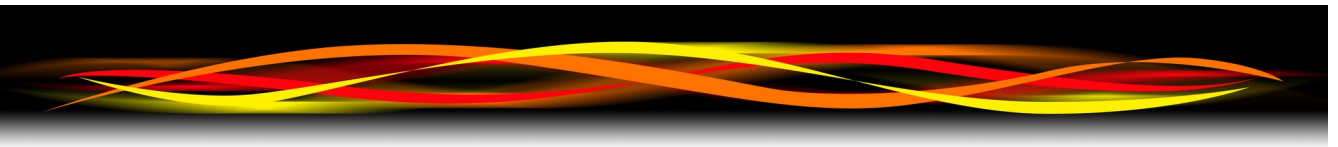# Newflow

NÅNOconf

The Deployment and Configuration Tool

User Manual

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Rev	Date	Changes	Prepared	Checked	Authorized
D0	1 Dec 2020	Initial pass	GPL	-	-
R1	5 Aug 2022	Updated with feedback (Based on 4v6)	MPFJ	GPL	MOB
R2					
R3					
R4					

NÅNOconf Screenshot

IP Address	Device ID	Application Name	Application Vers...	DataSet	Firmware	I/O Firmware	System ID	ETH Port	Comment
10.0.99.5	28EC9AFFEF90	default	1v2r16	DataSet1*	4v7r8664-B	HW 3.01 SW 2.09	28EC9AFFEF90	1	
192.168.1.123	MIRO_MM_001	MFC200-MIRO	0v1r68	Base	4v7r8310-R	HW 2.03 SW 2.08	C8A030838DC0	1	
10.0.98.111	C8A030838D8D	default	1v2r5	DataSet1	4v7r8394-B	HW 2.03 SW 2.08	C8A030838D8D	1	
10.0.0.102	28EC9AFFEC78	MFC200-LNG	0v0r67	DataSet1	4v7r8310-R	HW 3.00 SW 2.08	28EC9AFFEC78	1	Dave's Test unit-onoldbase
217.155.41.104	LACT MicroCube	LACT-Pro Meter App 5v4	5v4r138	Base*	4v5r0-6545-BETA	HW 2.00 SW 2.05	C8A0308399A3	1	LACT MicroCube mob
10.0.99.6	C8A030838D8D	default	1v2r16	DataSet1*	4v7r8664-B	HW 2.03 SW 2.08	C8A030838D8D	1	MOB test unit #3
192.168.1.22	International Ma...	E+H USA Master Meter Ap...	0v4r20	Base	4v7r8979-R	HW 2.04 SW 2.09	C8A0308DB570	1	
10.0.99.9	C8A0308391EC	Endress_Hauser Net Oil 1v3	1v3r170	Base*	4v3r0-6244	HW 2.00 SW 2.05	C8A0308391EC	1	2016-01-20T10:20:48
192.168.1.130	247D4D0018D1	Liquid Flow Computer	1v0r33	Metric*	4v7r8979-R	HW 3.03 SW 2.11	247D4D0018D1	1	
10.0.99.1	Unified Prover	Unified Prover	1v0r74	!Testing*	4v7r8866-B	HW 2.03 SW 2.08	C8A030838DED	1	MOB's Test Unit 1233456
10.0.99.4	Small Volume Pro...	Small Volume Prover - De...	8v1r57	Base*	4v7r8654-R	HW 2.03 SW 2.08	C8A030083963C	1	MOBs second NANO, no simulation
10.0.150.123	International Ma...	Master Meter Application	0v4r12	Base*	4v7r8747-B	HW 3.03 SW 2.11	C8A03083A188	1	
192.168.1.20	Small Volume Pro...	Unified Prover	1v0r5	Base	4v7r8413-B	HW 2.03 SW 2.08	C8A030838AF5	1	

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The NÅNO Flow Computer Hardware

Table of Contents

1   Introduction

This program has been written to allow End Users and Technicians to do the following without the need to run the full Visual C||Cure Rapid Application Development Tool;

- Install firmware
- Install and back up Applications
- Configure Networking
- Use Location Tools
- Retrieve and install Licensing information
- Obtain diagnostic information

For information on the NÅNO hardware, refer to the separate NÅNO Technical Installation Manual.

