update advisory

Advisory for Installers of E2 2.81 and UltraSite32 4.81 and Above

Overview

This document applies to: all users who have E2 version 2.72F01 or earlier who are upgrading to a version 2.81F01 or later; and all users who have UltraSite32 version 4.72 or earlier who are upgrading to a version 4.81 or higher.

This document contains special instructions and warnings about changes introduced into the 2.8x / 4.8x revisions of E2 and UltraSite32. Please read the entire document before upgrading.

WARNINGS/NOTICES - PLEASE READ

- ***DOWNGRADING TO 4.7 OR LOWER AFTER INSTALLING 4.81 OR HIGHER REQUIRES ASSISTANCE FROM RETAIL SOLUTIONS (page 2)***
- ***IF USING FSD, CALL RETAIL SOLUTIONS TECH SUPPORT BEFORE UPGRADE (page 9)***
- ***DO NOT CLEAN OUT E2 BEFORE OR AFTER UPGRADE TO 2.81 OR ABOVE (page 9)***
- ***IF YOU ARE A USER OF ULTRASITE32 IN NETWORK MODE, REFER TO TECHNICAL BULLETIN 026-2503, NETWORK MODE INSTALLATION FOR UltraSite32 4.81 AND ABOVE.***

Important Changes made since E2 2.81 and UltraSite32 4.81

- UltraSite32 is not compatible with Windows Server 2000 (***page 3***)
- New Setpoint Export Format (.002) For E2 2.81 Setpoint File (***page 9***)
- Board Naming and Data Pointer Changes (***page 10)***
- Board/Point Pointers In UltraSite32 Display in a Different Format (E2 2.81 and above only) (***page 10)***
- View E1/E2 Setpoints Operation (***page 11****)*
- Updated Message Boxes (***page 11****)*
- Changes to Advisory Duplication Filtering for E2 Alarm Annunciators using UltraSite32 (***page 12)***
- Network Services Screen Changed in UltraSite32 (***page 13****)*
- Improved I/O Boards and Controllers Screen (***page 13****)*
- In Offline Programming, I/O Board and Controllers Screen Shows All Devices, Even Invalid Ones (***page 13****)*

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- Graphical Status Screen Editing File Format Change - MON is now MON2 (***page 14***)
- Protection Against Duplicate Application Naming (***page 14***)

This document is provided as a supplement to the newest revision of the ***026-1610, E2 User's Manual, Revision 14***. For more information about E2 and the changes made to E2 in the latest version, obtain and read a copy of the E2 User's Manual.

UltraSite32 4.81 - Installation and Upgrade

Installing UltraSite32 on Your Local Machine (Windows 2000/XP/Vista/Windows 7)

Significant changes have been made to the database used by UltraSite32 beginning in version 4.81. As a result, it is critically important that you follow the instructions below when installing UltraSite32, especially if you are upgrading a version of UltraSite32 before version 4.81.

WARNING!

Installing or upgrading a PC to version 4.81 or above will make it impossible for you to downgrade to a version of UltraSite32 that is version 4.70 or lower. Contact Technical Support if your PC must be downgraded.

NOTE FOR USERS OF ULTRASITE32 NETWORK INSTALLATION

Numerous changes have been made to the network installation process. If you are a user of UltraSite32 Refer to ***Technical Bulletin 026-2503, Network Mode Installation for UltraSite32 4.81 and above.***

NOTICE

UltraSite32 4.81 or above is not supported on Windows Server 2000. During install on a Windows Server 2000 PC, you will receive the error message as shown below, and installation will be cancelled.

This incompatibility applies ONLY to Windows Server 2000 - UltraSite32 is still compatible with the Windows 2000 operating system.

Step 1: Plan on upgrading ALL PCs before upgrading E2s

All personnel that will communicate with E2s version 2.81 or above must be upgraded to UltraSite32 version 4.81 or above before any E2s can be upgraded. This includes:

- The PC that will be used to perform the E2 firmware upgrade
- Any on-site PCs (touchscreens, etc.) running floor plan views for E2 sites
- All service technician PCs
- Any PCs used in dispatch or monitoring centers that receive alarm dialouts from E2s

Identify all PCs that must be upgraded before beginning the installation process, and plan on upgrading them all at the same time.

