

# Sitraffic sX Service GUI

User Guide - Operation and Diagnostics V2.1 A003

**Intelligent Traffic Systems** 

**SIEMENS** 



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# **Preface**

The following operating instructions will guide you to the Siemens Sitraffic sX Operation and Diagnostic Service GUI. All necessary preconditions – as well as hardware and software versions – are described in this manual.

The Service GUI enables you to get online information about the status of the Sitraffic sX controller, to operate the Sitraffic sX and to make some basic changes of configuration and settings.

To connect to your controller, you have to use a standard web browser which supports HTML5 – we recommend Firefox (at least version 17). It is possible to use PCs, laptops, tablets or smart phones.

To establish a wireless connection to the Siemens Sitraffic sX it is a need to connect a wireless router to the Sitraffic sX in advance. The Sitraffic sX will not be delivered with a router.

If you want to access the controller from a larger distance via WAN, you have to make sure that all necessary network infrastructure is available and set up for this matter.

The Sitraffic sX Service GUI offers multi user connection. That means, that more than one user can connect to the controller at the same time.

Please ensure to have the login data and permissions ready, if you like to connect to your Siemens Sitraffic sX controller with a web browser.

# 1. Preconditions

To connect to the Sitraffic sX Service GUI using a web browser, there are several preconditions, which have to be fulfilled.

### 1.1. Siemens Sitraffic sX

- A suitable device configuration is loaded. Initial (factory settings) or custom configuration.
- The settings for the Ethernet port are configured.
- The controller is switched on and the system is up and running.

### 1.2. Guest device

The requirements for the guest device are very low. There is no need for a special hardware or software. Even the operating system (OS) is irrelevant as long as it supports an HTML5 browser.

This fact offers the possibility to use PCs, laptops, tablets or even smart phones for using sX Service Web GUI.

Please be aware that e.g. Windows XP's native internet explorer does not support HTML5, but it is possible to install another adequate web browser, like Firefox.

- HTML5 web browser.
- LAN adapter or wireless network adapter.
- The settings for the Ethernet port are configured.

# 1.3. Equipment

■ Standard LAN cable with RJ45 connectors for a physical connection between the Sitraffic sX and your device.

or

■ Wireless router including standard LAN cable with RJ45 connecters for a wireless connection. The router will be connected to the controller by using the LAN cable.

### 1.4. User data

■ Login data: user login and password.

### 1.5. Multi user

Multi user access is generally possible. Access of more than two simultaneous users is not recommended, especially if data-intensive GUIs are used, such as "Visu STP".

# 2. Starting Service GUI

### 2.1. Physical Connection

#### LAN:

Connect your PC (or equivalent device) to the OMC board by using a standard LAN cable.

#### ■ WLAN:

Connect the WLAN-Router to the OMC board by using a standard LAN cable. Establish a wireless connection between your device and the router.

#### ■ WAN:

Project specific solution, depending on the existing infrastructure, for example in combination with a Siemens Sitraffic Scala installation.

#### 2.2. Web Browser Connection

### ■ Start HTML5 web browser.

Enter URL for your Sitraffic sX connection (real hardware Sitraffic sX controller)

Default URL: http://192.168.128.3

or

■ Enter URL for your DWS connection (DWS = Developer Work Station - Virtual machine for development and testing purpose)

Default URL: <a href="http://192.168.237.231">http://192.168.237.231</a>

# 2.3. Web Browser Login

■ Authentication: Enter username and password

# 2.4. Web Application User Settings

Select your preferred language.
 Default Languages: English and German
 Additional languages are only supported with individual language packs.

Select the Service Level.

Monitor, Operator, Service or Developer (The developer level requires a special browser login).

The functions of each level are described in the following chapters.

- Mode: Select your device. Notebook (PC) or Smartphone
- User Alias: Enter your name or initials.

  This is <u>not</u> the user name used for previous authentication. The user alias is just used to distinguish different operators. It's not necessary to create any account in advance.
- Go on by clicking the "Continue" button.



Figure 1: Web application user settings

# 3. Service GUI overview

### 3.1. Level of Service

Depending on your user login and the associated rights, you will have a choice of up to four different service levels: Monitor, Operator, Service and Developer. With the service login, you cannot access the developer level, but every level below. If you login only with monitor rights, you can of course only access the monitor level.

To reduce the number of features and the risk of unintentional operations, it is possible to choose a lower entry level then your user rights offer you. You can change to a higher level at any time – if you like or if it is necessary – by logging off and logging on again.

