ASPEN OneLiner™
Version 15.4 Update

This maintenance release contains fixes for all known bugs to date, plus some program improvements. This is a maintenance release (The differences between a maintenance release and a major release are explained on the last page). For the list of What's New in OneLiner v15 major version release, check the following ASPEN website link:

www.aspeninc.com/Release-OneLinerV15

Run the OneLinerV15.4Setup.exe that you had downloaded to update an existing installation or to create a new *OneLiner v15* installation on your computer. Please write to support@aspeninc.com in English (suporte@aspeninc.com in Spanish and Portuguese) or call us (650-347-3997) if you have questions.

Program Improvements between Versions 15.3 and 15.4

- **Enhanced** dialog boxes display logic for better results in high DPI screens.
- **Added new logic** to display a confirmation message box to the type-3 wind plant and Converter-Interfaced Resource (CIR) plant model dialog boxes to warn users when the corresponding fault simulation flag is at the off position.
- **Enhancements** in the SEL351 setting import logic to handle all types including R and S
- **New import script** for SEL651 relay.
- **Enhanced the Fault locator COMTRADE reader** to handle data from Siemens relays.
- **Updated the Network | Tag browser** dialog box to support the new object types and data fields in *OneLiner* v15.
- **Enhanced the PTI PSS/E network-data export logic** to support: 1) PSS/E version 35 RAW and SEQ file format; 2) OneLiner v15 data for phase shifters.
- **Changed** shut-down voltage range from [0.05,0.3] to [0.01,0.2] for CIR and type-3 wind plant models.
- **Changed** CIR's max current output to 2.5 times full-load current. Was 1.5.
- **Changed** CIR's positive-sequence slope range to [1.0,10.0]
- **Changed** CIR's negative-sequence slope range to [0.5,6.0].
- **Added a recommendation** to "Set the + sequence slope greater than, or equal to, the - sequence slope" for CIRs." This is not a requirement, however.
- **Updated Appendix J** to show how to model STATCOMs with the Voltage Controlled Current Source (VCCS) model.
- **Updated Appendix K** to show how to change the data for VCCS, type-3 wind plants, and CIRs from having MW output to zero MW output.
- **Updated Appendix L** on "Q-and-A on CIRs and Type-3 Wind Plants".
- **Added new logic** to display a warning message box in the VCCS dialog box when user enters a positive value for current injection power factor angle at voltage level lower than 1 per-unit, which is an unusual condition in OneLiner model power factor angle convention.

Bug Fixes in *OneLiner* between Versions 15.3 and 15.4

- Fixed an error in the File | Reload from disk logic: the command was no supposed to be active when the network is loaded from DXT or ADX file and not yet saved to disk.

- Fixed an issue in exporting shunt B0 and G0 to PSS/e data format.
- Bug fix in Check relay coordination using SEA CTI sort logic. It caused the report to show wrong data in the CTI RELAY,CTI BRANCH columns
- Bug fix in the Check relay coordination using SEA pilot outage logic: pilot comm lines that were outaged for contingency simulation became out-of-service in some networks.
- Bug fix in the read Preferences logic: some relay coordination check parameters were not being read from the machine registry.
- Bug fix in the Check relay coordination using SEA report: the Total Tapped Xfmr Errors value in the summary report contained junk data in some cases.
- Fixed error in the OLR file write SVD logic that caused data file inconsistency when SVD records in the OLR file have memo and/or tag
- Bug fix in the scripting engine logic for the GU_dSchedQ parameter.
- Fixed some typos in the ADX data fields name and label
- The Last Changed Date data field was not being updated in the ADX logic. Fixed.
- Fixed a bug in the Copy Equipment in Region to Clipboard logic that caused deletion of all type-3 wind plants and CIR plants that were outside of the region.
- Fixed a bug in the relay setting import logic and the setting comparison dialog box.
- Fixed a bug in the OC relay dialog box that caused unwanted change of the DT directional flag.
- Fixed a bug in the Read Line Table logic, which caused a failure when a line with more than 132 character is encountered in the file.
- Fixed a bug in the OC Curves Window's Time Slider logic. It had trouble displaying the curve time values when the relay has only the DT and INST elements.
- Fixed a bug in the 3-Way Merge File dialog box.
- Fixed a bug in the OC Curves Window's Add Curve command. It was causing the program to crash in some cases.
- Fixed a bug in the type combo box data processing within the Line info dialog box.
- Fixed a bug in the DS Relay info dialog box display logic. It had problem in displaying previously hidden settings.
- Fixed a bug in the File Comparison dialog box logic for zone/area filter selection.
- Fixed a bug in the exception handling logic and character encoding enhancement in the differ.exe tool.
- Bug fix in PowerScript logic for SY_nNOltc and SY_nNOltc3 param codes.
- Bug fix and enhancement and the File Comparison and ADX application logic.
- Fixed a typo in the type-3 wind plant Advanced setting dialog box. The label "Stator R" was mistakenly shown as Rotor X.
- Fixed a bug in the logic for displaying relay operation results in the RX diagram.
- Fixed a bug in file-read logic for the breaker operating kV data field.
- Fixed some bugs in the type-3 wind plant and CIR plant default value logic and input data conditioning logic.
- Fixed a typo in several sample BAS programs.
- Fixed a bug in the OC Curves Window's drawing logic related to the "Ignore Inst." Flag.
- Fixed a problem in the Diagram Option dialog box logic for IEC transformer symbol.
- Fixed a bug in RAT file import logic, which caused problem when reading the signal only flag of OC relays.