The program can also be used with the P568 MPIM and the P572 Processor (used in the RTU2 & RMU) to configure the network and a subset of other functions. Pleae refer to the appropriate product manual for further information.

2   Installing NÅNOconf

Locate the .msi setup file, (this will include the version 4v6rX, where X is the sub version) and double click on it. This manual is valid for all 4v6 variants.
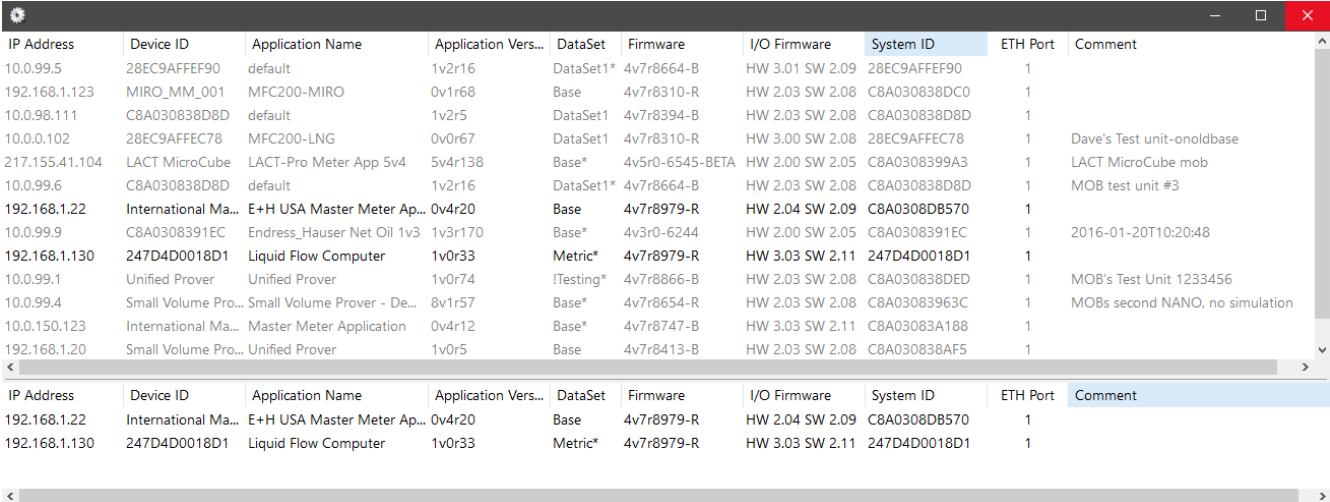
As Newflow is not certified by Microsoft, if the User Account Control dialog appears click Yes to allow the program to be installed.

Follow the on screen instructions and choose the destination/installation folder when prompted.

Note: an executable file (.exe) is also available if required. Please contact the factory to obtain this if necessary.

3   Using NÅNOconf

Loading of applications, and a host of additional tasks, can be accomplished with the NÅNOconf program. A screenshot of a Windows PC running NÅNOconf is shown below.

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The NÅNOconf program shows two panes when started. The upper pane is used to display machines that are being actively managed, with known and fixed IP address, and the lower pane shows all the machines that have been discovered using the NÅNO hardware form of Zero-Configuration networking.

Each machine is shown on a separate row, and there are 10 columns of information shown for each machine, which are explained in the table below.

NOTE

NÅNOconf has the concept of Local and Remote machines. A local machine is one that is available over an office Ethernet Network (LAN), which supports the full range of TCP/IP commands and allows broadcast messages to be sent. A remote machine is one with more limited connectivity, Internet connected but outside the corporate firewall, therefore having restricted TCP/IP connectivity and with broadcast messages filtered out.

