

User Guide

How CrocoTime works

Time tracking and employee productivity monitoring software *CrocoTime* uses client-server architecture and consists of *CrocoTime Server* and *CrocoTime Agent* applications.

CrocoTime Agent – the application to be installed on employees' computers to collect statistics of computer activity.

CrocoTime Server – the application which receives employees' statistics collected by *CrocoTime Agent* applications and displays it visually and in text form through web-browser.

Monitoring agents of time tracking software CrocoTime collect and send statistics to the server in real time through a company's network or through Internet.

The software monitors activity of input devices (keyboard, mouse clicks, etc.) and counts time of usage for active application window or browser tab.

If no user activity is detected for 5 minutes and more the software considers it as *non-computer* time.

CrocoTime supports integration with other software by means of API which is used to request the necessary data from *CrocoTime Server*. Check [CrocoTime Web API](#) for details.

Technical Specifications

Technical specification of the software

Maximum number of employees to collect statistics: more than 10,000 (field-tested).

- API to communicate with external systems.
- Time determination accuracy: 0.1 sec.
- Enterprise hierarchy structure levels number: unlimited.
- Time to calculate statistics for 5,000 users: 0.5 sec (field-tested on a computer satisfying system requirements).
- Supports virtual systems and terminal servers.
- Works under Windows and OS X.
- Cloud and standalone versions are available.

Minimal hardware requirements of CrocoTime Server

1. CPU (x64 is recommended):

Intel® Core® 2 Duo® E8400 – up to 100 employees;

Intel® Core® i7 2600 CPU – up to 1,000 employees;

Intel® Xeon® Processor E52450 v2 – up to 2,500 employees.

We recommend contacting our Technical Support prior to installing monitoring agents to 2,500 computers and more.

2. RAM: 15 MB per employee per year.

3. Disk space: 200 MB free space + 4 MB per employee per year to store statistics data.

Minimal hardware requirements of CrocoTime Agent

1. CPU: Intel Pentium 1000 MHz or better;

2. RAM: 75 MB free RAM to run the agent;

3. Disk space: 200 MB free disk space to install the agent + 100 MB to store statistics prior to sending it to a server.

Supported OS

OS X from 10.9 (Mavericks, Yosemite), Windows XP SP3 and newer, Windows Vista, Windows 7, Windows 8, Windows 8.1, Windows 10, Windows Server 2008, Windows Server 2008 R2, Windows Server 2012, both 32-bit and 64-bit.

We recommend installing CrocoTime Server on 64-bit operating systems since 32-bit OSs use no more than 1.5 GB of RAM per process.

Supported browsers

Internet Explorer 7 for monitoring, Internet Explorer 9 and newer to use web-interface, Mozilla Firefox, Google Chrome, Opera, Yandex-Browser, Chromium.

Licensing

Licenses are provided for both cloud and standalone versions of CrocoTime, although standalone version license is provided permanently and includes all supported features, and cloud version license is provided for an agreed term and with a number of supported features based on a plan selected by a customer. Please see [Pricing](#) to learn

more about available plans and options.

The time tracking and employee productivity monitoring software CrocoTime collects statistics for computer user's accounts. One user account corresponds to one employee. If several employees use one user account the collected statistics will be attributed to this user account. To avoid this it is necessary to use different user accounts for different employees.

If no active license is detected the software will stop collecting statistics and all incoming statistics will be removed.

Should you have any questions related to licensing and support do not hesitate to contact us:

Tel.: 8 800 555 89 02

E-mail: crocotime@infomaximum.com

Installation and running

Additional tools

Reports tab

Settings Tab

CrocoTime Web API

Installation of Server

Download *crocotime_server_installer.exe* from [download page](#) of *CrocoTime* website and save it to the computer where the server shall be installed.

Make sure the computer is available for detection by the computers of your local network (please read [Configuration of peer-to-peer network](#) for more information). Create (or use an existing) an administrator's account with full access rights to your local network or domain.

Login to Windows using the administrator's account and run *crocotime_server_installer.exe* file. The installer will offer to set login and password for *CrocoTime* server administrator.

After reading the License Agreement click **I accept License Agreement** checkbox and then click **Next**.

CrocoTime Server - Installation

Set email and password for system administrator

Email:

Password:

Confirm password:

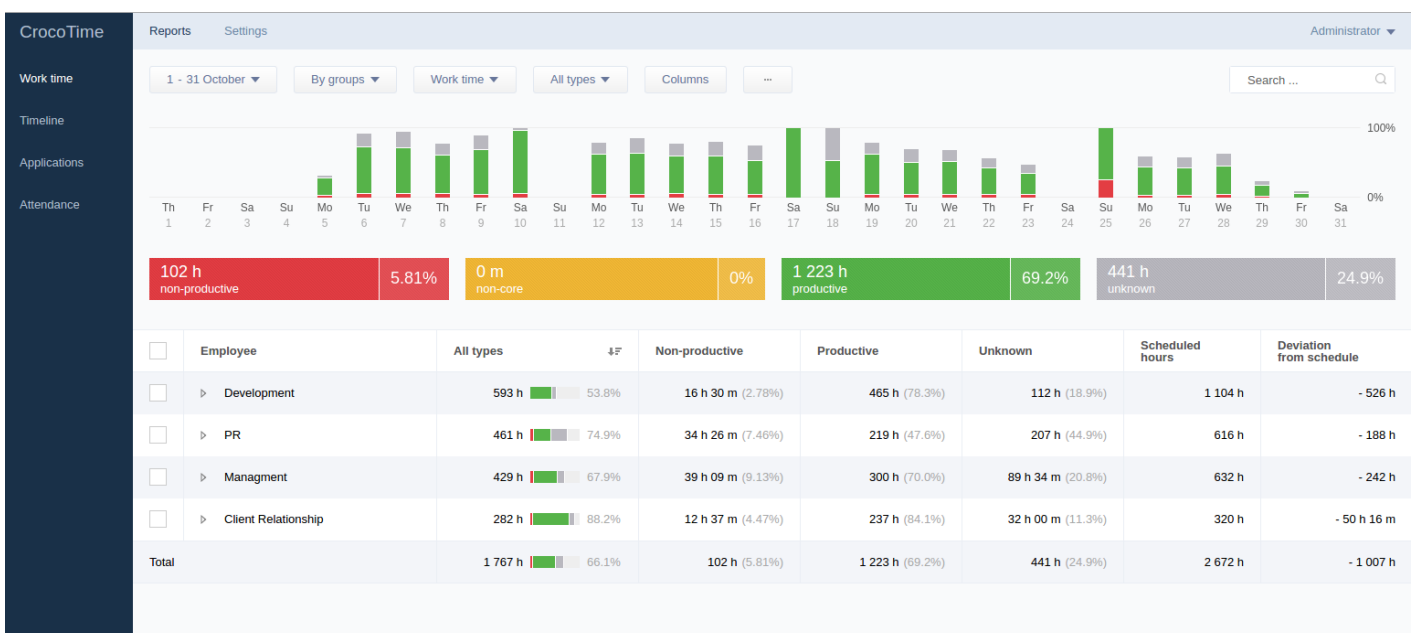
System language:

☒ I agree with [License Agreement](#)

Next Cancel

Click **Finish** once the installation process has been completed.

Start *CrocoTime Server*. Web-browser window shall open displaying web-interface of the application.



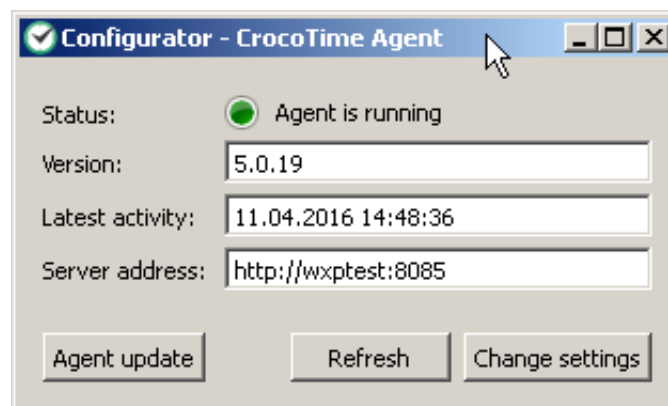
If the web-interface would not open make sure that the server's listening port 8085 is allowed in your firewall or antivirus software. The server tries to set permissions for this port where it is necessary, by default.

Type login and password specified during *CrocoTime Server* installation and click *Login* button. Once the web-interface of the server is displayed proceed to installation of client applications - *CrocoTime Agents*.

Agent Configurator



The utility is located at `\Program Files\CrocoTime Agent\system\core`.

It provides the information about CrocoTime Agent installed on the device (condition, version, date and time of last activity, server address where statistics from this device is sent) and also allows to update the Agent to the last version from the server. To update the agent click *Agent update*. The agent will be updated automatically.



Click *Refresh* button to get up to date information about version of the agent and time of last activity. The configurator will prompt to update the agent if its version is not the most current.


Clicking ***Change settings*** allows to change the address and port of the server where statistics is sent. To apply the changes CrocoTime administrator's email address and password are required (specified during initial registration).


Settings


CrocoTime Server host:

CrocoTime employee:
Email:
Password:

☐ Tune proxy-server



Type:

Address:

Port:

User name:

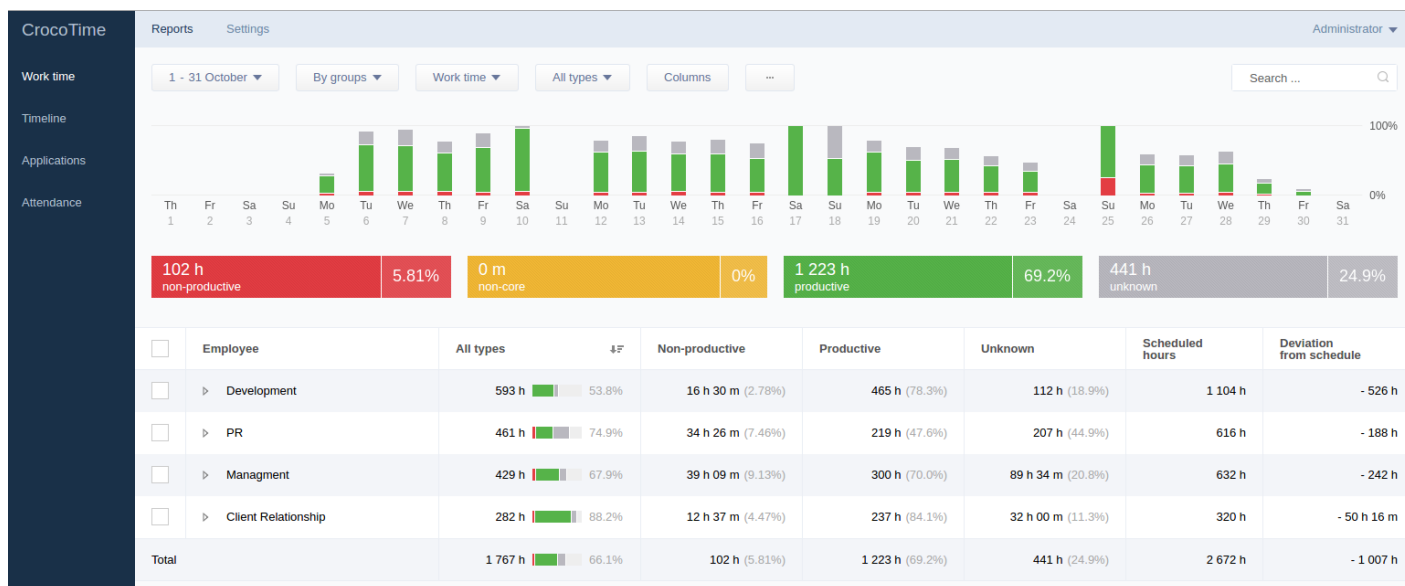
Password:

OK

Cancel

Work time

Tab **Reports** → **Work time** displays statistics showing how time is spent by every employee, in form of diagrams.













Bar diagram which displays activities of employees on daily basis is shown in the top of the screen. The bars consist of several parts of different colors to visually indicate amounts of Productive, Non-core (when it is enabled, see [item 7.1.4](#) for details), Non-productive, and Unknown time in relation to total work time. The meaning of each color is displayed as a hint when hovering the mouse over a bar. Each bar represents one work day. Crosshatched bars represent current (unfinished) day.

By clicking on a bar a user can see more detailed statistics for a chosen day where time worked by departments and individual employees is presented as bar diagrams and figures. The bars are also divided in colors. The list is sorted by descending work time of departments (with employees sorted within departments) by default.

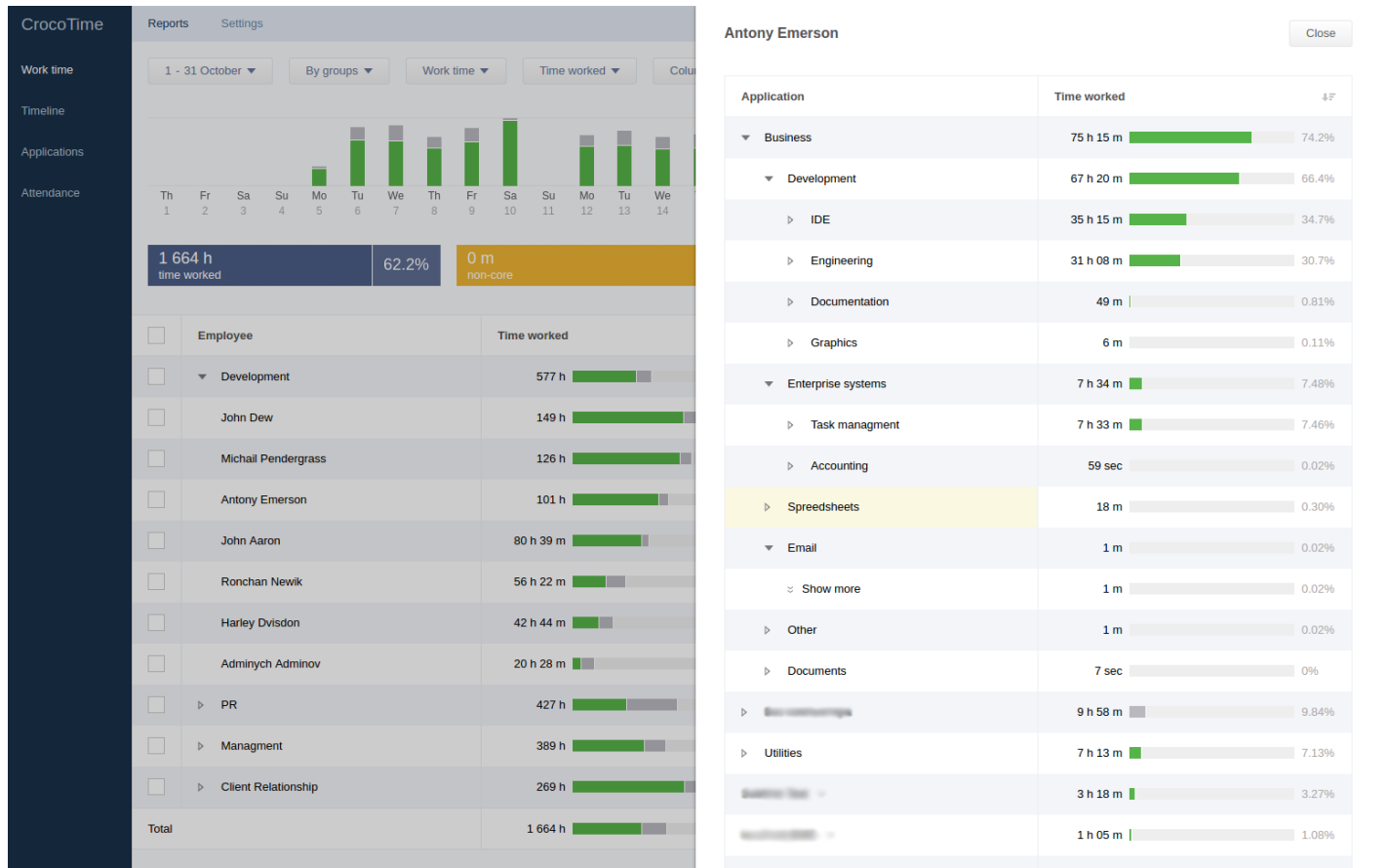
Fri, 9 October

Close

Employee	All types ⌵
▼ Development	47 h 17 m  84.4%
John Dew	9 h 14 m  115%
Ronchan Newik	8 h 59 m  112%
Michail Pendergrass	7 h 47 m  97.4%
Antony Emerson	7 h 45 m  96.9%
John Aaron	6 h 25 m  80.3%
Harley Dvisdon	4 h 36 m  57.6%
Admynych Adminov	2 h 28 m  30.8%
▸ PR	30 h 07 m  94.1%
▸ Managment	27 h 14 m  85.1%
▸ Client Relationship	17 h 17 m  108%
Total	121 h  89.6%

The value in percent next to an employee's bar means the percentage of time worked by the employee from the nominal amount of work time set by the employee's schedule.

The list of all employees divided by departments is located below. The columns next to the names of employees display more detailed information about time spent by each employee.



The column **Time worked** contains the bar divided in colors which displays ratios of time types to total time worked. The total amount of time worked during the selected time period is shown to the left of the bar and the percentage value of the ration between worked time to scheduled time is displayed to the right. The window with detailed information about an employee's activity is displayed when clicking on the bar.

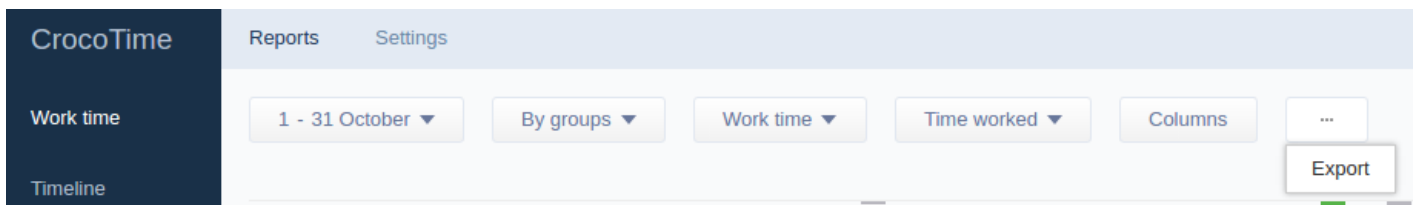
Application	Time worked	↓
▼ Business	75 h 15 m	74.2%
▼ Development	67 h 20 m	66.4%
▶ IDE	35 h 15 m	34.7%
▶ Engineering	31 h 08 m	30.7%
▶ Documentation	49 m	0.81%
▶ Graphics	6 m	0.11%
▼ Enterprise systems	7 h 34 m	7.48%
▶ Task managment	7 h 33 m	7.46%
▶ Accounting	59 sec	0.02%
▶ Spreadsheets	18 m	0.30%
▼ Email	1 m	0.02%
≈ Show more	1 m	0.02%
▶ Other	1 m	0.02%
▶ Documents	7 sec	0%

The column next to the bars shows the amount of time of this type and percentage of this time to total work time. By clicking on a bar you can see how the displayed period of time was spent (which websites and applications were used).

The table is sorted either by the amount of time or by percentage. To change the type of sorting click the header of the table.

Other buttons of the horizontal menu allow to change representation of the table.

The date button opens the Time period menu where the period of time the activity for which is displayed in the table can be selected. If several days are selected the bar diagram displays a bar for every day and if only one day is selected each bar represents one hour of time during the chosen day.



The **By groups / Rating** switch is used to switch the table from displaying the list of employees grouped by departments to flat list and back. When **Rating** is selected the list will be sorted without taking employees' departments into account.

The **Work time / Scheduled hours / Non-scheduled hours** switches the table between displaying total work time to scheduled work time (work time within a work schedule) to non-scheduled time (work time outside of work schedule). This switch is displayed only if **Track scheduled time separately** is enabled. See [item 7.1.3](#) for details.

The **All types / Computer / Non-computer** switches the table between displaying total work time to only displaying computer time to non-computer time.

The **Columns** button allows to choose which columns will be displayed in the table.

The **Export** button allows to save statistics to a computer in printable form. The downloaded file is an .xls table. Information about all employees is saved by default. To save information about specific employees only select them in the table before clicking the **Export** button.

Configuration

This sections includes main settings of time tracking and attendance software *CrocoTime*.

CrocoTime	Settings	
	Title	Value
Configuration		
Employees	Work model	Individual settings
Applications	Schedules	Individual settings
Positions	Scheduled time	Enabled
Schedules	Non-core time	Enabled
Calendars	Email server	Address: http://localhost:8085 ; Email: mailto:admin@localhost
Work types	Updates	Product version: 5.0.19; Automatic update: enabled
Agents	Database	Database type: PostgreSQL; Database name: crocotime; Address: localhost:5432
User accounts	Encryption	Protocol: http; Port: 8085
	Localization	System language: english; First weekday: monday
	License	Company: test; Employees limit: 50; Total employees in use: 18
	Extended precision	Disabled
	Time-tracking	Enabled
	Screenshots	Max disk space (MB): 112312

Work model

This tab allows to set unified settings for all employees. If the **Unified settings** switch is turned on, the fields to set limits appear and the left vertical menu item **Positions** disappears. This way a unified setting of position is applied to all employees and the same limits and application productivity groups are set for all employees.

Work model

Save

Cancel

Unified settings

☐

Off

Unified settings are disabled. Work type is set individually for each position.

If the **Unified settings** switch is turned off, configuration for every position is set in the **Settings → Positions** tab.

