

INSTRUCTIONS | INTERNAL USE ONLY

LLT100 configuration backup and restore

For FW release 1.0.3 to 1.1.3 using asset vision basic

Overview

This document is a procedure to backup and restore an LLT100 user parameters from a device to another.

Typical use cases:

- Replicating a device
- Upgrading a device FW
- Replacement of a device

It has been tested for an upgrade from FW release 1.0.3 to 1.1.3 using DTM on Asset Vision Basic.

Prerequisite: LLT100 DTM running on Asset Vision Basic hooked up to proper HART modem.

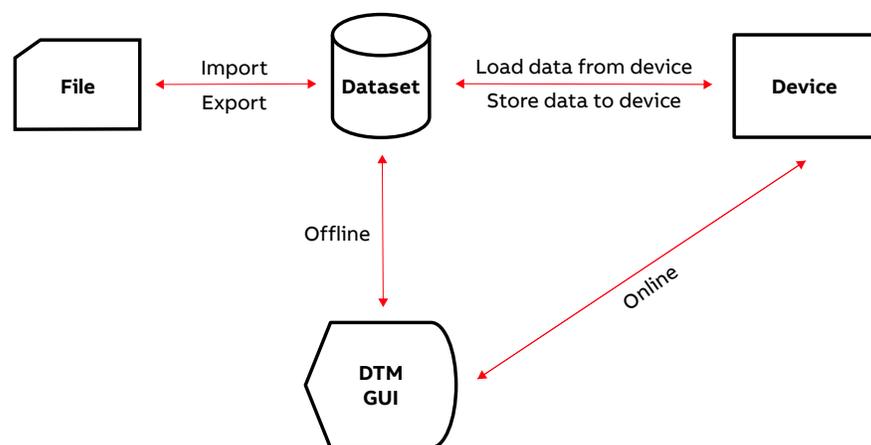
WARNING

For SIL applications, it is the user's responsibility to follow the safety measures and instructions provided in the **LWT SIL Functional Safety Guide**.

DTM – Data flow

Software features to achieve task

- The load and import features will be used to backup the configuration
- The export and store features will be used to restore the configuration
- Some manual operations will be required during the process.



Procedure overview

- Prepare device to backup configuration (from device to replace/update)
- Read parameters
- Prepare device for restore (new or updated device)
- Write parameters
- Check

Procedure

1. Backup configuration (from device to replace/update)

1.1 On device HMI

- a. Carefully Note values for : (these are not backed up by software):
 - i. HI/LO 4-20mA alarm and saturation limits (4 values)
 - ii. Level calibration 1-2 values
 - iii. Address info (address, loop mode)
 - iv. Display auto scroll delay, length/linearization format (3 values)
 - v. Volume URV and LRV
 - vi. In the linearization table: Input and output values for points that are disabled points (if any and if desired)
 - vii. Low and Low Low level and distance alarms (4 values)
- b. unlock HW et SW write protect
- c. remove any read/normal/advanced password
- d. set HART address to same as DTM

1.2 In Asset Vision / DTM

- a. establish connection to LLT 100 (see Appendix 1)
- b. read config
 - i. in DTM: “Device/Data source” menu select “online - device data” (DTM will read device automatically. Watch progress bar for completion.)
 - ii. in “Device Data” menu select “export data set to file” and choose a filename (this is your device configuration backup file)
 - iii. in “Device” menu select disconnect

2. Restore configuration (to new/updated device)

2.1 On the HMI before config restore

- a. Disable write protect, both HW SW.
- b. Set address parameters (address, loop mode) - default values are ok

2.2 In Asset Vision / DTM

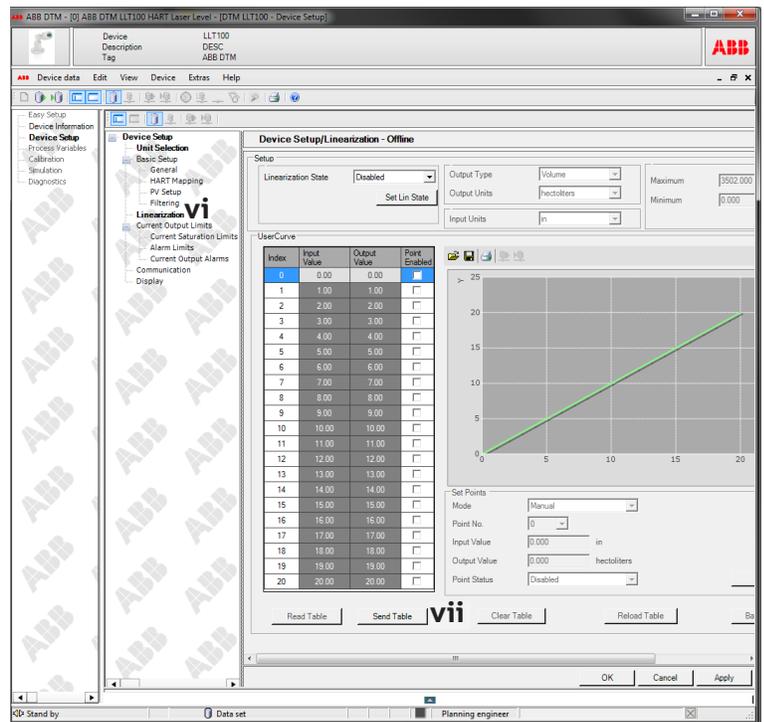
- a. Connect to LLT100
 - i. in DTM, “Device” menu select connect (for complete start sequence, refer to Appendix 1)
- b. Write config to device
 - ii. In “Device/Data source” menu select “device data” select “offline - dataset”
 - iii. In “Device Data” menu select “import data set from file” and open the filename from step 1.2-b-ii
 - iv. In “Device” menu select “store data to device” (config restore will start automatically)
- in case of error, note command and error number and then hit “ignore”*
 - v. In “Device” menu select “Device Setup”, page will load
 - vi. In menu tree on the left select “linearization”, page will load with LIN table
 - vii. Under the LIN table hit “send table” button, transfer will start automatically, wait for completion

