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SIPLUS CMS

SIPLUS CMS4000 X-Tools
User Manual - 03 - Main Management System

English
Release 2011-09

Safety Guidelines

This document contains notices which you should observe to ensure your own personal safety as well as to avoid property damage. The notices referring to your personal safety are highlighted in the manual by a safety alert symbol, notices referring to property damage only have no safety alert symbol



Danger

Indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.



Warning

Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.



Caution

Used with the safety alert symbol indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury.

Caution

Used without safety alert symbol indicates a potentially hazardous situation which, if not avoided, may result in property damage.

Notice

Used without the safety alert symbol indicates a potential situation which, if not avoided, may result in an undesirable result or state.

When several danger levels apply, the notices of the highest level (lower number) are always displayed. If a notice refers to personal damages with the safety alert symbol, then another notice may be added warning of property damage.

Qualified Personnel

The device/system may only be set up and operated in conjunction with this documentation. Only qualified personnel should be allowed to install and work on the equipment. Qualified persons are defined as persons who are authorized to commission, to earth, and to tag circuits, equipment and systems in accordance with established safety practices and standards.

Intended Use

Please note the following:



Warning

This device and its components may only be used for the applications described in the catalog or technical description, and only in connection with devices or components from other manufacturers approved or recommended by Siemens. This product can only function correctly and safely if it is transported, stored, set up and installed correctly, and operated and maintained as recommended.

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Disclaimer of Liability

We have checked the contents of this document for agreement with the hardware and software described. Since deviations cannot be precluded entirely, we cannot guarantee full agreement. However, the data in the manual are reviewed regularly, and any necessary corrections will be included in subsequent editions. Suggestions for improvement are welcomed.

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1 Preface

1.1 Purpose of this Document

This document provides detailed information about the functionalities and usage of the software

- SIPLUS CMS4000 X-Tools

of the SIPLUS CMS product line.

In addition to the detailed information about each dialog and functionality of the **Main Management System** which is found within this document, also the following documentation is available:

- SIPLUS CMS4000 X-Tools - User Manual - 01 - Introduction
 - provides an introduction into the basic functionalities of SIPLUS CMS4000 **X-Tools**
- SIPLUS CMS4000 X-Tools - User Manual - 02 - Master Data System
 - provides detailed information about the functionality which is provided by the **Master Data System**
- SIPLUS CMS4000 X-Tools - User Manual - 04 - Device Management System
 - provides detailed information about the functionality which is provided by the **Device Management System**
- SIPLUS CMS4000 X-Tools - User Manual - 05 - Monitoring System
 - provides detailed information about the functionality which is provided by the **Monitoring System**
- SIPLUS CMS4000 X-Tools - User Manual - 06 - Analyzing System
 - provides detailed information about the functionality which is provided by the **Analyzing System**
- SIPLUS CMS4000 X-Tools - User Manual - 07 - Storage System
 - provides detailed information about the functionality which is provided by the **Storage System**
- SIPLUS CMS4000 X-Tools - Release Notes
 - provides additional information about the released version of SIPLUS CMS4000 **X-Tools**
- SIPLUS CMS4000 X-Tools - Change Log
 - provides an overview about the changes which have been introduced with the current version of SIPLUS CMS4000 **X-Tools**

1.2 Validity of this Document

This document is valid for the following software:

- SIPLUS CMS4000 X-Tools Demo V 03.04
- SIPLUS CMS4000 X-Tools Standard V 03.04
- SIPLUS CMS4000 X-Tools Professional V 03.04

During the following pages, these software packages will be referred to by the term **X-Tools**.

1.3 Audience

This document is intended for personnel involved in the commissioning and using of the software:

- **X-Tools**

1.4 Notations

The following notations are used within this document:

- ***bold, italic*** text is being used for the main executables of ***X-Tools***
 - examples: ***X-Tools Client, X-Tools Server***
- **bold** text is being used for the software modules of ***X-Tools***
 - examples: **Main Management System, Device Profile Editor, IPE Socket T001**
- **green** text is being used for controls like tables and trees
 - examples: **Main Profile Settings** table, **Device Profile Data** table
- **orange** text is being used for simple controls like a menu button, a single row/column/cell of a table or a branch of a tree
 - examples: **Open...** menu button, **IP Address** column, **Target Device Name** cell, **Interfaces Branch**
- **dark yellow** text is being used for the entries of context menus
 - examples: **Advanced Append...**, **Edit**
- Camel Notation is being used for major terms of ***X-Tools***
 - examples: Main Profile, Interface Profile, User Accounts File, Analyzing Function
- < and > brackets are being used for keyboard keys
 - examples: <Ctrl>, <Alt>, <Shift>,
- [and] brackets are being used for mouse operations
 - examples: [left mouse button down], [mouse move]

2 Main Management System

2.1 Main Management System Explorer

2.1.1 Overview

The **Main Management System Explorer** (in the following, the **MMS Explorer**) is used in order to visualize and maintain all of the files and modules which are relevant for the **Main Management System**. It is displayed as a tree which contains all of the relevant and available **Main Management System** items. Via Drag&Drop the user is able to move items within the **MMS Explorer** and from the **MMS Explorer** to other dialogs of the **Main Management System**. The following lines provide a short overview about the information that is available from the **MMS Explorer**.

The following screenshot shows an example of a **MMS Explorer**:

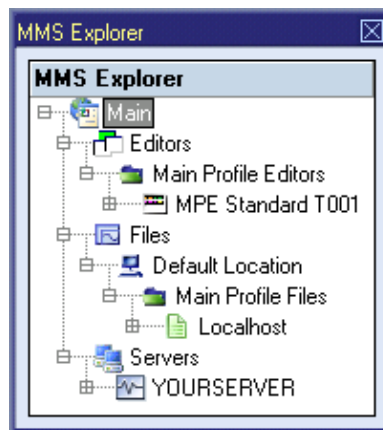


Figure 1: Example of a **MMS Explorer**

Each branch of the **MMS Explorer** has a defined task and provides certain functionalities. The following major branches are provided by the **MMS Explorer**:

- Main Branch
- Editors Branch
- Main Profile Editors Branch
- Main Profile Editor Branch
- Files Branch
- File Location Branch
- Main Profile Files Branch
- Servers Branch
- Server Branch

2.1.2 Main Branch

The one and only **Main Branch** provides all of the other items of the **MMS Explorer**. It can be expanded and collapsed in order to show or hide its sub-items.