All levels of service contain different icons and functions, which are described in the following chapters.

# 3.2. Layout

From Top to Bottom:

- Context bar
- Menu bar
- Application
- Info bar

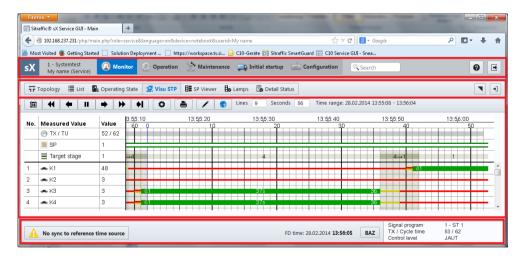


Figure 2: Sitraffic sX Service GUI

#### 3.3. **Continuously displayed Information**

Some basic information is always displayed in the Sitraffic sX Service GUI:

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- Number and name of the sX device Context bar top / left
- Logon User Alias Context bar bottom / left
- Current service level Context bar bottom / left in brackets
- Chosen topic The current topic is always marked in blue color at the Context bar
- Chosen function The current function is always highlighted in blue letters at the Menu bar
- Overall status of the field device Information bar left side Details on demand (left click on message button)
- BAZ display Information bar right side
- Time and Date of the field device Information bar right side

#### 3.4. **Handling and Behavior**

Some information or parts of the GUI may not be visible if your browser window is too small. In this case, you have to enlarge your window or use the scrollbar.

Another possibility to shrink or enlarge the displayed quantity is to change the zoom level of your web browser.

The web browser will remember your last session. After a new logon, it will bring you back to the same menu you left unless you delete the browser history.

Some menu items have different features depending on the Service Level. For example, "Monitor" can only see a signal program and "Operator" additionally has the right to change it.

Some applications will start in an overlaying and separated window. To close this window use the **X** button, to open it in a new browser tab/window use the **¬** button.

All data that is not changeable is shown grayed out, which does not mean that all other data is changeable.

#### 3.5. Search

Using the search function might be very helpful, if you don't exactly remember in which context to find a specific application. Just enter the first letters of the application name, or any part of it, in the search field at the top of the page and a list of matching applications will be presented in a list immediately.

E.g. if you like to operate the traffic signaling system, just type "op", then a list of proposals will be displayed. Select and open the "Operate TSS" window by clicking on the entry, without switching the context.

#### 3.6. Buttons

The main and default Service GUI tab is named "Sitraffic sX Service GUI – Main". It is possible to extract all applications to a separate tab or window – depending on your browser configuration – with the ■ button in the menu bar. This may help you to toggle between different applications. All Sitraffic sX Service GUI applications can be recognized by the tiny field device cabinet symbol in front of the tab name.

To get to the home menu of the Sitraffic sX Service GUI click the "sX"-button in the context bar at the left.

Online help is available by clicking the ② button in the context bar.

To log off from the Service GUI use the button in the context bar. This will bring you back to the logon window. Already extracted applications will not be influenced and will stay connected.

Use the sidebar to view details like rotary switch positions, firmware versions, configuration information incl. checksum and configured signal programs by clicking the  $\Box$  button in the menu bar. To close the sidebar, use the  $\Box$  button.

A virtual BAZ is implemented in the info bar. By default, only the BAZ button is visible. The full BAZ will appear or disappear by clicking the "BAZ" button. This button is not available in level "Monitor".

Most of the buttons do have a short explanation by a tooltip. Just leave your mouse cursor on top of the icon and the cursor will change to an index finger and afterwards a tooltip will appear.

# 3.7. Print out

Please use the facilities of your web browser to create a printout. Using the preview function, you will see the result in advance. The landscape format is usually the better choice. It is essential: "What you see is what you get". Contents beyond your visible screen content will not be printed.

# 4. Functions of the Service GUI

#### 4.1. Monitor

This context is, as the name already says, only for monitoring issues. It is not possible to make any changes to the Sitraffic sX configuration or to operate the controller.

# 4.1.1. Topology

This view shows the topology and configuration information about the controlled node. It shows also the current states of the signal groups.

#### 4.1.2. List

A legend is available in the menu bar under



#### ■ Signal Group Visualization

All existing signal groups are displayed as signal heads. The information about the quantity and position of the lamps - used channels - is taken from the configuration. Inactive lamps are black and active lamps turn into red, amber or green. The number and name of the signal group are written below. A tooltip shows the full name for long signal group names.