Step 2: When upgrading an database from a pre-4.81 version of UltraSite32, reduce the database size below 800 MB

The maximum database size for an UltraSite32 database file (ultra32.mdb) is, and has always been, 1 GB. If you are upgrading to UltraSite32 4.81 or above and will be using a database from a previous version of UltraSite32, you must check the file size of the ultra32.mdb file and verify it is below 800 MB. During upgrade, UltraSite32 will add a large amount of data to your database, which will result in the file size exceeding 1GB. If this occurs, your database may be rendered unrecoverable. You must reduce the file size BEFORE upgrading the database.

There are several ways to reduce the file size of **ultra32.mdb**:

- Delete sites and directories that you are not using
- Purge unnecessary log data (using System > Log Purge).
- Compact the database (using System > System Options -- check the "Enable Auto Compaction" check box and click "Set Compaction Times" to schedule a data compaction time)

Step 3: If upgrading, export any required controller backups and log data

During a database upgrade, UltraSite32 may encounter site data that cannot be upgraded. As a result of this, it may be required to erase this data during the upgrade process (see ***Activities that Occur During Database Upgrade: on page 5***).

If you have controller backups or logs in your UltraSite32 database that you wish to protect, export them and save them to a local directory before upgrade.

Setpoint backups may be exported by right-clicking the unit in the Tree View and selecting "Export Setpoints File." The .001 file created from this export may be re-imported after upgrade by right-clicking the unit in the Tree View and selecting "Import Setpoints File."

Logs may be saved by right-clicking the log name in the Tree View and selecting "Export Log Data..." This exports log data in a comma-delimited text file. You will not be able to re-import the log data after upgrade.

Step 4: Begin installation and follow the prompts

Depending on the method in which UltraSite32 was delivered, begin installation by inserting the CD, or if delivered or downloaded as a file, double-click the file-name in Windows Explorer to open the package and start the installer.

If a version of UltraSite32 is already on the PC, it will uninstall before progressing. The uninstall only removes program files - it does not erase the database or any user configuration data. When the uninstall is complete, the installer will start again, and will prompt for program directory location, copy the required files to your PC, and (depending on your operating system) restart the PC.

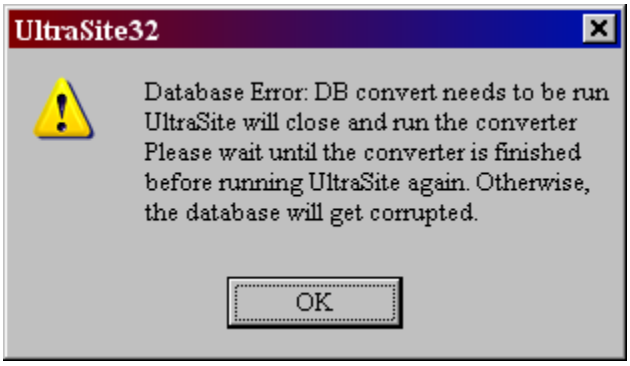
Unlike previous versions, the installer will not upgrade the database after restart. Database upgrade occurs the first time you start UltraSite32 after installation (see ***Step 5***).

If you are installing UltraSite32 on a PC for the first time, you may begin using the program immediately. The remaining steps below are required for users who are upgrading a version of UltraSite32 before version 4.81.

Step 5: Start UltraSite32 and Upgrade Database

Open UltraSite32. If you installed over a previous version of UltraSite32, the database conversion process will begin the first time you start UltraSite32 after the installation process is complete.

When running UltraSite32 for the first time after upgrading, you will receive the dialog box shown below. Click OK, and allow the database conversion to complete. When finished, **do not start UltraSite32 again. Proceed to *Step 6*.**



