d&b Soundscape
DAW Plug-in for d&b DS100

Guide

d&b audiotechnik

1. Introduction

The d&b Soundscape DAW Plug-in is designed to work with d&b Soundscape and the d&b DS100.

For more information about the d&b Soundscape system, go to www.dbaudio.com and www.dbsoundscape.com.

The d&b Soundscape DAW Plug-in enables a Digital Audio Workstation (DAW) or any other Plug-in host to control En-Scene and En-Space object parameters of any desired sound object on the DS100 platform using the OSC protocol.

2. Features

The d&b Soundscape Plug-in provides a user interface for control but it also includes the standards to record and automate these parameters with a DAW host.

In addition, the Plug-in features the entire OSC functionality, which means there is no need for the host itself to provide any OSC functions (if hardware and operating system provide a network connection).

The d&b Soundscape Plug-in does not perform any audio processing or coloration on the track or the outputs to which it is connected. It remote controls the d&b Soundscape parameters of the En-Scene and En-Space software on the DS100 Signal Engine.

3. Formats

The Plugin is available for different platforms and formats with the same function set:

- **Windows:**
  VST (2.0) - 32 & 64 bit
  AAX - 64 bit
- **macOS:**
  VST (2.0) - 32 & 64 bit
  AU (Audio Unit) - 32 & 64 bit
  AAX - 64 bit

4. Requirements

- Digital Audio Workstation (DAW) or any other host of your preference to host one of the Plug-in formats.
- DS100 and the Plug-in host connected to the same Ethernet network (to establish the OSC communication).
- d&b DS100 Signal Engine with active En-Scene and/or En-Space license.
- A specific function description of the d&b Soundscape system, the functions, features and configuration options can be found in the "TI 501d&b Soundscape System design and operation" which is available for download from the d&b website at www.dbaudio.com.

5. Getting started

Copy the d&b Soundscape Plug-in to the designated VST, AU, AAX folder of your DAW.

Windows systems:
Copy either the 32-bit or the 64-bit **.dll** file to your VST folder, depending on whether your DAW is 32-bit or 64-bit.

MacOS systems:
Plug-in standard installation file paths MacOS:

AU installation:
Copy the .component file to your AU folder:

For single users:
user/<username>/Library/Audio/Plugins/Components

or for all users ...
SystemHD/Library/Audio/Components

VST installation:
Copy the .vst file to your VST folder:

For single users:
user/<username>/Library/Audio/Plugins/VST

or for all users:
SystemHD/Library/Audio/VST

AAX installation:
Copy the .aax file to your aax folder:
SystemHD /Library/Application Support/Avid/Audio/Plug-Ins

Open your DAW and insert a new track or choose an existing track.

Add the d&b En-Scene Plug-in to the effect chain of the track. You may need to re-scan the VST or AU folders with your DAW.

Note: For many years, most of the MacOS Plug-in hosts have run 64-bit therefore do no longer support 32-bit Plug-ins. For most Plug-in hosts a Plug-in re-scan is necessary after the installation of new Plug-ins. For further details, refer to the manual of your host software.

Plug-in configuartion

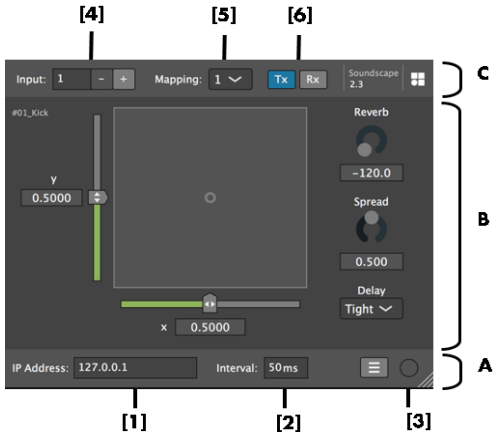
The d&b Soundscape DAW Plug-in user interface is divided in three different areas:

Note: The user interface may look slightly different depending on the platform and host used.

[A] Global configuration parameters: The settings at the bottom of the Plug-in's interface are global and are shared among all Plug-in instances in your DAW project.

