NLON-01 FAQ

1. **My adapter does not connect to ACH400.**
   NLON-01 adapter has downloadable applications for different drive types, default application in adapter is for ACS600. Downloading an application to a LonWorks node is trivial thing during network installation and should be possible to do with most network management tools. Resource files on our web site (www.abb-drives.com) include the application (*.NXE or *APB) files for different drives.

   If the application is not correct for the drive and the NLON-01 has been configured with the Network Management tool the POW/ERR LED on the adapted is blinking between red and green at 1 Hz rate.

   n400.nxe and n400.apb is for ACS/H 400 (same file for the whole power range)
   n60030.nxe and n60030.apb is for ACS600 with software 3.x
   n60050.nxe and n60050.abp is for ACS600 with software 5.x

   Type of application file to be loaded depends on the used tool. Most Network Management tools can download the application. Current versions of The Trane Company's Rover tool and Tridium's tool are not able to do the download.

   Like with all DDCS fieldbus adapters parameter 5005 must be set to DDCS (or Modus + DDCS) to get the communication between the adapter and the drive. When DDCS communication between the NLON-01 and ACH400 is working, parameter 51.01 should show 7. Parameters in group 51 are read only values and changing them manually has no effect in the NLON-01.

2. **Which *.XIF should I use?**
   LonWorks network management and installation tools use *.XIF files to get information about network variables in each node. On our resource file we provide multiple *.XIF files. Files with 'a' in the end are for Windows API based tools and without 'a' are for the LNS based tools. LNS based tools are most common today.

   n400(a).xif is for ACS/H 400 (same file for the whole power range)
   n60030(a).xif is for ACS600 with software 3.x
   n60050(a).xif is for ACS600 with software 5.x

   Tridium's tool does not use the standard XIF file. They have created so called Shadow Object based on our XIF file. People with Tridium tool need to get this file from Tridium.

3. **Where is the start command from LonWorks given?**
   Start command is part of the network variable, which is used to give the speed or set point to the drive. These variables are type SNVT_swicth, which have state part and value part. The state part is used for starting the drive. When *nciExt1Ext2Sel* state part is "0" the state part of the *nviDrvSpeedStpt* starts the drive and when *nciExt1Ext2Sel* state part is "1" the state part of the *nviRefStpt* is used for starting the drive.

   If control place selection between EXT1 and EXT2 is done via drive's control panel or digital input, *nciExt1Ext2Sel* still selects the nvi, which starts the drive regardless of active control place.

4. **I'm able to start the drive, but can't give the reference.**
   The NLON-01 adapter requires two network variables to be set as it's reference; the reference and the scale for the reference.

   Value part of the *nviDrvSpeedStpt* is used to for the reference, when EXT 1 is used. Value part of the *nviRefStpt* is used for the reference when EXT 2 is used.

   Network variable *nviSpdScl* is used to scale the reference. If the previously mentioned network variables are used as reference this should be set to 100%. Or the previously mentioned variables can be set to 100% and the *nviSpdScl* can then be used to give the reference.

   LonWorks network configuration input *nciDrvSpdScl* is used to give default value for the *nviSpdScl*. This configuration input should be set if the scale should be some fixed value after power up.

5. **I have intermittent communication problems with the NLON-01 adapter.**
   The NLON-01 adapter uses FTT-10A transceiver, which is most common in LonWorks networks. This transceiver is very sensitive to electromagnetic fields. Adapter should be placed as far as possible from power cables. Grounded iron/steel sheet metal between the adapter and source of the electromagnetic field may help in many cases. In some cases turning the adapter 90 degrees may reduce the noise problem.

6. **Drive is behaving strangely after installing the LonWorks network.**
   When using LonMaker program for network installation, programming in group 99 may be lost if LonMaker is not set to use "Current values in device" for Configuration Properties.
   This may cause the drive to trip over current, because motor nameplate values are incorrect.

   If you use LonMaker:
   - Always install a new node with the option "Current values in device".