#### ■ Detector Visualization and Detector Simulation

All existing detectors will be displayed. Symbols show the current detector state and type. The number and name are displayed on the right. Erroneous detectors are highlighted with red background color. Detectors with an active simulation are highlighted with light blue background color.

See chapter 4.1.3 for Detector Simulation details.

#### ■ Port Visualization and Port Simulation

All existing Ports will be displayed. A symbol shows the current state. The number and name are displayed on the right. Erroneous ports are highlighted with red background color. Ports with an active simulation are highlighted with light blue background color.

#### Port Simulation:

With left click on a port item the port will be set to "On" as long as the mouse button is clicked.

With right click on a port item a context menu opens, which provides several options (On, Flashing, Off).

#### PT Directions and PT Simulation

The following configuration items of the Public Traffic Actuation will be displayed: No/PT Direction, Signal Group, Line, Pre Check In, Check In, Emergency Check In and Check Out.

### PT Simulation:

By clicking on a reporting point symbol (e.g. Check In) a reporting point telegram will be simulated for this item. Using this feature it is possible to simulate public transport rides manually.

#### **4.1.3. Detector Simulation**

Detector simulation functionality is available in following GUIs:

- "Visu STP"
- "List"
- "Topology".

With left click on a detector item the detector will be occupied immediately as long as the mouse button is clicked.

With right click on a detector item a context menu opens, which provides several options:

- a) Detector On: Permanent occupancy for a configurable duration
- b) Detector Cyclic Occupancy: Cyclic occupancy for configurable duration, interval and occupancy duration
- c) Detector Simulation Off: Stop simulation for current detector
- d) All Detector Simulations Off: Stop simulation for all detectors'

# 4.1.4. Operating State

# 4.1.4.1. Node state

The current and requested state of intersection and partial intersections is displayed with Node (On/Off), Node detail (On/Off) and Dimming state (Day/Night). The availability of the dimming function depends on the device configuration.

#### 4.1.4.2. Control

Information about the running signal program (stage), cycle time, control level, traffic actuation (TA), individual mode (IT) and public transportation mode (PT).

#### 4.1.4.3. Incidents

This is a list of the latest incidents in chronological order. Each line contains the date and a following short message text. New incidents can be added by clicking on the button. Incidents are meant to be created by users manually to leave a note about special events for the subsequent users.

# 4.1.4.4. Scenarios (prioritized)

Significant events are represented as summarized scenarios.

#### 4.1.4.5. Cluster

Details of the controller conditions:

- Communication
- TSS
- Device
- Power supply
- Lamps
- Detectors
- Traffic technology
- Maintenance

Each line contains a symbol that indicates the status and a status text. For further details, you have to move the mouse pointer to the belonging line and a frame with an arrow will appear which you may click.

You will find the same information by using the overall status of the field device in the Information bar.

### 4.1.4.6. Signal program change

Graphical time scales from 00:00 to 24:00 to visualize the signal program changes. Every signal program is displayed as a bar in a different color, with its number inside, if the bar is wide enough. A tooltip with signal program number, name and time range is available.

#### **4.1.5.** Visu STP

This signal time plan application offers you an online and an archive visualization of signal groups, detectors, device variables, ports and AMLI in real time, with an offset of about 2 to 3 seconds. The default job is already predefined to show all configured items and will start immediately after selecting the Visu STP button in the menu bar.

A legend is available in the menu bar under



### 4.1.5.1. Navigation

A movement into the past will always stop the visualization on your screen. The job itself keeps on running in the background. To start the visualization again, use the play button.

**24** Calendar

It is possible to jump to a date in the past. You can enter a date directly, or use the integrated calendar, which will open if you click into the input field.

- Move to the end
- Move 60 seconds backwards or forwards
- Move 10 seconds backwards or forwards
- Start (play) or stop (pause) visualization

### 4.1.5.2. Configuration

Preferences

A block size in seconds defines the time interval of shifting the output block to the left. The default value is 1 second and will display a steady movement.

You can decide to show the green stage duration, start- and end time inside the bar. If the green bar should be too short, the values will not be displayed. To save your settings, click the save button.

Print
Prints the currently visible signal time plan.



User and Default Job

Normally the default job is selected. By pressing the Edit-Button, you are able to create or change the User-Job. To get back to the default job, use the right Button.

