

NX APPLICATION NOTE

NX Security Utility

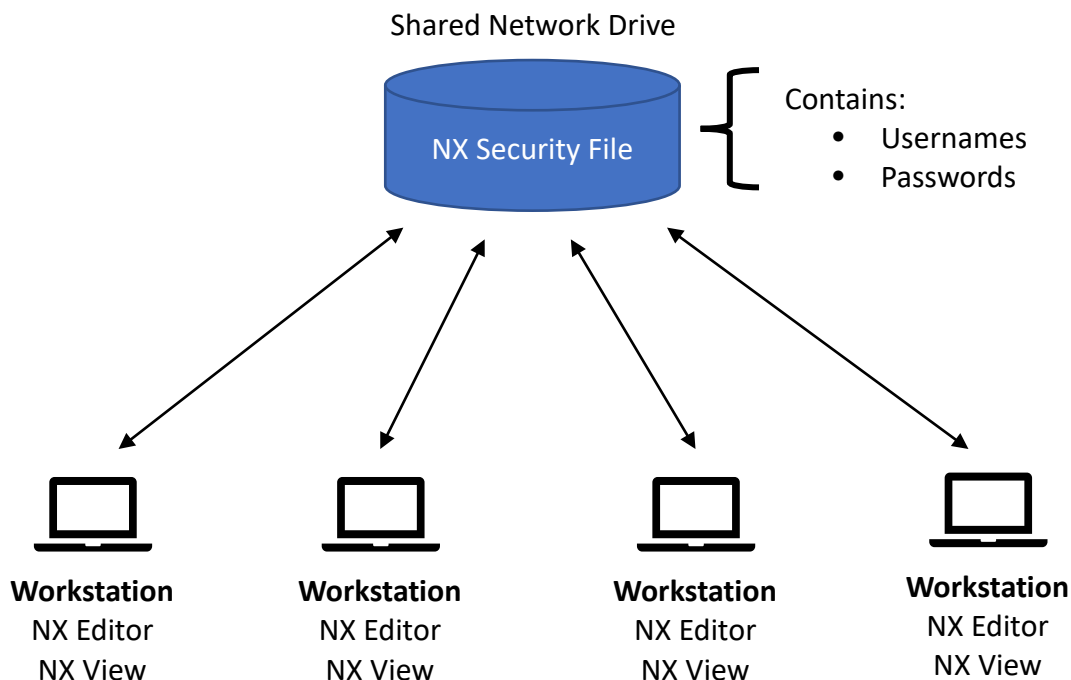
The NX Editor and NX View enforces no user restrictions when initially installed. By default, any user has access to all capabilities. If selective security is required to limit the privileges of users, the NX Security Utility must be used.

The NX Security Utility is compatible with NX Editor version 1.0.20.xxx or later and with NX View version 4.x.x or later.

The NX Security Utility (NX_Security_Utility.exe) is not distributed with the NX Editor or NX View software and must be obtained from Dynalab Test Systems. Send an email to support@dynalab-inc.com requesting the NX_Security_Utility.exe file.

Overview

The NX Security Utility restricts access to the NX Editor and NX View based on a specific username and password. The username and password data are contained in a file located on a shared network drive. All users of the applications must have access to the shared drive folder containing the NX Security File.



When a user launches the NX Editor or NX View, they are prompted to enter their username and password. The applications then validate the information against the contents of the NX Security File.

Installation

The NX Security Utility is an executable file named **NX_Security_Utility.exe**. This utility should be placed in a location that is known only to the security administrator, and for which the security administrator alone has access.

NX Security Restrictions

Restrictions are enforced based on security levels. Each user is assigned a security level. There are 6 pre-defined security levels. The privileges available to the user are different for standalone NX Editor users and NX View users as described in the following tables:

User Security Levels for standalone NX Editor Users

When the NX Editor is used in standalone mode (not in conjunction with NX View), the following table describes the user privileges associated with the security levels:

Level	Privileges
1	<ul style="list-style-type: none">• View program
2	<ul style="list-style-type: none">• Transfer program to/from tester
3	<ul style="list-style-type: none">• Export data
4	NX Editor – Edit Programs (No Workflow Edit)
5	NX Editor – Edit Programs
6	NX Security Utility - Administration

Levels 1, 2, and 3 provide the same privileges: view, transfer, and export data.