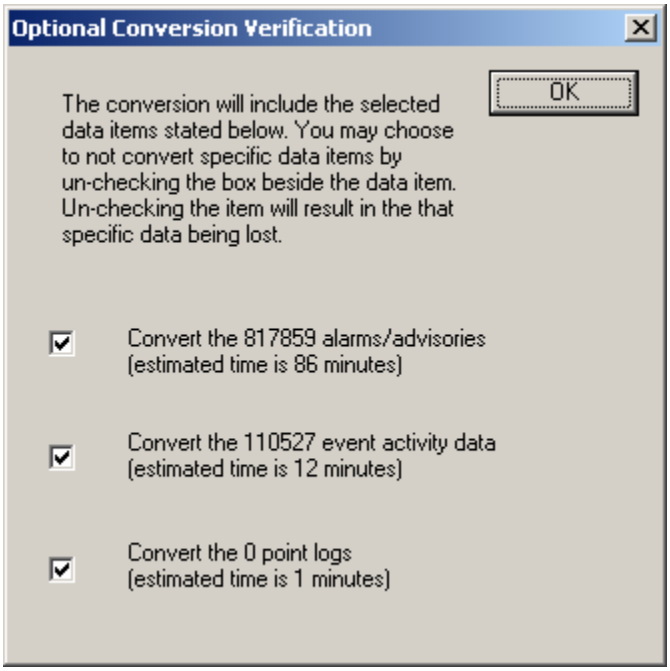
Activities that Occur During Database Upgrade:

Select Optional Data Conversion (UltraSite32 4.82 and above)

Because large databases can take a very long time to upgrade, UltraSite32 version 4.82 and above will give you the option to skip conversion of certain types of stored data:

- **Alarms/advisories** - all stored alarm logs for all sites in your database.
- **Event activity data** - logs of UltraSite32 activity such as logins/logouts, autopolling starts, etc.
- **Point logs** - all stored log data for all sites in your database.

The Optional Conversion Verification dialog box shows the amount of time it will take to convert for each data type. If you wish to skip conversion for a data type, remove the check from the checkbox next to it. When you click OK, the database conversion will ignore data for all the unchecked data types.



Insertion of E2 Templates

During the database conversion process, UltraSite32 will also write the templates for all release versions of E2 into the database (up to the most current release version of E2). This will increase the size of the ultra32.mdb file, but will enable offline programming for all E2 versions without need for a site synchronization to download templates.

Deletion of Corrupted/Invalid Site Data

Also during the database conversion process, UltraSite32 will remove all corrupted and invalid site data from the database. This may result in partial loss of site data, but must be done to enable the database to be usable by UltraSite32. Corrupted and invalid site data removed during this process will be logged in a special text file (see UltraSite32 Post-Installation Instructions) which may be reviewed after installation.

What To Do If The UltraSite32 Database Cannot Be Upgraded

In some cases, a database from previous versions of UltraSite32 before version 4.81 will not be upgradable. This is due to severe corruption in the database that cannot be processed by UltraSite32's new database engine.

To prevent total loss of database information, UltraSite32 will create an export file of the database's Tree View structure, complete with site communications information. If a database cannot be upgraded, the installer will ask you if you wish to use the tree structure exported from your database. If you select "Import," UltraSite32 will automatically import

the tree into a blank ultra32.mdb file, and when UltraSite32 starts for the first time, you will start with the directory & site structure from the database, but without any unit information such as application types, backups, and logs. You will need to contact each site and perform a site synchronization to restore controller lists and unit inventory.

Step 6: Examine Upgrade Log File (ultra32_AuditFile.txt) and Move Database Copies

As a safeguard against possible database upgrade errors (such as may be caused by attempting to upgrade an ultra32.mdb file with a file size above 800MB), during the database conversion process, UltraSite32 will create several backups and log files, which it will save to the UltraSite32 data directory (C:\Ultra32):

- **ultra32_pre{date_time}.mdb** - This file is a backup copy of the existing ultra32.mdb file before database conversion occurred.
- **ultra32_post{date_time}.mdb** - This file is a copy of the converted database, created immediately after the database conversion is completed.
- **ultra32_AuditFile.txt** - This file is only created if the database being converted is a version below version 4.8. This file logs all changes made to the database during the upgrade process, and also logs any deletions (if any) of corrupted data. In a 100% successful upgrade that involves no corrupted data, this file will simply show changes to the database schema (under such headings as Delete Relations, Add New Columns, etc.). If corrupted data was removed, it will be listed in this text file. ***Note: To view the contents of this file, use Wordpad or MS Word.***
- **ultra32_UnitInfo.xml** - This file is only created if the database being converted is a version below version 4.8. It is an export, in XML format, of the directory and site tree structure for the database being upgraded. This file can be used to import into a blank ultra32.mdb file, creating a new database with the same directories and sites (including site communication settings). This is the file UltraSite32 will attempt to use if it encounters unrecoverable corrupted data (see ***What To Do If The UltraSite32 Database Cannot Be Upgraded on page 6***).