The following specific context menu items are provided:

Context Menu Item	Description
Edit Global Options	opens the Global Options Editor for the X-Tools Client
View System Log	opens the System Log Viewer for the X-Tools Client

2.1.3 Editors Branch

The one and only **Editors Branch** provides all of the editors which are available within the **Main Management System**.

2.1.4 Main Profile Editors Branch

The one and only **Main Profile Editors Branch** provides all of the **Main Profile Editors** which are available within the **Main Management System**. The tree of shown **Main Profile Editors** is updated automatically whenever an editor file at the local disk is added/removed/modified.

2.1.5 Main Profile Editor Branch

Each **Main Profile Editor Branch** represents one available **Main Profile Editor**. Dragging of a **Main Profile Editor Branch** into the **Main Management System** workspace opens an empty editor of the dragged type. After the editor has been opened, any of the present files of correct type can be dragged into it for visualization and/or editing.

The following specific context menu items are provided:

Context Menu Item	Description
Open	opens an empty Main Profile Editor of the chosen type within the Main Management System workspace
New Main Profile	opens a Main Profile Editor of the chosen type within the Main Management System workspace, creates a new Main Profile and initializes it with default values

2.1.6 Files Branch

The one and only **Files Branch** provides all of the files which are available within the **Main Management System**.

2.1.7 File Location Branch

Each **File Location Branch** provides all of the files which are available from the directory to which the Configuration File location points.

2.1.8 Main Profile Files Branch

Each **Main Profile Files Branch** provides all of the Main Profiles which are available from the directory to which its Configuration File location points. The tree of shown Main Profiles is updated automatically whenever a Main Profile at the disk is added/deleted/modified.

Drag&Drop can be used in order to copy/move Main Profile directories and Main Profile files. The default Drag&Drop operation is "move", but when the <Ctrl> key is pressed a "copy" operation is performed.




Main Profile directories and Main Profile files can be copied/moved within **Main Profile Files Branches** but they can not be copied/moved to another files branch. As the unique name of each Main Profile also includes its storage directory, multiple Main Profiles with matching file names can be stored in different Main Profile directories.

Dragging of a Main Profile into the **Main Management System** workspace opens the **Main Profile Editor** for the dragged Main Profile.

The following specific context menu items are provided:

Context Menu Item	Description
New Main Profile > ...	opens a Main Profile Editor of the chosen type within the Main Management System workspace, creates a new Main Profile and initializes it with default values
Edit	opens a new Main Profile Editor for the chosen file within the Main Management System workspace
Cut	cuts the currently selected items
Copy	copies the currently selected items
Paste	pastes currently copied/cut items
Delete	deletes the selected items from the disk
Rename	allows to rename the selected item directly within the MMS Explorer
New Directory...	opens the Add Directory dialog and creates a new directory afterwards
Start	starts the currently selected Main Profile File
Pause	pauses the currently selected Main Profile File
Continue	continues the currently selected Main Profile File
Stop	stops the currently selected Main Profile File

The following icons are provided and indicate the current status of each Main Profile:

Icon	Description
 (stopped)	The Main Profile is stopped and does not perform any operations.
 (started)	The Main Profile is started and attempts to connect to the configured X-Tools Servers . In addition, it also attempts to re-connect to the configured X-Tools Servers in case the connection is broken at any moment.
 (paused)	The Main Profile is paused and does not attempt to connect to the configured X-Tools Servers . The already established connections are not being terminated but in case a connection breaks it is not being re-established.

2.1.9 Servers Branch

The one and only **Servers Branch** provides all of the **X-Tools Servers** which are connected at the moment. The tree of shown **X-Tools Servers** is updated automatically whenever an **X-Tools Server** is attached or detached.

2.1.10 Server Branch

Each **Server Branch** represents one of the currently connected **X-Tools Servers**.

The following specific context menu items are provided:

Context Menu Item	Description
Edit Global Options	opens the Global Options Editor for the chosen X-Tools Server
Edit User Accounts	opens the User Accounts Editor for the chosen X-Tools Server
View System Log	opens the System Log Viewer for the chosen X-Tools Server
Log in...	opens the Log In dialog for the chosen X-Tools Server
Log out	logs out from the chosen X-Tools Server
Re-Initialize the X-Tools Server	re-initializes the X-Tools Server , which effectively behaves as if X-Tools Server.exe would be stopped and restarted

By default, the **X-Tools Server** is being delivered with the following user accounts. These user accounts can be used in order to log in unless they have been changed:

User Name	Password
Administrator	administrator
Anonymous	

The user name is case-insensitive. The password is case-sensitive.

2.2 Global Options Editor

2.2.1 Overview

The **Global Options Editor** is used in order to visualize and edit the global options of the **X-Tools Client** and of the currently connected **X-Tools Servers**. Multiple editors of this type can be opened and used simultaneously.

The following screenshot shows an example of a **Global Options Editor** for the **X-Tools Client**:

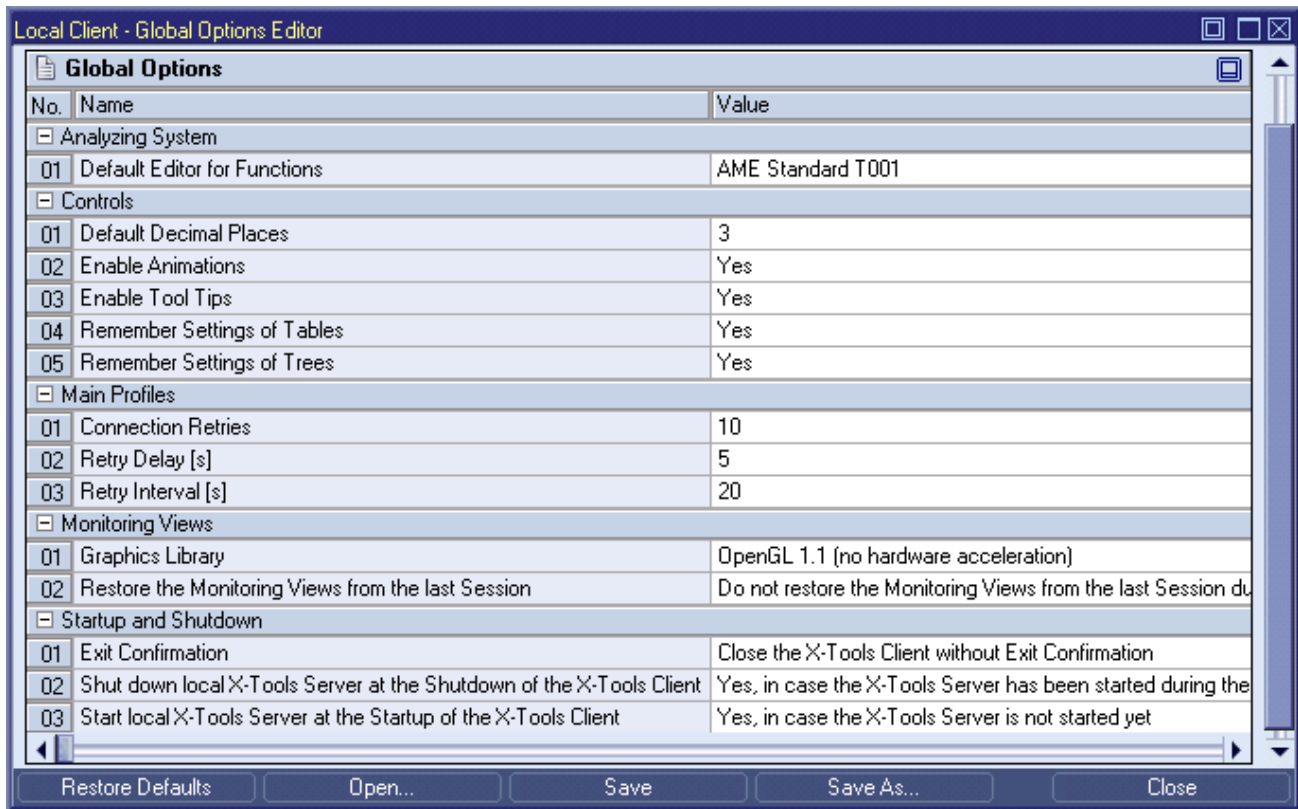


Figure 2: Example of a **Global Options Editor**

Each control of the **Global Options Editor** has a defined task and provides certain functionalities. The following major controls are provided by the **Global Options Editor**:

- Global Option Settings Table
- Global Options Table
- Menu Bar
- Dropping of Items

2.2.2 Global Option Settings Table

The **Global Option Settings** table contains all of the settings which can be used in order to specify the current target machine of interest:

Parameter	Description
Target Name	contains the name of the X-Tools Client or X-Tools Server to which the global options are stored
Storage Path	contains the path to which the global options are stored (absolute or symbolic path)
Creation Date	contains the creation date of the global options
Modification Date	contains the last modification date of the global options
Option Description	contains the description of the global options
Company Name	contains the company name
Author Name	contains the author name

2.2.3 Global Options Table

Each parameter within a Global Options file contains information about its category. This category information is used in order to put parameters with matching category together into the same **Global Options** table. Each **Global Options** table uses its category name as title and lists all of the according parameters within its rows.

The following global options are being provided by each **X-Tools Client**:

Global Option	Description
Analyzing System	
Default Editor for Functions	specifies which type of editor is being opened automatically when a (Analyzing or User) function is being dragged from the ANS Explorer into the Analyzing System Workspace ; in addition, this parameter also specifies which type of editor is being opened automatically when an online or offline data is being dragged from the MDS Explorer into the Analyzing System Workspace
Controls	
Default Decimal Places	specifies how many digits after the decimal separator shall be used by the X-Tools Client by default
Enable Animations	specifies whether the X-Tools Client shall use animations like visible opening/closing when the layout of controls is being changed (e.g. through minimizing/maximizing, expand/collapsing, ...)
Enable Tool Tips	specifies whether the X-Tools Client shall use tool tips for its controls (e.g. tables and trees)
Remember Settings of Tables	specifies whether the X-Tools Client shall restore the previous configuration of each table during the initialization of the table, e.g. which columns were hidden, what was the order of the columns and was the table minimized or maximized, ...
Remember Settings of Trees	specifies whether the X-Tools Client shall remember and restore the previous configuration of each tree during the initialization of the tree, e.g. which items were expanded and which items were collapsed, ...
Main Profiles	
Connection Retries	specifies how often the Main Management System retries to connect to a specified target X-Tools Server before it goes to sleep for the specified "Retry Interval"
Retry Delay	specifies how long the Main Management System sleeps in between two retry attempts
Retry interval	specifies how long the Main Management System sleeps in between two series of retries
Monitoring Views	
Graphics Library	specifies which graphics library is being used by the Monitoring System for the visualization of Monitoring Views
Restore the Monitoring Views from the last Session	specifies whether the Monitoring Views, which were opened at the moment of the last shutdown of the X-Tools Client , shall be opened automatically during the following startup of the X-Tools Client
Startup and Shutdown	
Exit Confirmation	specifies whether an exit confirmation dialog shall be displayed before the X-Tools Client exits
Shut down local X-Tools Server at the Shutdown of the X-Tools Client	specifies whether the X-Tools Client automatically shuts down the X-Tools Server when the X-Tools Client is being shut down
Start local X-Tools Server at the Startup of the X-Tools Client	specifies whether the X-Tools Client automatically starts the X-Tools Server when the X-Tools Client is being started

The following global options are being provided by each **X-Tools Server**:

Global Option	Description
Basic Settings	
Automatic Takeover of changed Configuration Files	specifies in which cases the X-Tools Server shall reload and apply a changed Configuration File from the disk automatically
Connection Retries	specifies how often the Device Management Engine retries to connect to a specified target device before it goes to sleep for the specified "Retry Interval"
Retry Delay	specifies how long the Device Management Engine sleeps in between two retry attempts
Retry Interval	specifies how long the Device Management Engine sleeps in between two series of retries
Data Handling	
Default Ring Buffer Size	specifies the default size of the ring buffer which is being used for online data; this value can be overwritten by each module which is creating online data
Maximal ANS Output Data Size	specifies the maximal size of a data which can be produced by an Analyzing Model or Analyzing Script
Email Notification Parameters	
Email Recipients	specifies the email addresses of the desired email recipients a semicolon (";") can be used as separator in order to provide multiple email recipients
Email Sender	specifies the email address which shall be used as sender address
Email Subject	specifies the subject which shall be used for each email which is being sent
Maximal Emails per Minute	specifies the maximal number of emails which are allowed to be sent per minute
Maximal Events per Email	specifies the maximal number of events which are allowed to be collected within one email
SMTP Host Name	specifies the SMTP host which shall be used for sending of emails
SMTP Password	specifies the SMTP password which shall be used for sending of emails
SMTP Port	specifies the SMTP port which shall be used for sending of emails
SMTP Server requires Authentication	specifies whether the provided SMTP server requires authentication
SMTP User Name	specifies the SMTP user name which shall be used for sending of emails
Improved Availability	
Automated Restart	specifies whether the X-Tools Service shall be used in order to restart the X-Tools Server automatically after a severe error has been detected
License Management	
Requested Edition	allows to choose which license shall be requested from the license manager
Logging Modes	
General logging Mode	specifies whether all log entries from the system shall be recorded or whether log entries of certain priorities shall be ignored
Storage System logging Mode	specifies whether all log entries from the storage system shall be recorded or whether log entries about start and stop trigger events shall be ignored
OPC UA Server	
Enable OPC UA Server	specifies whether the OPC UA server shall be started
Port	specifies at which port the OPC UA server shall listen for incoming connections of OPC UA clients
SPM Binary T001	
Allocation Size	specifies which buffer size is being used by the SPM Binary T001 for each chunk of data that is to-be-written into a file
Startup and Shutdown	
Automated Startup	specifies whether the X-Tools Server is being started automatically during the startup of Windows
Command Port	specifies at which port the X-Tools Server is listening for command connections from X-Tools Clients
Data Port	specifies at which port the X-Tools Server is listening for data connections from X-Tools Clients