The NÅNO Zero-Configuration networking eliminates the highly frustrating and convoluted methods needed to set up some Ethernet enabled equipment. There is no requirement to change either your PC/Laptop's IP address or subnet in order to discover a NÅNO and change its network settings, even if it has been set to address outside the range used on the LAN.
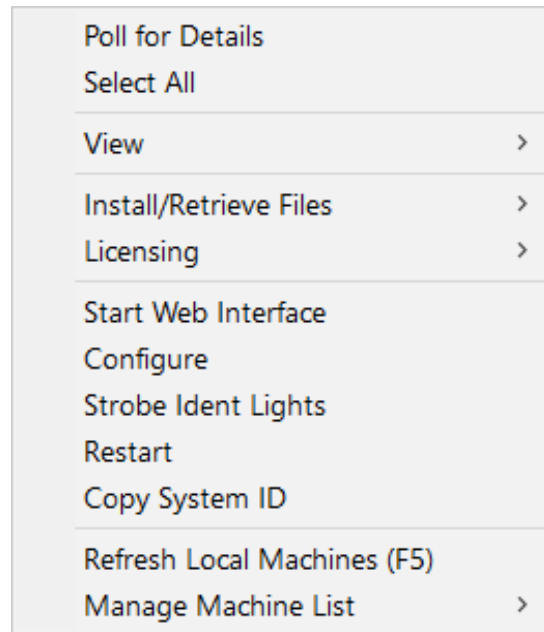
IP Address	This column shows the IP addresses in IPv4 quad-dotted decimal representation.
Device ID	The Device ID is a user field (configured via the installed application) that can be used to differentiate between machines.
Application Name	This is the name given to the application by the application developer and is not changeable.
Application Version	This shows the Application Version number.
DataSet	Applications may have several sets of default constants and default settings. For example a USC DataSet may have inches, bbls and US calculations whereas a Metric DataSet could have centimeters, cubic meters and ISO calculations selected. This column shows which DataSet was selected during the installation of the application.
Firmware	This column shows the version number of the run-time firmware currently installed.
I/O Firmware	This column shows the version number of the I/O processor firmware currently installed.
System ID	This is a unique hardware identifier of each machine listed.
ETH Port	This column shows which Ethernet Interface (ETH1 or ETH2) on each NÅNO is connected to the machine running NÅNOconf.
Comment	This shows the Device ID, unless a comment has been previously saved to a machine using NÅNOconf. The comment is changed in the Configure (Machine) right-click option.

NÅNOconf is a deceptively powerful program. Although it only appears to have two similar panes, without tabs or menu items, access to the additional functions is obtained by the use of the right-click mouse button.

If you left-click on the line which shows the NÅNO machine you wish to interact with, the line will be highlighted.

If you now right-click whilst pointing at the highlighted line, the menu shown here on the right will be displayed. All of the menu items are shown as available. If you do not highlight a line and right click over white space on the screen, then the menu displayed will have most of the items shown "grayed-out" indicating these options are not available for use.

For example you cannot install an application if you have not selected a target device.