Work model

Save

Cancel

Unified settings

☒

On

Distraction time limit

30

minutes

Lateness time limit

15

minutes

Early leave limit

15

minutes

Unknown time limit

Not set

minutes

Schedules

This tab allows to set uniform schedules for all employees. If the **Unified settings** switch is turned on, the fields to set work schedule appear and the left vertical menu item **Schedules** disappears. This way a unified schedule configured in this window is applied to all employees.

Schedules

SaveCancel

Unified settings

☐ On

WORK DAYS	WORK	BREAK	HOURS
<input checked="" type="checkbox"/> Unified	09:00-18:00	13:00-14:00;	08:00
<input checked="" type="checkbox"/> Monday	09:00-18:00	13:00-14:00;	08:00
<input checked="" type="checkbox"/> Tuesday	09:00-18:00	13:00-14:00;	08:00
<input checked="" type="checkbox"/> Wednesday	09:00-18:00	13:00-14:00;	08:00
<input checked="" type="checkbox"/> Thursday	09:00-18:00	13:00-14:00;	08:00
<input checked="" type="checkbox"/> Friday	09:00-18:00	13:00-14:00;	08:00
<input type="checkbox"/> Saturday	Not set	Not set	00:00
<input type="checkbox"/> Sunday	Not set	Not set	00:00

If the **Unified settings** switch is turned off, configuration for every position is set in the **Settings → Schedules** tab where unlimited number of schedules can be created and assigned to employees.

Scheduled time

If the **Track scheduled time separately** switch is turned on it allows to use the **Work time / Scheduled hours / Non-scheduled hours** switch on **Reports → Work time** tab (see [item 6.1](#) for details). It also allows to see all statistics collected during break and non-scheduled time (if this switch is turned off non-core and non-computer time statistics collected during break and non-scheduled time is not displayed in reports).

Non-core time

The **Non-core time** switch disables **Non-core** type of productive time. When it is disabled all previously *non-core* activities are considered *productive*.

Email server

The **Email server** tab allows to configure email notifications and to restore a user's password via email.

Email server

SaveCancel

Address*

smtp.test.test

Port*

465

Use SSL

☐ On

Email*

test@test.test

User name*

test@test.test

Password

Not set

Indicate the address of SMTP-server in the **Address** field and sender's email in the **Email** field (to send notifications from this account). Indicate login of email server administrator as: *user_name@server* and password. If you use Microsoft Exchange it is required to indicate login and password of domain user with administrative privileges.

Updates

The **Updates** item allows to see version of the system, set automatic update parameters, set update source (*crocotime.com* is set by default), or disable automatic update (the **Automatic update** switch).

Updates

Save

Cancel

Product version

5.0.19

Automatic update



On

Update path*

https://crocotime.com

Use proxy



Off

Proxy server is supported. If the **Use proxy** switch is turned on the following fields appear: **Protocol*** menu, **Address*** and **Port*** fields for the proxy, and login with password for proxy authorization (if required).

Database

The **Settings → Database** item allows to change settings of *CrocoTime* database. The system uses SQLite database by default.

Database

Save

Cancel

Database type*

PostgreSQL

Database name*

crocotime

Address*

localhost

Port*

5432

Administrator*

postgres

Password*

Not set

The database can be transferred to PostgreSQL when necessary. To do this select proper database type with **Database type*** switch and indicate address, port, and login details of DB administrator in the corresponding fields.

ATTENTION! Reverse transfer from PostgreSQL to SQLite is not possible. If PostgreSQL server is not available or there are any mistakes in address, login, etc. transfer does not happen.

Encryption

The **Encryption** item includes settings of data transfer protocol and port to access the server (port 8085 is used by default).

Encryption

Protocol*	<input type="text" value="https"/>
Port*	<input type="text" value="8085"/>
Certificate (PEM)*	<input type="button" value="Upload"/>
Key (PEM)*	<input type="button" value="Upload"/>
<input type="button" value="Save"/> <input type="button" value="Cancel"/>	

If **Protocol → https** is selected, SSL encryption will be applied. It requires security certificate and key generated elsewhere. The **Upload** buttons for certificate (PEM) and key (PEM) will appear. After uploading the required files click **Save** to apply changes.

Localization

The **Localization** item allows to set system language, date format, first day of the week, and employee's name format.

Localization

System language	English ▼
Date format	MM.DD.YYYY ▼
First weekday	Monday ▼
Name format	First Last name ▼

Save

Cancel

License

The ***License*** item allows to see the information about currently installed license, number of purchased and number of currently used licenses, expiration date, and next subscription date. It also includes the text field for pasting new license key.

License

Save

Cancel

Company

test

Employees limit

50

Total employees in use

18

License expires on

Perpetual

Updates available before

Till April 12 2017

New key

Extended precision

It allows to enable and disable usage of Microsoft Active Accessibility. This option is necessary in some cases related to performance of certain web browsers. When extended precision mode is disabled, display errors may appear while viewing headers of browser opened pages in **Reports → Applications** tab.

Time-tracking

Enables or disables time tracking globally. If this function is disabled all user interface elements related to time tracking will be hidden.

Screenshots

The **Screenshots** tab enables the possibility of saving screenshots. Maximum size of screenshots folder is set in the **Max disc space (MB)** field. If this limit is reached the earliest screenshots will be removed.

Screenshots

Save

Cancel

Allow screenshots

☐ On

Max disk space (MB)

112312

Screenshots are saved to:

C:\ProgramData\CrocoTime Server\activity\data\screenshot
(for MS Windows newer than Windows 7.)

For previous versions the full path to screenshots is:

C:\Documents and Settings\All Users\Application Data\CrocoTime Server\activity\data\screenshot

Initial authorization to CrocoTime Web API

To start using CrocoTime Web API you will need to login to the system: use login and password to get a session ID. We recommend you to create a separate user with administrative privileges to eliminate any possible problems with access rights. The returned user's session ID is used for all requests to CrocoTime Web API.

Example of a request:

Logon to the system responds with user's session. To use API logon must be performed with CrocoTime system administrator's credentials. The returned user's session is later used in all API requests of CrocoTime. Request:

```
controller=LogonController&
query=
{
"user":
{
"login":"admin",
"password":"21232f297a57a5a743894a0e4a801fc3"
}
}
```

login
password

Login;
MD5-hash of the password.

Response:

```
{  
"session":  
"44de3a99578d6aede5f7706049f61e13e35f5f4e8f674761ba0a3f570631de57"  
}
```

session

User's session. User's session is used in all
API requests of CrocoTime.

Now you will be able to access main CrocoTime Web API controllers.

Installation of Agents

Manual configuration

While in CrocoTime web-interface, proceed to **Settings→Agents** tab to download *CrocoTime Agent* installer. Select the one corresponding to the OS used on a computer where the agent to be installed.

CrocoTime	
Configuration	<div>Reports Settings</div> <div>Windows installer OS X installer GPO installer Clear</div>
Employees	<input type="checkbox"/> Computer
Applications	<input type="checkbox"/> > ...
Positions	<input type="checkbox"/> > ...
Schedules	<input type="checkbox"/> ...
Calendars	<input type="checkbox"/> ...
Work types	
Agents	
User accounts	

Select **Windows installer** for MS Windows OS and **OS X installer** for OS X.

The window will appear asking for the server's address. By default, the address of the computer where CrocoTime Server was installed is displayed, and a proxy-server used to connect to CrocoTime Server. Download the monitoring agent *agent_installer.exe* by clicking the *Generate* button to install it on every computer from which statistics will be collected.

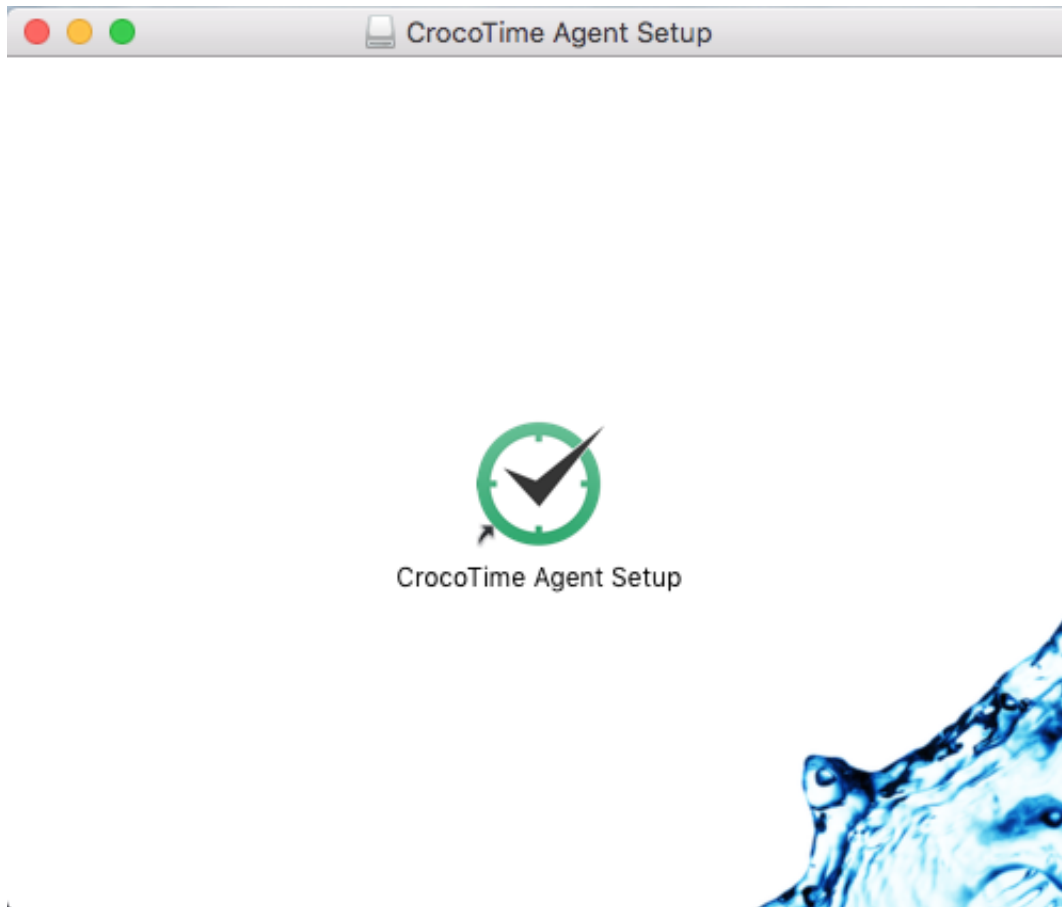
Specifics of installation in OS X

OS X only allows installation of applications from AppStore by default. It can be changed by modifying security settings for the application:

1. Using *Finder* locate the application you need to run;
2. Click Command ⌘ and then click the application;
3. Type administrator's login information when prompted by the system;

4. The application will be saved as an exception and will be allowed to run by double-clicking it.

In the window, click the application's icon to install it.



The program installation (or update) window shall appear.

To remove the agent follow the same steps as for the installation. The agent installer can be found at `/usr/local/bin/CrocoTime Agent/`.

Installation using ***Remote agents management***

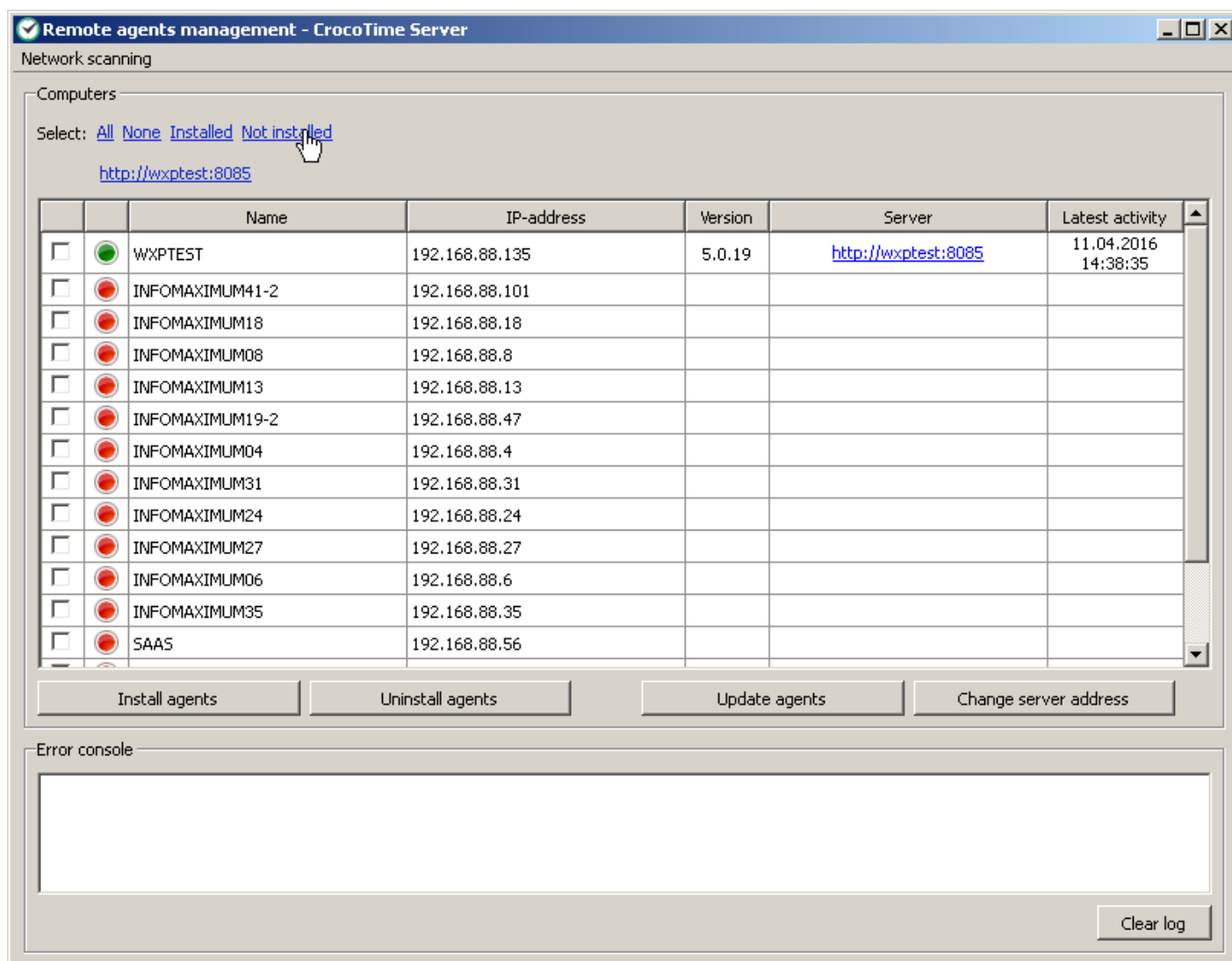
Remote agents management is the application to install and monitor *CrocoTime Agent* applications within a local network. To start the program proceed to **Start→ All programs→CrocoTime Server→Remote agents management**.

The program allows to install or remove agents to/from employees' computers, and to change listening port to which statistics will be sent to the server. Port 8085 is used by

default.

Run the program and wait until network scanning is finished, then check the computers needed and click **Install agents** to install monitoring agents. Updating and removing of agents can be done the same way.

To add a computer from another subnet the program supports searching computers by their IP address or within a range of IP addresses. Select **Network scanning** → **Custom search** to access this feature.



To ensure correct discovery of a remote computer by the remote installer and further installation of the program it is necessary to meet the following requirements for every remote computer:

- The Windows user account (the one who runs the remote installer) must have administrator privileges on every remote computer. In case of a domain it must be user account with domain administrator privileges, and in case of peer network the administrative user account with the same name and password must exist on every remote computer where the agent has to be installed;
- In case of automatic installation remote computers must have the parameter *Network access: Sharing and security model for local accounts* set to *Classic - local users authenticate as themselves*. It can be changed at *Control Panel→Administrative Tools→Local Security Policy→Local Policies→Security Options*.
- Administrative resource *ADMIN\$* must be accessible on every remote computer in question. It can be made accessible in one of the following ways:
 - In Windows XP the built-in firewall can block the access to administrative shares. It can either be disabled or configured to allow network access to files. Proceed to *Control Panel* and start *Windows Firewall* configuration tool. You can either disable the firewall or allow network access by enabling *File and printers sharing*.
 - Windows Vista, Windows 7, Windows 8 only allows accessing administrative shares to built-in administrator account by default.
 - To allow access to administrative shares for other user accounts with administrative privileges you can either apply registry files located in *C:/program files/CrocoTime Server/RemoteInstaller* or disable UAC.
 - There are other ways to open *ADMIN\$*.

Installation using group policies (Group Policy Object)

Installing CrocoTime time tracking Agents by means of GPO is useful in case if you have a properly configured domain and sufficient experience in system administration.

It is important to perform all actions under a user account with server administrator privileges. Otherwise there could be problems while installing Agents on computers in a domain.

Get an *msi*-file by going to *Settings→Computer agents* tab of CrocoTime web interface and clicking *GPO installer* button. You will need to enter the IP address and port of the CrocoTime server as: <http://server:port>.

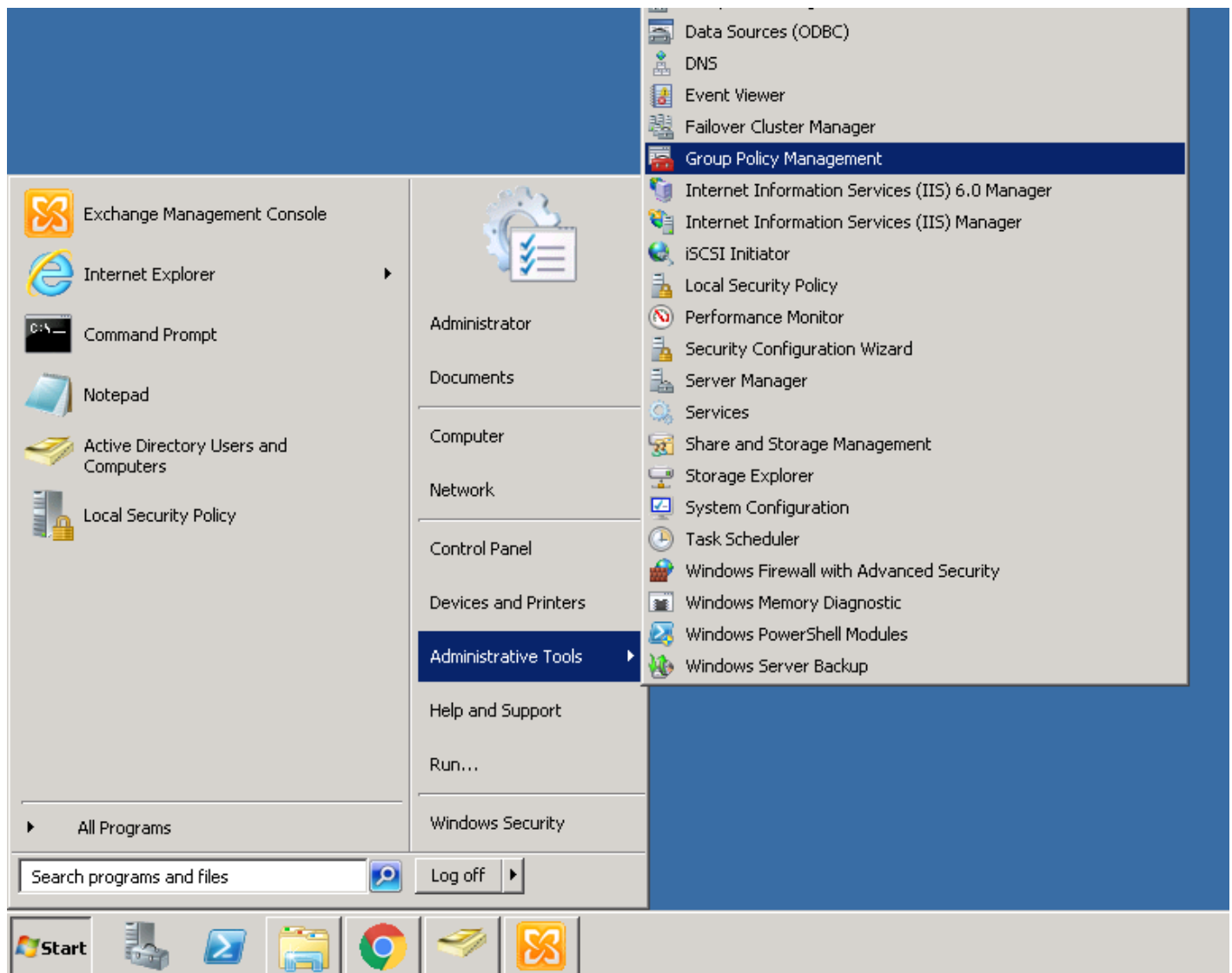
After entering the address, two files will become available for download: the *msi*-package and the modifier. The modifier is required to specify the server settings to the agent. When downloading the modifier in web browsers, e.g. Internet Explorer or Google Chrome you may receive a message *Could not verify the publisher of the program:*, choose to proceed anyway.



Move the resulting files to a software distribution folder.

