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# GENIVI DocumentIAmRoutingPlugin

## Component Design Template for Component IAmRoutingPlugin

### Platform Compliance Specification

#### Draft Version 4.0

**19.08.2015**

**Sponsored by:**  
GENIVI Alliance

**Accepted for release by:**  
This document has not yet been accepted for release by the GENIVI Alliance Board of Directors.

**Abstract:**  
This document describes the collective requirements of the GENIVI OEMs for an "entry navigation" IVI profile.

**Keywords: GENIVI**

*«Hints for entry and help text are in this style. Once you are confident that the document has been completed then all text in this style should be removed. To do so click on this text, press the right mouse button, select STYLES and then STYLES WITH SIMILAR FORMATTING and then press CTRL-X to delete»*

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## 1 **Change history**

2 The following table shows the change history for this specification.

3 **Document revision change history**

<b>Date</b>	<b>Version</b>	<b>CR#</b>	<b>Description</b>
6.12.11	1.0		Initial version, C Müller, BMW
2.3.12	1.1		Update for release
31.1.13	2.0		Update for foton release
23.06.2014	3.0		Changes for Intrepid
19.08.2015	4.0		Changes for Kronos

4

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## 1 **List of Figures**

2 *<<List here any figures that are used in this document and be sure to right click and select 'update field' after any additions or*  
3 *changes>>*  
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# 1 List of Tables

2 *«List here any tables that are used in this document and be sure to right click and select 'update field' after any additions or*  
3 *changes»*

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6 Table 1 – Referenced GENIVI Alliance Documents ..... **Fehler! Textmarke nicht definiert.**  
7 Table 2 – Referenced External Documents ..... **Fehler! Textmarke nicht definiert.**  
8 Table 3 – Acronyms and Abbreviations ..... **Fehler! Textmarke nicht definiert.**  
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11  
12 *«Document Overview – Delete when this document is completed.*  
13 *The goal of the Component Design Document is to capture the architecture and specification information of a*  
14 *specific component. Information should be added incrementally. It is then refined and updated consistently. Once*  
15 *all information has been completed and this document has been reviewed, it then becomes the final version of the*  
16 *Component Design Document for the applicable component.»*

## 1 Introduction

This document describes general requirements on the platform, all external standards and all the components of the GENIVI platform release.

## **1 Targeted Audience**

Anyone wishing to apply for compliance should have this document at hand, as it complements the GENIVI Platform Compliance Statement document.



## 2 Categories

The compliance requirements within the GENIVI compliance program fall into the following general categories:

### Standards

The Standards list the compliance requirements that refer to standards external to GENIVI

Components from GENIVI component list, that can be of the following compliance levels:

- PlaceholderComponent, as described in GENIVI Compliance Explanation
- AbstractComponent, as described in GENIVI Compliance Explanation
- SpecificComponent, as described in GENIVI Compliance Explanation

### 3 Abbreviations

In further text the following abbreviations (ABB) will be used for forming the IDs:

- ST for Standards
- PC for PlaceholderComponent
- AC for AbstractComponent
- SC for SpecificComponent

## 4 Format of the entries in this document

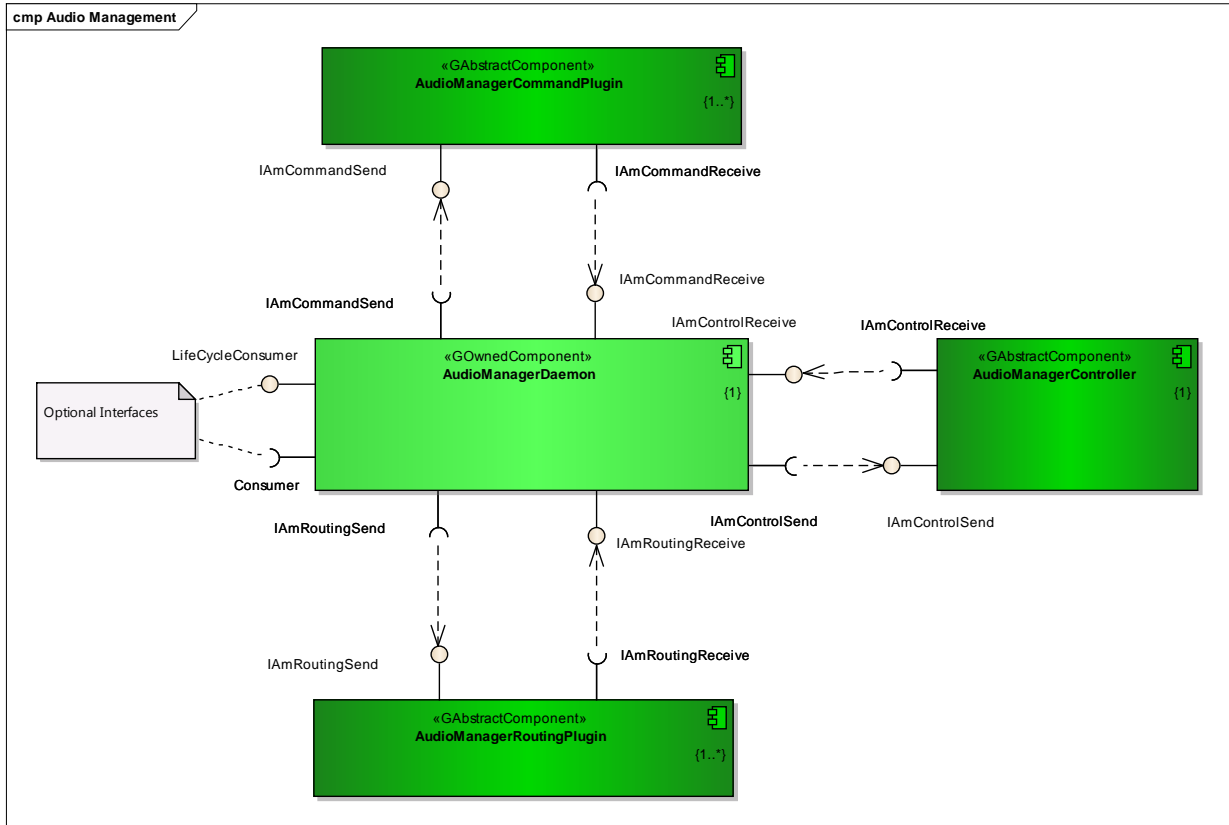
The entries pertaining to components have the following format:

Field Description	ID unique
ID	text formed as: <ABB>-<auto incrementing number>.<sub code>
Name	name with optional link (URL) to the external reference (e.g. The project home page)
Compliance Level	as defined in Categories.
Priority	as described in GENIVI Compliance Explanation
Description	textual clarification
Requirements	For PC, AC contains a table of requirements

## **5 Standards**

GENIVI Compliance Release 1.0 does not require references to external standards.

## 6 Component Overview



## 7 Component Interaction

### Feedback

**Type:** Package  
**Status:** Proposed. Version 1.0. Phase 1.0.  
**Package:** Routing Interface  
**Detail:** Created on 09.09.2011. Last modified on 09.09.2011  
**GUID:** {4BAD6F85-3E4A-418a-8A72-AD884ABEEE27}

### feedback\_receivedSourceNotificationPayload

**Type:** Package  
**Status:** Proposed. Version 1.0. Phase 1.0.  
**Package:** Feedback  
**Detail:** Created on 30.01.2013. Last modified on 30.01.2013  
**GUID:** {FBB4684C-06E0-452e-9208-FF9E593289A8}

#### feedback\_receivedSourceNotificationPayload - (Interaction diagram)

**Created By:** q232968 on 30.01.2013  
**Last Modified:** 30.01.2013  
**Version:** 1.0. *Locked:* False  
**GUID:** {AECCCC7F-9D73-4fae-AF8D-726572D08B51}

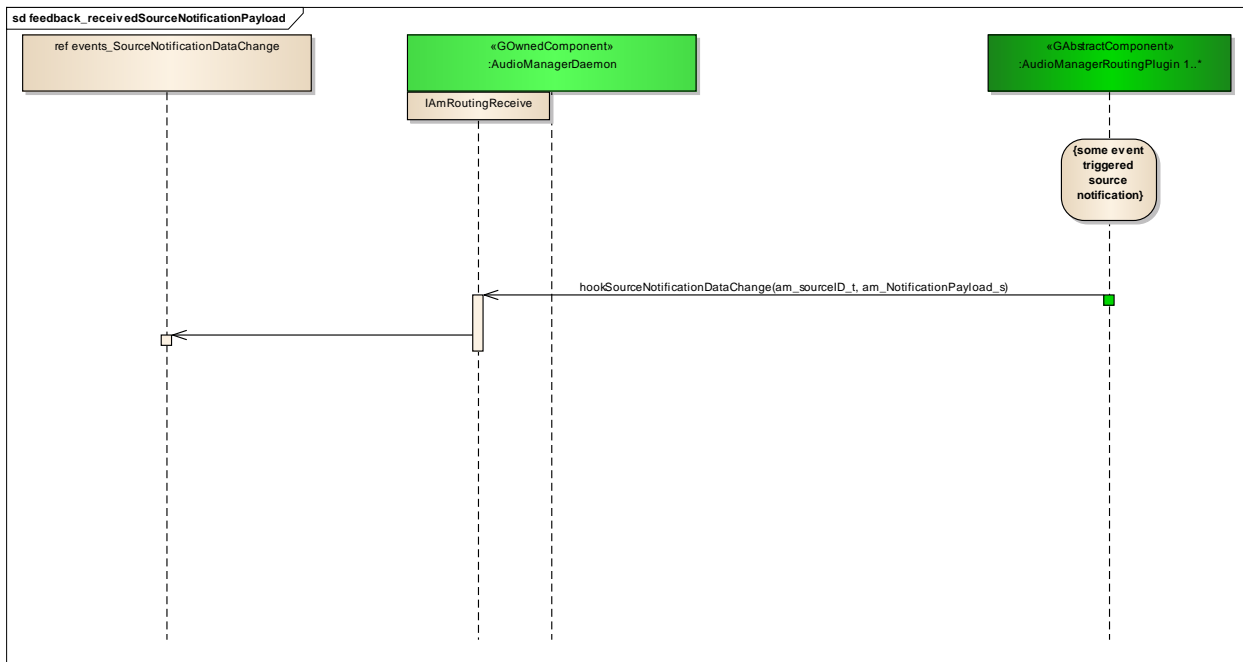


Figure: 1

### events\_SourceNotificationDataChange

**Type:** InteractionOccurrence  
**Status:** Proposed. Version 1.0. Phase 1.0.  
**Package:** feedback\_receivedSourceNotificationPayload *Keywords:*  
**Detail:** Created on 30.01.2013. Last modified on 30.01.2013.

**GUID:** {C467C340-926B-43c9-AF4D-B477FCB668A1}

Connections

Connector	Source	Target	Notes
<b>Sequence</b> Source -> Destination	Public IAmRoutingReceive	Public events_SourceNotificationDataChange	

## feedback\_receiveSinkNotificationPayload

**Type:** Package  
**Status:** Proposed. Version 1.0. Phase 1.0.  
**Package:** Feedback  
**Detail:** Created on 29.01.2013. Last modified on 29.01.2013  
**GUID:** {08B65C99-E382-4dbb-BF7E-EB812A4C0D32}

**feedback\_receiveSinkNotificationPayload** - (Interaction diagram)

**Created By:** q232968 on 29.01.2013  
**Last Modified:** 30.01.2013  
**Version:** 1.0. **Locked:** False  
**GUID:** {F0591230-AC1C-4acd-822A-17B4F6E44686}

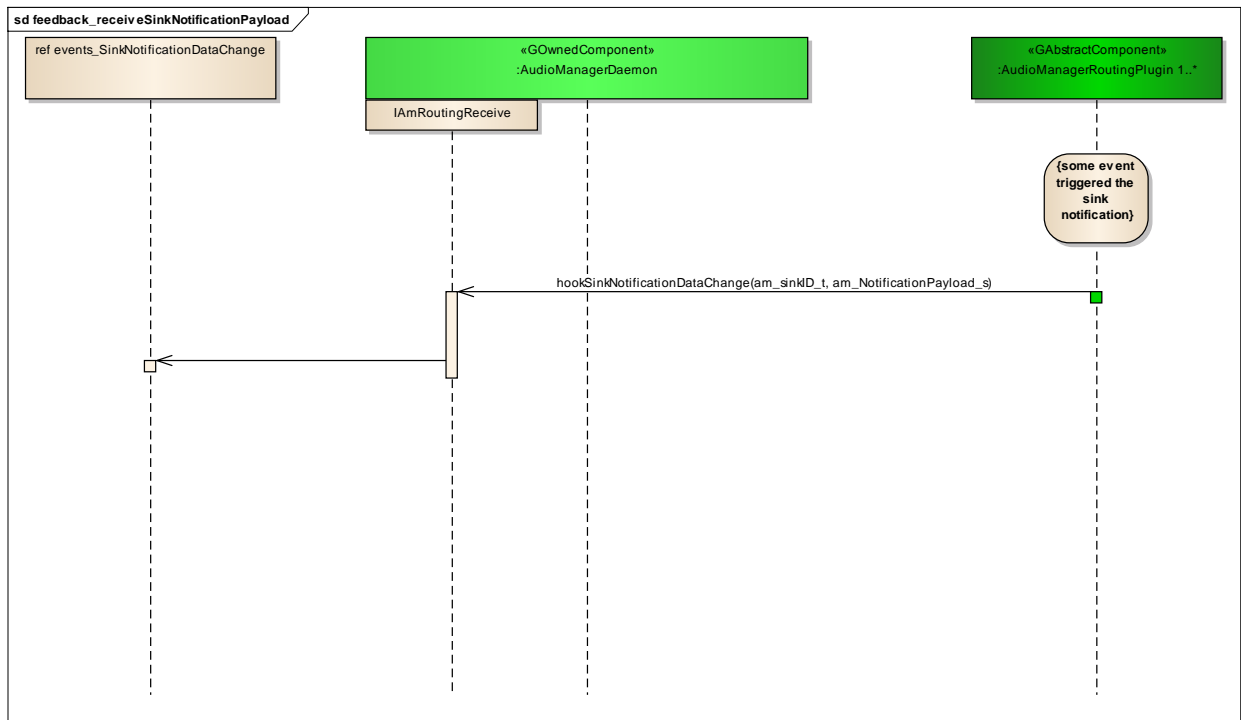


Figure: 2

## events\_SinkNotificationDataChange

**Type:** **InteractionOccurrence**  
**Status:** Proposed. Version 1.0. Phase 1.0.  
**Package:** feedback\_receiveSinkNotificationPayload *Keywords:*  
**Detail:** Created on 29.01.2013. Last modified on 29.01.2013.  
**GUID:** {CE894740-6B86-434f-86CB-BB91B606F68E}

### Connections

Connector	Source	Target	Notes
<b>Sequence</b> Source -> Destination	Public IAmRoutingReceive	Public events_SinkNotification DataChange	

## feedback\_receiveChangeData

**Type:** **Package**  
**Status:** Reworked. Version 1.0. Phase 1.0.  
**Package:** Feedback  
**Detail:** Created on 12.10.2011. Last modified on 12.10.2011  
**GUID:** {754993D4-5A59-4258-BF01-26F3088F868C}

### feedback\_receiveChangeData - (Interaction diagram)

**Created By:** christian on 12.10.2011  
**Last Modified:** 29.01.2013  
**Version:** 1.0. *Locked:* False  
**GUID:** {6CC9DA8C-17A7-49ec-8FEE-C6AD89AD692C}



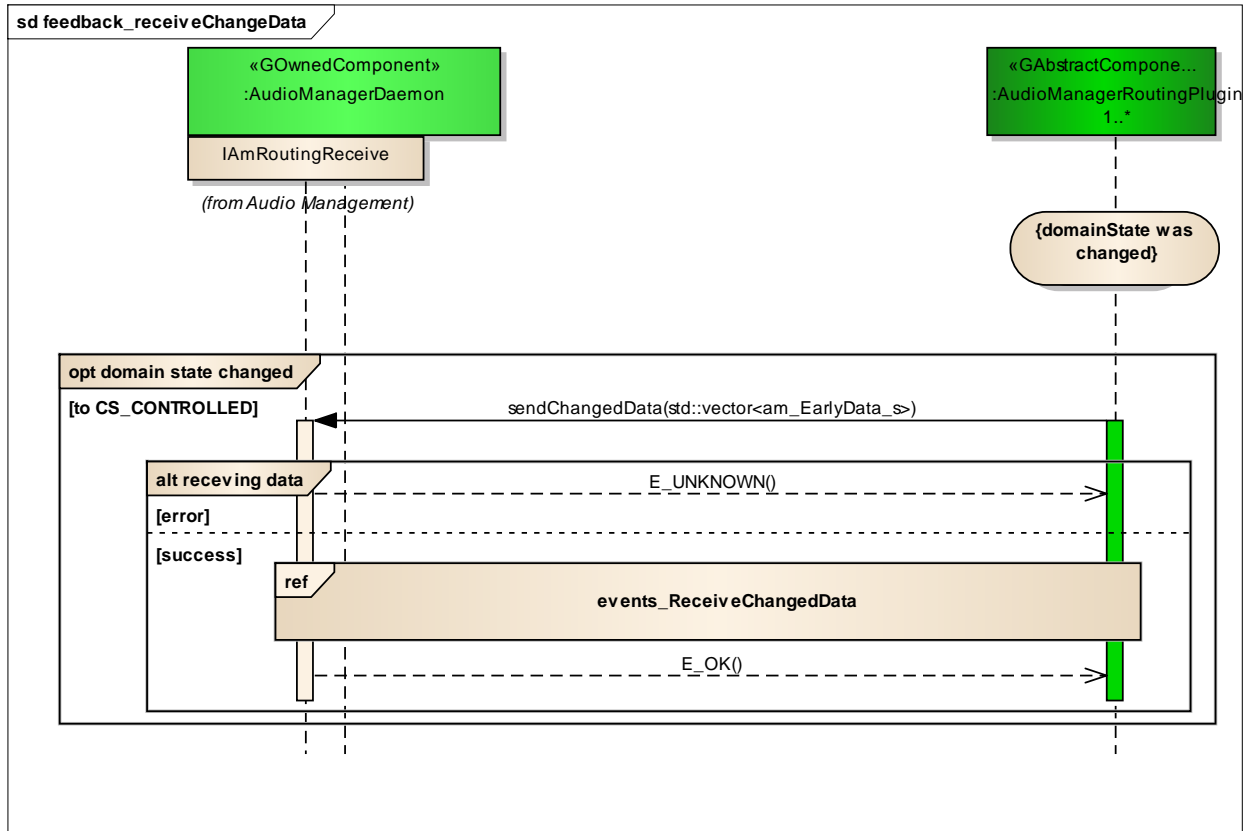


Figure: 3

### domain state changed

Type: **InteractionFragment**  
 Status: Proposed. Version 1.0. Phase 1.0.  
 Package: feedback\_receiveChangeData **Keywords:**  
 Detail: Created on 12.10.2011. Last modified on 12.10.2011.  
 GUID: {978785A4-874D-4f8b-8FB3-94CCC0E77867}

