

PROCEED & eWP



Digital Work Management Platforms



Westinghouse

When improving work processes for operation and maintenance, computerized procedures are a critical element of digital transformation. There are many advantages in the digitalization of control room and field operations, elevating work performance to a new level of safety and efficiency.

PROCEED is a Westinghouse solution for computerized procedures that assists operators in the execution of General Operating Procedures (GOPs) and surveillance procedures, where multiple activities are led in parallel from a centralized control room.

PROCEED also allows users to automatically record asset O&M data, from work performance time to inputs related to procedure execution, which can then be used to optimize decision making and improve teamwork.

Building on the PROCEED computerized procedure efficiency success, Westinghouse also offers digitization of the work management process. PROCEED-eWP is available in combination with PROCEED or as a stand alone solution. Electronic work packages (eWP) increase productivity through the planning, scheduling, executing, recording, and storing of work process data parameters.

eWPs assist in all work-task lifecycles performed in any facility and can support complex workflows, allowing operators to execute work orders in both online and offline modes. eWPs are hardware and software agnostic, meaning they can be integrated into any solution or third-party tool.



The PROCEED solution saves time and resources:



The PROCEED solution offers additional key benefits over the conventional use of paper-based operating procedures, and eWPs allow personalization in the work task workflows that facilities follow.

Technology Expansion

- Eliminates the need for paper copies during and after procedure execution.
- Monitors key equipment and parameters.
- Hardware/software agnostic web-based applications that can be used in areas with no connectivity.
- Includes network topology and cyber security network segmentation.
- Able to be integrated with any digital solution or modern platform.
- Active Directory Azure AD is used as an identity provider to facilitate user access management and the authorization and authentication of API requests with this or any other tools of the Digital Worker suite.

Benefits (continued)

Procedure Execution

- Executes operating procedures, work orders and packages online and offline. Connectivity is only needed when procedures are downloaded from the server or executions are uploaded to them.
- Encompasses individual or shared tasks, which enable team collaboration and online supervision. Workers can be notified about tasks.
- Integrates optional features like comments, peer signatures, dates, hold points, step status, links to other steps, etc.
- Activate only the steps you need to complete in each procedure.
- Facilitates supervisory oversight of an operating procedure.
- Improves report generation of procedure and work order execution with the possibility of adding images. All work package results can be provided in one report.

Human Performance Improvement

- Reduces personnel errors associated with inadvertent skipping of a step or executing out of sequence steps through use of electronic place keeping features.
- Increases worker efficiency during procedure execution.
- Continuously monitors process conditions and determines procedure step status, providing an automated peer signature during procedure performance.

Procedure & Documentation Maintenance

- Prevents outdated procedures and formats.
- Reduces plant O&M costs by simplifying procedures and work order management.
- Records a multitude of asset O&M data.

Continuous Improvement of Processes

- PROCEED allows users to make data-driven decisions that improve your competitive position by creating more efficient and secure processes.
- Improves plant or fleet operational experience, streamlines plan execution, and identifies training needs using dashboards.
- Identifies best practices and lessons learned for the whole fleet.

The PROCEED solution covers the entire life cycle of procedures from creation to close-out.

Procedure Authoring and Editing Module

- Presents electronic procedures in a user-friendly format. Simplifies procedure creation, editing and review while following an efficient procedure version management process.
- Smooths the transition from paper-based to computer-based procedures, using common tools like MS Word, to reduce the learning curve and the need for specialized personnel.

Control Room Execution

- Executes plant procedures in an agile form by accessing the documents you need and linking them to the step required. Gain visibility into benefits from other functionalities that improve shift coordination.
- Optimize and facilitate execution with step-by-step help. Supervise work real-time, track plant procedure execution, and know the steps completed whether they are in progress or on stand-by.

Execution

- Guide the user step-by-step through procedure execution.
- Web-based application designed to execute procedures in both the main control room and in the field using mobile devices (even in areas with no connectivity).

In the Field Execution

- Use the mobile app to execute plant procedures in the field. Download necessary procedures, support documentation and work in the field even when no connectivity is available.
- Take pictures, record audio or videos and add them to a specific step. Benefit from QR code reading to reduce human error.



eWP Benefits

Today, efficiency gains are realized from digitizing the work permit management processes so that the files and records that are required to complete a job can be worked on using digital devices.

The Westinghouse eWP solution allows documentation to be managed during all phases of the work process, It has an eWP planning module, a notification system, and a tracking and record system to enable visibility into progress and actions performed.

One of the main benefits of eWP is that it allows users to personalize the workflows that a facility follows when referring to work tasks, adapting the tool to the facility’s unique rules and strategies when defining and executing their work orders.

The tool simplifies work order management:

- Eliminates the use of paper copies
- Monitors key equipment and parameters
- Integrates with other digital solutions or modern platforms.
- Eases the supervision process of a work order and improves report generation.
- Reduces personnel errors and increases worker efficiency.

