1 Purpose

These release notes detail new features and modifications, functional changes, and bug fixes made to the Plunger Analysis System (PAS) software (part number 2106006-001).

2 Notice

PAS 2.3.2.9 and previous versions must be uninstalled before installing version 2.3.3.10 or later. License files need to be reissued and activated again.

For additional information on installation and activation see the Plunger Analysis System Administration Guide (2105844MNAA).

3 Product overview

PAS is an analysis tool created to optimize the use of the Plunger System application available in ABB Totalflow XSeries devices (8-bit and 32-bit units). PAS analyzes plunger lift cycles using the data generated through five main variables: Casing, Tubing, Line, Flow rate, and Arrival Time. PAS uses trend files and calculates set points based on averages and other statistical data that is helpful for the successful operation of a plunger system. PAS then assists the user in understanding not only how the plunger is operating, but gives recommendation on how to improve its performance.

4 Release features

Features or enhancements for each version can be reviewed in this section.

4.1 Version 2.3.4.0

The following enhancements are included:

- Two options are provided for the selection of the Foss and Gaul calculations:
  - Calculations implemented by PAS 2.0
  - Calculations implemented in the legacy PAS 1.0 product

- The Tubing-Line pressure recommendation is dependent on the number of cycles contained in the sample:
  - Data average when samples contain few cycles
  - Optimal cycle data when samples contain several cycles

- The Coleman Turner flow algorithm has been modified to identify cycles with normal arrivals:
  - If the normal arrival number is equal or greater than 7, then the system does average of normal cycles only
  - If normal cycles are less than 7, the system averages the Turner flow for all the cycles
4.2 **Version alpha 2.3.3.10**
No enhancements or new features are included in this version.

4.3 **Version alpha 2.3.2.9**
No enhancements or new features are included in this version.

4.4 **Version alpha 2.3.2.8**
No enhancements or new features are included in this version.

4.5 **Version alpha 2.2.1.7**
No enhancements or new features are included in this version.

4.6 **Version 2.1.1.6**
The following enhancements are included:
- Support for multi user licensing

4.7 **Version 2.0.1.5**
The following enhancements are included:
- Support for switching between online and offline license tracking
- Support for the user to view license status

4.8 **Version Alpha 2.0.1.3**
No enhancements or new features are included in this version.

4.9 **Version Alpha 2.0.0.2**
The following enhancements are included:
- Support for Single user licensing package
- Support for activating the license offline and online
- Support for tracking the number of usages offline and online for optimization and fault detection.

5 **Known issues and workarounds**
Known issues and workarounds for PAS are described in the following sections.
5.1 **PAS updates from alpha versions require license reissue**

License files used for PAS 2.3.2.9 and earlier (alpha versions) do not automatically apply to PAS 2.3.3.10 or later. To reissue licenses:

1. Uninstall PAS 2.3.2.9 or earlier (alpha versions) before installing version 2.3.3.10 or later.
2. Re-issue and activate license files.
3. For multi user installation usage tracking should be changed to online tracking through the PAS license user interface.

5.2 **Login denial**

The improper logout of a session, denies any further login, even though the session is eligible for access based on the concurrent user license policy.

Perform one of the following to restore access:

1. In single-user scenarios restart IIS.
2. In multi-user scenarios, with administrative login:
   a) Select Administrator > User Management > Current Sessions.
   b) Close the sessions that are not applicable.
3. Wait for 20 minutes for the session to expire and retry login.

5.3 **Insufficient IIS features enabled on Windows Server 2012 R2**

Enabling IIS during PAS installation may not enable all the required features for PAS to work properly.

To ensure all required features are enabled:

1. On your system's task bar, select Start and Control Panel.
2. Select Program and Features.
3. On the navigation pane, select Turn Windows Features on or off (Fig. 1).

![Fig. 1: Programs and features](image-url)
4. When the Add Roles and Feature Wizard window displays read the information provided before you begin (Fig. 2) and then click **Next**.

![Fig. 2: Add Roles and Features Wizard](image)

5. On the Select installation type window (Fig. 3), select **Role-based or feature-based installation** and click **Next**.

![Fig. 3: Select installation type](image)
6. On the Select Destination server window (Fig. 4), choose **Select a server from the server pool** and click **Next**.

![Fig. 4: Select destination server](image)

7. On the Select server roles window ensure that the **File and Storage Services** and **Web Server (IIS)** roles are selected (Fig. 5).

![Fig. 5: Select server roles](image)
8. On the Select features window (Fig. 6), locate WCF Services.

9. Expand WCF Services and check all the boxes associated with the feature (Fig. 6).

Fig. 6: Select features

10. Click **Next** to continue until the installation is complete.

### 5.4 Activation error

During offline activation an error occurs if the wrong extension file is provided.

To retry activation:

1. Close the license user interface.
2. Open again to upload the correct file.

### 5.5 Bug fixes

Bug or defect fixes for each version are described in this section.

### 5.6 Version 2.3.4.0

Bugs fixed in version 2.3.4.0 are described in the following sections.

#### 5.6.1 Cyber security related issues

Cyber Security issues have been fixed and approved by the ABB Device Security Assurance Center (DSAC).
5.6.2 Other
- Scaling issue with fault detection has been corrected

5.7 Version 2.3.4.0
The following bugs have been fixed:
- 9676 – Logs are not created for Fault detection errors.
- 9517 – PAS uses local system as the AppPool account instead of running as an IIS work group thread process
- 9516 – Outdated SQL Server 2012 version installed with PAS. It should be 11.0.6567.0 or higher.
- 9515 – API service unknown state and functions. API service 5985/TCP open.

5.8 Version alpha 2.3.3.10
The following bugs have been fixed:
- Default configuration of database should be mentioned as not created

5.9 Version alpha 2.3.2.9
The following bugs have been fixed:
- 9494 – Logs are not created for Fault detection errors.
- 9496 – Misleading error message on uploading a csv file without cycles.
- 9498 – PAS not throwing a specific error if the Trigger header names are not correct.

5.10 Version alpha 2.3.2.8
The following bugs have been fixed:
- 9470 – License validation creating issues, when the user connects/disconnects Ethernet cable.
- Modified the binding with Mac address to Disk Serial number.

5.11 Version alpha 2.2.1.7
The following bugs have been fixed:
- 9459 – License Request file extension not correct.
- 9338 – Well Name cannot start with a numeric number.
- 9240 – Error message, when well name is not available is not clear.
- 9476 – Batch mode enabled through command line execution without Batch license.

5.12 Version 2.1.1.6
The following bugs have been fixed:
5.13 Version 2.0.1.5

The following bugs have been fixed:
- 9337 – PAS throw error as “User Already logged in”, though the user is not logged in.
- 9413 – Users not able to login, except default admin user.

5.14 Version Alpha 2.0.1.3

The following bugs have been fixed:
- 9234 – PAS versioning is not correct.
- 9221 – Plunger cycle configurability not available in user interface.
- 9216 – Minimum and maximum arrival timings interchanged.

5.15 Version Alpha 2.0.0.2

The following bugs have been fixed:
- 9344 – Default settings of this version is not in synchronization with the old 1.0 version of Plunger Analysis software.
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