### events\_ReceiveChangedData

Type: **InteractionOccurrence**  
 Status: Proposed. Version 1.0. Phase 1.0.  
 Package: feedback\_receiveChangeData **Keywords:**  
 Detail: Created on 12.10.2011. Last modified on 12.10.2011.  
 GUID: {C314BA71-CA01-42e3-831C-D9ACB17B27BA}

### receiving data

**Type:** InteractionFragment  
**Status:** Proposed. Version 1.0. Phase 1.0.  
**Package:** feedback\_receiveChangeData *Keywords:*  
**Detail:** Created on 12.10.2011. Last modified on 12.10.2011.  
**GUID:** {5181F586-582A-4a38-A749-E8484AE81B84}

## feedback\_receiveSinkVolumeTicks

**Type:** Package  
**Status:** Reworked. Version 1.0. Phase 1.0.  
**Package:** Feedback  
**Detail:** Created on 04.10.2011. Last modified on 12.10.2011  
**GUID:** {6C8471E1-27A8-4c40-9964-BC09934EAE9F}

### feedback\_receiveSinkVolumeTicks - (Interaction diagram)

**Created By:** christian on 04.10.2011  
**Last Modified:** 24.10.2011  
**Version:** 1.0. *Locked:* False  
**GUID:** {27353D6D-099B-435a-AB2E-9E952E37F967}

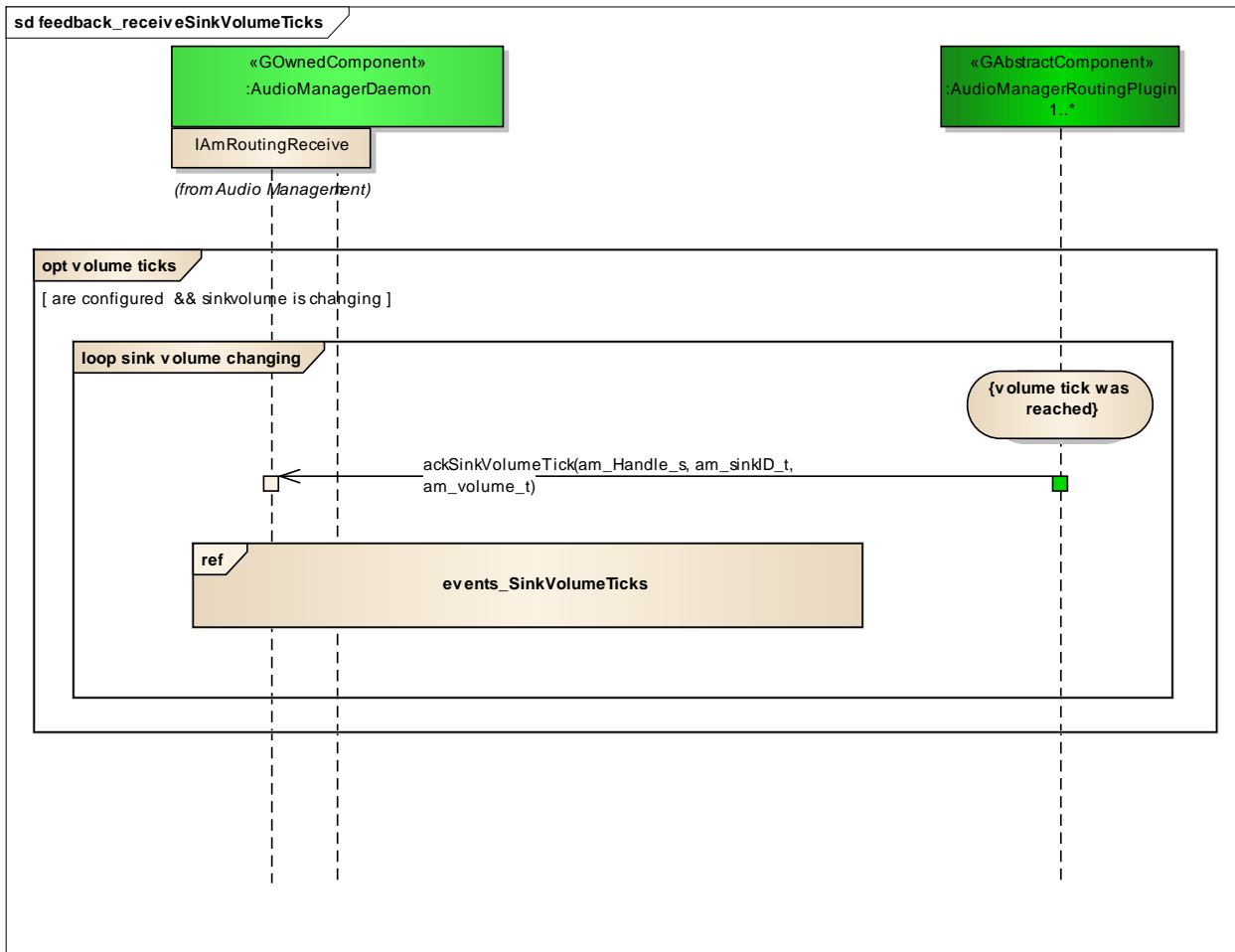


Figure: 4

## events\_SinkVolumeTicks

**Type:** InteractionOccurrence  
**Status:** Proposed. Version 1.0. Phase 1.0.  
**Package:** feedback\_receiveSinkVolumeTicks **Keywords:**  
**Detail:** Created on 12.10.2011. Last modified on 12.10.2011.  
**GUID:** {C765AA2E-32B3-4bb9-B561-AFAB9435FDA0}

## sink volume changing

**Type:** InteractionFragment  
**Status:** Proposed. Version 1.0. Phase 1.0.  
**Package:** feedback\_receiveSinkVolumeTicks **Keywords:**  
**Detail:** Created on 12.10.2011. Last modified on 12.10.2011.  
**GUID:** {285B0F04-09E8-4150-AA61-8BFFEDFACA2B}

## volume ticks

**Type:** InteractionFragment  
**Status:** Proposed. Version 1.0. Phase 1.0.  
**Package:** feedback\_receiveSinkVolumeTicks **Keywords:**  
**Detail:** Created on 12.10.2011. Last modified on 12.10.2011.  
**GUID:** {5D22D377-5FAE-415e-9C7C-9254D778C829}

## feedback\_receiveSourceVolumeTicks

**Type:** Package  
**Status:** Reworked. Version 1.0. Phase 1.0.  
**Package:** Feedback  
**Detail:** Created on 04.10.2011. Last modified on 12.10.2011  
**GUID:** {29CA3264-80EB-4f8c-A8AF-88A75C972780}

### feedback\_receiveSourceVolumeTicks - (Interaction diagram)

**Created By:** christian on 04.10.2011  
**Last Modified:** 24.10.2011  
**Version:** 1.0. **Locked:** False  
**GUID:** {E0BC2FC8-63EC-43ba-A6BD-EE6ED4645D58}

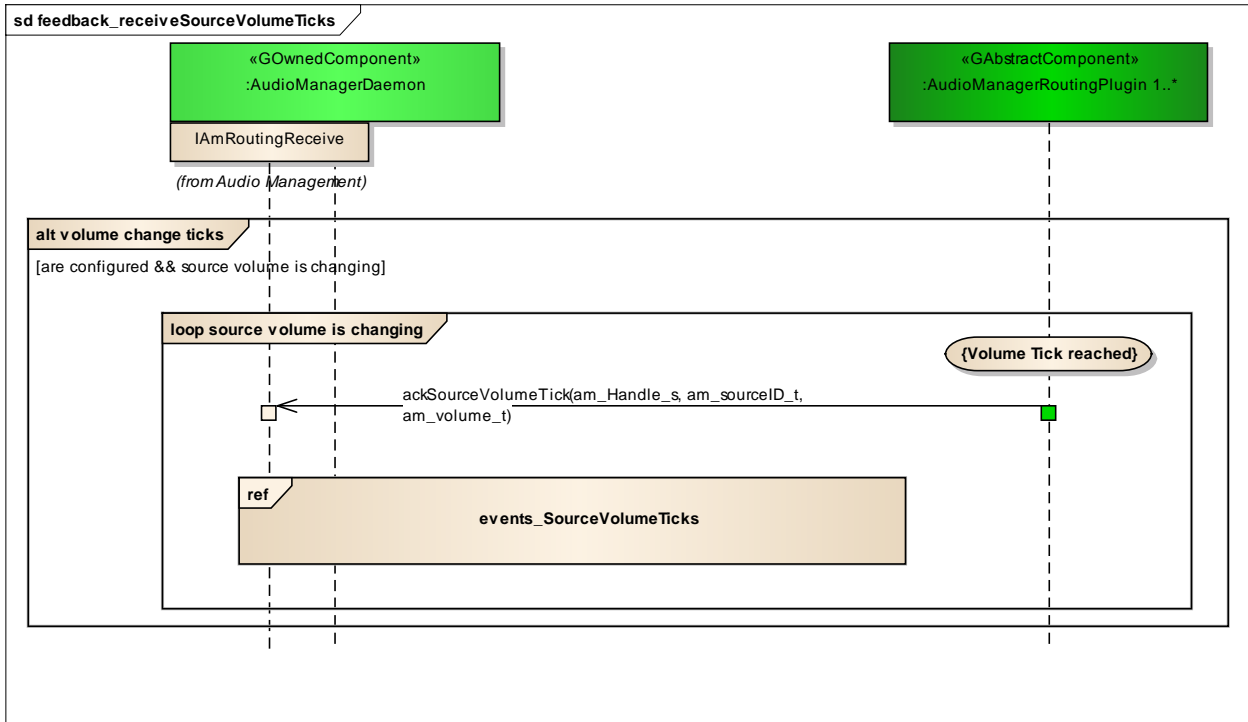


Figure: 5

## SourceVolumeTicks

Type: **InteractionOccurrence**  
 Status: Proposed. Version 1.0. Phase 1.0.  
 Package: feedback\_receiveSourceVolumeTicks **Keywords:**  
 Detail: Created on 04.10.2011. Last modified on 04.10.2011.  
 GUID: {6FB19626-3987-4e21-A6C0-4229225190E7}

## events\_SourceVolumeTicks

Type: **InteractionOccurrence**  
 Status: Proposed. Version 1.0. Phase 1.0.  
 Package: feedback\_receiveSourceVolumeTicks **Keywords:**  
 Detail: Created on 12.10.2011. Last modified on 12.10.2011.  
 GUID: {FF0CA5D3-4E0C-4fc9-B794-791A435A5837}

## source volume is changing

Type: **InteractionFragment**  
 Status: Proposed. Version 1.0. Phase 1.0.  
 Package: feedback\_receiveSourceVolumeTicks **Keywords:**  
 Detail: Created on 12.10.2011. Last modified on 12.10.2011.

**GUID:** {F9615D71-E96D-4822-95FF-3945AB69F6BA}

### volume change ticks

**Type:** InteractionFragment  
**Status:** Proposed. Version 1.0. Phase 1.0.  
**Package:** feedback\_receiveSourceVolumeTicks *Keywords:*  
**Detail:** Created on 12.10.2011. Last modified on 12.10.2011.  
**GUID:** {E86650B3-1802-42b6-A269-C0976973CB5E}

### feedback\_receiveLowLevelInterrupts

**Type:** Package  
**Status:** Reworked. Version 1.0. Phase 1.0.  
**Package:** Feedback  
**Detail:** Created on 09.09.2011. Last modified on 12.10.2011  
**GUID:** {347EEF2A-CE7B-445c-AC3F-1532430864B7}

#### feedback\_receiveLowLevelInterrupts - (Interaction diagram)

**Created By:** christian on 09.09.2011  
**Last Modified:** 24.10.2011  
**Version:** 1.0. *Locked:* False  
**GUID:** {1C385B83-E81B-4341-8980-50FB46860D40}

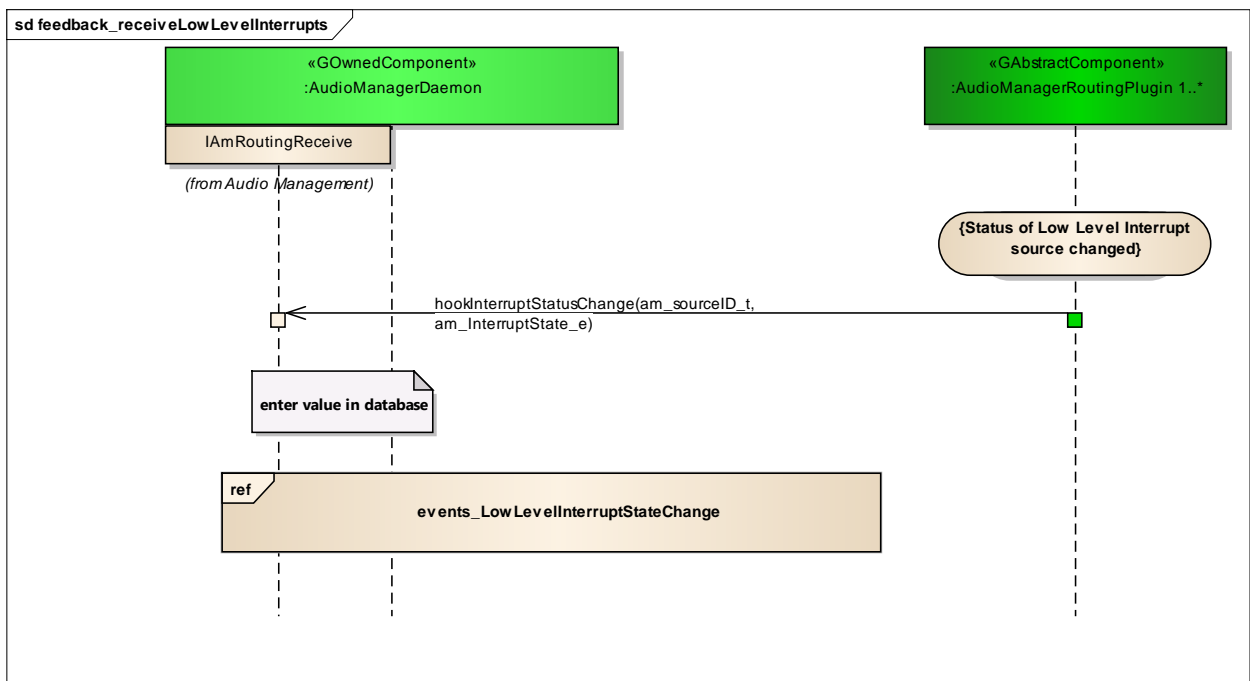


Figure: 6

### events\_LowLevelInterruptStateChange

Type: **InteractionOccurrence**  
 Status: Proposed. Version 1.0. Phase 1.0.  
 Package: feedback\_receiveLowLevelInterrupts *Keywords:*  
 Detail: Created on 12.10.2011. Last modified on 12.10.2011.  
 GUID: {AE3ADE1C-2CA1-4db8-A674-835A18F5C79A}

### feedback\_SinkAvailabilityChange

Type: **Package**  
 Status: Reworked. Version 1.0. Phase 1.0.  
 Package: Feedback  
 Detail: Created on 20.09.2011. Last modified on 12.10.2011  
 GUID: {E19E8B76-0000-4503-AD61-6EFBE9A4699E}

#### feedback\_SinkAvailabilityChange - (Interaction diagram)

Created By: christian on 20.09.2011  
 Last Modified: 24.10.2011  
 Version: 1.0. Locked: False  
 GUID: {939BC05C-10E7-4c98-AD1C-DF6839952A64}

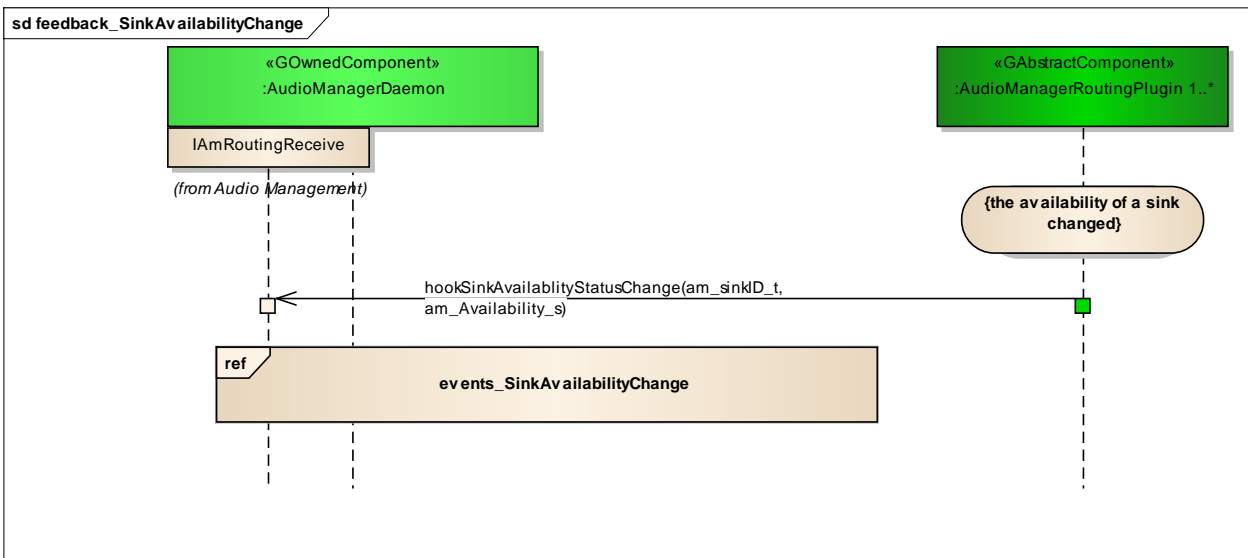


Figure: 7

### events\_SinkAvailabilityChange

Type: **InteractionOccurrence**  
 Status: Proposed. Version 1.0. Phase 1.0.

