



System Additions and Upgrades

There are several issues to be aware of when adding to and/or upgrading existing systems. Items such as Controller Memory and Firmware versions and Software revisions need to be reviewed. Some systems start small and grow very large and have a vast range of integration and custom applications. This is a real advantage of the WinDSX system and its simple scalability. Please use the information below to ensure that your upgrade or add-on occurs smoothly.

1. If you are going to add on to an existing system and have questions about expansion and compatibility – Please call DSX Technical Support for consultation. The call doesn't cost you anything and could save you great expense and time.
2. If possible call from the Job Site while you are there. There are several things that need to be reviewed in the software. If you cannot call from the site you must get the information from the system before you call. Click here for the [DSX Site Survey form](#) and [Software Upgrade form](#) to assist in gathering the pertinent information about the system.
 - A. In the DataBase program look at Help/About WinDSX and document the software version.
 - B. In the Workstation program select Devices. On the first device – right click and select “Device Summary”. Perform a print screen if possible or document what you see. On the first device again – right click and select “Memory Layout

Summary” and again perform a print screen or document what you see.

3. This information tells us what the current memory requirements are for the existing controllers. With this information the amount of memory required to accommodate the addition of new controllers can be calculated. The memory calculation can be done by DSX Technical Support. There is also a Calcmem program provided on the WinDSX software CD. Software
4. The following Upgrade instructions cover upgrading WinDSX and WinDSX SQL systems to the latest version. The instructions cover configuration changes and the implementation of the new USB Software Key.

[WinDSX Upgrade Instructions](#)
[WinDSX SQL Upgrade Instructions](#)

3.7/4.7 Upgrade

[Software Version 3.7/4.7](#) and higher has a new feature that allows Time Zone Linking. This new linking logic will only work if all of the controllers in the location are of 1040 Series, 1022, or revised 1032 controllers with the 1030PR5 retrofit processor. All controllers in the location will require V3136 or higher. This feature cannot be used if any of the controllers are of the old style 1030 Series or 1021. The 3.7/4.7 versions also require new updated versions of PC Master and Soft I/O.

Controller Memory and Flash/Firmware

1030 Series Controllers – 64K of RAM standard expandable to 192K with 4 - 32K memory chips. 1030PR5 replacement processors will upgrade “Revised” 1030 series controllers to 512K of RAM with Flash ROM. “Revised” 1030 series controllers can be identified by the row of diagnostic LEDs above the lower row of terminal blocks.

1021 Controller – 64K of RAM expandable to 96K with a single 32K memory chip. Further expandable to 192K with a 1021MX memory expansion module and 4 - 32K memory chips.

1040 Series and 1022 Controllers – 512K of RAM/Flash ROM.

Firmware/Flash Versions

When adding new controllers to Existing systems, the existing controllers must have Version 542 or higher. This is true if you are adding 1030,1020, or 1040 series controllers to that system. So for any new controller to be added to an existing system the existing controllers must have V542 or higher.

For systems that are growing largely in size by the number of doors and cardholders, and systems where there are a lot of card changes (adds and deletes) daily, it is advisable to upgrade the firmware in all controllers to be current and match the new controllers.

New 1040 and 1022 Controllers require a minimum of V3072 if they are to be added to existing systems as the Master Controller where 1030 and 1021 series controllers are used as slaves.

The current versions being shipped are V569 for 1030 series and V3151 for 1040 series. It is always advisable to have the highest version of firmware in the Master Controller.

Controllers with Versions below 3080 may experience "bad card reads" especially after upgrading to a higher version. If this is the case and U7 on the processor board is identified as a 74HC04 - a replacement processor is required. This issue can also be confirmed by bringing the reader to the controller where it no longer gives "bad card reads". If after the upgrade your reader stops working all together and you are not getting at least "bad card reads" the problem is most likely to be the implementation of [Stacked Device Types](#).

DSX Flash

To flash new controllers where mixed with 1030 series controllers in existing systems requires a New Controller to be the Master. Check your software CD or call Technical Support for the latest flash program and the latest versions for the Controllers and DSX-LAN Modules.