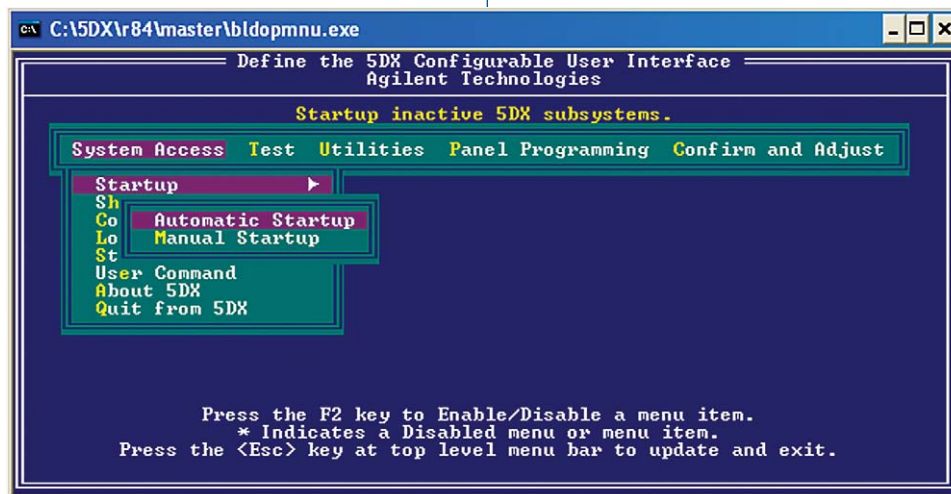


Build Operator Menu

Multiple menu configuration control for the 5DX Auto UI

Application Note



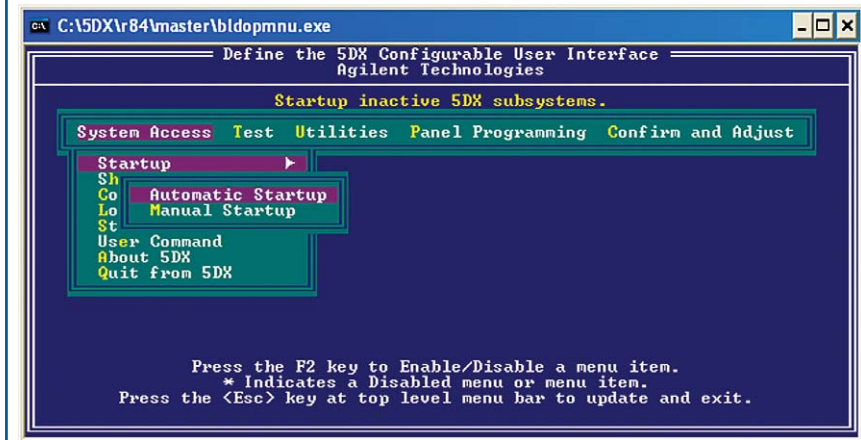
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BLDOPMNU DOS Command

The "Build Operator Menu" software replaces and extends the functionality found in the BLDOPMNU DOS command.



Build Operator Menu 2 Modes of Operation

Single User Menu Mode

- Runs in tandem with the 5DX Auto UI interface.
- Does not change any system settings.
- Users can optionally log into the Build Operator Menu software for tracking purposes, user name is automatically entered into the Auto UI.

