

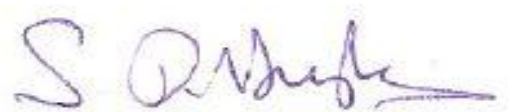
National Grid
Commissioning
Handbook
Procedure 27

**Commissioning Application of TP107 to
Alstom Grid MiCOM / Agile relays**

CH 27
Issue 4
September , 2015

Authorised for Issue by:

Signature



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1	M Mundell	N Tart	First Issue	05 Sep 08
2	M Mundell	N Tart	SCS comparison method included. P740 comparison details added. PSL comparison updated to incorporate checksum.	09 Mar 10
3	Siva Dhakshinamurthi	N Tart	General update, 'Areva' replaced with 'Alstom Grid' and cross references to TP107 updated.	10 Jul 13
4	Siva Dhakshinamurthi	N Tart	General update and 'Alstom Grid' new MiCOM S1 Agile ver1.1.1 software to replace MiCOM S1 2.14.	16 September 2015

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1 PURPOSE

The purpose of this procedure is to outline the recommended practice for applying settings and configuration files to new multi-function relay protections on the National Grid system. This covers protection installed on new sites and also asset replacement protection.

This document should be used in conjunction with Transmission Procedure TP107, Protection & Control Relay Settings, and Commissioning Handbook 21, Management of Numerical Protection Schemes.

The software version used to undertake the comparison should be dictated by the relay setting sheet.

2 GENERAL OVERVIEW

TP107 requires that electronic comparisons are carried out at identified stages of the relay settings process, in order to satisfy the requirements of quality assurance and multi-function relay management, as detailed in Commissioning Handbook 21.

This Commissioning Handbook details the process by which the electronic comparison process is carried out. It also specifies fixed and variable settings, to facilitate further checks if differences are identified as a result of the comparison process.

3 PROCESS REQUIREMENTS

3.1 Factory Alignment of Calculations, Settings & Relay Files

The process as defined in TP107 Appendix B3 and CH21 shall apply.

3.2 Factory Acceptance Test

The process as defined in TP107 Appendix B3 and CH21 shall apply.

3.3 Site Validation

Once the hardware arrives at site and is powered up & ready for Stage 1 commissioning to commence or an existing relay has been uploaded with a new setting file, an electronic comparison shall be carried out between the file in the relay and the file that was issued via MARS in accordance with TP107.

The stage 1 commissioning documentation must comprise:

- A set of MARS setting sheets for all new equipment, which should be checked and confirmed against the Site Commissioning Test (SCT) sheet.
- A set of CH21 sheets, which should be supplemented with comparison results between configurations at identified stages, as per the requirements of TP107.

On completion of Stage 1 commissioning tests, a further comparison should be carried out by the National Grid & Supplier Commissioning Engineers, to ensure no modified settings (e.g. for testing purposes) have been erroneously left on the relay.

4. CONFIGURATION COMPARISON PROCESS

All comparison processes are carried out using MiCOM S1 Agile ver1.1.1, an Alstom Grid software application. The comparison can be carried out either offline (between two files stored locally on the PC from which MiCOM S1 Agile ver1.1.1 is operating) or with a relay connected. 3-series relays only have one file which requires comparison, whereas 4-series relays have three files – PSL, settings & language.

