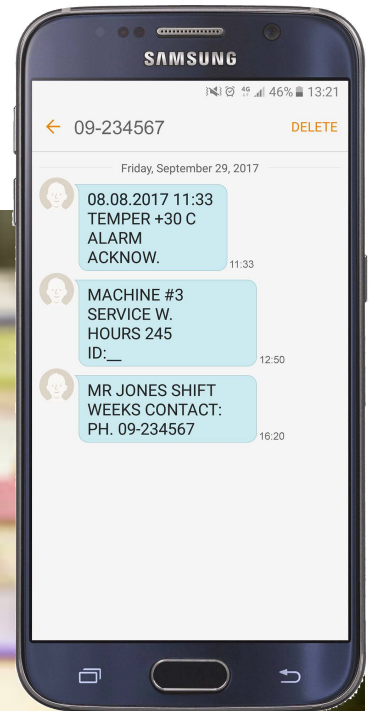# GSM-Control
SMS Text Messages Gateway

◆ **SMS sending/receiving by using mobile phones and any devices with GSM/GPRS-modem connected**

◆ **Many installations worldwide**

◆ **Supported on latest MS Windows operating systems and by latest Wonderware software releases**

◆ **Good OPC support, allowing easy interface with SCADA systems**

GSM-Control SMS text message server is Microsoft Windows program used for 2-way remote control in automation and other applications using standard GSM/GPRS modems, cellular phones and GSM-network. Based on standard GSM-modems and other GSM-capable devices, GSM-Control offers a low-cost and easy alternative to create wireless control and monitoring applications. Implementation of SMS (text Message Service) technology secures reliable transmission even in the most error-sensitive applications.

The easy and economical way to make your application wireless:

• your computer becomes a 2-way communication center by using GSM-modem and standard SMS text message service

• interfaces the devices with GSM-modems, users with phones and existing PC applications together

• configures, transfers, reports, secures and interfaces the applications

• M2M automation, info systems, field personnel guidance, customer service etc.

• open interfaces to other PC applications: DDE, OPC, SQL, MXAccess

• new extended features incl. LMX protocol
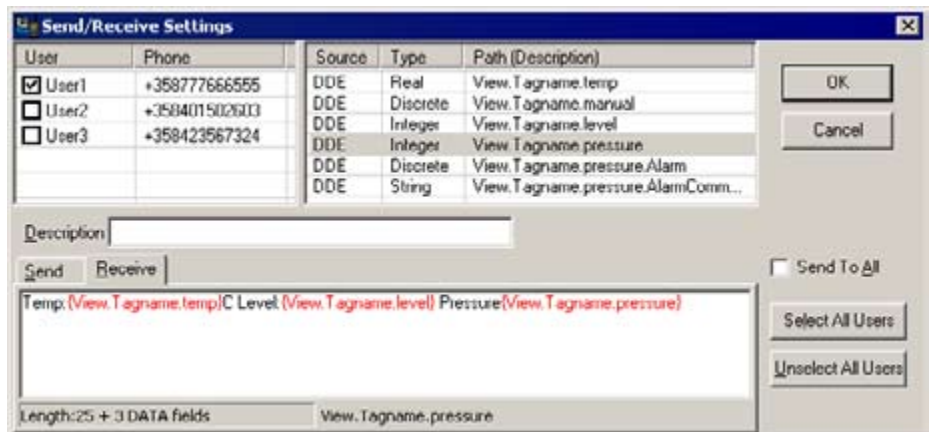
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- leading metal working machine manufacturer in Europe
- machines equipped with PCs, where GSM-Control SMS software installed
- machines send alarms and operation information via SMS locally and to service centre
- preventive maintenance, after-sales services/charges based on real use volumes

The main task of GSM-Control is to work as a gateway between GSM environment at one side (interfacing with GSM environment by sending/receiving SMS text messages) and MS Windows environment (by using DDE (Dynamic Data Exchange), OPC (OLE for Process Control) or SQL (Structured Query Language) interfaces) or MXAccess (Wonderware proprietary interface to access of data in a Galaxy using native ArchestrA data types) at another side.

communication between GSM-modems is supported, i.e. remote GSM-modems can be used instead of GSM phone.

The GSM-Control software includes two MS Windows application programs: GSM-Control Configuration Program (GSMCFG) and GSM-Control Communication Program (GSMCTRL, further in the text also GSM-Control). The GSMCFG is used to prepare the source (configuration) information and GSMCTRL is used to perform the GSM SMS text message

GSM-Control Configuration Program allows quickly and easily link SMS messages with DDE, OPC and SQL items

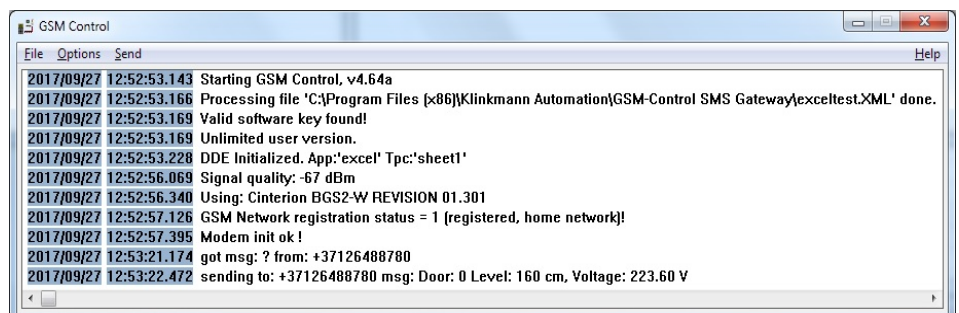- distribution of industrial and hospital gas tanks and gas bottles, monitoring of stations
- GSM-modem and SMS sw installed into stations' automation systems
- vehicle and service field personnel using phones as HMI
- fast responces, information to correct persons considering work shifts etc.