2.3 On HMI

- a. Apply previously noted in 1.1-a
- b. configure read / normal /advanced passwords if any
- c. Manage errors during restore
 - i. Open LLT100 HART spec document
 - ii. Locate commands and errors noted during restore
- If erroneous parameters is not already covered in list noted in 1.1-a, manually fix the value if incorrect.

2.4 Follow the safety measures and instructions provided in the LWT SIL Functional Safety Guide.

* Press ignore before the green progress bar disappears (less than 30 seconds) otherwise the transfer is cancelled and the device is left in unknown state. In this case, repeat section 2.2 from beginning.



End of procedure

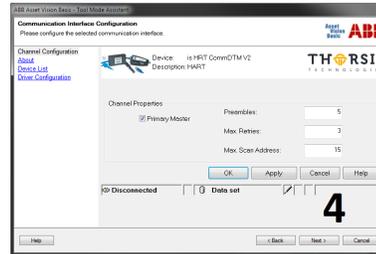
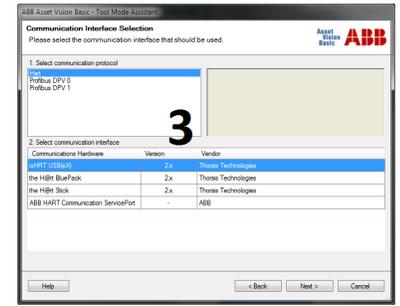
Appendix I

Start Asset Vision Basic and DTM

Pre-requisites

- Asset Vision Basic (AVB) installed
- LLT100 DTM installed and visible in AVB
- Modem & driver properly installed and configured

- Start AVB (not shown)
- Select Manual, next
- Select make sure the right modem is selected, next
- Default values should be ok, adjust if required, next
- Select proper DTM (if many), next.
- Click ok (not shown)



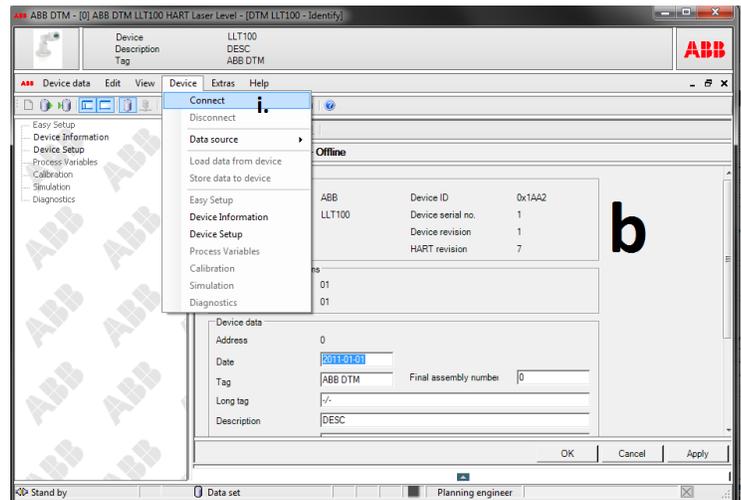
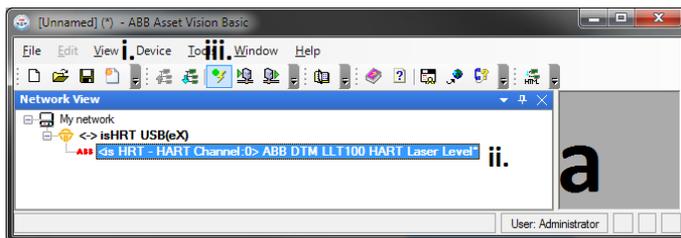
...Appendix II

... Start Asset Vision Basic and DTM

Two windows** open

- Asset Vision Basic (AVB)
 - DTM
- In AVB,
 - in "View" menu select "expert mode".
 - Highlight/select "...ABB DTM LLT100..." item
 - Click on lightning icon/button (icon, selected line and above line will change aspect)
 - In DTM
 - In "Device" menu select connect

** Order and size may vary.



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