



# **Gira Logic Module Manual**

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Revision History			
Version	Date	Author	Description
1.0.119	07/20/2023	Peter G.	First public release. Supports plugin v1.0.119.

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# 1.0 Introduction

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The Gira Logik Module provides control of BluOS streaming devices via the Gira X1 Visualization Server. This allows control and feedback via the Gira Smart Home app and G1 touchscreen, as well as more limited control from any KNX enabled keypad:

The logic module is used to control BluOS enabled audio devices from the likes of Bluesound and NAD.

In addition to operating the devices via the "Audio control with title picture" visualization object provided by the X1, it is also possible to operate them using a KNX push-button sensor. It is also possible to integrate the music control in scenes so that the devices become part of the building bus system, which is controlled by a KNX system.

- Now playing information
- Playback & Volume/Mute controls
- Source selection (including analog, optical, coaxial and HDMI inputs)
- Preset selection
- Player grouping

The included example program provides a simple guide to how multiple devices can be connected to a couple of user interfaces. The touch panel file included is purely for demonstrating the module and not intended to be a complete solution. However, if you modify the module parameters to suit your hardware configuration, the program will compile without errors and be fully functional.

## 2.0 Installation

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Ensure that you have the required version of BluOS on your players (v3.20.25 or later). Also ensure that you are using the proper Gira Project Assistant software. These versions are listed in the Release Notes.

### 2.1 Equipment Setup

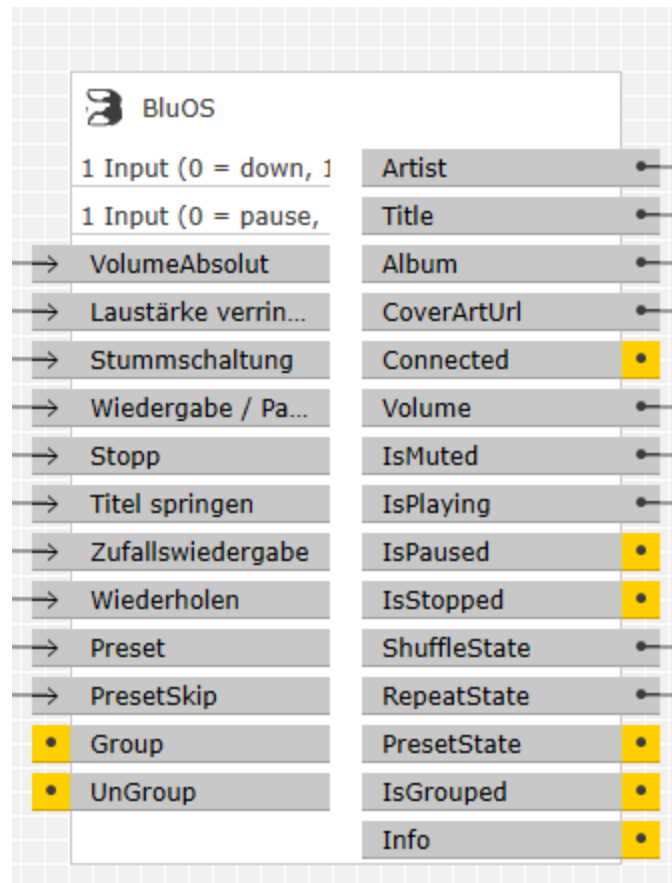
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The BluOS Controller app (iOS or Android) must be used to initially configure the player. Using BluOS Controller, you will set up the player name, configure inputs and adjust audio settings. You also use BluOS Controller to log in to streaming music services, add network music libraries, create presets etc.

The module supports player discovery using the Lenbrook Service Discovery Protocol (LSDP). It also supports static IP addresses.

## 3.0 Configuration

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The player should be set up so that the IP address is permanently assigned. The IP address of the device must be entered in the logic module.

For all BluOS players, the port is set to 11000 by default. For the NAD CI580v2, 4 zone player, this is different, and each zone has its own port number on the same IP address. Zone 1 is Port 11000, zone 2 is Port 110010, Zone 3 is Port 11020, Zone 4 is Port 11030.

This switch can be used to reduce the logic module to the inputs and outputs that a BluOS player makes available as a group member (slave). If the player is only to work optionally in a group, this mode should remain switched off. Group formation is also possible if several client systems are assigned to the logic module.

## **Count**

Sets the number of devices that can be in a group with this player (maximum 16).

