

Bug Reporting, Patches, Support, On-Line Training



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What's New



- Every time we release a patch we post descriptions of new features that are released in that patch
 - <http://www.powerworld.com/patch-releases/simulator-18>
- Recent Additions
 - Added sensitivity calculations for dAmp/dControl and dMVA/dControl for the Multiple Meters, Single Control Change calculations.
 - Added accounting of Total Dropped Load during a contingency. This shows the MW amount of load that was islanded due to a contingency action or opened due to a direct contingency action to the load.

What's New



- Recent Additions

- Added Level designation to Transient Events. Options have been added to easily display Events by specific Levels: Error, Info, Skipped, User, Transition, Model Trip, and Relay Trip. Result Event Reporting options have been added to specify if events are reported to the Message Log in addition to the Event table. These new options are especially useful when using the CMPLDW composite load model which has many possible events associated with it.
- Modified "Move" script action to allow moving a 3WXFormer record.
- Added a new contingency element for "Substation OPEN". This will open all AC Branches, DC Lines, and multi-terminal DC lines connected to the substation.
- Added a new contingency element for "Substation OPEN with Breakers". This will open all breakers necessary to isolate all AC Branches and DC Lines which have exactly one terminal in this substation. Note: this will not open breakers necessary to isolate devices completely inside the substation, such as transformers.
- Added support for PTIST3 stabilizer

What's New



- Distributed QV
 - Working on new add-on
- Distributed PV
 - Need some feedback on what this needs to do
 - Distributing PV is a more difficult problem
- Composite Load Model
 - Many enhancements and fixes (discussed in detail this afternoon)
- N-1-1 Tools
 - LODF Screening Tool
 - Presentation on other ideas tomorrow

Support & Bug Reporting



- Contact Information
 - support@powerworld.com
 - checked by and often answered by Mark Laufenberg
 - 217-384-6330
 - Without choosing an extension, the phone will ring on everyone's desk
 - Usually there is someone in the office between 7:30 am and 6:00 pm central time
- We try to be supportive and get a fix out as soon as possible

Bug Reporting



- What to report
 - What the problem is and step-by-step instructions on how to reproduce it (screenshots can be a big help)
 - If we can't reproduce the problem, we're stuck looking at the code
 - If we can reproduce the problem, we can usually fix it very quickly
 - Unfortunately, a screenshot of an access violation doesn't help very much. An access violation is an invalid pointer dereference. The dialog shows the address in memory.

Support and Bug Reporting



- Easy bugs to fix
 - Access violations that we can reproduce
- Hard bugs to fix
 - Intermittent bugs “hizenbugs”
 - Sometimes the bug causes an error and sometimes it doesn’t (usually) depending upon the status of a random value in memory
 - Bugs that we cannot reproduce due to lack of information (usually the case is very helpful)

Patches



- Patches are new builds of the executable that contain bug fixes or new features
- A patch description is posted on the website describing the changes in the patch
- A patch is distributed as a zip file that contains
 - *PWLang_EN.bin* – a language file used to fill case information displays / dialogs / pop ups with text
 - *pwrworld.exe* - the new executable file
 - *readme.txt* – text file with directions on how to apply the patch

Patches



October 10, 2014

Features and Improvements

- ▶ **Contingency Analysis Tool:** Added accounting of Total Dropped Load during a contingency. This shows the MW amount of load that was islanded due to a contingency action or opened due to a direct contingency action to the load.
- ▶ **Transient Stability:** Added Level designation to Transient Events. Options have been added to easily display Events by specific Levels: Error, Info, Skipped, User, Transition, Model Trip, and Relay Trip. Result Event Reporting options have been added to specify if events are reported to the Message Log in addition to the Event table. These new options are especially useful when using the CmplDw composite load model which has many possible events associated with it.

Bug Fixes

- ▶ **Available Transfer Capability (ATC) Tool:** Before doing an iterated ATC method or using the ATC tool to increase the transfer AND the transfer is between areas/super areas AND the case AGC control is disabled, a check is done to see if the ACE values for areas and super areas that are on control is greater than its AGC tolerance. If the ACE values are too great an error will result and the study cannot continue. The user will have to reconcile the ACE problems in the case before the study can proceed.
- ▶ **File Formats:** Bug fix for saving CROW import file settings to AUX.
- ▶ **Transient Stability:** Fixed error in LHVRT and LHFRT models which could cause the generator to trip inappropriately.
- ▶ **User Interface Dialogs:** Fixed bug in Model Condition dialog that would change the selected object after the Save As button was clicked. This could cause the wrong object to be saved with the Model Condition if the OK button on the dialog was then clicked.

Releases



- Not every change can be put in a patch
 - Some deep architectural changes need thoroughly tested before being released
 - File format changes cannot be made mid release
 - The PWB file format is a binary file that is read byte-by-byte. Extra data won't be expected by older versions of the software. This will cause the file to fail to load, and could cause data loss.
 - We do have some padding for extra data, but as a rule we don't mess with the file format mid release.
 - This is most likely to happen to you if you're using a beta release. Usually we can recover the data if you can provide the mangled file.

On-Line Training

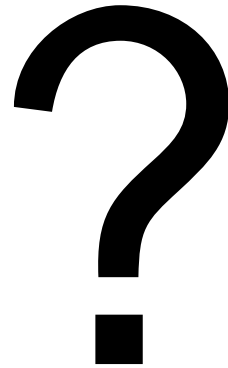


- The complete set of training materials is now on the website:

www.powerworld.com/training/online-training

A screenshot of the PowerWorld online training website. The page has a dark blue header with the text "Online Training" in white. Below the header is a navigation menu with several items: "Training Calendar", "Training Overview", "Course Descriptions", "Training Registration", "Hotels and Transportation", and "Online Training" (which is highlighted in a darker blue). To the right of the menu is the main content area. It contains a paragraph of introductory text about PowerWorld Corporation's software training, followed by a paragraph about recorded training modules from a 2-day course, and another paragraph about the availability of YouTube and Flash versions of the training materials. The text is in a clean, sans-serif font.

Questions



A few more additions



- **Contingency Analysis Tool:** Added an option to auto-insert contingencies and name them by label.
- Added new script command
`CTGCompareTwoListsofContingencyResults("Controllingfilename","Comparisonfilename");` A filename may be replaced with the word PRESENT to mean the presently open contingency list.
- Added contingency action that will set the contingency rating of a line.
- Added new contingency action with Injection Groups to drop a specified number of elements in the group.
- Added option with Injection Group contingency action to specify when using Merit Order Open if the total MW dropped is allowed to exceed the desired amount or not. Previously, the default was to never exceed the desired amount.
- **Available Transfer Capability (ATC) Tool:** Added right-click option on the Transfer Limiters display to "Create Contingent Interface for Selection." This will create interfaces with a monitored branch being the Limiting Element in the Transfer Limiter and the contingent element in the interface being the Contingency Element of the Transfer Limiter.