

INFOWATCH

InfoWatch Connector for SAP ERP. Installation and administration guide

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© JSC “InfoWatch”

Tel/Fax +7 (495) 229-00-22

http://www.infowatch.com

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1 Introduction

This guide contains information on installation, configuration and administration of InfoWatch Connector for SAP ERP, the software is intended to collect data in SAP ERP system and transfer collected data to InfoWatch Traffic Monitor for further use in Information Security control process.

1.1 Who Should Read this Guide

This document is intended for specialists experienced in transport system and SAP administration.

1.2 Set of Documents

For more information see the following documents:

- «InfoWatchTraffic Monitor. Installation Guide». The document describes how to install, configure, update and uninstall InfoWatch Traffic Monitor.
- «InfoWatch Traffic Monitor. Administration Guide». It contains information on System administration (database, server-end).
- «InfoWatch Traffic Monitor. User Guide». The document describes operation with InfoWatch Traffic Monitor: configuration setting, data export/import, creating policies for objects processing.
- «InfoWatch Traffic Monitor. Configuration files guide». The document describes the frequently used configuration files.

1.3 Technical Support

If you cannot resolve issues arising when using the System or if you have questions on the System using, you can contact the Technical Support Service:

- If you purchased the product from an InfoWatch partner, contact the Technical Support Service of this partner company.
- If you purchased the product directly from InfoWatch, you can contact our Technical Support Service at support@infowatch.com.

Technical Support Service is available to assist you Monday - Friday, 7 AM – 9 PM (Moscow time, GMT+3), except weekends and public holidays in Russian Federation.

You can also visit online support at our website at: http://infowatch.com/support.

Before contacting the Technical Support Service, please refer to the Knowledge Base at our web-site: https://kb.infowatch.com/. The knowledge base may already contain the answer to your question or a description of the problem you are having.

2 Authorization concept

There are two types of users in SAP ERP Connector: technical and dialogue ones.

Thechnical users are intended to collect data and transfer it in the background. Dialog users are supposed to monitor and configure InfoWatch Connector for SAP ERP.

To operate with InfoWatch Connector for SAP ERP it is recommended creating individual user accounts to deal with specific tasks. This would improve tracing and security control within SAP ERP.

InfoWatch Connector for SAP ERP includes the roles with responsibility matrix as follows:

User	Role	Authority
Administrator	**/IWTC/ ADMINISTRATOR**	Complete authorization to all functions, including data extraction in background tasks
Extraction Scheduler	**/IWTC/ SCHEDULER**	Extractions planning and monitoring
Auditor	**/IWTC/MONITOR**	Extractions monitoring
Data extraction (technical user)	**/IWTC/EXTRACTOR**	Data extraction in background tasks

If required, additional roles can be created and additional accesses can be granted for users with existing SAP ERP roles.

For this purpose you can use **/IWTC/TMC** authority object that is a part of connector:

Object field	Possible values	Comments
/IWTC/AREA	MONITOR, ADMIN, EXTRACT, SCHEDULER	Functions, available for user accroding to authorization
ACTVT	03 - view 02 - edit 16 - execute	Used to separate authorizations to edit (03) and to view (02). (16) – authorization to use all the functions.
/IWTC/OBJ		Protected object (not used in the current version).

3 Preparing for installation

1. Verify the latest SPAM/SAINT tools have been imported into ERP system.
   To do this, compare a short description of the latest SPAM/SAINT update imported into system to a short description of update on SAP Support Portal. If the portal contains information on later version, please install it.

   > **Note:**
   >
   > Additional information on SPAM/SAINT tools you may find on SAP Help Portal following https://help.sap.com/spmanager.

2. Check whether the following requirements are met with the system ones. To do this, go to **System** tab, select **Status** and after that select **Product Version**, click on **Details** and select **Installed Software Component Versions**, as follows:

Component	Version
SAP_BASIS	>700
SAP_ABA	>700
SAP_APPL	>600
SAP_HR (optional)	>600

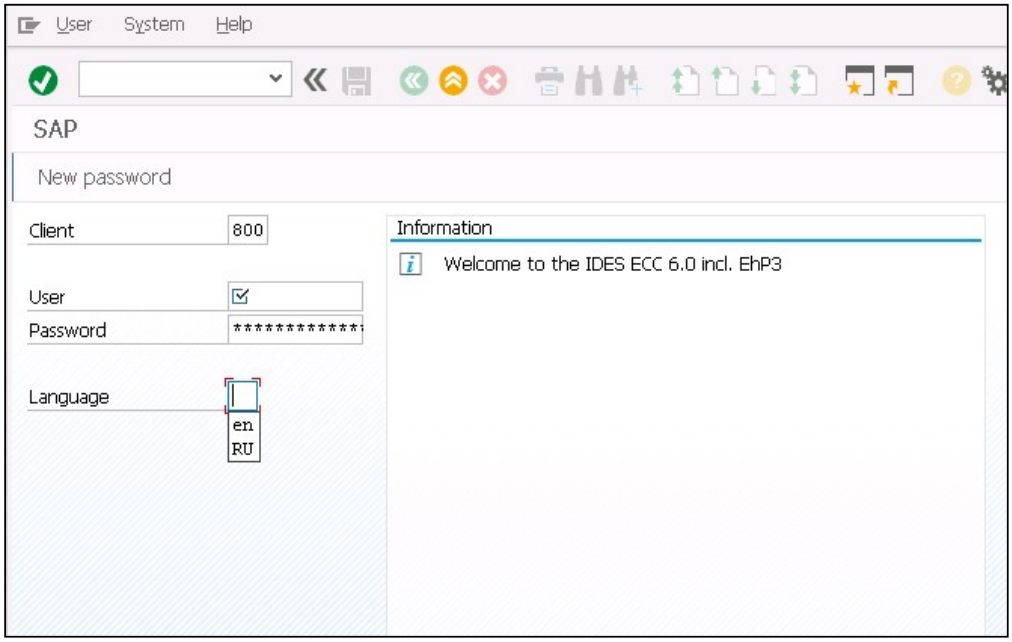
3. Download InfoWatch Connector for SAP ERP Add-on installation package and load it into the System (by relocating .PAT file).
   For more information, use online documentation SAP Add-On Installation Tool. To do this, select **Help** in **SAP GUI** menu tab, then go to **Online documentation** and **Loading installation packages**.