*Package:* feedback\_SinkAvailabilityChange *Keywords:*  
*Detail:* Created on 12.10.2011. Last modified on 12.10.2011.  
*GUID:* {C80D6D4E-2DFC-4595-A849-FD92E2281C76}

## feedback\_SourceAvailabilityChange

*Type:* **Package**  
*Status:* Reworked. Version 1.0. Phase 1.0.  
*Package:* Feedback  
*Detail:* Created on 19.09.2011. Last modified on 12.10.2011  
*GUID:* {DE0A382C-E49E-4be7-9196-13200DF2E7DF}

### feedback\_SourceAvailabilityChange - (Interaction diagram)

*Created By:* christian on 19.09.2011  
*Last Modified:* 24.10.2011  
*Version:* 1.0. *Locked:* False  
*GUID:* {7B24CB8D-E913-4a86-B11D-B69F896848D0}

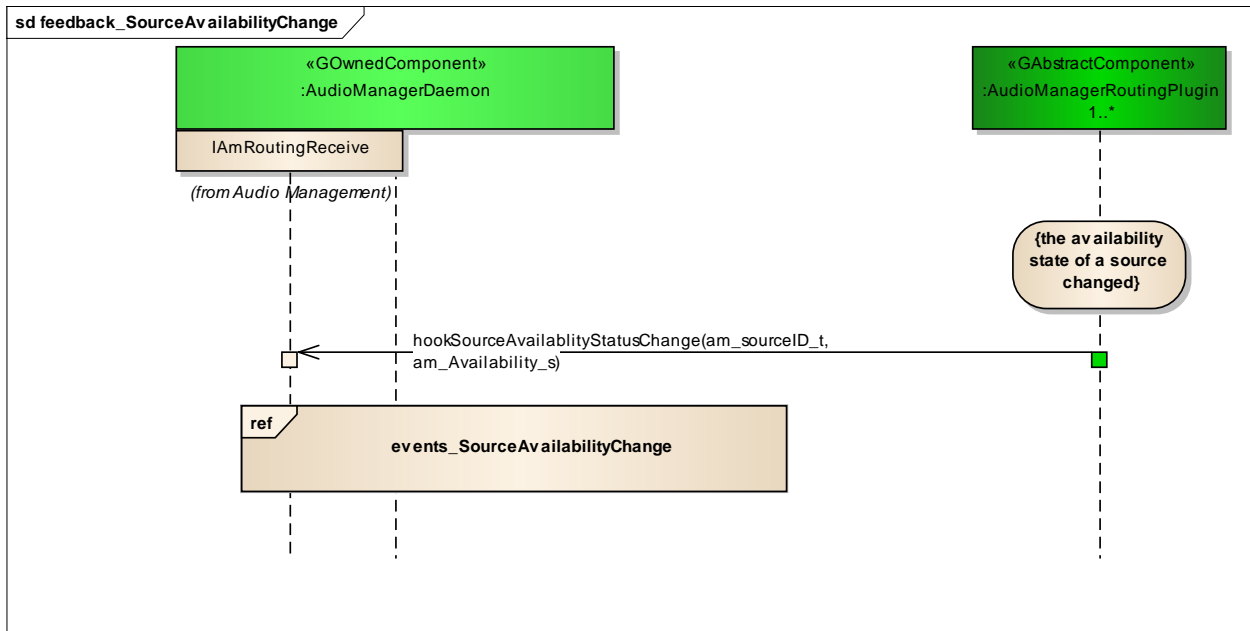


Figure: 8

## events\_SourceAvailabilityChange

*Type:* **InteractionOccurrence**  
*Status:* Proposed. Version 1.0. Phase 1.0.  
*Package:* feedback\_SourceAvailabilityChange *Keywords:*  
*Detail:* Created on 12.10.2011. Last modified on 12.10.2011.  
*GUID:* {207EC64B-9B0A-47f4-8F6E-0CFF4E03287D}

## feedback\_TimingInformationChange

Type: **Package**  
 Status: Reworked. Version 1.0. Phase 1.0.  
 Package: Feedback  
 Detail: Created on 23.09.2011. Last modified on 12.10.2011  
 GUID: {27DDCEF3-88D9-4679-AA51-69A26C8D0BD0}

### feedback\_TimingInformationChange - (Interaction diagram)

Created By: christian on 23.09.2011  
 Last Modified: 24.10.2011  
 Version: 1.0. Locked: False  
 GUID: {F964DC7C-96EA-4a8b-A3DA-D4BC3F2056F7}

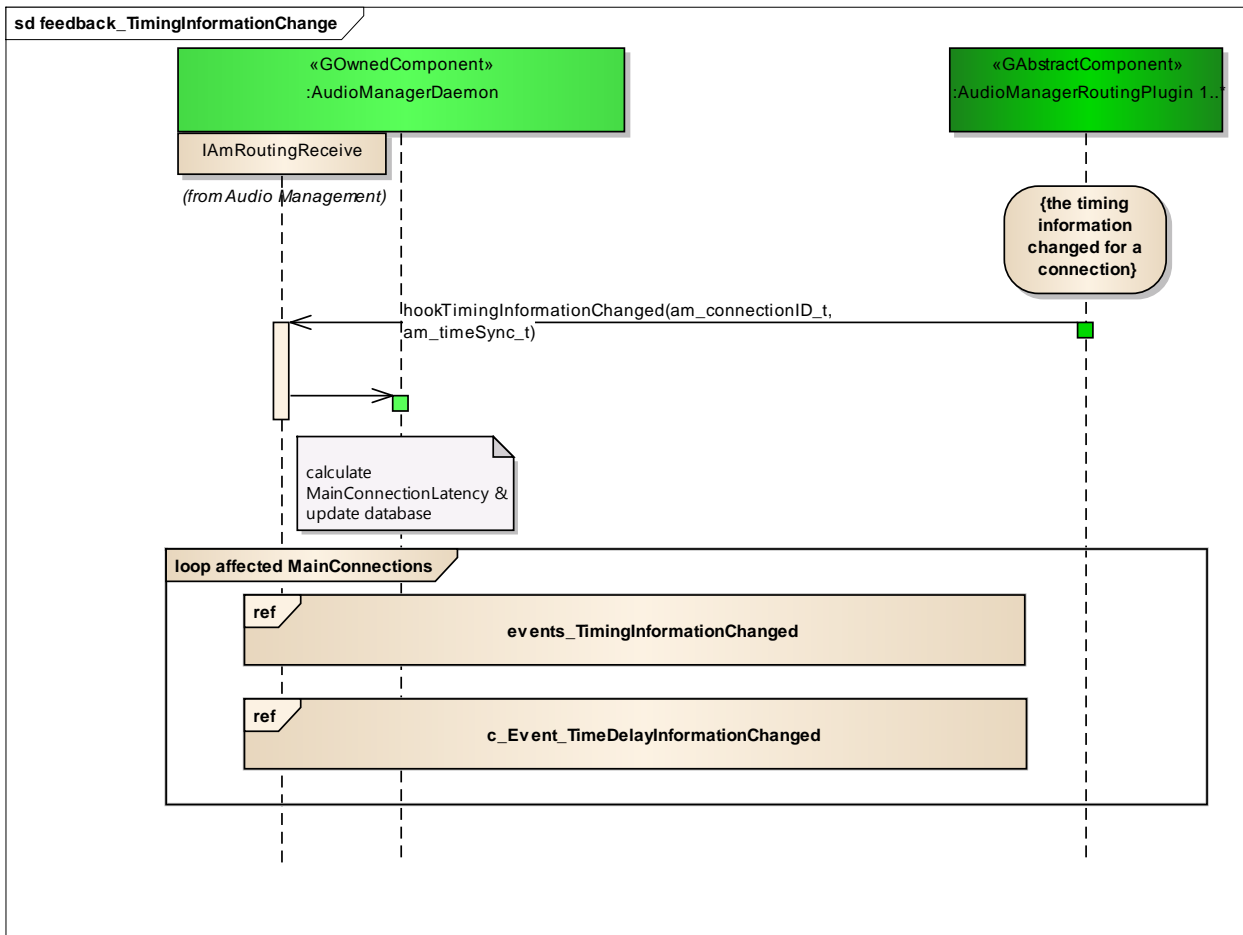


Figure: 9

## affected MainConnections

Type: **InteractionFragment**  
 Status: Proposed. Version 1.0. Phase 1.0.



*Package:* feedback\_TimingInformationChange *Keywords:*  
*Detail:* Created on 11.10.2011. Last modified on 11.10.2011.  
*GUID:* {DC6CB0A9-2D68-45a5-BBA7-F98A39044F0C}

### **c\_Event\_TimeDelayInformationChanged**

*Type:* **InteractionOccurrence**  
*Status:* Proposed. Version 1.0. Phase 1.0.  
*Package:* feedback\_TimingInformationChange *Keywords:*  
*Detail:* Created on 23.09.2011. Last modified on 12.10.2011.  
*GUID:* {16EB1A1C-90F4-48d0-841D-C51342261CB5}

### **events\_TimingInformationChanged**

*Type:* **InteractionOccurrence**  
*Status:* Proposed. Version 1.0. Phase 1.0.  
*Package:* feedback\_TimingInformationChange *Keywords:*  
*Detail:* Created on 23.09.2011. Last modified on 12.10.2011.  
*GUID:* {3EAD7C21-7FEC-4648-95F0-C603EF00678E}

## **Actions**

*Type:* **Package**  
*Status:* Proposed. Version 1.0. Phase 1.0.  
*Package:* Routing Interface  
*Detail:* Created on 09.09.2011. Last modified on 09.09.2011  
*GUID:* {1D945A97-676B-46fd-A37F-A91B74C2077B}

### **actions\_AsynchronousSetSinkNotificationConfiguration**

*Type:* **Package**  
*Status:* Proposed. Version 1.0. Phase 1.0.  
*Package:* Actions  
*Detail:* Created on 29.01.2013. Last modified on 29.01.2013  
*GUID:* {1748643B-1D36-406b-8E5D-E4D1D63FC3CA}

#### **actions\_AsynchronousSetSinkNotificationConfiguration** - (Interaction diagram)

*Created By:* q232968 on 29.01.2013  
*Last Modified:* 29.01.2013  
*Version:* 1.0. *Locked:* False

GUID: {13B0D116-BAF5-42a3-A1CF-19A38F80B67F}

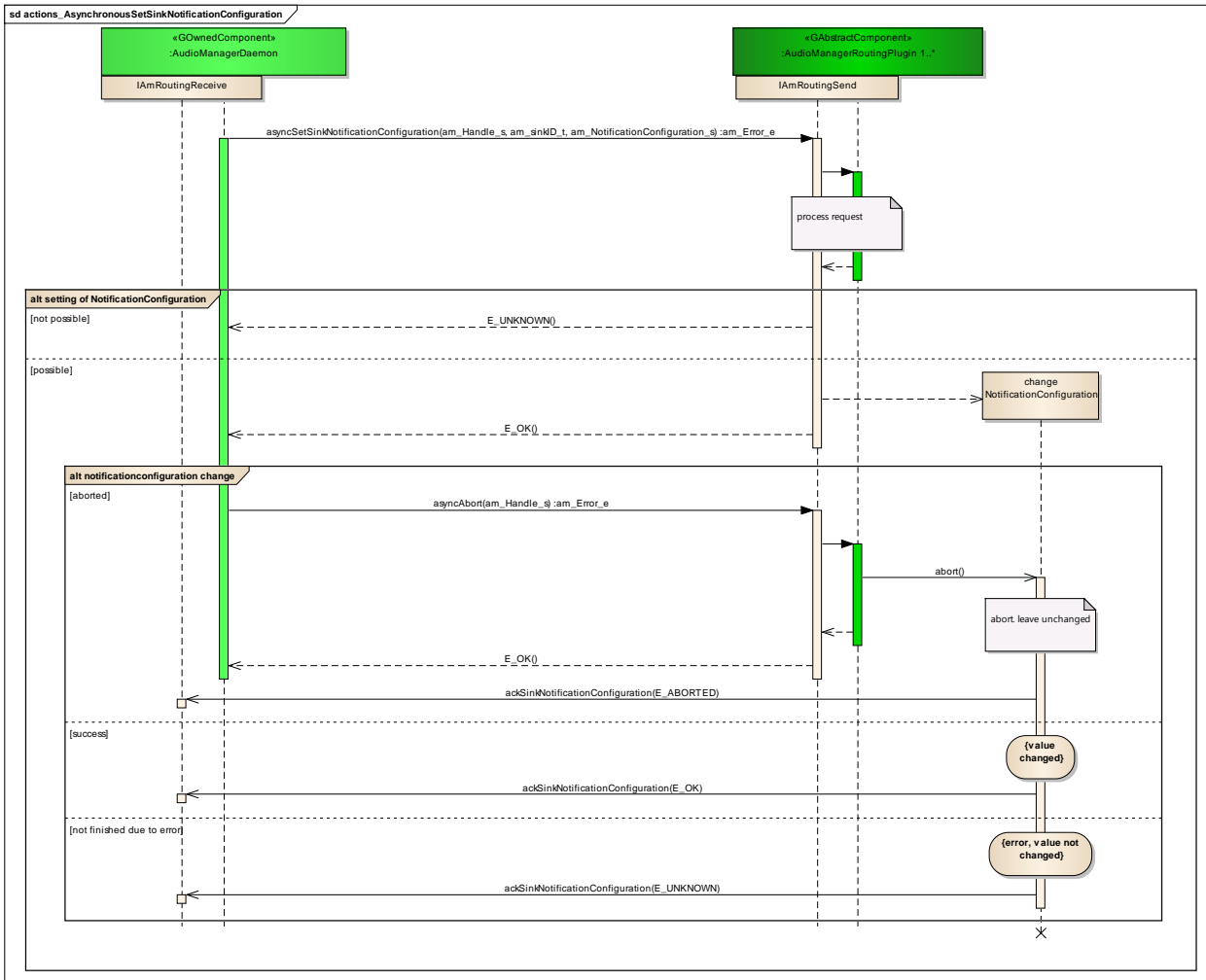


Figure: 10

### change NotificationConfiguration

Type: **Sequence**  
 Status: Proposed. Version 1.0. Phase 1.0.  
 Package: actions\_AsynchronousSetSinkNotificationConfiguration **Keywords:**  
 Detail: Created on 29.01.2013. Last modified on 29.01.2013.  
 GUID: {5701247E-A7DA-4104-8D07-EA4141F2C0E6}

#### Connections

Connector	Source	Target	Notes
<b>Sequence</b> Source -> Destination	Public IAmRoutingSend	Public change NotificationConfigurati on	

Connector	Source	Target	Notes
<b>Sequence</b> abort Source -> Destination	Public <anonymous>	Public change NotificationConfigurati on	
<b>Sequence</b> ackSinkNotificationConfi guration(am_Handle_s, am_Error_e) Source -> Destination	Public change NotificationConfigurati on	Public IAmRoutingReceive	
<b>Sequence</b> ackSinkNotificationConfi guration(am_Handle_s, am_Error_e) Source -> Destination	Public change NotificationConfigurati on	Public IAmRoutingReceive	
<b>Sequence</b> ackSinkNotificationConfi guration(am_Handle_s, am_Error_e) Source -> Destination	Public change NotificationConfigurati on	Public IAmRoutingReceive	

## notificationconfiguration change

**Type:** InteractionFragment  
**Status:** Proposed. Version 1.0. Phase 1.0.  
**Package:** actions\_AsynchronousSetSinkNotificationConfiguration **Keywords:**  
**Detail:** Created on 29.01.2013. Last modified on 29.01.2013.  
**GUID:** {F14F8308-AE6A-420c-8427-272090935CB4}

## setting of NotificationConfiguration

**Type:** InteractionFragment  
**Status:** Proposed. Version 1.0. Phase 1.0.  
**Package:** actions\_AsynchronousSetSinkNotificationConfiguration **Keywords:**  
**Detail:** Created on 29.01.2013. Last modified on 29.01.2013.  
**GUID:** {59B76DA7-9B8D-4bc6-9771-37650C2403F4}

## actions\_AsynchronousSetSourceNotificationConfiguration

**Type:** Package  
**Status:** Proposed. Version 1.0. Phase 1.0.  
**Package:** Actions

*Detail:* Created on 30.01.2013. Last modified on 30.01.2013  
*GUID:* {ECE93F71-6C9A-4a7b-B3BC-358EE1AF8882}

**actions AsynchronousSetSourceNotificationConfiguration** - (Interaction diagram)

*Created By:* q232968 on 29.01.2013  
*Last Modified:* 31.01.2013  
*Version:* 1.0. *Locked:* False  
*GUID:* {700B85BB-2C94-43f3-98B7-84DE76938101}

