

Guard Tour Patrol System – ActA-Guard™ *-short description-*

A **Guard tour patrol system** is a system for logging the rounds of employees in a variety of situations such as Security guards patrolling property, technicians monitoring climate-controlled environments, and correctional officers checking prisoner living areas. It helps ensure that the employee makes his or her appointed rounds at the correct intervals and can offer a virtually indisputable record for legal or insurance reasons. Such systems have existed for many years using mechanical watchclock-based systems (watchman clocks/guard tour clocks/patrol clocks). Modern systems are based on handheld data loggers and RFID sensors.

Essentially, the system provides a means to record the time when the employee reaches certain important points on their tour (and, of course, the fact that they reached these points at all). Checkpoints are placed at the extreme ends of the tour route and at critical points such as vaults, specimen refrigerators, vital equipment, access points, etc.

An example of a modern set-up might work as follows: The employee carries an portable electronic sensor or electronic data collector which is activated at each checkpoint. Checkpoints consist of proximity RFID microchips. The data collector stores the serial number of the checkpoint with the date and time. Later, the information is downloaded from the collector into a computer where the checkpoint's serial number will have an assigned location (i.e. North Perimeter Fence, Cell Number 1, etc.). Computer software used to compile the data from the collector can print out summaries that pinpoint missed checkpoints or patrols without the operator having to review all the data collected. Devices can be subject to misuse or heavy wear and tear, to ensure that these devices protect themselves from the working environment the higher end devices have built in microwave, g-force and voltage detection.

ActA-Guard™ is conforming to the above mentioned philosophy and is intended to be used as part of complex system for Access Control and Time Attendance (**ActA™**). All points of interest are labeled with **RFID tag** (mounted into standard 45x45 mm frame) and guard person is carrying **X-Pocket** reader. He/she must wave the reader to the RFID tag at a control point to verify that the point was visited. Time of checking is recorded by the reader. Data log from the X-pocket reader are transferred to a PC at the end of work-shift of the guard person. We developed an application program for data analysis and reporting.

Software has native User Interface and offers following functionalities:

- Data Maintenance about
 - Control points
 - Tours consisting of points, a time schedule of their checking
 - Personal data
 - RFID terminals as a part of system
- Scheduling the routes to guard officers
- Importing data from terminals to database
- Reporting



RFID terminal X-Pocket



Control point

Software technology

- Windows XP / 2003 / Vista / 7
- .NET Framework 3.5
- MS SQL Server or MySQL

Security routes

Work with filters:

Scheduled routes | Maintenance | Control points | Routes terminals | Employees | Import log | Log preview

Search route schedule

Employee: From: To:

Route:

Employee	Date	Route	Status
1 Guard officer	03.02.2010	Route 1	NOT COMPLETED
1 Guard officer	04.02.2010	Route 1	COMPLETED
1 Guard officer	05.02.2010	Route 1	PARTIALLY

Assign new schedule

Details

Gate	Route schedule	Vreme registracije
Ccheck point 1	22:00-22:10	05.02.2010 22:08
Ccheck point 2	22:10 - 22:20	
Ccheck point 3	22:20 - 22:30	
Ccheck point 4	22:30 - 22:40	
Ccheck point 1	23:00 - 23:10	
Ccheck point 2	23:10 - 23:20	

Report

Report type: Analytic Syntetic

UI example – Status of scheduled route

Assigning route schedule to employee

Employee info
Employee: 2 Guard officer

Routes
Route: Route 1

Gate	From	To
Ckeck point 1	22:00	22:10
Ckeck point 2	22:10	22:20
Ckeck point 3	22:20	22:30
Ckeck point 4	22:30	22:40
Ckeck point 1	23:00	23:10
Ckeck point 2	23:10	23:20
Ckeck point 3	23:20	23:30
Ckeck point 4	23:30	23:40

Month: Feb, 2010

Assign

Mon	Tue	Wed	Thr	Fri	Sat	Sun
1 Route: 1	2 Route: 1	3 Route: 1	4 Route: 1	5 Route: 1	6	7
8 Route: 1	9 Route: 1	10 Route: 1	11 Route: 1	12 Route: 1	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28

Save Clear selected days Clear Cancel

UI example – Assigning schedule

Security routes

Work with filters
New filter Save filter

Scheduled routes Maintenance Control points Routes terminals Employees Import log Log preview

Search

Employee: 1 Guard officer
Point: *

Date
From: 01.02.2010 To: 11.02.2010
Time
From: 00:00 To: 23:59

Search

Employee	Tag id	Control point name	Time
1 Guard officer	125478425	Ckeck point 2	04.02.2010 22:11
1 Guard officer	125478425	Ckeck point 2	04.02.2010 23:16
1 Guard officer	125478425	Ckeck point 2	05.02.2010 22:01
1 Guard officer	125478425	Ckeck point 2	05.02.2010 23:07
1 Guard officer	4428716599	Ckeck point 1	04.02.2010 16:05
1 Guard officer	4428716599	Ckeck point 1	04.02.2010 16:59
1 Guard officer	4428716599	Ckeck point 1	04.02.2010 16:59
1 Guard officer	4428716599	Ckeck point 1	04.02.2010 22:01
1 Guard officer	4428716599	Ckeck point 1	04.02.2010 22:03
1 Guard officer	4428716599	Ckeck point 1	04.02.2010 23:04
1 Guard officer	4428716599	Ckeck point 1	04.02.2010 23:11
1 Guard officer	4428716599	Ckeck point 1	05.02.2010 21:58
1 Guard officer	4428716599	Ckeck point 1	05.02.2010 22:08
1 Guard officer	568741589	Ckeck point 4	04.02.2010 22:33
1 Guard officer	568741589	Ckeck point 4	04.02.2010 23:36
1 Guard officer	96751245	Ckeck point 3	04.02.2010 22:20
1 Guard officer	96751245	Ckeck point 3	04.02.2010 23:22
1 Guard officer	96751245	Ckeck point 3	05.02.2010 22:03
1 Guard officer	96751245	Ckeck point 3	05.02.2010 23:02

Close

UI example – Log exploring