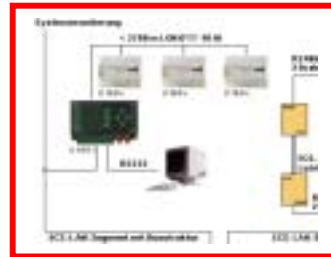GOSSEN METRAWATT

ECS*win*

Parameters Configuration and Data Visualization for U16xx Summators in MS Windows

New ECSwin Version 2.2

ECS*win*

Program Features

ECS*win* is used primarily for configuring parameters at type U1600, U1601, U1602, U1603, U1610 and U1615 summators within an energy control system (**ECS LAN**). Beyond this, read-in and visualization of energy consumption data in the form of measured value tables and graphics is supported as well.

Based upon functions included with **ECS*win*** (up to and including version 1.14) for Windows as of version 3.11 (16 bit Windows), the new program version has been completely revised and adapted to current requirements. Version 2.2 of **ECS*win*** is now available and can be used with Windows operating systems as of **Windows 95** (**Windows 98**, **Windows NT, Windows 2000** and **Windows XP**). In addition to specific improvements with respect to program handling, the following new features are of special significance:

- New parameters included with **U1601**, **U1602** and **U1603** summators have been integrated.
- Different variants of **ECS*win*** are now available: **ECS*win*DDE** (same as the previous version with open DDE interface), **ECS*win*IP** offers network compatibility based upon TCP/IP sockets (this means that the server program can be installed to a remote PC). A utility program (**ECSdienst.exe**) can be used as a server program with PCs to which **Windows NT**, **Windows 2000** or **Windows XP** has been installed.
- The user interface and the user's manual are available in four languages: English, German, Italian and Portuguese.
- A free **demo version** of **ECS*win*DDE** can be downloaded from gmc-instruments.com under the "Software" heading.

The following functions are provided by the software:

- Terminal (communication using ECL commands)
- ECS LAN logon and logoff, as well as configuration of access authority
- Set system time within the ECS LAN
- Configure general summator parameters
- Configure channel parameters
- Set meter readings
- Configure relays
- Transfer any desired commands and data to and from the summator
- Create background programs for the use of virtual channels
- Visualization of the U16xx front panel including display (2 lines of 16 characters each), keys and LEDs
- Ascertainment and graphic representation of ECS LAN network topology
- Querying and display (as table or characteristic curve) of intervallic, daily, monthly and annual energy and power data which have been stored to memory at the summator
- Graphic display of currently measured values (PMOM, EINT, ANA etc.) in data logger format

Selected Program Components

The **terminal window** allows for free communication with a summator, although knowledge of energy control language (ECL) is required to this end. There are two basic ways in which the terminal window can be used: as an empty window to which ECL commands are normally entered using a keyboard, or as a window containing text which is generated by loading an existing command file.

The program components included in the **Configuration** menu allow the user to read in and edit existing device and channel parameters for a given summator, or to reconfigure a summator using stored data.

Figure 1

Data are generally managed in a table (similar to Excel), and all of the table's cells can be easily accessed. Parameters can be readily transferred to other summators with the **Transfer to ...** command. A series of plausibility checks is executed by the program during entry. This applies to, for example, certain channel parameters for which only a limited number of statuses can be entered (e.g. **On** or **Off**), limiting of the number of utilized characters, or checking for convertibility of numeric data fields.

The window for generating virtual channels provides for access to the channels of all summators within the network. By selecting channel names, a list of channels to be summated can be generated (individual channels can also be weighted). After a number has been assigned to the virtual channel, the background program is generated by **ECSwin**. Any existing background program is displayed when reassignment is executed in order to prevent inadvertent overwriting.

As opposed to the program components included in the **Configuration** menu, components in the **View** menu do not have any affect on summator parameters or data. They are used solely for the display of current data and parameters. However, the front panel display option represents an exception in that the included buttons (which emulate the keys at the summator) can be used to change parameters.

Figure 2

The **LAN topology** command is used to find all summators which are connected to the PC, to read in a list of the left and right-hand neighbors of all summators, and finally to generate a representation which reflects the formal layout of the **ECS LAN**. Each summator appears as a rectangle including ID and device type. The use of color highlighting (and right bus with output at the lower edge and left bus with the output at the upper edge of the rectangle) indicates which summator is connected to the next summator via which interface. Especially where large networks are involved, this allows for quick recognition of the availability and status of each summator.
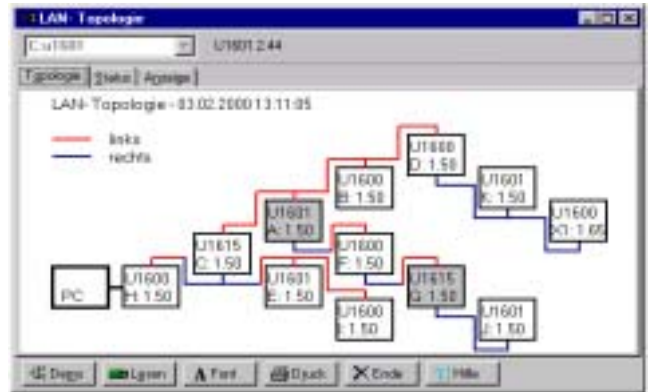

Figure 3

Measurement data can be read out from the U16xx summators and displayed as a table or a characteristic curve with the help of the **Energy/power** and **Line writer** functions in the **View** menu. Data from the line writer display can be saved continuously to data files. Access to interval data is supported by highlighting the formatted channels within the list of all channels, and by means of a calendar for selecting a time span. Data read out from the ECS LAN can be directly imported to other programs (e.g. MS Excel) via the Windows clipboard, or can be saved as a data file.
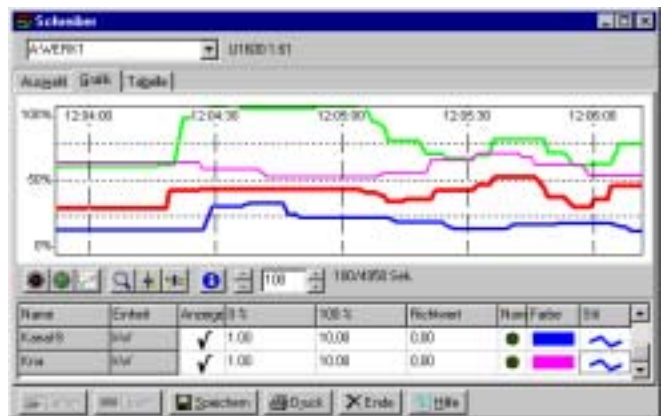

Figure 4