4 System installation

1. Log in SAP system into client 000, using SAP_ALL authorization rights. Do not use SAP or DDIC user accounts to install the System.
2. Use Add-On Installation Tool (SAINT transaction) to start the installation or upgrade of SAP ERP Connector. For more information, see online documentation on SAP Add-On Installation Tool.

4.1 Language support

Two interface languages are available in InfoWatch Connector for SAP ERP Add-on: Russian and English. The language to be used should be selected when logging into the System.



4.2 User profiles creation and configuration

4.2.1 Transport requests

Transport file should be downloaded from SAP Software site.

Transport requests (.PAT file) must be saved on local computer or within the inbox of SAP ERP transport system (/usr/sap/trans/EPS/IN) and should be imported in the system using SAINT transaction.

After the transport requests have been successfully installed in the System, user profiles should be created. Minimum set of user profiles should include *administrator* and *technical user*.

To create an Administrator profile the following actions are to be taken:

- Enter SU01 transaction;
- Using F8 key select **Create**;
- Set username and password for adminidtator's profile;
- On the **User type** tab set **Dialog**;
- On the Roles tab add the user role **/IWTC/ADMINISTRATOR**;
- Click **Save**.

To create a **Technical user** profile the following actions are to be done:

- Enter SU01 transaction;
- Using F8 key select **Create**;
- Set username and password for technical user's profile;
- On the **User type** tab set **Service**;
- On the **Roles** tab add the user role **/IWTC/EXTRACTOR**;
- On the Permissions tab add the user profiles **SAP_ALL** и **SAP_NEW**;
- Click **Save**.

> **Note:**
>
> In accordance with system administrator, technical user requiers an approval to read the tables for protected objects. These tables belong to HR, MM, LO and SD modules. In case SAP_ALL and SAP_NEW are restricted in accordance with security policies, it is required using an appripriate profile to read the tables.

4.3 InfoWatch Traffic Monitor certificate import

Server security certificate containing InfoWatch Traffic Monitor installed should be imported to SAP ERP in SSL Client (anonymous) and SSL Client (standard) certificate tree sections of **STRUST** transaction.

4.4 Configuring HTTPS

HTTPS configuration is performed by SAP ERP system administrator in accordance with official SAP guide.

4.5 Configuring SAP Connect

To configure e-mail notifications about extraction status it is required to set up the connection between SAP ERP and SAP Connect mail server.

Configuration is to be performed by SAP ERP system administrator. The description of configuration can be found on *help.sap.com* in *SAP ERP 6.0 - SMTP Configuration Guide*.

4.6 InfoWatch Traffic Monitor

InfoWatch Traffic Monitor version 6.9 is required to be installed to implement the data extraction.

To receive data from InfoWatch Connector for SAP ERP, an active license for DB automatic unloadings should be provided.

5 Protected objects

Protected object is a collection of SAP ERP business object data to be protected from data leaks outside the corporate network. Object data consist of few blocks:

- key data to be protected by default;
- attributes blocks to be selected in addition (for for more details, please see Creating extraction rule).

5.1 Employee object

The object **Employee** includes the following data:

Block of data	Extraction data
Basic data	• Personal SAP HR number • Employee account number • Surname • Name by birth • Second name • Name • Middle name • Birth date
Address	• Street and house • City • Area • Post index • Country • Home phone
Payments	• Basic salary • Period of payments • Currency • Annual income
Work contacts (SAP ID, e-mail)	• E-mail • SAP user ID
Personal documents (CIS countries)	• Foreign passport • Russian citizen temporary ID card • Passport of a citizen of the Russian Federation • Seaman's passport • Driving license • Individual Taxpayer Number (INN) • State pension insurance card

5.2 Client object

The object Client includes the following data:

Block of data	Extraction data
Dasic data	• SAP client number • Title 1 • Title 2
Address	• Country • City • District • Letterbox • Letterbox index • Post index • Region (state, federal state, province, county) • Street and house number
Telephone and fax	• The first telephone number: code + number • The first telephone number: internal number • The first fax number: code + number • The first fax number: internal number
Tax numbers	• Tax number 1 • Tax number 2 • Tax number 3 • Tax number 4
Basic bank account	• Bank key • Bank account number • Account owner name
Kind of business	• Industry
Contact	• Contact • Contact telephone number
Credit limit and latest payment	• Credit limit • Latest payment amount • Latest payment date

5.3 Supplier object

Block of data	Extraction data
Basic data	• SAP supplier number • Title 1 • Title 2
Address	• Country • City • District • Letterbox • Letterbox index • Post index • Region (state, federal state, province, county) • Street and house number
Telephone and fax	• The first telephone number: code + number • The first telephone number: internal number • The first fax number: code + number • The first fax number: internal number
Tax numbers	• Tax number 1 • Tax number 2 • Tax number 3 • Tax number 4
Basic bank account	• Bank key • Bank account number • Account owner name
Industry	• Industry
Procurement organization info	• Procurement organization • Supplier's responsible seller • Supplier's telephone number • Minimum purchase order value

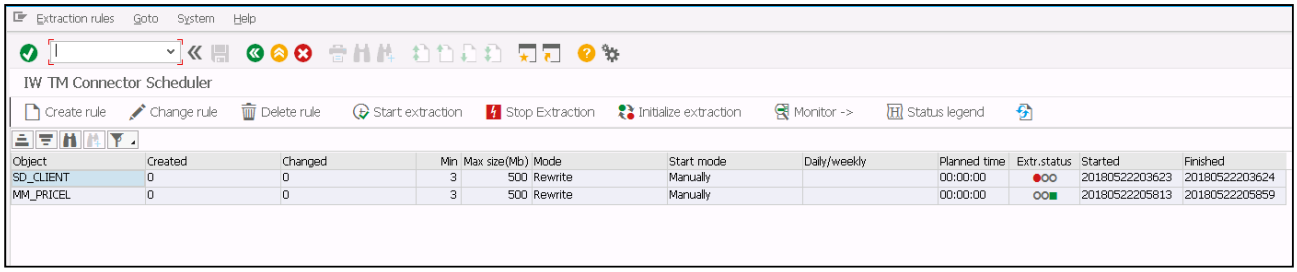
5.4 Pricelist object

The object **Pricelist** includes the following data:

Block of data	Extraction data
Basic data	• SAP material number • Short text description • Standard price • Average moving price • Currency key • Currency short text description
Prices, tax accounting	• Estimated tax price: level 1 • Estimated tax price: level 2 • Estimated tax price: level 3
Prices, commercial accounting	• Estimated commercial price 1 • Estimated commercial price 2 • Estimated commercial price 3
Planned prices	• Planned price 1 • Application date for planned price 1 • Planned price 2 • Application date for planned price 2 • Planned price 3 • Application date for planned price 3

6 System administration

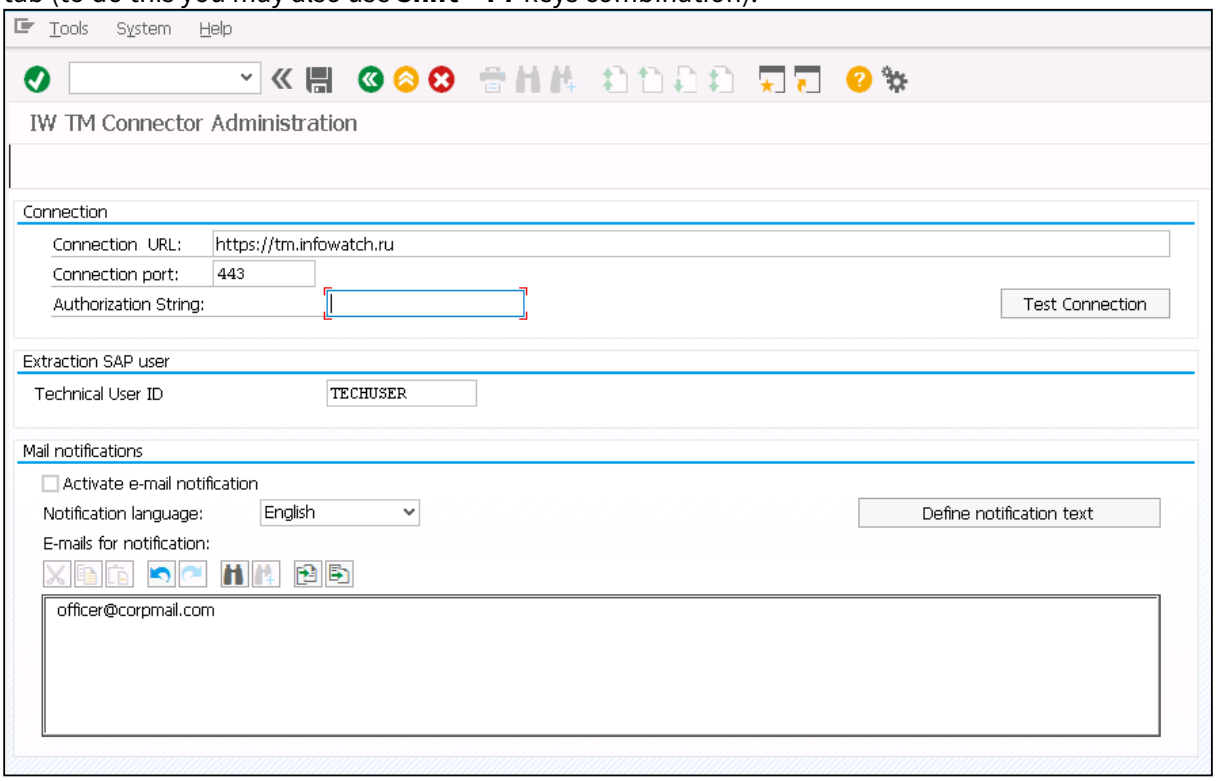
To start working in InfoWatch Connector for SAP ERP, call the transaction **/IWTC/TMC**:



6.1 Connecting to InfoWatch Traffic Monitor

To edit connection settings user should have an assigned role of **/IWTC/ADMINISTRATOR.**

1. To set up connection to InfoWatch Traffic Monitor, use menu tab **Goto** and follow **Global settings** tab (to do this you may also use **Shift + F7** keys combination).

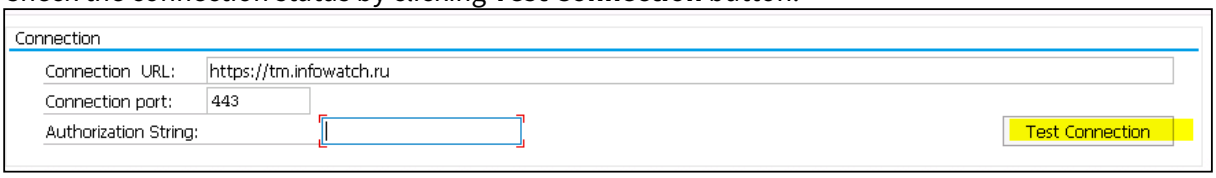


2. Configure the parameters in accordance with table below:

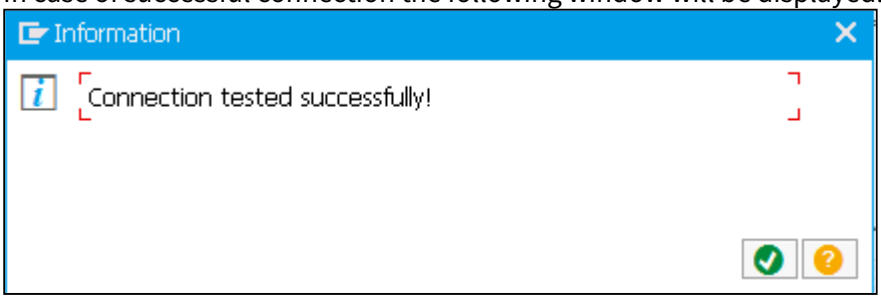
Parameter	Description	Example
URL	DNS name or IP address of InfoWatch Traffic Monitor server with connection protocol (http/https).	https://corphost.ru/
Port	InfoWatch Traffic Monitor server port.	443

Authorization string	SAP ERP Connector authorization when connecting to InfoWatch Traffic Monitor. The value is to be generated within InfoWatch Traffic Monitor management panel.	zd6uthgfyuidjbsh23ztc
Technical user ID	The name of technical user, initiating the background unloading. In case the field is empty, the name of current user/ administrator will be used.	TECHUSER

3. Save the changes by clicking **Save** button (to do this you may also use **Ctrl + S** keys combination).
4. Check the connection status by clicking **Test Connection** button.