Creating and editing the User-Job:

You can select the signal groups, detectors, device variables, ports and pt directions you want to display in the Visu STP. On the left, you will find all available items. On the right is a list of already selected items. To transfer one or more items from the one table to the other you have to use the arrow buttons. A multi selection by using the Ctrl or shift key is possible. To transfer all items of one category, please use the button. The selected items can be sorted by moving them up, down, top or bottom with the buttons on the top. Drag & drop is supported, too.

After finishing the configuration you may save your settings with the "Apply"-button and / or start the application by using the "OK"-button.

It is only possible to store one configuration – beside the default configuration.

■ Zoom in and out
To zoom horizontally or vertically use the "Lines" and "Seconds" Sliders or the belonging input Fields.

# 4.1.5.3. Layout

On top, right of the "Lines" and "Seconds" input fields, you can see the displayed time range. The time is based on the Sitraffic sX controller time and may be different from the time of your device.

The left table shows three columns:

- Type / Measured Value Symbol and given name of each item
- No. Internal number of signal group, detector, ...
- ValueSignal group: OCIT color codeDetector: occupied = 1, not occupied = 0
- In addition, always on top and not scrollable, you can see the TX (actual second of the running signal program) / TU (cycle time length), the SP (signal program number) and, if available, the stage (stage number).

At the right you will find a graphical output:

### TX / TU

The values are on top of the bar including the actual controller time. The bar is displayed in light gray and will turn to pink to indicate hanging TX or TX jumps. The begin of a new cycle is displayed by a vertical blue line.

#### ■ SP

The bar color is white with a colored frame; the thickness and the color depend on the running signal program. The bar contains the SP number and the control level, which switched into this SP.

#### Stage

Stages and stage transitions are displayed in light and dark gray, the stage number as well as the stage transition is written inside the bar.

# Signal groups

Signal groups are displayed in different colors and symbols referred to the configured function. Flashing signal groups are displayed in dashed lines. The green values can be written inside the bar (as mentioned in the preference settings description).

#### Detectors

Detector occupancies are always displayed with a blue line. The duration of the occupancy is responsible for the line length. If the detector is not occupied at all, there will be no line.

Detector errors are drawn as a brown bar with error type as text.

#### Ports

Ports are displayed as filled bars, with the current value text above it.

#### Device variables

Device variables are displayed as bars, which toggle their color on each value change. The current value text is written above it.

#### AMLI

Reporting point telegrams are displayed in the line of the signal group, which their public transport direction belongs to. Please see legend for the meaning of the different symbols.

#### No Data

If an item should not deliver any data, a brown bar with the text "No Data" will be displayed.

#### 4.1.5.4. Ruler

Clicking in the graphical output area will show a ruler. The values in the left table show the values under the ruler now in blue color.

To measure time ranges, move the cursor to the first point, then press the mouse button, move the cursor to the second point and release it.

To remove the rulers, press the start button in the navigation bar or erase it with a wipe gesture from right to left.

#### **4.1.6. SP Viewer**

At the top of the menu, you can select a signal program using the dropdown list. The currently active signal program is already preselected.

There are two different kinds of signal programs, signal group oriented and stage oriented signal programs. For this reason, the user interface of the signal program viewer depends on the type of the selected signal program.

### Signal group oriented

In the header, you will find the number and the name of the signal program, the cycle time, the switch on, switch off and switch over point.

In the table below the switching times are defined, for each signal group in a separate line with the following information:

Number, Type and Name First start, end and duration (right of way) Second start, end and duration (right of way) Reserve time

The graphical drawing of the signal program is on the right. In the green bar the numeric start and end times are available. Flashing signal groups are displayed in dashed lines with additional information about the frequency.

# ■ Stage oriented

Beside the header, which is used in signal group oriented signal programs, there is a second table for the stage control information. It contains the stages and their durations, as well as the stage transitions and their durations. It also shows if a stage may be demanded by IT and/or PT.

The transitions are marked with vertical gray bars and the stages are labeled with an identifier (ST) at the bottom of the chart.

# **4.1.7.** Lamps

All existing signal heads will be displayed. The information about the quantity and position of the lamps (used channels) is taken from the configuration. The current state of each single lamp is shown.

The lamps could have following states:

- not monitored
- status is currently unknown (lamp not yet switched on)
- status OK
- status ERROR

By activating the checkbox on the left you can switch to the "Show only errors" view.

#### 4.1.8. Detail Status

The detail status view shows the detail information about the controller device itself, like the status of the file system, CPU load, memories, archives etc. Other states are listed for Communication, TSS (traffic signaling system), Power supply, Lamps, Detectors, Traffic Technology and Maintenance.