Poll for Details
Select All

View   >

Install/Retrieve Files   >
Licensing   >

Start Web Interface
Configure
Strobe Ident Lights
Restart
Copy System ID

Refresh Local Machines (F5)
Manage Machine List   >

It is possible to select more than one NÅNO using the shift and control keys, in line with the usual Windows conventions. When you right-click after selecting more than one NÅNO, you will get a different selection of options in the right-click menu.
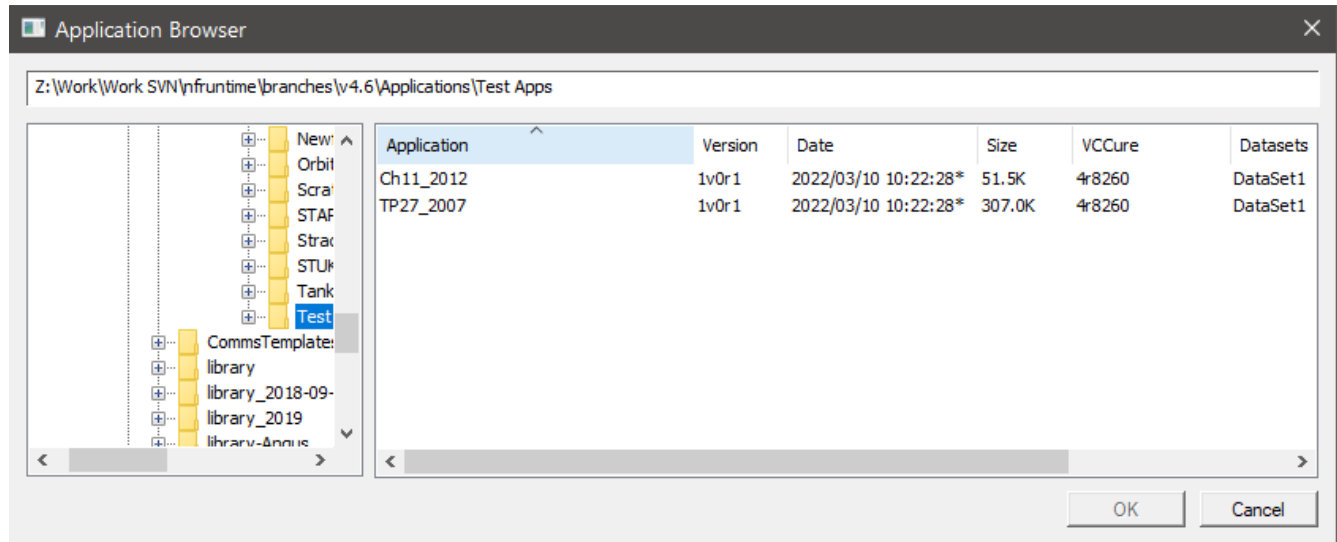
Poll for Details	This will bring up a small window, confirming the IP address(es) selected and it will attempt to contact the selected unit(s), and will display the connection status.
Select All	This will select all the machines in the pane where the mouse cursor resides.
View	There are 3 sub-menus for this menu, these are: **Filters** - Allows the user to filter each column, which is helpful when a large number of machines are being maintained. **Log Window** - This option opens a 3rd pane below the two standard panes where additional information can be displayed. **Debug** - When this option is enabled, the verbose low level message data is shown in the Log Window.
Install/Retrieve Files	There are 5 sub-menus for this menu, these are: **Install Application** - This option is only available when one or more machines have been selected. See **3.1 Installing / Upgrading Applications** for detailed information. **Get a Backup of the Running Application** - This option is only available when one or more machines have been selected. A File Explorer style window is opened, and the user prompted to save the application on to the PC. Backing up an Application allows machines to be replaced with ease, and allows cloning of multiple NÅNO controllers. **Get Kernel Log** - This item is available if only one machine has been selected and allows the Operating System event log to be saved to the PC. **Update Firmware** - This item is available if one or more machines have been selected and allows the run-time firmware to be updated. The Admin Password of the unit will be required. **Update I/O Firmware** - This is similar in operation to the **Update Firmware** option above but allows the I/O processor firmware to be updated. The Admin Password of the unit will be required.
Licensing	There are 2 sub-menus for this menu, these are: **Get License ID** - Allows the user to request the License ID for each selected device. Once all units have been queried, the resulting list of License IDs can be saved to the PC. **Install License Key(s)** - This option opens a dialog windows prompting the user to paste in the new License Key(s) along with the Admin Password. If OK is clicked, each License Key is sent to the relevant NÅNO unit to be validated and installed. **NOTE:** Licensing is supported on a per-application basis and can be used to provide additional features – contact your supplier for further details.
Start Web Interface	This item is only available when one machine has been selected. Selecting this option will start the PC/Laptop's default browser and load the selected IP address into the browser.

