**RailwayStudio**

User’s guide

Designing the layout

# Elements

Each piece of the layout is an **Element**. It can be a single track, a turnout, etc. Some of them also can have one or more added functionalities like *Accessory*, *Feedback*, etc.

## Accessory elements

**Accessory elements** are all elements that could have different status, like turnouts (straight, turned), signals (red, green), etc.

Accessory elements also should be connected to accessory decoder outputs to be able to digitally control these elements through the DCC command control. Each of these connections always has 2 outputs, and these outputs can be active alternatively, never at same time. The following tables show how it works:

|  |  |  |  |
| --- | --- | --- | --- |
|  | **Address 1** | | **Status** |
|  | **P2** | **P1** |
|  | 0 | 1 | 1 |
|  | 1 | 0 | 2 |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | **Address 2** | | **Address 1** | | **Status** |
|  | **P2** | **P1** | **P2** | **P1** |
| Hp 0 (Light) | - | 0 | 0 | 1 | 1 |
| Hp 1 (Light) | - | 0 | 1 | 0 | 2 |
| Hp 2 (Light) | - | 1 | 1 | 0 | 3 |

Each status is defined by the element, so you must study in each case how to wire the accessories according its functionality.

Operating the layout

Operating the layout is possible using the **Layout** **Control** plug-in.

# Digital system

**RailwayStudio** allows you to connect one command station to the layout. The current versions cannot manage more than one system connected at same time to the layout. It means that your command station must be able to manage accessories and feedback.

## Supported systems

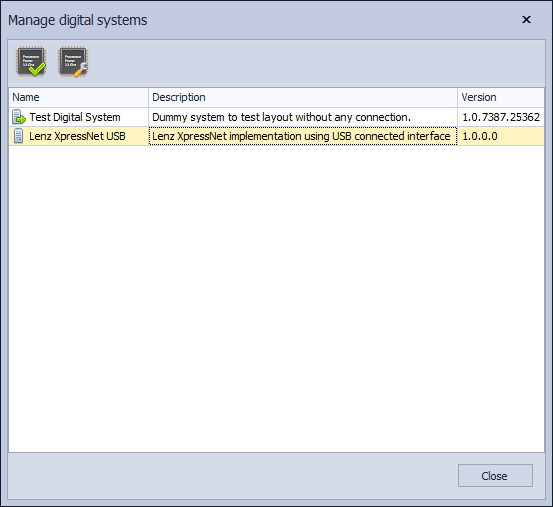
The following table contains all implemented systems. Of course, OTC is an open architecture and allows developing new implementations.

|  |  |
| --- | --- |
| System | Description |
| Test Digital System | This is a built-in dummy system that allows you to test all software functionalities without any physical command station connected to your computer. You can test all functions (some of them, manually). |
| Lenz XpressNet USB | Lenz XpressNet protocol implementation through the LI-USB interface. It should work also with LAN-USB interface (not tested). |

## Selecting the layout digital system

To specify the system used by the layout:

1. Open the **Layout control** plug-in.
2. From the toolbar, select **Manage systems**. It will open the *Manage digital systems* dialogue:



1. Select the desired system by clicking the corresponding row.
2. Press **Select system** button.
3. Optionally you are able to configure the selected system by clicking **System settings** button on the toolbar.
4. Press **Close** button to close the dialogue.

Now, the selected digital system is ready to use.

## Installing new systems

All digital system drivers (DLL files) must be placed at the folder’s program. **RailwayStudio** will automatically detect the drivers and put them available in the system’s management dialogue.

# Layout operations

To operate the layout, the digital system should be selected and properly configured. After this step, the layout could be operated normally. Refer to [Digital system](#_Digital_system) section for further information.