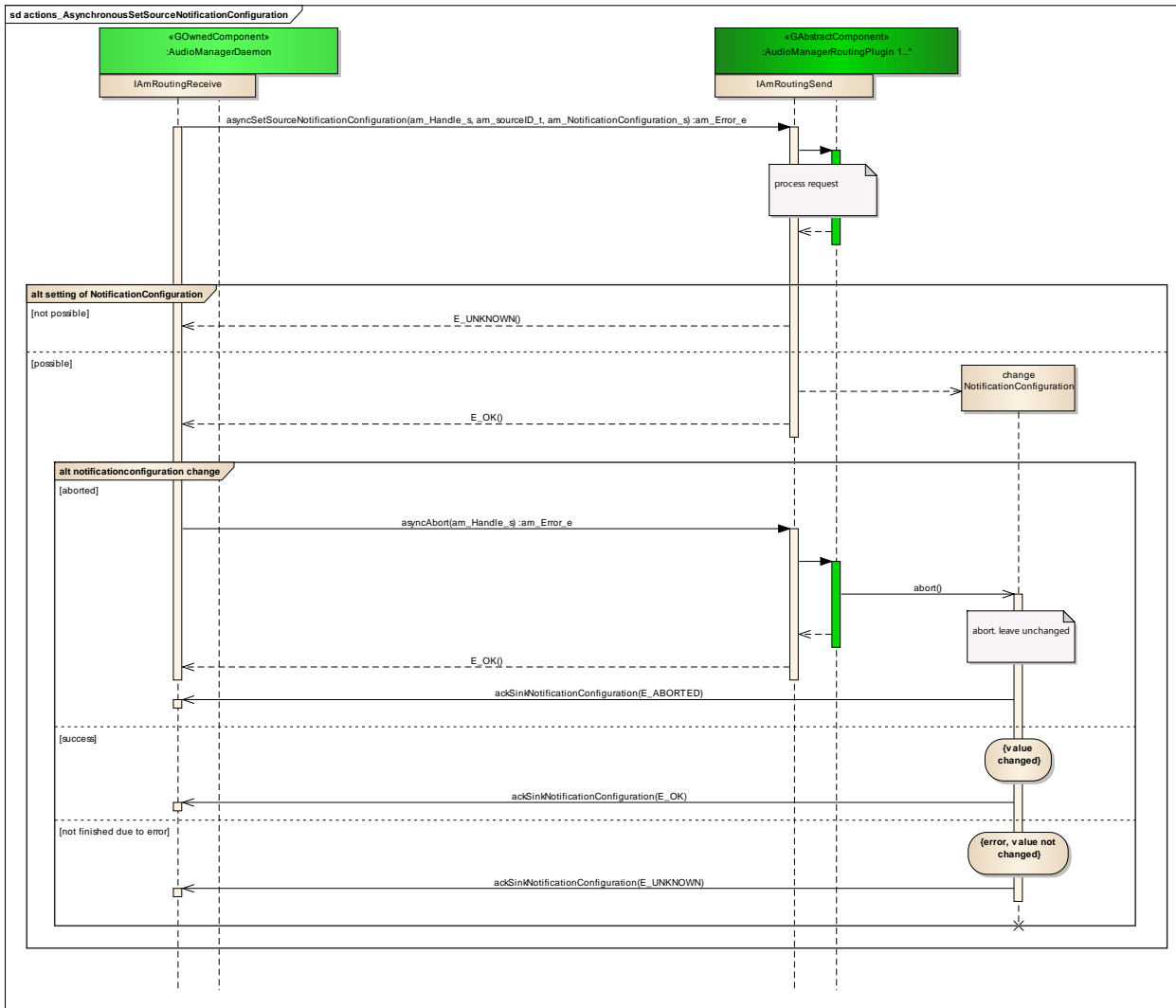


Figure: 11

**change NotificationConfiguration**

*Type:* **Sequence**  
*Status:* Proposed. Version 1.0. Phase 1.0.  
*Package:* actions\_AsynchronousSetSourceNotificationConfiguration *Keywords:*  
*Detail:* Created on 29.01.2013. Last modified on 29.01.2013.  
*GUID:* {3D0DCE40-EFDC-4bfd-B32F-129C0E568EDE}

**Connections**

<b>Connector</b>	<b>Source</b>	<b>Target</b>	<b>Notes</b>
<b><u>Sequence</u></b> Source -> Destination	Public IAmRoutingSend	Public change NotificationConfigurati on	
<b><u>Sequence</u></b> abort Source -> Destination	Public <anonymous>	Public change NotificationConfigurati on	
<b><u>Sequence</u></b> ackSinkNotificationConfi guration(am_Handle_s, am_Error_e) Source -> Destination	Public change NotificationConfigurati on	Public IAmRoutingReceive	
<b><u>Sequence</u></b> ackSinkNotificationConfi guration(am_Handle_s, am_Error_e) Source -> Destination	Public change NotificationConfigurati on	Public IAmRoutingReceive	
<b><u>Sequence</u></b> ackSinkNotificationConfi guration(am_Handle_s, am_Error_e) Source -> Destination	Public change NotificationConfigurati on	Public IAmRoutingReceive	

**notificationconfiguration change**

**Type:** **InteractionFragment**  
**Status:** Proposed. Version 1.0. Phase 1.0.  
**Package:** actions\_AsynchronousSetSourceNotificationConfiguration **Keywords:**  
**Detail:** Created on 29.01.2013. Last modified on 29.01.2013.  
**GUID:** {28CECAE7-BD4C-4e67-B3EB-6DFE68BA2560}

**setting of NotificationConfiguration**

**Type:** **InteractionFragment**  
**Status:** Proposed. Version 1.0. Phase 1.0.  
**Package:** actions\_AsynchronousSetSourceNotificationConfiguration **Keywords:**  
**Detail:** Created on 29.01.2013. Last modified on 29.01.2013.  
**GUID:** {174BD59A-8CDF-4969-8323-AC4CA46FFC80}

## actions\_SetDomainState

Type: **Package**  
 Status: Reworked. Version 1.0. Phase 1.0.  
 Package: Actions  
 Detail: Created on 11.10.2011. Last modified on 12.10.2011  
 GUID: {F0837207-2B09-47e5-9428-48D7964B014C}

### actions\_SetDomainState - (Interaction diagram)

Created By: christian on 11.10.2011  
 Last Modified: 12.10.2011  
 Version: 1.0. Locked: False  
 GUID: {69D1A644-4405-4a76-A82B-FC6CB587B5A1}

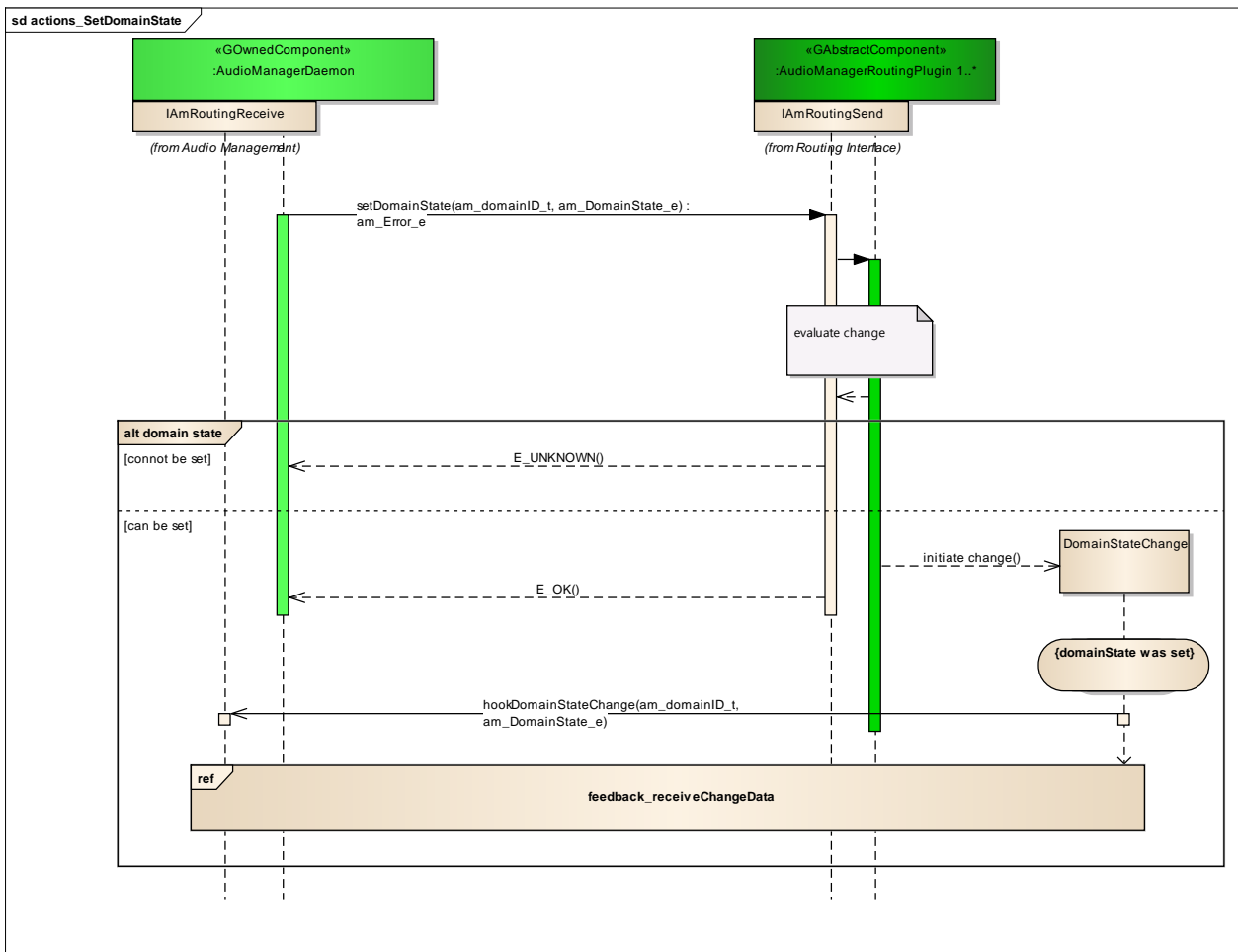


Figure: 12

## DomainStateChange

Type: **Sequence**  
 Status: Proposed. Version 1.0. Phase 1.0.

*Package:* actions\_SetDomainState *Keywords:*  
*Detail:* Created on 11.10.2011. Last modified on 11.10.2011.  
*GUID:* {8F4E2664-CC08-4a9a-A864-46D04901B81F}

### Connections

Connector	Source	Target	Notes
<b>Sequence</b> initiate change Source -> Destination	Public <anonymous>	Public DomainStateChange	
<b>Sequence</b> hookDomainStateChange( am_domainID_t, am_DomainState_e) Source -> Destination	Public DomainStateChange	Public IAmRoutingReceive	

### **domain state**

*Type:* **InteractionFragment**  
*Status:* Proposed. Version 1.0. Phase 1.0.  
*Package:* actions\_SetDomainState *Keywords:*  
*Detail:* Created on 11.10.2011. Last modified on 11.10.2011.  
*GUID:* {ED8AFE52-F074-43bc-ABC1-D4A9ECA11202}

### **feedback\_receiveChangeData**

*Type:* **InteractionOccurrence**  
*Status:* Proposed. Version 1.0. Phase 1.0.  
*Package:* actions\_SetDomainState *Keywords:*  
*Detail:* Created on 12.10.2011. Last modified on 12.10.2011.  
*GUID:* {7B3747DA-547B-418d-9E56-27EA55D4FFED}

### **actions\_AsyncCrossFade**

*Type:* **Package**  
*Status:* Reworked. Version 1.0. Phase 1.0.  
*Package:* Actions  
*Detail:* Created on 07.09.2011. Last modified on 12.10.2011  
*GUID:* {C645B6B4-B2C8-4fa8-8AC5-04DA602C630C}

### **actions\_AsyncCrossFade** - (Interaction diagram)

Created By: christian on 07.09.2011  
 Last Modified: 12.10.2011  
 Version: 1.0. Locked: False  
 GUID: {5891891C-313C-402a-B618-98C5D81C764D}

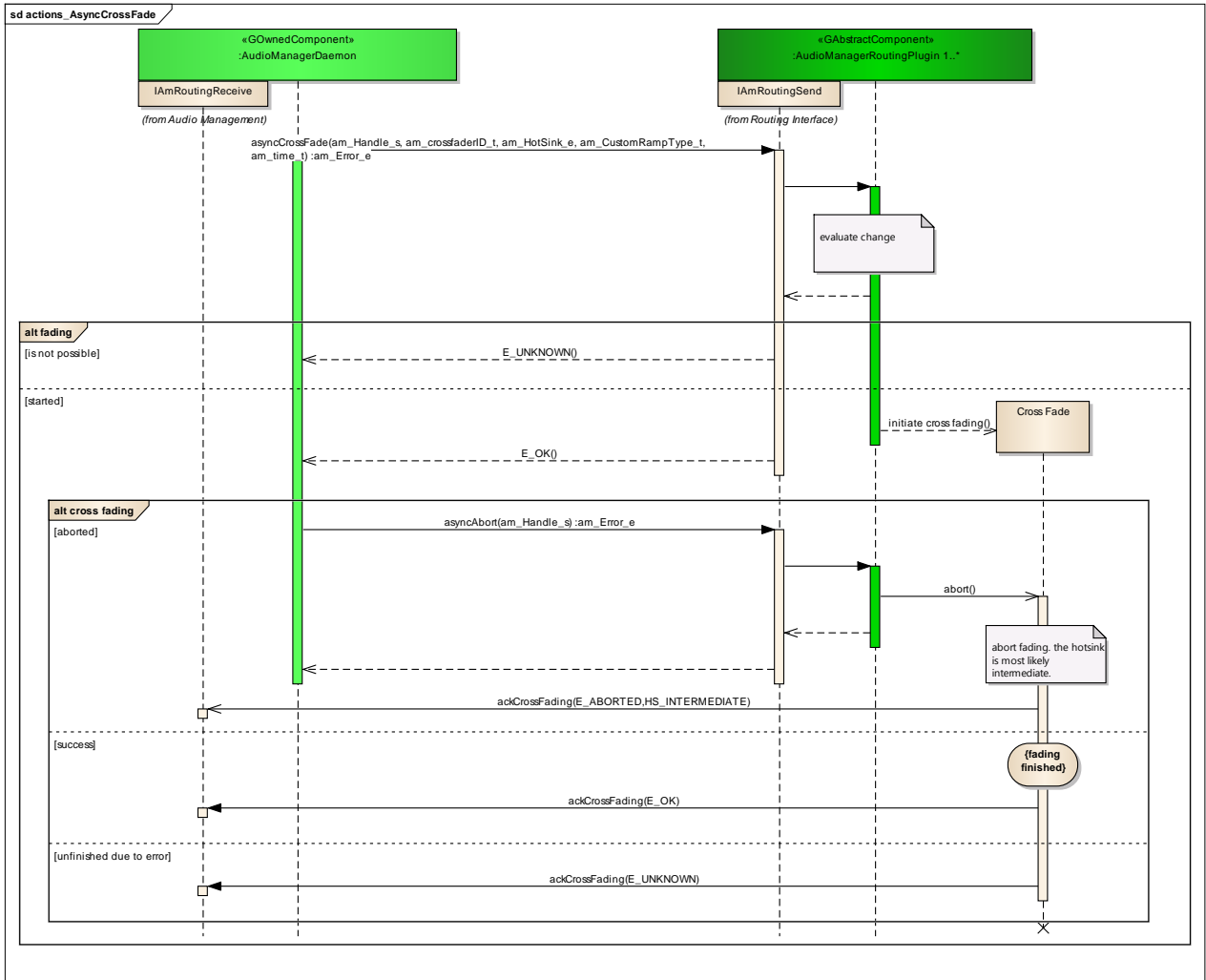


Figure: 13

## Cross Fade

Type: **Sequence**  
 Status: Proposed. Version 1.0. Phase 1.0.  
 Package: actions\_AsyncCrossFade *Keywords:*  
 Detail: Created on 07.09.2011. Last modified on 07.09.2011.  
 GUID: {08D68DFC-A210-4e90-9743-9DB7B3218940}

### Connections

Connector	Source	Target	Notes
<b>Sequence</b> initiate cross fading	Public <anonymous>	Public Cross Fade	



Connector	Source	Target	Notes
Source -> Destination			
<b>Sequence</b> abort Source -> Destination	Public <anonymous>	Public Cross Fade	
<b>Sequence</b> ackCrossFading(am_hand le_t, am_HotSink_e, am_error_t) Source -> Destination	Public Cross Fade	Public IAmRoutingReceive	
<b>Sequence</b> ackCrossFading(am_hand le_t, am_HotSink_e, am_error_t) Source -> Destination	Public Cross Fade	Public IAmRoutingReceive	
<b>Sequence</b> ackCrossFading(am_hand le_t, am_HotSink_e, am_error_t) Source -> Destination	Public Cross Fade	Public IAmRoutingReceive	

## cross fading

*Type:* **InteractionFragment**  
*Status:* Proposed. Version 1.0. Phase 1.0.  
*Package:* actions\_AsyncCrossFade *Keywords:*  
*Detail:* Created on 12.10.2011. Last modified on 12.10.2011.  
*GUID:* {D7C81377-9DC5-4dbd-ACA3-9C2BACFA6EF2}

## fading

*Type:* **InteractionFragment**  
*Status:* Proposed. Version 1.0. Phase 1.0.  
*Package:* actions\_AsyncCrossFade *Keywords:*  
*Detail:* Created on 07.09.2011. Last modified on 07.09.2011.  
*GUID:* {D5DD75C4-C241-446a-9612-C5D4F40A5BAA}

## actions\_AsynchronouSetSourceSoundProperty

*Type:* **Package**  
*Status:* Reworked. Version 1.0. Phase 1.0.  
*Package:* Actions

*Detail:* Created on 06.09.2011. Last modified on 11.10.2011  
*GUID:* {C8725347-7B55-40c7-AB4F-AC2B76967C45}

**actions AsynchronousSetSourceSoundProperty** - (Interaction diagram)

*Created By:* christian on 06.09.2011  
*Last Modified:* 11.10.2011  
*Version:* 1.0. *Locked:* False  
*GUID:* {2160D3F5-B78B-443f-BCB9-27D071469CFB}