[B] Object parameters: The user interface to control the d&b Soundscape object parameters of an individual Object

[C] Individual configuration parameters of the single Plug-In: Configuration settings of the individual Plugin to determine which object is controlled by this plugin instance and in which status the Plug-in is.



[A] Global configuration parameters:

Connecting with the DS100

Ensure the DS100 is connected to the same Ethernet network as your PC and their IP addresses and subnet masks are compatible.

[1] IP address of the DS100 Signal Engine
The IP address of the DS100 can be obtained from the «Info» tab of the «Device» view in R1 V3.

[2] Transmission interval
(«Interval» in milliseconds).
Determines how frequently OSC messages are interchanged between the Plug-in and the DS100. A smaller interval will result in more fluent movements, but also in more network and processing load. The default and recommended setting is 50 milliseconds.

[3] «Online» indicator
Turns blue when an OSC connection between the Plug-in and the DS100 has been successfully established.

Note: The network settings at the bottom of the Plug-in's interface (**[1]**, **[2]**, and **[3]**) are global and are shared among all Plug-in instances in your DAW project. Changing the IP address or transmission interval of one track will be effective for all tracks.

[C] Configuration of the single Plug-in instance:

Note: Using R1 V3, ensure the desired DS100 Matrix inputs are set to «En-Scene», and also configure the coordinate mapping settings for external control. Please also refer to TI 501 featuring d&b Soundscape and the R1 Help for more information.

Assignment of an En-Scene object to the Plug-in:

[4] DS100 Matrix input number
(object number) Corresponding to the sound object to be controlled.

[5] Selector for the DS100 Coordinate mapping/Positioning area
(The positioning area to which the positioning in the Plug-in is scaled.)

Allows you to choose between 4 possible mappings, which can be configured using R1 V3 (please refer to TI 501 and the R1 Help for more information).

OSC Mode:

Switches between Send and Receive modes.

With the Plug-in it is possible to send the parameter values to the DS100 but also to read them from the DS100 (e.g. if settings are made in R1 and are to be transferred to the host via the Plug-in and recorded there).

[6] Selector for the Plug-in's OSC communication mode

«Tx» mode - Send Mode
The Plug-in transmits parameters from your DAW to the DS100.

«Rx» mode - Receive Mode
The Plug-in requests parameters from the DS100 and passes them on to the DAW.

Use of OSC Send Mode

1. In the DAW, set the track's automation mode to «Read» so that the parameters are determined by the points drawn in their automation envelopes.
2. Set the Plug-in to «Tx».
3. Set the DAW to Play.
   The parameter changes in your envelopes will be transmitted to the DS100 and the corresponding sound object will be positioned and controlled accordingly in real time.

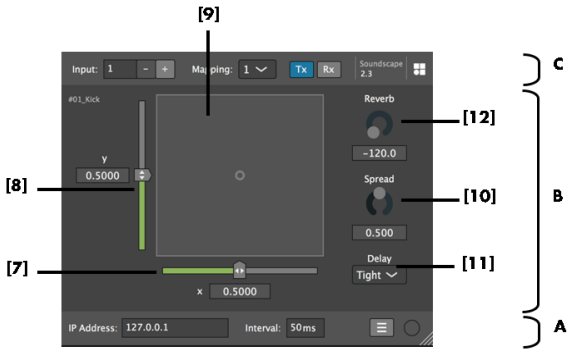
Use of OSC Receive Mode

1. In the DAW, set the track's automation mode to «Write» or «Touch».

   In this way, the automation envelopes for the object parameters will be drawn as determined by the Plug-in.
2. Set the Plug-in to «Rx».
3. Ensure the envelope tracks of the parameters are armed for recording.
4. Set the DAW to Play.
   The position of the corresponding sound object will be requested from the DS100 and will then be written to the automation envelopes accordingly in real time.

Plug-in operation

User interface to control the d&b Soundscape object parameters of an individual object.



En-Sene Object Positioning

[7] Slider used to set or display the X position of the desired sound object.

[8] Slider used to set or display the Y position of the desired sound object.

