

VE-PROMS

Capabilities and Future Direction

VE-PROMS was designed with the understanding of the tasks a procedure writer must perform in order to publish and maintain Emergency Operating Procedures at nuclear power generating stations. The overall goal of VE-PROMS is to simplify the tasks of maintaining and publishing the procedures so that the writer can focus on the procedures' content.

VE-PROMS views a procedure differently compared to how a generic word processor does. All that a word processor sees is text. It doesn't know what that text is, nor does it care what the person typing does with that text. In contrast, VE-PROMS knows and cares what that piece of text is and what you are doing with it.

With VE-PROMS, you build a procedure. You start with a High Level Step and add Cautions, Notes, and substeps. This gives VE-PROMS the knowledge it needs to figure out pagination rules, and to restrict the placement of certain types of text, with respect to your writer's guide. For example, when printing a procedure step, VE-PROMS knows to keep Cautions and Notes on the same page as the High Level Step. And, when editing, VE-PROMS can prevent a writer from placing a Caution or Note in an incorrect location based on the procedure's writer's guide (for example, before a substep).

Current Technology Overview

The VE-PROMS Executables

VE-PROMS is made up of 16-bit and 32-bit Windows programs. The 32-bit Windows program uses the latest Microsoft's .NET Framework.

Procedure Information Storage

VE-PROMS stores the procedure information in Xbase file format. These database files contain text type information, as well as the date/time and who made the last change to that piece of text.

Hyperlinks

VE-PROMS allows references to steps and sections within the current procedure and to other procedures. We refer to these types of hyperlinks as Transitions. These Transitions are live, changing when needed as procedure steps are added or removed. We store and maintain these links so information on the transitions is readily available to the VE-PROMS User.

VE-PROMS allows references to a database of procedure entry and exit condition and decision criteria values. We refer to these types of hyperlinks as Referenced Objects. The most common type of Referenced Object is the EOI Setpoint database. These Referenced Objects are also live, allowing the writer to change the value in the database and then have VE-PROMS update the procedures.

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Current Technology Overview (continued)

Output

- Smart pagination logic finds the best place to break a step if needed, in accordance to your writer's guide.
- Print a hardcopy of the procedure from any Windows printer.
- Export procedures to a RTF (Rich Text Format) file that can be read by most word processors including Microsoft Word and Word Perfect.
- Create an Adobe PDF file, if a PDF printer driver is installed (Adobe Acrobat/Distiller).

Change Tracking

- Tags changed text with date and initials of the user making the change.
- Tags changed texts with the type of change e.g. add, modify or delete.
- Produces reports with the summary and chronology of changes made since last approval of procedure.
- Automatic change bars with variety of format and content options.

Standardization Tools

- Find occurrences of similarly worded steps.
- Writer's guide information is built into your customized procedure format, helping to keep the look of the printed procedure consistent.
- Changing the format is applied universally throughout the procedure set.

Related Document Support

- Hyperlink to a related background and deviation documents from the EOP.
- Changes made to the EOP High Level Steps, Cautions, and Notes are automatically updated in the linked background and deviation documents.

Master / Slave

If you have two or more procedure sets in which the procedures are nearly identical, you can maintain one master procedure set and then generate the "slave" procedure sets from it. For example, a two-unit power plant, could maintain one master procedure set for both units. VE-PROMS would then generate each unit's procedures from that one master procedure set.

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Current Technology Overview (continued)

Approve Process

VE-PROMS allows you to approve an entire procedure set or just a single procedure. The approved procedures are placed in their own folder, keeping them separate from the "working draft" copy.

If approving a single procedure, VE-PROMS will check the inter-dependencies among the other procedures within the same procedure set. The approval function will notify you if the changes you are about to approve affect any other procedure. For example, changing a shared Setpoint value or Transition Reference could result in flagging additional procedures that require approval.

Future Technology Overview

We are currently upgrading the entire VE-PROMS system to the 32-bit Windows .NET Framework. Several modules have already been upgraded to this platform.

What is the Microsoft .NET Framework?

The .Net Framework is an integral part of recent versions of Microsoft Windows. Software applications that run in the .NET Framework can make use of standardized functions that handle many common system level tasks. This results in a more stable and secure software application.

The .NET Framework provides our software development team with up to date development tools. This helps to reduce the time and cost of building and maintaining the VE-PROMS software application.

Go to the following web site for a more detailed description of the Microsoft .NET Framework:

<http://msdn.microsoft.com/netframework/technologyinfo/overview>

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Future Technology Overview (continued)

Procedure Information Storage

The procedure information will still be stored in database files, but we will be migrating to Microsoft Access or SQL Server for the default database type.

The Xbase type of database files, currently being used to store procedure information, will be consolidated to a minimum number of database files, ideally one. The procedure text will continue to be stored in a series of table records, separating each "piece" of the procedure.

User Interface

We are standardizing the user interface to be more like Windows Explorer, with a tree structure representing the VE-PROMS data. We have already incorporated this type of user interface with the VE-PROMS Browser and the RO Editor modules and it has vastly improved the usability and ease of use of those modules.

Output

The default output of a printed procedure will be a PDF file. This is the most popular electronic document storage format among our customers.

VE-PROMS has always separated the procedure format from the procedure content. This design allows us to generate very easily standardized file formats devoid of format dependencies such as XML. We will also be offering an option to export a procedure to an XML file in the future.

VE-PROMS has been at the forefront of procedure maintenance system software since its inception in 1985. We are committed to ensure that it remains in the forefront while concentrating on the needs of the procedure writer.