StarLeaf Room Systems

Contents

Introduction

This document describes the protocol used on the serial port of a StarLeaf room system. This protocol allows both control of the attached StarLeaf Phone or Touch and information on the state of the system. This allows implementing an external controller such as those produced by Crestron. This API is available for both the Group Telepresence 3350 and the GT Mini 3330. To use the API, StarLeaf Support need to enable the Serial API Option for you.

The two StarLeaf room system codecs:

Group Telepresence 3350

Group Telepresence 3330 (GT Mini)

Group Telepresence serial port

The serial port used on the Group Telepresence is the bottom serial port. This is an RS-232 connector. The settings are "115200,8,N,1".

GT Mini serial port

The serial port on the GT Mini is labeled COM. This port is for a 4P4C connector. The description given here presumes that you will connect the GT Mini to an RS-232 DTE (a PC for example).

PC end   GT Mini end

Top View

Bottom View

D-Sub connector
(9-pin female)

Pinout

PC end	DTE signal names	GT Mini end
2	RXD	3
3	TXD	2
5	GND	4
7	Unconnected	Do not connect

The protocol

The protocol is text-based and human readable. It is made up of data sent from the controller to the Group Telepresence (Commands) and data sent from the Group Telepresence to the controller (Statuses). Both Commands and Statuses take the form of a textual command with optional arguments, followed by a single new-line ('\n') character (ASCII value 10). Commands must be sent exactly as documented in this guide with the correct case.

Commands

Dial

This command instructs the phone to dial the given identifier immediately.

Dial <identifier>

`<identifier>` is either a phone number or URI. Examples include **5023**, **5023@starleaf.call.sl**, **sip:jo.bloggs@example.com**, etc.

DialDigit

This commands instructs the phone to dial an individual digit as if the user had pressed that digit on the keypad. This command does not generate DTMF tones if they are executed whilst a call is in progress.

DialDigit <digit>

`<digit>` is the digit to dial: 0-9, # or *.

CallAnswer

This command tells the phone to answer an incoming call. If there is an incoming call present, the phone will attempt to answer it immediately.

CallAnswer

CallReject

This command tells the phone to ignore/reject an incoming call. If there is currently an incoming call present, the phone will attempt to reject it immediately.

CallReject

CallHangup

This command tells the phone to hangup an existing call. If the phone has an existing call it is hung up immediately.

CallHangup

Volume

This command tells the phone to increase or decrease the volume. The phone may reply at a later time with the current volume. See the status update "StatusVolume".

Volume <updown>

`<updown>` is one of `up` or `down`.

MuteMicrophone

This command tells the phone to toggle the mute of the local microphone. A status message may be received later to indicate the state change. See

"StatusMuteMicrophone".

MuteMicrophone

MuteVideo

This command tells the phone to toggle the mute of the local video camera. A status message may be received later to indicate the state change. See "StatusMuteVideo".

MuteVideo

CameraControl

This command tells the phone to move either a local or far-end camera (where `far` is the remote camera and `0` is the currently selected local camera). To perform continuous movement that may stop responsively, this command may need to be sent many times with a short duration. For example, if a user is clicking and holding on a "move left" button, then this command might be repeated every 500ms with a duration of 700ms and direction set to "left".

CameraControl <camera> <direction> <duration>

`<camera>` is one of `far`, `0`.
`<direction>` is one of `up`, `left`, `right`, `down`, `zoom-in`, `zoom-out`.
`<duration>` is a number specifying how long to continue moving in the given direction, in milliseconds.

StartPresentation

This command starts or stops presenting the PC input connected to the Group Telepresence. If there is no PC input connected, no action is performed. The state of the presentation is indicated in a subsequent status message of type StatusStartPresentation.

StartPresentation

Statuses

StatusExtensionNumber

This status message contains the extension number of the phone.

StatusExtensionNumber <extension>

`<extension>` is the extension number of the phone.

StatusExtensionName

This status message contains the name shown next to the extension number on the phone.

StatusExtensionName <name>

`<name>` is the name shown on the phone user interface.

StatusCall

This message provides information on the state of calls on the phone. When the state is incall, the call may be hung up via the `CallHangup` command. When the state is idle new calls may be made via the `Dial` command. When the state is incoming, the incoming call may be ignored via the `CallReject` command.

StatusCall <type> <destination>

`<type>` is one of `incall`, `idle`, `incoming`, `dialling`.
`<destination>` is valid only if `<type>` is equal to `<dialing>`; it is the destination phone number or URI of the call.

StatusStandby

This message is supported on GT Mini (not on Group Telepresence 3350). This status message indicates if the GT Mini has gone into standby mode.

StatusStandby<on> <off>

StatusVolume

This status message provides the current volume as a percentage.

StatusVolume <volume>

`<volume>` is the current volume as a percentage (0-100).

StatusMuteMicrophone

This status message provides the state of microphone mute.

StatusMuteMicrophone <onoff>

`<onoff>` is either `on` or `off`.

StatusMuteVideo

This status message provides the state of video mute.

StatusMuteVideo <onoff>

`<onoff>` is either `on` or `off`.

StatusStartPresentation

This status message provides the state of the presentation.

StatusStartPresentation <onoff>

`<onoff>` is either `on` or `off`.

Legal information

Third party software acknowledgements

Acknowledgements of third-party software are available at:

www.starleaf.com/support/legal

Disclaimers and notices