
Nordic Development Platform User Guide

GENERAL DESCRIPTION

This document describes the Nordic Development Platform (nDP) software used with the “nRF USB Configurator” dongle.



- Perform configuration of the nRF905.
- Enable and run a range demo with the nRF905.



INTRODUCTION

This software shall run under Windows98, Windows NT or Windows 2000 operating system. The computer should have a CPU speed higher than 400MHz and be equipped with at least one USB port.

INSTALLATION

To install the nDP software to your system, run the “Setup.exe” file and follow the instructions. You’ll need administrator rights to install this software.

HOW TO GET STARTED

nDP is run by executing the nDP.exe file. With no “nRF USB Configurator” dongles attached to the PC, the main window will be as shown in Figure 1.

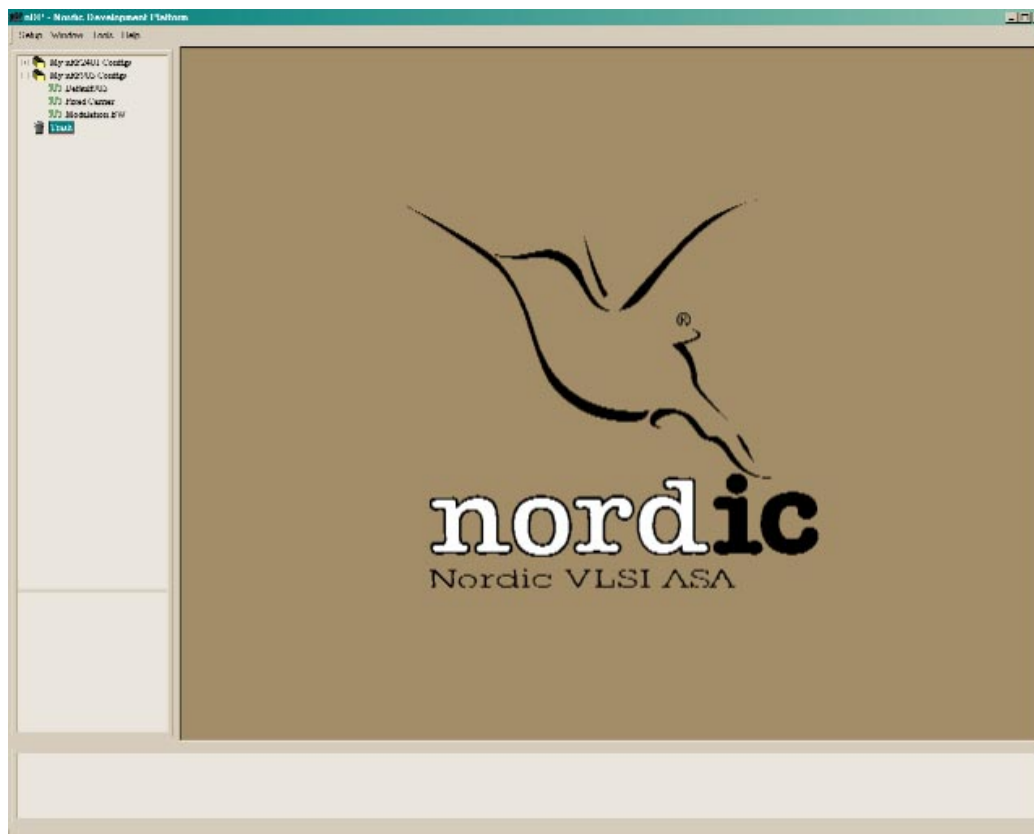


Figure 1: Successful start-up

Use the attached USB cables and connect one of the “nRF USB Configurator” boards to the PC. The connected “nRF USB Configurator” board will be detected by the “nDP” software and shown in the device list window as a picture. If the “nRF USB Configurator” board is connected to a nRF905 EVBOARD, a child window named “nRF905 Config” will be launched. This child window will be directly associated with



the connected nRF905 EVBOARD. All changes done in the nRF905 Config window will be executed on the nRF905 device. A screenshot of the application main window is shown in Figure 2.