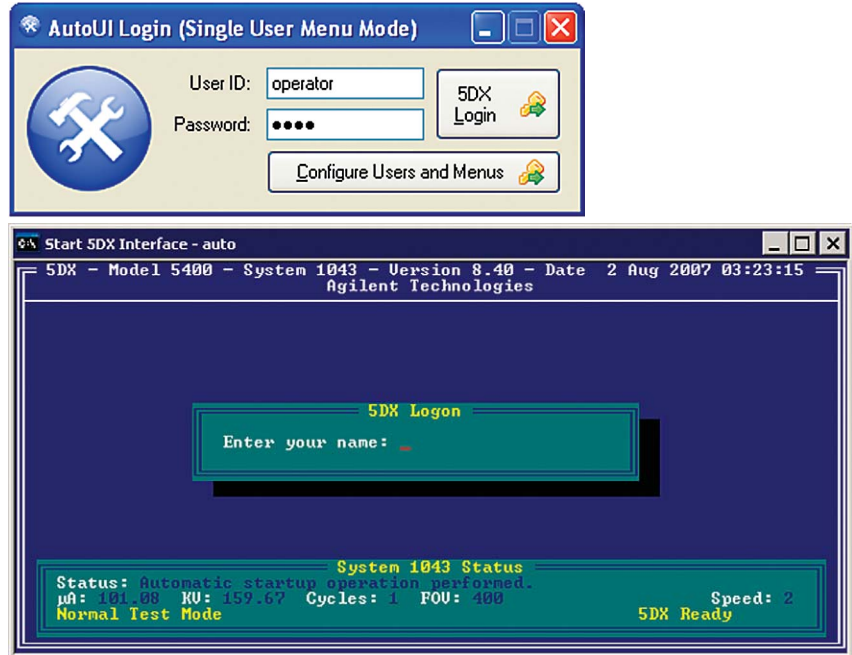
Multiple User Menu Mode

- Runs in tandem with the 5DX Auto UI interface.
- Changes the system settings so that all users must log into the Auto UI through the Build Operator Menu interface.
- Allows the disabling of different menu items for different users depending on the group that they belong to.
- Optionally locks out the 'S' user if it is added to the 'SUPERVISOR' group.

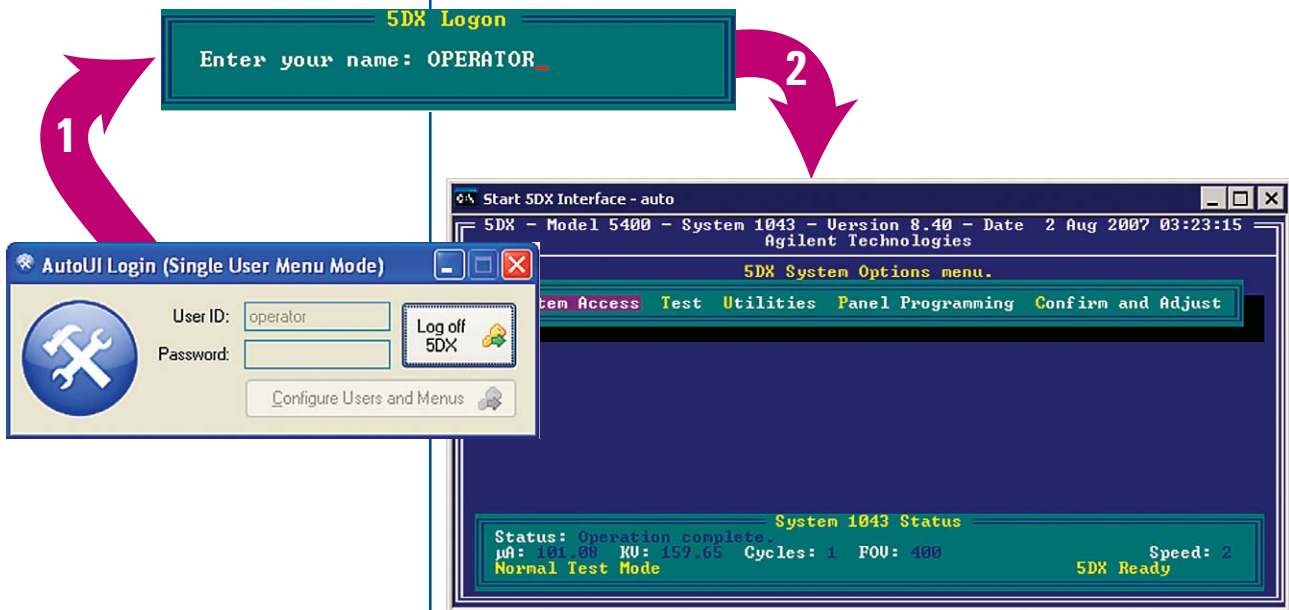
Build Operator Menu Features

- ▶ Same features as the BLDOPMNU DOS command for enabling/disabling menu items in a single menu setup (default mode).
- ▶ Extends this functionality to allow for different menu items to be configured (enabled/disabled) by the group that a user belongs to.
- ▶ Security features like password protection for each user as well as generating security logs. Security logs track program startup, shutdown, user login/out, and wrong password entry attempts.
- ▶ Ability to run from a single network share directory and setup different users on different 5DXs or run in different configuration modes.
- ▶ Ability to set different 'S' user passwords while locking the 'S' user out from the Auto UI. This ensures that there is an audit trail for the 'S' user, if configured.