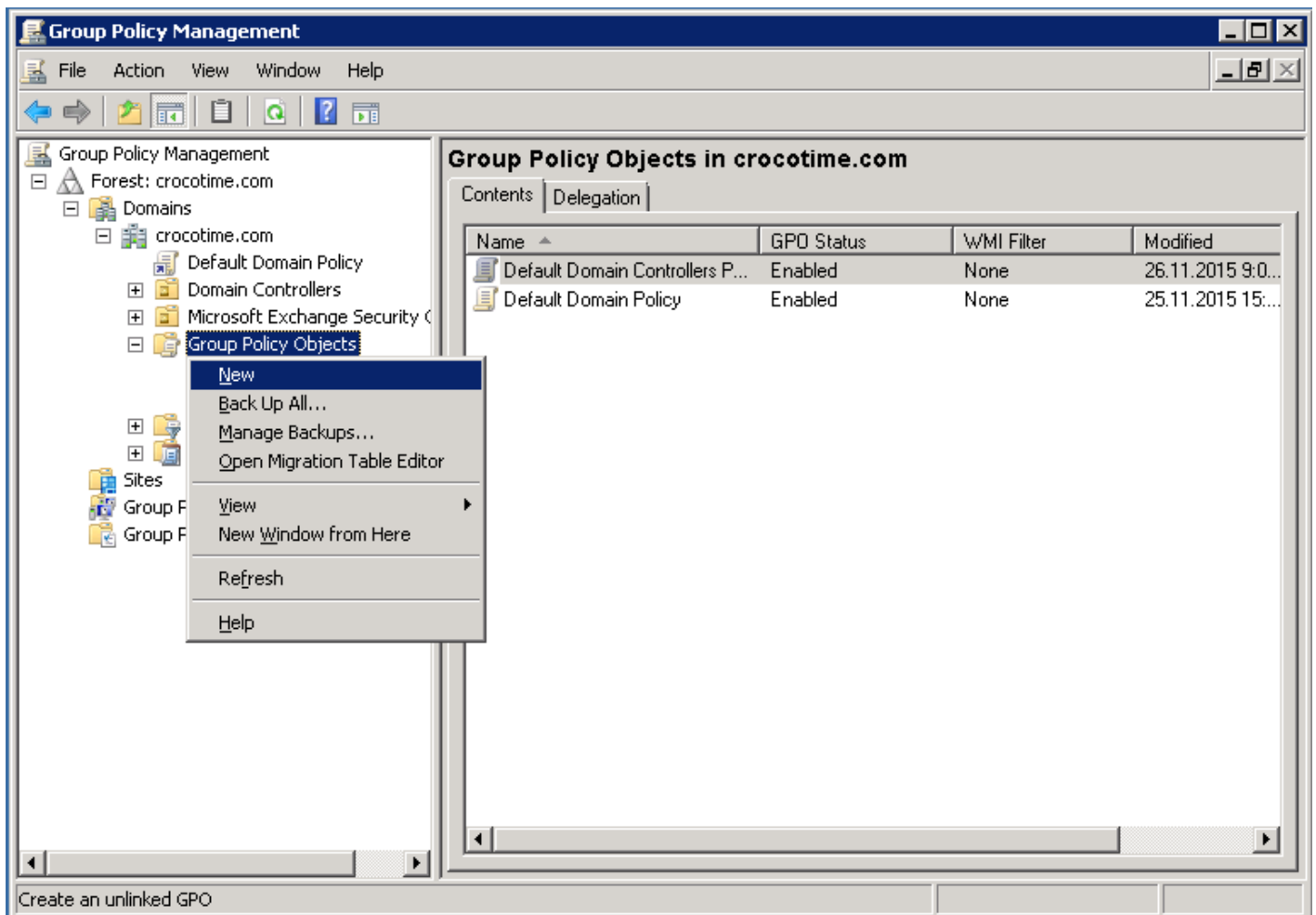
Warning: the modifier should be obtained only through a CrocoTime web interface. If you obtain a *mst*-file elsewhere it will not run properly.

Open the *Group Policy Management* snap-in as shown in the figure:

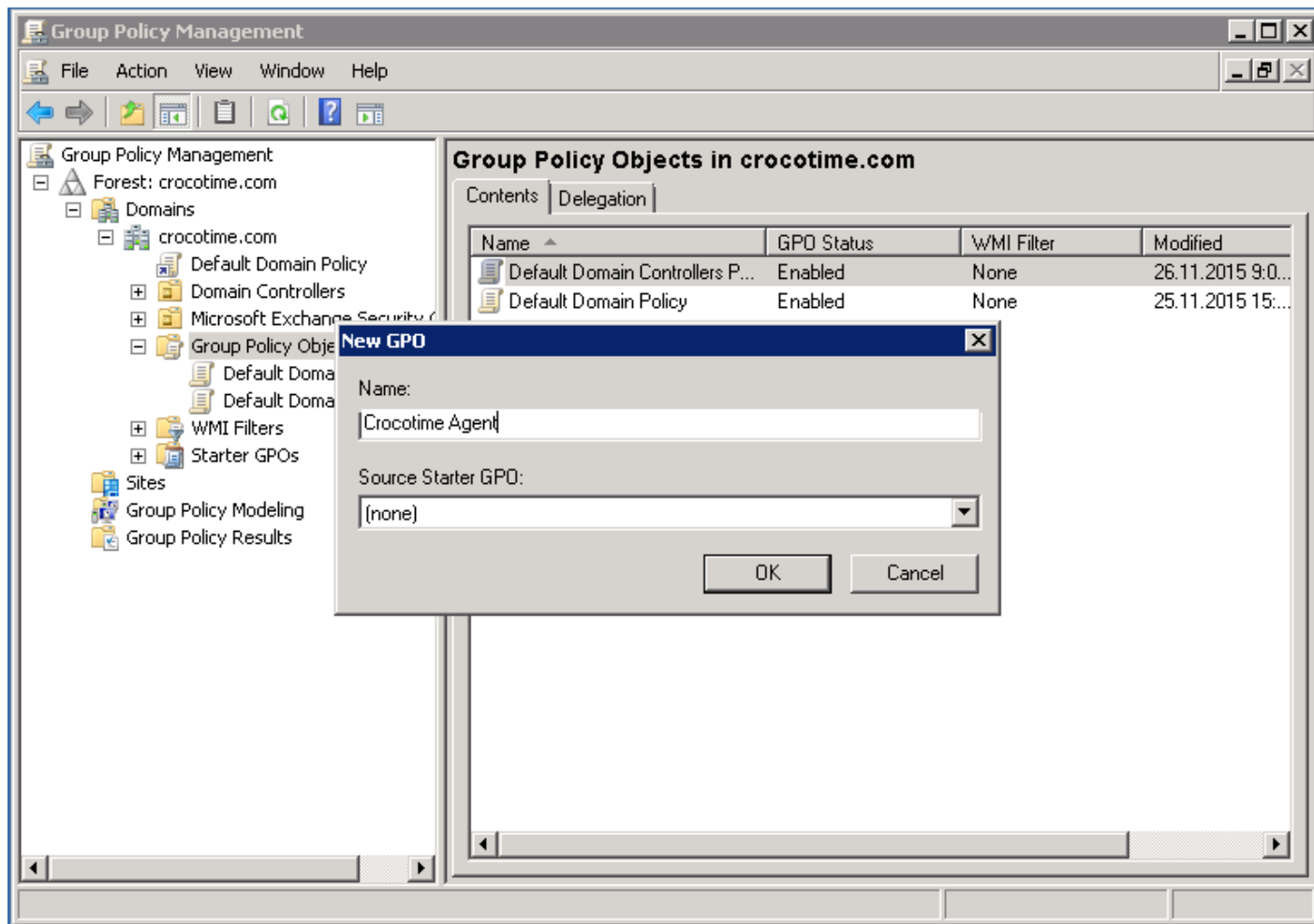


In the displayed snap-in console tree, expand *Forest: %name of the forest%*, expand *Domains* node then expand the name of your domain and then navigate to *Group*

Policy Objects. Create the *CrocoTime Agent* GPO object in the *Group Policy Objects* node.

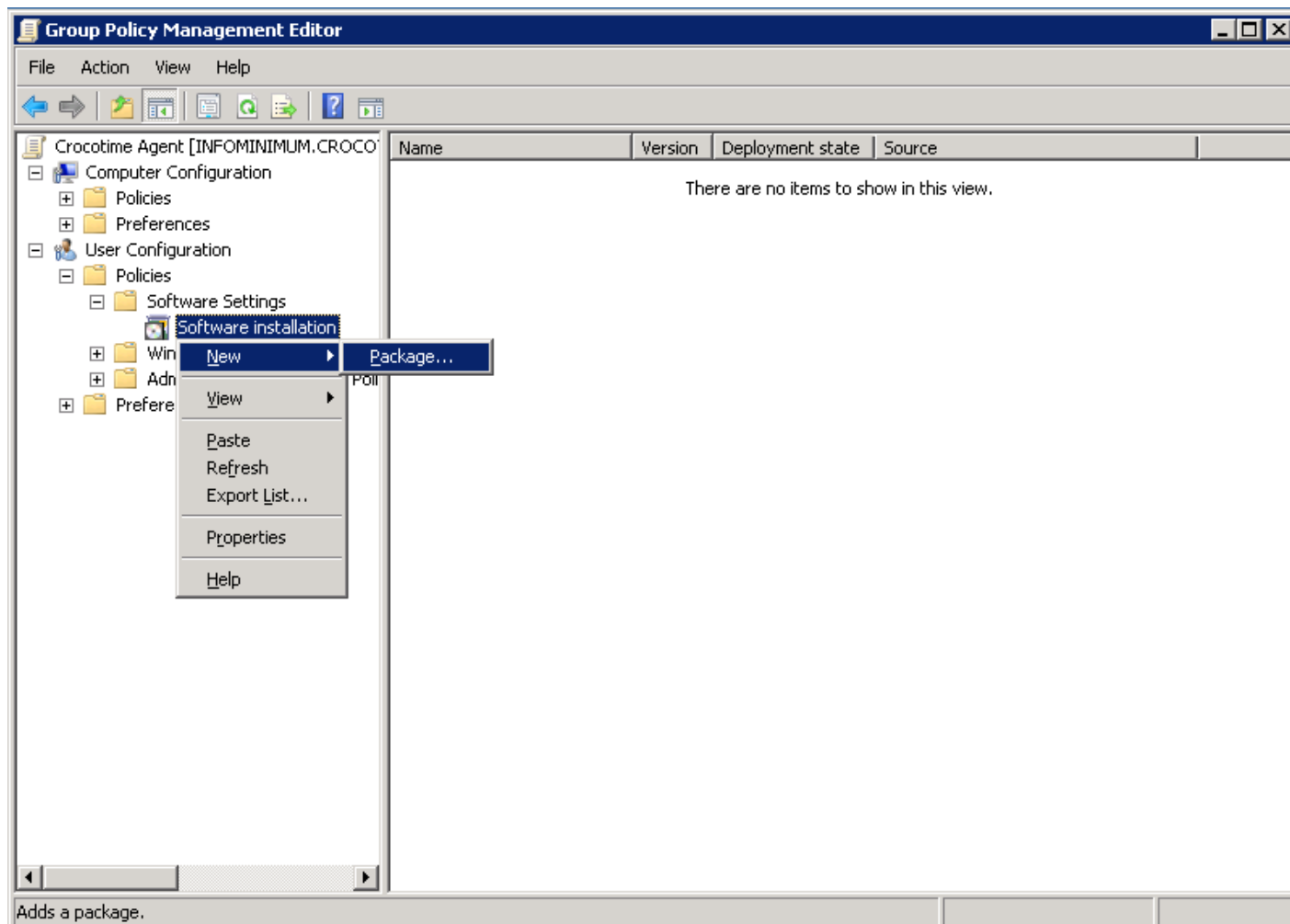


Enter a name for the new GPO object.

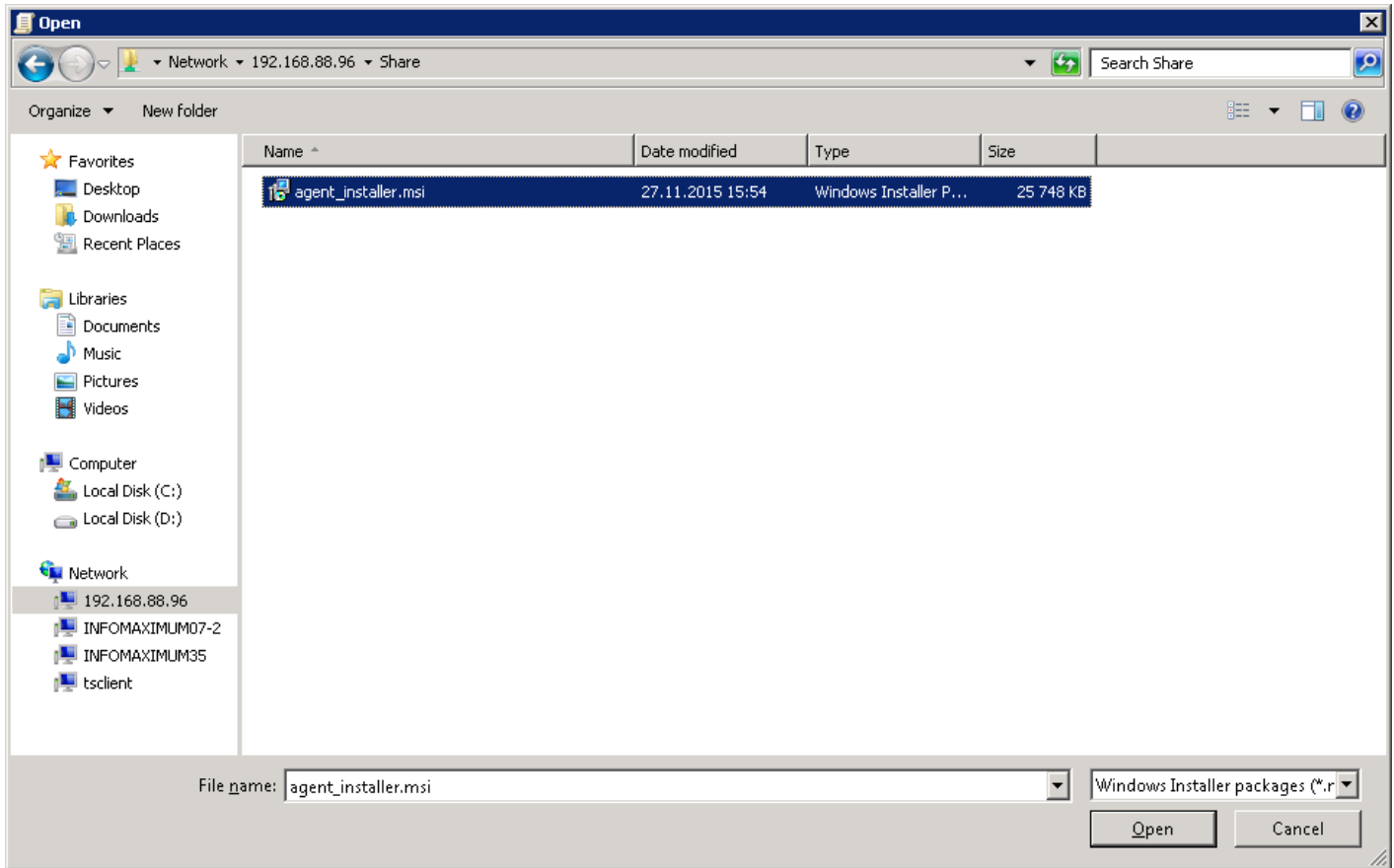


Select the GPO object you created earlier from *Group Policy Management* snap-in, click right mouse button on the object and select *Edit* from the context menu to open the *Group Policy Management Editor* snap-in:

While in the *Group Policy Management Editor* snap-in, expand the *User Configuration\Policies\Software Settings* node, navigate to *Software Installation* node and right-click on it and choose *New* and *Package* from the context menu, as shown in the following figure:



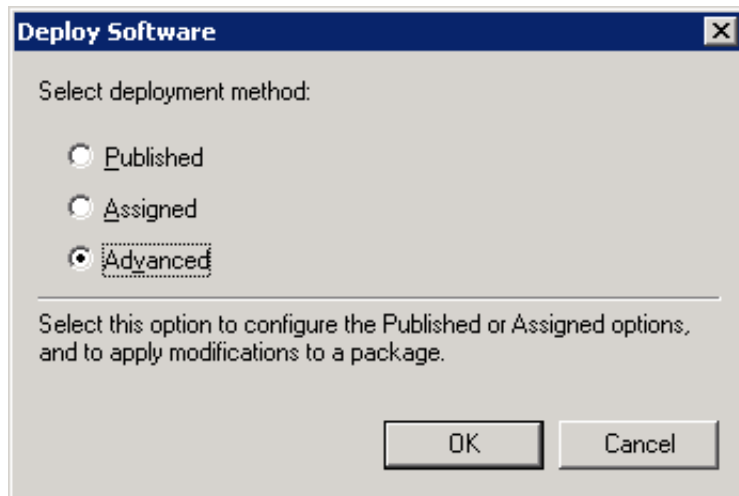
From the *Open* dialog box navigate to the previously created software distribution point and select the Windows installer file to install the software.



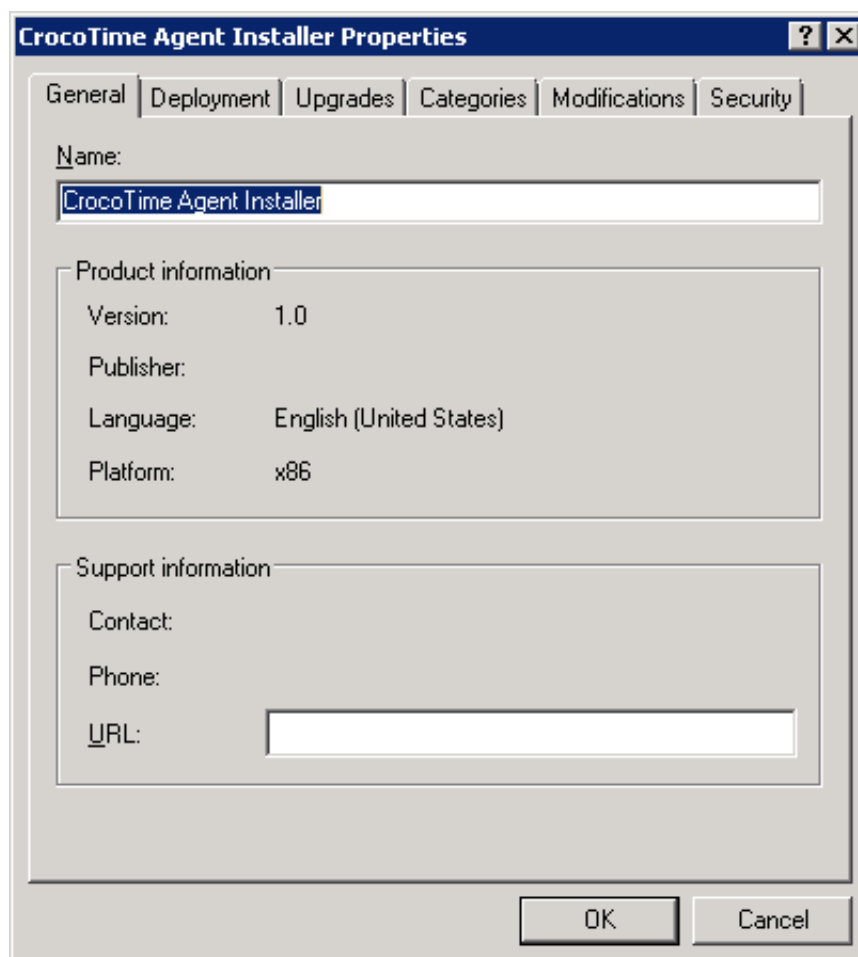
At this point, **pay attention to the two following features:**

The first, for the CrocoTime time tracking agents' deployment you will need to select the *agent_installer.msi* file which is located in the selected folder (**shared access to this folder has to be allowed**). The second, and the more important point: when selecting a folder you will need to specify not a local drive letter on your domain controller (in the case when the installation package is located on a domain controller), but a **network path** of the folder, as this location is published for client computers.

