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## **VE-PROMS Upgrade: 32 –Bit RO Editor**

The process of converting the Referenced Object Editor module from a 16-bit to a 32-bit application has begun. The upgrade will take us to the end of the year, which is when the next general release will be issued. In this newsletter, we'll give you an idea of what is being worked on and how it will affect your use of VE-PROMS.

When the upgrade is complete, the RO database will have a newly designed interface much like the tree structure of Windows Explorer (NOT Internet Explorer). The Complete and Summary Reports will be generated from the RO editor. The Paradox database engine that is used for the current RO editor will be replaced by a new database engine. During the migration, each plant will have its choice of selecting Microsoft Access or Microsoft SQL Server 2000 as the new database type.

## **New Technologies Used for VE-PROMS**

As a forerunner to converting VE-PROMS to a 32-bit application, we are moving VE-PROMS into the new Microsoft .Net Framework. The .Net Framework is the 'wave of the future' for software applications and should enable us to continue upgrading the RO Editor to serve your changing needs. It is the theme of recent Microsoft TV commercials that declare that you'll get one additional degree of freedom with .Net.

The RO data will also be prepared for the future: we will be using XML Schemas to store the Referenced Object definitions and XML to store the Referenced Object data. XML is a language for documents containing structured information where an XML Schema describes the structure of the document. While this may seem confusing, it is transparent to the user. However, using XML will open the door to sharing, displaying, and reporting Referenced Object data.

*For details on the Microsoft .Net Framework, go to <http://www.microsoft.com/net/>.  
For a better understanding of what XML and Schema are, go to <http://www.xml.com>.*

## **VE-PROMS Demonstration CD**

Volian is actively marketing VE-PROMS both in the United States and in Eastern Europe. To aide in the marketing effort, a working version of VE-PROMS has been developed for a demonstration CD. The demo CD has a streamlined installation and a ten procedure limit in a procedure set. Sample Rev1C ERG data is included on the CD so that VE-PROMS can be evaluated by potential customers.

If you would like a copy (or copies) of the CD for distribution within your plant, for a sister plant within your utility or for another utility's plant, then feel free to request as many copies as you will need. It would be a great benefit to our current users and Volian to expand the use of VE-PROMS to new users.



*"Information Technology -  
Solutions That Work"*

## **Preparing For the RO Upgrade At Each Plant**

While we're converting VE-PROMS ROs to 32-bit, there are several things that can be done in preparation for the upgrade:

- ★ The operating system that VE-PROMS is running on must be at least Windows 98; Windows 95 will no longer be supported. According to Microsoft, the minimum hardware requirements to run the .Net Framework are a Pentium 90 MHz (or the minimum to run the operating system, whichever is higher) and 32 MB of RAM (or the minimum to run the operating system, whichever is higher).
- ★ A backup of the Referenced Object data (RO folder) should be created and sent to Volian. It's very important (and beneficial) that we receive a copy of your RO data. We will be using the data to test the development version before releasing a final version to each plant.
- ★ Determine which database type that your plant will be using for the data migration: Microsoft Access or Microsoft SQL Server 2000. Note that this topic should be discussed with your computer group. If you elect to use Microsoft Access, you will NOT need to purchase Microsoft Access. The Access database driver allows us to create and maintain Access database files from within our program. If you elect to use Microsoft SQL Server 2000, then your IT department should identify an existing SQL server this database can utilize or make plans to purchase a version for the RO application.

## **VE-PROMS: The Logic Behind "Approve Single Procedure "**

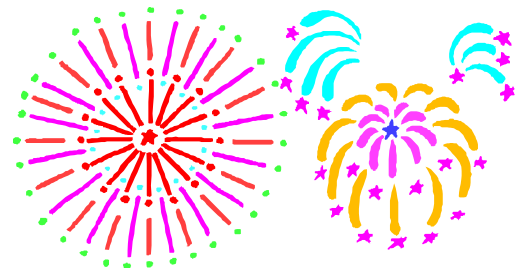
Since the approve single procedure function was added to VE-PROMS, many of you have commented that you should be allowed to approve just one procedure rather than being forced to approve all 'affected' procedures. The approval process built into VE-PROMS is one of the unique features that makes VE-PROMS such a valuable tool for procedure maintenance.