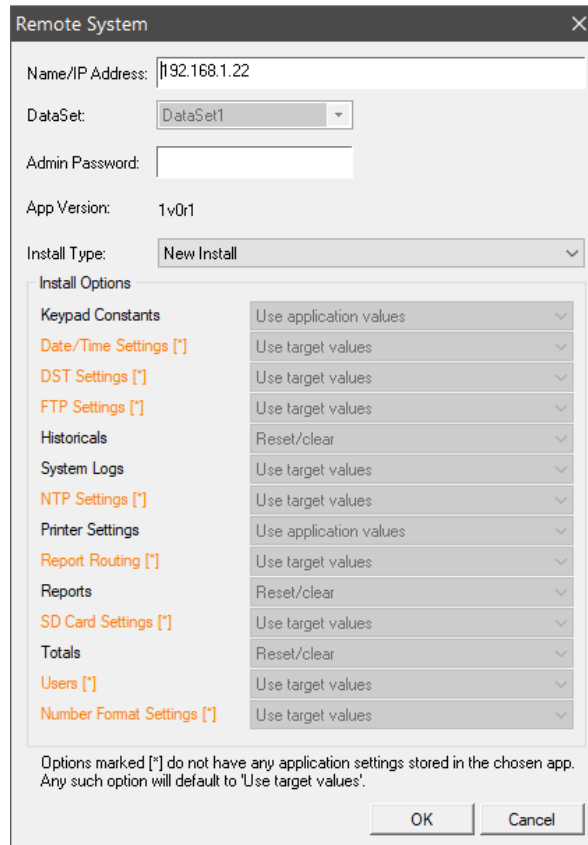|	
Configure	This item is only available when one machine has been selected. Selecting this option opens the Configure Machine window. This shows the Network settings for each of the Ethernet Interfaces. Ethernet Interface 1 has a check box for DHCP. If selected, this network interface will be given its setting by the DHCP server. If the box is not checked, the user can enter in standard quad-dot notation the IP address, the Netmask and the Gateway address. Ethernet Interface 2 does not support DHCP and has to be either a static address, or disabled. This second port does not support a gateway.
Strobe Ident Lights	This item is only available when one machine has been selected, and causes the NÅNO controller hardware Ident Lights to flash. **NOTE:** Pressing the Ident Switch on the NÅNO controller hardware for 10 seconds will also cause the Ident Lights to flash and the selected unit will be highlighted in the NÅNOconf window.
Restart	This sub-menu item is only available when one machine has been selected. Restart causes the selected NÅNO controller to warm start, as if power cycled.
Copy System ID	This sub-menu item is only available when one machine has been selected. This option copies the System ID to the clipboard to allow easy recording of the unique hardware identifier of a unit.
Refresh Local Machines (F5)	This option is always available, and forces the auto-discovery mechanism to do an immediate check for machines that may be on the Local Area Network (LAN).
Manage Machine List	This option is used to select which machines appear in the managed (upper) pane. There are 4 sub-menus available, these are:. **Add** - This option is always available, and allows the user to type in an IP address or a range of addresses. **NOTE:** The user can highlight one or more machines in the discovered (lower) pane and drag them to the upper pane to add them to the managed list. **Remove** - This option is only available with one or more of the managed machines selected in the upper pane. **Import** - With the cursor in the managed (upper) pane, this option opens a File Explorer style dialog and a nanolist file (.nnl suffix) can be selected. The selected file will be parsed and the upper window will be populated accordingly. **Export** - This allows the user to export the list of managed machines in .nnl format. One or more managed machines must be selected and this option then exports the details of the selected machines to the .nnl list.

3.1   Installing / Upgrading Applications

Several options are available to assist the user in installing or upgrading applications.

Choosing the "Install Application" option from the popup menu will open a File Explorer type window, so the user can navigate to where the relevant application file is stored.

Application files have a '.ccc' extension.

