

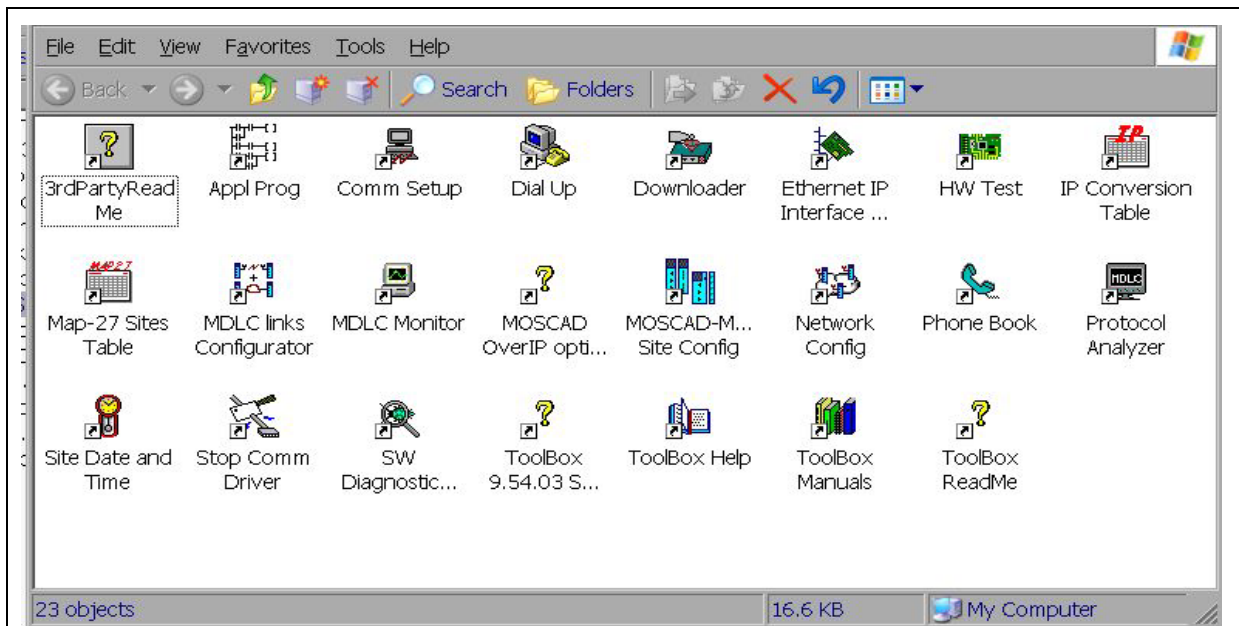


Motorola STS Highlights

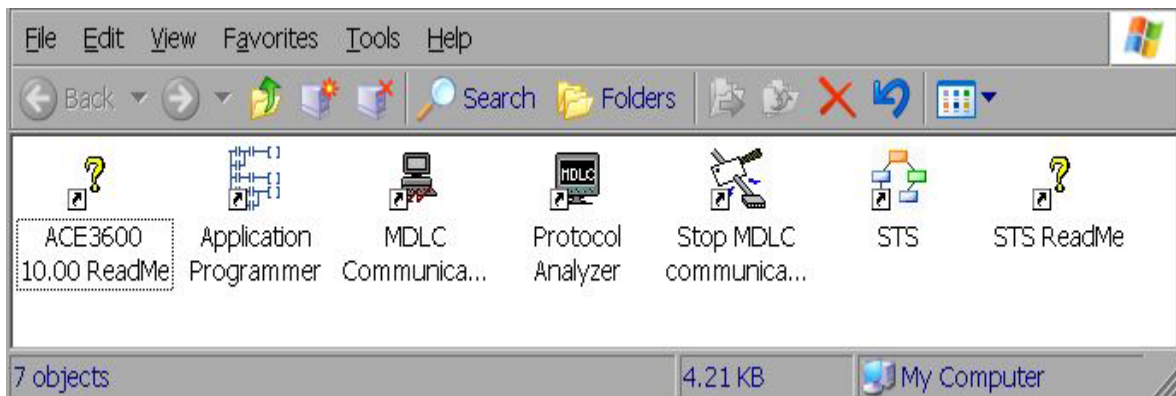
The ACE3600 System Tools Suite (STS) is a package of utilities used to build, configure and maintain sophisticated distributed SCADA (Supervisory Control and Data Acquisition) systems for a wide range of applications. The STS runs on a personal computer, enables the user to design, setup, maintain, and monitor a system and its sites.

The STS enables the engineer to program/download the application program to be executed in the RTU and to perform debugging in each RTU, using a symbolic (graphic) debugging tool.

The STS may be operated either locally by direct connection to the selected unit's computer port, or remotely, by connection to a computer port of any other RTU in the system, via the system communication network. The STS presented in Figure 2 below represents major progress in way how Motorola RTUs are programmed versus the Motorola ToolBox shown in Fig. 1



MOSCAD ToolBox basic Screen



ACE 3600 STS Basic Screen



The System Tool Suite (STS) is a framework for designing, configuring, programming and maintaining ACE3600 based SCADA systems. The STS provides the system engineer with a centralized project oriented intuitive tool that enables quick implementation of advanced SCADA projects.

The combination of ACE3600's unprecedented flexibility and straightforward operation makes it a perfect tool for implementing and upgrading new and existing SCADA systems at minimum cost and with minimum effort.

The following are the main benefits of the STS:

- Project oriented tool - handles multiple sites from a system design approach.
- Integrates all SCADA related functions in a single tool – Configuration, Setup, Programming, Debugging and Maintenance.
- Provides a graphical view of system sites and the entire network.
- Automatically manages all project related files.
- Inventory library of RTUs, ports and I/O modules enables creating new sites simply by drag & drop operations
- Setup of RTUs, ports, I/O modules can be saved in user library for later reuse in other projects
- RTU Network files are created automatically per project
- Provides batch download of files to all sites in a single command (broadcast)
- Implements Graphical User Interface (GUI) based on .NET technology Setup: System building and setup is performed easily by dragging RTUs, ports and I/O modules from the Inventory library to the system view.

The system can also be presented in table format. Clicking on a site icon enables the following main operations:

- Edit site ID, site name, and site description.
- Configure Ports, I/Os and other advanced parameters.
- Associate files to a specific site.
- Save configured items (ports, I/Os or the entire RTU configuration) to User library.
- Download or Upload firmware, configuration, Date & Time, network and other associated files.
- Upload RTU configuration, Data Loggers, application program source files, etc.
- Perform complete hardware test.
- Edit Ladder programs associated with this site.

Several RTUs can be gathered under one geographical /logical area in the system view. This allows dividing the system view into several areas. The STS also enables batch file downloading to any group of RTUs in the system. The user may choose which files will be downloaded to the RTUs in the batch download. This feature saves considerable time and effort during new system setup or when numerous changes are made.

Programming: The ACE3600 application programs may be written in "Ladder Diagram or in "C" programming language. Motorola provides a 'C' ToolKit with comprehensive 'C' function library and 'C' compiler. The STS Application Ladder Programmer enables complete RTU application programming and debugging. The Application Manager tool enables quick association of a Ladder and/or a 'C' program to any RTU in the system for download.

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