Cordex HP Controller Software v5.21

Alpha Technologies is pleased to announce the release of our newest software version for the Cordex HP Controller, Version 5.21: "CordexHP.APP.v5.21_0350091-123_AF.azp".

New Features and Improvements:

- Reduced the rate of the FLASH Refresh function to one month and Get Bit Errors function to one day for improved FLASH lifetime and reduced event log usage.

Known Issues

Refer to the user manual for Known Issues related to CXCHP functionality.

Upgrading and Downgrading

*Note: The addition of the Battery subystem in v5.20 will have an impact on how data is presented through the interfaces, such as Web, SNMP and MODBUS. A transition period of a full release period (aproximately 3 months) will be provided before redundant values are removed from the interfaces. Read below for more detail.

- When upgrading to v5.20 the controller will have the ability to create multiple battery strings. This feature required some changes to the configuration that impact backwards compatibility. On upgrade the controller will:
    - Create a Battery Subsystem and a single battery string. The battery subsystem has some alarms that are now redundant with the DC system. These alarms are:
        - Battery Test,
        - Battery Runtime Low,
        - Battery Health Low,
        - Temp Comp Measurement Fail,
        - Temp Comp Voltage Warning,
        - Battery On Discharge. These alarms on the battery subsystem are disabled, but the same alarms on the DC system remain configured as is to maintain functionality.
    - Copy battery configuration to the new battery subsystem and battery string
    - Continue to use the Midpoint #1 and #2 Unbalanced alarms as they are to maintain functionality. The configurations for midpoint #1 and #2 are at the battery subsystem level, but since a Midpoint Unbalanced alarm is really a battery string

function, it is recommended to use the midpoint voltage and alarm configuration on the battery strings instead.

- Leave battery temperature sensors working as they are to maintain functionality. It is also possible to add new battery temperature sensors at the battery string level. When there are multiple strings each with temperature sensors, it is recommended to create the temperature sensors on the battery string.

When downgrading to a version before v5.20, the battery string may require some re-configuration to work properly. The only exception to this is if there had been no changes made to the configuration of the new battery subsystem or battery strings while v5.20 (or later) was running. If downgrading to before v5.20, be sure to review the battery string configuration to ensure it is correct; pay special attention to the battery voltage, battery current, battery temperature, battery fuse/breaker and battery string alarms configurations.

Items of special concern when upgrading are listed here:

- **If running a version previous to v5.00, it is necessary to first install v4.90, then upgrade to v5.00 (or later) normally. This is a one-time step that must be performed.** We needed to move the application software to a larger disk partition. To identify installs that need the larger disk partition, we created a new install package identified by the .azp extension. Version 4.90 uses the .zip install package so you can upgrade to version 4.90 from any CXC-HP release past or future. Version 4.90 and all future versions of the CXC-HP will install software built using .zip and the new .azp package.

- **Downgrading from v5.00 and later to 4.20 or previous is allowed. However it is important to be aware of the risks below.**
- All Datalog configuration and stored data for the preliminary Datalog feature released in v3.10 will be lost. Be sure export your data before upgrading.
- If upgrading from 2.00, the battery temperature source in the first row of the battery temperatures table cannot be edited until the Controller has been rebooted a second time. Alternatively, the value can be removed and added again without needing a reboot.
- When you log in after upgrading from 2.10 (or previous) to 3.10 you may see the error message "The user name or password is not correct or this user has been denied access." Improvements to user authentication security require the browser to be refreshed or closed and reopened in order to log in the first time after upgrade.
- If you are using SNMPv3 and have upgrade from 2.10 (or previous) to 3.10, it is required to change admin password due to improvements to user authentication security. SNMPv3 uses the "admin" user credentials for its authentication and encryption and only get applied upon a change to the admin password.

- Downgrading
  - Downgrading the CXC HP software should be a rare occurrence. When software is downgraded, any configuration settings for features that don't exist in earlier versions are discarded. Because some configurations are discarded, the controller may require manual intervention to ensure every setting is correct. Restoring a backup file that was made with the earlier version of software is recommended instead.
  - In versions 2.X and 3.X of the software, we found two issues. The first is that when the software encountered an inverter or distribution system that it didn't understand, the software. discarded more data than expected. The second is that when a custom data variable had data discarded, the controller would crash and not recover.
  - If a downgrade from v4.12 software becomes a necessity, you can avoid these problems by deleting all inverter systems, distribution systems and all custom data before performing the downgrade.

Upgrade procedures using the Web Browser:

1. Login to the Cordex HP website. Ensure the controller is running 4.90 or later. If not, install v4.90 first.
2. Navigate to Controller -> Advanced Functions -> Controller Software Upgrade
3. Click the button which says, “Upload New Controller Software and Reboot”
4. Click the button which says, “Select File”
5. Select the new CXCHP application .zip file. Do not unzip the file.
6. Click the “Upload” button.
7. The Controller will load the new software and then restart itself immediately.

Upgrade procedures using the LCD:

1. Login to the Cordex HP website. Ensure the controller is running 4.90 or later. If not, install v4.90 first.
2. Copy the new .azp file to a USB memory stick, and plug it into the Cordex HP.
3. Login via the Cordex HP LCD interface.
4. Navigate to Menu -> Controller -> Advanced Functions -> Controller Software Upgrade
5. Click the blue “Upload New Controller Software and Reboot” line, and then the arrow on that line.
6. Select the upgrade file previously copied to the USB stick
7. On the next screen, click “Execute”
8. The Controller will load the new software and then restart itself immediately.

You have now successfully upgraded the Cordex HP. Thank you for choosing Alpha Technologies.