The GSM-Control runs on a PC and accesses operator interface applications or directly field devices by using DDE, OPC or MXAccess interfaces. GSM-Control also supports the reading/writing of data from/to SQL databases. The remote control is based on GSM SMS text messages two-direction communication, where GSM-modem (e.g. Siemens MC35iT) is connected to the computer's standard (RS-232) serial port (or to USB port via USB to serial port adapter) and GSM cellular phone (remote GSM phone) is used by remote operator(s).

Also the communications and DDE/OPC/SQL/MXAccess data exchange on the basis on information prepared by GSMCFG. These two application programs are completely independent, i.e. each can work sepa-rately and doesn't need another program to be started. The data prepared by GSMCFG is saved in GSM-Control con-figuration file - XML (eXtensible Markup Language) format file used as an input file for GSMCTRL program. As many GSM-Control configuration files can be created as necessary.

GSM-Control reports all events and communication traffic as well as result of GSM-modem initialization

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Basically, the data exchange through GSM-Control can be initiated both from GSM and MS Windows environments:

1. From GSM environment - by sending SMS message to GSM-Control, where the received message is checked and processed according the GSM-Control current configuration. The received SMS text message can contain some data to be transferred via DDE, OPC, SQL or MXAccess from GSM-Control to other MS Windows applications (e.g. to PC operator interface applications or field devices through appropriate communication servers) or databases. This SMS message received can have the corresponding response message configured (also possibly containing data values obtained by via DDE, OPC, SQL or MXAccess) – in this case GSM-Control will respond with SMS text message to the sender.

2. From MS Windows environment - when some alarm or event occurs in MS Windows application (e.g. in PC operator interface application or directly in the field device) and the corresponding alarm or event condition is specified in GSM-Control. In this case GSM-Control will send the correspondingly configured SMS text message (possibly containing also some data obtained via DDE, OPC or SQL or MXAccess) to remote GSM operator or device linked to this alarm or event condition. The receiver of such SMS text message can respond to GSM-Control – for example, send some acknowledgment SMS message possibly containing some data for delivery via DDE, OPC, SQL or MXAccess.

Moreover, it is possible to send (manually or automatically through DDE, OPC or MXAccess) any pre-configured text message ("standard 1-way messages") from GSM-Control to remote GSM operator or device. The SMS text messages also can be received from any (not configured) phone number (so called "ANYUSER" feature) and correspondingly replied with information depending on contents of received message.

The GSM-Control can be used on Internet - it is possible to send SMS text messages by e-mails from GSM-Control to GSM network and to receive SMS text messages as e-mails from GSM network. In this case GSM-Control may run without GSM-modem connected – modem is replaced by e-mail connection.

- customer applications
- Excel, SQL etc.
- SCADA etc.
- info systems

GSM-Control software

SMS text messages

- user interfaces
- PCs, PDAs
- phones

SMS text messages

PC with GSM modem

SMS text messages

- devices with GSM-modems
- automation, PLCs
- service automates

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The GSM-Control may be accessed by any Microsoft Windows program working as a DDE or OPC Server (or DDE or OPC Client in case of direct sending/receiving of SMS text messages via GSM-Control).

The GSM-Control has extended functions and support for Wonderware In-Touch (for MMI), Wonderware Application Server (via MXAccess interface) and for I/O Servers (for field interfacing) developed with Wonderware I/O Servers Develop-ment Toolkit.

Ordering information

GSM-Control SMS Gateway, 3 phone/modem numbers, s/w only
PR000673

GSM-Control SMS Gateway, unlimited, s/w only
PR00067

Hardware Kit: GSM/GPRS-modem, antenna, power supply, modem cable to interface PC to GSM network
PC GSM SET

Reference

Car industry, GSM-Control and Wonderware

The GSM-Control software was added by Valmet Automotive to the Wonderware FactorySuite concept to allow wireless communication between Wonderware software and supervising persons' mobile phones.

The factory may now relay system alarms and information to its main-tanance staff.

Reference

Wind power station, GSM-Control in energy production

Continuous running and preventive maintenance are of prime importance in energy production. The Kotka City Energy company is developing wind power applications as part of its energy production.

GSM-Control software and GSM-modems are used to automate the wind power stations.

Other wireless sofware from Wonderware Finland & Baltics

GSM-Control Object
direct interface with Wonderware Application Server

MODBUS GPRS UDP
Communication Server two-way communication with Modbus devices by using UDP/IP interface

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