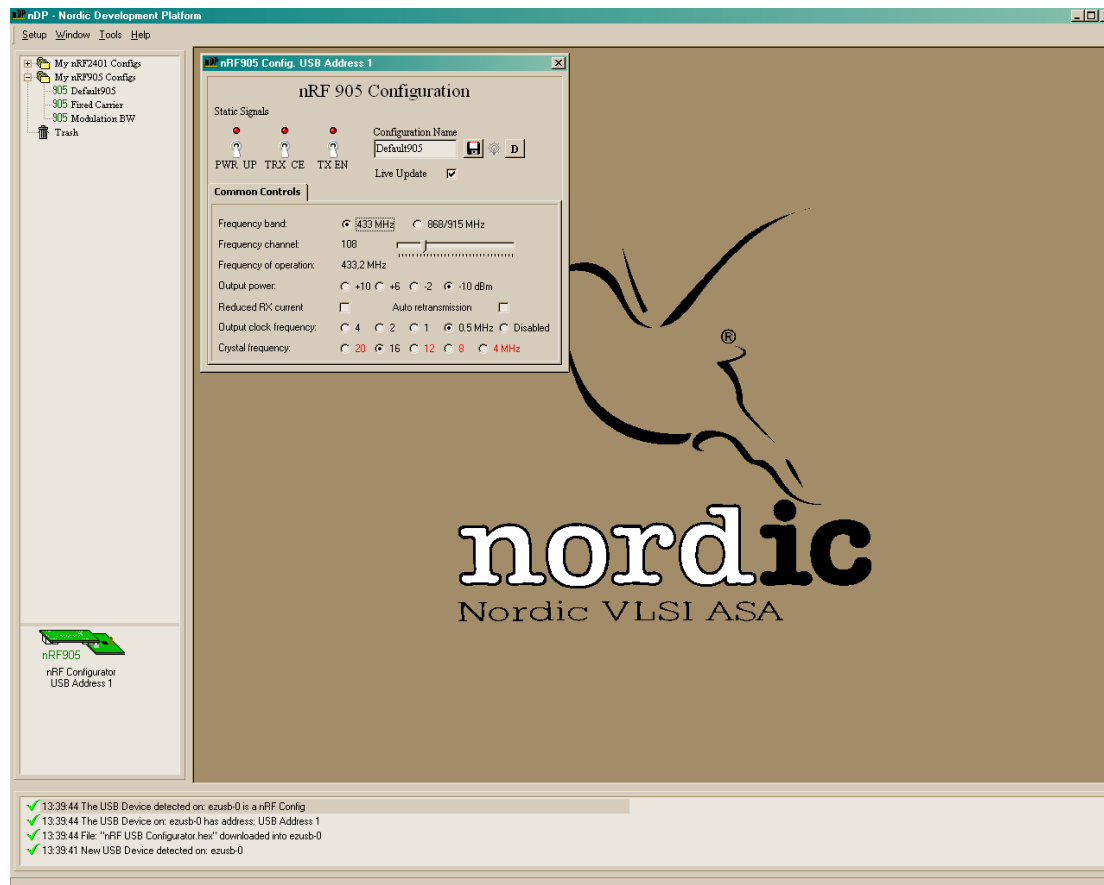


Figure 2: Main window with device detected

If the “nRF USB Configurator” board is disconnected from the PC, the associated window will be closed. If more than one device is connected to the PC at the same time, the devices can be separated by using the “USB Address” switch on the “nRF USB Configurator” board.



CONTROLS

The nDP software has four main parts: The Configuration database access list, the Device List Window, the Message Window and Device associated window(s.) Figure 3 shows where these are located.

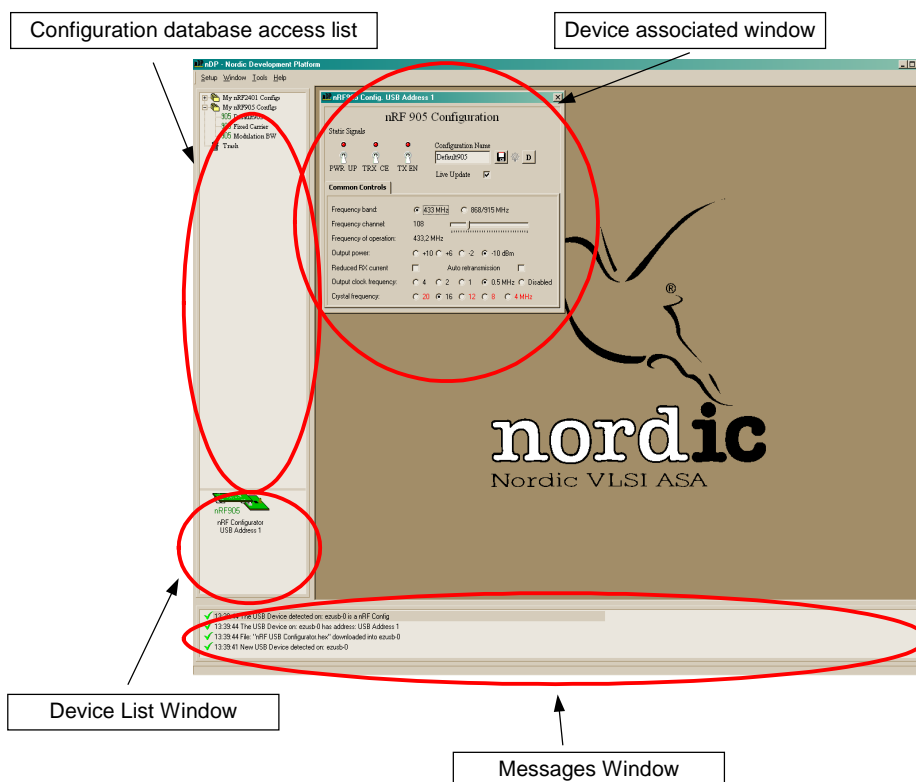


Figure 3: Main parts of the nDP software.