In case of successful connection the following window will be displayed:



Note:

In case the connection error occured, check connection details you've entered. URL address and port should be revised as well. In case the username and password are required to be entered, check the authorization string and additionally generate it (for details, please see "User profiles creation and configuration).

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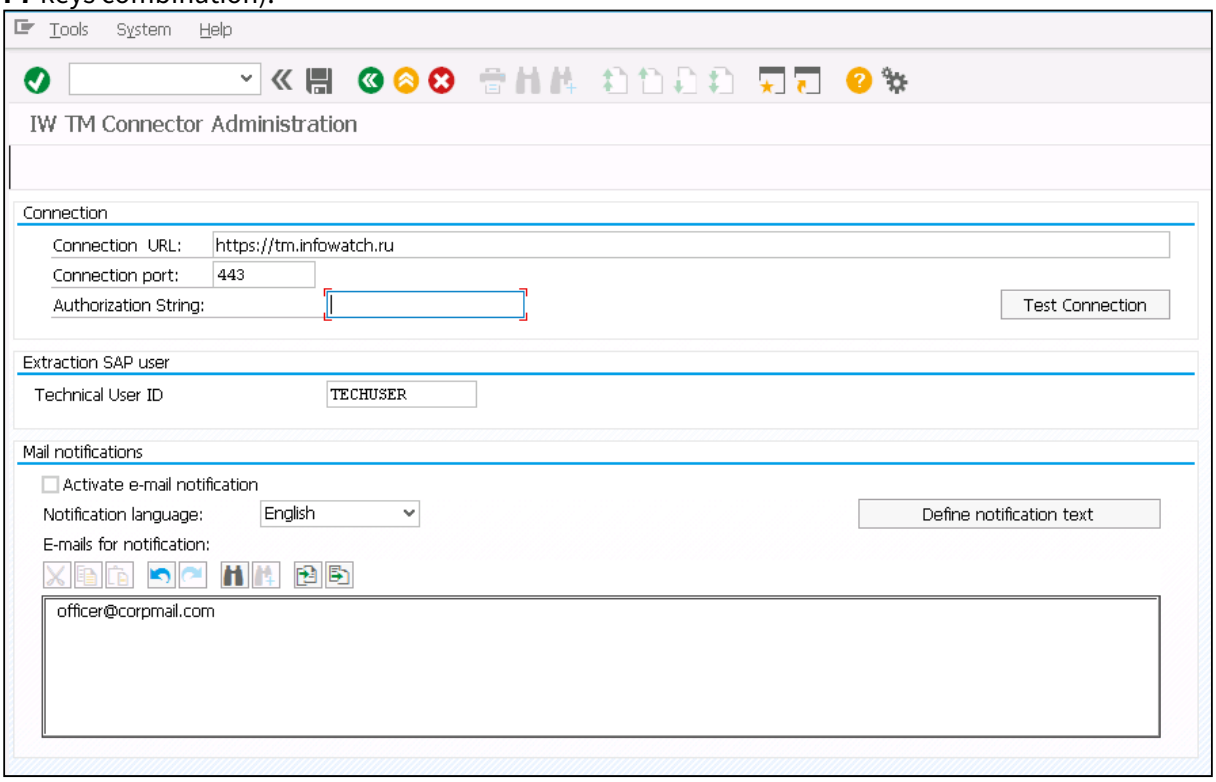
6.2 Email notifications setting up

To edit settings user should have a **/IWTC/ADMINISTRATOR** role assigned.

6.2.1 General settings

1. To enable e-mail distribution related to extraction status changes and to define the distribution list, use the menu item **Goto**, then click **Global settings** (to do this you may also use **Shift +**

F7 keys combination).



2. Configure the parameters in accordance with table below:

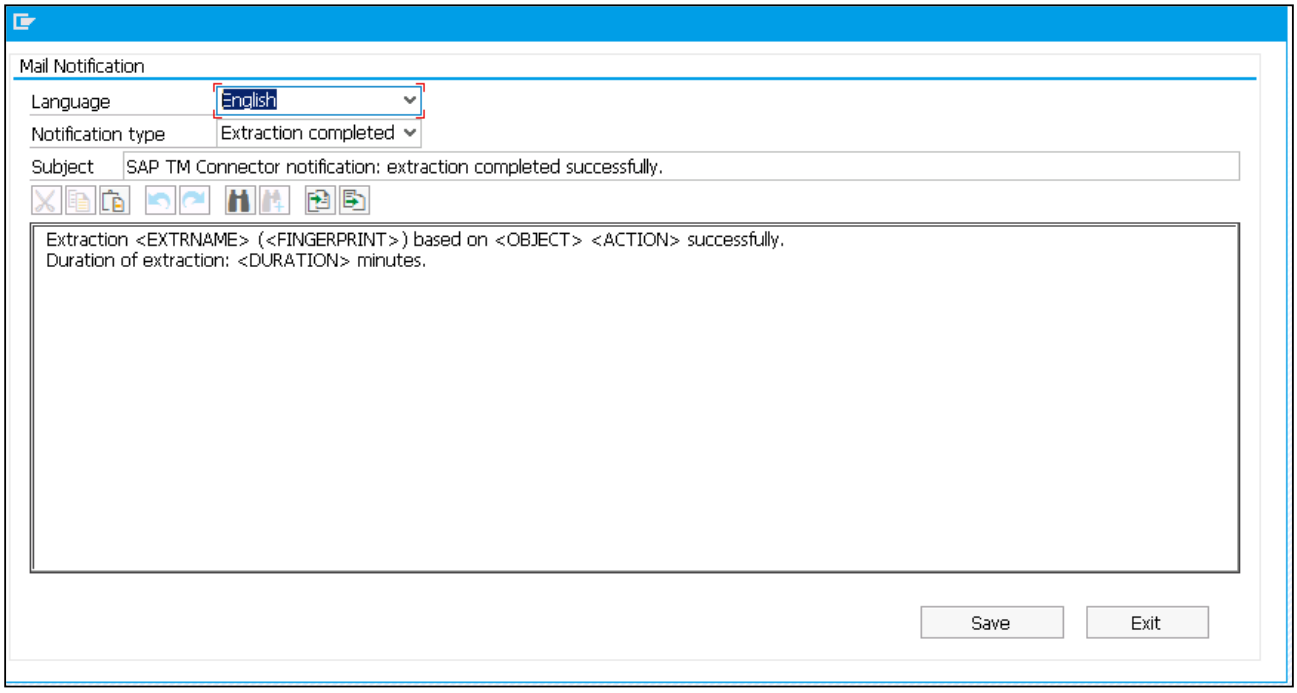
Parameter	Description	Example
Enable e-mail notification	Once the parameter is enabled, the distribution of e-mails related to extraction status will be started.	https:// corphost.ru/
Notification language	Option to select the language of notifications to be sent: Russia and English	English
E-mails to be notified	Comma separated list of e-mails, where the notification about extraction status change should be sent to.	a@intranet.corp .ru, admin@intranet .corp.ru