The Approve Single Procedure function compares the existing approved procedure with the current working draft text, referenced objects, and transitions. If an RO has been modified in the procedure selected for approval, the approve single function will list all procedures using the modified RO. This is done to ensure that all procedures using the RO are also approved.

Similar logic applies to external transitions. External transitions to and from the selected procedure are compared. If changes have been made that affect other procedures, the relevant procedure displays in the bottom frame (Dependencies frame). Any procedures that display in the Dependencies frame should be reviewed and must be approved before the selected procedure can be approved. This is done in order to ensure a consistent procedure set.

If "unwanted" referenced object changes are included in the procedure that you want to approve, then the RO value could be either unlinked from the RO database or the RO database could be changed back to the original value.

*The Volian offices will be closed on  
Thursday and Friday, July 4<sup>th</sup> and 5<sup>th</sup> in  
celebration of Independence Day.*



## VE-PROMS User Tips and Information

- ◆ In the existing version (Version 7 releases), if the VE-PROMS window is minimized then maximized while printing a report, all VE-PROMS menus will be grayed-out. The print dialog remains active. When the print dialog closes, the VE-PROMS menus will again be available.
- ◆ When zipping/archiving VE-PROMS files, an alternative to using the DMAS archiving function is to use WINZIP. If WINZIP is not already installed on your computer, it is available on each VE-PROMS release CD. When sending a complete data set to Volian, the easiest way to create the complete archive is to go to the location of the folder to be archived using Windows Explorer or My computer and with the **right mouse button**, click on the folder. From the right mouse button menu, select either "Add to Zip" to display a window where you select the options for creating the archive or select "Add to <name>.zip" which automatically titles the zip file with the name of the selected folder. The zip file will be created at the same level of the selected folder. For example: if you select the folder "VE-PROMS" (by clicking the right mouse button and selecting "Add to ve-proms.zip") and the VE-PROMS folder resides in K:\DATA, the ve-proms.zip file will be created in the K:\DATA folder.

## EOP Setpoint Corner

### ***When NOT To Apply Instrument Uncertainties To Setpoint Values*** by Paul Linn

I was recently asked why some setpoint bases do not include instrument uncertainty.

There are two common situations where instrument uncertainties should not be applied to the setpoint value. The first situation is when the setpoint is used to verify an automatic signal. For example, the pressurizer pressure setpoint corresponding to the automatic operation of the pressurizer PORVs. The reason that uncertainties are not included is that the transmitter and most of the rack components are common to both the bistable and the indicator. Thus any instrument error would be seen in both the bistable and the indicator. The second case where instrument uncertainty should not be included is when by including the uncertainty in either direction could cause undesired effects. For example, the minimum SG pressure setpoint that ensures that the accumulator nitrogen will not inject following a small break LOCA. If positive instrument uncertainties are included, then water that could be injected may be left in the accumulators. If negative uncertainties are included, then some of the nitrogen will inject into the RCS. Since neither situation is ideal, instrument uncertainties should not be included. This means that there is a possibility that either a small amount of water will remain in the accumulator or that a small amount of nitrogen will be injected into the RCS.

Let us know if you have any setpoint issues that you would like discussed in the next newsletter, or if you would like Volian to assist in upgrading your setpoints.

## Engineering Work

Harry and Paul coauthored a paper entitled "Applying U.S. EOP Analytical Justification Experience For VVER Plants In The Ukraine" that was presented at the 10<sup>th</sup> International Conference On Nuclear Engineering. The paper describes the efforts performed to date on the Analytical Justification project that Harry and Paul are working on with two Ukrainian plants. The paper was well received at the April conference in Washington D.C. If you would like a copy of the paper, send us an email and we will send it to you.

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