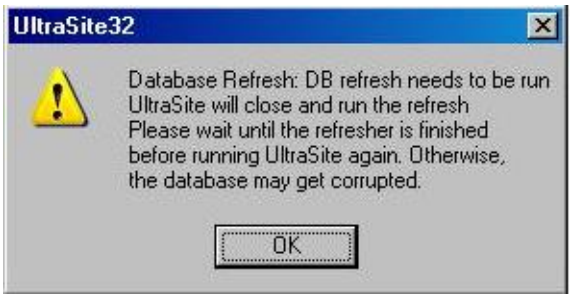
Before starting up UltraSite32 again, follow the instructions below:

1. Create a temporary directory somewhere on the PC's hard drive that is NOT a subdirectory of the UltraSite32 program folder (such as C:/US32temporary).
2. Copy the files **ultra32_pre{date_time}.mdb, ultra32_post{date_time}.mdb, ultra32_AuditFile.txt, and ultra32_UnitInfo.xml** into the temporary directory.
3. If using any customized .MON files (such as custom floor plan views), copy the.MON files into the temporary directory.

These files may be used to revert to a previous version of UltraSite32 if necessary.

Step 7: Run DBRefresh Utility

DBRefresh is a utility that is run automatically after installation or upgrade and can also be run standalone and will fix database problems caused by corrupted templates and/or rules.



The DBRefresh utility refreshes your ultra32.mdb database with updated templates and rules for any templates already in your database (it will not add templates or rules) and generates a text-file report detailing what was done:

- **Replaced** – Indicates the data for the specified template/rule was replaced.
- **Original with good XML** – Indicates that no update was made for this ID.
- **Problem** – Indicates that there is no update available and the data is still corrupted.
- **Repaired** – Indicates the data for the specified template/rule could not replaced, but was able to be repaired.

The report filename is in the following format:
Filename: ultra32_BaselineAndDsc_AuditFileYYYY_MM_DD_HHMMSS.txt

Step 8: If Necessary, Upgrade Custom .MON Screens

The format used for custom screens has changed as a result of UltraSite32 4.81. The new file format is called “MON2.” UltraSite32 will automatically upgrade all .MON screens to .MON2 format when they are first opened. Also, if a custom .MON screen includes links to other custom .MON screens, UltraSite32 will attempt to follow those links and upgrade the MON screens to which they are linked. You will need to be connected to the site whose .MON screens you are opening so that the conversion process can properly follow each link. Also, all E2s must be on-line and communicating - if any E2s are offline, UltraSite32 will not be able to follow links.

More information about .MON2 files and rules you must follow when editing custom screens is available in ***Graphical Status Screen Editing File Format Change - MON is now MON2 on page 14***.

E2 Installation and Upgrade Instructions

UltraSite32 4.81 or above must be used to perform firmware upgrades for all E2s you plan to upgrade to version 2.81 or above. If you have not yet installed UltraSite32 4.81 or above on the PC you will use to upgrade the E2 firmware, follow the instructions in the above section to install the latest version of UltraSite32.

The firmware upgrade process is the same for versions 2.81 and above as it is for previous E2 versions. Follow the instructions in ***Technical Bulletin 026-4306, Updating E2 Controller Firmware Using UltraSite32.***

PRE-INSTALLATION NOTES

Do NOT clean out E2 Before or After Upgrade
The E2 must be allowed to upgrade the existing pre-2.81 setpoints. Do not clean out the unit before upgrading. Upgrade the E2 with the setpoints loaded. Upon application of the upgrade, the E2 will automatically upgrade the setpoints.

FSD Pointers Must Be Re-Entered After Upgrade
If you are upgrading a pre-2.81 E2 site that uses a Facility Status Display (FSD), and the FSD contains temperature status pointers that point to values outside of the FSD's host E2 unit (in other words, box-to-box pointers), these pointers will be deleted during upgrade. You must manually re-program these pointers from the E2 front panel. *This will only occur when upgrading from a version before 2.81 to a version that is 2.81 or later.*

Software Changes Introduced in E2 2.81 and UltraSite32 4.81

This section of the document highlights several important differences between E2 2.81 / UltraSite32 4.81 and above and previous versions.