3. Save the changes you have implemented by clicking **Save** button (to do this you may also use **Ctrl + S** keys combination).

6.2.2 Definition of notification text

Clicking **Define notification text** you can find additional functions available to define three types of notifications:

- Notification about successfully completed extraction;
- Notification about extraction aborted by System;
- Notification about extraction aborted by user.



Notifications are determined separately in English and in Russian.

To create or revise notification message, you shoul do the following:

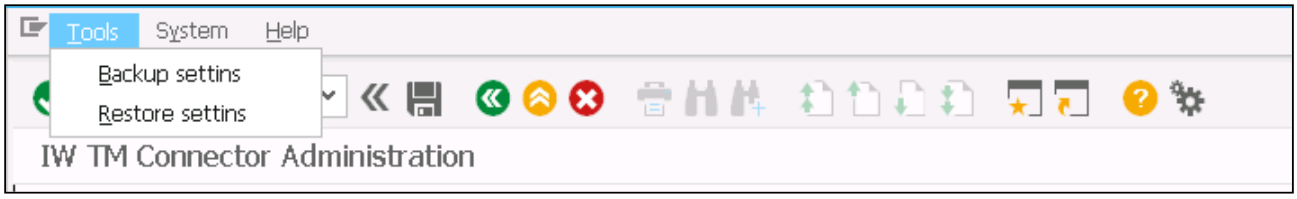
- select the language;
- select the type;
- set the text of notification
- save the changes by clicking **Save** button.

You may use macro names within the notification text, which are to be replaced by particular extraction data when sending messages. Possible macro names are as follows:

Macro name	Substitute value
<ACTION>	Action related to extraction. Possible values:created, renewed, cancelled.
<OBJECT>	Protected object
<EXTRNAME>	Extraction name
<DURATION>	Exctraction duration
<FINGERPRINT>	Extraction fingerprint (unique IW TM code)
<ERROR>	Errok message
<USER>	User (macro is used to notify about extraction abort initiated by user)

6.3 Configuration maintenance and restoration

To ensure the System configuration and extraction rules have been saved correctly in case of SAP ERP update, configuration import and export settings should be carried into a text file. System global settings and extraction rules are to be saved.

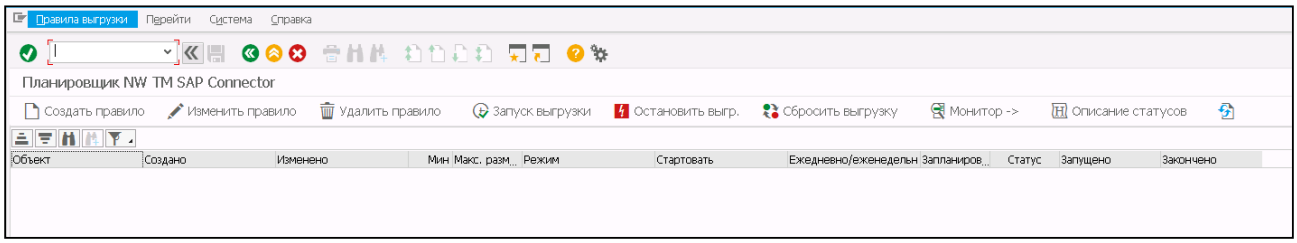


- To create a backup file use menu bar **Tools**, where you should click **Backup settings**. It is required specifying the filename and a path to the file, then the configuration parameters and extraction rules will be saved.
- To restore all the parameters use menu bar **Tools**, where **Restore settings** should be selected. Once the backup file is specified, a warning message about deletion of system parameters, extraction rules and background tasks will occur. When you confirm the configuration import, all the parameters will be uploaded from the file, all scheduled and active jobs will be stopped and deleted, current extraction rules and global parameters will be deleted. After that all the parameters and extraction rules to be restored from backup.

6.4 Data extraction management

Data extraction is the main object of System administration, it is a set of protected object data, extracted into InfoWatch Traffic Monitor.