Configuration database access list:

This is a list of all saved configurations. Each icon represents settings saved by the user. The user can save the current settings in the device associated window and later load them by double clicking on the icon or drag and drop the icon on the device associated window.

Device associated window:

This child window is associated with a specific device connected to the PC. In the window header a “USB Address” is shown and will help the user to distinguish between different devices. All changes done in this window will be downloaded to the device at once if the “Live Update” option is checked. Use this window to change the settings used by the nRF905 and perform evaluation measurements.

Device list window:

This list shows all the devices connected to the PC.

Messages window:

This window will display messages to the user.



nRF905 CONFIGURATION WINDOW

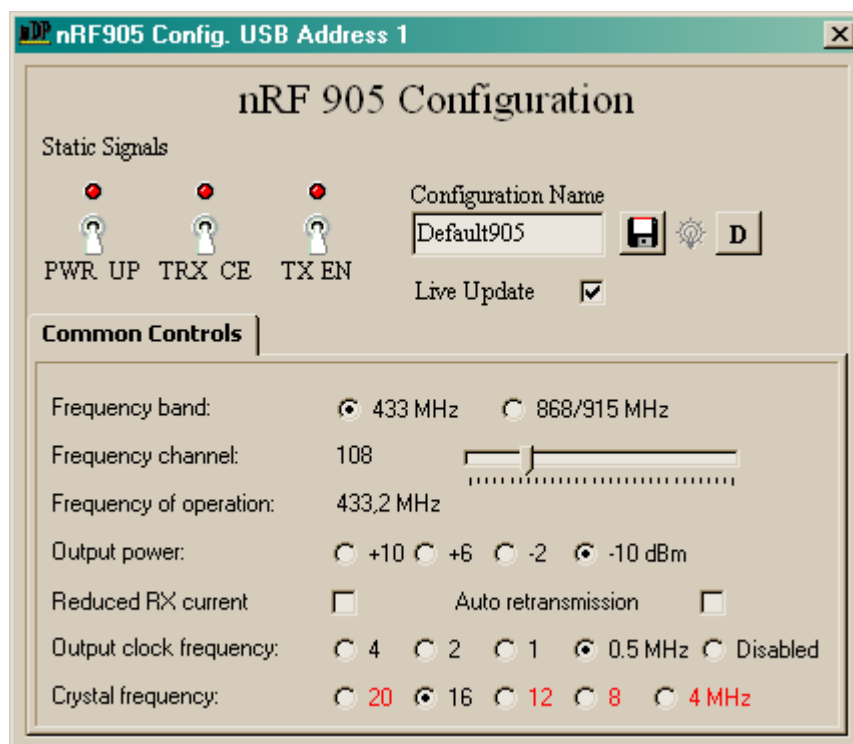


Figure 4: nRF905 Configuration Window

In the nRF905 Configuration Window, the following parameters can be changed:

Static signals:

- PWR_UP: The Power UP signal on the nRF905. Green LED lit is HIGH.
- TRX_CE: The TRX_CE signal on the nRF905. Green LED lit is HIGH.
- TXEN: The TXEN signal on the nRF905. Green LED lit is HIGH.

Common Controls:

- Frequency band: Select between 433MHz and 868/915MHz band.
- Frequency channel: Select channel in the selected frequency band.
- Output power: Set the power level used by nRF905.
- Reduced RX current: Check to select reduced RC current mode.
- Auto retransmission: Check to enable auto retransmission.
- Output clock frequency: Set the frequency of the uPCLK output.
- Crystal frequency: Set the frequency of the crystal to be used by the nRF905. NB! This must be set to 16MHz to work with the nRF905 EVBOARD.



DEFINITIONS

Product specification
This User guide documentation contains final product specifications. Nordic VLSI ASA reserves the right to make changes at any time without notice in order to improve design and supply the best possible product.
Limiting values
Stress above one or more of the limiting values may cause permanent damage to the device. These are stress ratings only and operation of the device at these or at any other conditions above those given in the Specifications sections of the specification is not implied. Exposure to limiting values for extended periods may affect device reliability.
Application information
Where application information is given, it is advisory and does not form part of the specification.

Table 1: Definitions

Nordic VLSI ASA reserves the right to make changes without further notice to the product to improve reliability, function or design. Nordic VLSI does not assume any liability arising out of the application or use of any product or circuits described herein.

LIFE SUPPORT APPLICATIONS

These products are not designed for use in life support appliances, devices, or systems where malfunction of these products can reasonably be expected to result in personal injury. Nordic VLSI ASA customers using or selling these products for use in such applications do so at their own risk and agree to fully indemnify Nordic VLSI ASA for any damages resulting from such improper use or sale.

Product specification. Revision Date: 30.01.2004

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