

## SRR Changes by Reason

Reason ID:

### **INT\_MOD\_CLOSE\_PROJECT**

Reason/Description:

Internal Request:

It is requested to start a new version of the PDB (Product Database). This can be seen as a last act of closing the project, or it can be seen as a preparation for continuing.

All objects within the PDB shall be described new, maybe doing some re-ordering and improvement.

Target Version:

Completely Finished

SRR\_0033



## Changes of the Objects:

| Version: | Changed Object:                       | Object Class/Subclass: |
|----------|---------------------------------------|------------------------|
| SRR_0033 | 00_Arch - 00 - Architectural Features | Feature                |

Description of the Change: Detailed Object version: 0033.06bf3

Currently, the Feature Group "ARCH - Architectural Features", consists of following features:

- Tracer
- MMF Architecture
- Static Modules
- Dynamic Modules
- SRR Objects
- Console Interface
- Static/Intrinsic Models
- Modularity of the SRR Framework

| Version: | Changed Object:       | Object Class/Subclass: |
|----------|-----------------------|------------------------|
| SRR_0033 | 00_Arch - 05 - Tracer | Feature                |

Description of the Change: Detailed Object version: 0033.06bf3

Basic tracing capabilities have been implemented in the common parameters directly (i.e.

They can be accessed via the "commParam" field (SFNode)).

The X3D prototype SrrTracer.x3d has been implemented, to enable tracing

- for the frame (e.g. SrrControl)
- for a module (e.g. SrrModCoord)
- for objects (e.g. SRR objects)

| Version: | Changed Object:                 | Object Class/Subclass: |
|----------|---------------------------------|------------------------|
| SRR_0033 | 00_Arch - 10 - MMF Architecture | Feature                |

Description of the Change: Detailed Object version: 0033.06bf3

The basic concepts of the MMF-architecture (modules, models, objects, frame, ...) are well described in the "Concepts' Descriptions" in the directory concepts/.

\*M\*odels use SRR objects.

\*M\*odules use the Module Coordinator.

\*F\*rames use the SRR Controller.

## SRR Changes by Reason

Reason ID:

### **INT\_MOD\_CLOSE\_PROJECT**

| Version: | Changed Object:               | Object Class/Subclass: |
|----------|-------------------------------|------------------------|
| SRR_0033 | 00_Arch - 15 - Static Modules | Feature                |

Description of the Change: Detailed Object version: 0033.06bf3

The concept of static modules is well described in the paper "012\_Modules.txt", which is available as a part of the "Concepts' Descriptions".

The module coordinator (SrrModCoord.x3d) has been tested in static modules.

| Version: | Changed Object:                | Object Class/Subclass: |
|----------|--------------------------------|------------------------|
| SRR_0033 | 00_Arch - 20 - Dynamic Modules | Feature                |

Description of the Change: Detailed Object version: 0033.06bf3

The concept of dynamic modules is well described in the paper "012\_Modules.txt", which is available as a part of the "Concepts' Descriptions".

The module coordinator (SrrModCoord.x3d) has been tested in dynamic modules.

| Version: | Changed Object:                          | Object Class/Subclass: |
|----------|--|------------------------|
| SRR_0033 | 00_Arch - 25 - SRR Objects / MIDAS Objec | Feature                |

Description of the Change: Detailed Object version: 0033.06bf3

The concept of SRR Objects is well described in paper "301\_SrrObjects.txt" as a part of the "Concepts' Descriptions".

| Version: | Changed Object:                  | Object Class/Subclass: |
|----------|----------------------------------|------------------------|
| SRR_0033 | 00_Arch - 30 - Console Interface | Feature                |

Description of the Change: Detailed Object version: 0033.06bf3

The "base class for SRR Objects" (SrrObjectBase\*.x3d) supports SRR objects when providing parameters for the console interface.

The concept paper "014\_ConsoleInterface.txt" describes the concepts of the console interface well.

| Version: | Changed Object:                       | Object Class/Subclass: |
|----------|---------------------------------------|------------------------|
| SRR_0033 | 00_Arch - 35 - Bound/Intrinsic Models | Feature                |

Description of the Change: Detailed Object version: 0033.06bf3

The concepts of static and intrinsic models are well described in the paper "013\_ModelsAndObjects.txt" as a part of the "Concepts' Descriptions".

| Version: | Changed Object:                             | Object Class/Subclass: |
|----------|---|------------------------|
| SRR_0033 | 00_Arch - 40 - Extensibility of the SMUOS F | Feature                |

Description of the Change: Detailed Object version: 0033.06bf3

The "Modularity of the SRR Framework" is well described in the concept paper "051\_Modularity.txt".

## SRR Changes by Reason

Reason ID:

### **INT\_MOD\_CLOSE\_PROJECT**

| Version: | Changed Object:                     | Object Class/Subclass: |
|----------|-------------------------------------|------------------------|
| SRR_0033 | 01_Conv - 00 - Convenience Features | Feature                |

Description of the Change: Detailed Object version: 0033.06bf3

Currently, the Feature Group "CONV - Convenience Features", consists of following features:

- X3D Player Support
- MU System Support
- Docu: Project WIKI
- Docu: Concepts' Descriptions
- Docu: Testcase Descriptions
- Docu: Product Database
- Monolithic Layout (.zip)

| Version: | Changed Object:                      | Object Class/Subclass: |
|----------|--------------------------------------|------------------------|
| SRR_0033 | 01_Conv - 05 - Web3D Browser Support | Feature                |

Description of the Change: Detailed Object version: 0033.06bf3

The X3D Player Support is documented in the "Current Interworking Matrix" in the project web.

It depends mainly on the usage of ECMAScript in the <Script> nodes of the SRR Framework, since internal ECMAScript is used and the Web3D Browsers use different implementations of ECMAScript for internal scripting.

| Version: | Changed Object:                  | Object Class/Subclass: |
|----------|----------------------------------|------------------------|
| SRR_0033 | 01_Conv - 06 - MU System Support | Feature                |

Description of the Change: Detailed Object version: 0033.06bf3

The MU System support is documented in the "Current Interworking Matrix" in the project web.

Since the SRR/SMUOS Framework uses the Network Sensor interface per definitionem, only MU Systems that support the Network Sensor Interface, can be used.

| Version: | Changed Object:                  | Object Class/Subclass: |
|----------|----------------------------------|------------------------|
| SRR_0033 | 01_Conv - 15 - Docu: Project WEB | Feature                |

Description of the Change: Detailed Object version: 0033.06bf3

The project WIKI uses general available services of sourceforge.net

| Version: | Changed Object:                            | Object Class/Subclass: |
|----------|--|------------------------|
| SRR_0033 | 01_Conv - 25 - Docu: Concepts' Description | Feature                |

Description of the Change: Detailed Object version: 0033.06bf3

The concept papers describe all concepts that have been implemented yet, and some additional ideas.

## SRR Changes by Reason

Reason ID:

### **INT\_MOD\_CLOSE\_PROJECT**

| Version: | Changed Object:                           | Object Class/Subclass: |
|----------|---|------------------------|
| SRR_0033 | 01_Conv - 30 - Docu: Testcase Description | Feature                |

Description of the Change: Detailed Object version: 0033.06bf3

The testcases are published with the TP release (test package).

| Version: | Changed Object:                       | Object Class/Subclass: |
|----------|---------------------------------------|------------------------|
| SRR_0033 | 01_Conv - 32 - Docu: Product Database | Feature                |

Description of the Change: Detailed Object version: 0033.06bf3

The product data base is realized as Microsoft Access Database. This database is not published, but reports are generated every now and then and published together with the SRR/SMUOS Framework.

| Version: | Changed Object:                         | Object Class/Subclass: |
|----------|---|------------------------|
| SRR_0033 | 01_Conv - 35 - Monolithic Layout (.zip) | Feature                |

Description of the Change: Detailed Object version: 0033.06bf3

The SRR Framework has been tested in a local monolithic layout, i.e. we have everything locally

- one root directory
- several directories (second level) to hold example models, the modules and the frame
- one directory "srr" to hold the SRR Framework
- one directory "tmm" to hold the train manager extension
- one directory "tg" to hold the example track geometry and models
- one directory "concepts" to hold the concept papers

| Version: | Changed Object:                         | Object Class/Subclass: |
|----------|---|------------------------|
| SRR_0033 | 10_SRR - 00 - Features of the SMUOS Fra | Feature                |

Description of the Change: Detailed Object version: 0033.06bf3

Currently, the Feature Group "SRR - Features of the Base Module", consists of following features:

- Enter Moving Model
- Join Avatar
- Binary Switch
- Carousel Drive

## SRR Changes by Reason

Reason ID:

### INT\_MOD\_CLOSE\_PROJECT

| Version: | Changed Object:                  | Object Class/Subclass: |
|----------|----------------------------------|------------------------|
| SRR_0033 | 10_SRR - 05 - Enter Moving Model | Feature                |

Description of the Change: Detailed Object version: 0033.06bf3

An avatar container contains a <Group> node to hold zero or more avatars, so the avatars will be rendered relative to the coordinate system of the avatar container.