New Setpoint Export Format (.002) For E2 2.81 Setpoint Files

UltraSite32 now uses a new file format for import and export of E2 files versions 2.81 or greater. This new format has a file extension ".002" to distinguish it from previous setpoint file versions (.000 and.001).

UltraSite32 can load .000 and .001 files and convert these for use in E2 2.81 and above controller versions. However, UltraSite32 4.81 and above may only export using the .002 format, and .002 files cannot be converted to .001 or .000 files for use by previous versions of UltraSite32.

Network Services Device Naming and Data Pointer Changes

In versions of E2 before 2.81, every peripheral device that networks with an E2 had two different names: a "board name" which is entered in Network Services to name the device, and an "application name" that is given to the application that handles the interface between the device and other E2 applications.

In 2.81, the "application name" and the "board name" are now the same name. This name will be used in place of the "Application" name in all input and output pointers.

The "Controller:Application:Property" format of input and output pointers in E2 has undergone two significant changes. First, the format is now displayed as "AreaController:Application:Property." Second, the first value of this pointer "AreaController" must always be the name of the parent E2 of the application.

In older versions of E2, when pointing to inputs or outputs on unit control devices, the "Controller" field had to be filled with the name of the unit controller as shown in Network Services. In 2.81 and all upcoming revisions, to configure unit controller pointers, "AreaController" must be filled with the name of the unit controller's parent E2, and "Application" with the name of the unit controller.

Example: In E2 version 2.7, a Control Link CD device connected to an E2 might have a "board name" such as **.CD.01.01** *and an "application name" such as* **CL CD001**. *Setting up a pointer to the* DISCHARGE AIR *output of the Control Link CD would require the Controller:Application:Output definition to appear as follows:*

.CD.01.01 : CL CD001 : DISCHARGE AIR

In E2 versions 2.81 and higher, there is not a separate application name for unit controllers - the "board name" is also the "application name." Furthermore, pointers to unit controllers require you to enter the "board name" in the Application field of the pointer definition. So in E2 2.81, the example above would be set up as follows:

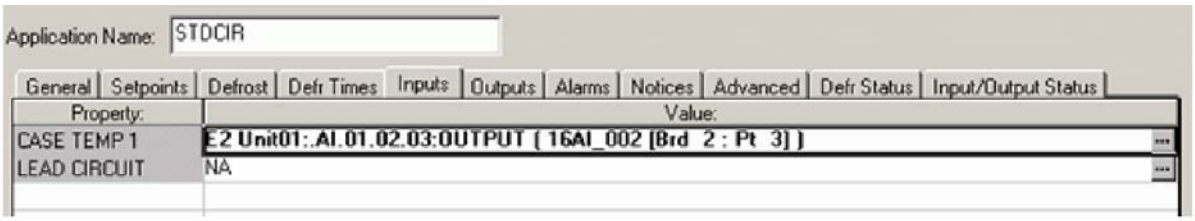
THIS.01.1 : .CD.01.01 : DISCHARGE AIR

Where **THIS.01.1** *is the unit name of the E2 to which the Control Link CD is networked.*

Board/Point Pointers In UltraSite32 Display in a Different Format (E2 2.81 and above only)

Pointers configured to "board/point" addresses such as MultiFlex inputs or relay outputs are configured in the same way they have always been configured. For E2 controllers version 2.81 or above, UltraSite32 4.81 has a new feature; once a board/point pointer has been configured with its board and point address, it is now always displayed in Edit Application

screens as its full “AreaController:Application:Property” address, with its “Board:Point” address shown next to it for reference. The Application shown will be the default name of the Physical AI, Physical AO, Physical DI, or Physical DO application that represents the board point, and the Property will be either INPUT or OUTPUT.



The example shown above shows a case temperature input that has been configured to 16AI Board #2, Point #3. This input was configured simply by entering the board number as 2 and the point number as 3. This pointer is displayed here in “AreaController : Application: Property” format as E2 Unit01 (the E2 name) : .AI.01.02.03 (a Physical AI application for unit #1, board #2, point #3) : OUTPUT (the value of the sensor connected to board 2, point 3, in degrees).

