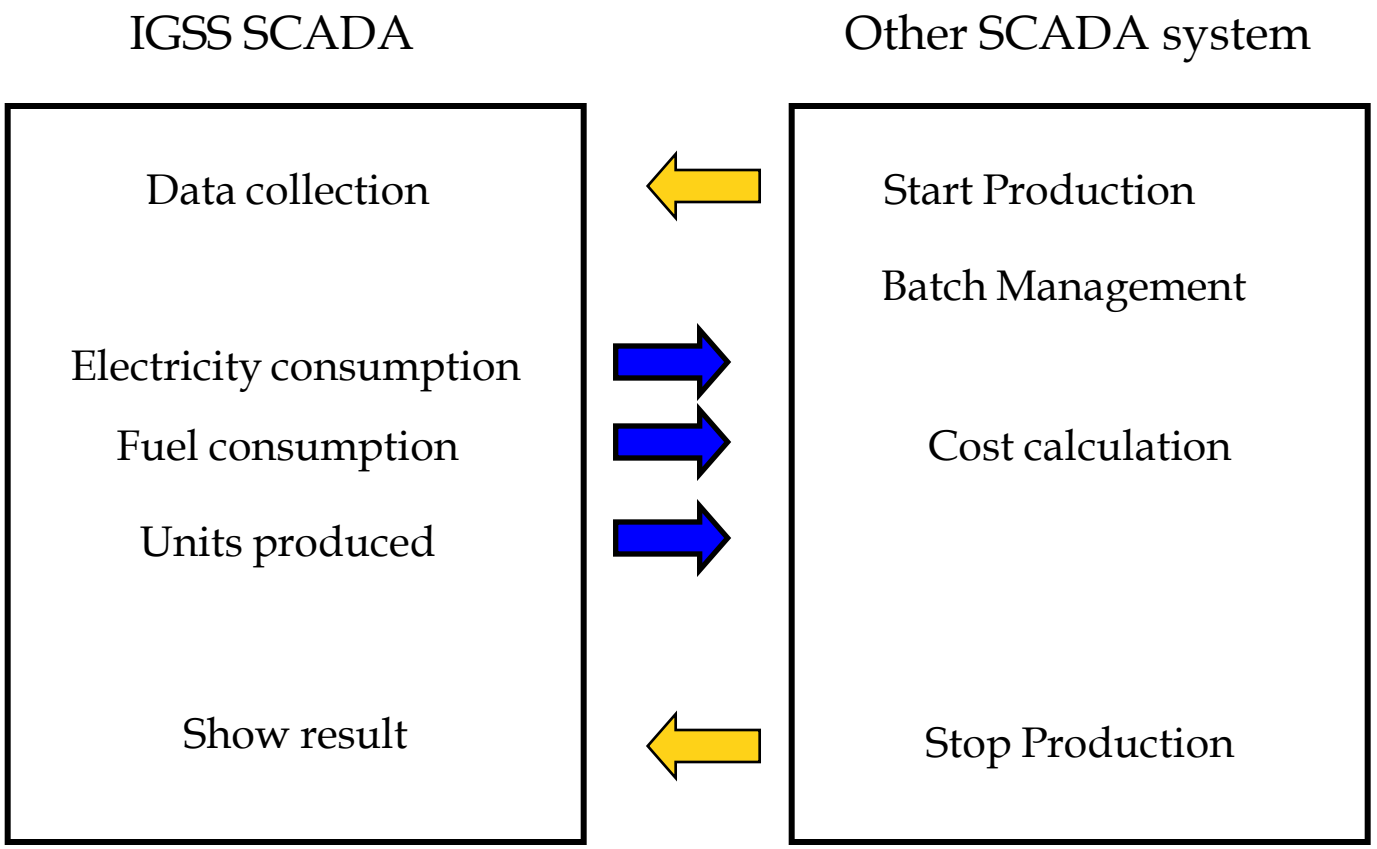


IGSS OPC Server (4)

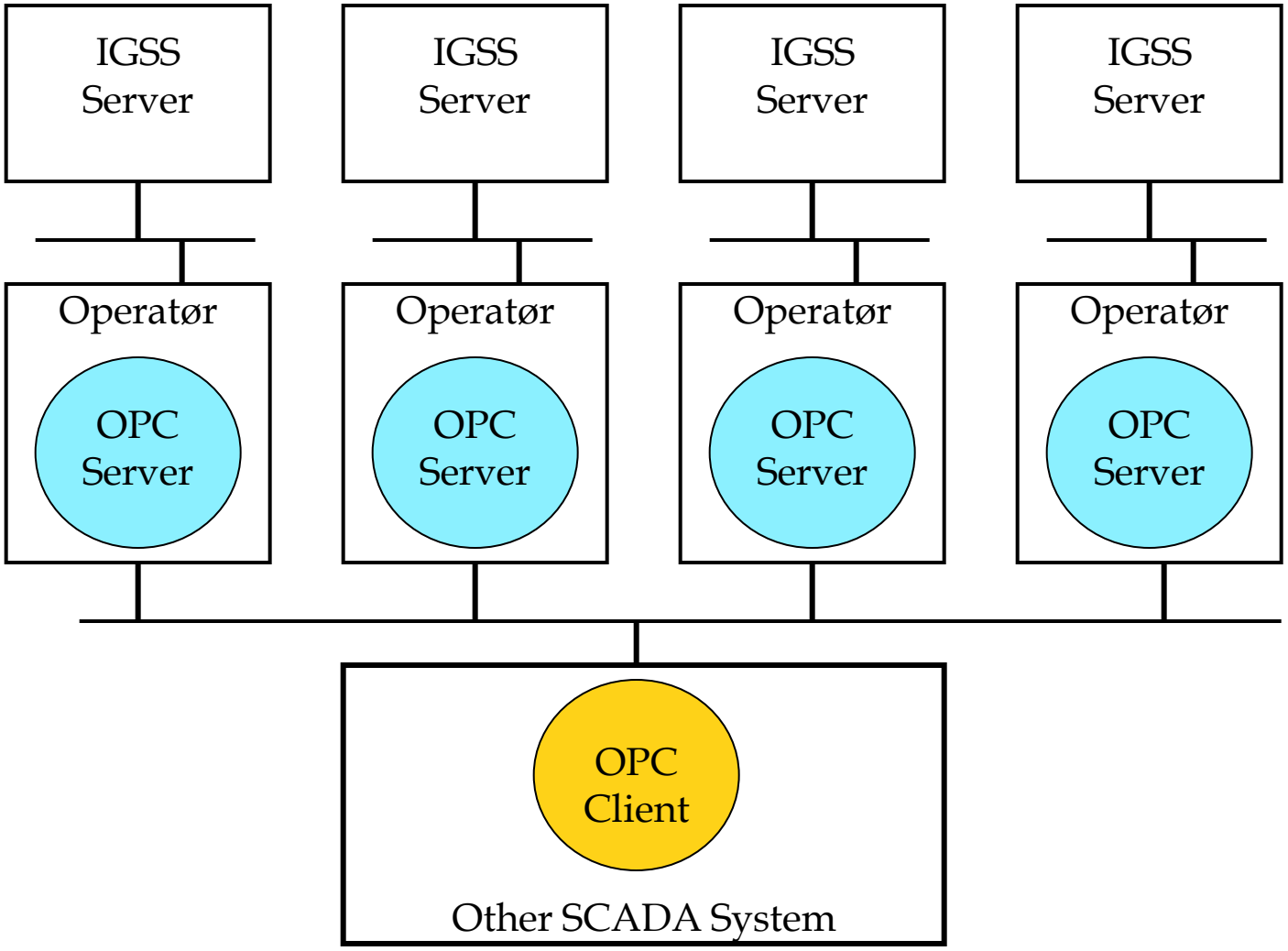
1. In the **Supervise** module, open the **User Programs** menu and select **IGSS Soft PLC (7TTCPMON)**.
2. Trigger a new alarm by manipulating Word #2 in the soft PLC.
3. Write 2 to trigger digital alarms.
4. Go back to **Iconics Data Spy** and verify that the alarms occur.
5. Now you can acknowledge the alarm from the OPC Client.



SCADA to SCADA with OPC (1)



SCADA to SCADA with OPC (2)



Further information

OPC Client – please refer to the Driver-Specific Help File.

OPC Server – please refer to the Interface Help File.