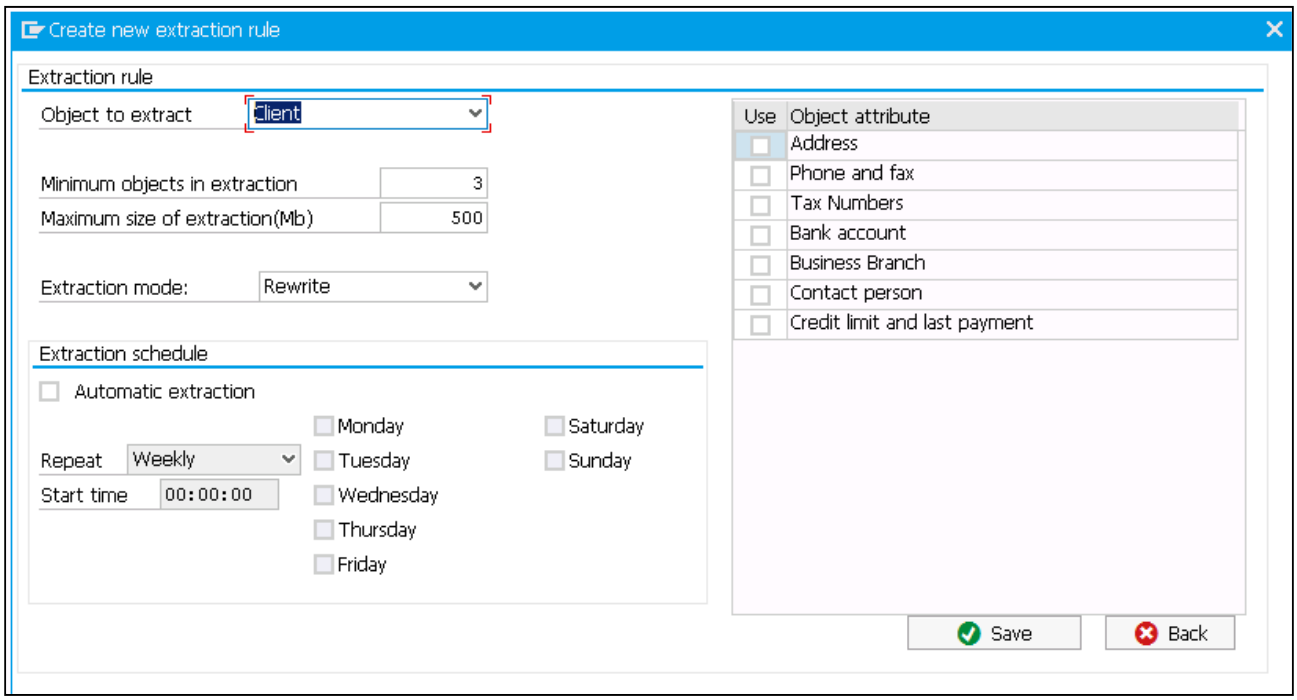
To manage the data extraction and its scheduling, call the transaction **/IWTC/TMC**. The window with set of functions will appear as follows:



- Creating extraction rule;
- Editing extraction rule;
- Deleting extraction rule;
- Review of extraction rules' list;
- Manual extraction;
- Cancel of extraction;
- Extraction reset;
- Go to extractions history monitor;
- Displaying legends of extraction status icons;
- SAP ERP standard functions to manage a list (sort, search, filter).

6.4.1 Creating extraction rule

To create an extraction rule click on **Create rule** button or select **Create new extraction rule** within **Extraction rules** menu tab. This also can be done by pressing **F5** button.



In the opened window please specify the following parameters of extraction you create:

Parameter	Description
Object type	Type of SAP objects to be protected. Only one rule can be created in the System for one SAP object.
Object attributes	Select the attributes of protected object to be extracted in addition to basic data of the object. **Note:** A set of attributes will define the extraction name in InfoWatch Traffic Monitor. Example: Create an extraction task and select few attributes, for example: address, phone and fax, bank account. After the task has been implemented in InfoWatch Traffic Monitor the extraction IDD_800_MM_PRICEL_XXOXOOO will be implemented.
Minimum number of objects within extraction file	Minimum number of objects selected from database to set up an extraction. In case the number of object is less then the specified one, selection cannot be performed.

Maximum size of extraction	This parameter defines the largest size of extraction (in Mb), created in accordance with this rule. This should be an integer in the range from 1 to and including 2000.
Extraction mode	Extraction completion modes: Rewriting - every time when extracting the data, all available data in the System will be extracted; data in InfoWatch Traffic Monitor will be rewrited. Collecting – when performing an extraction the delta of changes since the latest successful extraction will be collected (the first time it will be a full extraction); data in InfoWatch Traffic Monitor will be appended to the existing ones.
Automatic extraction	If the parameter has been defined, extractions will be held automatically in accordance with schedule. If parameter is undefined, extractions can be performed only manually in accordance with the task from SAP ERP Connector's administrator.
Repeat	Used for automatic extraction only. Periods to start automatic extractions: • Weekly on specified days and specified time; • Daily at specified time.
Start time	Used for automatic extraction: time to start the extraction (in accordance with SAP System time).
Week days	Used for automatic extractions performed on weekly basis - the days of week should be specified to perform data extraction.

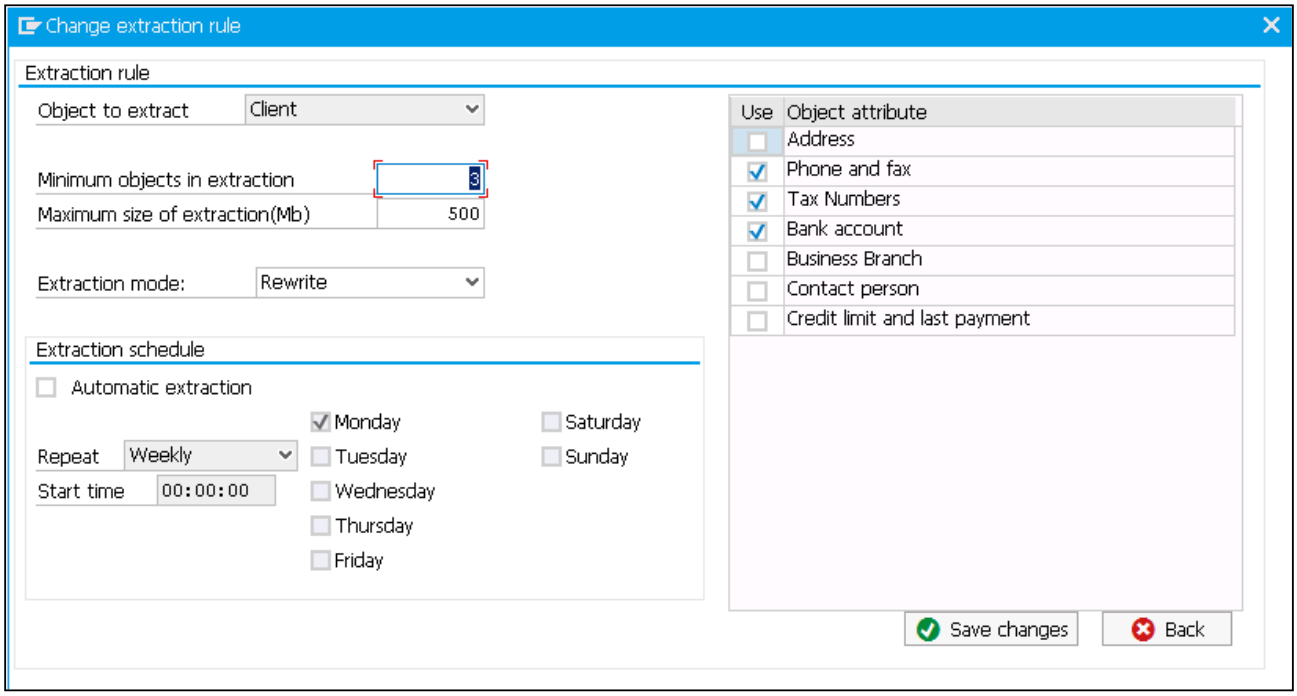
To save the extraction rule click **Save** button.