# 4.1.8.1. Failure Memory / Counter

All status changes are counted, comparable to an On-board diagnostics and fault memory in a car. In the course of maintenance it can be checked, which events and alerts occurred since the last maintenance and how frequently.

At the end of a maintenance service, the counters should reset by pressing the reset button

Please note that this is only possible, if maintenance mode is activated. Maintenance mode can be activated under the item "Maintenance -> Checklist".

Use the Links under "First start", "Last start" and "Last end" to navigate directly to the status details in history.

# 4.1.8.2. History

To analyze events from the past, use the history view. The events are displayed in the order of occurrence.

If it is necessary to view the history of a specific detail state, select an occurrence of this detail state and then deactivate the "All detail states" checkbox. With the "Before" and "Later" buttons it is possible to view previous or subsequent events.

It is also possible to download the events in an HTML history file:

By choosing "Download history" all detail states beginning from the current view to the end will be exported to an HTML-file.

By choosing "Download history files" you can select which of the stored history files you like to download. All selected files will be exported into a single HTML file.

# 4.2. Operation

In this context you will especially find items to operate the Sitraffic sX, to modify the traffic influencing parameters (Signal Programs / JAUT) and to view archived data.

#### **4.2.1. SP Editor**

The signal program's viewer is already described in the monitor context. The difference is that you can modify some of the parameters here. After changing one or more entries you have the option to undo your changes or to activate them with the buttons on top. An activation transfers the changes directly to the controller, a message will inform you about the successful activation. Running signal programs can be changed on the fly.

# Input format:

- Signal Program Name 0...9, a...z, A...Z, .-+\_=()!|~# (inclusive blank), max. 60 digits
- Signal Group Name 0...9, a...z, A...Z, .-+\_=()!|~# (inclusive blank), max. 250 digits



The Signal Program editor will only check the syntax but not the concerning traffic engineering. Changes may lead to a shutdown of the Sitraffic sX controller.

Changes can only be done in the table and not in the chart, but the chart will update immediately after leaving the input field. A change of the signal group name causes a general change over all signal programs.

With the Plug & Play button in context "Initial Startup" it is possible to transfer the current configuration directly to the Sitraffic Scala System.

#### 4.2.2. **Jaut**

On the left hand side the daily schedules are displayed. On the upper half of the right side the switch commands of the selected daily schedule are displayed chronologically. In the section below the selected switch command can be edited.

There are different kinds of commands:

- Switching of signal plan, including system ON and OFF, traffic actuation.
- Define state of outputs
- Control detector supervision

At the bottom of the page you can define the weekly schedule.

If daily schedules are required, that differ from the standard weekly schedule on certain special days or holidays, they can be assigned using the detail dialog "Special days – and holidays".

# **4.2.3.** TA (Traffic Actuated Control)

The active TA process is shown on the left. If you are logged in as a "service" or "operator" you can open an additional status page with further information about AppStarter, SLC Logic, Stage Duration, Pt History and Stage Sequence of the running TA process.

It's also possible to switch to another TA process here. To switch to another TA process the running TA process has to be switched off first.

#### 4.2.4. Control Levels

A matrix with all possible control levels – at the left – and the available functions – at the top – offers you an overview about the actual conditions.

The priority of the control levels is from bottom (low) to top (high). The top row – highlighted – shows the current target state. The matrix comes up in compact mode, which means that only used levels are displayed. To see all levels, even those that are not active, you can switch to the comprehensive mode with the button on top.

The refresh interval is 15 seconds. The last update time is mentioned in the bottom line.

# 4.2.5. Accident Memory

Use the accident memory to create print-outs.

Therefore first choose the required point in time, by clicking the button. Then click the button to open the print dialog of your browser. Adjust the browser's print settings to your needs. Start printing or generate a PDF file.

It's also possible to download all accident memory archives by clicking the **b**utton. The archives can then be analyzed on a DWS system later.

### **4.2.6. Archive**

The archive viewer will create a list from the data stored in the device archive. For every selected item the following information will be contained:

- **■** Timestamp
- Type
- Number
- Name
- Value
- Error code

It is possible to show the generated list immediately on the screen or to export it as a \*.csv file for further use (e.g. Excel) or \*.pub2 file. For this purpose please use the buttons Show or Export.