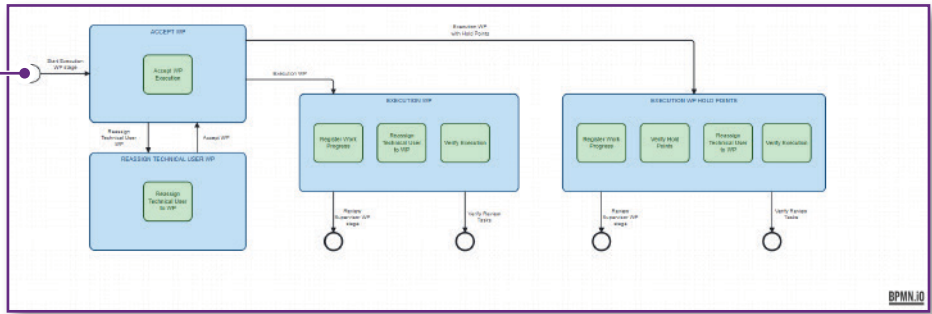


eWP Modules

Electronic Work Package solutions allow documentation to be managed during all phases of the work process, and are designed with three modules:

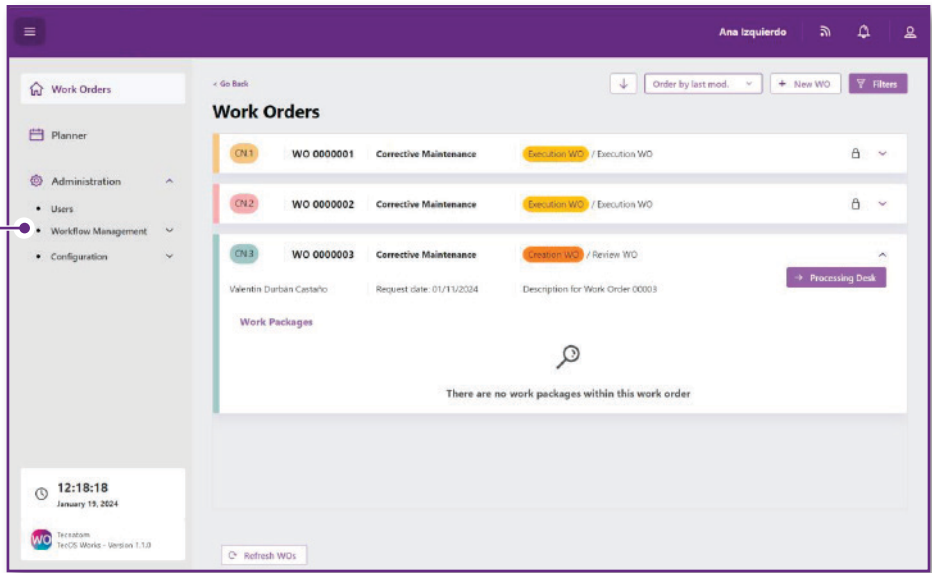
Workflow Builder Module

- Users with administrator access can manage users, configure the tool and design workflows for personalized application of the tool.



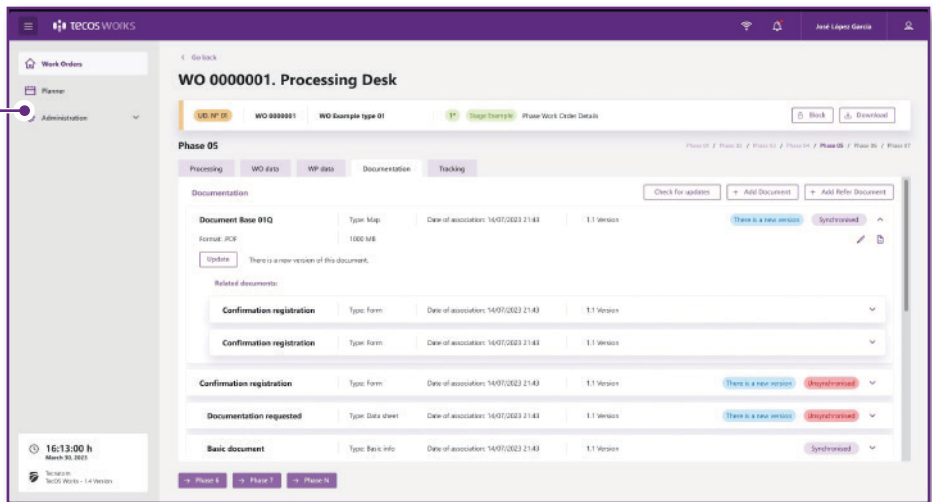
Work Orders Module

- Users are guided step-by-step through work order creation, revision and execution.



Processing Desk Module

- Workflow Builder is integrated with the Processor and can be used in the draft planning stage of a Work Package.
- In execution mode, all the WP linked to Work Orders must be executed and closed before the WO is executed.
- Reports can be created.



Why Westinghouse?

PROCEED provides a solid framework within which plant procedures and work processes are created, maintained, executed and managed. It can reduce cycle time needed to implement changes in the operating procedures, because the procedures reside within a computerized system. Electronic work packages (eWP) are available in combination with PROCEED or as a stand alone solution.

PROCEED and eWP systems are highly versatile, allowing facilities to customize workflows while reducing management time and human errors. They assist in all life-cycles of work tasks that can be performed in a facility, support very complex workflows and allow operators to execute work orders in online or offline modes.

Westinghouse solutions are applicable to nuclear plants that operate with a set of paper-based procedures and want to improve their processes. It can also be implemented at new nuclear power plants, SMRs and other facilities where repetitive procedures or checklists are executed.



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