Warning!

New rule will not be created in case of **Back** button pressed or dialog window closed.

6.4.2 Editing extraction rule

To edit an extraction rule, select the rule from the list and click on **Change rule** button or you can go to **Extraction rules** tab in main menu and click on **Change extraction rule** tab. This also can be done by presing **F6** button or double clicking on the existing rule:



Edit the extraction rule parameters in the opened window and save changes by pressing **Save changes** button.

Warning!

New rule will not be created in case of **Back** button pressed or dialog window closed.

Note:

When changing the event's attributes in InfoWatch Traffic Monitor, the new extraction with new extraction name will be implemented. Thus, in case you've made the previous extraction with similar fields filled in, the System will respond with an error occured: `extraction cannot be performed`.

In this case the existing extraction should be deleted from InfoWatch Traffic Monitor.

Example:

1. Create an extraction task and select few attributes, for example: address, phone and fax, bank account. After the task has been implemented in InfoWatch Traffic Monitor the extraction IDD_800_MM_PRICEL_XXOXOOO will be implemented.
2. Configure protected objects and policies in accordance with extraction below, use it while working.
3. Once the task for data monitoring (contact person, business branch) occurs, all attributes are to be added into extraction. Edit the rule, select all the attributes. New extraction IDD_800_MM_PRICEL_XXXXXXX will implemented in InfoWatch Traffic Monitor.
4. Update all protected objects and policies to use the new extraction.

6.4.3 Deleting extraction rule

To delete an extraction rule select the rule from the list and press **Delete rule** button or you can go to **Extraction rules** tab in main menu and click on **Delete extraction rule** tab. This also can be done by pressing **F7** button.

You should confirm the deletion in the dialog window.

If there is a data extraction processing using this rule in the System, the rule deletion process will be cancelled. The rule can be deleted only in case there are no active extractions using this rule in the System.

> In case a successful extraction was performed before the rule deletion, this extraction should be also removed from InfoWatch Traffic Monitor using the administration console. Otherwise, when creating a rule and starting the extraction, a **`duplicate`** error will occur.

6.4.4 Cancel of extraction

To cancel an active extraction select the extraction rule from the list and click **Stop extraction** button.

This will stop all the background jobs.

6.4.5 Manual extraction

To perform an extraction manually select the extraction rule from the list and click **Start extraction** button.

> In case you've started the extraction in *automatic* mode, manual extraction process cannot not be started.

6.4.6 Extraction reset

To reset the extraction status, as well as information on previous extractions, select the extraction rule from the list and click **Initialize extraction** button.

> **Note:**
>
> This operation can be performed only if the extraction mode is automatic, in case the extraction has a manual start mode, the operation will be ignored.

If there is an active extraction using the selected rule, the System will display a message that status cannot be changed and the initialization process will be cancelled.

Extraction status update

To update the data on background tasks and to see the current status of extractions click on **Refresh** button.

6.5 Monitoring

The **Extractions Monitor** is used to see the extractions history, statuses and error messages.

Extractions Monitor is available in case you have one of the corresponding roles assigned:

- Administrator
- Extraction Scheduler
- Auditor (for more details, please see 'Authorization concept")

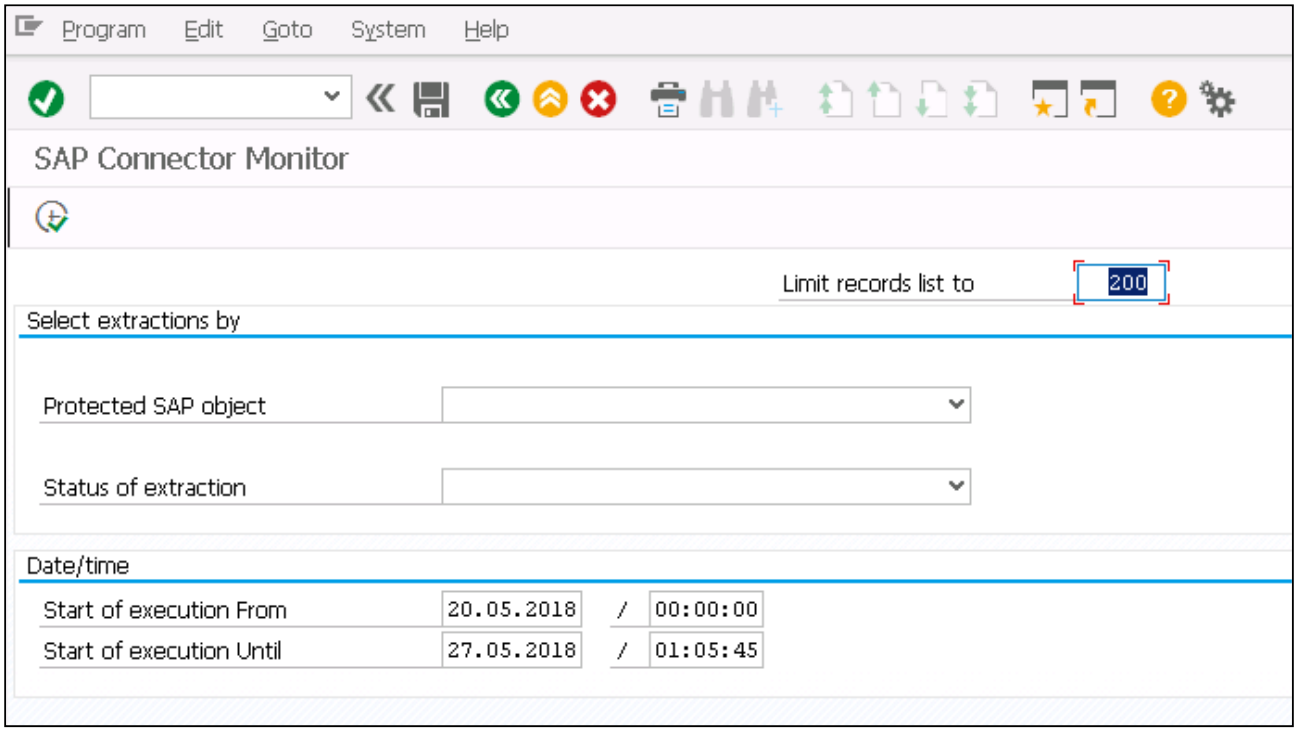
To start the Extractions Monitor click on **Monitor** button on **Extractions Scheduler screen** or use **Go to** menu tab, where you should select **Extractions Monitor**. This also can be done pressing **Shift + F7** keys combination.