Build Operator Menu How It Works – Log in

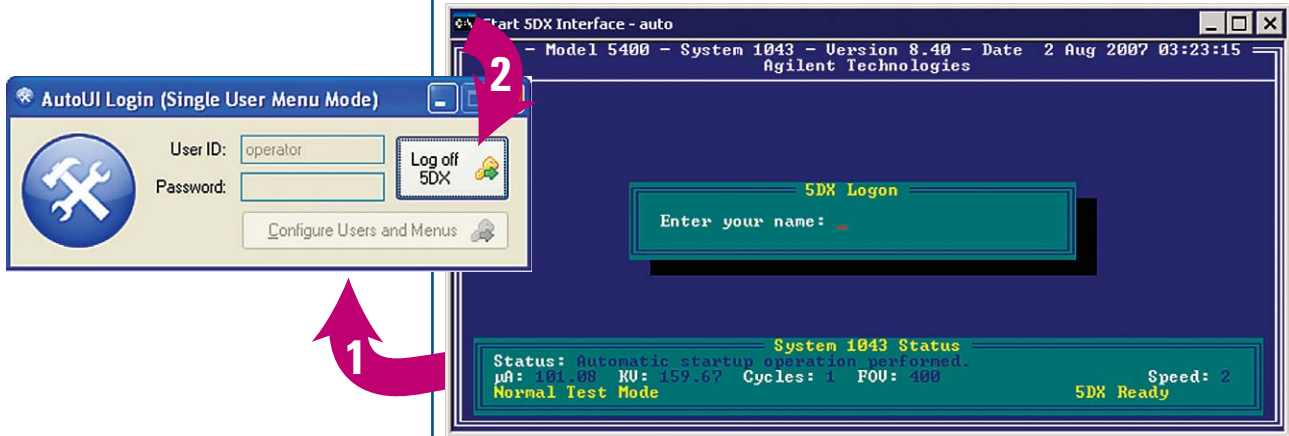


Screen shot of the 5DX Auto UI interface and the Build Operator Menu about to enter a user name into Auto UI.



Screen shot of the 5DX Auto UI interface and the Build Operator Menu after entering a user name into Auto UI.

Build Operator Menu How It Works – Log out



Log out of the 5DX before trying to log out of the Build Operator Menu software.

Build Operator Menu System Requirements

Windows XP with Service Pack 2

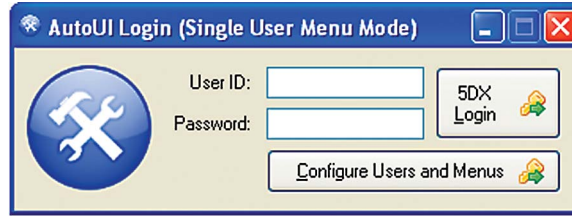
This software will not work on Windows versions prior to Windows XP but does work on all 5DX versions at least 7.x and higher.

Microsoft .NET Framework Version 2.0

Available from the following website:

<http://www.microsoft.com/downloads/details.aspx?familyid=0856each-4362-4b0d-8edd-aab15c5e04f5&displaylang=en>

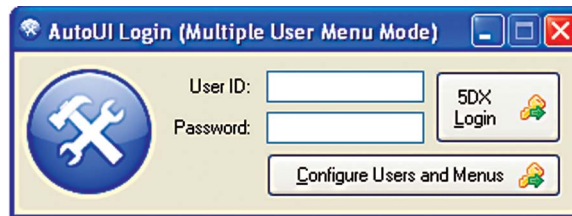
Build
Operator Menu
Interface
Single User
Menu Mode
– Login Screen



Enter a User ID and Password, then chose the log in type:

- “5DX Login”: Logs the user into the 5DX Auto UI
- “Configure Users and Menus”: Allows the Administrator to control users, groups, and accessible menu items.
 - Default User ID: Administrator
 - Default Password: Please!
- User IDs are not case sensitive but passwords are.