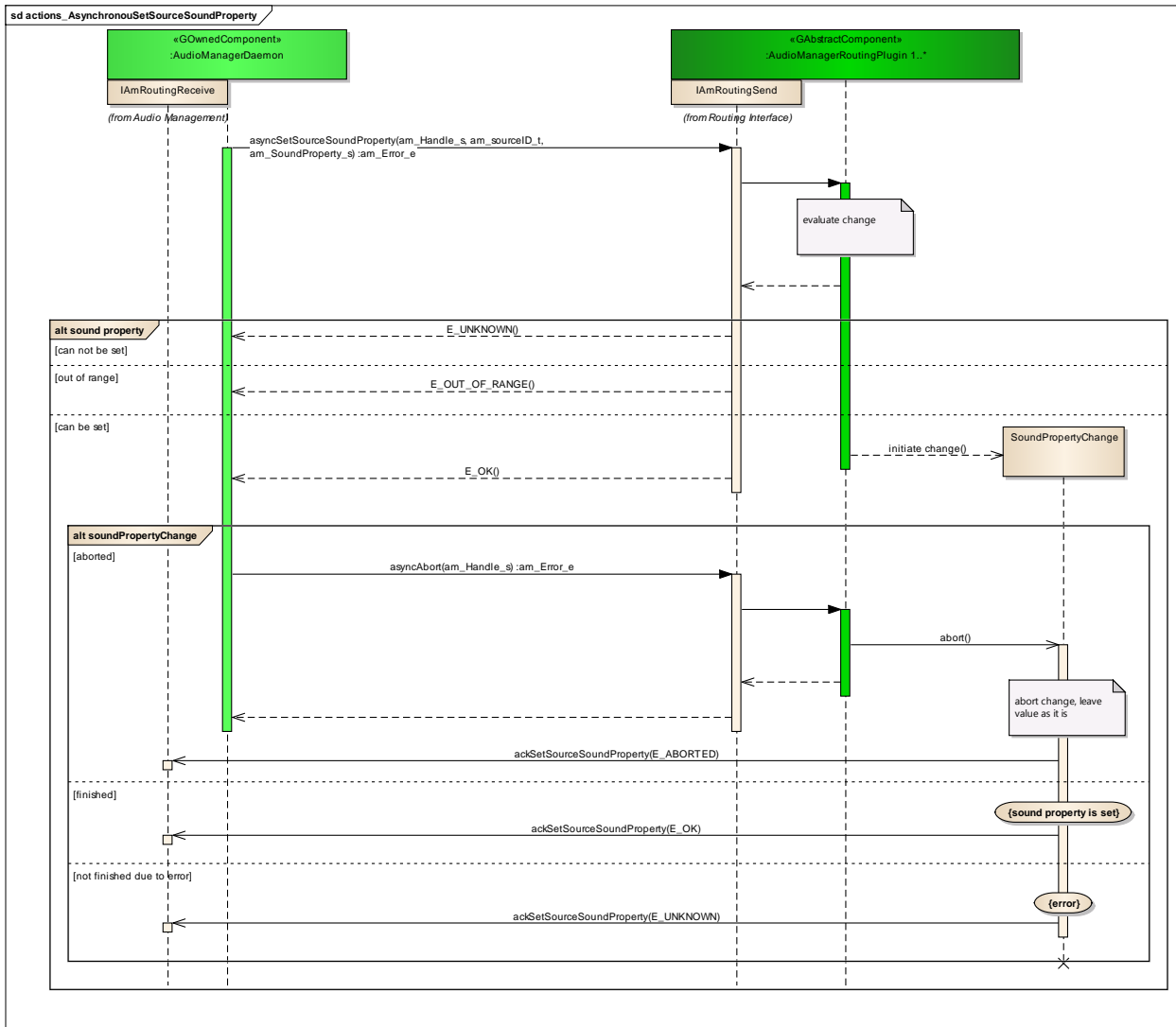


Figure: 14

### SoundPropertyChange

*Type:* **Sequence**  
*Status:* Proposed. Version 1.0. Phase 1.0.  
*Package:* actions\_AsynchronouSetSourceSoundProperty *Keywords:*  
*Detail:* Created on 05.10.2011. Last modified on 05.10.2011.  
*GUID:* {96E2E73B-3AAB-4181-BC20-DF03148C6496}

**Connections**

<b>Connector</b>	<b>Source</b>	<b>Target</b>	<b>Notes</b>
<b>Sequence</b> initiate change Source -> Destination	Public <anonymous>	Public SoundPropertyChange	
<b>Sequence</b> abort Source -> Destination	Public <anonymous>	Public SoundPropertyChange	
<b>Sequence</b> ackSetSourceSoundProp erty(am_handle_t, am_error_t) Source -> Destination	Public SoundPropertyChange	Public IAmRoutingReceive	
<b>Sequence</b> ackSetSourceSoundProp erty(am_handle_t, am_error_t) Source -> Destination	Public SoundPropertyChange	Public IAmRoutingReceive	
<b>Sequence</b> ackSetSourceSoundProp erty(am_handle_t, am_error_t) Source -> Destination	Public SoundPropertyChange	Public IAmRoutingReceive	

**sound property**

**Type:** **InteractionFragment**  
**Status:** Proposed. Version 1.0. Phase 1.0.  
**Package:** actions\_AsynchrouSetSourceSoundProperty **Keywords:**  
**Detail:** Created on 08.09.2011. Last modified on 08.09.2011.  
**GUID:** {37EF046B-A904-4c8d-9497-401291195902}

**soundPropertyChange**

**Type:** **InteractionFragment**  
**Status:** Proposed. Version 1.0. Phase 1.0.  
**Package:** actions\_AsynchrouSetSourceSoundProperty **Keywords:**  
**Detail:** Created on 05.10.2011. Last modified on 05.10.2011.  
**GUID:** {DD968058-91C5-4485-8530-96CD0498318B}

## actions\_AsynchronousSetSinkSoundProperty

Type: **Package**  
 Status: Reworked. Version 1.0. Phase 1.0.  
 Package: Actions  
 Detail: Created on 22.09.2011. Last modified on 11.10.2011  
 GUID: {078BA4CA-74EC-4079-B121-EAE4A5B79186}

### actions\_AsynchronousSetSinkSoundProperty - (Interaction diagram)

Created By: christian on 22.09.2011  
 Last Modified: 11.10.2011  
 Version: 1.0. Locked: False  
 GUID: {94DB7C80-EA1B-441a-82D1-AEA6E50A715D}

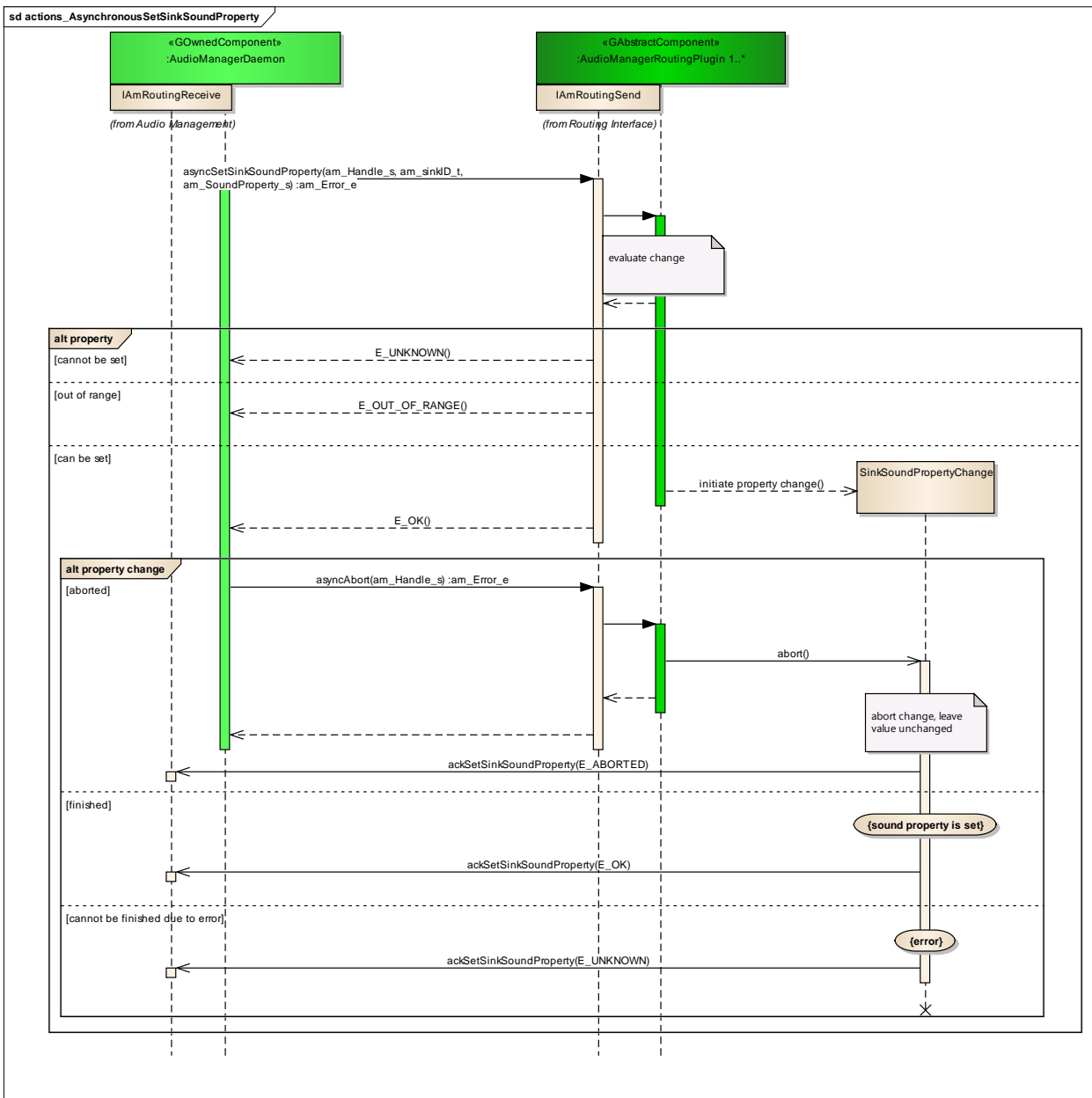


Figure: 15

## SinkSoundPropertyChange

**Type:** **Sequence**  
**Status:** Proposed. Version 1.0. Phase 1.0.  
**Package:** actions\_AsynchronousSetSinkSoundProperty **Keywords:**  
**Detail:** Created on 07.10.2011. Last modified on 07.10.2011.  
**GUID:** {EFCBF187-B126-410e-9EAB-705AA2727E74}

### Connections

Connector	Source	Target	Notes
<b>Sequence</b> initiate property change Source -> Destination	Public <anonymous>	Public SinkSoundPropertyChange	
<b>Sequence</b> abort Source -> Destination	Public <anonymous>	Public SinkSoundPropertyChange	
<b>Sequence</b> ackSetSinkSoundProperty (am_handle_t, am_error_t) Source -> Destination	Public SinkSoundPropertyChange	Public IAmRoutingReceiver	
<b>Sequence</b> ackSetSinkSoundProperty (am_handle_t, am_error_t) Source -> Destination	Public SinkSoundPropertyChange	Public IAmRoutingReceiver	
<b>Sequence</b> ackSetSinkSoundProperty (am_handle_t, am_error_t) Source -> Destination	Public SinkSoundPropertyChange	Public IAmRoutingReceiver	

### property

**Type:** **InteractionFragment**  
**Status:** Proposed. Version 1.0. Phase 1.0.  
**Package:** actions\_AsynchronousSetSinkSoundProperty **Keywords:**  
**Detail:** Created on 22.09.2011. Last modified on 07.10.2011.  
**GUID:** {A554525F-97C6-4a89-A643-FE024CF4A216}

## **property change**

*Type:* **InteractionFragment**  
*Status:* Proposed. Version 1.0. Phase 1.0.  
*Package:* actions\_AynchronousSetSinkSoundProperty *Keywords:*  
*Detail:* Created on 07.10.2011. Last modified on 07.10.2011.  
*GUID:* {E7A651FF-DE50-4a7f-B331-473BF6AD5A3A}

## **actions\_AynchronousSourceStateChange**

*Type:* **Package**  
*Status:* Reworked. Version 1.0. Phase 1.0.  
*Package:* Actions  
*Detail:* Created on 17.08.2011. Last modified on 11.10.2011  
*GUID:* {979D0C9D-EEE1-474a-BD5E-1D83F74A3A0E}

### **actions\_AynchronousSourceStateChange** - (Interaction diagram)

*Created By:* christian on 17.08.2011  
*Last Modified:* 11.10.2011  
*Version:* 1.0. *Locked:* False  
*GUID:* {E94221AD-0522-47d9-8F78-59DABEF43656}

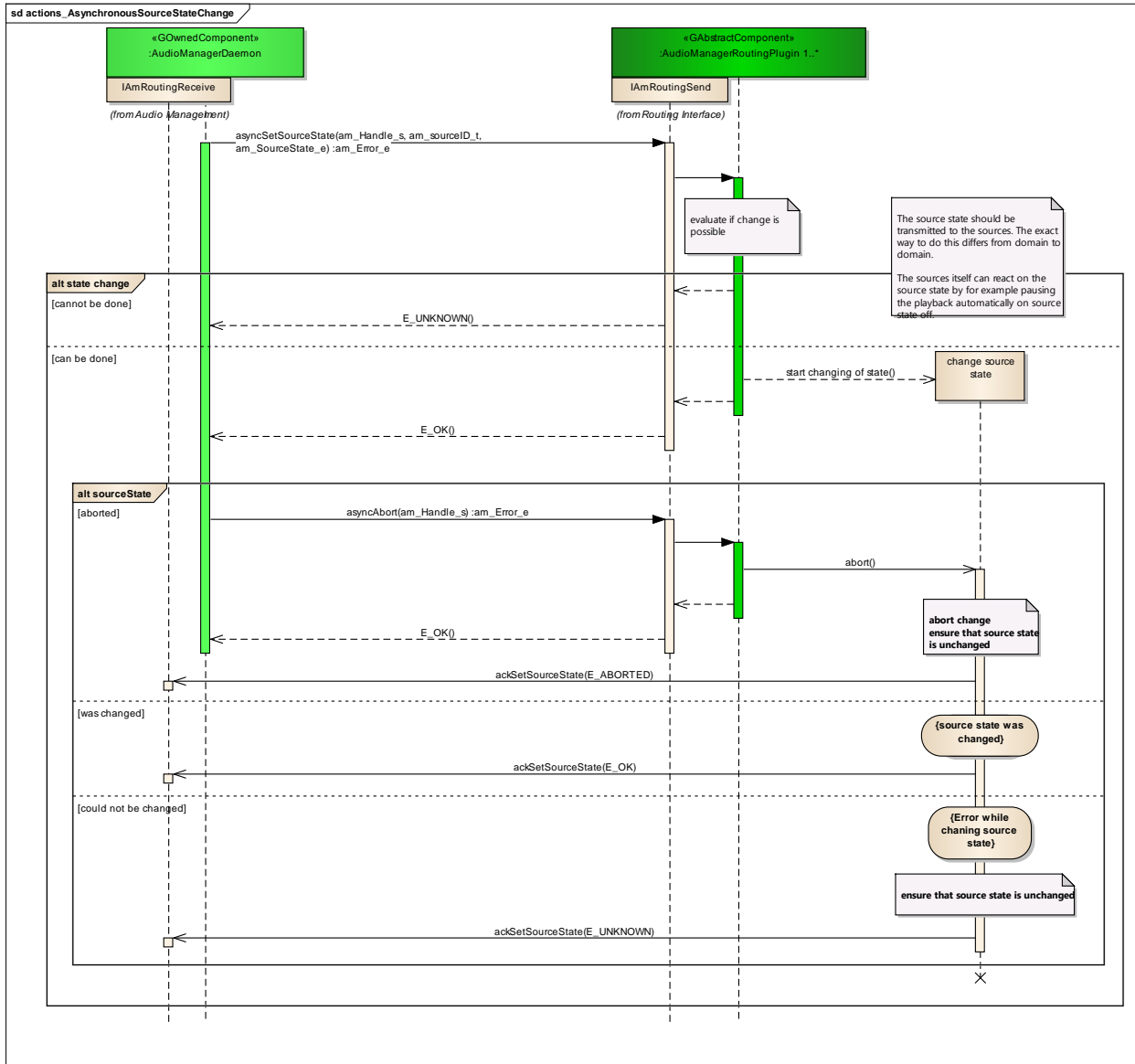


Figure: 16

### change source state

Type: **Sequence**  
 Status: Proposed. Version 1.0. Phase 1.0.  
 Package: actions\_ AsynchronousSourceStateChange **Keywords:**  
 Detail: Created on 30.09.2011. Last modified on 30.09.2011.  
 GUID: {0D8CB4D7-FC8B-4fa0-A710-A0C374CA160E}

#### Connections

Connector	Source	Target	Notes
<b>Sequence</b> start changing of state	Public <anonymous>	Public change source state	

Connector	Source	Target	Notes
Source -> Destination			
<b>Sequence</b> abort Source -> Destination	Public <anonymous>	Public change source state	
<b>Sequence</b> ackSetSourceState(am_handle_t, am_error_t) Source -> Destination	Public change source state	Public IAmRoutingReceive	
<b>Sequence</b> ackSetSourceState(am_handle_t, am_error_t) Source -> Destination	Public change source state	Public IAmRoutingReceive	
<b>Sequence</b> ackSetSourceState(am_handle_t, am_error_t) Source -> Destination	Public change source state	Public IAmRoutingReceive	

## sourceState

**Type:** InteractionFragment  
**Status:** Proposed. Version 1.0. Phase 1.0.  
**Package:** actions\_AynchronousSourceStateChange *Keywords:*  
**Detail:** Created on 30.09.2011. Last modified on 30.09.2011.  
**GUID:** {13E60352-A1A1-4e38-9494-1B6C90A5BC1B}