After defining the time range (Start time - End time) it is necessary to select the signal groups, detectors, etc. you want to include. On the left you will find all available items. On the right is a list of already selected items. To transfer one or more items from one table to the other use the arrow buttons. A multi selection by using the Ctrl or shift key is possible. The selected items can be sorted by moving them up, down, top or bottom with the buttons on the top. Drag & drop function is supported, too.

Once the data are shown the selector dialog is hidden. To show it again, click on the edit button  $\checkmark$  in the menu.

# 4.2.7. Operate TSS - BAZ

In general, there are two options to manually operate the Sitraffic sX controller. Use the button Operate TSS (context operation) at the menu bar or the BAZ button (not available in level "Monitor") in the information bar.

### Operate TSS

Select a control level

Select a valid time (without end, defined end or duration)

Select a signal program

Select a switching mode

Select a function with the belonging on, off or release option

Click "Operate" to confirm your settings or close the dialog without any action.

#### ■ BAZ

The BAZ (operate and display) is a virtual emulation of the BAZ hardware device, which is usually attached in the cabinet of the Sitraffic sX controller. Nearly all functions are implemented so that you can use the virtual BAZ beside or instead of the hardware device. For details please have a look at the BAZ manual.

#### 4.3. Maintenance

#### 4.3.1. Checklist

At begin of the maintenance service please activate the maintenance mode. After maintenance service is done it should be deactivated.

For support a checklist can be filled in and printed, if needed.

### **4.3.2.** Failure Memory

See 4.1.8.1 Failure Memory / Counter

# 4.3.3. System Information

Basic informations are displayed on the left table containing HW information, checksum, previous installation, start time of the application, available memory and the position of the rotary switch on the CBU board.

The dropdown list offers an amount of options to show detailed information about the following topics: general, running main processes, boot log, disk info, directory resources (compared to parent or to root), configuration of the hosts file, Linux information, memory information, network interfaces, network routes and installations of the RPM (Linux Package Manager).

#### 4.3.4. Device Info

These following device informations are displayed in the content area:

#### 4.3.4.1. IO-Bus

The parameters Module Adress, DIP switch on CLB, Component family configured, Component plugged, Firmware Version and Release of the components connected to the IO-bus are displayed.

# 4.3.4.2. Lamp Switch

The parameters **Type, Firmware Version, Release** and **Backplane Version** of the connected lamp switches are displayed.

#### 4.3.4.3. Distribution Units

The parameters **Type**, **Firmware Version**, **Release**, **Dimming possible**, **Current**, **Voltage** and **Frequency** of the connected distribution units are displayed.

### 4.3.4.4. GPS

The values for **Reception quality**, **Number of satellites**, **Longitude**, **Latitude** and **Altitude** of a connected GPS device are displayed.

### 4.3.4.5. Dimming

The following dimming parameters are displayed:

#### State:

- Dimming (Day/Night)
- Method (Time and/or Light Sensor)
- Light Sensor (Bright, Dark)
- Dim Voltage (Reference [V])
- Lamp Voltage [V]

### Position (used for internal calculation of sunrise and sunset):

- Longitude
- Latitude
- Source

# 4.3.5. Installation

The purpose of this menu item is to update your Sitraffic sX with new RPM packages. Whatever your reason may be to change the existing installation, you should always be sure that the corresponding RPM's do match to each other.

### 4.3.5.1. System update

To install a new version to the controller, browse for the "c10-release-x.x.x.x-x.i386.rpm" file, select it by double click and use the "Upload"-button afterwards. The controller will automatically check which packages have to be updated. A list of packages will be displayed. For security reasons it is necessary to select all this packages manually in the "Browse"-dialog. Use Shift-key for multi-select.



Attention: System Update may not be interrupted by any interactions!

Some RPMs require a reboot of the controller and / or a restart of the Web GUI. During the installation, which may take up to several minutes, depending on the file size, you may not get any information about the installation progress. After a successful installation the "System Information" page will load automatically, which presents a list of the installed RPM packages for verification.



An installation of some RPM's requires a manual reboot of the Sitraffic sX or / and a manual restart of the Web GUI. Please have a look at the following table.