Build
Operator Menu
Interface
Multiple User
Menu Mode
– Login Screen



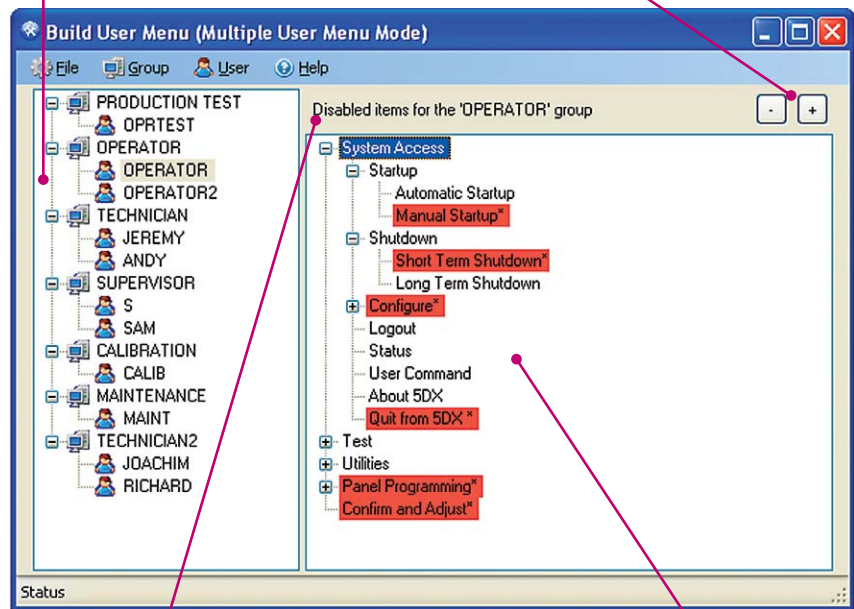
Looks the same, just has a different title in the window.

Build Operator Menu Multiple User Menu Mode

– Configure Users and Menus

Groups and users.

Expand and collapse all menu items.



Currently selected group

Configured menu items

- Double click a group or user to configure a group's menu access in the Auto UI.
- The F2 key will enable / disable the menu item.

Build Operator Menu Interface File Menu Items

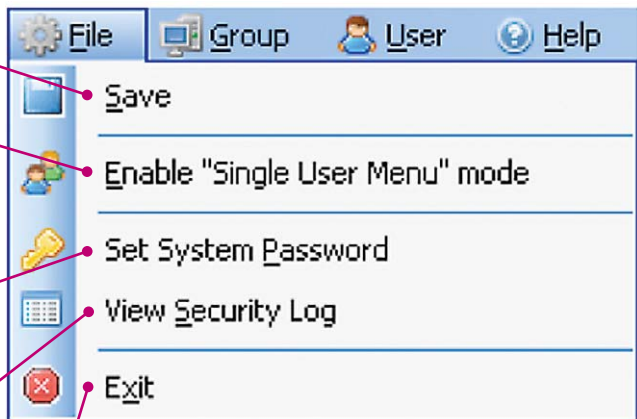
– Multiple User Menu Mode

Save the configuration

Enable 'Single User Menu' mode features

Set Administrator password for access to the system's configuration screen

View the security audit log file



Exit and optionally save the configuration

Build Operator Menu Interface File Menu Items – Single User Menu Mode

Save the configuration

Enable 'Multiple User Menu' mode features

Set Administrator password for access to the system's configuration screen

View the security audit log file

Exit and optionally save the configuration

The screenshot shows a 'File' menu with the following items: Save, Enable "Multiple User Menu" mode, Set System Password, View Security Log, and Exit. Red lines connect text annotations to the corresponding menu items.

In Single User Menu Mode some menu items are disabled, i.e. ability to work with groups and set user passwords.

Build Operator Menu Interface Group Menu Items – Multiple User Menu Mode

Add a 'Configurable Group'. This is the only group type which allows menu item modifications.

Delete a group and all of its users.

Change the group name.

Enable/disable the menu items.

The screenshot shows a 'Group' menu with the following items: Add Configurable Group, Delete Configurable Group, and Modify Group. A sub-menu for 'Modify Group' is open, showing 'Name' and 'Menu Access'. Red lines connect text annotations to the corresponding menu items.

Build Operator Menu Interface User Menu Items

You need to select an existing group name before you add a new user to it.

The diagram illustrates the 'User' menu structure. The main menu has four items: 'Add New User', 'Delete User', and 'Modify User'. The 'Add New User' item has a sub-menu with three options: 'Group', 'Name', and 'Password'. The 'Modify User' item has a sub-menu with three options: 'Group', 'Name', and 'Password'. Red lines connect descriptive text to specific menu items.

- Add a new user to an existing group.
- Delete a user.
- Change the group name that a user belongs to.
- Change the user's name (User ID).
- Change the user's password.
- Single User Menu Mode options.

Build Operator Menu Interface Help Menu Items

Simple help.
About the software.