## state change

**Type:** InteractionFragment  
**Status:** Proposed. Version 1.0. Phase 1.0.  
**Package:** actions\_AynchronousSourceStateChange *Keywords:*  
**Detail:** Created on 09.09.2011. Last modified on 09.09.2011.  
**GUID:** {A204EA07-A9BF-47f5-B1A6-BB31C73FCF1C}

## actions\_AynchronousAbortAction

**Type:** Package  
**Status:** Reworked. Version 1.0. Phase 1.0.  
**Package:** Actions  
**Detail:** Created on 08.09.2011. Last modified on 11.10.2011  
**GUID:** {C957DC59-9234-46ba-A4A4-C383F2672B3B}



**actions\_AynchronousAbortAction** - (Interaction diagram)

Created By: christian on 08.09.2011  
 Last Modified: 11.10.2011  
 Version: 1.0. Locked: False  
 GUID: {6CDFB30A-0C7C-4876-BF4C-D305233D7FB5}

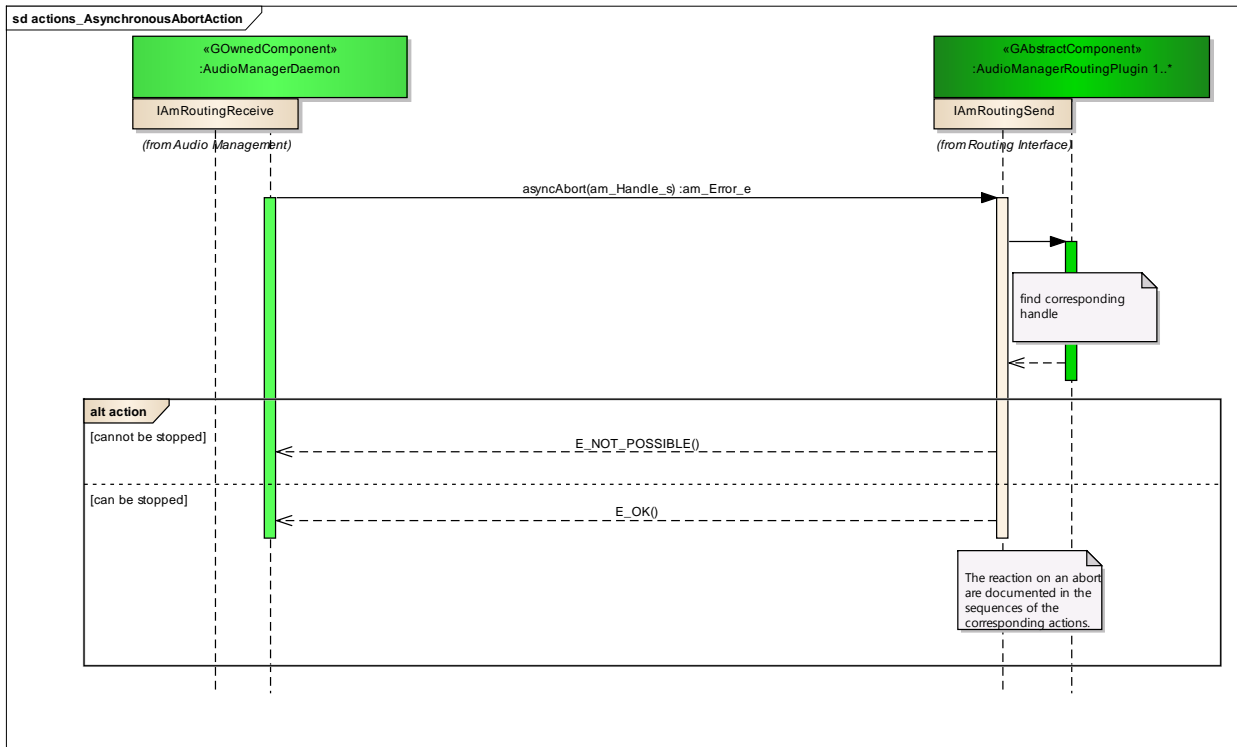


Figure: 17

**action**

Type: **InteractionFragment**  
 Status: Proposed. Version 1.0. Phase 1.0.  
 Package: actions\_AynchronousAbortAction **Keywords:**  
 Detail: Created on 09.09.2011. Last modified on 09.09.2011.  
 GUID: {104ADA75-459F-4b91-AE1F-D3A80A2FB104}

**action was**

Type: **InteractionFragment**  
 Status: Proposed. Version 1.0. Phase 1.0.  
 Package: actions\_AynchronousAbortAction **Keywords:**  
 Detail: Created on 09.09.2011. Last modified on 09.09.2011.  
 GUID: {6FD3AE88-04EE-4d6e-9C86-924CED974693}

## actions\_AsynchronousSinkVolumeChange

Type: **Package**  
 Status: Reworked. Version 1.0. Phase 1.0.  
 Package: Actions  
 Detail: Created on 06.09.2011. Last modified on 11.10.2011  
 GUID: {4370366A-A91E-4066-ADE8-BD9AA3DE068C}

### actions\_AsynchronousSinkVolumeChange - (Interaction diagram)

Created By: christian on 06.09.2011  
 Last Modified: 11.10.2011  
 Version: 1.0. Locked: False  
 GUID: {0AAAF8D8-63E9-4f9a-B744-4F997BDB7430}

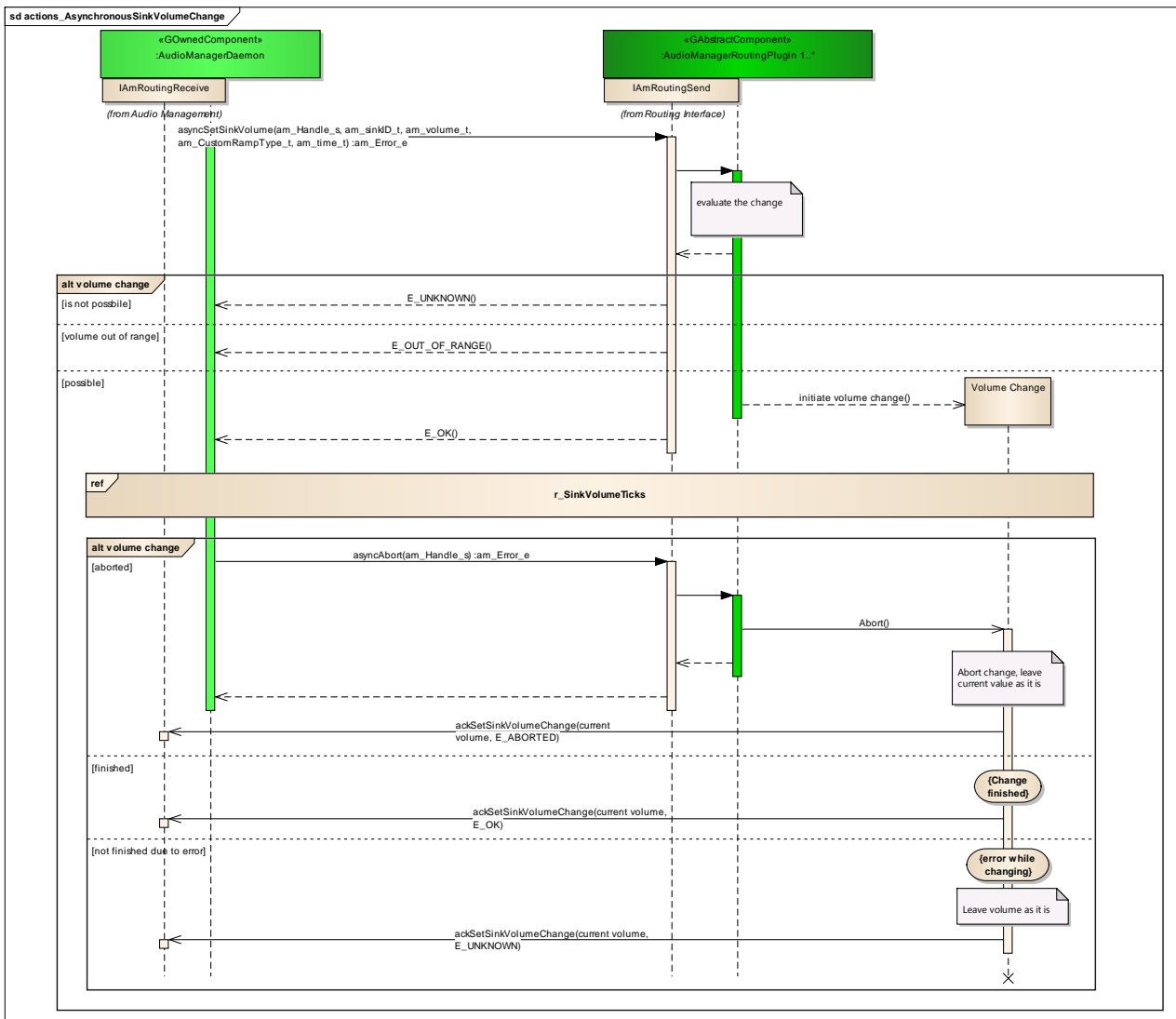


Figure: 18

## Volume Change

**Type:** **Sequence**  
**Status:** Proposed. Version 1.0. Phase 1.0.  
**Package:** actions\_AynchronousSinkVolumeChange **Keywords:**  
**Detail:** Created on 07.09.2011. Last modified on 07.09.2011.  
**GUID:** {73AFA36B-CF3A-457e-8667-16CE1EB35531}

### Connections

Connector	Source	Target	Notes
<b>Sequence</b> initiate volume change Source -> Destination	Public <anonymous>	Public Volume Change	
<b>Sequence</b> Abort Source -> Destination	Public <anonymous>	Public Volume Change	
<b>Sequence</b> ackSetSinkVolumeChange(am_Handle_s, am_volume_t, am_Error_e) Source -> Destination	Public Volume Change	Public IAmRoutingReceive	
<b>Sequence</b> ackSetSinkVolumeChange(am_Handle_s, am_volume_t, am_Error_e) Source -> Destination	Public Volume Change	Public IAmRoutingReceive	
<b>Sequence</b> ackSetSinkVolumeChange(am_Handle_s, am_volume_t, am_Error_e) Source -> Destination	Public Volume Change	Public IAmRoutingReceive	

### r\_SinkVolumeTicks

**Type:** **InteractionOccurrence**  
**Status:** Proposed. Version 1.0. Phase 1.0.  
**Package:** actions\_AynchronousSinkVolumeChange **Keywords:**  
**Detail:** Created on 04.10.2011. Last modified on 04.10.2011.  
**GUID:** {BBD0FC19-6E47-44a5-9110-38CE60EF41B7}

## volume change

**Type:** InteractionFragment  
**Status:** Proposed. Version 1.0. Phase 1.0.  
**Package:** actions\_AynchronousSinkVolumeChange *Keywords:*  
**Detail:** Created on 04.10.2011. Last modified on 04.10.2011.  
**GUID:** {0E77434C-E240-46d4-8DE7-39830B8A10BE}

## volume change

**Type:** InteractionFragment  
**Status:** Proposed. Version 1.0. Phase 1.0.  
**Package:** actions\_AynchronousSinkVolumeChange *Keywords:*  
**Detail:** Created on 07.09.2011. Last modified on 07.09.2011.  
**GUID:** {ECC1DC71-D8C3-47a3-AA29-9B15816DAE8B}

## actions\_AynchronousSourceVolumeChange

**Type:** Package  
**Status:** Reworked. Version 1.0. Phase 1.0.  
**Package:** Actions  
**Detail:** Created on 05.09.2011. Last modified on 11.10.2011  
**GUID:** {199CEE88-FDF3-4b2c-A290-6AE5072B8FC3}

### actions AsynchronousSourceVolumeChange - (Interaction diagram)

**Created By:** christian on 05.09.2011  
**Last Modified:** 29.11.2012  
**Version:** 1.0. *Locked:* False  
**GUID:** {A2A91E86-5EEC-424e-A52D-1FD0BCF03B95}

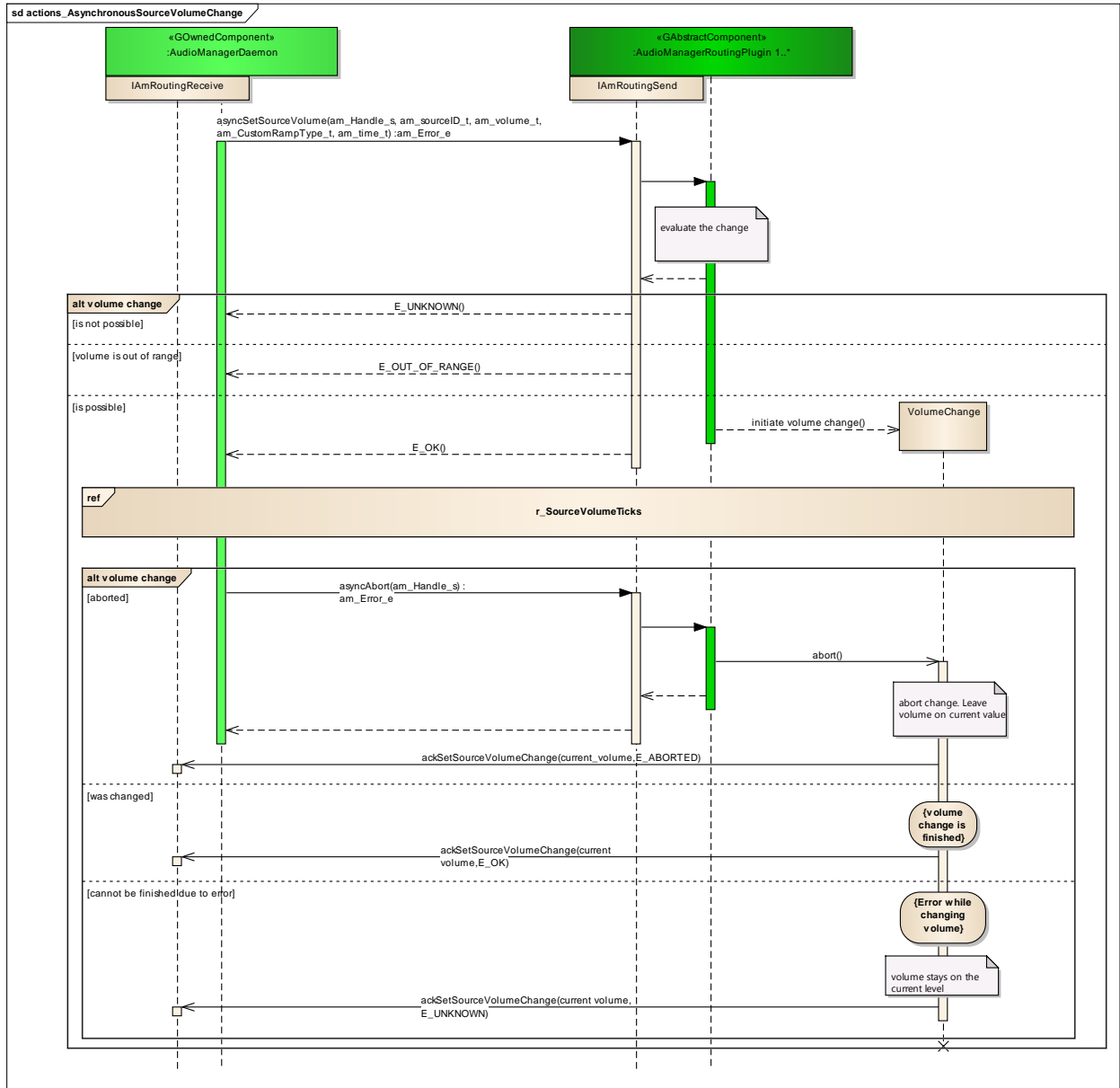


Figure: 19

## VolumeChange

Type: **Sequence**  
 Status: Proposed. Version 1.0. Phase 1.0.  
 Package: actions\_AynchronousSourceVolumeChange *Keywords:*  
 Detail: Created on 07.09.2011. Last modified on 07.09.2011.  
 GUID: {753AD0E0-D869-477c-9407-E15EEA1508B4}

### Connections

Connector	Source	Target	Notes
<b>Sequence</b> initiate volume	Public	Public	

Connector	Source	Target	Notes
change Source -> Destination	<anonymous>	VolumeChange	
<b>Sequence</b> abort Source -> Destination	Public <anonymous>	Public VolumeChange	
<b>Sequence</b> ackSetSourceVolumeChange(am_Handle_s, am_volume_t, am_Error_e) Source -> Destination	Public VolumeChange	Public IAmRoutingReceive	
<b>Sequence</b> ackSetSourceVolumeChange(am_Handle_s, am_volume_t, am_Error_e) Source -> Destination	Public VolumeChange	Public IAmRoutingReceive	
<b>Sequence</b> ackSetSourceVolumeChange(am_Handle_s, am_volume_t, am_Error_e) Source -> Destination	Public VolumeChange	Public IAmRoutingReceive	

## ***r\_SourceVolumeTicks***

**Type:** **InteractionOccurrence**  
**Status:** Proposed. Version 1.0. Phase 1.0.  
**Package:** actions\_AynchronousSourceVolumeChange **Keywords:**  
**Detail:** Created on 04.10.2011. Last modified on 04.10.2011.  
**GUID:** {D77383B9-BA7C-4aa3-8861-A7267663E651}

## ***volume change***

**Type:** **InteractionFragment**  
**Status:** Proposed. Version 1.0. Phase 1.0.  
**Package:** actions\_AynchronousSourceVolumeChange **Keywords:**  
**Detail:** Created on 07.09.2011. Last modified on 07.09.2011.  
**GUID:** {B05AAA91-802A-4f08-B332-67BAC86BA737}

## ***volume change***

**Type:** InteractionFragment  
**Status:** Proposed. Version 1.0. Phase 1.0.  
**Package:** actions\_AynchronousSourceVolumeChange *Keywords:*  
**Detail:** Created on 04.10.2011. Last modified on 04.10.2011.  
**GUID:** {7FE10634-2E5C-41c7-A394-26EEEE721A7A}