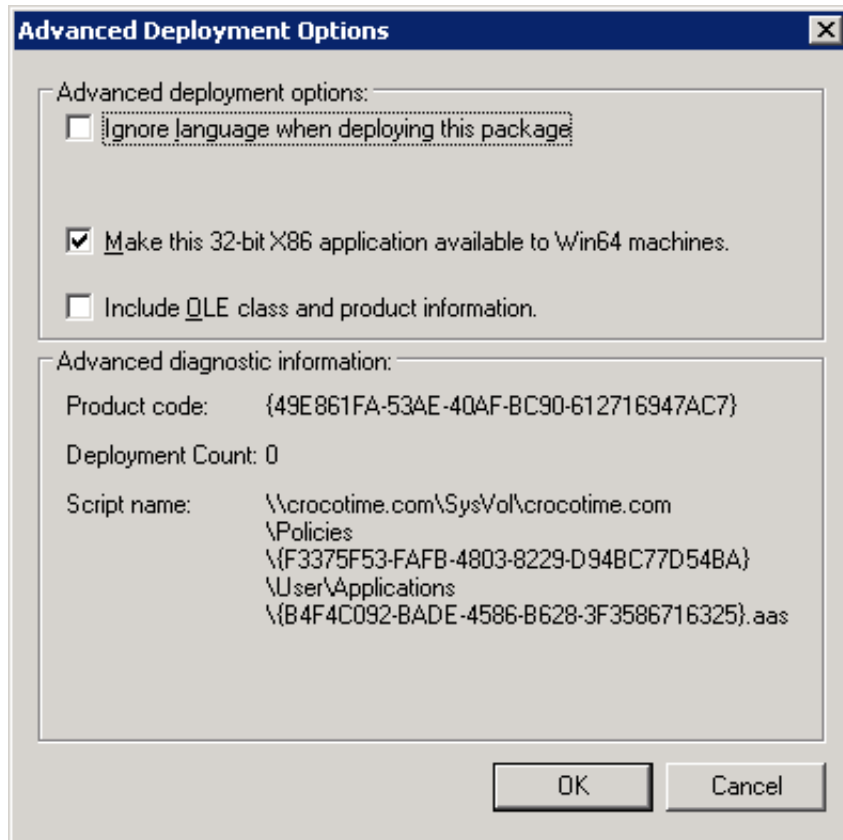
Immediately after selecting the *msi*-file you will be prompted to choose a method of software deployment. In the *Deploy Software* dialog box you can choose one of the following methods: *Published*, *Assigned* or *Advanced*. Select the *Advanced* method, as shown in the figure above:

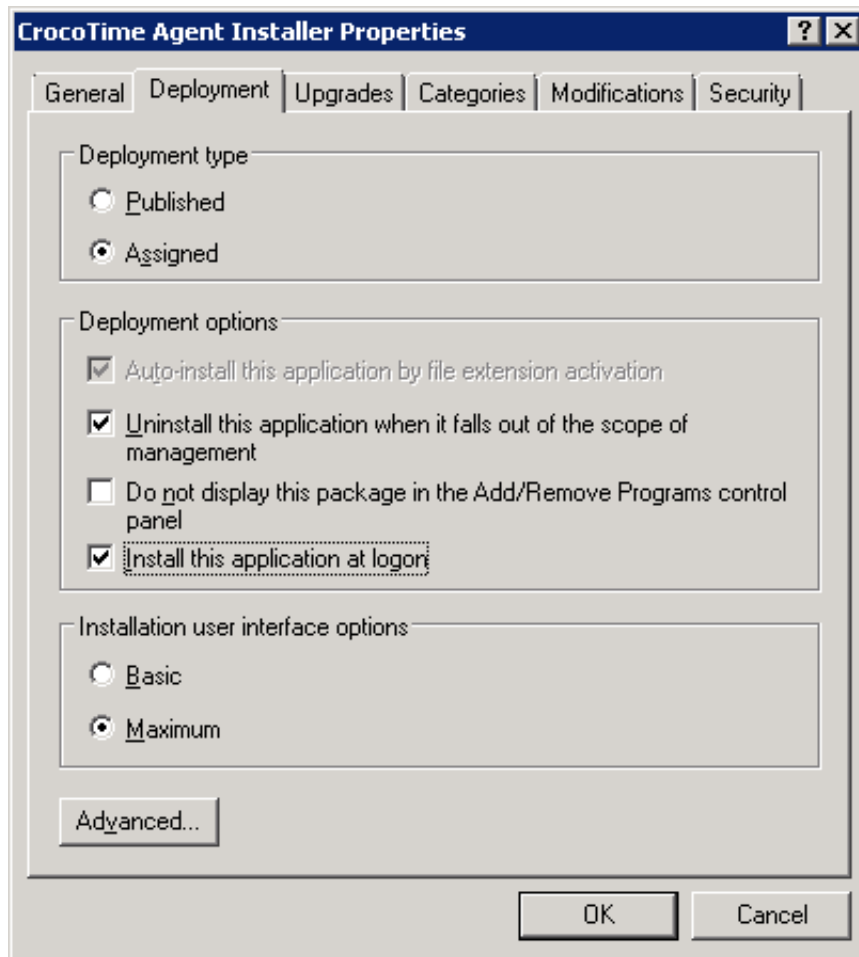


The *Properties* dialog box of the installation package shall pop up in a few seconds after choosing the deployment method. You must specify additional parameters to be used during the CrocoTime time tracking agent installation:

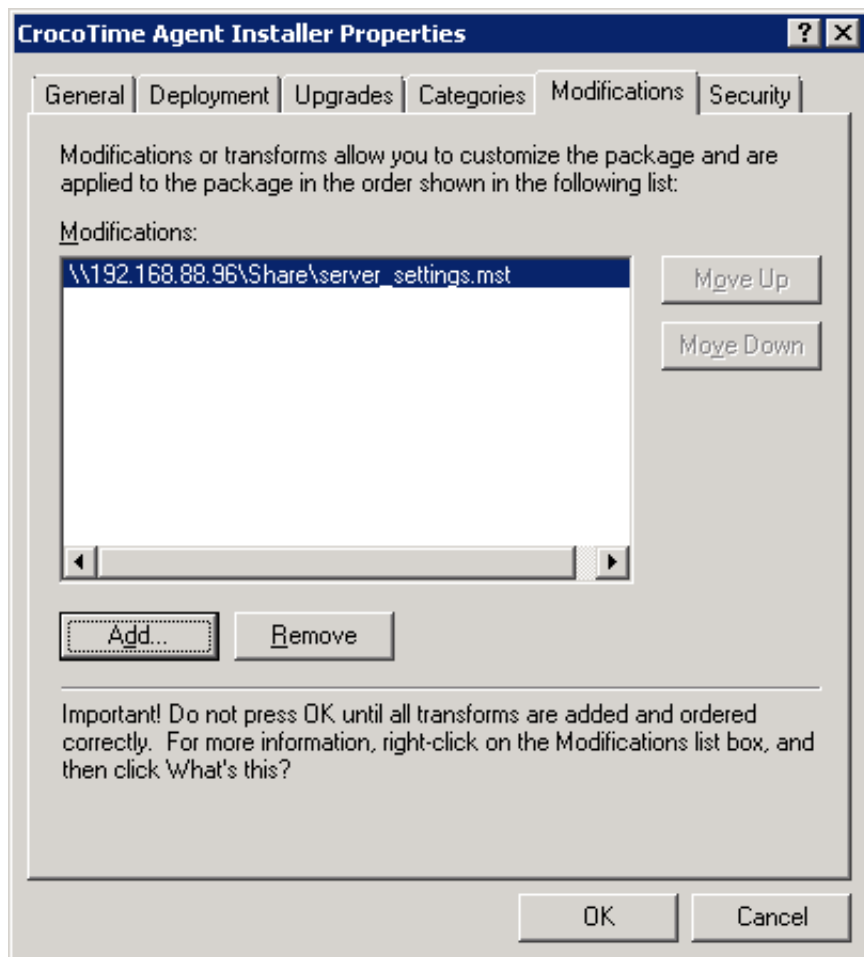


In the *Deployment* tab, click the *Advanced...* button and check the *Make this 32-bit x86 application available to Win64 machines.* checkbox.





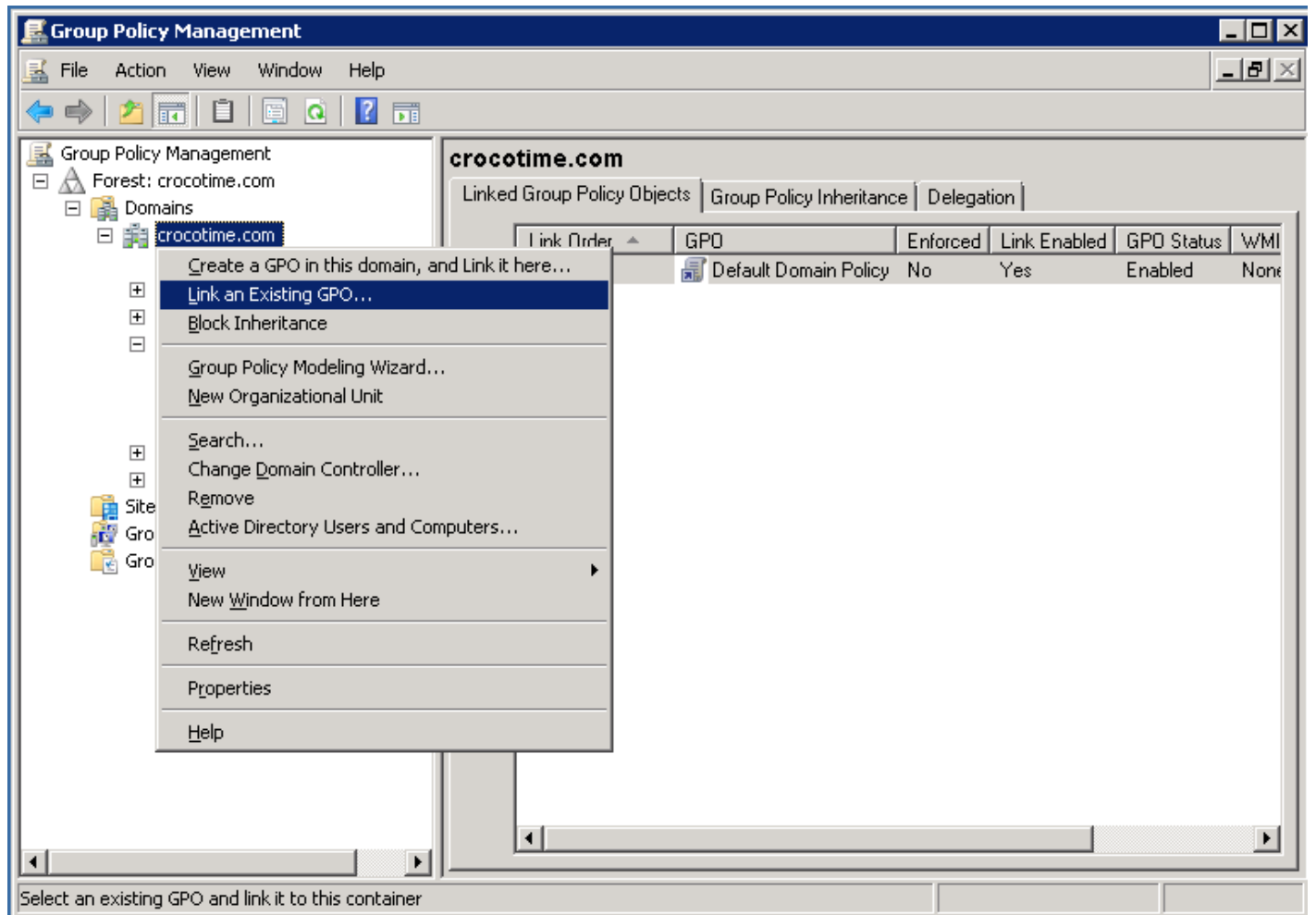
In the *Modifications* tab click the *Add...* button and specify the path to the *server_settings.mst* modifier file.



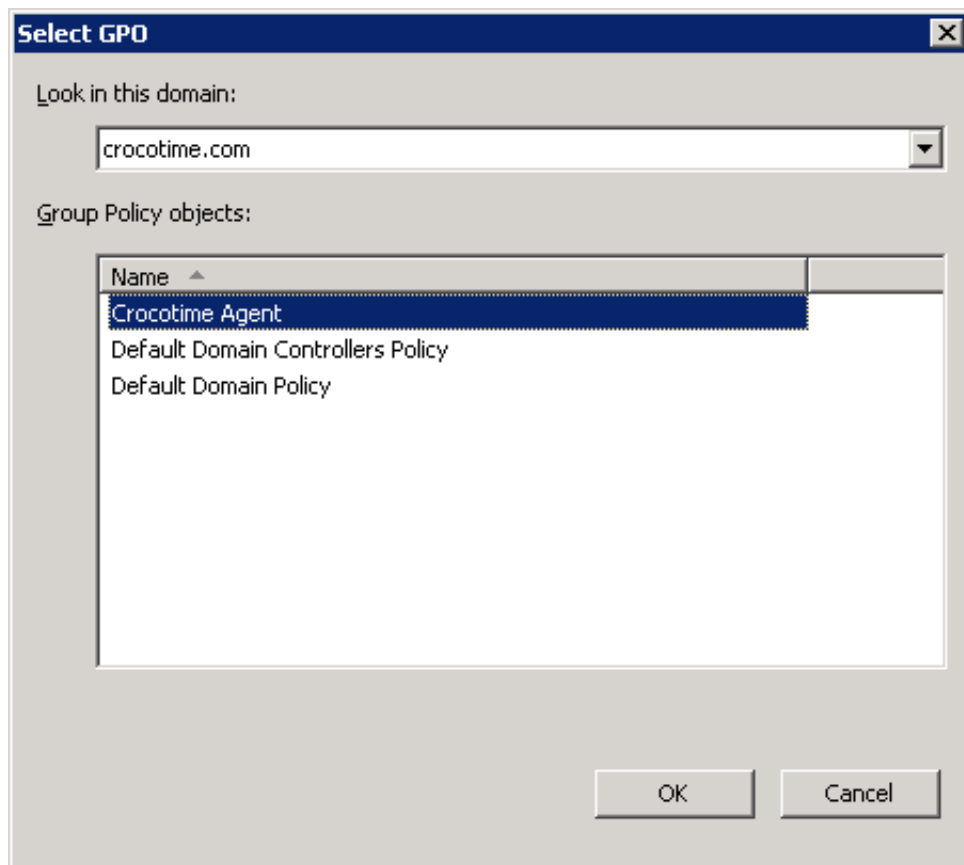
After all the necessary settings are made, click *OK* to continue.

The last thing to do is to link the GPO to the domain, as well as to specify user groups for computers where the CrocoTime time tracking agents will be deployed in the security filter.

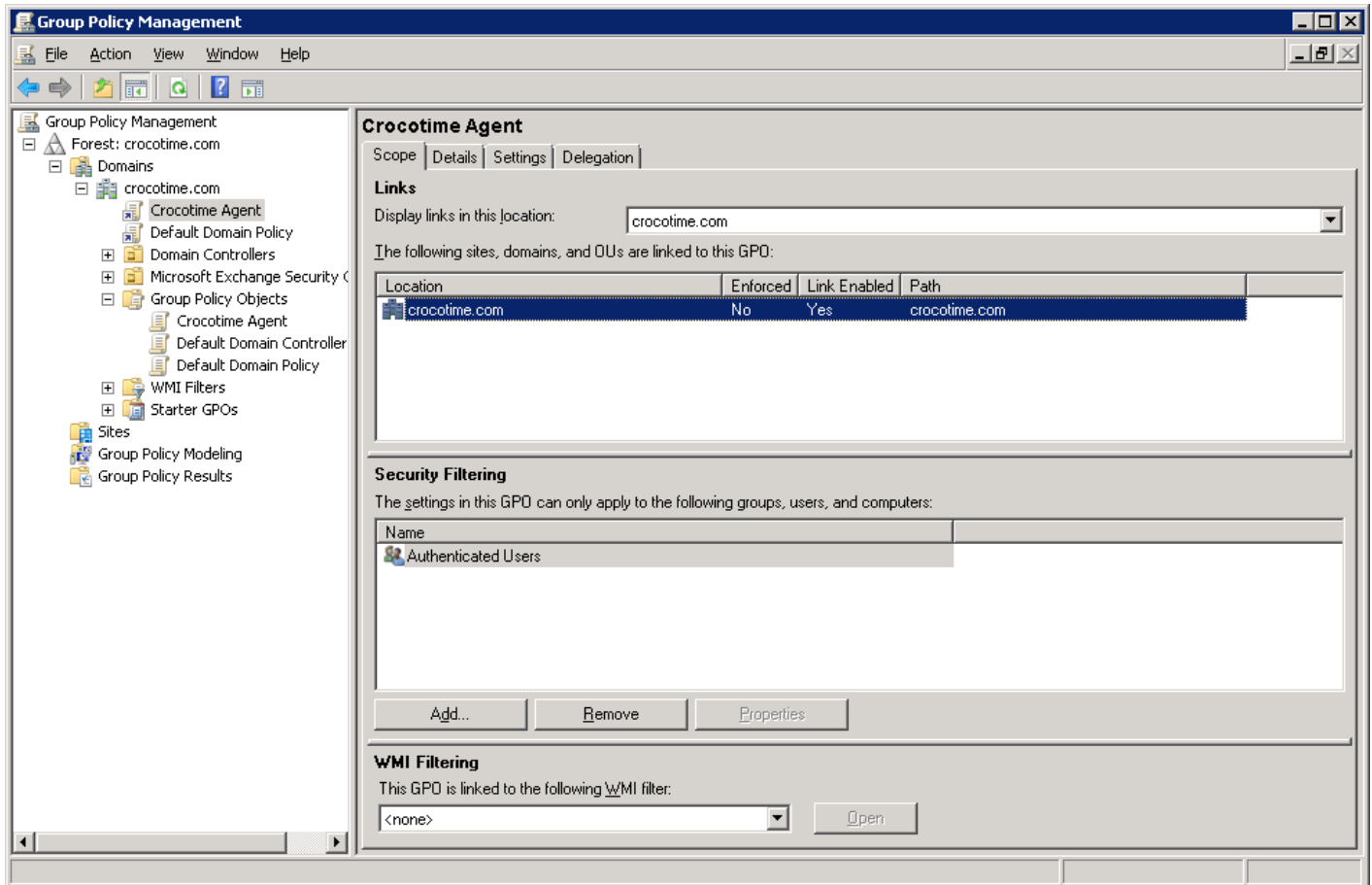
Close the *Group Policy Management Editor* snap-in and link the previously created GPO to the domain, or to a group of computers in the domain. To do this, select your domain (or group of computers within the domain) in the *Group Policy Management* console tree, right-click it and select *Link an Existing GPO...* from the context menu.



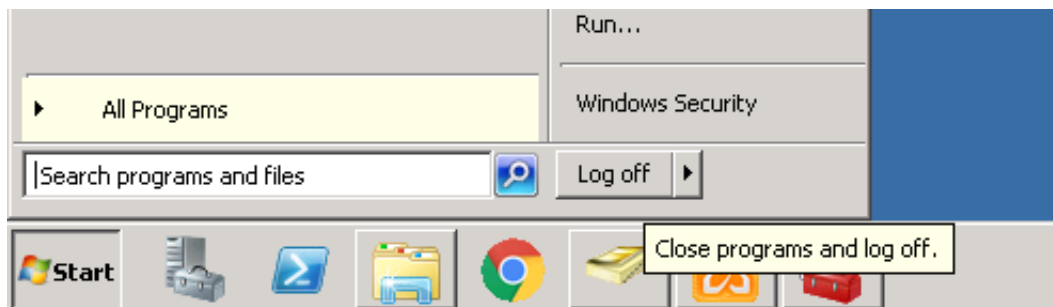
Select the GPO from the appeared *Select GPO* In dialog box and click *OK*.



Then select the linked GPO (CrocoTime Agent) from the *Group Policy Objects* node, switch to the *Scope* tab and add user groups (to whose computers CrocoTime agents are to be installed) to the *Security Filtering*.



Close the Group Policy Management window, open Windows command prompt and input `gpupdate /force`. The server will report that the policy setting cannot be applied without restarting and prompt you to restart. Enter `y` in the command prompt (English keyboard layout) and press *Enter*. The system will reboot shortly. Or simply restart the server through the *Start* menu.



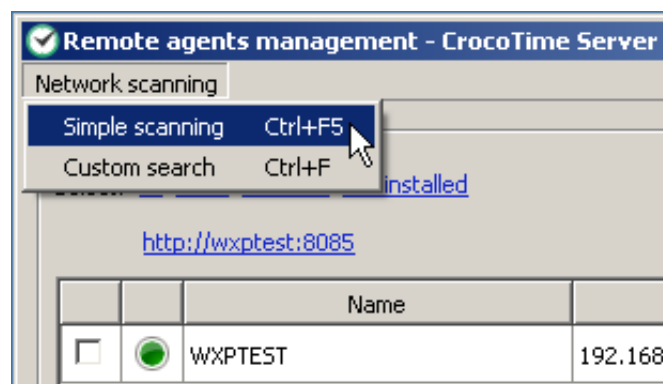
After restarting the server, the policy will be applied. The CrocoTime time tracking agents' installation to users' computers will start after logout and login of users, or

after their computers are restarted.