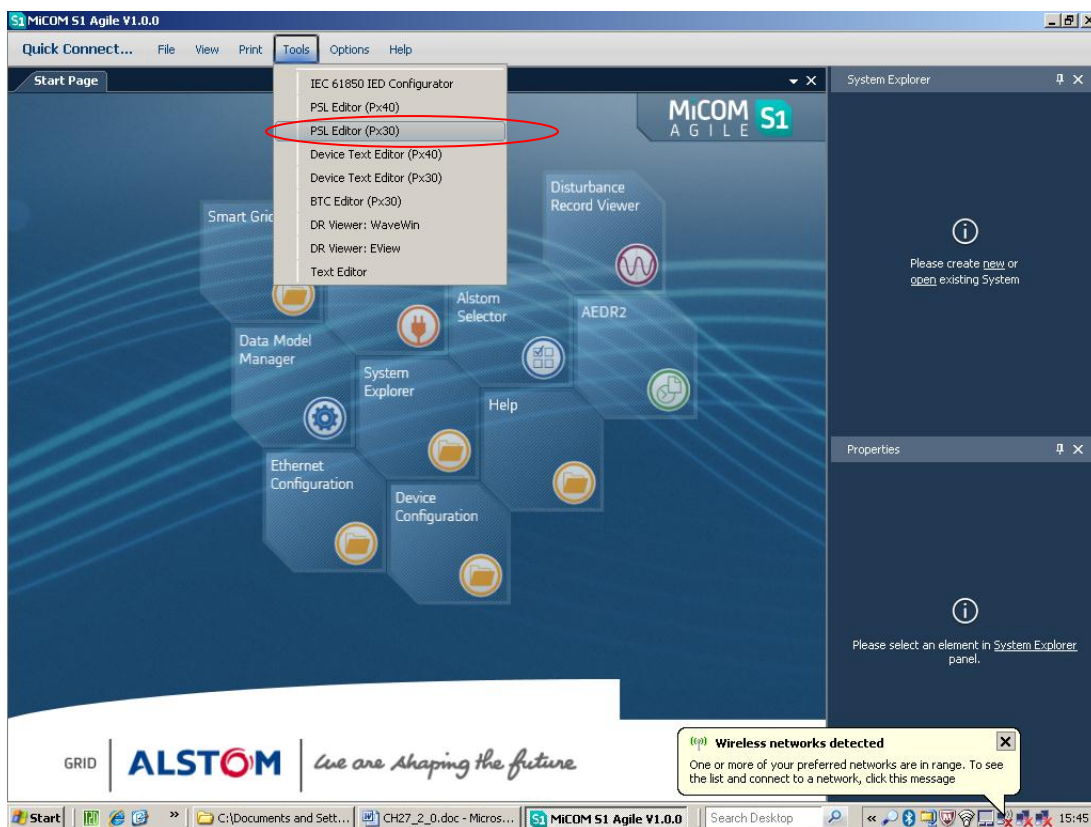
Any printed results for the Commissioning File should be hand-marked with the relay type & function, serial number, and signed / dated by both National Grid & Supplier Commissioning Engineers.

4.1 Comparing Setting Files on 3 Series Relays

When performing a comparison on the Px30 relays such as P634, S&R-103 should be used. This is accessed by starting MiCOM S1 Agile Ver 1.1.1 and selecting either . . .

Tools > PSL Editor (Px30) or . . .

Device Configuration > Px30 / Px30C / Cx30 / PG88 / PG89 > S&R-103 Tool (see Fig. 1).