View E1/E2 Setpoints Operation

NOTE

The “View E1/E2 Setpoints” does not work with setpoint files from non-English versions of E1 and E2.

Previously, the command “File > View E1/E2 Setpoints” allowed a basic (although not fully functional) way to view the contents of an exported setpoints file in UltraSite32. In version 4.81, this feature is now fully functional. View E1/E2 Setpoints may be used to look at any setpoints file (.000, .001, or .002 formats) and see important data about the setpoints such as:

- Model type and version.
- An application summary with counts.
- Whether the templates required to use this setpoint file exist in the current database (if not, the templates for the version shown must be loaded by performing a site synchronization with an E2 with that version installed).

Updated Message Boxes

In several message boxes that announce problems or errors, option buttons such as “Abort, Retry, Ignore”are given without explanations of the effect they will have when chosen. These

message boxes have been updated with more detailed descriptions. The example below shows the message box shown when an E2 unit fails to respond during site synchronization.

Changes to Advisory Duplication Filtering for E2 Alarm Annunciators using UltraSite32

In previous versions of UltraSite32, the site advisory view (used to collect and view advisories from all E2s that belong to a single site) had special code written to keep a "Controller Absent" alarm from appearing multiple times in the advisory view. Without this code, whenever an E2 goes offline, every E2 that is a part of the site would generate a "Controller Absent" alarm announcing the E2 was offline, and every one of those alarms would appear in UltraSite32's site advisory view.

In UltraSite32 4.81, the site advisory view no longer automatically filters out multiple "Controller Absent" alarms. In its place, a new filtering option has been placed in the Alarm Options dialog box, called "Allow Duplicates To Be Shown."

When "Allow Duplicates To Be Shown" is checked, all "Controller Absent" alarms generated from controller versions before E2 version 2.81 will be displayed in the UltraSite32 site advisory view, regardless of whether or not multiple Controller Absent alarms are announcing the same offline event.

When "Allow Duplicates To Be Shown" is unchecked, site advisory view **will never show any "Controller Absent" alarms from controller versions before E2 version 2.81 referring to offline E2 units**. Every "Controller Absent" alarm referring to an E2 will be filtered out, meaning you will never be able to use the UltraSite32 advisory view to detect an offline E2 unit.

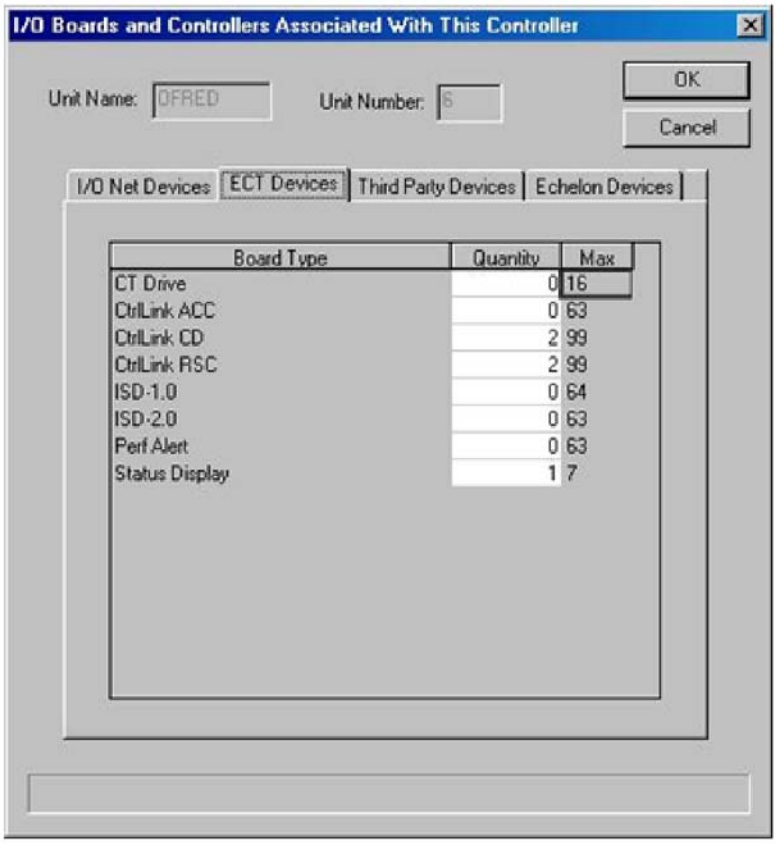
The previous feature of filtering out "all but one" of the duplicate E2 "Controller Absent" alarms has been removed from UltraSite32 4.81 and may not be selected. For controller versions before E2 version 2.81, users are now limited to either showing all "Controller Absent" alarms, regardless of how many times they may be duplicated in the advisory view, or not showing any "Controller Absent" alarms for E2s for any reason.