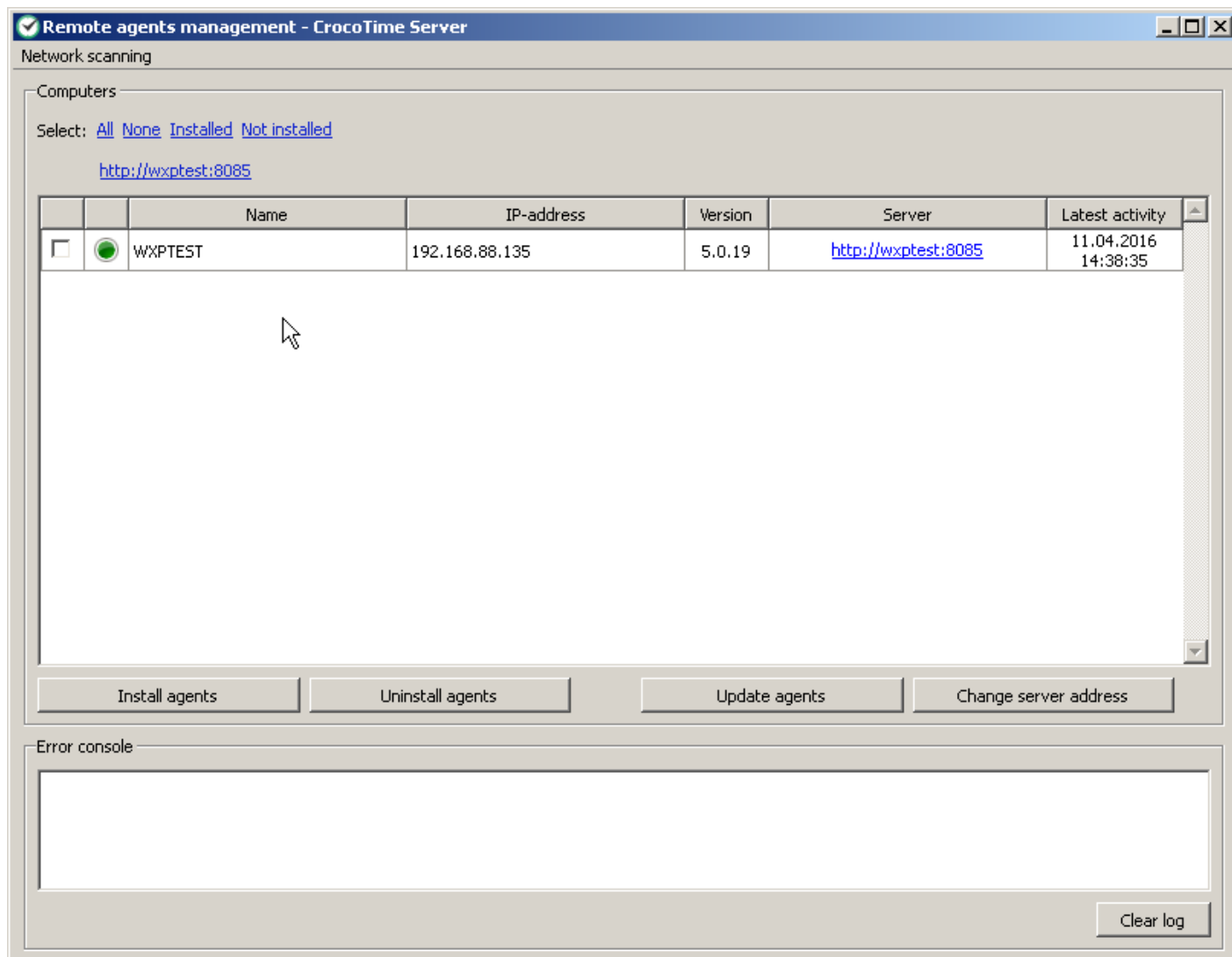
Remote Agent management

The Remote agent management tool is used for mass collection of data about devices from a network and for remote management of agents installed on these devices.

The tool scans the network automatically after launching and creates a list of devices found in the network. Scanning can be started manually by clicking **Network scanning** → **Simple scanning** or specifying IP address or IP address range manually. Click **Network scanning** → **Custom search** to do this.



To install *CrocoTime agents* to the selected devices from the list click the **Install agents** button. By using corresponding buttons *CrocoTime Agents* can be updated or removed.

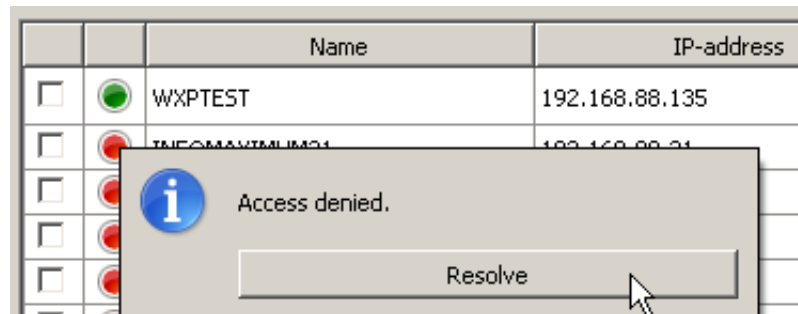


Click the **Change server address** button to change server address and port for selected agents.

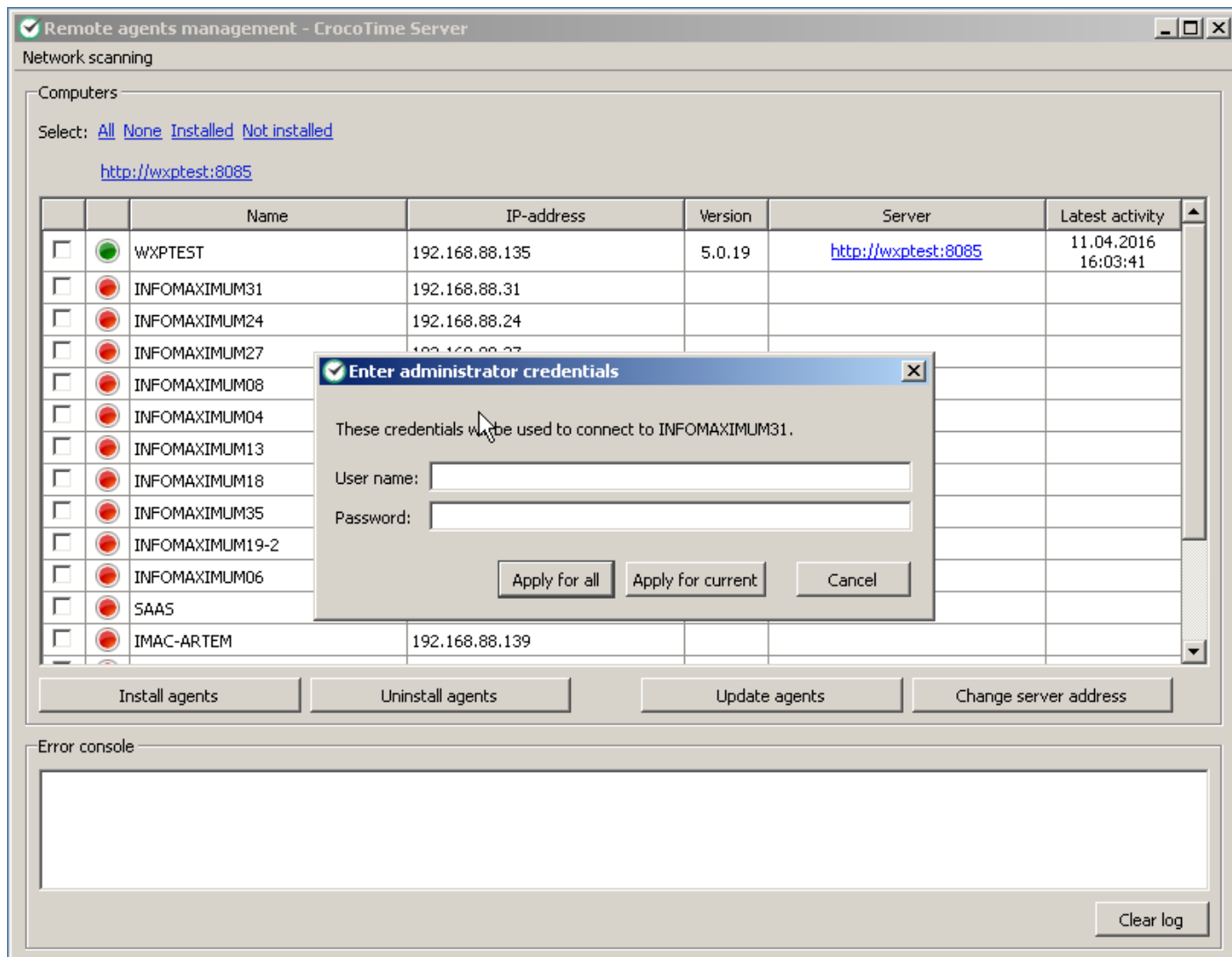
The round indicator in second column of the table can be either green, yellow, white, or red.

- *Green* means that the agent installed on the device is working and is sending statistics;
- *Yellow* means that the agent is not authorized on the server. To fix this it is necessary to either try to authorize again, or change the agent's settings via *Agent Configurator* or *Remote agent management tool* using the *Change server address* button;
- *White* means that the device is connected to the network is ready for

installation of the agent, but the agent is currently not installed;



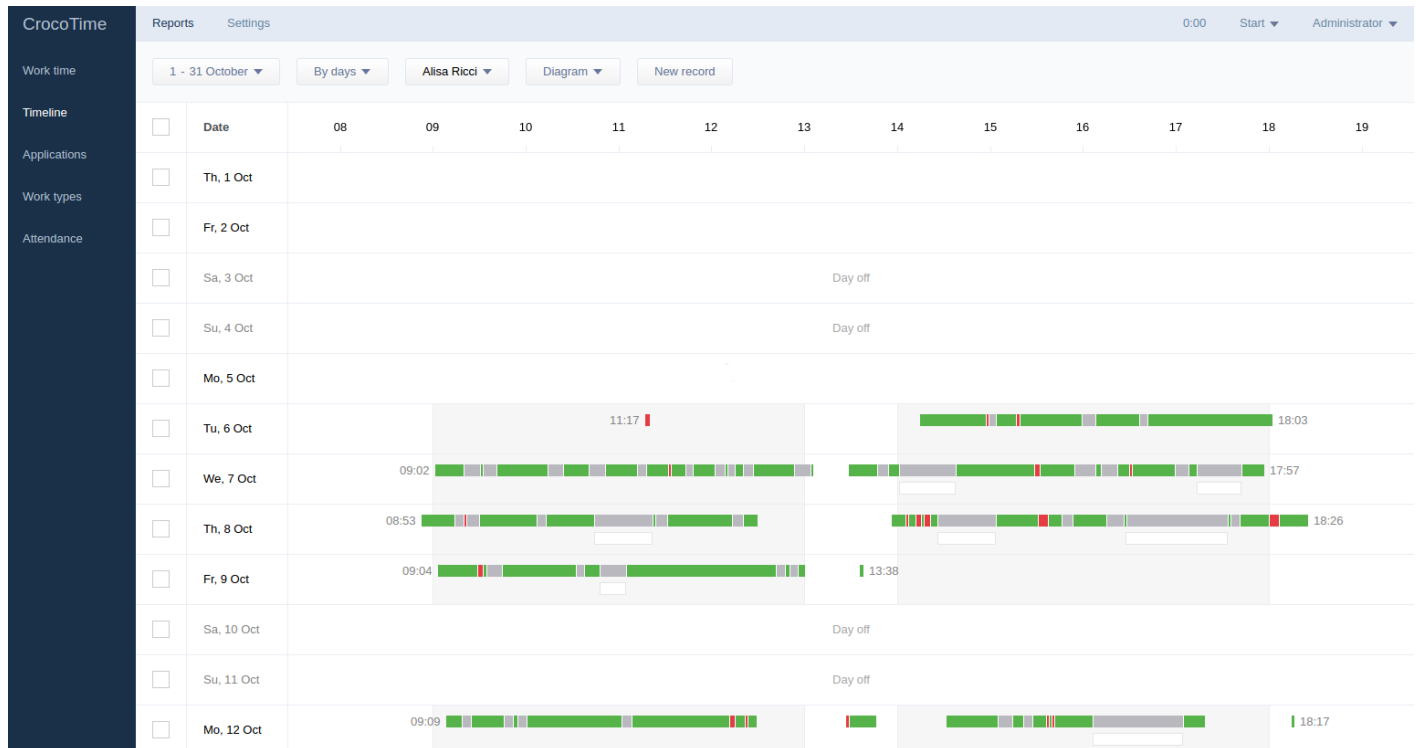
- *Red* indicates that either the remote access to the device is denied or *ADMIN\$* resource is disabled. To rectify the problem click on the indicator and click **Resolve** button. Type remote computer's administrator name and password in the appeared window.



Red color of the indicator may also mean that ADMIN\$ resource on the target computer is disabled. Registry file *win_vista_7_8_access_for_admin\$.reg* located at *|Program Files\CrocoTime Server\remoteinstaller* can be used to enable it.

Timeline

The **Reports → Timeline** tab has 3 modes switched using the **By group / Rating / By days** button. The **By groups** mode displays how employees spend time during the day.



The header of the table shows hours of work day for more clear understanding of the data. Work hours (according to schedules) of employees are displayed on darker background than rest hours. A bar next to an employee's name shows his activity during the day: it displays productivity status of programs and websites, periods of non-computer and unknown time, and time tracking records created by the employee.

Departments and employees are sorted in alphabetical order.

The **Rating** mode has similar functions with one difference: employees are not grouped by departments and it is possible to select a group of employees by clicking **All employees** button.

Time filter button allows to choose the day to be displayed.

The **By days** mode is the diagram of activity for one employee. The range of days selected through the time filter is displayed vertically, and work hours are displayed horizontally. The table shows holidays and days off. Work hours are shown on darker background than rest hours for convenience.

The button to select an employee is located in top horizontal menu. Clicking it displays employee selection window.

Employee selection

Save

Cancel

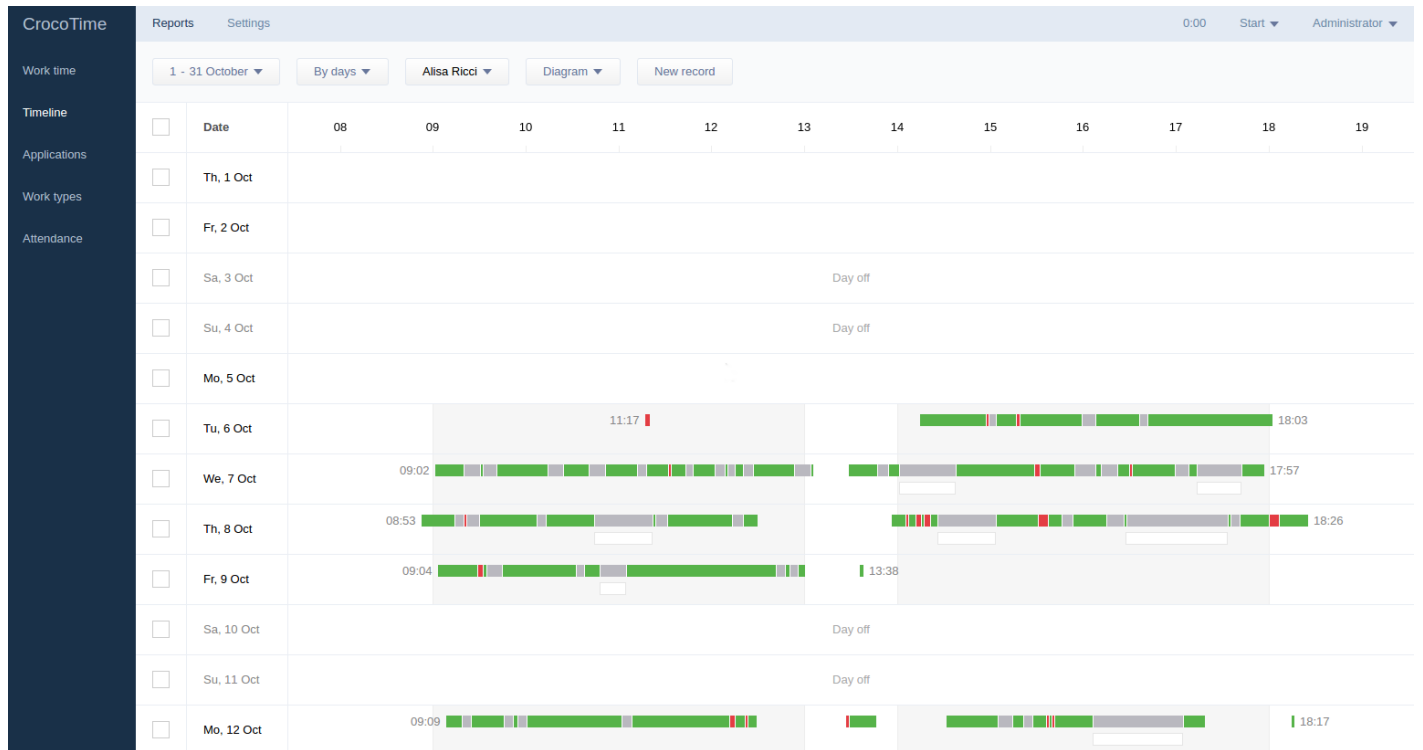
Quick search

Search ...



<input checked="" type="checkbox"/>	Employee
<input type="checkbox"/>	▶ Client Relationship
<input type="checkbox"/>	▶ Development
<input checked="" type="checkbox"/>	▼ Managment
<input type="checkbox"/>	Alex Bergman
<input checked="" type="checkbox"/>	Alisa Ricci
<input type="checkbox"/>	Andrew Callahan
<input type="checkbox"/>	Ann Jameson
<input type="checkbox"/>	▶ PR

The **New record** button allows to create new time track (the button is displayed when **By days** is selected). Input starting time and date, completion time and date, name of the performed activity, and optional comment. Therefore, time tracking record is created with a defined completion time. See [item 6.4](#) for more details about time tracking.



The **Diagram / Records** switch in **Records** mode allows to see more detailed statistics of time tracking for any employee or several employees. The **By groups / Rating / By days** switch allows to choose how statistics is displayed.

Employees

CrocoTime

Reports

Settings

0:00

Start ▼

Administrator ▼

Configuration

New group

New employee

Edit

Move

Set ▼

Remove

Search ...

Employees

☐

Employee

Schedule

Position

Applications

☐

▼ Client Relationship

* General 9 A.M - 6 P.M.

* General

Positions

☐

Mary Gunter

General 10 A.M - 7 P.M.

Seller

Schedules

☐

Nick Fitzgerald

General 8 A.M - 5 P.M.

Support

Calendars

☐

▸ Development

General 9 A.M - 6 P.M.

General

Work types

☐

▸ Managment

General 9 A.M - 6 P.M.

* General

Agents

☐

▸ PR

General 9 A.M - 6 P.M.

General

User accounts

This tab lists profiles of all employees divided by departments (if positions are set). Each profile corresponds to 1 license, and each profile can include several user accounts (local and/or domain). The statistics collected from several user accounts connected to the single profile is summarized.

Some entries may be grayed. It means that an employee is not synchronized with AD, e.g. he was either removed or disconnected from the AD but his profile remained in *CrocoTime*.

<input type="checkbox"/>	CVMS Root 1234
<input type="checkbox"/>	employee test

The employees who are not assigned to departments are shown in the end of the list. To assign them to a specific department check them and click **Move** button.

Mark the department to which the employees need to be assigned and click **Move** button.

Moving to group

Move

Cancel

Quick search

Search ...



<input type="checkbox"/>	Group
<input type="checkbox"/>	▶ Client Relationship
<input type="checkbox"/>	▶ Development
<input type="checkbox"/>	▶ Managment
<input checked="" type="checkbox"/>	▶ PR

Editing groups

Each group can be edited by clicking the **Edit** from the right-click menu, or by marking the line and clicking the **Edit** button in the top horizontal menu.

Profile

Position

Schedule

PR

Title*

PR

Save

Cancel

For a group (or a profile) it is possible to change position, schedule, group name, or profile data. The changes made to a specific profile will not affect the department where this profile belongs.

Profile

Position

Schedule

PR

Save

Cancel

Use personalized settings

☐ Off

<input checked="" type="checkbox"/>	Position
<input type="checkbox"/>	Accountant
<input type="checkbox"/>	Designer
<input type="checkbox"/>	Developer
<input type="checkbox"/>	Economist
<input type="checkbox"/>	Engineer
<input checked="" type="checkbox"/>	* General
<input type="checkbox"/>	Lawyer
<input type="checkbox"/>	Marketer
<input type="checkbox"/>	Project manager
<input type="checkbox"/>	Seller
<input type="checkbox"/>	Support
<input type="checkbox"/>	System administrator

To edit positions and schedules for groups (or selected profiles) use **Set schedule** и **Set position** buttons from the top horizontal menu. You can also set default schedule and/or position for new profiles: mark the header of the list (near the **Employee** caption) and assign the required schedule and position using the mentioned buttons.

Profile

Position

Schedule

PR

SaveCancel

Use personalized settings

Off

<input checked="" type="checkbox"/>	Schedule
<input type="checkbox"/>	Business trip
<input type="checkbox"/>	First shift
<input type="checkbox"/>	Flextime
<input type="checkbox"/>	General 10 A.M - 7 P.M.
<input type="checkbox"/>	General 8 A.M - 5 P.M.
<input checked="" type="checkbox"/>	* General 9 A.M - 6 P.M.
<input type="checkbox"/>	Holiday
<input type="checkbox"/>	Second shift
<input type="checkbox"/>	Sick day
<input type="checkbox"/>	Vacation
<input type="checkbox"/>	Compensatory holiday

Editing profiles

Editing employees' profiles allows more flexible configuration. The following settings are displayed on the **Profile** tab:

Profile	Mary Gunter	Save	Cancel
User rights	Email*	test5@test.test	
Employees	Last name*	Gunter	
Position	First name*	Mary	
Schedule	Create password	Not set	
Time zone	Allow login to the system	<input checked="" type="checkbox"/>	On
Sources	Subscribe to violations	<input type="checkbox"/>	Off
	Activity tracking	<input checked="" type="checkbox"/>	On
	Screenshots	Off ▼	

- User's Email and password to be used for login to the system and for sending notifications;
- The **Allow login to the system** switch allows/denies login to the system for the user account;
- The **Subscribe to violations** switch enables sending system notifications about violating schedule and discipline (lateness, distractions, early leave limits) to the user's profile email;
- The **Activity tracking** switch allows to disable collection of statistics for the user account. Please remember that turning this switch off disables collection of statistics and deletes previously received statistics for this user account;
- The **Screenshots** menu enables screenshot capture with specified intervals.

