

d&b OSC Protocol document for DS100

Specification No.: DOC05325 Version: 1.1.0

Contents

1 Disclaimer of Warranty and Limitation of Liability.....	4
2 Description.....	4
2.1 General OSC path definition.....	4
3 OSC definitions.....	5
3.1 General settings.....	5
3.2 Error.....	5
3.3 Status.....	5
3.4 Matrix input.....	5
3.5 Matrix node.....	5
3.6 Matrix output.....	6
3.7 En-Scene positioning (only available if option is enabled).....	7
3.8 En-Space room selector (only available if option is enabled).....	8
3.9 En-Space input (only available if option is enabled).....	8
3.10 En-Space input matrix (only available if option is enabled).....	8
3.11 En-Space input processing (only available if option is enabled).....	8
3.12 Device clear.....	8

1 Disclaimer of Warranty and Limitation of Liability

d&b audiotechnik provides this d&b OSC protocol document on an „AS IS“ basis.

d&b audiotechnik expressly disclaims all warranties for this OSC protocol document, either expressed or implied, including but not limited to the warranties of merchantability, fitness for a particular purpose, and non-infringement.

To the maximum extent permitted by applicable law, in no event shall d&b audiotechnik, its suppliers, directors or subsidiaries be liable for business interruption, punitive, consequential or special damages, loss of business profits, or any damages whatsoever of any kind caused by the use or misuse of this specification extract.

2 Description

In addition to the AES70/OCA protocol, the DS100 supports the possibility to control a set of the functionality using the OSC protocol ([OSC 1.1 specification](#)). This allows control of the DS100 from devices or software that can send OSC messages.

The DS100 uses the UDP transport layer. The DS100 uses Port 50010 to listen for (receive) incoming messages, Port 50011 is used to send replies.

OSC is advertised via DNS-SD as **_osc._udp**

2.1 General OSC path definition

```
<OSC path> : = /dbaudio1          // d&b identifier
              /module // part of the signal path
              /name      // name
              /number    // in the matrix this is the input [nothing if not needed]
              /number    // in the matrix this is the output [nothing if not needed]

              value(s)
```

Example for setting a value (write):

```
/dbaudio1/MatrixNode/Enable/22/33 1
```

This command sets the Enable function at the crosspoint of input 22 and output 33 in the matrix to ON.

Example for getting a value (read):

```
/dbaudio1/MatrixNode/Enable/21/31 [without any value]
```

This command gets the state of the Enable function at the crosspoint of input 21 and output 31 in the matrix.

The response of the DS100 will be as follows:

```
/dbaudio1/MatrixNode/Enable/21/31 1
```

This response indicates that the Enable function at the crosspoint of input 21 and output 31 in the matrix is currently ON.

3 OSC definitions

3.1 General settings

Identifier	Module	Name	Value	Read/Write	Type	Min	Max	Description/Comment
/dbaudio1	/settings	/devicename		r/w	string	0	15	Will be overwritten by R1 project

3.2 Error

Identifier	Module	Name	Value	Read/Write	Type	Min	Max	Description
/dbaudio1	/error	/gnrlerr		r	int	0	1	Error flag
/dbaudio1	/error	/errortext		r	string	0	31	Error string

3.3 Status

Identifier	Module	Name	Value	Read/Write	Type	Min	Max	Description
/dbaudio1	/status	/statustext		r	string	0	31	Status string

3.4 Matrix input

Identifier	Module	Name	Input	Value	Read/Write	Type	Min	Max	Description
/dbaudio1	/matrixinput	/mute	/[1-64]		r/w	int	0	1	Mute off=0 / on =1
/dbaudio1	/matrixinput	/gain	/[1-64]		r/w	float	-120	24	
/dbaudio1	/matrixinput	/delay	/[1-64]		r/w	float	0	500	
/dbaudio1	/matrixinput	/delayenable	/[1-64]		r/w	int	0	1	Off=0 / on =1
/dbaudio1	/matrixinput	/eqenable	/[1-64]		r/w	int	0	1	Off=0 / on =1
/dbaudio1	/matrixinput	/polarity	/[1-64]		r/w	int	0	1	Off=0 / on =1
/dbaudio1	/matrixinput	/channelname	/[1-64]		r/w	string	0	31	Will be overwritten by R1
/dbaudio1	/matrixinput	/levelmeterpremute	/[1-64]		r	float	-120	0	
/dbaudio1	/matrixinput	/levelmeterpostmute	/[1-64]		r	float	-120	0	

3.5 Matrix node

The matrix crosspoint is disabled when the respective node is used for positioning.