- The “Installed at flag” was missing in the fuse object. Fixed
- Fixed a bug in the display logic of the legend box of DS relay that is located on a transformer
- Fixed a bug in the merge bus command logic for processing type-3 wind plant and CIR plant models on the bus.
- Fixed a memory bug that caused program crashes in some OLR networks with non-linear elements (e.g. VCCS, MOV-protected series capacitors etc.).
- Fixed buffer over-run issue in the Bus Selector dialog box that caused program crashes.
- The fault simulation report section shows a summary of relay quantities, but the same information did not appear is the TTY window. Fixed.
- Bus name display bug fix in legacy transformer dialog box
- Fix errors in the Power Flow Solution browser for line MW and MVAR flow and losses.
- Fixed a bug in the v14 compatibility logic of the import OC Relay command.
- Fixed a memory problem in PCC file read logic that caused program crashes.
- Fixed a bug in that caused errors in copying some line data to clipboard.
- Fixed a bug in OC relay dialog box Time Multiplier data field processing logic.
- Corrected typos in relay report and dialog boxes.
- Fixed a bug that caused display issues of relay fault current in the TCC window.
- Fixed a bug in the transformer-damage-curves display logic. The problem happened only when there is a phase relay on the transformer.
- Fixed a bug that prevented users from changing the "Fault end of tapped 2-winding transformers" option in the Check | Relay Checking Parameters command dialog box. In the same dialog box, changed the item "Show CTI only when it is too low" to "Warn CTI violation only when it is too low"
- Bug a fix in the DXT data import logic for lines.

Explanation of Maintenance Release and Major Release

OneLiner's version number consists of two integers separated by a period, such as 15.4. The first integer "15" is the major release number, and the second integer "4" is the minor release number.

There are relatively few differences in program features between minor releases, e.g., between version 15.3 and version 15.4. Also, no new parameters are introduce for any network or relay objects in minor releases. Most of the changes between minor releases are bug fixes. *This means that the data files generated by different minor releases are 100% compatible.*

Major changes in program features and network and relay models happen only between major releases.

Backward and Forward Compatibility of OLR files

Backward compatibility: *OneLiner* can read olr data files generated by previous versions (3.1 or later) with no loss of information. Version 3.1 was released in 1990.

Forward compatibility: *OneLiner* can read olr files generated by future versions. For example, *OneLiner* v14 can read olr files generated by v15, except new objects and new parameters not available in v14 will be omitted by the v14's read-file logic.

Backward and Forward Compatibility of DXT files

Text data files with extension DXT were intended to be a medium of data transfer between data conversion programs and *OneLiner* of the same major version. Due to popular demand, *OneLiner* v15 can read DXT files generated by *OneLiner* v14. This is the only exception.