Profile	Mary Gunter	Save	Cancel
User rights	Full access	<input type="checkbox"/>	Off
Employees	View window titles	<input type="checkbox"/>	Off
Position	Assign positions	<input type="checkbox"/>	Off
Schedule	Assign work schedules	<input type="checkbox"/>	Off
Time zone	Applications grouping	<input type="checkbox"/>	Off
Sources	Employees grouping	<input type="checkbox"/>	Off
	Allow to moderate time sheets	<input type="checkbox"/>	Off
	Show agent tray icon	<input type="checkbox"/>	Off

The **User rights** tab allows to set rights and privileges for the user profile:

- **Full access** allows all the rights listed below, granting administrator rights to the user profile;
- **View window titles** allows to see active window titles in statistics. E.g. when working with web browser it allows to see its window title. When this option is disabled, only web browser's name is displayed in statistics;
- **Assign positions** allows to change position in the user's own profile and profiles of the user's subordinates, and to view the list of all positions;
- **Assign work schedules** allows to change schedule in the user's own profile and profiles of the user's subordinates, and to view the list of all schedules (it is not allowed to modify or create schedules), and assign special schedule via **Calendars** tab;
- **Application grouping** allows to modify, group, and delete applications in the **Settings → Applications** tab;
- **Employees grouping** allows to modify, move, and delete employees' profiles (**Profiles** tab only) and create new groups in **Settings → Employees** tab;
- **Allow to moderate time sheets** allows the user to modify time tracking processes on the **Settings → Work processes** tab and also view and edit time tracks of the user and user's subordinates in the **Reports → Timeline** tab with

Table mode enabled;

- **Show agent tray icon** allows to display CrocoTime Agent tray icon on the user's computer. By right-clicking the icon the user can disable collection of statistics during off-work hours. It allows employees who work from their personal computers to disable collection of statistics during their personal time.

The **Employees** tab allow to assign subordinates to the user. It will allow the user to view statistics of his subordinates on the **Reports** tab.

The **Position** and **Schedule** tabs allow to set position and schedule for the user. The settings can also be changed by clicking the corresponding cell of the table, next to the user's name.

The **Time zone** tab allows to set a time zone for the user. Time is synchronized automatically by default, but it is possible to set it manually if necessary.

The **Sources** tab contains a list of local and domain user account attached to the user's profile and used to collect statistics. The **Synchronize with AD** switch is displayed on this tab only when the employee's profile was created by synchronization with Active Directory and allows to enable or disable synchronization.

The screenshot shows a user profile configuration interface. On the left is a vertical sidebar with tabs: Profile, User rights, Employees, Position, Schedule, Time zone, and Sources. The 'Profile' tab is selected. The main content area displays the user's name 'Mary Gunter' at the top, followed by a 'Synchronize with AD' toggle switch which is currently set to 'Off'. Below this is a table with two columns: 'Account' and 'Location'. The table is currently empty.

Account	Location
---------	----------

Adding groups

Click the **New group** button to open group (department in this case) creation window.

<div>New groupNew employeeEditMoveSet ▼Remove</div>		
<input type="checkbox"/>	Employee	Schedule
<input type="checkbox"/>	▼ Client Relationship	* General 9 A.M -
<input type="checkbox"/>	Mary Gunter	General 10 A.M -
<input type="checkbox"/>	Nick Fitzgerald	General 8 A.M -
<input type="checkbox"/>	▶ Development	General 9 A.M -
<input type="checkbox"/>	▶ Managment	General 9 A.M -

After entering the group’s name it is possible to assign Schedules and Positions to the department.

If **Use personalized settings** switch in **Position** section is enabled the newly-created department will receive the position selected in the table. The **Schedule** section works in the same manner.

It is possible to create subgroups (subdepartments) in already created groups. To do this right-click the row where the subgroup will be added and select **New group** from the menu.

The created subgroup inherits settings of parent group by default (if no settings were changed).

Adding new employees

Press the **New employee** button to display the window. An employee’s record created in such a way will be placed in the end of the list and will not be assigned to a department.

CrocoTime

Configuration

Employees

Applications

Positions

Schedules

Calendars

Work types

Reports

Settings

New group

New employee

Edit

Move

<input type="checkbox"/>	Employee
<input type="checkbox"/>	▼ Client Relationship
<input checked="" type="checkbox"/>	► Support
<input type="checkbox"/>	Mary Gunter
<input type="checkbox"/>	Nick Fitzgerald

By choosing the **New employee** from context menu of a group the employee's profile will be created in this group (department).

<input type="checkbox"/>	Employee	Schedule
<input type="checkbox"/>	▼ Client Relationship	* General 9 A.M
<input checked="" type="checkbox"/>	► Support	General 9 A.M -
<input type="checkbox"/>	Mary Gunter	General 10 A.M
<input type="checkbox"/>	Nick Fitzgerald	General 8 A.M -

New group

New employee

Edit

Type the employee's Email, Surname, Name, and Password in the **Profile** tab.


<div>Profile</div> <div>User rights</div> <div>Employees</div> <div>Position</div> <div>Schedule</div> <div>Time zone</div> <div>Sources</div>	<div style="display: flex; justify-content: space-between; align-items: center;"> <div style="font-size: 1.2em; font-weight: bold;">Mary Gunter</div> <div> <div style="background-color: #4CAF50; color: white; padding: 5px 10px; border-radius: 3px;">Save</div> <div style="background-color: #f5f5f5; padding: 5px 10px; border-radius: 3px; margin-left: 10px;">Cancel</div> </div> </div> <div style="margin-top: 10px;"> <div style="display: flex; justify-content: space-between;"> <div>Email*</div> <div style="border: 1px solid #ccc; padding: 5px; flex-grow: 1;">test5@test.test</div> </div> <div style="display: flex; justify-content: space-between; margin-top: 10px;"> <div>Last name*</div> <div style="border: 1px solid #ccc; padding: 5px; flex-grow: 1;">Gunter </div> </div> <div style="display: flex; justify-content: space-between; margin-top: 10px;"> <div>First name*</div> <div style="border: 1px solid #ccc; padding: 5px; flex-grow: 1;">Mary</div> </div> <div style="display: flex; justify-content: space-between; margin-top: 10px;"> <div>Create password</div> <div style="border: 1px solid #ccc; padding: 5px; flex-grow: 1;">Not set</div> </div> <div style="margin-top: 20px;"> <div style="display: flex; justify-content: space-between; align-items: center;"> <div>Allow login to the system</div> <div> <input checked="" type="checkbox"/> On </div> </div> <div style="display: flex; justify-content: space-between; align-items: center; margin-top: 10px;"> <div>Subscribe to violations</div> <div> <input type="checkbox"/> Off </div> </div> <div style="display: flex; justify-content: space-between; align-items: center; margin-top: 10px;"> <div>Activity tracking</div> <div> <input checked="" type="checkbox"/> On </div> </div> <div style="display: flex; justify-content: space-between; align-items: center; margin-top: 10px;"> <div>Screenshots</div> <div> <div style="border: 1px solid #ccc; padding: 5px 10px; display: flex; align-items: center;"> Off ▼ </div> </div> </div> </div> </div>
--	---

In the **Employees** tab select subordinates of the created employee (their statistics will be available for the employee to view). If no subordinates were selected the employee will be able to view his own statistics only.

Assign the required user rights, position, schedule, time zone, and sources in corresponding tabs. If no settings were altered the employee will receive either standard configuration, or inherit configuration from a department (if created in a department).

Removal of groups and employees

If you need to remove an employee's profile or free up a license employee's and group's profiles can be removed. Tick checkboxes of the items to be removed and click the **Remove** button from the upper horizontal menu.

<div> <div>New group</div> <div>New employee</div> <div>Edit</div> <div>Move</div> <div>Set ▼</div> <div>Remove </div> </div>		
<input type="checkbox"/>	Employee	Schedule
<input type="checkbox"/>	▼ Client Relationship	* General 9 A.M
<input checked="" type="checkbox"/>	▷ Support	General 9 A.M

Attention! Removing a profile frees up a license, deletes all statistics collected for the profile, and stops collecting statistics from all user accounts bound to this profile. If a group is removed all profiles in this group are also removed.

Interacting with CrocoTime Web API

Interaction with the time tracking software is performed by HTTP-requests to a Crocotime server. Any request should have the following strucutre:

```
session=[session]&controller=[name_of_controller]&query=[parameters]
```

A request with header containing Content-Type must either be of application/json type or be encoded:

- to use encodeURIComponent the URI-Encoding: 1 header must be sent;
- otherwise escape must be used.

Description of parameters of a request:

session	a session id which is received as a reply to a request to LogonController — which requires no session;
controller	a name of the controller to which the request is sent. This parameter should always be specified;
query	parameters for the controller. This parameter should be in JSON format.

Examlpe:

```
controller=employee_grouping&session=
b5688421d36ef89a7c03a19cd971a02029468e03b21fbf42dc55a63f1811c547&
query=
{
"is_write_items":1
}
```

The server only supports ASCII encoding therefore any parameters of a request containing UTF-8 characters must be encoded. Example:

```
(Javascript): escape('{«is_write_items»:1}')
```

Removal of CrocoTime

To remove any part of *CrocoTime* software you need to access corresponding installation folder and run the installer file located there. It can also be used for future installation.

For CrocoTime Agent:

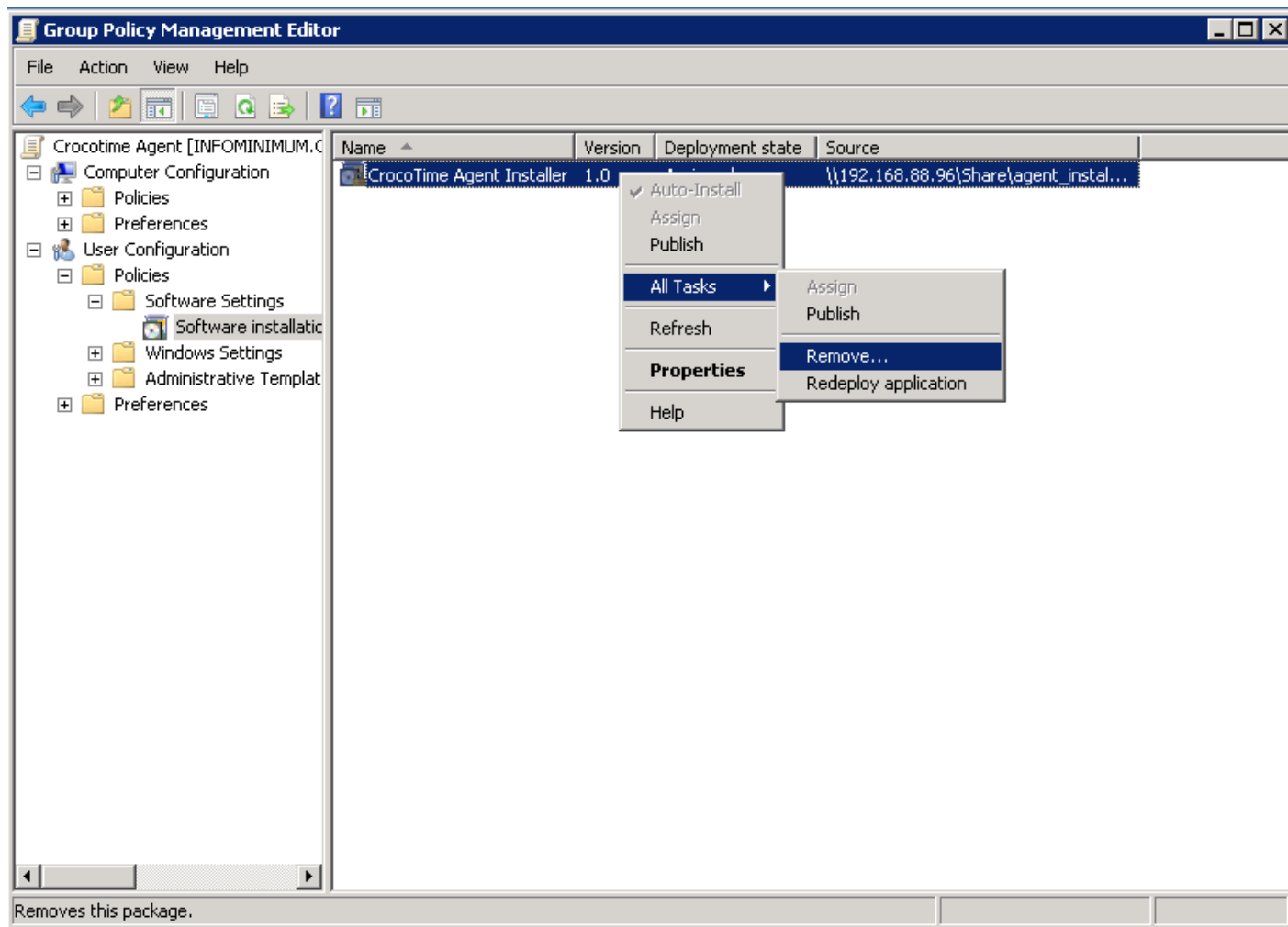
C:\Program Files\CrocoTime Agent\agent_setup.exe

For CrocoTime Server:

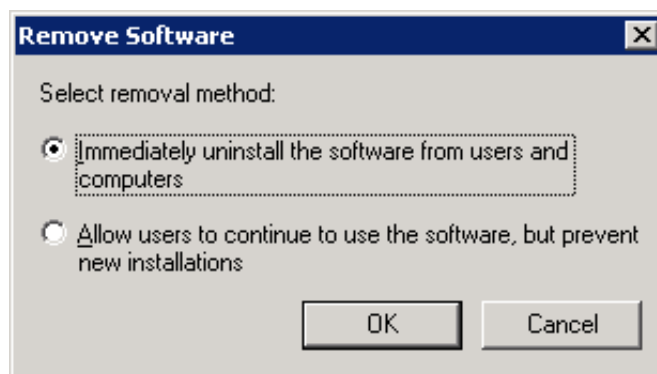
C:\Program Files\CrocoTime Server\server_setup.exe

Removing CrocoTime Agents using GPO

To remove CrocoTime agents using GPO, start the *Group Policy Management Editor* snap-in, expand *User Configuration\ Policies\ Software Settings*, go to the *Software Installation* node and left-click it. The selected agent will be displayed in the window. Right-click it and select *All Tasks→Remove* from a pop-up menu.



After that, the *Remove Software* window will pop up. Select the *Immediately uninstall the software from users and computers* option box.

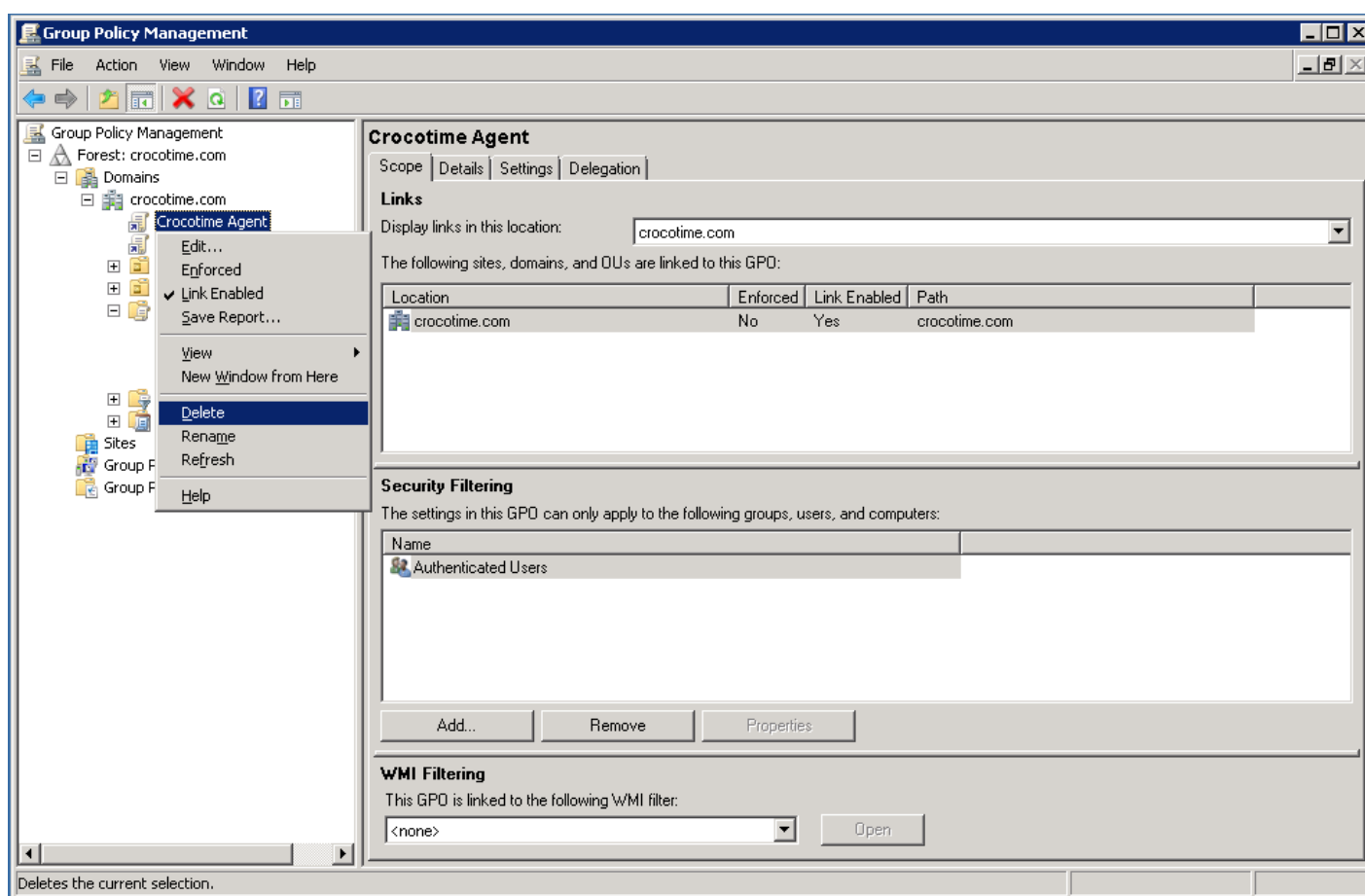


Close the *Group Policy Management Editor* window and open the Windows command

prompt and input *gpupdate /force*. The server will report that the policy setting cannot be applied without restarting and prompt you to restart. Enter *y* in the command prompt (English keyboard layout) and press *Enter*. The system will reboot shortly. Or simply restart the server through the *Start* menu.

After restarting the server, the policy will be applied. The CrocoTime time tracking agents' removal from users' computers will start after logout and login of users, or after their computers are restarted.

Open the *Group Policy Management* snap-in and proceed to the *Group Policy Objects* node. Remove *CrocoTime Agent* GPO from the *Group Policy Objects* node.

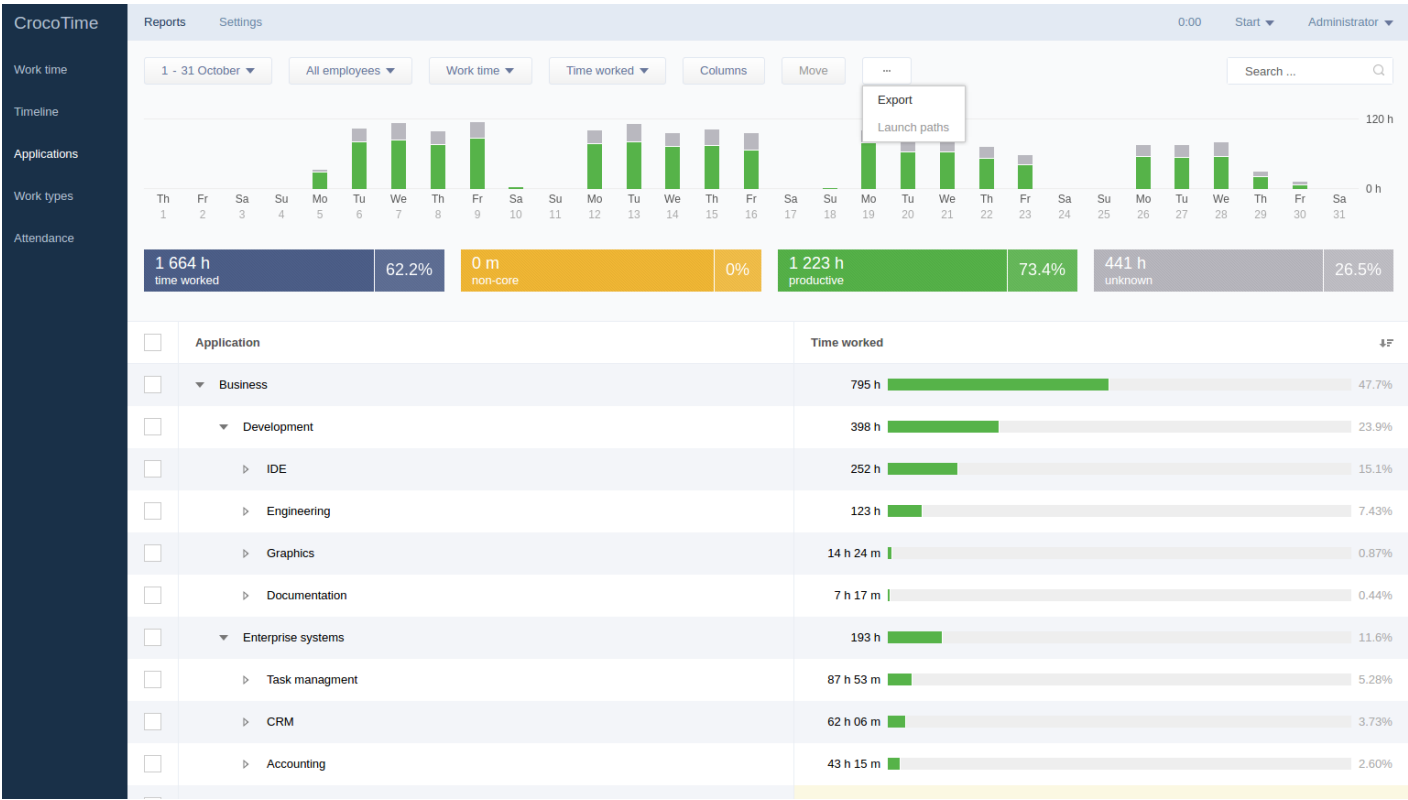


Removal of CrocoTime time tracking agents is completed.