Once the application is selected, clicking the OK button will bring up a second dialog box showing various installation options.

The following options / information is shown:-

Name/IP Address	Shows the network address of the selected unit. If the wrong unit has been selected, the IP address can be changed at this point.
DataSet	Shows a drop-down list of datasets supported by the application. Only one dataset can be installed onto the unit. Refer to the application documentation for further information of what datasets are supported.
Admin Password	Enter the Admin password here to allow the application to be installed.
App Version	Shows the Application Version to be installed.
Install Type	Shows the types of installation that can be started:- **New Install** Overwrite existing application and settings **Upgrade** Overwrite existing application but retain settings where possible **Custom** User defined installation
Install Options	Detailed below. **NOTE:** If any of the application settings are not found within the application file being installed, that option will fallback to using the existing target setting. Any such option will be shown in ORANGE and marked with a [*].

For each installation option, the following settings are available:-

Use application values	Use the data stored in the application file. **NOTE:** If no such data exists for the option, this setting will not be available.
Use target values	Keep the current data or setting already configured in the target.
Reset/clear	Reset the data to the application or factory default. For application settings, refer to the application documentation for more information.

The Install Options section shows the various target settings that may be affected by the installation, as follows:-

Keypad Constants	Application values that can be changed via a communications link, local panel or the web interface. These are application dependent – consult the application documentation for more information. The "**Reset/clear**" setting is not valid for this option and is not shown.

Date/Time Settings	Date & Time settings:-
	
	   • Time Offset
	   • Date Format

DST Settings	Daylight Savings Time settings:-
	
	   • Start Date
	   • End Date
	   • Changeover Hour

FTP Settings	FTP settings:-
	
	    • Server IP Address
	    • Server Port
	    • Username
	    • Password
	    • Upload Directory
	    • Upload Format

Historicals	Historical charting / trending data. **Use target values** Retain all existing historical data. **Use application values** Delete all existing historical data and reset what data points are stored based on the application configuration. Consult the application documentation for more information. **Reset/clear** Delete all existing historical data.
System Logs	System log data stored in flash. **Use target values** Retain all existing log entries. **Use application values** [Not valid for this option and is not shown] **Reset/clear** Delete all existing log entries.

NTP Settings	NTP settings:-
	
	    • Trigger Mode
	    • Server IP Address

Printer Settings	Printer settings for each printer:-
	
	    • Printer type (Network or Serial)
	    • [Network] IP Address
	    • [Network] Port
	    • [Network] Scaling
	    • [Serial] Comms Port
	    • [Serial] Baud rate
	    • [Serial] Data bits
	    • [Serial] Parity
	    • [Serial] Stop bits

Report Routing	Report reporting for each application report.

Reports	Report data stored in flash. **Use target values** Retain all existing reports. **Use application values** [Not valid for this option and is not shown] **Reset/clear** Delete all existing reports.

SD Card Settings	SD Card settings:-
	
	    • Archive Alarms & Events
	    • Archive Historicals

Totals	Metering totals. **Use target values** Retain all existing totals. **Use application values** [Not valid for this option and is not shown] **Reset/clear** Reset all existing totals.

Users	User login data:-
	
	    • Name
	    • Access Level
	    • Password

Number Format	Number Format settings:-
	
	    • Decimal Separator
	    • Thousands Separator

Two pre-configured options are available:-

	New Install	Upgrade
Keypad Constants	Use application values	Use target values
Date/Time Settings	Use application values	Use target values
DST Settings	Use application values	Use target values
FTP Settings	Use application values	Use target values
Historicals	Reset/clear	Use target values
System Logs	Use target values	Use target values
NTP Settings	Use application values	Use target values
Printer Settings	Use application values	Use target values
Report Routing	Use application values	Use target values
Reports	Reset/clear	Use target values
SD Card Settings	Use application values	Use target values
Totals	Reset/clear	Use target values
Users	Use application values	Use target values
Number Format	Use application values	Use target values