Controller versions 2.81 and above do not use the "Allow Duplicates To Be Shown" filter setting; when an E2 offline alarm occurs, it will always show only once in the site advisory view, regardless of this filter setting.

Network Services Screen Changed in UltraSite32

For E2 units, the "Device Setup > Network/Board Setup" screen has been reformatted so it contains all the same information that is currently on the E2 Network Summary screen for E2 2.81. For more details about changes to the E2's Network Summary screen, refer to ***026-1610, E2 User's Guide, Revision 10***.

Improved I/O Boards and Controllers Screen



The "I/O Boards and Controllers Associated With This Controller" dialog box has been improved for E2 2.81. This dialog box now separates device types by tabs, and dynamically displays device types and maximum numbers of device types based on what is licensed in the E2.

In Offline Programming, I/O Board and Controllers Screen Shows All Devices, Even Invalid Ones

When using offline programming to configure a site, due to the changes made to how the I/O Boards and Controllers dialog box works (see above), the dialog box will show all devices that can connect to the E2, even devices that are not allowed for the specified model type. In

other words, if you are using offline programming to program a BX-400, the I/O Boards and Controllers screen will allow you to add such devices as ISD 2.0 or Control Link RSC, even though the BX is not allowed to communicate with these devices.

If devices that are not allowed for the unit model type are added in Offline Programming, it will not restore those devices to the E2 during a Restore operation.

Note that offline programming for 16-bit offline programming modules (REFLECS) is not supported if using a 64-bit machine. Microsoft no longer supports 16-bit Windows applications on Windows 7 or Vista 64.

Graphical Status Screen Editing File Format Change - MON is now MON2

Customized graphical status screens have undergone a change in the "MON" file format. UltraSite32 4.81 uses a file format called "MON2" when displaying custom screens for E2s whose versions are 2.81 or above. The MON2 file format is not compatible with versions of UltraSite32 before version 4.81 or E2 versions before 2.81.
After upgrading all E2s to 2.81 or above, **connect to the site with UltraSite32 4.81 and open each custom screen for the site and all units**. When the custom screen is first opened, UltraSite32 will open the existing MON file and automatically convert the file to a MON2 file. When this conversion occurs, the MON2 file will be the file UltraSite32 opens every time the custom screen is viewed. After conversion, you may need to close and re-open the .MON file in order to make it work properly.

When all custom screens are converted, copy all the newly created MON2 files to a separate directory for archival purposes. The MON2 files may also be distributed to other UltraSite32 4.81 users for use when connecting to this site.

If an E2 2.81 or above site must be downgraded to a version before version 2.81, the converted MON2 file will not work with the downgraded E2s. Each custom screen must be reconfigured to point to the old MON file by selecting the "Edit Custom Screens" menu option and changing the file name so that the file name points to the original MON file instead of the MON2 file. The MON to MON2 conversion process does not delete the old MON file after conversion, so the old MON file should still be available in your program directory.

UltraSite32 4.81 can not convert a MON2 file to a MON file. This means that if a custom screen must be edited for use in a version of UltraSite32 before version 4.81 and an E2 version before 2.81, it must be edited using a version of UltraSite32 before version 4.81, and saved as a MON file.

Protection Against Duplicate Application Naming

Because no two applications in an E2 can share the same application name, special protections have been added in E2 to prevent this from occurring. In E2 2.81, if an application is

given the same name as an application already in the E2, during the upgrade an underscore "_" will be appended to the end of the newly named application so that it will be unique. A Service Log entry will also be written to log the name change.