Available RPM's	Reboot Sitraffic sX	Restart traffic control application	Disruptionof central connection
c10-application-x-x.i386.rpm	_	X	X
c10-central- x-x.i386.rpm	_	_	X
c10-common- x-x.i386.rpm	_	X	X
c10-core- x-x.i386.rpm	X	X	X
c10-extern- x-x.i386.rpm	-	X	X
c10-fdap- x-x.i386.rpm	_	_	X
c10-guiprovider- x-x.i386.rpm	_	X	_
c10-guiproviderlight- x-x.i386.rpm	_	_	_
c10-java-openjdk- x-x.i386.rpm	_	X	X
c10-kernel-linux- x-x.i386.rpm	X	X	X
c10-services- x-x.i386.rpm	_	_	X
c10-tools- x-x.i386.rpm	_	_	_

# 4.3.5.2. Single package Installation

To install a single RPM package, for example a central process or a custom traffic actuation, you have to preselect the RPM type. After browsing and uploading, the package will be checked, if it corresponds to the pre-selected type.



After installation of a new traffic actuation, please switch to "Operation -> TA" to check if it was installed correctly. It should be in the list of available TA processes now.

After switching off the previous TA process it should be possible to switch to the new TA process.

# 4.3.5.3. Delete a single package

To uninstall a single RPM package, select one of the displayed package names. Only non-release packages can be uninstalled.

# 4.4. Initial startup

### 4.4.1. Initial Startup Wizard

The Startup Wizard guides you to put a new Sitraffic sX into service and/or to connect the Sitraffic sX to a Central System.

The following configuration items have to be set up:

# ■ Date and time (see Cap. "Date/Time)

# **■** Load base configuration

o For loading a configuration browse for the \*.c10 file.

### **■** Basic configuration

 Settings for Center type, Controller No, Center No, Domain, Hostname, Time zone

### **■** Center connection

Settings for VPN configuration and center profiles

#### Activation

 If all items are checked and correct, the configuration can be activated. In case of a required reboot this action can take several minutes. And the end of the activation the Web-GUI will be restarted.

A link to the international acceptance protocol is placed at the bottom of the wizard.

#### **4.4.2. Date/Time**

To set the date and time of the Sitraffic sX controller click the "Set manually"-button and use the input fields to enter system time and date. As soon as you click the Submit button your entries will be set. As a reference your PC time is displayed on the right. It's also possible to align your controller time directly to the PC time.

The Sitraffic sX controller will always use the UTC time base that means, that changing the time zone will only generate an internal offset and not change the displayed (local) time.



If you only want to check the correct time of the Sitraffic sX you may use the sidebar. The FD time (Sitraffic sX), as well as the PC time, are displayed right above each other, including time zone information.

# 4.4.3. Public Transport

The received PT telegrams are displayed on the left. A filter can be set to show only specific telegrams.

# 4.4.4. Signal Monitoring Test

See Documentation SiSi-Test.

# 4.4.5. Plug & Play

Plug & Play connects a new Sitraffic sX to a central system and/or delivers a new configuration to a central system.

If connection parameters were set correctly in "Initial Startup Wizard", the Plug & Play page automatically establishes a connection to the central system. To allow an "Ocit" connection to a central system, initial configuration of the central system is required additionally.

Click on the "Start"-button to initiate the transfer of the configuration to the central system.

If the connection could not be established, click on "Click to show connection detail log" to see further details. Resolve the problems and then please try again.

Several problems may influence the plug-and-play mechanism during transfer and activation on the central system.

# sX PlugAndPlay messages

Messages	Semantic	Possible Causes	Troubleshooting
Warning empty response from server	Network connection sX- Subsystem- CoreServer	DNS Alias: configsry for Sitraffic CoreServer, DNS- Cache not uptodate	Check/add alias to DNS clear and flush dns cache ping configsry (subsystem IG/ sX console )
Error maximum	disturbed Remark: sX	Sitraffic Coreserver Service not started.	Start/check Sitraffic CoreServer Services
tracking timeout reached	Service GUI will wait at least 900s for answers .	CoreServer cannot establish connection to fielddevice via Subsystem	Routing Configsry to subystem ig add persistent route to subnet on CoreServer ping c%FNR%.z%ZNr%.%domain%
ERROR- validation Office Import failed!	automatic sX .c10 import with Sitraffic Office fails. PnP stopped.  Remark: PnP starts, configuration successfully	Environment CoreServer: -UserManagement/ LicenseManagement: connection not established or insufficient rights/licenses -ConfigDB not yet migrated, -SymBibs to old	start Sitraffic Office and check basic functionality -login -Licenses -Symbibs update  for further analysis use: CoreServer Service GUI ->PnP-ProgressTracker -
	transferred to CoreServer, sX data not added to ConfigDB!	Dataquality: -old Sitraffic Office Profile blocks .c10 import .c10 contains an incompatible version (i.e.	use Sitraffic Office .c10 import manually , check functionality SitrafficOffice.log use Sitraffic Office .c10 import manually, check functionality
Import failed		hlc_base.xml,) .c10 Container contains unsigned data	SitrafficOffice.log use Sitraffic Office .c10 import manually and evaluate functionality
There is another Scala configuration action blocking PnP at the moment. Please retry PnP later (wait at least 60s).		Pnp is blocked by another configuration transaction Initiated from another Office Client/User	Just wait until blocking configuration transaction finished
Messages	Semantic	Possible Causes	Troubleshooting