Requested Edition

Requested Edition	Description
Use the maximal available Functionality automatically	In case this edition is requested, the X-Tools Server tries to acquire a license for the Professional Edition. In case there is none available, it tries to acquire a license for the Standard Edition. In case there is also no license for a Standard Edition available, the X-Tools Server starts up as Demo Edition.
Demo Edition	In case this edition is requested, the X-Tools Server starts up as Demo Edition.
Standard Edition	In case this edition is requested, the X-Tools Server tries to acquire a license for the Standard Edition. In case there is none available, the X-Tools Server starts up as Demo Edition.
Professional Edition	In case this edition is requested, the X-Tools Server tries to acquire a license for the Professional Edition. In case there is none available, the X-Tools Server starts up as Demo Edition.
Temporary Commissioning Mode	In case this edition is requested and the last restart of Windows is less than 30 minutes ago, the X-Tools Server starts up as Professional Edition without any other license checks. Else, in case the last restart of Windows is more than 30 minutes ago, the X-Tools Server starts up as Demo Edition.

This option has no effects in case of a Trial Edition of the **X-Tools Server**.

Automated Startup

Automated Startup	Description
Start the X-Tools Server before a User logs in to Windows	In case of this setting the X-Tools Service is configured to start the X-Tools Server automatically during the startup of Windows.
Start the X-Tools Server after a User has logged in to Windows	In case of this setting the X-Tools Server is added to the autostart menu of Windows so that it started automatically whenever the user logs in to Windows.
Do not start the X-Tools Server automatically	In case of this setting the X-Tools Server must be started manually by the user.

2.2.4 Menu Bar

Menu Button	Description
Restore Defaults	This button restores all options to their default values. This button can be used only in case a Global Options file is opened already, because the default values of all global options have to be provided by a target X-Tools Server or X-Tools Client .
Open...	This button opens the Open dialog where the user is able to select the file which shall be opened.
Save	This button saves the currently opened global options to the currently known storage location. In case any of the modified settings require a restart of the affected module or of the complete application, the according message is displayed to the user after the global options have been stored successfully. This message does not appear in case the global options have been stored to "Local File System".
Save As...	This button opens the Save As dialog where the user is able to select the desired storage location. In case any of the modified settings require a restart of the affected module or of the complete application, the according message is displayed to the user after the global options have been stored successfully. This message does not appear in case the global options have been stored to "Local File System".
Close	This button closes the editor. In case the currently opened global options are not saved, the editor asks the user whether the global options shall be saved before it is closed.

2.2.5 Dropping of Items

Dropped Item	Description
Main Branch	opens the current Global Options file of the local X-Tools Client
Server Branches	opens the current Global Options file of the dragged X-Tools Server

2.3 User Accounts Editor

2.3.1 Overview

The **User Accounts Editor** is used in order to visualize and edit the user accounts of the currently connected **X-Tools Servers**. Multiple editors of this type can be opened and used simultaneously.

The following screenshot shows an example of a **User Accounts Editor**:

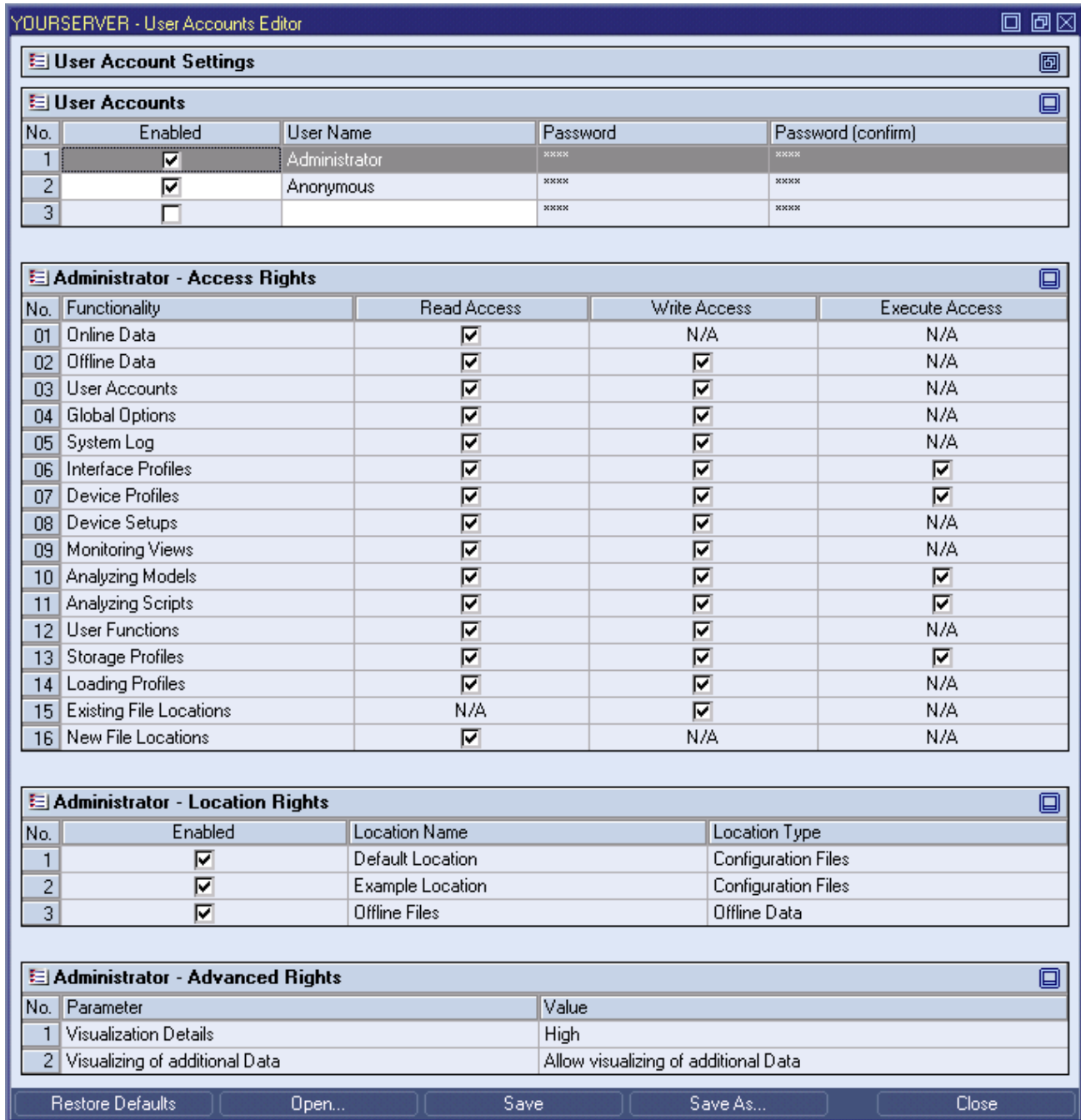


Figure 3: Example of a User Accounts Editor

Each control of the **User Accounts Editor** has a defined task and provides certain functionalities. The following major controls are provided by the **User Accounts Editor**:

- User Account Settings Table
- User Accounts Table
- Access Rights Table
- Location Rights Table
- Advanced Rights Table
- Menu Bar
- Dropping of Items

2.3.2 User Account Settings Table

The **User Account Settings** table contains all of the settings which can be used in order to specify the current target server of interest:

Parameter	Description
Target Name	contains the name of the X-Tools Server to which the user accounts are stored
Storage Path	contains the path to which the user accounts are stored (absolute or symbolic path)
Creation Date	contains the creation date of the user accounts
Modification Date	contains the last modification date of the user accounts
Accounts Description	contains the description of the user accounts
Company Name	contains the company name
Author Name	contains the author name

2.3.3 User Accounts Table

The **User Accounts** table contains all of the user accounts which are defined within the currently opened User Accounts File.

Column	Description
No.	contains the row number
Enabled	specifies whether the user account within this row shall be enabled or not
User Name	contains the user name of the user account
Password	contains the password of the user account
Password (confirm)	contains the password of the user account (for confirmation)

The last row of the **User Accounts** table always is empty and therefore allows the user to add a new user account definition by typing another user name into the **User Name** field of this last row. All other cells of the last row are disabled as long as the **User Name** field is empty. Whenever a new user name has been entered into the **User Name** field, another new, empty row is added to the **User Accounts** table automatically.

The user names "Administrator" and "Anonymous" are pre-defined and can not be deleted. In addition, the user "Administrator" always has all access rights, thus the **Access Rights**, **Location Rights** and **Advanced Rights** tables are disabled and can not be modified for the user "Administrator".

2.3.4 Access Rights Table

The **Access Rights** table contains all of the access rights which are defined for the currently selected user account.

Column	Description
No.	contains the row number
Functionality	contains the functionality for which the access rights have to be assigned
Read Access	specifies whether the currently chosen user account shall have read access for the functionality
Write Access	specifies whether the currently chosen user account shall have write access for the functionality
Execute Access	specifies whether the currently chosen user account shall be able to execute the functionality

Read Access

The following table describes the meaning of the read access for the available functionalities:

Functionality	Description
Online Data	read access for online data allows to see the present online data within the MDS Explorer and to use it within other systems
Offline Data	read access for offline data allows to see the present offline data within the MDS Explorer and to use it within other systems
User Accounts	read access for the user accounts allows to open the user accounts within the User Accounts Editor
Global Options	read access for the global options allows to open the global options within the Global Options Editor
System Log	read access for the system log allows to open the system log within the System Log Viewer
Interface Profiles	read access for Interface Profiles allows to see the present Interface Profiles within the DMS Explorer and to open them within their Interface Profile Editors
Device Profiles	read access for Device Profiles allows to see the present Device Profiles within the DMS Explorer and to open them within their Device Profile Editors
Device Setups	read access for Device Setups allows to see the present Device Setups within the DMS Explorer and to open them within the correlating Device Profile Editors
Monitoring Views	read access for Monitoring Views allows to see the present Monitoring Views within the MTS Explorer and to open them within their Monitoring Views
Analyzing Models	read access for Analyzing Models allows to see the present Analyzing Models within the ANS Explorer and to open them within their Analyzing Model Editors
Analyzing Scripts	read access for Analyzing Scripts allows to see the present Analyzing Scripts within the ANS Explorer and to open them within their Analyzing Script Editors
User Functions	read access for User Functions allows to see the present User Functions within the ANS Explorer and to open them within their User Function Editors
Storage Profiles	read access for Storage Profiles allows to see the present Storage Profiles within the STS Explorer and to open them within their Storage Profile Editors
Loading Profiles	read access for Loading Profiles allows to see the present Loading Profiles within the STS Explorer and to open them within their Loading Profile Editors
Existing File Locations	N/A
New File Locations	this row contains the default value for the read access to newly created file locations

Write Access

The following table describes the meaning of the write access for the available functionalities:

Functionality	Description
Online Data	N/A
Offline Data	write access for offline data allows to load offline data via Offline Data Loaders and to edit the present offline data within the MDS Explorer
User Accounts	write access for the user accounts allows to save the user accounts via the User Accounts Editor
Global Options	write access for the global options allows to save the global options via the Global Options Editor
System Log	write access for the system log allows to add entries to the system log via the System Log Viewer
Interface Profiles	write access for Interface Profiles allows to create and edit Interface Profiles via the DMS Explorer and via Interface Profile Editors
Device Profiles	write access for Device Profiles allows to create and edit Device Profiles via the DMS Explorer and via Device Profile Editors
Device Setups	write access for Device Setups allows to create and edit Device Setups via the DMS Explorer and via their correlating Device Profile Editors
Monitoring Views	write access for Monitoring Views allows to create and edit Monitoring Views via the MTS Explorer and via Monitoring View Editors
Analyzing Models	write access for Analyzing Models allows to create and edit Analyzing Models via the ANS Explorer and via Analyzing Model Editors
Analyzing Scripts	write access for Analyzing Scripts allows to create and edit Analyzing Scripts via the ANS Explorer and via Analyzing Script Editors
User Functions	write access for User Functions allows to create and edit User Functions via the ANS Explorer and via User Function Editors
Storage Profiles	write access for Storage Profiles allows to create and edit Storage Profiles via the STS Explorer and via Storage Profile Editors
Loading Profiles	write access for Loading Profiles allows to create and edit Loading Profiles via the STS Explorer and via Loading Profile Editors
Existing File Locations	write access for existing locations allows to change the symbolic name and the absolute path of the location
New File Locations	N/A