Level 4 provides the same privileges as levels 1-3 and allows the user to create and edit NX Programs, but the user cannot edit the Workflow.

Level 5 provides the same privileges as levels 1-4 and allows the user to create and edit NX Programs, included editing the Workflow.

Level 6 provides the same privileges as levels 1-5 and allows the user to have access control of the security file.

User Security Levels for NX View Users

For users of NX View, version 4.x.x or later, the following table describes the user privileges associated with the security levels:

Level	Privileges
1	NX View – Run/Probe
2	NX View – Select Programs
3	NX View - Configuration
4	NX Editor – Edit Programs (No Workflow Edit)
5	NX Editor – Edit Programs
6	NX Security Utility - Administration

Level 1 allows the NX View user to run a program and to operate the probe.

Level 2 provides the same privileges as level 1 and allows the NX View user to select programs.

Level 3 provides the same privileges as levels 1-2 and allows the NX View user to configure NX View.

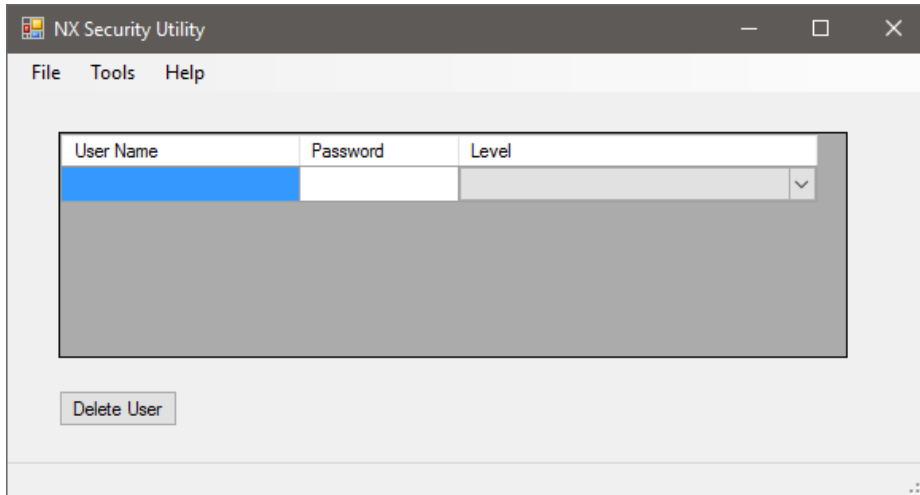
Level 4 provides the same privileges as levels 1-3 and allows the NX Editor user to create and edit NX Programs, but the user cannot edit the Workflow.

Level 5 provides the same privileges as levels 1-4 and allows the NX Editor user to create and edit NX Programs, included editing the Workflow.

Level 6 provides the same privileges as levels 1-5 and allows the user to have access control of the security file.

Create/Edit Security File

The NX Security Utility can be executed on any computer that has the NX Editor installed. The following is displayed when launching the NX Security Utility:

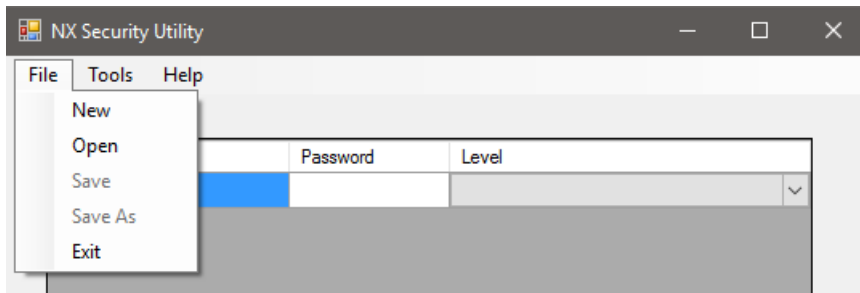


One entry is required for each user. Each entry consists of a User Name, Password, and Level (1-6).

If no user is assigned level 6, the security file is not password protected.

If at least one user is assigned level 6, the security file is password protected, and only a level 6 user will be able to open the security file.