Furthermore, it contains a <ProximitySensor> that is used to generate a continuous stream of values reporting position and orientation of the user, relative to the local coordinate system. These values are forwarded to the uiControl interface, where they can be retrieved centrally to be distributed to the pilot avatar and to all follower avatars.

All avatar containers are controlled by the SRR Controller (SrrControl.x3d), who maintains an MFString field "avaConBinding" as a part of the global state "Communication State" (commState). Always, when the user binds an avatar container ("set\_bind" field at the uiObj interface of the SrrAvatarContainer), then the SRR Controller updates the "avaConBinding" and moves the avatar of the user to this avatar container in all scene instances.

If the avatar container is not present in a scene instance, then the avatar will be kept within the SRR Controller, but it will be invisible.

The SRR Controller provides the fields "addAvatar" and "removeAvatar" at the uiControl interface that are used, when a user joins or leaves the multiuser session, respectively.

Currently the avatar container concept is used only together with BS Contact in multiplayer mode.

| Version: | Changed Object:           | Object Class/Subclass: |
|----------|---------------------------|------------------------|
| SRR_0033 | 10_SRR - 10 - Join Avatar | Feature                |

Description of the Change: Detailed Object version: 0033.06bf3

The SRR Framework provides a new function "join user" (BS Contact only!), that

- finds the avatar of a remote user within all avatar containers (by sessionId)
- binds a viewpoint and the avatar container relative to the found avatar
- sets the local position and orientation as given by the frame (relative to the searched avatar)

| Version: | Changed Object:             | Object Class/Subclass: |
|----------|-----------------------------|------------------------|
| SRR_0033 | 10_SRR - 15 - Binary Switch | Feature                |

Description of the Change: Detailed Object version: 0033.06bf3

The "binary switch" is implemented in the X3D prototypes SrrSwitchA.x3d and SrrSwitchANs.x3d.

| Version: | Changed Object:              | Object Class/Subclass: |
|----------|------------------------------|------------------------|
| SRR_0033 | 10_SRR - 20 - Carousel Drive | Feature                |

Description of the Change: Detailed Object version: 0033.06bf3

The "carousel drive" is implemented in the X3D prototype SrrDriveA.x3d.

## SRR Changes by Reason

Reason ID:

### **INT\_MOD\_CLOSE\_PROJECT**

|          |  |                        |
|----------|--|------------------------|
| Version: | Changed Object:                        | Object Class/Subclass: |
| SRR_0033 | 20_BMM - 00 - Beamer Manager Extension | Feature                |

Description of the Change: Detailed Object version: 0033.06bf3

Currently, the Feature Group "BMM - Beamer Manager Extension", consists of following features:

- Define Meeting Point
- Beam to Meeting Point

|          |                                    |                        |
|----------|------------------------------------|------------------------|
| Version: | Changed Object:                    | Object Class/Subclass: |
| SRR_0033 | 20_BMM - 05 - Define Meeting Point | Feature                |

Description of the Change: Detailed Object version: 0033.06bf3

The "beamer destination" is implemented in the X3D prototype SrrBeamerDestination.x3d.

|          |                                     |                        |
|----------|-------------------------------------|------------------------|
| Version: | Changed Object:                     | Object Class/Subclass: |
| SRR_0033 | 20_BMM - 10 - Beam to Meeting Point | Feature                |

Description of the Change: Detailed Object version: 0033.06bf3

The "beamer" is implemented in the X3D prototype SrrBeamer.x3d.

|          |                                     |                        |
|----------|-------------------------------------|------------------------|
| Version: | Changed Object:                     | Object Class/Subclass: |
| SRR_0033 | 30_KMM - 00 - Key Manager Extension | Feature                |

Description of the Change: Detailed Object version: 0033.06bf3

Currently, the Feature Group "KMM - Key Manager Extension", consists of following features:

- Create/Take/Put/Reset Keys
- Carried Keys Lock

|          |   |                        |
|----------|---|------------------------|
| Version: | Changed Object:                         | Object Class/Subclass: |
| SRR_0033 | 30_KMM - 05 - Create/Take/Put/Reset Key | Feature                |

Description of the Change: Detailed Object version: 0033.06bf3

The "Key Container" SRR Object is implemented in the X3D prototypes SrrKeyContainer.x3d and SrrKeyContainerNs.x3d.

|          |                                 |                        |
|----------|---------------------------------|------------------------|
| Version: | Changed Object:                 | Object Class/Subclass: |
| SRR_0033 | 30_KMM - 10 - Carried Keys Lock | Feature                |

Description of the Change: Detailed Object version: 0033.06bf3

The "Carried Keys Lock" SRR Object is implemented in the X3D prototype SrrLockA.x3d.

## SRR Changes by Reason

Reason ID:

### **INT\_MOD\_CLOSE\_PROJECT**

| Version: | Changed Object:                       | Object Class/Subclass: |
|----------|---------------------------------------|------------------------|
| SRR_0033 | 40_TMM - 00 - Train Manager Extension | Feature                |

Description of the Change: Detailed Object version: 0033.06bf3

Currently, the Feature Group "TMM - Train Manager Extension", consists of following features:

- Tracks and Turnouts
- Create Vehicle
- Switch the Points Manually

| Version: | Changed Object:                   | Object Class/Subclass: |
|----------|-----------------------------------|------------------------|
| SRR_0033 | 40_TMM - 03 - Tracks and Turnouts | Feature                |

Description of the Change: Detailed Object version: 0033.06bf3

The support of track and turnout models is implemented in the X3D prototypes:

- SrrSwitchB.x3d, SrrSwitchBNs.x3d
- SrrTrackNode.x3d, SrrTrackEdge.x3d
- SrrBasicTrackSection.x3d, SrrBasicTurnout2Way.x3d

| Version: | Changed Object:              | Object Class/Subclass: |
|----------|------------------------------|------------------------|
| SRR_0033 | 40_TMM - 09 - Create Vehicle | Feature                |

Description of the Change: Detailed Object version: 0033.06bf3

The "setup point" SRR Object has been implemented in the X3D prototype SrrSetupPoint.x3d.

| Version: | Changed Object:                          | Object Class/Subclass: |
|----------|--|------------------------|
| SRR_0033 | 40_TMM - 15 - Switch the Points Manually | Feature                |

Description of the Change: Detailed Object version: 0033.06bf3

The "Standard N-Way Switch" SRR object is implemented in the X3D prototypes SrrSwitchB.x3d and SrrSwitchBNs.x3d.

| Version: | Changed Object:  | Object Class/Subclass: |
|----------|------------------|------------------------|
| SRR_0033 | 00 - Product SRR | Component              |

Description of the Change: Detailed Object version: 0033.06bf3

Currently, the product "Simulated Railroad Framework (SRR)" consists of following components:

- SRR Framework Base Module
- Example Basic SRR Objects
- Beamer Manager Extension
- Key Manager Extension
- Train Manager Extension
- Example Track Geometry and Models
- Demo Layout
- Docu: Project WEB
- Docu: Concepts' Descriptions
- Docu: Testcase Descriptions
- Docu: Project Database

## SRR Changes by Reason

Reason ID:

### **INT\_MOD\_CLOSE\_PROJECT**

| Version: | Changed Object:      | Object Class/Subclass: |
|----------|----------------------|------------------------|
| SRR_0033 | 05 - SMUOS Framework | Component              |

Description of the Change: Detailed Object version: 0033.06bf3

Currently, the SRR Framework Base Module is implemented in following X3D prototypes:

- SrrConsoleBase.x3d, SrrConsoleDispatcher.x3d, SrrConsoleDispatcherNs.x3d
- SrrControl.x3d, SrrControlNs.x3d
- SrrModCoord.x3d
- SrrObjectBase.x3d, SrrObjectBaseNs.x3d, SrrObjectBaseAnim.x3d, SrrObjectBaseAnimNs.x3d, SrrObjectBaseNoState.x3d
- SrrTracer.x3d

| Version: | Changed Object:                  | Object Class/Subclass: |
|----------|----------------------------------|------------------------|
| SRR_0033 | 10 - Example Basic MIDAS Objects | Component              |

Description of the Change: Detailed Object version: 0033.06bf3

Currently, the Example Basic SRR Objects are implemented in following X3D prototypes:

- SrrAvatarContainer.x3d
- SrrDriveA.x3d
- SrrSwitchA.x3d, SrrSwitchANs.x3d

| Version: | Changed Object:               | Object Class/Subclass: |
|----------|-------------------------------|------------------------|
| SRR_0033 | 15 - Beamer Manager Extension | Component              |

Description of the Change: Detailed Object version: 0033.06bf3

Currently, the Beamer Manager Extension is implemented in following X3D prototypes:

- SrrControlBm.x3d
- SrrBeamerDestination.x3d
- SrrBeamer.x3d

| Version: | Changed Object:            | Object Class/Subclass: |
|----------|----------------------------|------------------------|
| SRR_0033 | 20 - Key Manager Extension | Component              |

Description of the Change: Detailed Object version: 0033.06bf3

Currently, the Key Manager Extension is implemented in following X3D prototypes:

- SrrControlKm.x3d, SrrControlKmNs.x3d
- SrrKeyContainer.x3d, SrrKeyContainerNs.x3d
- SrrLockA.x3d

## SRR Changes by Reason

Reason ID:

### **INT\_MOD\_CLOSE\_PROJECT**

| Version: | Changed Object:              | Object Class/Subclass: |
|----------|------------------------------|------------------------|
| SRR_0033 | 25 - Train Manager Extension | Component              |

Description of the Change: Detailed Object version: 0033.06bf3

Currently, the Train Manager Extension is implemented in following X3D prototypes:

SRR Controller

- SrrControlTm.x3d, SrrControlTmNs.x3d

Module Coordinator

- SrrModCoordTm.x3d

Tracks and Turnouts

- SrrSwitchB.x3d, SrrSwitchBNs.x3d
- SrrTrackNode.x3d, SrrTrackEdge.x3d, SrrBasicTrackSection.x3d, SrrBasicTurnout2Way.x3d
- SrrSetupPoint.x3d

I.E., IT IS NOT FINISHED, MANY ITEMS ARE MISSING

| Version: | Changed Object:                        | Object Class/Subclass: |
|----------|--|------------------------|
| SRR_0033 | 30 - Example Track Geometry and Models | Component              |

Description of the Change: Detailed Object version: 0033.06bf3

Currently, the Example Track Geometry is implemented in following X3D prototypes:

- SrrTrackGeometryABI.x3d
- SrrTrackSectionA.x3d, SrrTurnoutLeftA.x3d, SrrTurnoutRightA.x3d
- SrrTrackSectionB.x3d, SrrTurnoutLeftB.x3d, SrrTurnoutRightB.x3d

| Version: | Changed Object:  | Object Class/Subclass: |
|----------|------------------|------------------------|
| SRR_0033 | 40 - Demo Layout | Component              |

Description of the Change: Detailed Object version: 0033.06bf3

Currently, the demo layout consists of a set of files, residing in following directories:

- Avatars\_bscontact
- ExampleFrame
- ExampleHouses
- ExampleSmallProps
- FirstModule
- FourthModule
- FrameMain
- SecondModule
- ThirdModule

| Version: | Changed Object:        | Object Class/Subclass: |
|----------|------------------------|------------------------|
| SRR_0033 | 45 - Docu: Project WEB | Component              |

Description of the Change: Detailed Object version: 0033.06bf3

The project WEB is "always up to date".

## SRR Changes by Reason

Reason ID:

### **INT\_MOD\_CLOSE\_PROJECT**

| Version: | Changed Object:                   | Object Class/Subclass: |
|----------|-----------------------------------|------------------------|
| SRR_0033 | 50 - Docu: Concepts' Descriptions | Component              |

Description of the Change: Detailed Object version: 0033.06bf3

The Concepts' Descriptions are now available in quality "v0.01 official pre-alpha".

| Version: | Changed Object:                  | Object Class/Subclass: |
|----------|----------------------------------|------------------------|
| SRR_0033 | 55 - Docu: Testcase Descriptions | Component              |

Description of the Change: Detailed Object version: 0033.06bf3

The Testcase Descriptions are now available in quality "v0.01 official pre-alpha".

| Version: | Changed Object:             | Object Class/Subclass: |
|----------|-----------------------------|------------------------|
| SRR_0033 | 60 - Docu: Product Database | Component              |

Description of the Change: Detailed Object version: 0033.06bf3

The product database is now available in quality "v0.01 official pre-alpha".

## SRR Changes by Reason

Reason ID:

**EXT\_MOD\_DEMO\_2012**

Reason/Description:

External Request (ALD):

The SRR Framework should be in an adequate quality, to be demonstrated on Mixed3D in March/April 2012.

- Modules and main file should be available in VRML syntax
- "joe-avatar" should be used as default avatar, instead of the ugly box

Target Version:

SRR\_0033

Completely Finished



### Changes of the Objects:

| Version: | Changed Object:  | Object Class/Subclass: |
|----------|------------------|------------------------|
| SRR_0033 | 40 - Demo Layout | Component              |

Description of the Change:

Detailed Object version: 0033.06bf4

The main files for BS Contact have been adapted to solve the default avatar issue.

The modules and the main file main\_bscontact.x3d have been transformed into VRML and exist now in two flavours.

Most of the static models have been transformed to VRML, too, and exist now in two flavours.

## SRR Changes by Reason

Reason ID:

**EXT\_ERR\_VISIBILITY**

Reason/Description:

External Error Report (LPTY1):

BS Contact has got problems with the visibility. This might be caused

- by erroneous preferences
- by an error in the demo layout
- it might be a bug in the BS Contact

Target Version: Completely Finished

SRR\_0033

## Changes of the Objects:

| Version: | Changed Object:  | Object Class/Subclass: |
|----------|------------------|------------------------|
| SRR_0033 | 40 - Demo Layout | Component              |

Description of the Change: Detailed Object version: 0033.06bf6

The texture files were changed from .png to .jpg (thanks to the hint from Alain)

## SRR Changes by Reason

Reason ID:

**EXT\_ERR\_WINDMILL**

Reason/Description:

External Error Report (WEI):

The windmill turns the wrong direction.

Target Version:

SRR\_0033

Completely Finished



### Changes of the Objects:

| Version: | Changed Object:  | Object Class/Subclass: |
|----------|------------------|------------------------|
| SRR_0033 | 40 - Demo Layout | Component              |

Description of the Change:

Detailed Object version: 0033.09bf4

The rotation interpolator in the file Windmill.x3d was changed, so that the windmill is rotating the other direction, now

## SRR Changes by Reason

Reason ID:

### **INT\_MOD\_INTRODUCE\_WEBSPACE**

Reason/Description:

Internal Request:

The SRR Framework has not yet been tested on a web space (not even a monolithic layout has been tested on a web space).

Now, a web space shall be allocated and prepared, where the current and all subsequent versions of the SRR Framework can be tested in a monolithic layout (demo layout).

Target Version: Completely Finished

SRR\_0033



### **Changes of the Objects:**

| Version: | Changed Object:                       | Object Class/Subclass: |
|----------|---------------------------------------|------------------------|
| SRR_0033 | 00_Arch - 00 - Architectural Features | Feature                |

Description of the Change: Detailed Object version: 0033.07

When deploying the demo layout on a test web space, the new architectural feature  
- Basic Initialization  
has been introduced.

| Version: | Changed Object:                     | Object Class/Subclass: |
|----------|-------------------------------------|------------------------|
| SRR_0033 | 00_Arch - 02 - Basic Initialization | Feature                |

Description of the Change: Detailed Object version: 0033.07

A concept for basic initialization has been developed and introduced into the  
SRR Framework and into the demo layout, to initially deploy the demo layout on  
a web space

| Version: | Changed Object:                     | Object Class/Subclass: |
|----------|-------------------------------------|------------------------|
| SRR_0033 | 01_Conv - 00 - Convenience Features | Feature                |

Description of the Change: Detailed Object version: 0033.07

When deploying the demo layout on a test web space, the new convenience feature  
- Monolithic Layout (Web Space)  
has been introduced.

| Version: | Changed Object:                  | Object Class/Subclass: |
|----------|----------------------------------|------------------------|
| SRR_0033 | 01_Conv - 15 - Docu: Project WEB | Feature                |

Description of the Change: Detailed Object version: 0033.07

The project WIKI has been replaced by the project WEB.

## SRR Changes by Reason

Reason ID:

### **INT\_MOD\_INTRODUCE\_WESPACE**

| Version: | Changed Object:                           | Object Class/Subclass: |
|----------|---|------------------------|
| SRR_0033 | 01_Conv - 40 - Monolithic Layout (Webspac | Feature                |

Description of the Change: Detailed Object version: 0033.07

Some changes were done to the SRR Framework and to the demo layout, to initially deploy the demo layout on a web space.

| Version: | Changed Object:  | Object Class/Subclass: |
|----------|------------------|------------------------|
| SRR_0033 | 40 - Demo Layout | Component              |

Description of the Change: Detailed Object version: 0033.07

Several changes were necessary to make the demo layout run from a web space.  
Basically, the difference is Web3D Browsers loading files asynchronously from the web, but synchronously from the disk (and from the cache).

- 1) The default viewpoint and the background node - both hidden in the external prototype "ExampleFrame" - did not work
- 2) Loading and Initialization of external prototypes did not work properly at all.

These errors were corrected by moving the contents from the "ExampleFrame" prototype to the main file and by using the concept of "basic initialization".

Some examples of web pages were added in directory simulrr/FrameWeb/

## SRR Changes by Reason

Reason ID:

**INT\_MOD\_SRRTTOOLS0.04**

Reason/Description:

Internal Request:

The SRR Framework shall be updated, such that it can be used by the SrrTools 0.04.1.

Target Version:

Completely Finished

SRR\_0033



### Changes of the Objects:

| Version: | Changed Object:  | Object Class/Subclass: |
|----------|------------------|------------------------|
| SRR_0033 | 40 - Demo Layout | Component              |

Description of the Change: Detailed Object version: 0033.07bf1

The main files and the LDFs (Layout Description Files) were changes, such that  
- avatar names are now taken from the LDF  
- srrCreateVersion is now stored in LDF and can be read by the SRR Test Frame  
- the main file issues a warning, if no GUI exists for the layout

A new example was added to the directory simulrr/FrameWeb/\*

- simulrr/FrameWeb/GuiTest.\*  
This example shows, how to use the scene interface of BS Contact from a web page (Java Script)

| Version: | Changed Object:                        | Object Class/Subclass: |
|----------|--|------------------------|
| SRR_0033 | 30 - Example Track Geometry and Models | Component              |

Description of the Change: Detailed Object version: 0033.07bf3

The example turnout models can now have the turnout lever on either side of the turnout.

| Version: | Changed Object:  | Object Class/Subclass: |
|----------|------------------|------------------------|
| SRR_0033 | 40 - Demo Layout | Component              |

Description of the Change: Detailed Object version: 0033.07bf3

The help pages in the directory FrameWeb/ have been implemented for convenience.

The module "City" uses the new feature of the example track geometry (lever on either side of the turnout).

The module "City" has now more tracks and turnouts and it has got a texture.

## SRR Changes by Reason

Reason ID:

### **INT\_REBASE\_TO\_SMUOS**

Reason/Description:

Internal Request:

The base module of the SRR Framework shall be replaced by the SMUOS Framework, such that the "equation" SRR Framework = SMUOS Framework + Train Manager Extension shall be valid.

Target Version: Completely Finished

SRR\_0033

### Changes of the Objects:

| Version: | Changed Object:       | Object Class/Subclass: |
|----------|-----------------------|------------------------|
| SRR_0033 | 00_Arch - 05 - Tracer | Feature                |

Description of the Change: Detailed Object version: 0033.08

The Tracer has been renamed SrrTracer.x3d ----> SmsTracer.x3d

| Version: | Changed Object:                 | Object Class/Subclass: |
|----------|---------------------------------|------------------------|
| SRR_0033 | 00_Arch - 10 - MMF Architecture | Feature                |

Description of the Change: Detailed Object version: 0033.08

Some of the basic elements of the architecture have been renamed

\*M\*odels use MIDAS Objects (former SRR Objects)

\*M\*odules use the Module Coordinator (no change)

The \*F\*rame uses the Simple Scene Controller (former SRR Controller)

| Version: | Changed Object:               | Object Class/Subclass: |
|----------|-------------------------------|------------------------|
| SRR_0033 | 00_Arch - 15 - Static Modules | Feature                |

Description of the Change: Detailed Object version: 0033.08

The file SrrModCoord.x3d has been renamed ----> SmsModCoord.x3d

| Version: | Changed Object:                | Object Class/Subclass: |
|----------|--------------------------------|------------------------|
| SRR_0033 | 00_Arch - 20 - Dynamic Modules | Feature                |

Description of the Change: Detailed Object version: 0033.08

The file SrrModCoord.x3d has been renamed ----> SmsModCoord.x3d

## SRR Changes by Reason

Reason ID:

### **INT\_REBASE\_TO\_SMUOS**

| Version: | Changed Object:                          | Object Class/Subclass: |
|----------|--|------------------------|
| SRR_0033 | 00_Arch - 25 - SRR Objects / MIDAS Objec | Feature                |

Description of the Change: Detailed Object version: 0033.08

By replacing the base module of SRR, the SRR Objects have been renamed to MIDAS Objects (Multiuser Interactivity Driven Animation and Simulation Objects).

The term "SRR Object" still exists to describe "MIDAS Objects of the Train Manager Extension".

| Version: | Changed Object:                  | Object Class/Subclass: |
|----------|----------------------------------|------------------------|
| SRR_0033 | 00_Arch - 30 - Console Interface | Feature                |

Description of the Change: Detailed Object version: 0033.08

SRR Objects were renamed to MIDAS Objects

| Version: | Changed Object:                       | Object Class/Subclass: |
|----------|---------------------------------------|------------------------|
| SRR_0033 | 00_Arch - 35 - Bound/Intrinsic Models | Feature                |

Description of the Change: Detailed Object version: 0033.08

SRR Objects were renamed to MIDAS Objects

| Version: | Changed Object:                             | Object Class/Subclass: |
|----------|---|------------------------|
| SRR_0033 | 00_Arch - 40 - Extensibility of the SMUOS F | Feature                |

Description of the Change: Detailed Object version: 0033.08

The "Modularity of the SRR Framework" has been renamed into "Modularity of the SMUOS Framework".

| Version: | Changed Object:                  | Object Class/Subclass: |
|----------|----------------------------------|------------------------|
| SRR_0033 | 01_Conv - 15 - Docu: Project WEB | Feature                |

Description of the Change: Detailed Object version: 0033.08

The new project SMUOS has got a project WEB, too

| Version: | Changed Object:                         | Object Class/Subclass: |
|----------|---|------------------------|
| SRR_0033 | 01_Conv - 35 - Monolithic Layout (.zip) | Feature                |

Description of the Change: Detailed Object version: 0033.08

The directory srr was renamed to sms and it is now holding the SMUOS Framework

| Version: | Changed Object:                           | Object Class/Subclass: |
|----------|---|------------------------|
| SRR_0033 | 01_Conv - 40 - Monolithic Layout (Webspac | Feature                |

Description of the Change: Detailed Object version: 0033.08

The directory srr was renamed to sms and it is now holding the SMUOS Framework

## SRR Changes by Reason

Reason ID:

### **INT\_REBASE\_TO\_SMUOS**

|          |   |                        |
|----------|---|------------------------|
| Version: | Changed Object:                         | Object Class/Subclass: |
| SRR_0033 | 10_SRR - 00 - Features of the SMUOS Fra | Feature                |

Description of the Change: Detailed Object version: 0033.08

The "base module of the SRR Framework" has been replaced by the SMUOS Framework and the "Example Basic SRR Objects" were replaced by "Example Basic MIDAS Objects"

|          |                                  |                        |
|----------|----------------------------------|------------------------|
| Version: | Changed Object:                  | Object Class/Subclass: |
| SRR_0033 | 10_SRR - 05 - Enter Moving Model | Feature                |

Description of the Change: Detailed Object version: 0033.08

The SRR Controller has been replaced by the Simple Scene Controller and the SRR Objects were renamed to MIDAS Objects.

|          |                           |                        |
|----------|---------------------------|------------------------|
| Version: | Changed Object:           | Object Class/Subclass: |
| SRR_0033 | 10_SRR - 10 - Join Avatar | Feature                |

Description of the Change: Detailed Object version: 0033.08

The SRR Controller has been replaced by the Simple Scene Controller and SRR Objects were renamed to MIDAS Objects.

|          |                             |                        |
|----------|-----------------------------|------------------------|
| Version: | Changed Object:             | Object Class/Subclass: |
| SRR_0033 | 10_SRR - 15 - Binary Switch | Feature                |

Description of the Change: Detailed Object version: 0033.08

The directory srr/ was replaced by sms/ and SRR Objects were renamed to MIDAS Objects.

|          |                              |                        |
|----------|------------------------------|------------------------|
| Version: | Changed Object:              | Object Class/Subclass: |
| SRR_0033 | 10_SRR - 20 - Carousel Drive | Feature                |

Description of the Change: Detailed Object version: 0033.08

Directory srr/ has been renamed to sms/ and SRR Objects were replaced by MIDAS Objects.

|          |                                    |                        |
|----------|------------------------------------|------------------------|
| Version: | Changed Object:                    | Object Class/Subclass: |
| SRR_0033 | 20_BMM - 05 - Define Meeting Point | Feature                |

Description of the Change: Detailed Object version: 0033.08

Directory srr/ was replaced by sms/ and SRR Objects were renamed to MIDAS Objects.

|          |                                     |                        |
|----------|-------------------------------------|------------------------|
| Version: | Changed Object:                     | Object Class/Subclass: |
| SRR_0033 | 20_BMM - 10 - Beam to Meeting Point | Feature                |

Description of the Change: Detailed Object version: 0033.08

srr/ was replaced by sms/ and SRR Objects are now called MIDAS Objects

## SRR Changes by Reason

Reason ID:

### **INT\_REBASE\_TO\_SMUOS**

| Version: | Changed Object:                         | Object Class/Subclass: |
|----------|---|------------------------|
| SRR_0033 | 30_KMM - 05 - Create/Take/Put/Reset Key | Feature                |

Description of the Change: Detailed Object version: 0033.08

The directory srr/ was replaced by sms/ and SRR Objects were replaced by MIDAS Objects.

| Version: | Changed Object:                 | Object Class/Subclass: |
|----------|---------------------------------|------------------------|
| SRR_0033 | 30_KMM - 10 - Carried Keys Lock | Feature                |

Description of the Change: Detailed Object version: 0033.08

SRR Objects were renamed to MIDAS Objects and moved from srr/ to sms/.

| Version: | Changed Object:                   | Object Class/Subclass: |
|----------|-----------------------------------|------------------------|
| SRR_0033 | 40_TMM - 03 - Tracks and Turnouts | Feature                |

Description of the Change: Detailed Object version: 0033.08

The SRR Objects were renamed to MIDAS Objects. SRR Objects are now MIDAS Objects of the Train Manager Extension. srr/ was renamed to sms/.

| Version: | Changed Object:                          | Object Class/Subclass: |
|----------|--|------------------------|
| SRR_0033 | 40_TMM - 15 - Switch the Points Manually | Feature                |

Description of the Change: Detailed Object version: 0033.08

The SRR Objects have been replaced by MIDAS Objects and srr/ has been renamed to sms/.

| Version: | Changed Object:  | Object Class/Subclass: |
|----------|------------------|------------------------|
| SRR_0033 | 00 - Product SRR | Component              |

Description of the Change: Detailed Object version: 0033.08

Following parts of the SRR Framework were replaced by deliverables from the SMUOS project (smuos.sourceforge.net):

- SRR Framework Base Module ----> SMUOS Framework
- Example Basic SRR Objects ----> Example Basic MIDAS Objects
- Beamer Manager Extension -----> Beamer Manager Extension
- Key Manager Extension -----> Key Manager Extension
- Train Manager Extension (remains at simulrr.sourceforge.net)
- Example Track Geometry and Models (remains at simulrr.sourceforge.net)
- Demo Layout (remains at simulrr.sourceforge.net)
- Docu: Project WEB (remains at simulrr.sourceforge.net)
- Docu: Concepts' Descriptions (remains at simulrr.sourceforge.net)
- Docu: Testcase Descriptions (remains at simulrr.sourceforge.net)
- Docu: Project Database (remains at simulrr.sourceforge.net)

## SRR Changes by Reason

Reason ID:

### **INT\_REBASE\_TO\_SMUOS**

| Version: | Changed Object:      | Object Class/Subclass: |
|----------|----------------------|------------------------|
| SRR_0033 | 05 - SMUOS Framework | Component              |

Description of the Change: Detailed Object version: 0033.08

Following parts of the SRR Framework Base Module were replaced by the SMUOS Framework:

- SrrConsoleBase.x3d ----> MibConsoleBase.x3d
- SrrConsoleDispatcher.x3d ----> SscConsoleDispatcher.x3d
- SrrConsoleDispatcherNs.x3d ----> SscConsoleDispatcherNs.x3d
- SrrControl.x3d ----> SscBase.x3d
- SrrControlNs.x3d ----> SscBaseNs.x3d
- SrrModCoord.x3d ----> SmsModCoord.x3d
- SrrObjectBase.x3d ----> MibStandard.x3d
- SrrObjectBaseNs.x3d ----> MibStandardNs.x3d
- SrrObjectBaseAnim.x3d ----> MibAnim.x3d
- SrrObjectBaseAnimNs.x3d ----> MibAnimNs.x3d
- SrrObjectBaseNoState.x3d ----> MibNoState.x3d
- SrrTracer.x3d ----> SmsTracer.x3d

| Version: | Changed Object:                  | Object Class/Subclass: |
|----------|----------------------------------|------------------------|
| SRR_0033 | 10 - Example Basic MIDAS Objects | Component              |

Description of the Change: Detailed Object version: 0033.08

The Example Basic SRR Objects were replaced by the Example Basic MIDAS Objects:

- SrrAvatarContainer.x3d ----> MoosAvatarContainer.x3d
- SrrDriveA.x3d ----> MoosDriveA.x3d
- SrrSwitchA.x3d, SrrSwitchANs.x3d ----> MoosSwitchA.x3d, MoosSwitchANs.x3d

| Version: | Changed Object:               | Object Class/Subclass: |
|----------|-------------------------------|------------------------|
| SRR_0033 | 15 - Beamer Manager Extension | Component              |

Description of the Change: Detailed Object version: 0033.08

The prototypes of the Beamer Manager Extension were replaced as follows:

- SrrControlBm.x3d ----> SscBeamerManager.x3d
- SrrBeamerDestination.x3d ----> MoosBeamerDestination.x3d
- SrrBeamer.x3d ----> MoosBeamer.x3d

| Version: | Changed Object:            | Object Class/Subclass: |
|----------|----------------------------|------------------------|
| SRR_0033 | 20 - Key Manager Extension | Component              |

Description of the Change: Detailed Object version: 0033.08

The Key Manager Extension was replaced as follows:

- SrrControlKm.x3d, SrrControlKmNs.x3d ----> SscKeyManager.x3d, SscKeyManagerNs.x3d
- SrrKeyContainer.x3d, SrrKeyContainerNs.x3d ----> MoosKeyContainer.x3d, MoosKeyContainerNs.x3d
- SrrLockA.x3d ----> MoosLockA.x3d

## SRR Changes by Reason

Reason ID:

### **INT\_REBASE\_TO\_SMUOS**

| Version: | Changed Object:              | Object Class/Subclass: |
|----------|------------------------------|------------------------|
| SRR_0033 | 25 - Train Manager Extension | Component              |

Description of the Change: Detailed Object version: 0033.08

Following prototype was renamed:

- SrrSwitchB.x3d, SrrSwitchBNs.x3d ----> MoosSwitchB.x3d, MoosSwitchBNs.x3d

| Version: | Changed Object:  | Object Class/Subclass: |
|----------|------------------|------------------------|
| SRR_0033 | 40 - Demo Layout | Component              |

Description of the Change: Detailed Object version: 0033.08

The demo layout has been updated to use the SMUOS Framework, instead of the former base module of the SRR Framework

| Version: | Changed Object:        | Object Class/Subclass: |
|----------|------------------------|------------------------|
| SRR_0033 | 45 - Docu: Project WEB | Component              |

Description of the Change: Detailed Object version: 0033.08

The project WEB got a second address at the SMUOS project

## SRR Changes by Reason

Reason ID:

### **INT\_MOD\_ARRT\_WEB\_UPDATE**

Reason/Description:

Internal Request:

As "Schritt Eins" of the Hibernation, we update the web presence. This comprises a complete re-design of the web presence. Parents do point to their children, but children don't point to their parents: SrrTrains ---> SRR Framework ---> SMUOS Framework

Target Version: Completely Finished

SRR\_0033

## Changes of the Objects:

| Version: | Changed Object:                  | Object Class/Subclass: |
|----------|----------------------------------|------------------------|
| SRR_0033 | 01_Conv - 15 - Docu: Project WEB | Feature                |

Description of the Change: Detailed Object version: 0033.10

The web presence (project web on sourceforge) has been updated to represent the new concept (parents point to their children, children don't point to their parents). This means e.g., that the online Concepts' Descriptions have been moved from the "Home of SrrTrains" to the project web.

| Version: | Changed Object:        | Object Class/Subclass: |
|----------|------------------------|------------------------|
| SRR_0033 | 45 - Docu: Project WEB | Component              |

Description of the Change: Detailed Object version: 0033.10

The web presence (project web on sourceforge) has been updated to represent the new concept (parents point to their children, children don't point to their parents). This means e.g., that the online Concepts' Descriptions have been moved from the "Home of SrrTrains" to the project web.

## SRR Changes by Reason

Reason ID:

### **INT\_ERR\_DELETING\_DYNAMIC\_ROUTES**

Reason/Description:

Internal Error Report:

Dynamic routes should be deleted by JavaScript, when a model/module is disabled.

Target Version:

Completely Finished

SRR\_0033



## Changes of the Objects:

| Version: | Changed Object:      | Object Class/Subclass: |
|----------|----------------------|------------------------|
| SRR_0033 | 05 - SMUOS Framework | Component              |

Description of the Change: Detailed Object version: 0033.10

With the "rebase to core prototypes", the MIDAS Objects, the parts of the SSC and the parts of the MC go through defined procedures (initialization, deinitialization, ...), where the deinitialization can be used to delete dynamic routes.

## SRR Changes by Reason

Reason ID:

### **INT\_MOD\_INTRODUCE\_ASYNC\_CONTROLLERS**

Reason/Description:

Internal Request:

Currently, the central controllers of extension modules are handled synchronously.  
A concept should be elaborated and all existing central controllers should be made asynchronous controllers.

UPDATE CONCEPTS' DESCRIPTIONS (async. Controllers + basic initialization)

Target Version: Completely Finished

SRR\_0033

## Changes of the Objects:

## SRR Changes by Reason

Reason ID:

### **INT\_MOD\_INTRODUCE\_MODEL\_PROTOTYPES**

Reason/Description:

Internal Request:

Some common properties and behaviours of a) static models, b) dynamic models, should be implemented in two common X3D prototypes, to ease modeling of models.

As a parallel activity, the "globalModule" parameter in the uiObj interface should be reviewed.

Is this parameter really necessary? At least, the parameter should be replaced by some means to transmit the index of the SCE (the index within the "extensions" field in the commParam).

UPDATE CONCEPTS' DESCRIPTIONS

Target Version: Completely Finished

SRR\_0033

### Changes of the Objects:

| Version: | Changed Object:                       | Object Class/Subclass: |
|----------|---------------------------------------|------------------------|
| SRR_0033 | 00_Arch - 35 - Bound/Intrinsic Models | Feature                |

Description of the Change: Detailed Object version: 0033.08

A new prototype MbStatic.x3d has been implemented to ease the modelling of static/intrinsic models.

| Version: | Changed Object:  | Object Class/Subclass: |
|----------|------------------|------------------------|
| SRR_0033 | 40 - Demo Layout | Component              |

Description of the Change: Detailed Object version: 0033.08

Some static models of the demo layout have been updated to use the new MbStatic.x3d prototype.

## SRR Changes by Reason

Reason ID:

### **INT\_MOD\_REBASE\_MIB\_CORE\_PROTO**

Reason/Description:

Internal Request:

The MIB should be rebased to a MibCore prototype that is responsible for initialization and attachment.  
First step should be a prototypic implementation for MoosKeyContainer alone.

Steps:

- provisional update of networksensor wrappers
  - MibAnimNs.x3d
  - MibStandardNs.x3d
  - MoosSwitchANs.x3d
  - MoosSwitchBNs.x3d
  - MoosCreatorNs.x3d
  - MoosLockBNs.x3d
  - MoosKeyContainerNs.x3d
  - MoosTriggerNs.x3d
- provisional update of MibStandard
  - create MibStandard\_new.x3d
  - update one MIDAS Object
  - MoosKeyContainer.x3d provisional update

Target Version: Completely Finished  
SRR\_0033

## Changes of the Objects:

| Version: | Changed Object:      | Object Class/Subclass: |
|----------|----------------------|------------------------|
| SRR_0033 | 05 - SMUOS Framework | Component              |

Description of the Change: Detailed Object version: 0033.09bf3

The following files have been branched out to a "\_new" version, to exemplify the "rebase to MIB Core":

- Network Sensors:
  - MibAnimNs.x3d
  - MibStandardNs.x3d
- MIB Standard
  - MibStandard.x3d

| Version: | Changed Object:                  | Object Class/Subclass: |
|----------|----------------------------------|------------------------|
| SRR_0033 | 10 - Example Basic MIDAS Objects | Component              |

Description of the Change: Detailed Object version: 0033.09bf3

The following files have been branched out to a "\_new" version, to exemplify the "rebase to MIB Core":

- Network Sensors:
  - MoosSwitchANs.x3d
  - MoosSwitchBNs.x3d
  - MoosCreatorNs.x3d
  - MoosTriggerNs.x3d

## SRR Changes by Reason

Reason ID:

### **INT\_MOD\_REBASE\_MIB\_CORE\_PROTO**

| Version: | Changed Object:            | Object Class/Subclass: |
|----------|----------------------------|------------------------|
| SRR_0033 | 20 - Key Manager Extension | Component              |

Description of the Change: Detailed Object version: 0033.09bf3

The following files have been branched out to a "\_new" version, to exemplify the "rebase to MIB Core":

- Network Sensors:

- MoosLockBNs.x3d
- MoosKeyContainerNs.x3d

Exemplified MIDAS Object

- MoosKeyContainer.x3d

| Version: | Changed Object:  | Object Class/Subclass: |
|----------|------------------|------------------------|
| SRR_0033 | 40 - Demo Layout | Component              |

Description of the Change: Detailed Object version: 0033.09bf3

The demo layout has been modified to use the new version of the MoosKeyContainer, which exemplifies the "rebase to MIB Core"

## SRR Changes by Reason

Reason ID:

### **INT\_MOD\_REBASE\_MIB\_CORE**

Reason/Description:

Internal Request:

The prototypic rebase to MibCore (see INT\_MOD\_REBASE\_MIB\_CORE\_PROTO) should be made final for

- MibStandard, for
- MibNoState, for
- MibAnim and for
- MbBoundModel

Target Version: Completely Finished

SRR\_0033

### Changes of the Objects:

| Version: | Changed Object:                 | Object Class/Subclass: |
|----------|---------------------------------|------------------------|
| SRR_0033 | 00_Arch - 10 - MMF Architecture | Feature                |

Description of the Change: Detailed Object version: 0033.10

Due to the "rebase to the core prototypes" (SscCore, McCore, MibCore), some renaming took place, which influences the documentation of the MMF Architecture.

| Version: | Changed Object:                  | Object Class/Subclass: |
|----------|----------------------------------|------------------------|
| SRR_0033 | 00_Arch - 30 - Console Interface | Feature                |

Description of the Change: Detailed Object version: 0033.10

During the Rebase to MIB Core, the "Console Base" was renamed to "SSC Dispatcher Stub".

| Version: | Changed Object:                       | Object Class/Subclass: |
|----------|---------------------------------------|------------------------|
| SRR_0033 | 00_Arch - 35 - Bound/Intrinsic Models | Feature                |

Description of the Change: Detailed Object version: 0033.10

A renaming took place:

- static objects -----> bound objects
- dynamic objects -----> unbound objects
- global objects -----> astral objects

| Version: | Changed Object:              | Object Class/Subclass: |
|----------|------------------------------|------------------------|
| SRR_0033 | 40_TMM - 09 - Create Vehicle | Feature                |

Description of the Change: Detailed Object version: 0033.10

The "Setup Point" was renamed as "Replicator".

## SRR Changes by Reason

Reason ID:

### **INT\_MOD\_REBASE\_MIB\_CORE**

| Version: | Changed Object:      | Object Class/Subclass: |
|----------|----------------------|------------------------|
| SRR_0033 | 05 - SMUOS Framework | Component              |

Description of the Change: Detailed Object version: 0033.10

With the "rebase to core prototypes", a new prototype MibCore has been implemented and  
- the "MIDAS Base for standard MIDAS Objects" (MIB for standard MOBs),  
- the "MIDAS Base for animated MIDAS Objects" (MIB for animated MOBs) and  
- the "MIDAS Base for no-state MIDAS Objects" (MIB for no-state MOBs)

have been rebased to MIB Core.

The "Model Prototype for Bound Models" has been rebased to MIB Core, too

| Version: | Changed Object:                  | Object Class/Subclass: |
|----------|----------------------------------|------------------------|
| SRR_0033 | 10 - Example Basic MIDAS Objects | Component              |

Description of the Change: Detailed Object version: 0033.10

With the "rebase to core prototypes", all example basic MIDAS Objects were adapted to reflect the  
"Rebase to MIB Core"

| Version: | Changed Object:               | Object Class/Subclass: |
|----------|-------------------------------|------------------------|
| SRR_0033 | 15 - Beamer Manager Extension | Component              |

Description of the Change: Detailed Object version: 0033.10

With the "rebase to core prototypes", the extension MIDAS Objects of the Beamer Manager Extension  
were updated to reflect the "Rebase to MIB Core".

| Version: | Changed Object:            | Object Class/Subclass: |
|----------|----------------------------|------------------------|
| SRR_0033 | 20 - Key Manager Extension | Component              |

Description of the Change: Detailed Object version: 0033.10

With the "rebase to core prototypes", the Extension MIDAS Objects of the Key Manager Extension were  
updated to reflect the "Rebase to MIB Core".

| Version: | Changed Object:              | Object Class/Subclass: |
|----------|------------------------------|------------------------|
| SRR_0033 | 25 - Train Manager Extension | Component              |

Description of the Change: Detailed Object version: 0033.10

With the "rebase to core prototypes", the SRR Objects of the Train Manager Extension were updated to  
reflect the "Rebase to MIB Core".  
Additionally, the SetupPoint was renamed to Replicator.

| Version: | Changed Object:                        | Object Class/Subclass: |
|----------|--|------------------------|
| SRR_0033 | 30 - Example Track Geometry and Models | Component              |

Description of the Change: Detailed Object version: 0033.10

With the "rebase to core prototypes", the example track geometry and models were updated to reflect the  
"Rebase to MIB Core".

## SRR Changes by Reason

Reason ID:

### **INT\_MOD\_REBASE\_MIB\_CORE**

| Version:   | Changed Object:                  | Object Class/Subclass: |
|--|----------------------------------|------------------------|
| SRR_0033   | 40 - Demo Layout                 | Component              |
| Description of the Change:   | Detailed Object version: 0033.10 |                        |
| With the "rebase to core prototypes", the demo layout was completely updated to support the "rebase to core prototypes". |                                  |                        |

## SRR Changes by Reason

Reason ID:

### **INT\_MOD\_REBASE\_SSC**

Reason/Description:

Internal Request:

The SSC should be rebased to a new prototype SscCore that cares for initialization and activation

Target Version:

Completely Finished

SRR\_0033



### Changes of the Objects:

| Version: | Changed Object:                             | Object Class/Subclass: |
|----------|---|------------------------|
| SRR_0033 | 00_Arch - 40 - Extensibility of the SMUOS F | Feature                |

Description of the Change: Detailed Object version: 0033.10

The "Modularity of the SMUOS Framework" has been renamed into "Extensibility of the SMUOS Framework".

| Version: | Changed Object:      | Object Class/Subclass: |
|----------|----------------------|------------------------|
| SRR_0033 | 05 - SMUOS Framework | Component              |

Description of the Change: Detailed Object version: 0033.10

With the "rebase to core prototypes", a new prototype SscCore.x3d has been implemented, to support all SSC Extensions and the SSC Base.

| Version: | Changed Object:               | Object Class/Subclass: |
|----------|-------------------------------|------------------------|
| SRR_0033 | 15 - Beamer Manager Extension | Component              |

Description of the Change: Detailed Object version: 0033.10

With the "rebase to core prototypes", the SscBeamerManager.x3d was modified to use the services of the core prototype SscCore.x3d.

| Version: | Changed Object:            | Object Class/Subclass: |
|----------|----------------------------|------------------------|
| SRR_0033 | 20 - Key Manager Extension | Component              |

Description of the Change: Detailed Object version: 0033.10

With the "rebase to core prototypes", the SscKeyManager was changed to use the services of the "core prototype" SscCore.x3d

| Version: | Changed Object:              | Object Class/Subclass: |
|----------|------------------------------|------------------------|
| SRR_0033 | 25 - Train Manager Extension | Component              |

Description of the Change: Detailed Object version: 0033.10

With the "rebase to core prototypes", the SrrControllerTm was modified to use the services of the "core prototype" SscCore.x3d

## SRR Changes by Reason

Reason ID:

**INT\_MOD\_REBASE\_MC**

Reason/Description:

Internal Request:

The MC should be rebased to a new prototype McCore that cares for initialization and attachment

Target Version: Completely Finished  
SRR\_0033

### Changes of the Objects:

|          |                               |                        |
|----------|-------------------------------|------------------------|
| Version: | Changed Object:               | Object Class/Subclass: |
| SRR_0033 | 00_Arch - 15 - Static Modules | Feature                |

Description of the Change: Detailed Object version: 0033.10

The file SmsModCoord.x3d has been renamed ----> McBase.x3d

|          |                                |                        |
|----------|--------------------------------|------------------------|
| Version: | Changed Object:                | Object Class/Subclass: |
| SRR_0033 | 00_Arch - 20 - Dynamic Modules | Feature                |

Description of the Change: Detailed Object version: 0033.10

The file SmsModCoord.x3d has been renamed ----> McBase.x3d

|          |                      |                        |
|----------|----------------------|------------------------|
| Version: | Changed Object:      | Object Class/Subclass: |
| SRR_0033 | 05 - SMUOS Framework | Component              |

Description of the Change: Detailed Object version: 0033.10

With the "rebase to core prototypes", a new prototype McCore.x3d has been implemented, to support all MC Extensions and the MC Base.

|          |                              |                        |
|----------|------------------------------|------------------------|
| Version: | Changed Object:              | Object Class/Subclass: |
| SRR_0033 | 25 - Train Manager Extension | Component              |

Description of the Change: Detailed Object version: 0033.10

With the "rebase to core prototypes", the SrrModCoordTm was modified to use the services of the "core prototype" McCore.x3d

## SRR Changes by Reason

Reason ID:

### **EXT\_ERR\_INTRODUCE\_EXPERIMENTAL\_VEHICLES**

Reason/Description:

External Error Report (ALD):

Some actions shall be taken, to provide two "experimental" vehicles (one for narrow gauge, one for standard gauge).

- a) move attachment point of setup points from MCE to SCE
- b) rename "registered" setup points to "attached" setup points
- c) introduce FBI and "initial velocity" to setup point
- d) implement SRR Objects and models for two experimental vehicles

UPDATE CONCEPTS' DESCRIPTIONS (WITHOUT VEHICLES)

Target Version: Completely Finished  
SRR\_0033

### Changes of the Objects:

| Version: | Changed Object:                         | Object Class/Subclass: |
|----------|---|------------------------|
| SRR_0033 | 10_SRR - 00 - Features of the SMUOS Fra | Feature                |

Description of the Change: Detailed Object version: 0033.08bf3

The Feature "Trigger" has been added to the features of the SMUOS Framework:

Currently, the Feature Group "SRR - Features of the SMUOS Framework", consists of following features:

- SSC Parameter
- Enter Moving Model
- Join Avatar
- Binary Switch
- Carousel Drive
- Trigger

| Version: | Changed Object:       | Object Class/Subclass: |
|----------|-----------------------|------------------------|
| SRR_0033 | 10_SRR - 25 - Trigger | Feature                |

Description of the Change: Detailed Object version: 0033.08bf3

The MIDAS Object "Trigger" has been implemented.

It is implemented in the prototypes MoosTrigger and MoosTriggerNs.

| Version: | Changed Object:                  | Object Class/Subclass: |
|----------|----------------------------------|------------------------|
| SRR_0033 | 10 - Example Basic MIDAS Objects | Component              |

Description of the Change: Detailed Object version: 0033.08bf3

The MIDAS Object "Trigger" has been implemented:

Currently, the Example Basic MIDAS Objects are implemented in following X3D prototypes:

- MoosAvatarContainer.x3d
- MoosDriveA.x3d
- MoosSwitchA.x3d, MoosSwitchANs.x3d
- MoosTrigger.x3d, MoosTriggerNs.x3d

## SRR Changes by Reason

Reason ID:

### **EXT\_ERR\_INTRODUCE\_EXPERIMENTAL\_VEHICLES**

|  |                                     |                        |
|--|-------------------------------------|------------------------|
| Version:   | Changed Object:                     | Object Class/Subclass: |
| SRR_0033   | 40 - Demo Layout                    | Component              |
| Description of the Change:   | Detailed Object version: 0033.08bf3 |                        |
| To demonstrate the "Trigger" MIDAS Object, following intrinsic/static models were added:<br>- test balloon at the fun fair (module "Hill")<br>- door bell at the restaurant (module "Dunes")<br>- pig at the restaurant (module "Dunes") |                                     |                        |

## SRR Changes by Reason

Reason ID:

### **EXT\_ERR\_INTRODUCE\_BASIC\_VEHICLES**

Reason/Description:

External Error Report (ALD):

Some steps shall be taken to provide two basic vehicles ("Rocket" and "Rail-Car")

- a) implement SRR Object Trigger for locomotive
- b) Implement SRR Objects and Models of vehicles
- c) implement second interface to "push" vehicle -> one click -> force(t)
- d) module activity with vehicles

UPDATE CONCEPTS' DESCRIPTIONS (WITH VEHICLES)