## volume change

**Type:** InteractionFragment  
**Status:** Proposed. Version 1.0. Phase 1.0.  
**Package:** actions\_AynchronousSourceVolumeChange *Keywords:*  
**Detail:** Created on 07.09.2011. Last modified on 07.09.2011.  
**GUID:** {7614A1C5-E812-4b9e-B6CE-D7E2BB0D57B3}

## actions\_AynchronousDisconnect

**Type:** Package  
**Status:** Reworked. Version 1.0. Phase 1.0.  
**Package:** Actions  
**Detail:** Created on 24.08.2011. Last modified on 12.10.2011  
**GUID:** {D7CD83F0-B7F8-40f5-A0F5-EB49339CA324}

### actions\_AynchronousDisconnect - (Interaction diagram)

**Created By:** christian on 24.08.2011  
**Last Modified:** 12.10.2011  
**Version:** 1.0. *Locked:* False  
**GUID:** {FA8EB988-7129-43e0-945A-65FB716377D2}

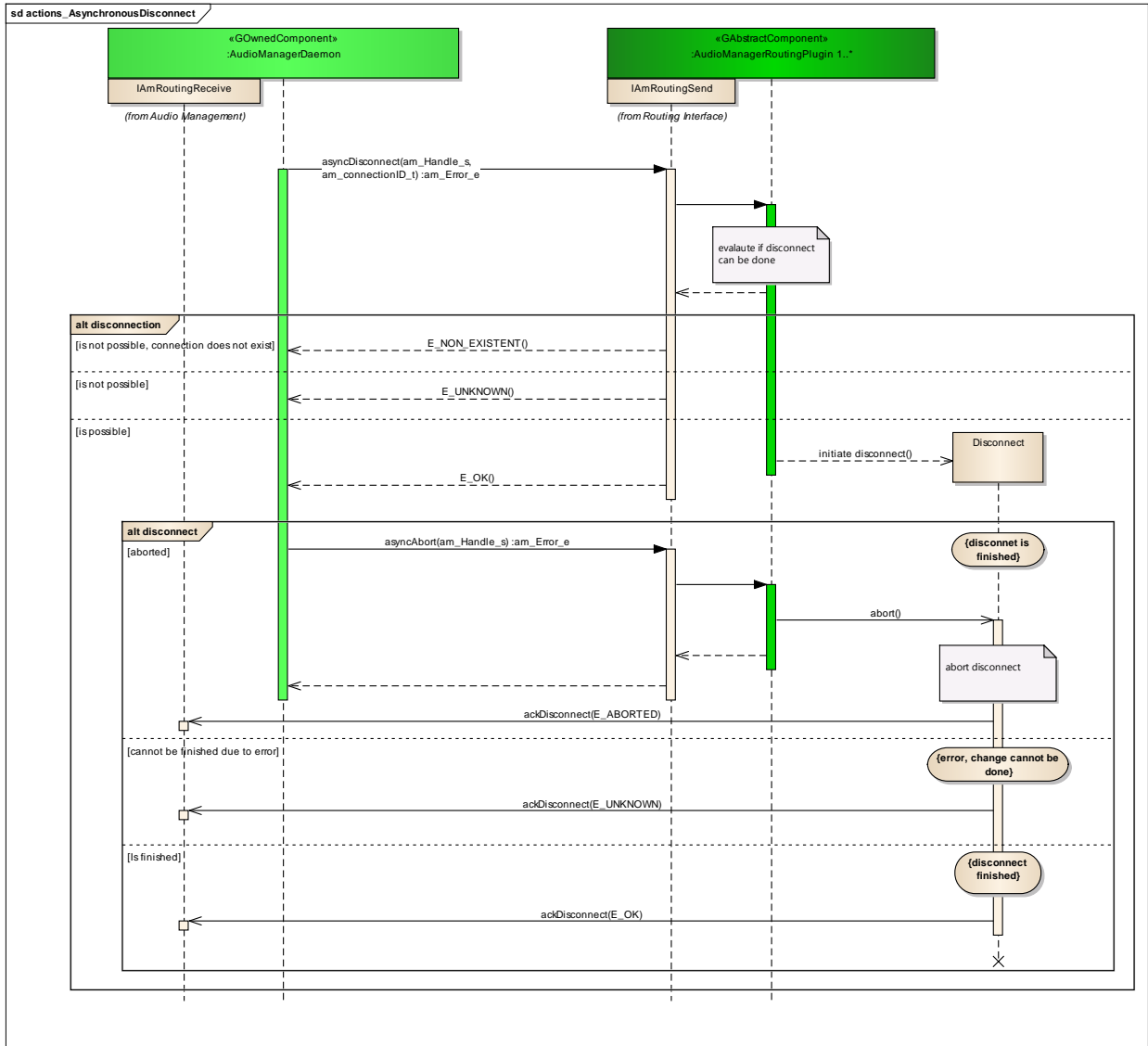


Figure: 20

## Disconnect

**Type:** Sequence  
**Status:** Proposed. Version 1.0. Phase 1.0.  
**Package:** actions\_AynchronousDisconnect **Keywords:**  
**Detail:** Created on 24.08.2011. Last modified on 24.08.2011.  
**GUID:** {9B98FC84-98DE-4034-819B-1B22417E88FE}

### Connections

Connector	Source	Target	Notes
<b>Sequence</b> initiate disconnect Source -> Destination	Public <anonymous>	Public Disconnect	



Connector	Source	Target	Notes
<b>Sequence</b> abort Source -> Destination	Public <anonymous>	Public Disconnect	
<b>Sequence</b> ackDisconnect(am_Handle_s, am_connectionID_t, am_Error_e) Source -> Destination	Public Disconnect	Public IAmRoutingReceive	
<b>Sequence</b> ackDisconnect(am_Handle_s, am_connectionID_t, am_Error_e) Source -> Destination	Public Disconnect	Public IAmRoutingReceive	
<b>Sequence</b> ackDisconnect(am_Handle_s, am_connectionID_t, am_Error_e) Source -> Destination	Public Disconnect	Public IAmRoutingReceive	

## **disconnect**

*Type:* **InteractionFragment**  
*Status:* Proposed. Version 1.0. Phase 1.0.  
*Package:* actions\_AsynchronousDisconnect *Keywords:*  
*Detail:* Created on 24.08.2011. Last modified on 24.08.2011.  
*GUID:* {68A4A5FC-568E-4af0-A5D6-8068027CFBD0}

## **disconnection**

*Type:* **InteractionFragment**  
*Status:* Proposed. Version 1.0. Phase 1.0.  
*Package:* actions\_AsynchronousDisconnect *Keywords:*  
*Detail:* Created on 24.08.2011. Last modified on 24.08.2011.  
*GUID:* {23708B08-D308-4341-A2F7-E9DA5A386C7F}

## **actions\_AsynchronousMultipleVolumeChange**

*Type:* **Package**  
*Status:* Proposed. Version 1.0. Phase 1.0.  
*Package:* Actions  
*Detail:* Created on 29.11.2012. Last modified on 29.11.2012

GUID: {CEE7CADD-53A7-48ed-A88C-A7D58B68E7E7}

**actions AsynchronousMultipleVolumeChange** - (Interaction diagram)

Created By: q232968 on 29.11.2012

Last Modified: 29.11.2012

Version: 1.0. Locked: False

GUID: {43186345-EB25-4534-A2A5-67655D3755A0}

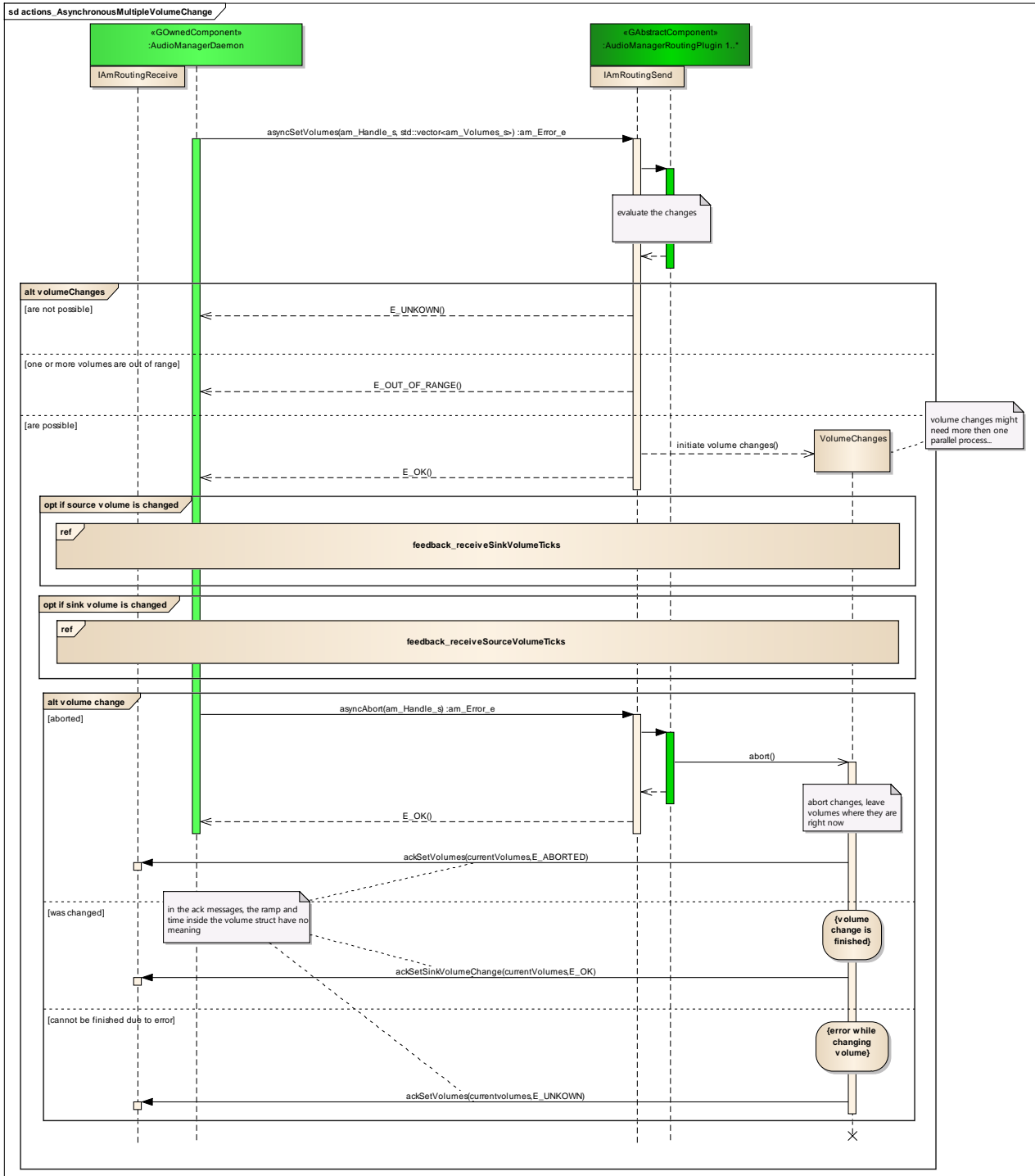


Figure: 21

## VolumeChanges

**Type:** Sequence  
**Status:** Proposed. Version 1.0. Phase 1.0.  
**Package:** actions\_AsynchronousMultipleVolumeChange *Keywords:*  
**Detail:** Created on 29.11.2012. Last modified on 29.11.2012.  
**GUID:** {B7EAF9C92-552E-4d40-9119-8B9B25A93E04}

### Connections

Connector	Source	Target	Notes
<u>NoteLink</u>	Public <anonymous>	Public VolumeChanges	
<u>Sequence</u> initiate volume changes Source -> Destination	Public IAmRoutingSend	Public VolumeChanges	
<u>Sequence</u> abort Source -> Destination	Public <anonymous>	Public VolumeChanges	
<u>Sequence</u> ackSetVolumes(am_Handle_s, std::vector<am_Volumes_s>, am_Error_e) Source -> Destination	Public VolumeChanges	Public IAmRoutingReceive	
<u>Sequence</u> ackSetSinkVolumeChange(am_Handle_s, am_volume_t, am_Error_e) Source -> Destination	Public VolumeChanges	Public IAmRoutingReceive	
<u>Sequence</u> ackSetVolumes(am_Handle_s, std::vector<am_Volumes_s>, am_Error_e) Source -> Destination	Public VolumeChanges	Public IAmRoutingReceive	

### feedback\_receiveSinkVolumeTicks

**Type:** InteractionOccurrence  
**Status:** Proposed. Version 1.0. Phase 1.0.  
**Package:** actions\_AsynchronousMultipleVolumeChange *Keywords:*  
**Detail:** Created on 29.11.2012. Last modified on 29.11.2012.  
**GUID:** {5C42C322-69B7-4ffa-8251-8ACDAB798567}

## **feedback\_receiveSourceVolumeTicks**

*Type:* **InteractionOccurrence**  
*Status:* Proposed. Version 1.0. Phase 1.0.  
*Package:* actions\_AsynchronousMultipleVolumeChange *Keywords:*  
*Detail:* Created on 29.11.2012. Last modified on 29.11.2012.  
*GUID:* {8D2E93AC-955D-44fa-88AD-D95154B3E713}

## **if sink volume is changed**

*Type:* **InteractionFragment**  
*Status:* Proposed. Version 1.0. Phase 1.0.  
*Package:* actions\_AsynchronousMultipleVolumeChange *Keywords:*  
*Detail:* Created on 29.11.2012. Last modified on 29.11.2012.  
*GUID:* {E72BBAC8-BE25-4a7d-A036-7FC140ED71FC}

## **if source volume is changed**

*Type:* **InteractionFragment**  
*Status:* Proposed. Version 1.0. Phase 1.0.  
*Package:* actions\_AsynchronousMultipleVolumeChange *Keywords:*  
*Detail:* Created on 29.11.2012. Last modified on 29.11.2012.  
*GUID:* {78981C5A-ED31-4c67-B085-3590E536EDBC}

## **volume change**

*Type:* **InteractionFragment**  
*Status:* Proposed. Version 1.0. Phase 1.0.  
*Package:* actions\_AsynchronousMultipleVolumeChange *Keywords:*  
*Detail:* Created on 29.11.2012. Last modified on 29.11.2012.  
*GUID:* {414DEEF3-33BE-47a3-8A4C-A2528C1C500A}

## **volumeChanges**

*Type:* **InteractionFragment**

*Status:* Proposed. Version 1.0. Phase 1.0.  
*Package:* actions\_AsynchronousMultipleVolumeChange *Keywords:*  
*Detail:* Created on 29.11.2012. Last modified on 29.11.2012.  
*GUID:* {65F405B8-CB95-42ae-86B4-9C1D520E9DAD}

## actions\_AsynchronousConnect

*Type:* **Package**  
*Status:* Reworked. Version 1.0. Phase 1.0.  
*Package:* Actions  
*Detail:* Created on 23.08.2011. Last modified on 11.10.2011  
*GUID:* {E42577B0-0D3E-4ed2-BD19-B999ADB77D6D}

This shows how a basic connect is done.

### **actions\_AsynchronousConnect** - (Interaction diagram)

*Created By:* christian on 23.08.2011  
*Last Modified:* 20.10.2011  
*Version:* 1.0. *Locked:* False  
*GUID:* {5078CDC1-2236-45ca-A7A0-89A0BAF22541}

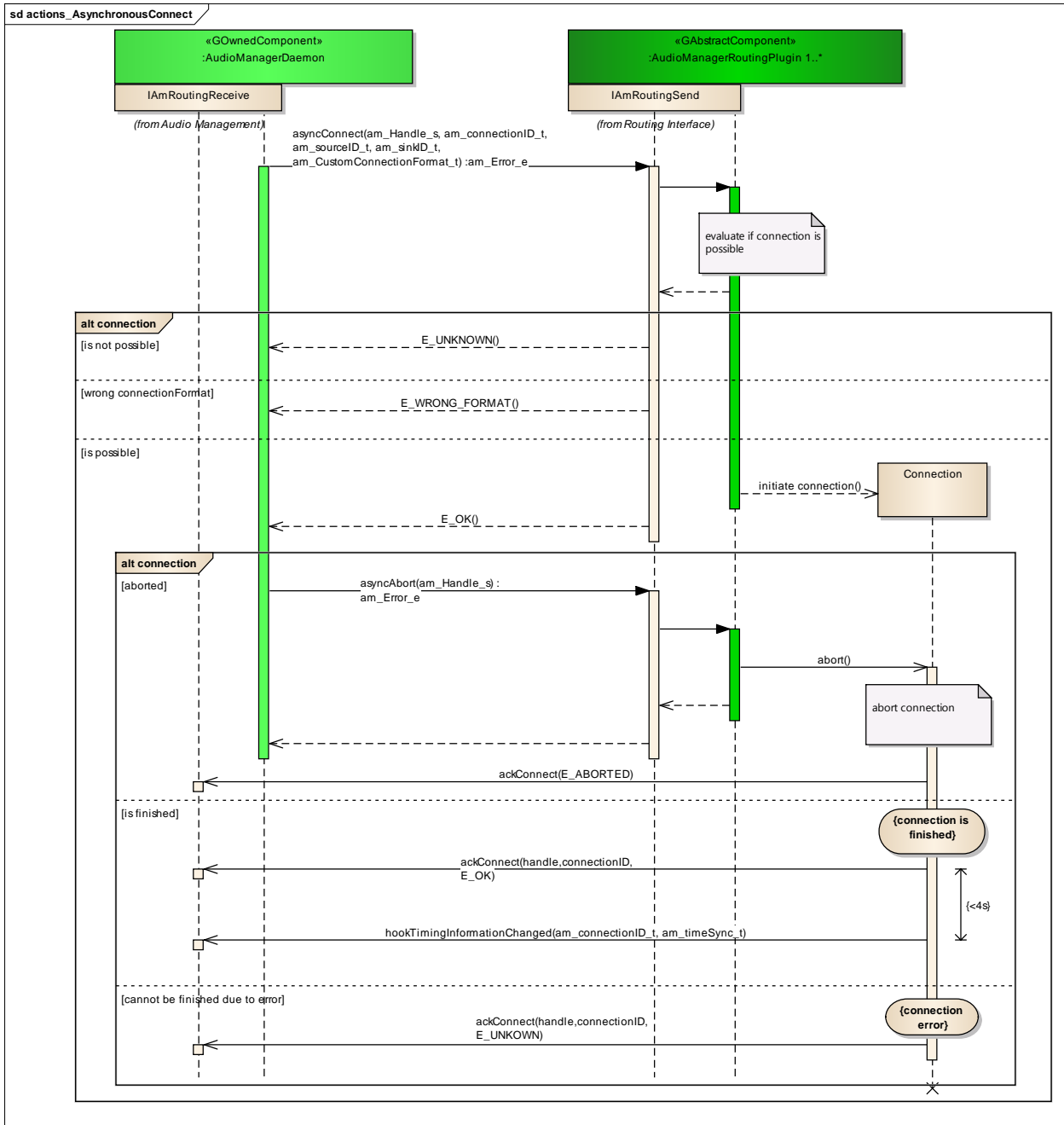


Figure: 22

## Connection

**Type:** Sequence  
**Status:** Proposed. Version 1.0. Phase 1.0.  
**Package:** actions\_AsynchronousConnect *Keywords:*  
**Detail:** Created on 23.08.2011. Last modified on 23.08.2011.  
**GUID:** {D61EC55F-06D7-4a77-97EF-8BB2DB3F93D0}