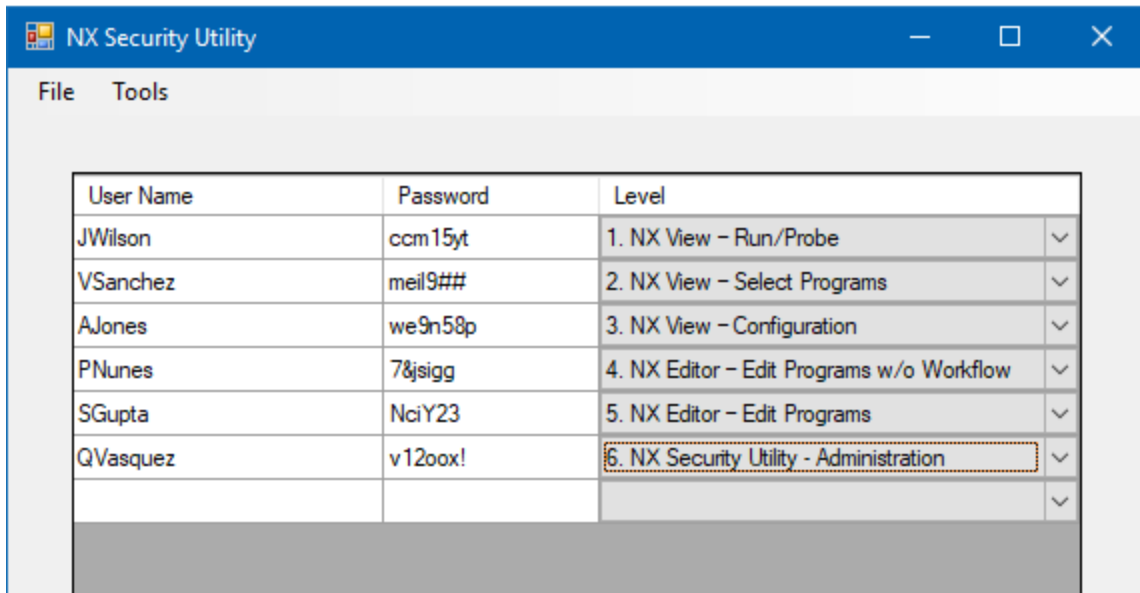
Before entering or editing user data, a new security file must be created, or an existing user file must be opened as selected from the File menu:



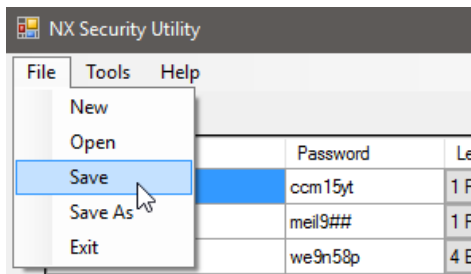
If this is the first time using the utility, select **New** from the File menu, otherwise select **Open** to open the existing security file. In either case, the security utility will prompt for a file name and location.

Adding Users

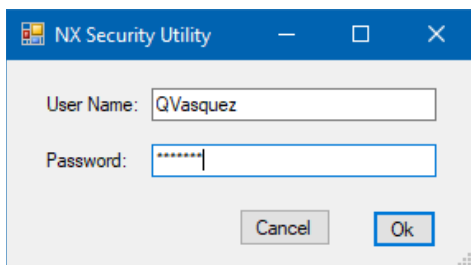
For each user, enter a User Name, Password, and Level. The following is an example.



When complete, select Save from the File menu:



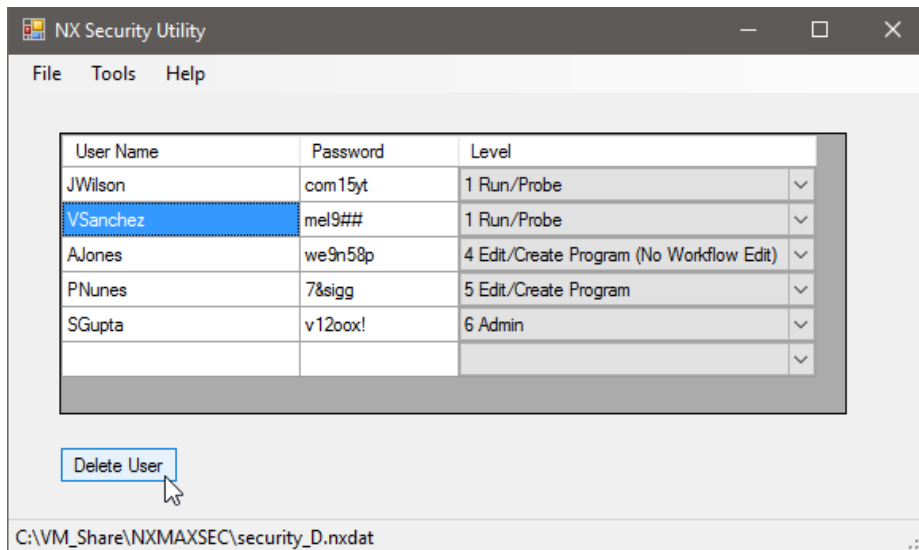
In the example above, a level 6 user was entered; therefore when this security file is opened again, the utility will prompt for a username and password. Only the level 6 username and password will access the file:



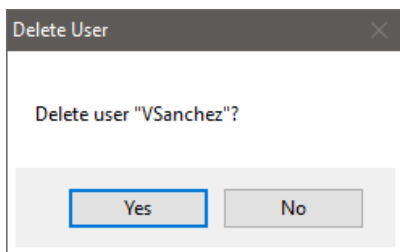
A single security file can be used for multiple computers running the NX Editor. In the case of a single security file for multiple machines, the file's location must be accessible to all computers.

Deleting a User

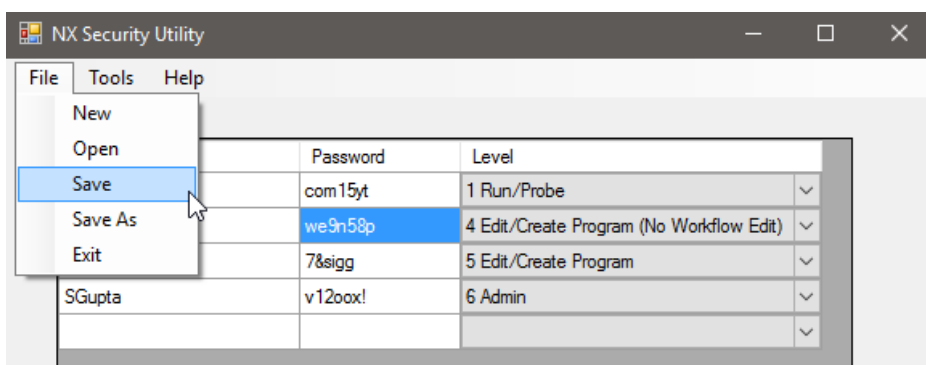
Click on the User Name to be deleted, then press the “Delete User” button.



The utility will request confirmation of the user to be deleted. Press Yes to delete.

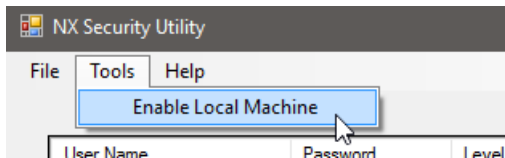


Save the file to preserve the change:

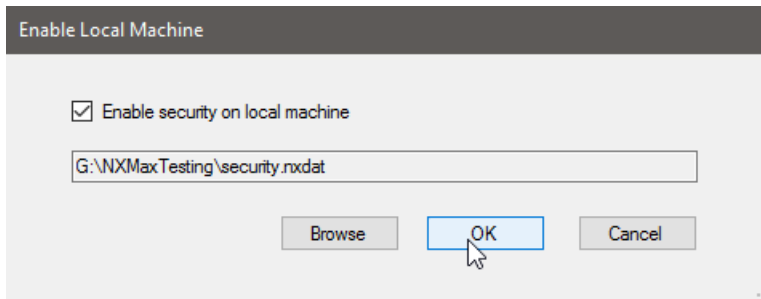


Enabling Security

Once the security file has been created and populated as illustrated above, security must be enabled by selecting **Enable Local Machine** from the **Tools** menu:



This brings up the following window:



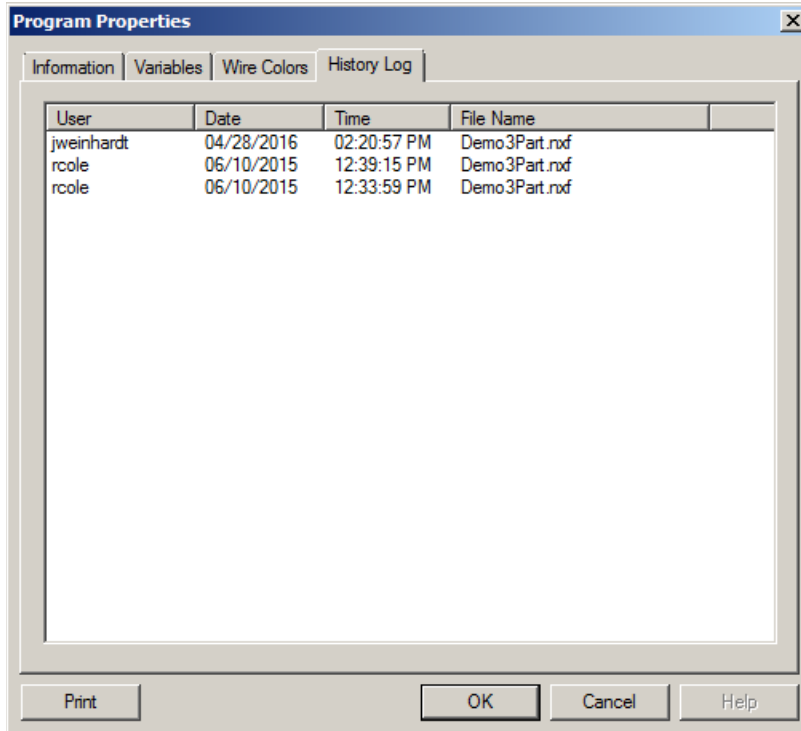
Check the box labeled **Enable security on local machine** and specify the location and name of the security file as shown above. Then press OK.

From this point on, whenever the NX Editor or NX View is launched, the user must login with their credentials:

Repeat this step for each computer on which the NX Editor or NX View is installed.

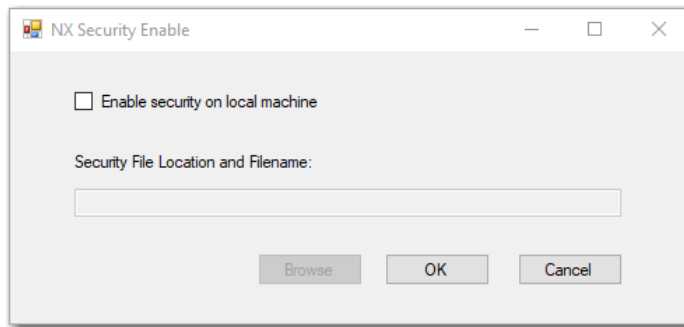
History Log

The history log contains a list of the user, date, and time of the last 30 times the file was saved. When Security is enabled, the user id as listed in the Security File is used by the History Log. When Security is not enabled, the Windows user id is used by the History Log.



NX Security Utility - Enable Only Version

Since any individual that has possession of the NX_Security_Utility.exe file can disable security on a workstation and manage users, a separate utility, NX_Security_EnableOnly.exe, can be used that can only enable security on a workstation and select a security file.



Command Line Control

The NX_Security_EnableOnly.exe can also be executed with command line instructions. This will allow the utility to be added to a computers startup script to assure that security is always enabled, the correct security file is selected and the NX Editor version support the security function.

Select Security File

Syntax: NX_Security_EnableOnly.exe -e [security file location and name]

```
NX_Security_EnableOnly.exe -e N:\Admin\Dynalab\security.nxdat
```

NX Editor Version Verification

In order to assure that a workstation has a newer NX Editor version that supports the security function, a flag can be set that will create a log file if the workstation has a previous NX Editor version that does not support the security function.

Syntax: NX_Security_EnableOnly.exe -v [Location of logfile]

```
NX_Security_EnableOnly.exe -v N:\Admin\Dynalab\
```

If a previous NX Editor version is found, then an ACSII text file will be created in the specified folder with the filename [machine name-YYMMDDSS].log. The file will contain the NX Editor version found on the machine.

Example:

