Use Case Overview (SRR)

Basic - Avatars

The "bouncing avatars problem" is solved by the help of so-called avatar containers.

When a user binds an animated viewpoint, the positions and orientations of his avatar should be transmitted in values relative to the animated coordinate system.

Basic - Beam to users

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)

The main files of the demo layout (BS Contact version) were changed to work with this function.

Basic - Beam to Viewpoints

"Beamers" can be created to "beam" to special viewpoints (so-called "beamer destinations").

All beamer destinations of all loaded and initialized modules are reachable from all beamers (even, if they reside in a different module) and via uiControl.

Basic - Chat

The demo layout contains a chat HUD and the HUD controller feeds the data to the <BSCollaborate> node to realize a 3D Chat functionality.

Additionally, the main file provides an interface to an external application such, that an external GUI can be realized for chat. In case of single-user-mode the data is short-cut from sending field to receiving field.

Basic - Console Interface

Each SRR object can provide parameters, that can be changed and read out by the console interface (a command line interface, that is provided via uiControl to the frame).

Basic - Take/Put Keys

Keys can be created within key containers and used to unlock locks.

They can be "carried" by an avatar or they can be "contained" in a key container or lock.

Interlocking - Central Interlocking

not yet realized

Use Case Overview (SRR)

Interlocking - Locks for Points

not yet realized

Interlocking - Signals

not yet realized

Modeling - Add Models Dynamically

Vehicles can be created dynamically (at runtime) by the use of so-called "Setup Points".

THIS USE CASE IS NOT AVAILABLE CURRENTLY

Modeling - Add Models Statically

A module can add static models/models statically.

A module can add SRR objects directly (intrinsic models).

Modeling - Build a Frame

The user (frame author) can take the frame of the demo layout as an example for an own frame.

Modeling - Build a Model - Beamer

The user (module/model author) can use the simple beamer of the demo layout as an example to build an own beamer.

Modeling - Build a Model - Boat

The user (module/model author) can use the simple boat of the demo layout as an example to build an own boat.

Modeling - Build a Model - Carousel

The user (module/model author) can use the carousel of the demo layout as an example to build an own carousel.

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Modeling - Build a Model - House

The user (module/model author) can use the station house of the demo layout as an example to build an own model of a house.

THIS USE CASE IS NOT AVAILABLE CURRENTLY

Modeling - Build a Model - Locomotive

The user (model author) can take the locomotive of the demo layout as an example to create an own model of a locomotive.

THIS USE CASE IS NOT AVAILABLE CURRENTLY

Modeling - Build a Model - Setup Point

The user (model author/module author) can take the example setup point of the demo layout as an example to build an own setup point.

Modeling - Build a Model - Sunshade

The user (module/model author) can use the sunshade of the demo layout as an example to build an own sunshade.

Modeling - Build a Model - Tracks

The user (model author) can use the static models from the example track geometry as a template to create own track models.

Modeling - Build a Model - Turnouts

The user (model author) can use the static models from the example track geometry as a template to create own turnout models.

Modeling - Build a Model - Wagon

The user (model author) can take the wagons of the demo layout as an example to create an own model of a wagon.

THIS USE CASE IS NOT AVAILABLE CURRENTLY

Modeling - Build a Module

The user (module author) can take the modules of the demo layout as examples to create own modules.

Use Case Overview (SRR)

Modeling - Register Module Dynamically

Modules can be formulated in a way, such that they can be used statically or dynamically at the user's needs.

The loading/unloading of dynamic modules is in the responsibility of the frame, but it is supported by the SRR Controller, by the Module Coordinator and by the SRR Objects.

Modeling - Register Module Statically

The user (frame author) can register a module statically in his frame. The frame of the demo layout can be taken as example for doing so.

Programming - Build a Specific Vehicle Prototype

The user (programmer) can build a so-called "specific vehicle prototype".

THIS USE CASE IS NOT AVAILABLE CURRENTLY

Programming - Build an own Track Geometry

The user (programmer) can build an own "track geometry".

Programming - Build an SRR Object

The user (programmer) can build an own SRR object.

Trains - Basic User Interface (doze, vConst)

Each vehicle can impose a "dozing force" into the train.
Each vehicle can request to drive with constant velocity (vConst).

THIS USE CASE IS NOT AVAILABLE CURRENTLY

Trains - Couple by Gentle Collision

not yet realized

Trains - Crash by Hard Collision

not yet realized

Use Case Overview (SRR)

Trains - Create Vehicle

If the user has created a "1-vehicle-train" at a setup point, the train will be initialized and start to move.

THIS USE CASE IS NOT AVAILABLE CURRENTLY

Trains - Decouple Manually

not yet realized

Trains - Decoupling Track

not yet realized

Trains - Delete Train

A train and all it's vehicles can be removed from the simulation globally (in all scene instances).

THIS USE CASE IS NOT AVAILABLE CURRENTLY

Trains - Derail in Curves (Speeding)

not yet realized

Trains - Derail on Points

not yet realized

Trains - Derailed Models

not yet realized

Trains - Side Collision on Points

not yet realized

Trains - Switch the Points Manually

A model of a turnout can contain a "switch" SRR object to switch the points.

Use Case Overview (SRR)

Trains - Train Changes Module

not yet realized

Trains - Train is Moving

Trains move over the track layout either with constant velocity or according to Newton's laws.

THIS USE CASE IS NOT AVAILABLE CURRENTLY

Trains - Train Movers

not yet realized

Trains - User Interface (Cabs)

Vehicles can contain cabs containing cab controls in turn

THIS USE CASE IS NOT AVAILABLE CURRENTLY