[9] 2D positioning tool to set or display the XY position on the selected Coordinate mapping/ positioning area

En-Scene Object Parameter

[10] Rotary knob used to set or display the **SPREAD** parameter of the desired sound object.

[11] Drop-down menu used to set or display the **DELAY MODE** of the desired sound object.

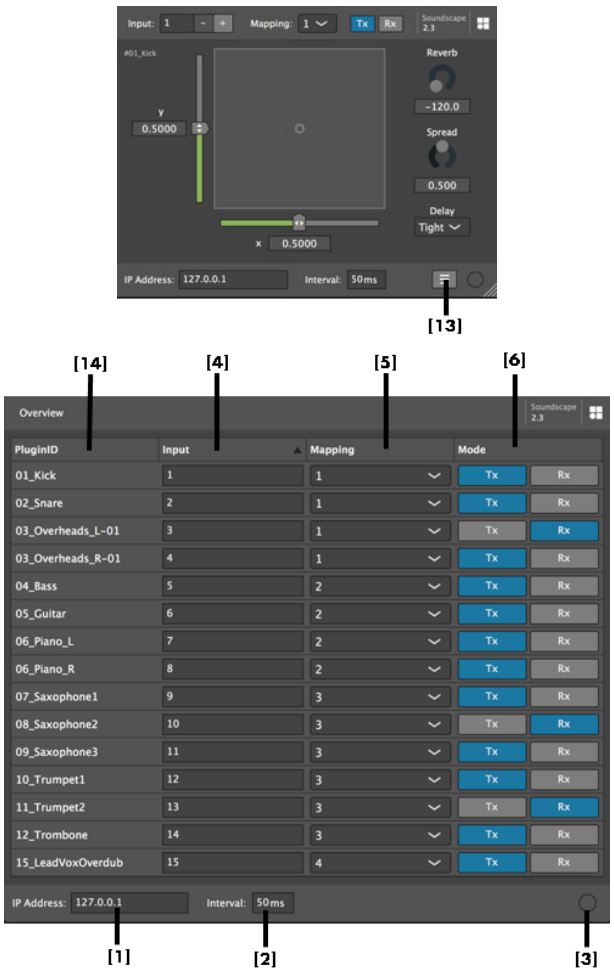
En-Space Object Parameter

[12] Rotary knob? used to set or display the **En-Space REVERB send level** parameter of the desired sound object / matrix input.

Note: These parameters can be recorded and automated in different ways depending on the functionality of the Plug-in host.

Plug-in overview windows

A click on the list button **[13]** (next to "Online" indicator) opens a list view of all installed Plug-In instances and a display of their configuration parameters:



The overview window displays the configuration parameters of all Plug In instances used in one window. The parameters can also be changed here. They include:

The general connection parameters of the DS100 in the footer:

[1] IP address of the DS100 Signal Engine; **[2]** - Transmission interval ("Interval" in milliseconds).

[3] "Online" indicator.

The configuration parameters of the individual Plug-in instances in the list:

[4] DS100 Matrix input number (object number); **[5]** - Selector for the DS100 Coordinate mapping/Positioning area; **[6]** -Selector for the Plug-in's OSC communication mode.

PluginID [14]

The Plug-in name and the order of the list vary depending on the platform (OS) and host software used.

Not in all cases is the track name displayed as PluginID and the List sorted like the tracks (as shown in the screenshot above).

In some configurations, for example, only a number is displayed as PluginID. This number is not always the track number. In some configurations, the order in which the Plug-ins were inserted is used as a number for the PluginID. The same applies to the sorting of the list. In some configurations, this corresponds to the track list, but in some cases also to the order in which the Plug-ins were inserted.

Unfortunately, after deleting a Plug-in in the different configurations, the sorting of the list is also not consistent across the configurations.

In our view, the possibility to display and change the configuration parameters for all Plug-ins in a central place can be a big advantage in the workflow. Even if this possibility is displayed differently depending on the operating system and host software.

For this reason, before using this feature, you should check how your system deals with the naming and sorting of Plug-ins.