



ToolSync Guide

Application Overview

This application is to be used with the Norbar EBT-CA 750/1100. Tools can be connected to a PC running this application via USB through a serial COM port or via Bluetooth (BLE). The application can be used to view and download results, result graphs and a summary of the tool's faults and statistics. Downloading these will add them to a built-in SQLite database, and then can be viewed without having a tool connected. This application can also be used to create and send Users and Targets/Presets to tools.

Minimum Hardware Requirements

Processor: Intel Core i3, 2 GHz.

Memory: 4 GB RAM.

Storage: 2 GB free.

USB Port: At least one USB 2.0 (prefer USB 3.0 for performance).

OS: Windows 10 (64-bit).

How to Use

Ensure the tool has a battery connected and the trigger has been pulled to turn it on, and then connect the tool to a USB port and start up the application. Once the main page has loaded, the application should detect which USB COM port the tool is attached to and display it, the user can then click the 'Connect' button to connect to the tool.

Creating and Sending Users

From the main page, clicking the 'Users' button will take the user to the Users page, where you can set up Users with Names and Passwords to send to the tool. Names can be up to 4 characters long, and passwords are five-digit numeric codes (00000-99999). The user does not need to be Connected to a tool to create Users, but they will need to be to send those users to a tool.

Creating and Sending Presets

From the main page, clicking the 'Presets' button will take the user to the Presets page, where they can set up Presets to send to the tool. Presets are grouped together into Jobs, which can hold up to 50 Presets. This Job is then sent to the tool to overwrite any presets the tool has. After creating a Job, the user can create individual Presets, selecting from a list of Users saved on the application, and giving it a name and other Preset attributes. The user can also load the tool's current workgroup to the application, edit it, and send it back to the tool.

Viewing Saved Results

From the main page, clicking the 'Results' button will take the user to the saved Results page, where they can view previously saved Results in a table. The results include the serial number of the tool, checkmarks of whether the result passed correct torque and angle values, the timestamp of the result in [yyyy-mm-dd hh:mm:ss] format as well as the final torque and angle values. Double clicking on any result in the table will load up the result's graph. The graphs display the torque and angle values throughout the joint tightening, as well as temperature values and the torque target. In the graph view the user can click the 'Previous Graph' or 'Next Graph' buttons to navigate through the list of results, and click the 'Return to Results' button to return to the table of results.

Viewing Connected Tool Results

The user can quickly view the results and graphs of the connected tool without downloading them. When in the Results page the user can click 'Tool Results' to load the page to display the connected tool's results. On the top right of the page the number of Results that the tool has is displayed, and at the bottom there are buttons to navigate through the results and display a certain result by typing the result number into the textbox, and clicking the 'Load Result' button. This displays the result details in the table above, and the result's graph is displayed above this. This page only works properly with Advanced tools.

Saving Results

From the Tool Results page the user can click either 'Save Result' to download the currently viewed result and graph, or 'Save All Results' to download all the tool's results and graphs to the built-in database. Once the process starts a progress bar and a percentage will inform the user of the download's progress, and once it has completed a confirmation will pop up.

Viewing Tool Information

From the main page, clicking the 'Tool' button will take the user to the connected tool's page, where they can view tool information like the serial number, firmware versions, calibration date, and update the supervisor password and tool name (used for Bluetooth versions of the tool.)

Bluetooth (BLE) Connectivity

If the user has a BLE version of the tool, they can connect to the application using Bluetooth by clicking "Scan for Bluetooth Devices," selecting the correct device name in the drop-down menu, and clicking "Connect to Bluetooth Device." The user can then wirelessly receive Tool details, send Presets, and receive Torque Reports.

Database Integration

This application has an integrated SQLite database that stores user and preset data, as well as downloaded results and graphs for multiple tools. These are all stored in the "ToolSync.db" file in the application folder, which the application reads and writes to during runtime. This file can be viewed and edited by executing SQL commands using an SQLite viewer application like DB Browser.