Act Net Device Configuration addon

for v8.5, v9.0, and v10.0

Contents

What is the Act Net Device Configuration add-on?

The Act Net Device Configuration add-on (act-net-dev-cfg.addon) populates a table with your system's Act Net devices, calculates maximum actuator position based on configurable design parameters, and writes this value to the appropriate parameter in the i-Vu® system.

Changes are also recorded in the i-Vu® Plus or Pro interface in **Reports** > **Security** > **Location Audit Log**.

Requirements

- You are running an i-Vu® Pro v8.5, v9.0, or v10.0 system with the latest cumulative patch applied
- You have downloaded **act-net-dev-cfg.addon**
- Your system is backed up regularly to ensure the add-on's data is also backed up
- You have the **Access Commissioning Tools** privilege assigned in the i-Vu® Pro application or the **Installer** role in the i-Vu® Plus application
- You are using a browser other than Microsoft® Edge or Internet Explorer®

See *Installing an Add-on* guide for the following:

- Installing an add-on
- Running an add-on
- Upgrading an add-on

For every device you want to configure, you must have its part number and the following values, which are typically supplied by the Mechanical Engineer of Record:

- Pressure dependent valves — the **Design ΔP (psi)** and **Design Flow (gpm)**

- Pressure independent valves — the **Design Flow (gpm)**

Configuring your Act Net devices

You must be running and logged in to your i-Vu® application for the add-on to work. Once the add-on is installed, you can access it from the **System Option** > **System Settings** (in the i-Vu® Pro interface) > **Add-ons** tab or navigate to http: or https://<system_name> or <system_IP_address>/act-net-dev-cfg.

1. In the add-on, click the **Find** button to open the **Select starting location** dialog.

2. To bring your Act Net devices into the add-on table, select one or more systems, networks, areas, controllers, or equipments. Click again to deselect.

   NOTES
   - All devices are found that belong to the location you select. Select the highest level in the tree to find all of the devices in your system.
   - Clicking **Find** removes all devices currently in your table, unless you select a starting location that includes those devices.
   - All unsaved entries and calculations are lost when you click **Find**.
   - If you **Delete Selected,** all previously saved information, except for the **Current Value** is lost.

3. Click **OK**.

4. Select the Act Net device **Part Number** from the drop-down list.

5. To calculate values for **Pressure dependent valves**, you must fill in the **Design ΔP (psi)** and **Design Flow (gpm)**.

6. To calculate values for **Pressure independent valves**, you must fill in the **Design Flow (gpm)**.

   NOTE Design ΔP (psi), **Calculated Cv**, and **Calculated ΔP** are grayed out because they are not applicable

7. Select a row or rows to **Save**, **Save and Write**, **Revert**, or **Delete**.
   - For a single row, check or uncheck the checkbox by a device.
   - For all rows, check or uncheck the checkbox at the top of the column.

8. To save values, but not write the **Value to Write** to the i-Vu® system, click **Save Selected**.

9. To write values, click **Save and Write Selected**. This will save the **Value to Write** for each selected device to the associated value parameter in the i-Vu® system. Parameters will automatically download to the corresponding controller(s).

   NOTES
   - A red or yellow row indicates that the design parameters you have entered are not in an acceptable range for that device.
   - To troubleshoot, hover on the 🔺 or the ⚠️ to see the explanation.
   - If selected, all **Value to Write** values will be written, even if the row is red or yellow.
   - Once you save values, you cannot **Revert Selected**.
   - Entries made in the add-on are recorded in i-Vu®'s **Reports** > **Security** > **Location Audit Log**.

⚠️ **CAUTIONS**

- It is possible for multiple users access the add-on at the same time. If they are configuring the same device, the last one to **Save Selected** or to **Save and Write Selected** will save/write over any previously saved/written values.

- You are automatically logged out of the add-on and lose all unsaved data if you are inactive in both the i-Vu® application and the Act Net Device Configuration add-on. As long as you are working in either one, you will stay logged in. The time of inactivity resulting in logoff is defined in the i-Vu® interface in the **System Settings** > **Operators** tab or **System Options** > **Operators** tab.

Understanding the table and calculations

The Act Net Device Configuration table allows you to:

- Change the order of the devices by clicking the column heading, once for ascending order, twice for descending order
- Use **Ctrl+f** to find specific numbers or words in the add-on table
- Undo entered and unsaved values by selecting rows using the checkbox on the left and then clicking **Revert Selected**
- Copy and paste as follows:
  - To paste one or more editable cells in the **Valve Parameters** section to adjacent row(s), select the cells you want to copy and drag the crosshairs, which appear in the lower right corner of your selection, to the row or rows you want to paste into.
  - To paste one or more cells from the add-on table to any row in the table, or to paste one or more cells from or to an external spreadsheet, select the cells you want to copy, type **Ctrl+c**, or right-click and select **Copy**. Place your cursor where you want to paste the selection and type **Ctrl+v**.

    IMPORTANT! You <u>must</u> use **Ctrl+v** to paste your data. The right-click **Paste** menu option is not supported.
  - You cannot select a row to copy by using the checkbox.

⚠ **CAUTION** The AV microblocks must be addressed as follows:

Output Number	Reference Name
102	actvlv1_max_pos
103	actvlv2_max_pos

Act Net Devices

Column heading	Description
☐ ▣	Check or uncheck the checkbox at the top to select or deselect **all** devices in the table. Check or uncheck the checkbox beside an individual row to select or deselect that device. A gray outline around the top checkbox indicates one or some devices are selected, but not all.
▼!	A red or yellow row in the table indicates that the design parameters you have entered are not in an acceptable range for that device. Hover on the ⚠**Warning** or ⚠ **Caution** symbol to see the explanation. A red warning indicates the parameters are more out of range than a yellow caution. Click the arrow to see the drop-down list for filtering the displayed devices.
Program Display Name	Program name and location of the device in the i-Vu® navigation tree

Understanding the table and calculations

Column heading	Description
MB Display Name	If the program includes an AV microblock with RefName actvlv1_max_pos or actvlv2_max_pos, this field shows the AV microblock's Display Name. See CAUTION above for details. Otherwise, it represents the Display Name of the AO microblock that is used to communicate with the Act Net device.
Program Ref Name	Control program **Reference Name**
MB Ref Name	If the program includes an AV microblock with RefName actvlv1_max_pos or actvlv2_max_pos, this field show the AV microblock's RefName. See CAUTION above for details. Otherwise, it represents the RefName of the AO microblock that is used to communicate with the Act Net device.
Output Number	Output Number that you assigned in either of the following: • EIKON® application > **Property Editor** > **Hardware Configuration** • i-Vu® interface > **Properties** page > **I/O Points** tab
Act Net Address	You can view the device's address in the i-Vu® interface on the driver properties' **Act Net Network Details** page.

Value Parameters

Column	Applies to...	Description	Action
Part Number	Pressure dependent Pressure independent	The part number of the installed valve.	Select
Design ΔP (psi)	Pressure dependent	The engineer-specified desired pressure drop across the valve at the engineer-specified maximum volumetric flow rate.	Fill in
Design Flow (gpm)	Pressure dependent Pressure independent	The engineer-specified maximum desired volumetric flow rate through the valve.	Fill in
Calculated Cv	Pressure dependent	[**Design Flow**] × √ ([Specific Gravity*] / [**Design ΔP**])	Calculated

Selected Cv or Flow	This add-on works by comparing the **Calculated Cv or Flow** to a table of Cvs (PD) or flows (PI) which correspond to possible **Max % Open** positions of the valve.		
	Pressure dependent	The selected Cv is the Cv from the above referenced table which is closest to but greater than or equal to (≥) the **Calculated Cv**.	Calculated
	Pressure independent	The selected flow is the flow from the above referenced table which is closest to, but less than or equal to (≤), the **Design Flow**.	Calculated
Calculated ΔP	Pressure dependent Pressure independent	[Specific Gravity*] / ([**Selected Cv**] / [**Design Flow**])^2	Calculated
Max % Open	Pressure dependent Pressure independent	The **Max % Open** position of the valve corresponding to the **Selected Cv or Flow** in the above referenced table.	Calculated

*The medium flowing through the valve is assumed to be water and, therefore, Specific Gravity is always assumed to equal 1.

Value to Write

Column	Description
Current Value	The current value of the associated microblock in the i-Vu® system.
Value to Write	If the program includes an AV microblock with RefName actvlv1_max_pos or actvlv2_max_pos, this equals the calculated Max % Open. See CAUTION above for details. Otherwise, it is [1/ (Max % open value /100)] * 100
Write Results	The outcome (**Success** or **Failure**) of writing the **Value to Write** to the i-Vu® system.

Document revision history

Important changes to this document are listed below. Minor changes such as typographical or formatting errors are not listed.

Date	Topic	Change description	Code*
11/10/25	Multiple	Supported versions now 8.5, 9.0, and 10.0	A-D
12/15/20	Cover Requirements	Added "or later" to the supported version	A-D
2/24/20	Cover	New Automated Logic® logo	A-D
2/20/20	Document	Clarification throughout document that writing values using the add-on writes to the parameter in the i-Vu® system	X-PM-LO-E-EH
	Configuring the Act Net devices	Step 9. Added that parameters are automatically downloaded in the i-Vu® interface after you **Save and Write Selected**	X-PM-LO-E-EH
	Understanding the table and calculations	Added a CAUTION with a table to clarify the AV MB Reference Names for specific Output Numbers	X-PM-LO-E-EH

* For internal use only