If clients are defined, the logic module releases the inputs for grouping or ungrouping.

If clients have been specified via the "Number" parameter, the "IP address" and "Port" connection data for all other clients can be entered here.

The volume mode determines how the volume settings inputs work. In addition to specifying the absolute volume, the logic module also supports the gradual increase or decrease of the volume, as well as controlling the volume via a KNX 4-bit dimming data point.

## **Telegram Repetition**

(Only visible if the volume mode is set to "Dimming object DTP3.x")

KNX push-button sensors can be configured so that they cyclically send telegrams during the dimming process, i.e., as long as the button is pressed. If the push button sensor is operated accordingly, the telegram repetition must be switched on.

It is recommended not to switch on the telegram repetition. The definition of the KNX data point 3.x allows a start telegram to be sent at the beginning of the dimming process and a stop telegram to be sent at the end of the dimming process. This reduces unnecessary telegram load on the KNX bus.

## **Skip Mode**

Skip mode determines whether the track is to be controlled by one input or by two separate inputs. If only one input is used, the jump back is via a "0" telegram, and the jump to the next track is via a "1" telegram.

## **Play Mode**

The play/pause mode determines whether switching between play and pause should be controlled via one input or two separate inputs. If only one input is used, a "0" telegram triggers the pause function, a "1" telegram triggers the play function.

# 4.0 Parameters

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## Playback Parameters

### Play/Pause

(Visible only if the "Playback Mode" parameter is set to "Use 1 input".)

DPT1.x

- "0" puts the device in the pause state.
- "1" puts the device in the playback state.

### Play

(Visible only when the Play/Pause Mode parameter is set to Use 2 inputs.)

DPT 1.x

Sets the device to play state Pause.

(Visible only when the Play/Pause Mode parameter is set to Use 2 inputs.)

### Pause

DPT 1.x

Sets the device to pause state.

### Stop

DPT 1.x

Stops playback.

### Skip

(Only visible if the "Skip mode" parameter is set to "Use 1 input".)

DPT 1.x

- "0" jumps to the beginning of the track or to the previous track.
- "1" skips to the next track.

### Previous Title

(Only visible if the "Skip mode" parameter is set to "Use 2 inputs".)

DPT 1.x

Jumps to the beginning of the track or to the previous track.

### Next Title

(Only visible if the "Skip mode" parameter is set to "Use 2 inputs".)

DPT 1.x

skips to the next track.

## Volume Parameters

Volume absolute

- "0%..100%" sets the volume on the player

Volume up/down

(Visible only when the Volume Mode parameter is set to Use 1-input.)

DPT 1.x

- "0" decreases the volume by 2%
- "1" increases the volume by 2%

Decrease Volume

(Visible only when the Volume Mode parameter is set to Use 2-input.) DPT 1.x

Reduces volume by 2%

Increase Volume

(Visible only when the Volume Mode parameter is set to Use 2-input.) DPT 1.x

Increases volume by 2%

Volume Relatively

(Visible only when the Volume Mode parameter is set to Use 1-input.) DPT 3.x

Changes the volume via a KNX dimming telegram. The specifications for the increment are supplied via the settings of the KNX push button sensor.

Mute

DPT 1.x

- "0" mutes.
- "1" unmutes.



## Playback Parameters

Shuffle

DPT 1.x

- "0" turns off Shuffle function.
- "1" turns Shuffle on.

Repeat

DPT 1.x or DPT 5.x

- "0" Switches off repeating the playlist. (with DTP 1.x and DPT 5.x)
- "1" Repeats the entire playlist. (with DTP 1.x and DPT 5.x)
- "2" Repeats the current track. (only with DPT 5.x)

Preset

DPT 5.x

Selects the preset with the corresponding numeric index.

Toggle Preset

DPT 1.x

- "0" Selects the previous preset.
- "1" Selects the next preset.

## Grouping Parameters

Group Players

DPT 5.x

Sending the device number 1..16 includes the device that is defined under the slave parameters in the group.

Remove Player from a group

DPT 5.x

Sending the device number 1..16 takes the device that is defined under the slave parameters is released from the group and works independently again.

## Playback Status Queries

Artist Name

DPT 16.x

Returns Artist Name as text.

Title

DPT 16.x

Returns Track Title as text.

Album Name

DPT 16.x

Returns Album Title as text.

Album Art URL

DPT 16.x

Returns the URL under which the Album Art can be loaded from.

Player Connected

DPT 1.x

Returns the status of whether the player is connected to the logic module.

Volume Status

DPT 5.x

Provides the volume in the range 0% to 100%

## Now Playing information

Artist

DPT 16.x

Returns Artist Name as text Title Query

Title

DPT 16.x

Returns Track Title as text Album Name

Album

DPT 16.x

Returns Album Title as text Album Art Query

Coverart

DPT 16.x

Returns the URL under which the Album Art can be loaded from.

## Status Queries

Connected

PT 1.x

Returns the status of whether the player is connected to the logic module.

Volume Status Query DPT 5.x

Provides the volume in the range 0% to 100%

Mute

DPT 1.x

- "0" = The device is not muted
- "1" = The device is muted

Playback

DPT 1.x

- "0" The device is stopped or paused.
- "1" The device is in playback mode

Pause

DPT 1.x

- "0" The device is in playback mode or playback is stopped
- "1" The device is in pause mode

Stop

DPT 1.x

- "0" The player is in play or pause mode
- "1" Playback is stopped

Play/Pause

DPT 1.x

- "0" Device is in pause or stop mode
- "1" device is in play mode

Shuffle State

DPT 1.x

- "0" Random playback is switched off
- "1" Random playback is active

## Repeat State

DPT 1.x or DPT 5.x

- "0" Repeat is off
- "1" All titles in the playlist are repeated
- "2" Only the track being played is repeated

## Preset State

DPT 5.x

Returns the number of the selected preset

## Group State

DPT 1.x

This returns whether the device entered as the main device (master) is in a group.

- "0" The device is not in any group
- "1" The device is in a group

## Notes on connecting the "Audio Control" visualization object.

### Use of KNX objects

If the player is to be controlled via the KNX and the visualization of the X1 is to be used, then group address data points should be used to link the logic module with the visualization object.

### Parameters of the logic module

The following parameter settings are to be selected.

- Playback mode: 1 input (pause, play)
- Skip mode: 1 input (0=previous track, 1=next track)

### Allocation of the data points in the visualization object

- "Play" with the data point that is assigned to the "Play/Pause" input of the logic module.
- "Previous track" and "Next track" with the data point that is assigned to the skip input of the logic module.

### Allocation of listening group addresses

Since the visualization object only works with one data point per function, the status information of the following functions should be assigned via the assignment of the listening address.

- "Volume Absolute" is synchronized with the listening address of: "Volume Status."
- "Mute" is synchronized via the listening address of: "Mute-Status."
- "Play/Pause" is synchronized via the listening address of: "Play/Pause Status."

### Use of internal objects

If only the visualization of the X1 is to be used, it is sufficient to use variable data points for linking the logic module with the visualization object.

In this case, the same data point should be used for the following inputs and outputs of the logic module:

- "Volume Absolute" and "Volume Status"
- "Mute" and "Mute Status"
- "Play/Pause" and "Play/Pause Status".

## Notes on connecting a KNX push button sensor.

Controlling the volume via the "Volume relative" input can be used with the 4-bit data type for dimming.

Bezeichnung der Wippe 4	Volume
Funktion	Dimmen

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**Wippe links**

Befehl beim Drücken	Dunkler (AUS)
Zeit zwischen Schalten und Dimmen	400 ms

**Wippe rechts**

Befehl beim Drücken	Heller (EIN)
Zeit zwischen Schalten und Dimmen	400 ms

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Erweiterte Parameter

☒ aktiviert ☐ deaktiviert

Heller dimmen um	3%
Dunkler dimmen um	3%

Stopptelegamm senden? ☒ Ja ☐ Nein

Telegrammwiederholung? ☐ Ja ☒ Nein

The push button sensor should be configured in such a way that the dimming telegram sends a stop telegram and there is no telegram repetition. It is recommended to set the increment to 3%. Every 500ms, the block sends the command to increase or decrease the volume by the set percentage to the device.

The dimming switching function of the push button sensor should be linked to the Volume Up/Down input.

With these specifications, a rocker of the push button sensor is given the function that the volume is changed step by step with a short press of the button and continuously with a long press of the button.

## 5.0 Support

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For technical support issues, contact Bluesound technical support at <http://support.bluesound.com> or email [support@bluesound.com](mailto:support@bluesound.com).

## 6.0 Known Issues

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The following issues are known to exist.

Driver Version	Issue	Workaround
All	Gira app and G1 cannot display the name of BluOS presets	None