Applications

The **Reports → Applications** tab displays usage statistics of applications and websites. Whether an application or a website is considered productive or nonproductive is

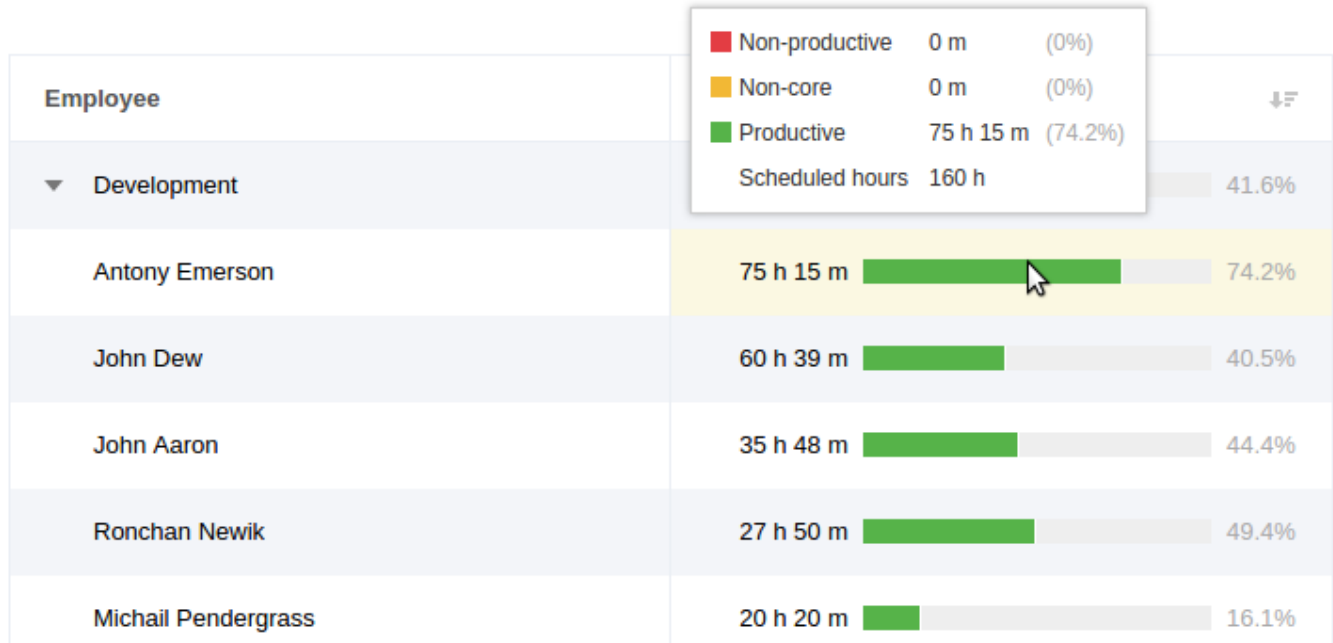
configured in **Settings** → **Positions** tab.



The applications and sites already known to *CrocoTime* are sorted in groups, and unknown entries are displayed at the end of the list and are considered **Non-core** by default. To change its status it is necessary either to the corresponding group or select the needed status from the context menu of a program (or website). See [item 7.3](#) for details.

Business

Close



Bar diagrams of application usage are located at the top of the screen. The bars are colored in accordance with productivity groups. The height of each color is determined as a percentage of the productivity group it represents to the total **Computer** time.

The elements of this tab are similar to those of **Work time** tab (see [item 6.1](#) for details).

Additional filter is provided to see the statistics of selected employee or group of employees.

Launch paths


Close

Application	Path
▶ [Application Name]	
▶ [Application Name]	
▶ [Application Name]	
▶ [Application Name]	
▼ [Application Name]	
Adobe Reader	C:\Program Files (x86)\Common Files\Adobe\ARM\1...
▶ [Application Name]	
▶ [Application Name]	
▶ [Application Name]	

The **Launch paths** button located in ... context menu allows to view local launch paths of specific program inside a group on every computer where the application was used. The path is only displayed for the application’s group, not an individual entry.

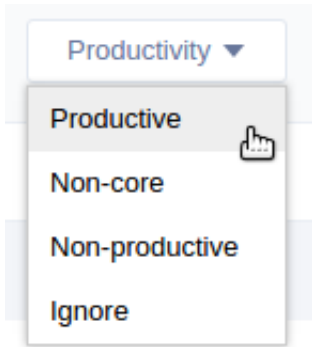
Applications

The **Settings → Applications** tab shows a list of applications and web pages statistics of which has been collected by the agents. The most frequent applications and websites are already grouped and their productivity statuses are set.

<div> <div>New group</div> <div>New application</div> <div>New website</div> <div>Edit</div> <div>Productivity ▼</div> <div>Move</div> <div>Remove</div> <div>Search ... </div> </div>		
<input type="checkbox"/>	Application	Productivity
<input type="checkbox"/>	Computer	* Productive
<input type="checkbox"/>	▼ Business	* Productive
<input type="checkbox"/>	▼ Development	* Productive
<input type="checkbox"/>	▸ Documentation	Productive
<input type="checkbox"/>	▸ Engineering	Productive
<input type="checkbox"/>	▸ Graphics	Non-core
<input type="checkbox"/>	▸ IDE	Productive
<input type="checkbox"/>	▸ Documents	Productive
<input type="checkbox"/>	▸ Email	Ignore
<input type="checkbox"/>	▸ Enterprise systems	Productive
<input type="checkbox"/>	▸ Other	Ignore
<input type="checkbox"/>	▸ Spreadsheets	Productive
<input type="checkbox"/>	▸ Private	Non-productive

New sites and applications not encountered by the system before will be added to the unsorted list in the end of the page. They are assigned **Non-core** productivity status.

To change the productivity status of the new entry it either needs to be placed in a chosen group where it will be assigned the group's productivity status, or select the status of the application from the **Productivity** column (it is displayed only if uniform setting for positions is enabled in the **Settings → Configuration → Positions** tab), or by editing position settings in **Settings → Positions** tab.



By right-clicking the table and selecting **Edit** from the context menu, the **Edit** window will be displayed. A group's (or application's) title can be changed there.

There are 4 settings of the productivity status:

- *Productive* means that for this position the group (of applications and websites) is necessary for work and the time spent working there is productive;
- *Non-core* means that for this position the group (of applications and websites) is not necessary for work.
- *Non-productive* means that for this position the group (of applications and websites) cannot be used for work and is distractive.
- *Ignore* means that for this position the group (of applications and websites) is not counted when calculating productivity statistics for display.

The *Reset included* item resets entries of a group to default productivity settings.

Creating and editing groups

When creating a new group by either clicking the **New group** button from the top

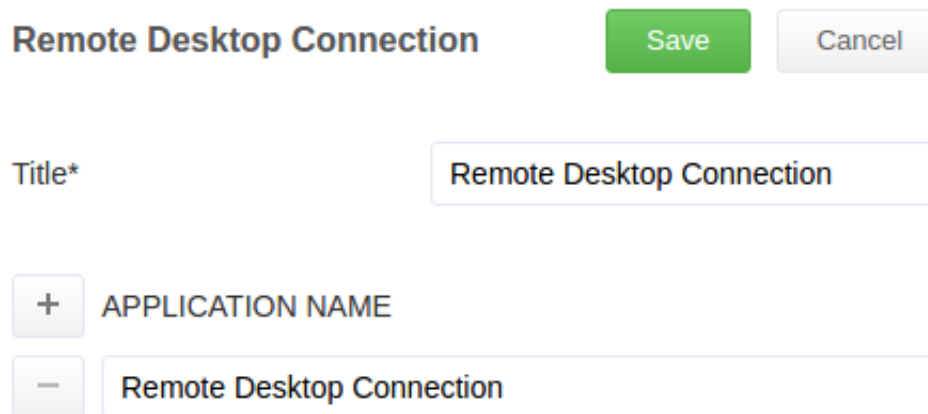
menu or by using the context menu, the window identical to group editing window shall appear where the group's name and productivity status for existing positions has to be set.

Removal of groups

To remove a group select it and click the **Remove** button. When removing of the group unlike removing a group of profiles (see [item 7.1](#)), only the group itself is removed and the included applications and websites are moved to the upper level of the list.

Editing and creating records of programs and websites

To edit the title and the executable file name of the program choose **Edit** from the context menu of the item. Wildcard (*) can be used in the file name.



Remote Desktop Connection

Save Cancel

Title* Remote Desktop Connection

+ APPLICATION NAME

- Remote Desktop Connection

For example if the mask *chrome** is used the usage statistics for the applications *chrome64.exe*, *chrome.exe*, and *chrome_bar.exe* will be attributed to this program, but *old_chrome.exe* will not be counted under this record.

When editing an entry for the website you can change its title, domain (* mask can be used), path, and GET parameter.

Entries of programs and websites can be created manually without waiting for the system to receive statistics of usage. In the upper horizontal menu click **New application** or **New website** (this way the entry will be added to the upper level of the list), or from the context menu of the group (the entry will be placed into the group).

When creating the new application or website record the window analogous to the editing window will appear. For a new website in addition to the title, domain, PATH, and GET parameter can be set. PATH and GET are used to differentiate between different pages of same domain.

Facebook

Save

Cancel

Title*

Facebook

	DOMAIN	PATH	GET
+			
–	*.facebook.*	Not set	Not set
–	facebook.*	Not set	Not set

For example, if an entry including *facebook.com* as a domain and *group123456* as a PATH has its status set to *Productive* and another entry including domain *facebook.com* only has its status set to *Non-productive*, then viewing the *group123456* will be considered productive by the system and viewing any other pages on *facebook.com* will be considered non-productive. The GET field works similarly and allows to set different productivity statuses for different GET parameters.

The status of an entry can be manually set to be different from the group hosting this entry (it is kept when the group’s status changes).

Removing entries of programs and websites

Program and website entries can be removed, but they will appear in the root level of the list if the usage statistics for these entries is received. The previously recorded statistics for removed entries will be deleted and will not be included in reports.

Select checkboxes or the entries to be removed and click the **Remove** button.

How to get lists of employees and departments

To get the list of employees: api_employees

Request:

```
controller=api_employees&session=
44de3a99578d6aede5f7706049f61e13e35f5f4e8f674761ba0a3f570631de57
```

session User's session.

Response:

```
{
"items":
[
{
"employee_id": 1,
"first_name": "John",
"second_name": "Dow"
"email": "dow@mail.loc"
}
]
```

items	List of employees;
employee_id	Employee's ID;
first_name	Employee's name;
second_name	Employee's surname;
email	Employee's e-mail;
is_deleted	If an employee's profile is deleted.

To get the tree of departments: api_departments

Request:

```
controller=api_departments&session=
44de3a99578d6aede5f7706049f61e13e35f5f4e8f674761ba0a3f570631de57
```

session User's session.

Response:

```
{
"items":
[
{
```

```

"department_id": 21,
"display_name": "Head Office",
"items":
[
{
"department_id": 38,
"display_name": "Accounting Department",
"items":
[
{
"employee_id": 120,
"first_name": "John",
"second_name": "Dow"
}
]
}
]
}

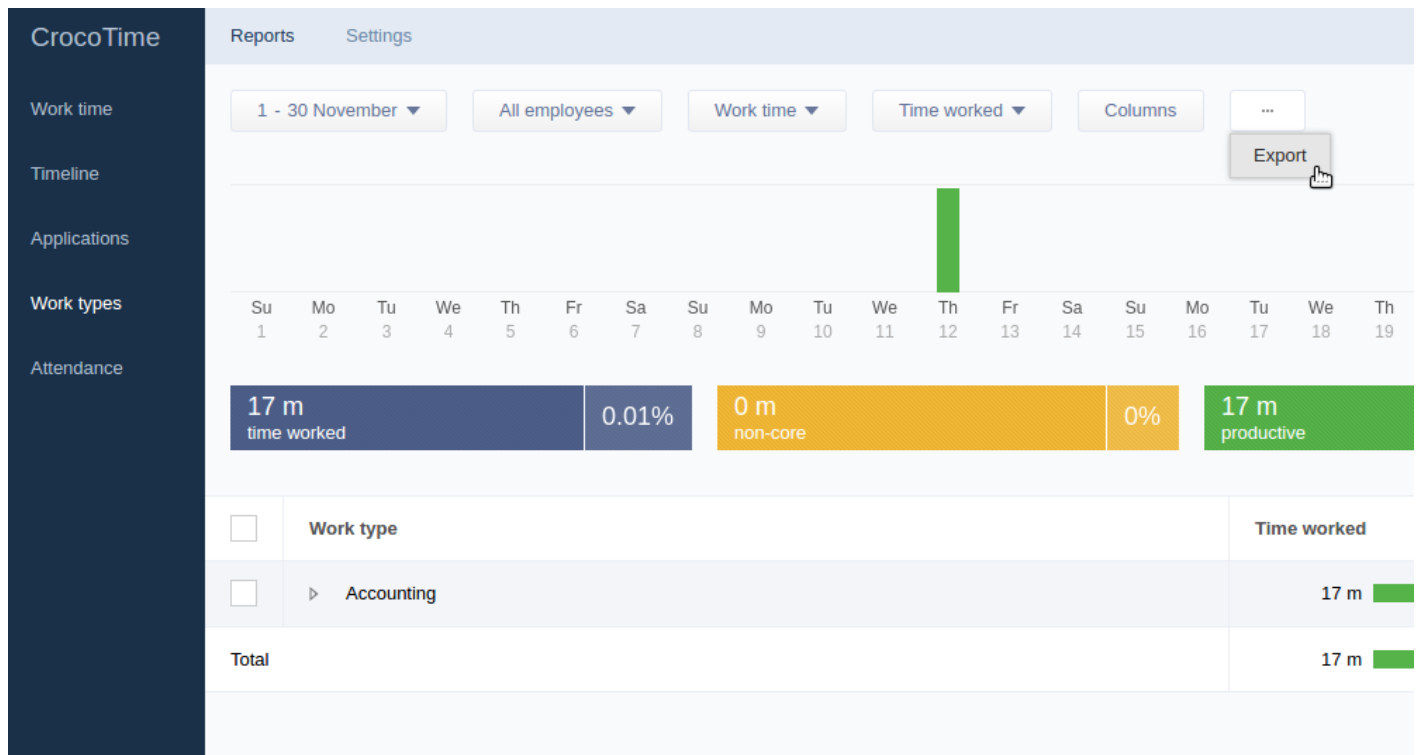
```

items	List of employees;
department_id	Department's ID;
display_name	Department's name;
employee_id	Employee's ID;
first_name	Employee's name;
second_name	Employee's surname;
is_deleted	If an employee's profile is deleted.

Work types

The **Reports → Work types** tab allows to see the statistics of business processes for time tracking. The bar diagram shows the ratio between total time tracked and total work time.

The table below shows the list of all processes used for time tracking. The table is sorted by the amount of time spent on a specific process.



This tab has the same user interface elements as the **Work time**. See [item 6.1](#) for details.

There are three main ways to create a new time tracking record:

First, by using the **New record** button of **Reports → Timeline** tab when switched to **By days** mode. It creates new time tracking record where you need to specify start and completion times and dates of the process, its name, and optional comment. Thus the record with already defined completion time is created.

Second, by creating a time tracking record in real time by pressing **Start** button in the upper right corner of the *CrocoTime*'s user interface. A list of processes available for an employee's position (configured via **Settings → Positions**) will appear. The time of the process is counted from when the **Start** is pressed until it is pressed again (process' name will be displayed in the caption of the button).

0:00

Start ▼

Administrator ▼

Search ...

Q

0%

↓

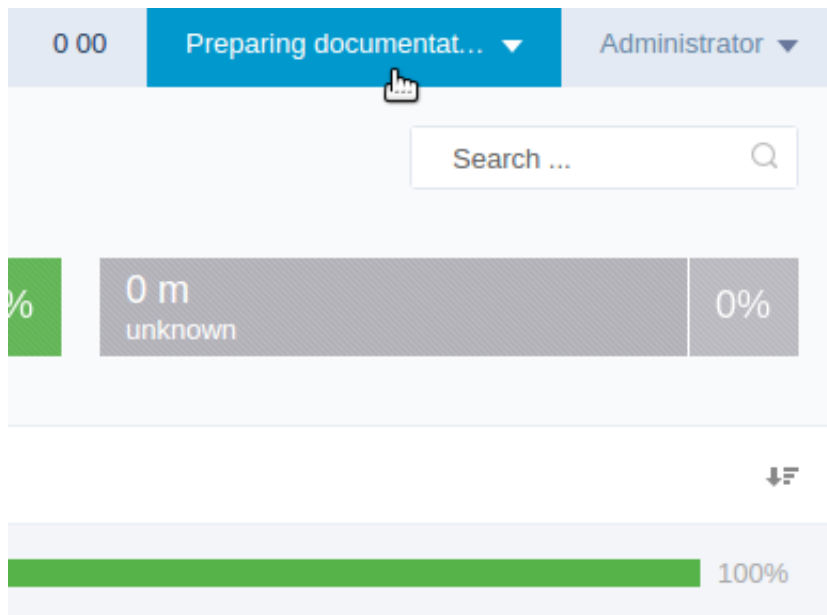
100%

Work

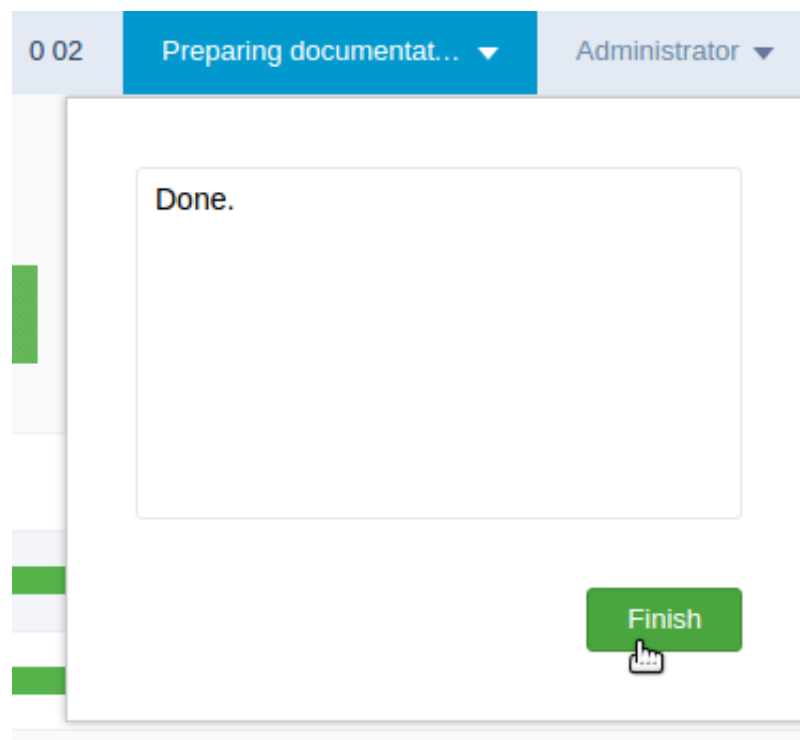
Start

Cancel

<input checked="" type="checkbox"/>	Work type
<input type="checkbox"/>	▶ Accounting
<input type="checkbox"/>	▶ Client interaction
<input type="checkbox"/>	▶ Design
<input checked="" type="checkbox"/>	▼ Development
<input type="checkbox"/>	Development
<input type="checkbox"/>	Fixing bugs
<input checked="" type="checkbox"/>	Preparing documentation

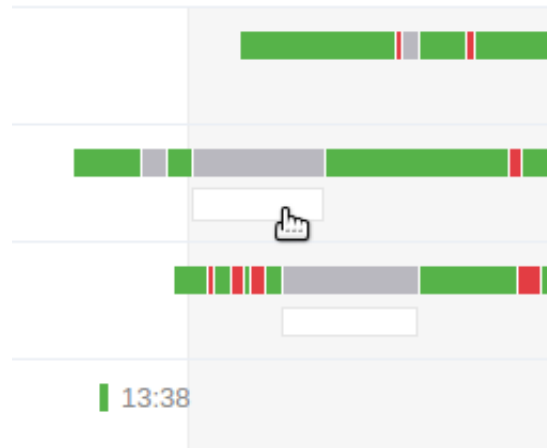


When the button is pressed second time it displays the form where a comment for the time tracking record can be left.




Clicking the **Finish** button stops the timer and creates the time tracking record in reports.

Third, clicking in a blank bar on the **Reports → Timeline** shows a window where you need to specify start and completion times and dates of the process, its name, and optional comment. The track can be edited by moving it with mouse and removed by right click.