Identifier	Module	Name	Input	Output	Value	Read/Write	Type	Min	Max	Description
/dbaudio1	/matrixnode	/enable	/[1-64]	/[1-64]		r/w	int	0	1	Enable the matrix crosspoint
/dbaudio1	/matrixnode	/gain	/[1-64]	/[1-64]		r/w	float	-120	10	
/dbaudio1	/matrixnode	/delayenable	/[1-64]	/[1-64]		r/w	int	0	1	Enable the delay
/dbaudio1	/matrixnode	/delay	/[1-64]	/[1-64]		r/w	float	0	500	

3.6 Matrix output

Identifier	Module	Name	Output	Value	Read/ Write	Type	Min	Max	Description
/dbaudio1	/matrixoutput	/mute	/[1-64]		r/w	int	0	1	Mute off=0 / on =1
/dbaudio1	/matrixoutput	/gain	/[1-64]		r/w	float	-120	24	
/dbaudio1	/matrixoutput	/delay	/[1-64]		r/w	float	0	500	
/dbaudio1	/matrixoutput	/delayenable	/[1-64]		r/w	int	0	1	Off=0 / on =1
/dbaudio1	/matrixoutput	/eqenable	/[1-64]		r/w	int	0	1	Off=0 / on =1
/dbaudio1	/matrixoutput	/polarity	/[1-64]		r/w	int	0	1	Off=0 / on =1
/dbaudio1	/matrixoutput	/channelname	/[1-64]		r/w	string	0	31	Will be overwritten by R1
/dbaudio1	/matrixoutput	/levelmeterpremute	/[1-64]		r	float	-120	0	
/dbaudio1	/matrixoutput	/levelmeterpostmute	/[1-64]		r	float	-120	0	

3.7 En-Scene positioning (only available if option is enabled)

Identifier	Module	Name	Input	Value	Read/Write	Type	Min	Max	Description
/dbaudio1	/positioning	/source_spread	/[1-64]		r/w	float			Sound object spread
/dbaudio1	/positioning	/source_delaymode	/[1-64]		r/w	int	0	2	Sound object delay mode (off, tight, full)
/dbaudio1	/positioning	/source_position	/[1-64]	f,f,f	r/w	3*float			Sound object position absolute to the project origin x, y, z (values in meters)
/dbaudio1	/positioning	/source_position_xy	/[1-64]	f,f	r/w	2*float			Sound object position absolute to the project origin x, y (values in meters)
/dbaudio1	/positioning	/source_position_x	/[1-64]		r/w	1*float			Sound object position absolute to the project origin x (values in meters)
/dbaudio1	/positioning	/source_position_y	/[1-64]		r/w	1*float			Sound object position absolute to the project origin y (values in meters)

Identifier	Module	Name	Mapping	Input	Value	Read/Write	Type	Min	Max	Description
/dbaudio1	/coordinatemapping	/source_position	/[1-4]	/[1-64]	f,f,f	r/w	3*float			Sound object position relative to the area x, y, z (values such as user defined scaling)
/dbaudio1	/coordinatemapping	/source_position_xy	/[1-4]	/[1-64]	f,f	r/w	2*float			Sound object position relative to the area x, y (values such as user defined scaling), no height
/dbaudio1	/coordinatemapping	/source_position_x	/[1-4]	/[1-64]	f	r/w	1*float			Sound object position relative to the area x (values such as user defined scaling)
/dbaudio1	/coordinatemapping	/source_position_y	/[1-4]	/[1-64]	f	r/w	1*float			Sound object position relative to the area y (values such as user defined scaling)

3.8 En-Space room selector (only available if option is enabled)

Identifier	Module	Name	Value	Read/Write	Type	Min	Max	Description/Comment
/dBAudio1	/matrixsettings	/reverbroomid		r/w	int	0	6	Room selector

3.9 En-Space input (only available if option is enabled)

Identifier	Module	Name	Input	Value	Read/Write	Type	Min	Max	Description
/dBAudio1	/matrixinput	/reverbsendgain	/[1-64]		r/w	float	-120	24	Gain sent to En-Space

3.10 En-Space input matrix (only available if option is enabled)

Zone 1 is on the left (seen from the audience)

Zone 2 is in the center (seen from the audience)

Zone 3 is on the right (seen from the audience)

Zone 4 is the audience

Identifier	Module	Name	Input	Zone	Value	Read/W rite	Type	Min	Max	Description
/dBAudio1	/reverbininput	/gain	/[1-64]	/[1-4]		r/w	float	-120	24	

3.11 En-Space input processing (only available if option is enabled)

Zone 1 is on the left (seen from the audience)

Zone 2 is in the center (seen from the audience)

Zone 3 is on the right (seen from the audience)

Zone 4 is the audience

Identifier	Module	Name	Zone	Value	Read/ Write	Type	Min	Max	Description
/dBAudio1	/reverbininputprocessing	/mute	/[1-4]		r/w	int	0	1	
/dBAudio1	/reverbininputprocessing	/gain	/[1-4]		r/w	float	-120	24	
/dBAudio1	/reverbininputprocessing	/levelmeter	/[1-4]		r	float	-120	0	
/dBAudio1	/reverbininputprocessing	/eqenable	/[1-4]		r/w	int	0	1	

3.12 Device clear

Identifier	Module	Name	Value	Read/Write	Type	Description
/dBAudio1	/device	/clear	-	w	-	Resets the device to factory defaults, except the remote settings