The diagram shows the 'Help' menu with two items: 'Help Topics [F1]' and 'About...'. Red lines connect the text 'Simple help.' to the 'Help Topics [F1]' item and 'About the software.' to the 'About...' item.

Build Operator Menu Caveats

- ▶ **First time use:**
 - You need to ensure that you log in and out of the interface with the 'Administrator' user at least once before using the software with the 5DX.
- ▶ **Only works on one version of the 5DX software – the one that it was configured for.**
 - This means that if you setup v8.42, the software will not work properly on v8.25. The reason for this is that the menus change with the versions of software and so become invalid with each release of 5DX software. This is the same reason why you have to run BLDOPMNU.EXE for different versions of the 5DX software.
 - You cannot setup different 5DX versions inside of one configuration file but you can have multiple configuration files for each different 5DX version. After configuring your v8.25 system rename the bldopmnuconfig.xml to cfgv825.xml and simply specify the configuration file in your shortcut.
 - You may have trouble keeping the user names and passwords synched.
 - Example: BuildOperatorMenu.exe cfgv825.xml
 - Example: BuildOperatorMenu.exe cfgv842.xml
- ▶ **You cannot use a blank XML configuration file.**
- ▶ **Users cannot change their password without the assistance of the Administrator user.**
- ▶ **Single User Menu Mode**
 - Build Operator Menu does not require a password for any users because there is no password required for a user name in the Auto UI.
 - The exception is the 'S' user, if a password is set in the Auto UI one will be required by the interface as well.
 - The Administrator user always requires a password.
- ▶ **Multiple User Menu Mode**
 - If the 'S' user is added to the 'SUPERVISOR' group the Auto UI 'S' user will be locked out.
- ▶ **You cannot log out of the interface until you have logged out of the Auto UI first, which means that it must be at the log in prompt.**

Build Operator Menu Risks of Uses

The following files should be backed up (if they exist):

```
<relroot>\master\operator.mnu  
<relroot>\calib\userids.dat  
<relroot>\calib\password.dat
```

If the above files are overwritten, prior to backup, then the original 5DX configuration may be lost and the user will have to recreate the 'S' user password, user names, and disabled menu items. This only matters if you care about your current 5DX configuration.

Build Operator Menu Configuration

- ▶ In order for the Build Operator Menu to run you need to have the executable (BuildOperatorMenu.exe) and the XML configuration file (bldopmnuconfig.xml).
- ▶ More than one configuration file can be used by copying and renaming the configuration file and specifying it as a parameter for the executable, i.e. BuildOperatorMenu myconfig.xml
- ▶ A security log file is generated in the directory that the application is launched from and is named <PC NAME>_BuildOperatorMenu.csv
 - If <PC NAME> is Tester then the log file is named Tester_BuildOperatorMenu.csv
 - The log file is easily opened in Microsoft Excel and analyzed.

Build Operator Menu Log file Security

- ▶ The security log file is generated the first time that that the Build Operator Menu executable is started.
- ▶ The format of each line is:
<pcname>,<activity>,<user_id>,<date_time>
- ▶ <activity> can be one of the following:
 - autologinfailure – recorded when there was an error logging into the Auto UI.
 - invalidlogin – recorded when there was an invalid login attempt.
 - login – recorded when the user successfully logged in.
 - logout – recorded when the user logged out.
 - shutdown – recorded when the software is closed.
 - startup – recorded when the software is started.

Build Operator Menu Installation

- ▶ Put these files into any directory you like (make sure that any user is able to have 'write' access permissions to the directory):
 - BuildOperatorMenu.exe
 - bldopmnuconfig.xml
- ▶ Create a shortcut to the executable on your desktop or the "All Users" startup folder.
- ▶ Launch the program and log in as Administrator and save the configuration (File – Save).
- ▶ Done.

Build Operator Menu Network Setup

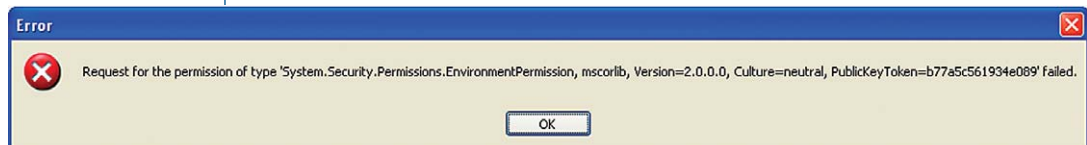
To setup the Build Operator Menu program to run from a network drive you need to grant network access permissions on the 5DX for the program. Note that a user with Administrator privileges is required to perform these steps.