Positions

Reports ▼		Settings ▼		0:00	Start ▼	Administrator ▼
New position		Edit	Remove	Search ... 		
<input type="checkbox"/>	Position	Productive	Limits	Time-tracking		
<input checked="" type="checkbox"/>	Accountant	Private, Business, Utilities	Distr. - 30 m; L...	Disabled		
<input type="checkbox"/>	* Default	Business, Utilities	Distr. - 30 m; L...	Enabled		

The **Settings → Positions** tab lists all the positions with corresponding productive applications groups, limits (distraction, lateness, early leave, etc), time tracking setting, and types of processes available for a position (if time tracking is enabled). The **Positions** tab is displayed only if **Individual settings** are enabled for **Work model** in the **Settings** tab.

Settings can be altered either by clicking in corresponding table cells, or by using **Edit**

button when a position is selected, or by right-clicking on a position and selecting **Edit** from the popup menu.

Creating and editing positions

Select **Edit** from a position’s context menu to display the window where the position settings can be changed: name, limits, activities, and time-tracking.

Profile

Applications

Time-tracking

Accountant

Save

Cancel

Title*

Accountant

Distraction time limit

30

minutes

Lateness time limit

15

minutes

Early leave limit

15

minutes

Unknown time limit

15

minutes

Distraction time limit means the amount of time an employee (position) is allowed to spend during a work day for non-productive and non-computer activity. **Lateness time limit** means the amount of time an employee is allowed to be late (according to the system’s statistics). **Limit for early leave** means how much earlier than by schedule an employee can leave a workplace.

In the **Applications** tab applications and websites’ statuses for this position can be configured using **Status** drop-down menu. To reset all individual applications productivity statuses settings to a group’s default select **Reset included**.

Profile

Applications

Time-tracking

Accountant

Save

Cancel

Quick search

Search ...

Groups	Status
Computer	* Productive
▼ Business	* Productive
▶ Development	Productive
▶ Documents	Productive
▶ Email	Productive
▶ Enterprise systems	Productive
▶ Other	Non-core
▼ Private	* Productive
▶ Business media	Non-core
▶ Calendars	Non-productive
▶ Downloads	Non-productive

Time-tracking tab includes time-tracking settings for a selected position. Use the

Time-tracking switch to enable time-tracking and then configure work processes allowed for this position.

The screenshot shows a user interface for configuring an 'Accountant' profile. On the left is a sidebar with three menu items: 'Profile', 'Applications', and 'Time-tracking'. The main content area is titled 'Accountant' and includes a 'Save' button (green) and a 'Cancel' button (grey). Below the title, there is a 'Time-tracking' section with a toggle switch currently set to 'Off'. Underneath the toggle is a table with five rows, each featuring a checkbox and a label:

<input type="checkbox"/>	Work type
<input type="checkbox"/>	▼ Calls
<input type="checkbox"/>	External
<input type="checkbox"/>	Internal
<input type="checkbox"/>	▼ Clients

Time-tracking allows employees to indicate time and reason of non-computer work activity. Such work activities and specified reasons will be displayed when viewing statistics.

Removal of positions

To remove positions select corresponding checkboxes and click the **Remove** button from the upper horizontal menu. Any employee who was assigned this position will receive either the ***Default** position or the one that is set for employees' departments. The productivity status of websites and applications will be changed accordingly.

How to view statistics of employees' activity and clock-in/out records

To get employee's activity statistics: `api_employee_activity`

Request:

```
controller=api_employee_activity&session=
44de3a99578d6aede5f7706049f61e13e35f5f4e8f674761ba0a3f570631de57&
query=
{
  "interval":[1393632e3,1395964799],
  "employees":[1],
  "columns":
  {
    "schedule_type":1,
    "activity_type":1,
    "visible_columns":[1,2]
  }
}
```

interval	time period for which the statistics are returned. The beginning and the end of the interval are set as a number of seconds starting from 01.01.1970;
employees	list of employees' IDs for which the statistics are returned.

"schedule_type":
1 — work time,
2 — scheduled time,
3 — non-scheduled time

"activity_type":
1 — all types,
2 — computer,
3 — non-computer

"visible_columns" — columns to be returned:
1 — worked time in seconds,
2 — productive time in seconds,
3 — non-productive time in seconds,
4 — non-core time in seconds,
5 — unknown time in seconds,
6 — number of schedule violations,
7 — number of times being late,
8 — number of times leaving early,

9 — number of absences,
 10 — lateness time in seconds,
 11 — average lateness time in seconds,
 12 — early leave time in seconds,
 13 — average early leave time in seconds,
 14 — number of days worked,
 15 — amount of time worked in seconds,
 16 — work hours in seconds,
 17 — number of working days according to schedule,
 18 — total overtime in seconds.
 "schedule_type" and "activity_type" only affect calculation of columns 1, 2, 3, 4, and 5.

Response:

```

{
  "items":
  [{
    "employee_id": 1,
    "first_name": "John",
    "second_name": "Dow",
    "schedule_day_count": 40,
    "work_day_count": 39,
    "nonspecialized_time": 98914,
    "late_time": 52974,
    "late_count": 9,
    "work_time": 1140446,
    "permitted_time": 905906,
    "forbidden_time": 69723,
    "early_end_count": 3,
    "early_end_time": 18812,
    "absenteeism": 3,
    "unknown_time": 90017,
    "incident_count": 15,
    "norm": 1296000,
  }]
}
  
```

items	List of employees with statistics for each of employees;
employee_id	Employee's ID;
first_name	Employee's name;
second_name	Employee's surname;

schedule_day_count	Number of workdays according to a schedule;
work_day_count	Number of days worked;
nonspecialized_time	Non-core time in seconds;
late_time	Lateness time in seconds;
late_count	Number of times being late;
work_time	Worked time in seconds;
permitted_time	Productive time in seconds;
forbidden_time	Non-productive time in seconds;
early_end_count	Number of times leaving early;
early_end_time	Early leave time in seconds;
absenteeism	Number of absences;
unknown_time	Unknown time in seconds;
incident_count	Number of schedule violations;
norm	Work hours in seconds;
diff	Total overtime in seconds.

To get employees' clock-in/out records: api_employee_work_periods

Request:

```
controller=api_employee_work_periods&session=
44de3a99578d6aede5f7706049f61e13e35f5f4e8f674761ba0a3f570631de57&
query=
{
  "day":1393632000,
  "employees":[120]
}
```

session	User's session.
day	day for which the statistics is returned. The day is set as the number of seconds starting from 01.01.1970 until 00:00:00 of the day.
employees	a list of employees' ID for whom clock-in and clock-out times are requested.

Response:

```
{
  "items":
```

```
[{
  "employee_id": 120,
  "first_name": "John",
  "second_name": "Dow",
  "day": 1393632000,
  "begin": 36706,
  "end": 67879
}]
}
```

items	Employees' list with clock-in and clock-out times for each employee;
employee_id	Employee's ID;
first_name	Employee's name;
second_name	Employee's surname;
is_deleted	If an employee's profile is deleted;
day	Day for which the statistics is returned. The day is set as the number of seconds starting from 01.01.1970 until 00:00:00 of the day;
begin	Clock-in time in seconds from the beginning of the day. -1 — undefined time;
end	Clock-out time in seconds from the beginning of the day. -1 — undefined time.

Attendance

The **Reports → Attendance** tab shows statistics on schedule violations: **Absence**, **Early leave**, **Lateness**. Allowed lateness and early leave time limits are set in **Settings → Positions**. See [item 7.3](#) for details.

If time of an employee's schedule violations during the day is over the set limit this time will be counted by the system. If no activity was collected for an employee during the day it would be counted as *Absence*.

The **Rating / By groups** switch is used to switch the table from displaying the list of employees grouped by departments to flat list and back. When **Rating** is selected the list will be sorted without taking employees' departments into account.

The **Columns** button allows to choose which columns will be displayed in the table.

The **Export** button allows to a report and **Clock-in/out record** to a computer in printable form. The downloaded file is an .xls table. Information about all employees is saved by default. To save information about specific employees only select them in the table before clicking the **Export** button.

Schedule

The **Settings** → **Schedule** tab shows the list of schedules currently available. The table displays schedules' names, work days, work time, and work hours. The **Schedule** tab is displayed only if **Individual settings** are enabled for **Schedules** in the **Settings** tab.

Reports

Settings

0:00

Start

Administrator

New schedule

Edit

Remove

Search ...

<input type="checkbox"/>	Schedule	Details
<input type="checkbox"/>	Default 10 A...	Mo 10:00 - 19:00 (8 h); Tu 10:00 - 19:00 (8 h); We 10:00 - 19:00 (8 h); Th 10:00 - 19:00 (8 h); Fr 10:00 ...
<input type="checkbox"/>	Default 8 A...	Mo 08:00 - 17:00 (8 h); Tu 08:00 - 17:00 (8 h); We 08:00 - 17:00 (8 h); Th 08:00 - 17:00 (8 h); Fr 08:00 ...
<input type="checkbox"/>	* Default 9 A...	Mo 09:00 - 18:00 (8 h); Tu 09:00 - 18:00 (8 h); We 09:00 - 18:00 (8 h); Th 09:00 - 18:00 (8 h); Fr 09:00 ...
<input type="checkbox"/>	First shift	Mo 06:00 - 14:00 (8 h); Tu 06:00 - 14:00 (8 h); We 06:00 - 14:00 (8 h); Th 06:00 - 14:00 (8 h); Fr 06:00 ...
<input type="checkbox"/>	Flextime	Mo (8 h); Tu (8 h); We (8 h); Th (8 h); Fr (8 h)
<input type="checkbox"/>	Second shift	Mo 14:00 - 22:00 (8 h); Tu 14:00 - 22:00 (8 h); We 14:00 - 22:00 (8 h); Th 14:00 - 22:00 (8 h); Fr 14:00 ...

Creating and editing schedules

Click the **New schedule** button to open the window where for a new schedule you will need to specify its *Title*, *Scheduled days*, *Work time*, *Break time*, and *Work hours* (total hours to be worked during the day). If the **Unified** checkbox is ticked the schedule in this line will be applied to all work days. Untick this checkbox to specify individual settings for work days, if necessary.

New schedule

AddCancel

Title*

WORK DAYS	WORK	BREAK	HOURS
<input checked="" type="checkbox"/> Unified	09:00-18:00	13:00-14:00;	08:00
<input type="checkbox"/> Sunday	Not set	Not set	00:00
<input checked="" type="checkbox"/> Monday	09:00-18:00	13:00-14:00;	08:00
<input checked="" type="checkbox"/> Tuesday	09:00-18:00	13:00-14:00;	08:00
<input checked="" type="checkbox"/> Wednesday	09:00-18:00	13:00-14:00;	08:00
<input checked="" type="checkbox"/> Thursday	09:00-18:00	13:00-14:00;	08:00
<input checked="" type="checkbox"/> Friday	09:00-18:00	13:00-14:00;	08:00
<input type="checkbox"/> Saturday	Not set	Not set	00:00

Removal of schedules

Removal of schedules is analogous to removal of other items. Select the schedule to be removed and click the **Remove** button from the upper horizontal menu. After removal of the schedule all the employees using it will automatically be assigned either the default schedule, or the schedule configured for their departments.

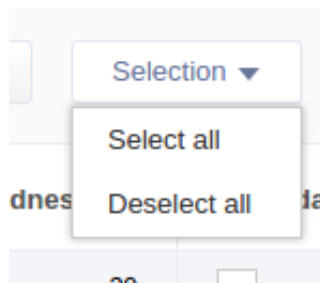
Calendars

The **Settings → Calendars** displays monthly schedule for a selected employee (an employee's name is displayed as a caption of the button in the upper horizontal menu).

Reports ▼		Settings ▼		0:00		Start ▼	Administrator ▼	
April 2016 ▼		Administrator ▼		Selection ▼		Set ▼	Clear ▼	
Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday		
<input type="checkbox"/> 28 Work 09:00... Break 13:00... Hours 8 h	<input type="checkbox"/> 29 Day off	<input type="checkbox"/> 30 Work 09:00... Break 13:00... Hours 8 h Vacation	<input type="checkbox"/> 31 Work 09:00... Break 13:00... Hours 8 h Vacation	<input type="checkbox"/> 1 April Work 09:00... Break 13:00... Hours 8 h Vacation	<input type="checkbox"/> 2 Day off	<input type="checkbox"/> 3 Day off		
<input type="checkbox"/> 4 Work 09:00... Break 13:00... Hours 8 h Compensatory	<input type="checkbox"/> 5 Work 09:00... Break 13:00... Hours 7 h Short day	<input type="checkbox"/> 6 Holiday	<input type="checkbox"/> 7 Holiday	<input type="checkbox"/> 8 Work 09:00... Break 13:00... Hours 8 h Sick leave	<input type="checkbox"/> 9 Day off	<input type="checkbox"/> 10 Day off		
<input type="checkbox"/> 11 Work 09:00... Break 13:00... Hours 8 h	<input type="checkbox"/> 12 Work 09:00... Break 13:00... Hours 8 h	<input type="checkbox"/> 13 Work 09:00... Break 13:00... Hours 8 h	<input type="checkbox"/> 14 Work 09:00... Break 13:00... Hours 8 h	<input type="checkbox"/> 15 Work 09:00... Break 13:00... Hours 8 h	<input type="checkbox"/> 16 Day off	<input type="checkbox"/> 17 Day off		

The calendar displays holidays, days off, scheduled work and break time, work hours, and other events.

A specific schedule can be set for any employee for any selected day(s). Select the day(s) either manually or by using **Selection** button and clicking the **Set** button. *Work hours, Day off, Sick leave, Compensatory holiday, Vacation, and Holiday* can be set via corresponding popup windows. Specific schedules can be set for a whole day or a duration of time.



Note: The holidays settings are applied to all employees. The previous working day can be reduced by 1 hour using the switch.

The time filter button (displays selected time period) and the employee filter button (displays a name of selected employee) allow to see records of specific period of time and for a specific employee. The captions of the buttons show the filters selected at the moment. Click the corresponding buttons to change parameters of the time and employee filters.

Work hours

Work

09:00-18:00

Break

13:00-14:00;

Normal hours

08:00

Save

Cancel

Work hours

Day off

Sick leave

Compensatory holiday

Vacation

Holiday

New sick leave

☒ Full day

☐ Specified time

hh:mm-hh:mm

Save

Cancel

New compensatory holiday

☒ Full day

☐ Specified time

hh:mm-hh:mm

Save

Cancel

New vacation

☒ Full day

☐ Specified time

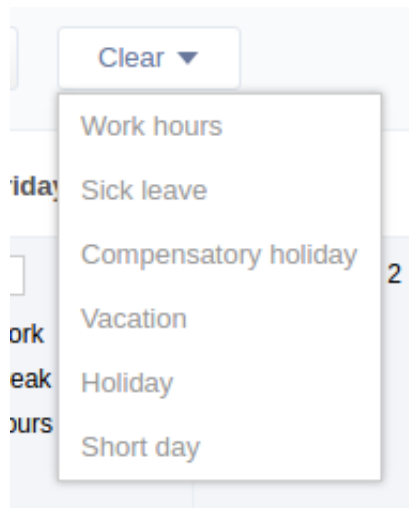
New holiday

Holiday name*

Shorten the previous work day by 1 hour ☐ Off

Applied for all employees

The **Clear** button allows to remove events (but their type) from the calendar.



Another way is right-clicking on a specific event in the calendar and clicking **Remove**.

Work types

The **Settings** → **Work types** tab shows a list of work types to which activities of employees during a work day can be grouped. Work types can be created, removed, renamed, and grouped. Work types are used for time tracking.

CrocoTime	Reports		Settings	
Configuration	New group		New work type	Edit Move Remove
Employees	<input type="checkbox"/>	Work type		
Applications	<input type="checkbox"/>	▼ Calls		
Positions	<input type="checkbox"/>	External		
Schedules	<input type="checkbox"/>	Internal		
Calendars	<input type="checkbox"/>	▼ Clients		
Work types	<input type="checkbox"/>	Clients searching		
Agents	<input type="checkbox"/>	Preparations		
User accounts	<input type="checkbox"/>	Service		

Agents

The **Settings** → **Agents** tab shows a list of agents from which statistics has been ever received (or has been received during the timeframe set by the time filter). The list includes computer name, agent version, last time when statistics was received and the latest IP address from where the statistics for this account was received.

CrocoTime

Reports
Settings

0:00 Start Administrator

Windows installer
OS X installer
GPO installer
Clear

Search ...

	Computer	Agent version	Latest statistics	Latest IP
<input type="checkbox"/>	▼	—	—	—
<input type="checkbox"/>		5.0.21	today	

Configuration
Employees
Applications
Positions
Schedules
Calendars
Work types
Agents
User accounts

Obsolete or no longer needed entries can be removed by selecting it and clicking the **Clear** button. All the statistics collected by the agent will be removed.

This tab also allows to download installers of computer agents using the buttons of the upper horizontal menu: **Windows installer**, **OS X installer**, and **GPO installer** for installation using group policies (see [item 4.2](#) for details).

Windows installer

Generate

Close

CrocoTime server address*

http://server.server:8085

Use proxy

☐ Off

When clicking the necessary installer button a window shall appear where *CrocoTime server address* and proxy server configuration can be made for an agent (if necessary).

User Accounts

The **Settings** → **User Accounts** tab when set to **Domain** mode shows a list of do-

mains and nested domain user accounts, and when set to **Local** it shows a list of local user accounts from which statistics was collected by computer agents. Organizational structure can be imported from Active Directory.

The screenshot shows the CrocoTime interface with the 'Settings' tab selected. On the left is a dark sidebar with menu items: Configuration, Employees, Applications, Positions, Schedules, Calendars, Work types, Agents, and User accounts. The main content area has a top bar with 'Reports' and 'Settings' tabs, a timer at '0:00', and user controls for 'Start' and 'Administrator'. Below this is a section for installing agents with buttons for 'Windows installer', 'OS X installer', 'GPO installer', and 'Clear', along with a search bar. The main part of the interface is a table with columns: 'Computer', 'Agent version', 'Latest statistics', and 'Latest IP'. The table contains three rows: a header row, a row with a dropdown arrow, and a row with a green background for '5.0.21' and 'today'. A mouse cursor is pointing at the '5.0.21' cell.

Computer	Agent version	Latest statistics	Latest IP
▼ [bar]	—	—	—
[bar]	5.0.21	today	[bar]

Status of each entry is displayed next to it: **Automatic, Enabled, Disabled*.

- **Automatic* status activates the user account as soon as any statistics has been received.
- *Enabled* means that the user account is enabled even if no statistics was received.
- *Disabled* means that the statistics from this account is not collected.
- *Reset subitems* resets status of included items to default.

The status can also be set by selecting the entry and clicking the **Set monitoring** drop-down menu.

The table also shows logins and when latest statistics was received.

To link a user account to an employee's profile (created in the **Settings** → **Employees** tab), select the user account (or several accounts) and click the **Link** button. The statistics from several user accounts linked to one employee is summarized.

Employee selection

Link

Cancel

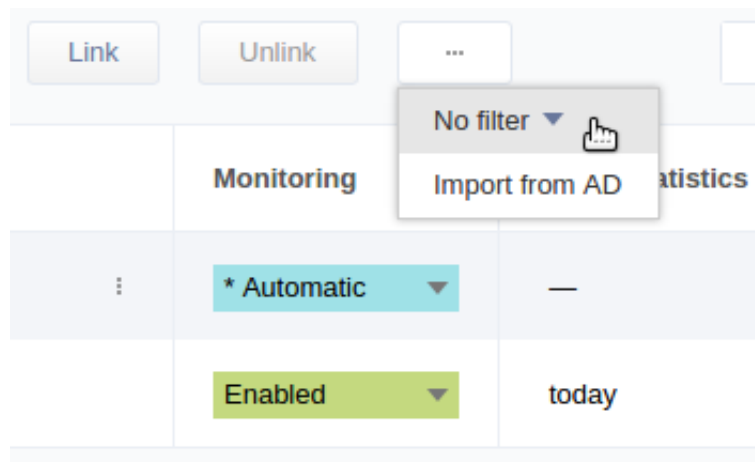
Quick search

Search ...



<input type="checkbox"/>	Employee
<input checked="" type="checkbox"/>	Administrator
<input type="checkbox"/>	

To unlink user accounts from an employee's profile select one (or more) linked user account and click the **Unlink** button. The statistics from unlinked user account will no longer be attributed to the employee's profile. If the **Unlink** button is not available the selected user account is not linked.



Time filter allows to see the entries with set date of last time when statistics was received.

Filter by statistics

- ☒ No filter
- ☐ Not received
- ☐ More than 30 days
- ☐ Since

21 April ▼

Save

Cancel

The ***Import from AD*** button allows to import a list of user accounts from Active Directory.

Import from AD

Import

Cancel

Parameters of authorization

Domain controller*

Not set

Domain name*

Not set

Login*

Not set

Password

Not set

Select departments to synchronize

☒ All structure

☐ Organizational Units

Paths, separated with ";"

Parameters of synchronizing

☐ Employees data without splitting by departments

☒ Comply with the company structure

In the **Parameters of authorization** section type domain controller, domain name, login, and password in their respective fields to access the domain controller.

In the **Select departments to synchronize** select the data to upload from AD: either all structure or specific organizational units (separated with semicolon).

For example, if the root catalog includes these OUs: *Administration*, *Sales*, *Development*, *Marketing*, and *Testing*, to upload only the *Administration* and *Marketing* OUs you need to type *Domain Controllers\Administration; Domain Controllers\Marketing* to the **Organizational Units** test field.

The ***Parameters of synchronizing*** list allows to either preserve or ignore a company's structure while importing the data from AD. If the switch is set to ***Employees data without splitting by departments*** the employees will be uploaded as a flat list without division into groups and subgroups. If ***Comply with the company structure*** is selected the structure of the company will be imported as it was in AD.