Execute Access

The following table describes the meaning of the execute access for the available functionalities:

Functionality	Description
Online Data	N/A
Offline Data	N/A
User Accounts	N/A
Global Options	N/A
System Log	N/A
Interface Profiles	execute access for Interface Profiles allows to start/pause/continue/stop Interface Profiles
Device Profiles	execute access for Device Profiles allows to start/pause/continue/stop Device Profiles
Device Setups	N/A
Monitoring Views	N/A
Analyzing Models	execute access for Analyzing Models allows to start/pause/continue/stop Analyzing Models
Analyzing Scripts	execute access for Analyzing Scripts allows to start/pause/continue/stop Analyzing Scripts
User Functions	N/A
Storage Profiles	execute access for Storage Profiles allows to start/pause/continue/stop Storage Profiles
Loading Profiles	N/A
Existing File Locations	N/A
New File Locations	N/A

2.3.5 Location Rights Table

The **Location Rights** table contains all of the location rights which are defined for the currently selected user account.

Column	Description
No.	contains the row number
Enabled	specifies whether the location within this row shall be enabled (= visible) for the user or not
Location Name	contains the name of the location
Location Type	contains the type of the location

2.3.6 Advanced Rights Table

The **Advanced Rights** table contains all of the advanced rights which can be configured for the currently selected user account.

Parameter	Description
Visualization Details	contains the visualization details
Visualizing of additional Data	contains the details about visualizing of additional data

Visualization Details

Visualization Details	Description
Low	In case the visualization details are being set to "Low", the user can not see more than one probe each 1s.
Medium	In case the visualization details are being set to "Medium", the user can not see more than one probe each 100ms.
High	In case the visualization details are being set to "High", the user can see all data with the full resolution which is available.

Adding of additional Data

Visualization Details	Description
Allow visualizing of additional Data	In case visualizing of additional data is being set to "Allow visualizing of additional Data", the user can add any additional data to his Monitoring Views.
Do not allow visualizing of additional Data	In case visualizing of additional data is being set to "Do not allow visualizing of additional Data", the user can not add any additional data to his Monitoring Views. Only data which already is present within a Monitoring View can be added to it again, for example onto additional axes.

2.3.7 Menu Bar

Menu Button	Description
Restore Defaults	This button removes current user accounts and restores the default ones. This button can be used only in case a User Accounts File is opened already.
Open...	This button opens the Open dialog where the user is able to select the file which shall be opened.
Save	This button saves the currently opened user accounts to the currently known storage location.
Save As...	This button opens the Save As dialog where the user is able to select the desired storage location.
Close	This button closes the editor. In case the currently opened user accounts are not saved, the editor asks the user whether the user accounts shall be saved before it is closed.

2.3.8 Dropping of Items

Dropped Item	Description
Server Branches	opens the current User Accounts File of the dragged X-Tools Server

2.4 System Log Viewer

2.4.1 Overview

The **System Log Viewer** is used in order to view the log entries of the current and of past system log files of the **X-Tools Client** and of currently connected **X-Tools Servers**. Multiple viewers of this type can be opened and used simultaneously.

The following screenshot shows an example of a **System Log Viewer**:

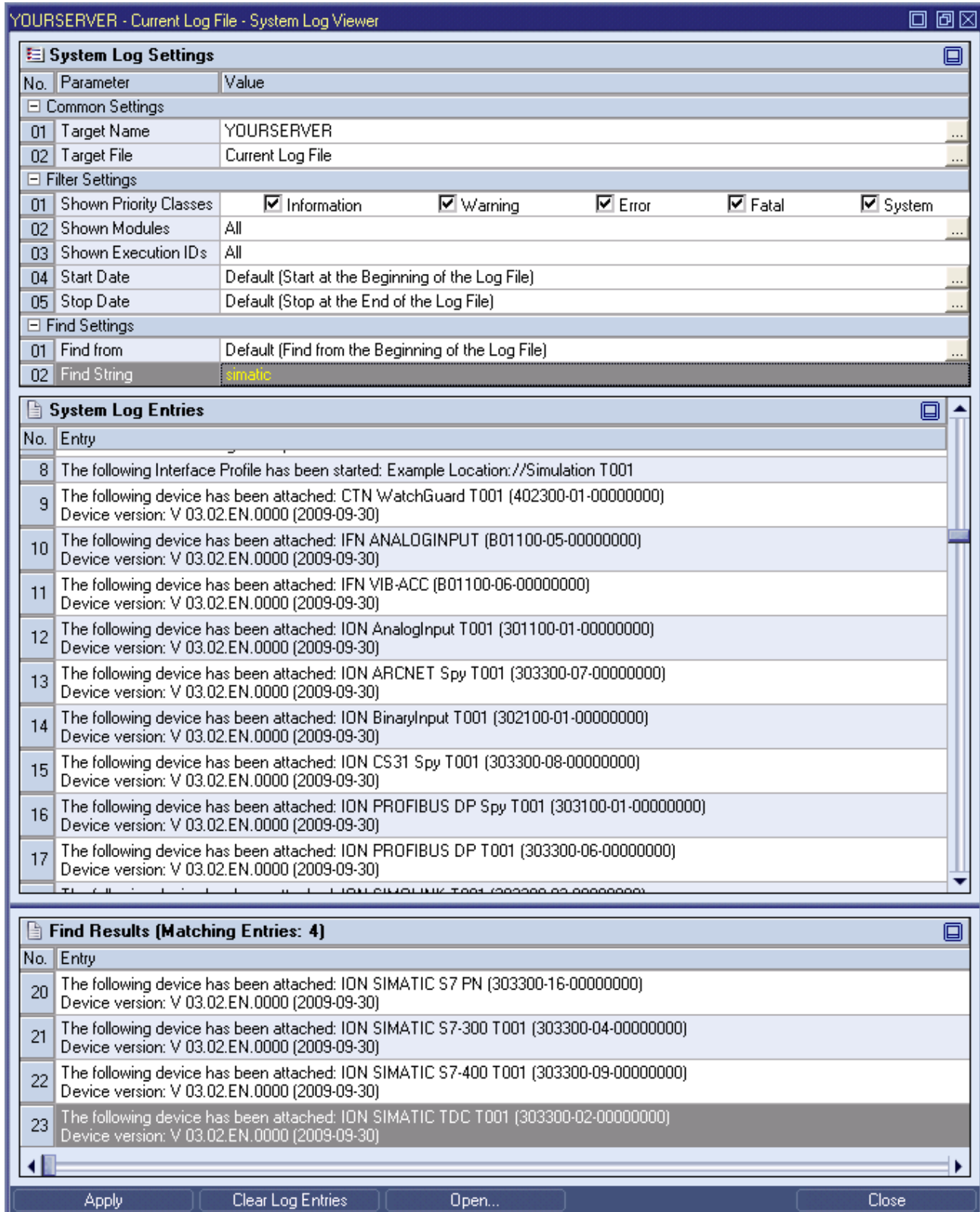


Figure 4: Example of a **System Log Viewer**

Each control of the **System Log Viewer** has a defined task and provides certain functionalities. The following major controls are provided by the **System Log Viewer**:

- System Log Settings Table
- System Log Entries Table
- Menu Bar
- Dropping of Items

2.4.2 System Log Settings Table

The **System Log Settings** table contains all of the parameters which can be used in order to configure the appearing of the system log of the specified source(s):

Parameter	Description
Source Name	contains the name of the sources (the local X-Tools Client and/or any of the connected X-Tools Servers)
Source File	contains the name of the source file
Start Date	contains the desired start date
Stop Date	contains the desired stop date
Enabled Execution IDs	contains the enabled execution IDs
Auto Refresh	specifies whether auto refresh of the System Log Entries table is enabled
Auto Scroll	specifies whether auto scroll of the System Log Entries table is enabled

Source Name

All of the information about the **Source Name** is set up within the **Select Machines** dialog.

In case more than one source is chosen via the **Select Machines** dialog, they are displayed within the **Source Name** cell with a semicolon (“;”) as separator (e.g., “Local Client ; CAS105dsw ; CAS100dsw”).

In case “All” is being specified as Source Name, the **System Log Viewer** automatically uses the System Log Files of the local **X-Tools Client** and of all connected **X-Tools Servers**. Whenever an **X-Tools Server** is being connected, the **System Log Viewer** starts to display also its log entries, beginning at the time of connect.

The following specific context menu items are provided:

Context Menu Item	Description
Select All	sets the text of the control to “All”
Select Local Client	sets the text of the control to “Local Client”
Select Sources	opens the Select Machines dialog

Source File

Via the context menu, the value of this control can be set to “Default” (context menu item **Set to Default**). In this case, the **System Log Viewer** automatically displays the entries of the current System Log File of the selected source.

When the **Select File** dialog is called for this control, the user is able to browse all System Log Files of the selected source and to select one of them as the new source file.

The following specific context menu items are provided:

Context Menu Item	Description
Set to Default	sets the text of the control to “Default”
Select Source File	opens the Select File dialog

Start Date

This time picker can be used in order to configure the start date of the current time period of interest.

Via the context menu, the value of this control can be set to “Default” (context menu item **Set to Default**). In this case, the **System Log Viewer** automatically displays all entries from the start of the currently chosen System Log File (as long as these entries are not cut out by any of the other filters).

The following specific context menu item is provided:

Context Menu Item	Description
Set to Default	sets the text of the control to "Default"

Stop Date

This time picker can be used in order to configure the stop date of the current time period of interest.

Via the context menu, the value of this control can be set to "Default" (context menu item [Set to Default](#)). In this case, the **System Log Viewer** automatically displays all entries until the end of the currently chosen System Log File (as long as these entries are not cut out by any of the other filters).

The following specific context menu item is provided:

Context Menu Item	Description
Set to Default	sets the text of the control to "Default"

Enabled Execution IDs

This edit box can be used in order to specify which execution IDs are of interest at the moment. The single execution IDs have to be separated via a semicolon (;) from each other.

Each started Configuration File (e.g. a Main Profile, an Interface Profile, a Device Profile, an Analyzing Model, an Analyzing Script or a Storage Profile) receives a unique execution ID at the moment when it is being started. Via the execution ID, the present log entries can be filtered easily so that only the log entries which are related to the Configuration Files of interest are being displayed.

Via the context menu, the value of this control can be set to "All" (context menu item [Enable All](#)). In this case, the **System Log Viewer** displays the entries of all execution IDs (as long as they are not cut out by one of the other filters).

The following specific context menu item is provided:

Context Menu Item	Description
Enable All	sets the text of the control to "All"

2.4.3 System Log Entries Table

The [System Log Entries](#) table contains all of the events which apply to the selected source, System Log File and filters:

Column	Description
No.	contains the row number
Date and Time	contains the date and time of the entry
Entry	contains the text of the entry
Priority Class	contains the priority class of the entry
Module Name	contains the name of the module which has caused this entry
Target Name	contains the name of the client or server which has caused this entry
Execution ID	contains the execution ID of the entry

2.4.4 Menu Bar

Menu Button	Description
Apply	This button has to be pressed after any changes within the System Log Settings table in order to take over the made changes.
Clear Log Entries	This button removes all entries from the System Log Entries table.
Open...	This button opens the Open dialog where the user is able to select the file which shall be opened.
Close	This button closes the viewer.

2.4.5 Dropping of Items

Dropped Item	Description
Main Branch	adds the current System Log File of the local X-Tools Client to the displayed entries
Main Branch + <Shift>	sets the current System Log File of the local X-Tools Client as the one and only source name
Server Branches	adds the current System Log File of the dragged X-Tools Server to the displayed entries
Server Branches + <Shift>	sets the current System Log File of the dragged X-Tools Server(s) as the one and only source name(s)

2.5 Main Profile Editors

2.5.1 Overview

Main Profile Editors are used in order to edit Main Profiles. A Main Profile contains all of the information which is needed in order to configure the connections of the **X-Tools Client** to one or multiple **X-Tools Servers**. Multiple Main Profiles can be created for the **X-Tools Client**, but only one Main Profile can be started for the **X-Tools Client** at a time.

Main Profile Editors are known and accessed exclusively by the **X-Tools Client**, the **X-Tools Server** has no knowledge about **Main Profile Editors** at all. In addition, all Main Profile File reading and writing operations are performed via the **X-Tools Client** also and the **X-Tools Server** has no knowledge about Main Profile Files.