Also, you may call the **/IWTC/MONI** transaction to open the **Extractions Monitor**.

6.5.1 Filtering monitor data

On the first monitor screen you can find the filtering of extraction. The following filtrering parameters are used by default:

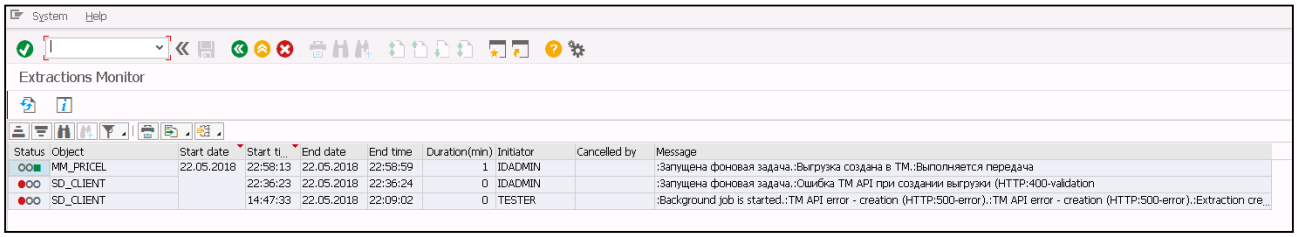
- Maximum entry: 200
- Period before current time (according to SAP ERS server time): one week



To go to main monitor, click on **Execute** or press **F8** button after the filtering parameters have been set.

6.5.2 Managing extractions monitor

The main monitor displays the extractions history and contains the tools to manage the extractions.



The following implementation parameters are available for each extraction:

Parameter	Possible values (type of data)	Parameter description
Extraction status	• Extraction scheduled • Data extraction is in process • Transferring data to InfoWatch Traffic Monitor • Extraction distribution in InfoWatch Traffic Monitor • Extraction was successfully created/ updated • Extraction was cancelled • Extraction was cancelled by user • Extraction was deleted / not found in InfoWatch Traffic Monitor	Statuses of extraction: *Extraction scheduled* – data extraction is planned according to the rule; *Data extraction is in process* – data collection background process is currently active in SAP ERP; *Transferring data to InfoWatch Traffic Monitor* – data extraction is currently transferring to InfoWatch Traffic Monitor API; *Extraction distribution in InfoWatch Traffic Monitor* – extraction distribution (final steps of data transferring) is currently in process in InfoWatch Traffic Monitor; *Extraction was successfully created/updated* –data extraction was successfully uploaded and distributed in InfoWatch Traffic Monitor; *Extraction was cancelled* – data extraction process was cancelled by SAP ERP System; *Extraction cancelled by user* – data extraction process was cancelled by SAP ERP user. *Extraction was deleted / not found in SAP ERP* – extraction was deleted or not found in InfoWatch Traffic Monitor during the extraction update.
Object type	Protected object	SAP objects type, required for protection. Only one rule can be created for one SAP object.
Extraction start date	DD.MM.YYYY	Date of extraction process start (SAP EPR server time).
Extraction start time	HH:MM:SS	Time of extraction process start (SAP EPR server time).
Extraction end date	DD.MM.YYYY	Date of extraction process end (SAP EPR server time). This can also be a date of extraction cancellation.
Extraction end time	HH:MM:SS	Time of extraction process end (SAP EPR server time). This can also be a time of extraction cancellation.

Extraction duration, in minutes.	Duration in minutes	Total time of extraction in minutes.
Extraction initiator	SAP ERP User ID	ID of the user who started the manual extraction or technical background user ID in case of automatic extraction.
Cancelled by	SAP ERP User ID	ID of the user in case of manual cancellation of extraction.
Message		Statuses, errors, process stages messages.

In addition to the main extraction parameters the monitor displeys the following parameters:

Parameter	Parameter description
Status	Actual status of extraction
Protected object	SAP protected object
Extraction name	Name of created or updated extraction. The name is automatically created and can be used to check InfoWatch Traffic Monitor extraction.
InfoWatch Traffic Monitor Fingerprint	Digital identifier (Fingerprint) of created or updated exreaction. It is automatically created and can be used to check InfoWatch Traffic Monitor extraction.
Extraction log	Log to store technical messages, it is created during the exrtraction creation. Log is cumulative collected in accordance with every extraction process finalised. Separate messages are separated by colon.

To return to the main monitor display or to close the dialog window, click **Back**.

7 Glossary

Term/Abbreviation	Definition
Extraction	Block of information related to protected SAP business object to be transferred to InfoWatch Traffic Monitor.
Extraction process	SAP ERP data collection and transfer of collected data to InfoWatch Traffic Monitor.
Extraction rule	SAP Human Capital Management – решение для управления персоналом в составе SAP ERP.
InfoWatch Traffic Monitor	DLP-system developed by InfoWatch company.
Protected object	SAP ERP business object to be protected from data leakage outside the corporate network.
SAP ERP	Enterprise resource planning system based on SAP NetWeaver developed by SAP. (http://www.sap.com)
InfoWatch Connector for SAP ERP	The software which ensures the collecting of SAP ERP data according to specified rules, creating and updating the extractions in InfoWatch Traffic Monitor.