



STM32CubeMonitor:How to configure mandatory parameters before acquisition

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Contents



1 Select the variables to monitor

This chapter introduces the easiest way to add a variable to monitor, by adding the variable to the list manually.

In the chapter *STM32CubeMonitor:How to extract address from ELF files*, the possibility of adding variables extracted from an executable file is presented.

After opening the node "myVariables", variables can be added directly in the variable node by using the button **Add custom variable**.

The new variable is added with default type. It is the user's responsibility to define the name, the address and optionally the type by editing each of the table fields.



The validation of the modification in the node is done by clicking on the button "Done".



2 Select the ST-LINK used to monitor a target

Two steps are needed to select the probe which is used to perform acquisitions.

The first step is the configuration of the *acquisition out* node, which will be used to send commands to the probe. (**out** stand for "sending messages out of STM32CubeMonitor").

After opening the node "myProbeOut", selection of a new probe can be done by clicking on the specific button.

There is automatic detection of the connected probes when clicking on the picklist "Probe Name". (you need to install the driver STLINK to see the probes, see [Installing STM32CubeMonitor](#)).



The screenshot displays the STM32CubeMonitor configuration environment. A central dialog box titled 'Edit acq out node > Add new probe config node' is open. It features a 'Cancel' button and an 'Add' button. The 'Properties' section contains a 'Probe Name' dropdown menu with two entries: 'ST-Link v2-1B (...25216)' and 'ST-Link v2-1B (...92210)'. To the right, a detailed information panel is visible, showing the node ID 'e2ce07e28.1d789', type 'probe', and a description: 'Allow to define a probe configuration : probe name, protocol and frequency'. The 'Node Help' section lists properties: 'Probe Name' (string), 'Protocol' (string), and 'Frequency' (string), each with a brief description. At the bottom of the help panel, there is a section for 'STLink firmware version' with a notification icon and a checkbox to 'Enable or disable these tips from the option in the settings'. The background shows a flowchart with nodes like 'START Acquisition', 'STOP Acquisition', and 'myProbe_In'.

When selecting a probe, the default protocol and frequency are selected. The firmware version is also available. (If the firmware version is not sufficient for the usage of all features of STM32CubeMonitor, there is a notification).

