RACS
General Description

Key features

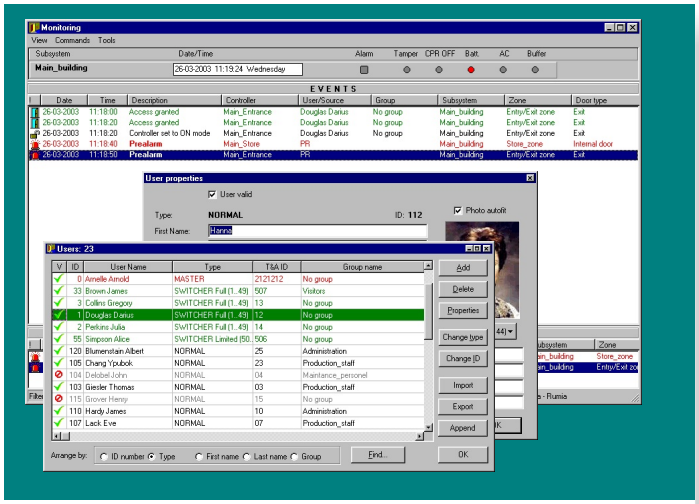
The RACS system (Roger Access Control System) is a network access control system based on PR series controllers and PRT identification terminals (readers). The RACS system is dedicated for small and middle-sized Access Control systems, a single subsystem may be distributed over a distance of approximately 1 km.

The area controlled with identification equipment may be divided into access zones, access to each zone is programmable by declaring a time schedule. The RACS system utilize RS485 type of communication bus, with which a control computer, CPR main control panel and PR controllers (up to 32) are connected.

The RACS system may be extended by linking up to 10 independent subsystems to control up to 320 doors.

Each subsystem requires a separate serial port; subsystems are linked to a control computer with a local or remote port. Remote COM ports require utilization of a specialized COM server, a device which is connected to a computer network and supports the exchange of information between a computer and a remote Access Control system.

The COM-server technology enables integration of independent subsystems of an Access Control system using the existing Intranet or Internet network.



RACS 3.x selected screens

- 1000 system users,
- 32 user groups,
- proximity card and/or PIN code identification,
- timed access zones,
- up to 32 controller in one subsystem,
- up to 10 subsystems can be integrated into one system,
- user defined types of controlled passage,
- no restrictions for communication bus topology,
- events monitoring on a computer screen and in a LAN network,
- background modification of system settings (no system interruptions),
- continuous updating of event reports on a PC,
- interactive system control (commands) from a PC computer level,
- Time and Attendance software support (T&A registration),
- wide hardware options, including outdoor and vandal-proof.

System Structure

Two system structures are available:

- with CPR main control panel,
- without CPR main control panel.

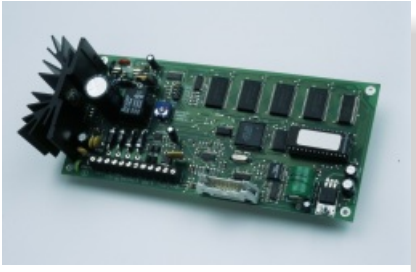
System with CPR main control panel

This option requires RACS 3.x software package. In this option, the main control panel controls access time zones and records events; a computer is required only for system configuration or modification of the system settings and when importing events from the main control panel.

The system may operate fully independently without a computer, however, a permanent connection of a control computer to the system provides many additional capabilities, e.g.:

- system monitoring on the main computer screen and on LAN network computers,
- interactive command sending to the system,
- automatic event history updating in PC disc files and program database (events are immediately sent to the computer).

The last feature is particularly useful if the data recorded in the Access Control system needs to be available to other systems operating in the same building (e.g. T&A or BMS - Building Management System).



Control panel CPR series main board

System without CPR main control panel

In the other option, the system is controlled by a computer using RACS 2.x software package. In this option, the computer performs the function of an access control device and records its operation; the control program needs to run continuously. If the computer fails or the program stops, control of users' access time rights is suspended and event recording is stopped; without the computer support, the controllers still operate with the same access rights settings as at the control program stoppage.

In both options, the computer is linked to the RACS system through the UT2 interface (RS232/RS485 converter) which can be connected at any location of the system bus, more than one computer can be connected to the system, but only one may communicate with the system at the same time.

Proximity transponders: ISO card, PVC card, keyholder, unique disc.

Time & Attendance (Payroll)

To prepare the RACS system for T&A, it is necessary to mark controllers/terminals which will register employees' entrances or exits. Controllers can do both, access control and register events for T&A or can be assigned for one of mentioned function only. The RACS system offers several predefined types of passages (entrance, exit, business exit) and enables defining up to 150 additional types of passages as needed for the facility. For T&A purposes, we recommend using the PR302LCD controller, which enables dynamic modification of the type of the registered passage (with a keypad) or by the external push button or switch. In particular, it is needed where one controller registers multiple types of passages.

Evaluating data for time and attendance purpose does not require installation of any additional devices (readers or controllers) or using other kinds of identification cards in the system.

The system RACS alone does not perform the T&A function, nevertheless, it may deliver input data for specialized T&A (Time & Attendance or PAYROLL) software modules. Roger Company acknowledges compatibility of the RACS system with the RCPAccessPro+ software performing T&A functions. The wide capabilities of defining the format of text files, to which the program may export events, allow the system to be supported by numerous T&A packages available in the market.

Access Controller PR 302LCD recommended for T&A function

Power Supply

PR401/301/201-series access controllers and PRT-series terminals are not equipped with power supply units and therefore they require external power supply. Power supply units of high current efficiency should not be used because they are usually located in a considerable distance from the supplied equipment. A distributed power supply system should be used as a principle when designing an access system.

PS20N - power supply unit

Roger Company recommends using the PS10 (12V/1A/1.2Ah) supply unit or the PS20/PS20N (12V/2A/6.5Ah) power supply units. The PS20N power supply units have been specially designed for utilization in the access control systems. The difference between PS20N power supply unit and PS10/PS20 units is that it has alarm outputs to signalize a loss of external voltage and a low charge of the back-up battery.

All power supply units of the above-mentioned types are fitted with:

- overload, shorting and thermal protection,
- battery charging current control system,
- complete battery discharge protection system.

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