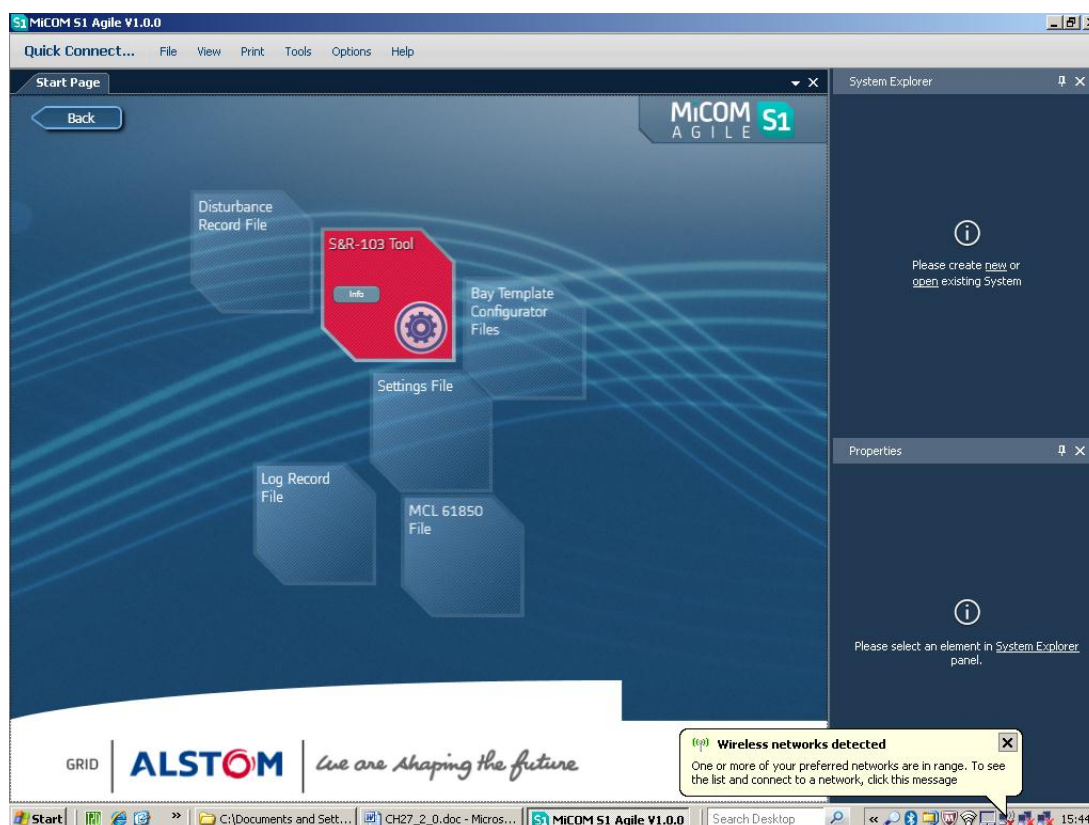


Fig. 1 Accessing S&R-103 Tool

Use Communication > Identify Device to establish connection with device via serial lead.
Typical values shown below (see Fig. 2) . . .

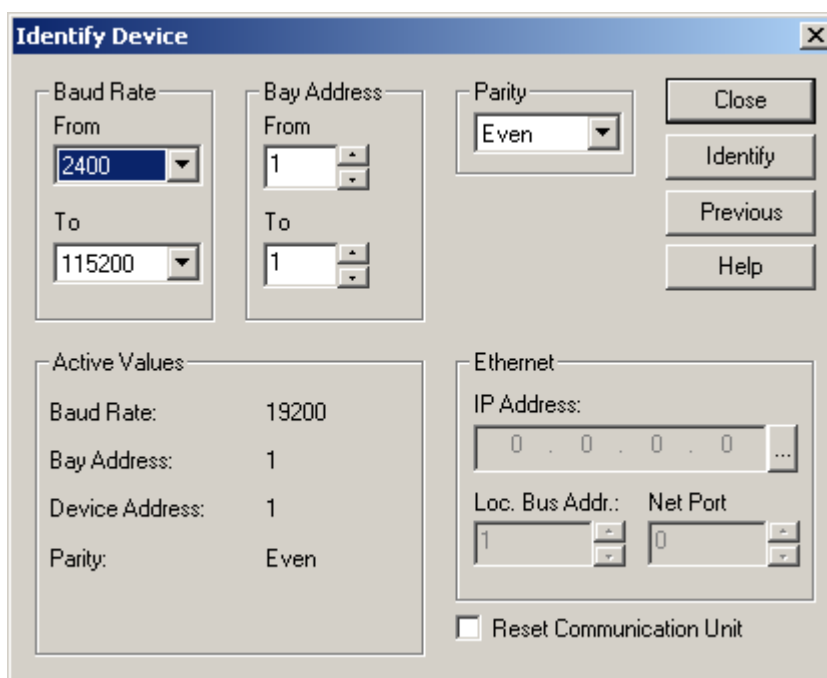


Fig. 2 Typical Communication Values

Select [Identify] and then click on the [Setting File] button.

Note. If the data model is not available you will need to read it from relay or obtain from MARS.