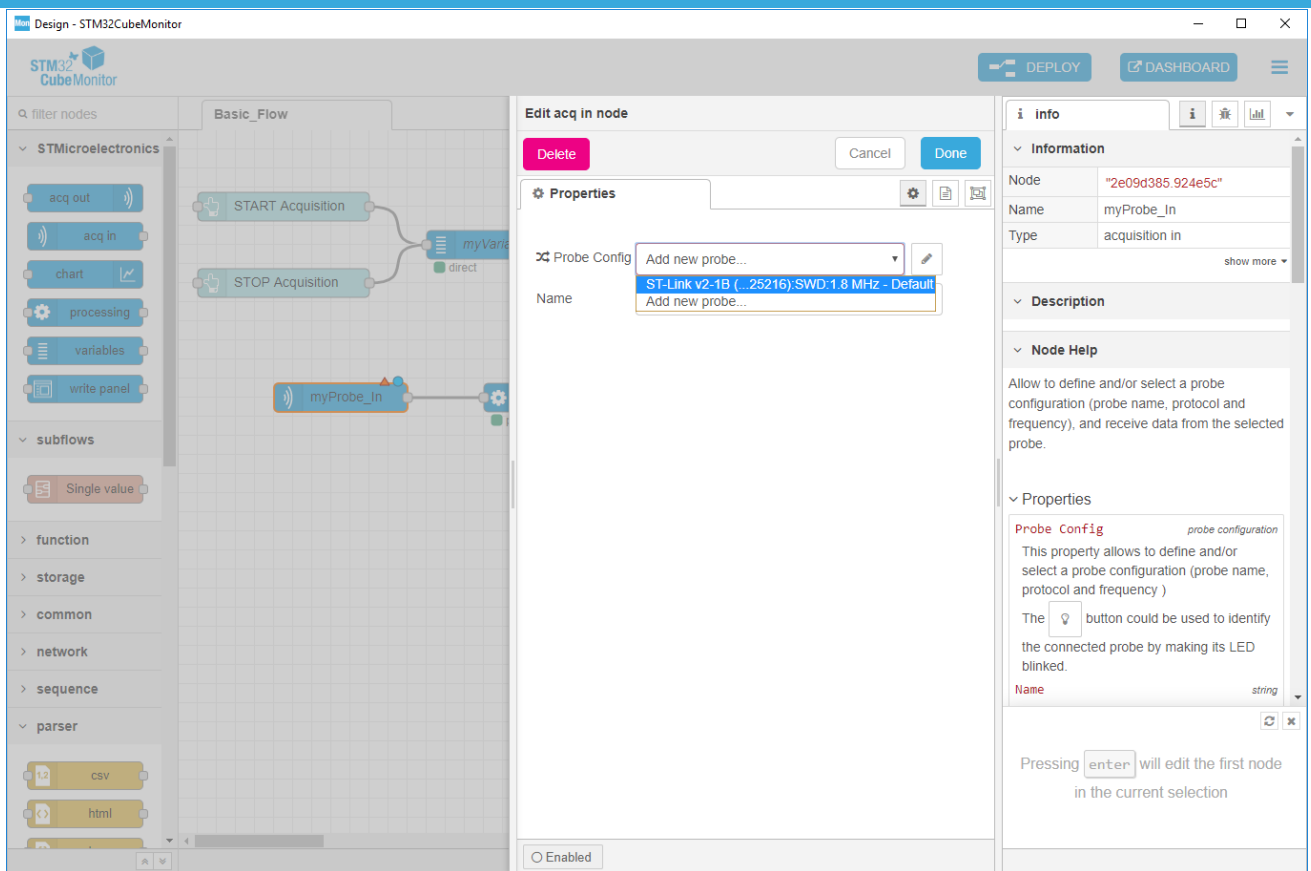


The screenshot displays the STM32CubeMonitor configuration tool. On the left, a sidebar shows various node categories like 'STMicroelectronics', 'subflows', 'function', 'storage', 'common', 'network', 'sequence', and 'parser'. The main workspace shows a flowchart with nodes like 'START Acquisition', 'STOP Acquisition', and 'myProbe_In'. A dialog box is open for adding a new probe configuration. The 'Properties' section includes a dropdown for 'Probe Name' (ST-Link v2-1B (...25216)), a dropdown for 'Protocol' (SWD), and a dropdown for 'Frequency' (1.8 MHz - Default). A yellow highlight is placed on the text 'ST Link firmware version V2.J32'. The right-hand 'Info' panel provides details for the selected node, including its ID ('e2ce07e28.1d789'), type ('probe'), and a detailed description and help text. The help text states: 'Allow to define a probe configuration : probe name, protocol and frequency'. It also lists the properties: 'Probe Name' (string), 'Protocol' (string), and 'Frequency' (string), each with a brief explanation of their function. At the bottom of the dialog, there are checkboxes for 'Enabled' and 'On all flows'.

Clicking on the button add will add this probe configuration in the tool, making it available for all the nodes which can use it (both *acquisition out* and *acquisition in* nodes). Validation of the modification in the node is done by clicking on the button "Done".



The second step is the configuration of the *acquisition in* node, which will receive messages sent by the probe (*in* standing for "receiving messages in STM32CubeMonitor"). After opening the node "myProbeIn", selection of the probe configuration is done by looking for the right probe configuration in the picklist (probe configuration already created during the *acquisition out* configuration).



Validation of the modification in the node is done by clicking on the button "Done".



3 Deploy the flow to take into account the configurations done

At this point, the configuration of the nodes only exists in the editor and must be deployed to the server.

Click the Deploy button. A message should pop up at the top saying “Successfully deployed”, it means that the tool is ready to start an acquisition with the different configurations made on each node. In addition, status is available for each node.

The screenshot displays the STM32CubeMonitor design editor interface. At the top, a green notification box states "Successfully deployed". Below this, a flowchart titled "Basic_Flow" is visible on a grid. The flowchart consists of several nodes: "START Acquisition" and "STOP Acquisition" (light blue), "myVariables" (blue), "myProbe_Out" (blue), "myProbe_In" (blue), "myVariables" (blue), "myChart" (blue), and "Clear Graphs" (light blue). Status indicators are shown below some nodes: "direct" for the top "myVariables", "p2p connected (STM32L47xxx/48xxx)" for "myProbe_Out" and "myProbe_In", and "processing on" for the bottom "myVariables".

On the right side, the "info" panel for the selected "myProbe_In" node is open. It contains the following information:

- Information:**
 - Node: "2e09d385.924e5c"
 - Name: myProbe_In
 - Type: acquisition in
- Description:** (empty)
- Node Help:** Allow to define and/or select a probe configuration (probe name, protocol and frequency), and receive data from the selected probe.
- Properties:**
 - Probe Config** (probe configuration): This property allows to define and/or select a probe configuration (probe name, protocol and frequency). The button could be used to identify the connected probe by making its LED blinked.
 - Name:** string

At the bottom of the info panel, there is a note: "ctrl click in the workspace to open the quick-add dialog".

For example, for the *acquisition in* and *acquisition out* node, the status of the connection and name of the target connected to the probe are displayed. The connection is checked every 15 seconds. This interval can be modified (see [STM32CubeMonitor: How to change general settings](#)).

To start acquisition and view the dashboard, follow this link [Start acquisition and view in the dashboard](#).