Target Version:

SRR\_0033

Completely Finished



## Changes of the Objects:

## SRR Changes by Reason

Reason ID:

### INT\_MOD\_SOME\_IMPROVEMENTS\_I

Reason/Description:

Internal Request:

Following Improvements shall be done

- A) Console: change (take/put) carried keys via console AND set RTT and randomFactor via console
- B) Console: is it possible to define generic "commands" that can be provided by SRR Objects?
- C) "isBound" Field in KeyContainer
- D) Version-check SrrControl vs. ModCoord vs. SrrObjectBase
- E) Check commParam vs. ModParam (user should not confuse them)
- F) Several other improvements

Target Version:

Completely Finished

SRR\_0033



## Changes of the Objects:

| Version: | Changed Object:                          | Object Class/Subclass: |
|----------|--|------------------------|
| SRR_0033 | 00_Arch - 25 - SRR Objects / MIDAS Objec | Feature                |

Description of the Change: Detailed Object version: 0033.08bf2

(F) Improvement of MIDAS Base:

MIDAS Base provides field "initialState" to set initial state explicitly

| Version: | Changed Object:                  | Object Class/Subclass: |
|----------|----------------------------------|------------------------|
| SRR_0033 | 00_Arch - 30 - Console Interface | Feature                |

Description of the Change: Detailed Object version: 0033.08bf2

(F) Improvements of the Console Interface:

the console interface provides the "sessionId" of the requestor -> MIDAS Objects can access this value

| Version: | Changed Object:      | Object Class/Subclass: |
|----------|----------------------|------------------------|
| SRR_0033 | 05 - SMUOS Framework | Component              |

Description of the Change: Detailed Object version: 0033.08bf2

(F) The Console Dispatcher has been renamed to "SSC Dispatcher"

- SscConsoleDispatcher.x3d ----> SscDispatcher.x3d

- SscConsoleDispatcherNs.x3d ----> SscDispatcherNs.x3d

| Version: | Changed Object:                  | Object Class/Subclass: |
|----------|----------------------------------|------------------------|
| SRR_0033 | 00_Arch - 30 - Console Interface | Feature                |

Description of the Change: Detailed Object version: 0033.08bf3

(A+B)Improvements of the Console Interface:

A) The MibConsoleBase can be used for SSC parameters now (local or global SSC parameters)

B) "Generic parameters" will not be supported, the "set" command is sufficient

## SRR Changes by Reason

Reason ID:

### INT\_MOD\_SOME\_IMPROVEMENTS\_I

| Version: | Changed Object:                         | Object Class/Subclass: |
|----------|---|------------------------|
| SRR_0033 | 10_SRR - 00 - Features of the SMUOS Fra | Feature                |

Description of the Change: Detailed Object version: 0033.08bf3

(A) The Feature "SSC Parameter" has been added to the features of the SMUOS Framework:  
Currently, the Feature Group "SRR - Features of the SMUOS Framework", consists of following features:  
- SSC Parameter  
- Enter Moving Model  
- Join Avatar  
- Binary Switch  
- Carousel Drive  
- Trigger

| Version: | Changed Object:                         | Object Class/Subclass: |
|----------|---|------------------------|
| SRR_0033 | 10_SRR - 03 - SSC Parameters of the UOC | Feature                |

Description of the Change: Detailed Object version: 0033.08bf3

(A) SSC Parameters of the UOC "Base" were implemented.  
Both parameters, "maxRTT" and "randomFactor", are implemented as "global" SSC parameters, i.e they are set in a global way and the value is distributed to all scene instances.

| Version: | Changed Object:                     | Object Class/Subclass: |
|----------|-------------------------------------|------------------------|
| SRR_0033 | 30_KMM - 00 - Key Manager Extension | Feature                |

Description of the Change: Detailed Object version: 0033.08bf3

(A) The Feature "SSC Parameter" has been added to the feature group "KMM - Key Manager Extension":  
Currently, the Feature Group "KMM - Key Manager Extension", consists of following features:  
- SSC Parameter  
- Create/Take/Put/Reset Keys  
- Carried Keys Lock  
- Contained Key Lock

| Version: | Changed Object:                        | Object Class/Subclass: |
|----------|--|------------------------|
| SRR_0033 | 30_KMM - 03 - SSC Parameters of the UO | Feature                |

Description of the Change: Detailed Object version: 0033.08bf3

(A) SSC Parameters of the UOC "Keys" were implemented.  
All parameters, "carriedKeys", "putKey", "boundKeyContainer" and "resetKeys" are implemented and executed as "local" SSC parameters, i.e they are set in a local way, however two of them ("putKey" and "resetKeys") can have global effects.

## SRR Changes by Reason

Reason ID:

### **INT\_MOD\_INTRODUCE\_MODELS\_OF\_HOUSES**

Reason/Description:

Internal Request:

Following changes shall be done:

- A) implement SRR Object "Contained Key Lock"
- B) model static models of houses, one is lockable and has got inner modelling

UPDATE CONCEPTS' DESCRIPTIONS

Target Version: Completely Finished

SRR\_0033

### Changes of the Objects:

| Version: | Changed Object:                     | Object Class/Subclass: |
|----------|-------------------------------------|------------------------|
| SRR_0033 | 30_KMM - 00 - Key Manager Extension | Feature                |

Description of the Change: Detailed Object version: 0033.08

(A) When introducing the model of the station house, a new feature of the feature group "KMM - Key Manager Extension" was defined  
- Contained Key Lock

| Version: | Changed Object:                  | Object Class/Subclass: |
|----------|----------------------------------|------------------------|
| SRR_0033 | 30_KMM - 15 - Contained Key Lock | Feature                |

Description of the Change: Detailed Object version: 0033.08

(A) The MIDAS Object "Contained Key Lock" was created. It is a mixture of a key container (specialized for one single key) and of a lock.

| Version: | Changed Object:            | Object Class/Subclass: |
|----------|----------------------------|------------------------|
| SRR_0033 | 20 - Key Manager Extension | Component              |

Description of the Change: Detailed Object version: 0033.08

(A) A new MIDAS Object was created in the Key Manager Extension:  
- MoosLockB.x3d, MoosLockBNs.x3d

| Version: | Changed Object:  | Object Class/Subclass: |
|----------|------------------|------------------------|
| SRR_0033 | 40 - Demo Layout | Component              |

Description of the Change: Detailed Object version: 0033.08

(B) The station house is used again on module "City" and it is now instrumented with MIDAS Objects.

## SRR Changes by Reason

Reason ID:

**EXT\_MOD\_BANKSNCUTS**

Reason/Description:

External Request (SET):

It should be easily possible by an authoring tool to make banks and cuts in hills and mountain sides, when the geometry of the track layout is defined mathematically.

Target Version:

SRR\_9999

Completely Finished



## Changes of the Objects:

## SRR Changes by Reason

Reason ID:

**EXT\_MOD\_BODYLANGUAGE**

Reason/Description:

External Request (BXR):

To be perfect, he would need a "body language" function, that takes key words from the messages and generates gestures from that.

Target Version:

SRR\_9999

Completely Finished



## Changes of the Objects:

## SRR Changes by Reason

Reason ID:

**EXT\_MOD\_CARSNPEDESTRIANS**

Reason/Description:

External Request (SET):

The concept should consider cars and pedestrians in the landscape. At least SRR shall be as general as not to prohibit such extensions.

Target Version:

SRR\_9999

Completely Finished



## Changes of the Objects:

## SRR Changes by Reason

Reason ID:

**EXT\_MOD\_SYNTHETICVOICE**

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Reason/Description:

External Request (BXR):

To be perfect, he would need a "synthetic voice" function, that reads the messages of other users

Target Version:

Completely Finished

SRR\_9999



## Changes of the Objects:

## SRR Changes by Reason

Reason ID:

**INT\_MOD\_COMMENTS\_SRROBJECTS**

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Reason/Description:

Internal Request:

improve the inline documentation of the SRR objects

Target Version:

SRR\_9999

Completely Finished



### Changes of the Objects:

## SRR Changes by Reason

Reason ID:

**INT\_MOD\_HOWTO\_HOUSE**

Reason/Description:

Internal Request:

It's required to create a "Howto" paper "How to build my own house" (as part of a general paper "howto build a static model")

Target Version:

SRR\_9999

Completely Finished



## Changes of the Objects:

## SRR Changes by Reason

Reason ID:

**INT\_MOD\_X3DEARTH\_2**

Reason/Description:

Internal Request:

It should be possible to position dynamic models relative to the global coordinate system (outside of all modules). Alternatively, a "moving modules" concept could be developed, to get a hierarchy of modules.

Target Version:

Completely Finished

SRR\_9999



## Changes of the Objects: