

Service Note

Universal Station on a Computer Platform



Reduce Costs and Station Failures with Honeywell's Universal Station on a Computer Platform (PCUS)

What happens when a Universal Station experiences component failures? Does the aspect of downtime cause concern in your operation? Is the support profile for your Universal Stations causing you to rethink your strategy for these stations? The PCUS offers a way to address these concerns.

The Universal Station (or US node) was introduced in 1983 and has served its purpose well over the past three decades. Today, obsolescence is impacting various US components, such as EPDG2, EPDG I/O, zip drives, and roving engineering keyboards.

Failure of these obsolete components can result in lengthy downtime for the station affected, possibly causing ripple effects throughout the system. Support strategy is impacted since component obsolescence has resulted in a transition to contract support.

Consider the possibility of bringing the Universal Station into a contemporary platform environment. Honeywell's Universal Station on a Computer Platform (PCUS), is such a solution, offering a cost-effective, contemporary solution to Universal Station obsolescence issues.

At its core, the PCUS is an upgrade that involves a change of hardware platform, removing many of the support concerns associated with the Universal Station. As an added benefit, the same Native Window capabilities that executed on the previous hardware are supported on the new platform.

Benefits

The PCUS provides both protection against component obsolescence, modern options for support strategy, and positions installed US nodes for a longer lifecycle.

Once implemented, the PCUS offers:

- Native Window functionality, using the same graphics and operator keyboard functions as the US, eliminating the need for additional operator training to perform their day to day work running the plant
- Potential for better long-term support as a result of moving away from legacy components (i.e., EPDG boards, zip drives)
- Ability to use current technology peripherals (printers, monitors, DVD drives, etc.)
- Emulated disc functionality that allows back ups to PC-based files
- Reduced cost of spare parts in the event of failures (as much as 50% when compared with current Universal Station replacement parts pricing)
- Lower exposure to hardware failure and downtime due to aging equipment
- Position for future migration with limited hardware changes



PCUS is intended for stand alone use on the LCN. However, it may be connected to other networks, since the PCUS is on a Windows® computer-based platform. Note that connecting to another network requires additional considerations, such as network security, that would not be present as a stand alone node.

Universal Station Upgrades

The PCUS platform is offered utilizing the current supplied HP Z620-based RAID1 Honeywell workstation platform.

The dual connected US node in a single computer platform is only available as a US node through the K&E offerings, providing upgrades from an EPDG board set to a computer- based platform US node.

While this workstation platform is also qualified and available for use as a full Experion Station—TPS (ES-T), the dual connected configuration is not supported for any other node type except the US node. Any use of Global User Station (GUS) with HMI graphics will require upgrading to an ES-T, which will allow only a single instance of Native Window. This upgrade provides hardware and operating system software only, as there are no US specific licenses introduced.

Pre-Requisites

Since the introduction of the US node in 1983, different peripherals have been connected to it. With the move to a computer-based platform, the most common configurations will continue to be supported. However, certain considerations must be taken into account when making the change, some of which may require additional hardware for a complete solution. Peripherals that are not supported include:

- Curved screen CRTs and touchscreens
- IKB with Summagraphics trackball (PS/2 version only supported)
- OEP without 51401952-TAB electronics interface

Any configuration with these items, and possibly other legacy connections to the EPDG board set, will require replacement by current offerings that will interface with the computer platform through supplied adapters.

Dual Connected US node

Many sites have configurations in which two US nodes (two physical EPDG board sets) are installed in a console with two screens, providing two instances of Native Window, utilizing a single keyboard interface. To accommodate this type of configuration, where mounting two computers in a single console would not be an option, Honeywell offers a single computer platform with two LCNP4E boards. This approach allows the site to maintain the two instances of Native Window in a single console and replace both board sets. The resulting configuration will be viewed as two US nodes to the system and counted as two US nodes for SESP contract calculations.

Fixed Keyboard with Trackball for Classic Consoles

The Dell-based workstation will provide a keyboard and mouse that may be used to manage the Windows environment that is introduced to the US node. The same is true of the Full Travel keyboard section of the IKB. However, if running with an OEP in Classic console, consider adding another kit when ordering. Honeywell offers a keyboard with trackball, deliverable under model TP-ZCFGK2. This kit provides the ability to maintain the Classic console form, while adding the keyboard and trackball as a permanent part of the furniture, providing devices to manage the Windows environment.

K&E Model Numbers

| Model Number | Description |
|--------------|---|
| TP-ZUSNW1 | US board set to US on a computer platform upgrade (PCUS) |
| TP-ZUSNW2 | US board set to US on a computer platform with dual LCN connection upgrade (PCUS) |
| TP-ZCFGK2 | Fixed keyboard and trackball for Classic console upgrade |

Standard Features (as delivered in the kits)

- Current HP Z620-based RAID1 Honeywell workstation
- LCN connection (LCNP4E, MAU assembly, etc.)
- IKB/OEP adapter
- Display port to VGA adapters
- USB to serial RS232 adapter
- Monitor cables
- Keyboard cables
- Annunciator cable

Universal Station Native Window media

Workstation Platform Overview

The workstation is the computer platform offering for all LCN connected work stations supplied by Honeywell for the current Experion and TPS software releases.

Hence, the workstation provides a hardware platform for both current Universal Station needs and positions the hardware for future migration (when the decision is made to utilize the additional functionality available beyond Native Window in the Experion systems).

Return Material Requirements

Displaced material must be returned to Honeywell. For the US on a computer kits, the following must be returned:

- K2/K4 processor board
- PDG/EPDG/EPDG2 main board
- PDG/EPDG I/O board

Cardfile—5 slot, ten slot, dual node (unless being used by another node in DNCF configuration)

Qualified Releases

Honeywell has tested and qualified the stations on the following TPN releases:

- R535.1 or higher in the R5xx series
- R652.1 or higher in the R6xx series

Mounting Considerations

These kits do not provide the hardware to mount in existing consoles or cabinets. Additional mounting hardware is required and will depend on where the computer platform will be installed.

Monitors

Customers who are updating the computer platform may also be interested in refreshing monitors with Flat Panel Displays. The market is moving away from analog video and DVI connections are supported. The appropriate monitor upgrade kit depends on console configuration. Please ask your Honeywell account manager or service technician for further information.

Summary

Honeywell has a long tradition for evolving systems and bringing installed equipment forward to more contemporary platforms. The PCUS is an example of the commitment to cost-effective evolution.

For More Information

Learn more about how Honeywell's Universal Station upgrades and other ways to evolve your system, visit our website www.honeywellprocess.com or contact your Honeywell account manager.

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