importing data in config DB succeeded. Scala configuration failed. Please inform your Scala administrator/operator and check detailed messages of Scala Supply on the CoreServer.	SupplyServer service not started check Supply log files: %Sitraffic_log%\supply\OfficeExportProtokoll_ZNr%xx%.log, SupplyClient.log, SupplyServer.log	Start/ check SupplyServer service use Sitraffic OfficeClient and retry Scala/Subsystem supplying and analyze messages
	Sitraffic Office: other export blocking element versions marked for export (WFS: Checked) with matching Subsystem number exist in ConfigDB.	Sitraffic Office: change element versions WFS from Checked to Draft and retry Plug And Play
not yet started	Connection to CoreServer is established, initial startup is still in progress.	Wait at least 10s PnP - ProgressTracker - CoreServer Service GUI

# **4.4.6. CBU**

# 4.4.6.1. CBC (In DWS deployment not available)

Open the page of the CBC module.

Note: The page is only available, if CBU rotary switch is in the correct position.

# 4.4.6.2. CHX (In DWS deployment not available)

Open the page of the CHX module, e.g. to perform CBU firmware update.

Note: The page is only available, if CBU rotary switch is in the correct position.

# 4.4.6.3. CMU (In DWS deployment not available)

Open the page of the CMU module.

Note: The page is only available, if CBU rotary switch is in the correct position.

# 4.5. Configuration

# 4.5.1. Configurations

# Upload configuration

To upload a new configuration, browse for an existing configuration file \*.c10 and click "Activate". The file will then be transferred to the Sitraffic sX and the activation process will be started. If the selected configuration file contains a different topology, for example more or less signal groups, as the previous configuration, a restart of the controller is required. A popup dialog offers you to accept the restart or to cancel the activation. If the configuration change requires erasing the existing archive data, the dialog provides the possibility to perform a backup of these data first.

The configuration and the generation of the configuration file can be done with the Sitraffic smartCore or Sitraffic Office.

#### Versions

The inventory view shows information about the currently active configuration. Some information, like the activation date, the version, the user (activator) and the source are displayed. The source might be the name of the file, which was uploaded and activated, or the name of the used editor of the sX Service GUI, that was responsible for the change, for example "Jaut Editor". It is possible to save the current configuration as a file by using the download button.

The Archive view shows similar information about the previously active configuration. If anything went wrong with the new configuration, the easiest way to activate the archived version again is to click on the "Activate" button in the toolbar.

The factory configuration is a default configuration without any traffic data. There are no signal groups, neither signal programs configured. It is only a basic configuration to be able to start the Sitraffic sX controller. If you activate the factory configuration, all data will be lost and the current configuration will be moved to the configuration archive. It is possible to save the factory configuration as a file by using the download button.



Except the current configuration, only the last configuration will be stored in the configuration archive. If there is a need to save older versions please use the download function. A restore can be done with the upload configuration facility.

#### Active transaction

A transaction can be a change of parameters, for example a modification of a green time or an upload of a configuration file. As soon as you activate a change, a progress indicator appears and afterwards you will get information about the start date, the user, the source and the status. If you want to cancel an active transaction you can use the "Cancel"-button. It is only visible as long as the transaction is active.

# 4.5.2. Archive Configuration

Use this menu item to view the volume and amount of archived data of the Sitraffic sX. On top is the section "General Flash Information", that indicates the allocated archive memory in total.

By clicking the "Clear Archive" button it's possible to reset all archives and erase all gathered data.



"Clear Archive" will erase all archive data unrecoverable.

#### 4.5.3. Password

Use this menu item to change the user passwords.

First select the user name, enter the new password in the two input fields and then click "Set password" to confirm the new password.

If the two passwords are not identical you will receive an error message and you will have to repeat the procedure.

Click "Cancel" to abort the password change.

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Further information is provided by:

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The information in this manual contains descriptions and features which can change due to the development of products. The desired features are only binding if they were agreed upon conclusion of the contract.

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