

Integrated Testing Tool ITT600 SA Explorer Ver. 2.0 SP2 Release Note

Dear Reader,

A new version (2.0 SP2) of Integrated Testing Tool ITT600 SA Explorer has been released.

Integrated Testing Tool ITT600 SA Explorer is designed for easy diagnosis and troubleshooting of IEC 61850-compliant substation automation systems and applications. The tool features convenient navigation, comprehensive presentation of application data and support for consistency checks, both on- and off-line.



New features and benefits of Ver. 2.0 SP2 versus Ver. 2.0 SP1

- New IED Status View showing the complete IED status in respect to its testing configuration
- Representation of LD naming (Flexible Product Naming)
- The user is informed before disconnecting an IED in case there are active Blockings, Substitution or Testing.
- Quick Checker reads and compares more attributes
- IEDs containing a ServerAt SCL element can be simulated

Improvements in ITT600 SA Explorer 2.0 SP2

- Improvements in the Setting Group Editor (Available on the Setting Group Control Block)
- Explore Models robustness is improved
- Improved performance when browsing IEDs
- Connect all IEDs allows now to additionally enable all reports. The operation can also be cancelled
- Connect all IEDs shows only one message box at the end of the operation
- The default OrIdent for control commands can be set in the ITT600 options
- Explore GOOSE shows DataSet name in addition to the GOOSE control block name
- Synchronized destination folder for MMS and FTP file transfer
- Synchronized description in Process Event and Point Value List
- Process Event List shows Functional Constraint SP changes
- Description (Customer Names) of IEDs and other nodes can be shown in the tree view (new tool option)

ABB AB

Grid Automation Products
SE-721 59 Västerås, Sweden
Tel +46 21 35 20 00
Fax +46 21 14 69 18
www.abb.com/substationautomation

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- PRP Supervision Frames Analyzer shows additional information
- The detected IEC 61850 Edition is shown in IED properties
- IEC 61850 CDC type is shown in Data properties
- SCL Text Elements are shown in the properties
- Removed duplicated entries in IED Simulation tab
- Improved coloring in Explore SV
- Client IEDs is shown for GOOSE control blocks
- Installed .Net 4.6 is detected and does no longer cause a startup crash.
- Time handling and therefore visualization in Explore GOOSE is improved
- Quality attributes invalid and reserved are now displayed correctly in Explore SV

List of intermediate releases since last major release ITT600 Ver. 2.0 SP2 (April 2016)

Bug Fix Release ITT600 2.0.2.1 (September 2016)

- Explore IEDs: Export .scl file fixed. The full content (including data attributes) of browsed IED is exported to .scl.
- Explore IEDs: Optional Data Attributes are now handled properly in IED status view
- Explore IEDs: Improved performance of disconnection checks
- Explore IEDs: MMS timeout option is taken into account again
- Explore IEDs: Warning for control commands with synchrocheck/interlock override corrected
- Explore IEDs: Fixed MMS file transfer Directory Traversal Vulnerability when simulating an IED
- Explore IEDs: Check for new version at tool startup (possibility to disable this feature in the tool options)
- Explore IEDs: Tool options dialog indicates when a tool restart is required
- Explore SV and Explore Ethernet: Indication of Simulation Bit for IEC 61850-9-2 LE SV streams
- Explore Ethernet: Fixed decoding of Service tracking data in MMS reports
- in Explore SV: Various usability improvements
 - Menu entry to open last capture file
 - Improved button handling for capturing / logging
 - Autoselection of streams when opening capture files
 - Due to limited IEC 61850 definition, invalid and reserved quality bit are treated equally
- Explore GOOSE: Currently visualized Signals in are shown in bold

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Technical requirements and supported products

ITT600 SA Explorer is a generic tool for testing, commissioning and maintenance of IEC 61850 based SA systems. Thus, it can be used together with any IEC 61850-compliant IEDs. However, it cannot be ensured that the full functionality of the tool can be supported for all such IEDs.

The tool fully supports the following products from ABB:

- Relion® protection and control product family IEDs
- Distributed busbar protection REB500
- REF543/545 (connected with SPA-ZC402)
- REF542+
- RTU500 series

Further, ITT600 SA Explorer has been tested and not proven to be non-functional with a number of well-known 3rd party IEDs.

Technical requirements on computer environment

The minimum hardware requirements are:

- 500MB of free hard disk space
- Dual-core processor
- 2 GB RAM

The recommended hardware requirements for medium to big projects are:

- 1 GB of free hard disk space
- 64 bit operating system
- Quad-core processor
- 6 GB RAM

The following operating systems are supported:

- Windows 7 (32 Bit / 64 Bit)
- Windows 2008 Server (32 Bit / 64 Bit)
- Windows 8.1 (32 Bit / 64 Bit)
- Windows 10 (32 Bit / 64 Bit)

Limitations

- Windows XP is not supported
- IED simulation is based on the same generic application logic for ABB and 3rd party IEDs contained in an SCD file. Testing with a simulated IED does not replace the functional testing with the real device. The following limitations with respect to the IED simulation are known:
 - Simulated IEDs do not support dynamic DataSets, even if the real IED would do so
 - Editing of Setting Group parameters is not supported
- In general MMS array data types are not supported and will be ignored

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Documentation

Following documentation is available on the ITT600 installation CD:

- ITT600 installation guide
- ITT600 user manual
- ITT600 release notes

Ordering and delivery information

The ITT600 can be ordered from Grid Automation Products, Västerås, Sweden.

The delivery will include a transparent case with the software, user manual and installation guide on CD and the USB hardware license key.

The ITT600 SA Explorer can be ordered using the following order numbers:

Variant	Ordering Number
ITT600 SA Explorer Ver. 2.0 Single license	ITT600-20
ITT600 SA Explorer Ver. 2.0 Package license of 10 single licenses	ITT600-20-M10
Upgrade License from ITT600 SA Explorer Version 1.8	ITT600-20-UG

Installation

The installation of ITT600 SA Explorer Ver. 2.0 SP2 replaces previous installations. For details about installation, please follow the "ITT600 SA Explorer installation guide".

ITT600 Ver. 2.0 SP2 requires a USB hardware license key to function during start-up and runtime of the tool.

Life cycle statement

ITT600 SA Explorer Ver. 2.0 SP2 replaces all earlier versions of the tool. The replaced versions will be moved to the obsolete phase in the software life cycle policy. Existing license keys for ITT600 SA Explorer 2.0 will remain valid for ITT600 SA Explorer Ver. 2.0 SP2.

Yours faithfully,

Michael Obrist,
Global Product Manager, ITT600 SA Explorer
Grid Automation Products

ABB AB

Grid Automation Products
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