- Server Name = MyServer
- Server Share = MyShare
- Build Operator Menu directory = \Software\Bldopmnu
- Combined network path = \\MyServer\MyShare\Software\Bldopmnu
- Reformed network path = //MyServer/MyShare/Software/Bldopmnu

With the reformed network path you can now configure the 5DX for all Windows XP users.

On the 5DX controller, in a Command Prompt window, go to the following directory and issue the commands in the order given below:

- ▶ Click the 'Start' button on the Taskbar
- ▶ Click on 'Run...'
- ▶ Enter 'cmd' without the quotes and press the 'Enter' key.
- ▶ In the Command Prompt window enter the following:
 - `cd /d %windir%\Microsoft.NET\Framework\v2.0.50727`
 - `CasPol.exe -pp off -m -ag 1.2 -url file://MyServer/MyShare/Software/Bldopmnu/* FullTrust`
- ▶ Now run the BuildOperatorMenu.exe and make sure that you don't get the System.Permissions.EnvironmentPermission error message below, if you do recheck the steps above.



Build Operator Menu FAQ

Q1: Does this software allow for easy GUI set up of BLDOPMNU?

A1: Yes, it does.

Q2: Does this software support all of the user types on the 5DX found in the USERIDS.DAT file?

A2: Yes, it does. By default there are the 2 groups of users supported by the 5DX and 1 special user. b) is customizable on the 5DX but a) and c) are not. The 'Build Operator Menu' handles a), handles and extends b), and handles c) to allow more than one supervisor user name and more than one for configured menu item per user. On the 5DX you can have, in USERIDS.DAT file, the following:

- a. User name with no option – Users can only go to the 'Automatic Test' interface.
- b. User name with the MENU option – All users see the same customized menu setup through the BLDOPMNU.EXE DOS command. It is possible to give the users access to all menu options like the 'S' user but that is not how it is typically used.
- c. Supervisor, this is not a configurable option – There is only one supervisor user, the 'S' user.

Q3: Does it offer other things like operator login reporting for security purposes?

A3: Yes, it does. All users are logged to the activity log file including the 'S' user, if added to the 'SUPERVISOR' group using the Build Operator Menu interface.

Q4: What is the purpose of the different groups?

A4: The groups are for question 2 a), b) and c) above. They are customized setups that can have different names.

- **In a)** the users of that group do not have access to any menu items, and so you cannot configure the menu items. It is called the 'PRODUCTION TEST' group.
- **In b)** the users of each different group can have a unique setup of enabled/disabled menu items. So that each new group can have a certain type of menu setup. When a new user is added/moved to a group they will have access to that group's menu items. The reason for this is so that you don't have to setup several users, who may all have access to the same menu items, by individually configuring each user. You just setup the group and add the user to that configured group. The default configurable group is the 'OPERATOR' group.
- **In c)** the users of the special 'SUPERVISOR' group have access to all menu items, and so you cannot configure the menu items. If you need to do that then you should move the user to a configurable group.

Build Operator Menu FAQ *(continued)*

Q5: Are there any other advantages?

A5: If the 'Build Operator Menu' is used in 'Single User Menu Mode' it can be used to configure the 5DX text files (users and menu items) for question 1 a) and b) or to set the 'S' user password in 2 c). In other words it will configure the USERIDS.DAT, PASSWORD.DAT and OPERATOR.MNU text files on the 5DX as if the administrator had done it by hand. So the administrator basically gets a graphical user interface to configure those files.

Q6: Can this be used to support multiple systems? For example, I have 10 systems. If I wanted to customize my setup on one system, then push that model to all systems could this software help with that?

A6: Yes, it can. There is a step that you need to do found in the presentation, about the software, called "Network Setup". The only caveat is that you need to have the same major revision of 5DX software on all of the 5DXs that you are running the 'Build Operator Menu' software on, or the incorrect menu items may be disabled. The way around this is to create multiple configuration files and then modify the shortcut on each 5DX that is different from the rest, to load the properly configured file off of the network drive (note that configuring the menu items must be done on the 5DX that has a different version and don't forget to backup the configuration file first). The only issue is trying to keep all of the users and passwords synchronized between all of the different versions of the configuration files (in a future version these items may be separated for easier setup).



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