2.5.2 Common Controls

2.5.2.1 Overview

As all **Main Profile Editors** are built up in a similar way, they share some common controls (e.g. tables and the menu bar) which are the same in all **Main Profile Editors**.

Each control of a **Main Profile Editor** has a defined task and provides certain functionalities. The following major controls are provided by the **Main Profile Editors**. Depending to the **Main Profile Editor**, one or more parts may not be supported (because they are not needed) and one or more parts may be present in addition to the following ones (because they are necessary):

- Main Profile Settings Table
- Menu Bar

2.5.2.2 Main Profile Settings Table

The **Main Profile Settings** table contains all of the profile-dependent settings which can be configured within a Main Profile:

Parameter	Description
Target Name	contains the name of the target to which the Main Profile is stored
Storage Path	contains the path to which the Main Profile is stored (absolute or symbolic path)
Creation Date	contains the creation date of the Main Profile
Modification Date	contains the last modification date of the Main Profile
Profile Description	contains the description of the Main Profile
Company Name	contains the company name
Author Name	contains the author name

Target Name

All of the information about the **Target Name** and **Storage Path** is set up within the **Save As** dialog.

2.5.2.3 Menu Bar

Menu Button	Description
New	This button creates a new, empty Main Profile and initializes the Main Profile Settings table with the default values for new Main Profiles. In case there is a Main Profile opened already, it is closed automatically before the new one is being created.
Open...	This button opens the Open dialog where the user is able to select the file which shall be opened.
Save	This button saves the currently opened Main Profile to the currently known storage location. In case the storage location has not been defined yet, the Save As dialog is popping up automatically and the user is able to select the desired storage location.
Save As...	This button opens the Save As dialog where the user is able to select the desired storage location.
Close	This button closes the editor. In case the currently opened Main Profile is not saved, the editor asks the user whether the Main Profile shall be saved before it is closed.

2.5.3 MPE Standard T001

2.5.3.1 Overview

The **MPE Standard T001** is used in order to visualize, create and edit Main Profiles of type “Standard T001”. Multiple editors of this type can be opened and used simultaneously.

The following screenshot shows an example of a **MPE Standard T001**:

The screenshot displays a window titled "Localhost - MPE Standard T001". It contains two main sections: "Main Profile Settings" and "Connections".

Main Profile Settings Table:

No.	Parameter	Value
1	Target Name	Local Client
2	Storage Path	Default Location
3	Creation Date	2010-12-17 00:00:00
4	Modification Date	2010-12-17 00:00:00
5	Profile Description	Example Main Profile which is delivered together with X-Tools
6	Company Name	Example Company
7	Author Name	Example Author

Connections Table:

No.	Enabled	Target IP or Name	Command Port	Data Port	User Name	Password	Password (confirm)
1	<input checked="" type="checkbox"/>	127.0.0.1	1394	1395	Administrator	*****	*****
2	<input type="checkbox"/>						

At the bottom of the window, there is a menu bar with buttons for "New", "Open...", "Save", "Save As...", and "Close".

Figure 5: Example of a **MPE Standard T001**

Each control of the **MPE Standard T001** has a defined task and provides certain functionalities. The following major controls are provided by the **MPE Standard T001**:

- Main Profile Settings Table
- Connections Table
- Menu Bar
- Dropping of Items

2.5.3.2 Main Profile Settings Table

The standard **Main Profile Settings** table is being used by the **MPE Standard T001** (see point 2.5.2.2).

2.5.3.3 Connections Table

The **Connections** table contains all of the connections which are defined within the currently opened Main Profile:

Column	Description
No.	contains the row number
Enabled	specifies whether the connection within this row shall be enabled during the start of the Main Profile or not
Target IP or Name	contains the IP address or name of the target
Command Port	contains the command port of the target
Data Port	contains the data port of the target
Connection Type	contains the connection type of the target
User Name	contains the user name which shall be used for the access to the target
Password	contains the password of the user account which shall be used for the access to the target
Password (confirm)	contains the password of the user account (for confirmation) which shall be used for the access to the target

The user is able to highlight a complete row (or multiple rows) and to delete them via the context menu (**Remove** context menu item) and/or via the keyboard (key).

In addition, a highlighted row (or multiple rows) can be copied/cut/pasted to another row of the **Connections** table via mechanisms of the context menu (**Copy**, **Cut** and **Paste** context menu items) and/or via the keyboard (<Ctrl+C>, <Ctrl+X> and <Ctrl+V> keys).

Any definition which is copied from the **Connections** table of an **MPE Standard T001** also can be copied to the **Connections** table of another **MPE Standard T001**.

The last row of the **Connections** table always is an empty row and therefore it allows the user to add a new connection by typing another IP address or name into the **Target IP or Name** field of this last row. All other cells of the last row are empty and disabled as long as the **Target IP or Name** field is empty. Whenever a new IP address or name has been entered into the **Target IP or Name** field, another new, empty row is added to the **Connections** table automatically.

When a new IP address or name is entered manually, the values of the **Command Port**, **Data Port** and **Connection Type** fields automatically are set to the values which have been entered at last for another row by the user.

Each combination of IP address (or name) and command port and IP address (or name) and data port must be unique among all of the enabled connections when the Main Profile shall be saved. The according check is performed before the saving is started.

User Name

The provided user name is being used by the **X-Tools Server** during the connection process in order to identify the **X-Tools Client**. Depending to the user name, the **X-Tools Client** may receive more or less rights for operating the **X-Tools Server**.

The **User Name** cell can be left empty. In this case, the **Password** and **Password (confirm)** cells are disabled and the **X-Tools Client** pops up an according message box during the connection process to the **X-Tools Server** (thus, after the Main Profile has been started) where the user has to enter a proper combination of user name password then.

Password

The provided password must match the provided user name as it is configured at the target **X-Tools Server**.

The contents of the **Password** and **Password (confirm)** cells must be identical.

By default, the **X-Tools Server** is being delivered with the following user accounts. These user accounts can be used in order to log in unless they have been changed:

User Name	Password
Administrator	administrator
Anonymous	

The user name is case-insensitive. The password is case-sensitive.

2.5.3.4 Menu Bar

The standard **Menu Bar** is being used by the **MPE Standard T001** (see point 2.5.2.3).

2.5.3.5 Dropping of Items

Dropped Item	Description
Main Profile File Branches of type "MPF Standard T001"	opens the dropped Main Profile

3 Contact Information

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