**Connections**

Connector	Source	Target	Notes
<b>Sequence</b> initiate connection Source -> Destination	Public <anonymous>	Public Connection	
<b>Sequence</b> abort Source -> Destination	Public <anonymous>	Public Connection	
<b>Sequence</b> ackConnect(am_Handle_s, am_connectionID_t, am_Error_e) Source -> Destination	Public Connection	Public IAmRoutingReceive	
<b>Sequence</b> ackConnect(am_Handle_s, am_connectionID_t, am_Error_e) Source -> Destination	Public Connection	Public IAmRoutingReceive	
<b>Sequence</b> hookTimingInformationChanged(am_connectionID_t, am_timeSync_t) Source -> Destination	Public Connection	Public IAmRoutingReceive	
<b>Sequence</b> ackConnect(am_Handle_s, am_connectionID_t, am_Error_e) Source -> Destination	Public Connection	Public IAmRoutingReceive	

**connection**

**Type:** **InteractionFragment**  
**Status:** Proposed. Version 1.0. Phase 1.0.  
**Package:** actions\_AsynchronousConnect **Keywords:**  
**Detail:** Created on 23.08.2011. Last modified on 23.08.2011.  
**GUID:** {1FD6A82A-B9BD-41d4-8302-C1D34549B92E}

**connection**

**Type:** **InteractionFragment**  
**Status:** Proposed. Version 1.0. Phase 1.0.  
**Package:** actions\_AsynchronousConnect **Keywords:**  
**Detail:** Created on 23.08.2011. Last modified on 23.08.2011.  
**GUID:** {1C4140EF-4156-4d43-B9F0-FFB19B53A3A3}

## Registration\_&\_Startup

Type: **Package**  
 Status: Proposed. Version 1.0. Phase 1.0.  
 Package: Routing Interface  
 Detail: Created on 09.09.2011. Last modified on 09.09.2011  
 GUID: {586BC938-53CA-42dd-9678-EC4DD79F95A1}

## setup\_RoutingInterfaceReady

Type: **Package**  
 Status: Proposed. Version 1.0. Phase 1.0.  
 Package: Registration\_&\_Startup  
 Detail: Created on 12.10.2011. Last modified on 12.10.2011  
 GUID: {874C18D1-3D8A-4996-9642-06B0CFC3753E}

### setup\_RoutingInterfaceReady - (Interaction diagram)

Created By: christian on 12.10.2011  
 Last Modified: 12.10.2011  
 Version: 1.0. Locked: False  
 GUID: {136091CE-3582-423b-AE8D-7D41D3367C2E}

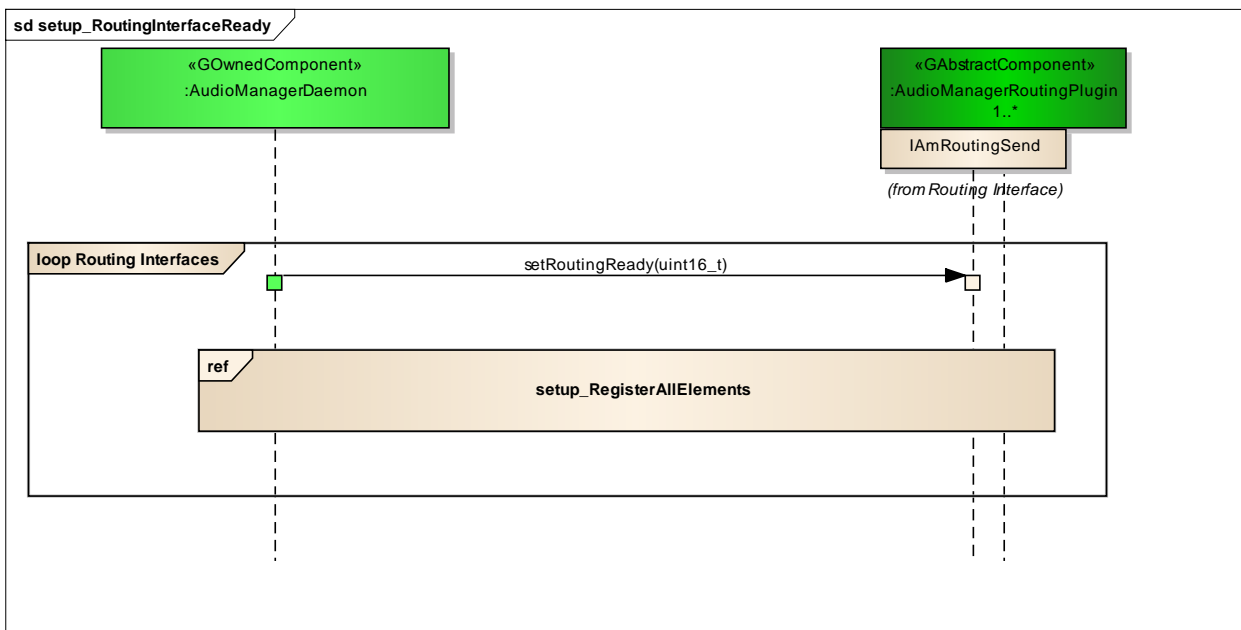


Figure: 23

## Routing Interfaces

Type: **InteractionFragment**



*Status:* Proposed. Version 1.0. Phase 1.0.  
*Package:* setup\_RoutingInterfaceReady *Keywords:*  
*Detail:* Created on 12.10.2011. Last modified on 12.10.2011.  
*GUID:* {7C1ABDF1-C6B1-4b83-B91F-B435510EB3F9}

## **setup\_RegisterAllElements**

*Type:* **InteractionOccurrence**  
*Status:* Proposed. Version 1.0. Phase 1.0.  
*Package:* setup\_RoutingInterfaceReady *Keywords:*  
*Detail:* Created on 12.10.2011. Last modified on 12.10.2011.  
*GUID:* {216EA9E7-8AB8-450a-BC3C-FFCFB53DD21B}

## **setup\_DomainRegistration**

*Type:* **Package**  
*Status:* Reworked. Version 1.0. Phase 1.0.  
*Package:* Registration\_&\_Startup  
*Detail:* Created on 19.08.2011. Last modified on 11.10.2011  
*GUID:* {51126B35-5A6C-4de6-AE01-BA66C5B264DE}

### **setup\_DomainRegistration** - (Interaction diagram)

*Created By:* christian on 19.08.2011  
*Last Modified:* 12.10.2011  
*Version:* 1.0. *Locked:* False  
*GUID:* {2D375EB3-3A69-4c23-A2FF-C0207895F05E}

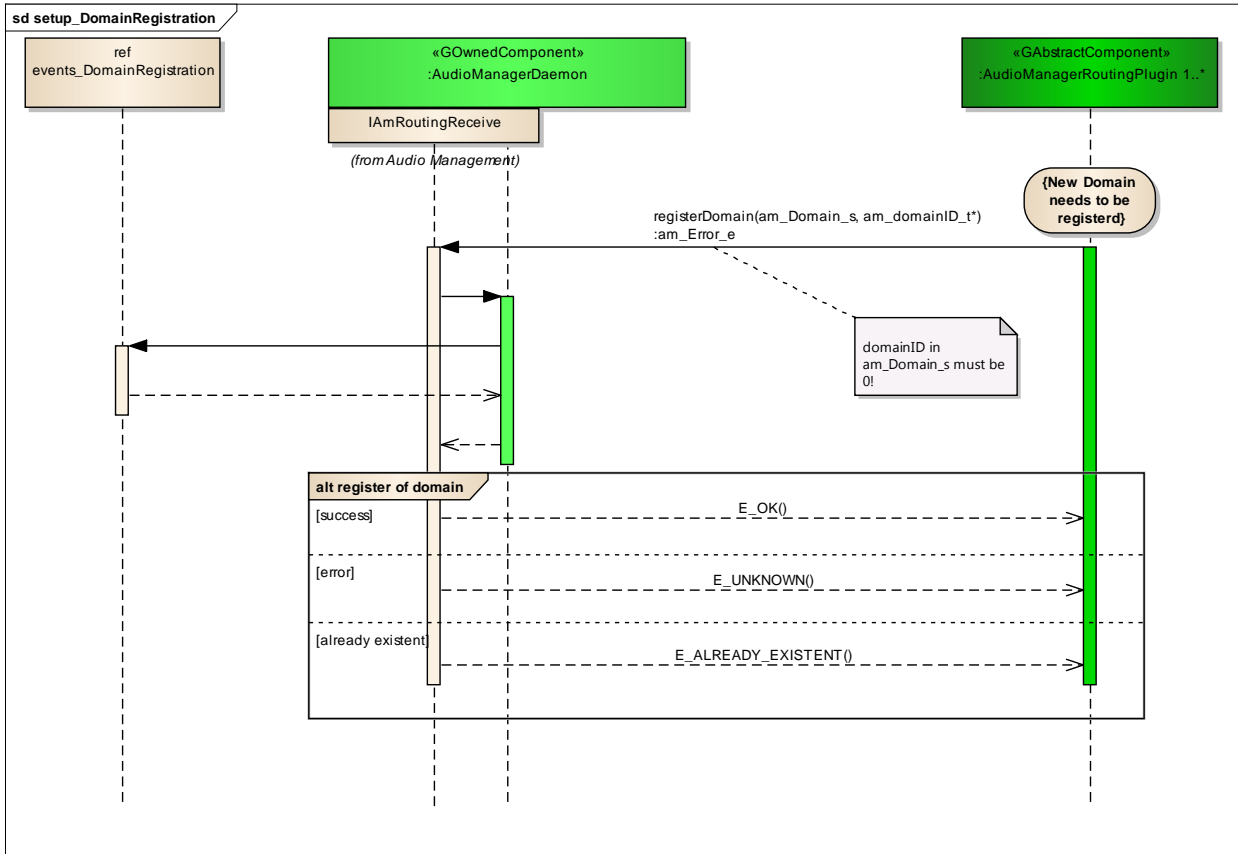


Figure: 24

### events\_DomainRegistration

Type: **InteractionOccurrence**  
 Status: Proposed. Version 1.0. Phase 1.0.  
 Package: setup\_DomainRegistration *Keywords:*  
 Detail: Created on 19.08.2011. Last modified on 11.10.2011.  
 GUID: {548A6CFB-3164-4783-B032-7E30EE430073}

#### Connections

Connector	Source	Target	Notes
<b>Sequence</b> Source -> Destination	Public <anonymous>	Public events_DomainRegistration	
<b>Sequence</b> Source -> Destination	Public events_DomainRegistration	Public <anonymous>	

### register of domain

**Type:** InteractionFragment  
**Status:** Proposed. Version 1.0. Phase 1.0.  
**Package:** setup\_DomainRegistration *Keywords:*  
**Detail:** Created on 10.10.2011. Last modified on 10.10.2011.  
**GUID:** {B7D8E277-B471-4a25-89F5-AC237DBDFFAF}

## setup\_SinkRegistration

**Type:** Package  
**Status:** Reworked. Version 1.0. Phase 1.0.  
**Package:** Registration\_&\_Startup  
**Detail:** Created on 16.08.2011. Last modified on 11.10.2011  
**GUID:** {D3FE8D71-2C96-4c9e-9DA0-A6743A896886}

### setup\_SinkRegistration - (Interaction diagram)

**Created By:** christian on 16.08.2011  
**Last Modified:** 11.10.2011  
**Version:** 1.0. *Locked:* False  
**GUID:** {0154F8BD-0534-447c-9BEA-4FF27AF91DC6}

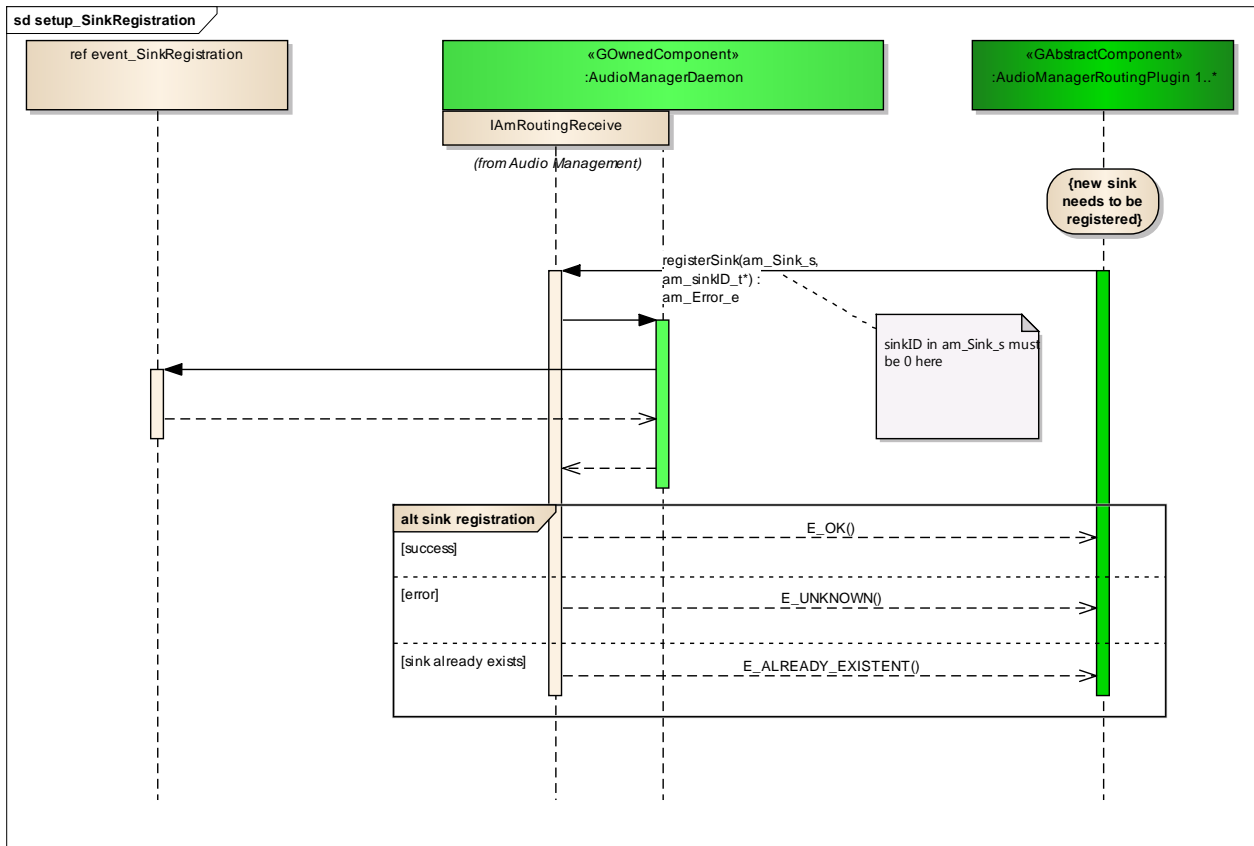


Figure: 25

## event\_SinkRegistration

**Type:** **InteractionOccurrence**  
**Status:** Proposed. Version 1.0. Phase 1.0.  
**Package:** setup\_SinkRegistration **Keywords:**  
**Detail:** Created on 22.08.2011. Last modified on 11.10.2011.  
**GUID:** {7CBBA4FA-C1A4-4513-853A-5A6699A5ACE5}

### Connections

Connector	Source	Target	Notes
<b>Sequence</b> Source -> Destination	Public <anonymous>	Public event_SinkRegistration	
<b>Sequence</b> Source -> Destination	Public event_SinkRegistration	Public <anonymous>	

## sink registration

**Type:** **InteractionFragment**  
**Status:** Proposed. Version 1.0. Phase 1.0.  
**Package:** setup\_SinkRegistration **Keywords:**  
**Detail:** Created on 11.10.2011. Last modified on 11.10.2011.  
**GUID:** {6627E680-A89A-4b9a-BDDF-7033BAE90CF5}

## setup\_SourceRegistration

**Type:** **Package**  
**Status:** Reworked. Version 1.0. Phase 1.0.  
**Package:** Registration\_&\_Startup  
**Detail:** Created on 16.08.2011. Last modified on 12.10.2011  
**GUID:** {D6E750BE-5319-4fe8-9537-A7232A271897}

### setup\_SourceRegistration - (Interaction diagram)

**Created By:** christian on 16.08.2011  
**Last Modified:** 11.10.2011  
**Version:** 1.0. **Locked:** False  
**GUID:** {A7D19339-EB38-4bc7-AD68-7709C5C4D075}

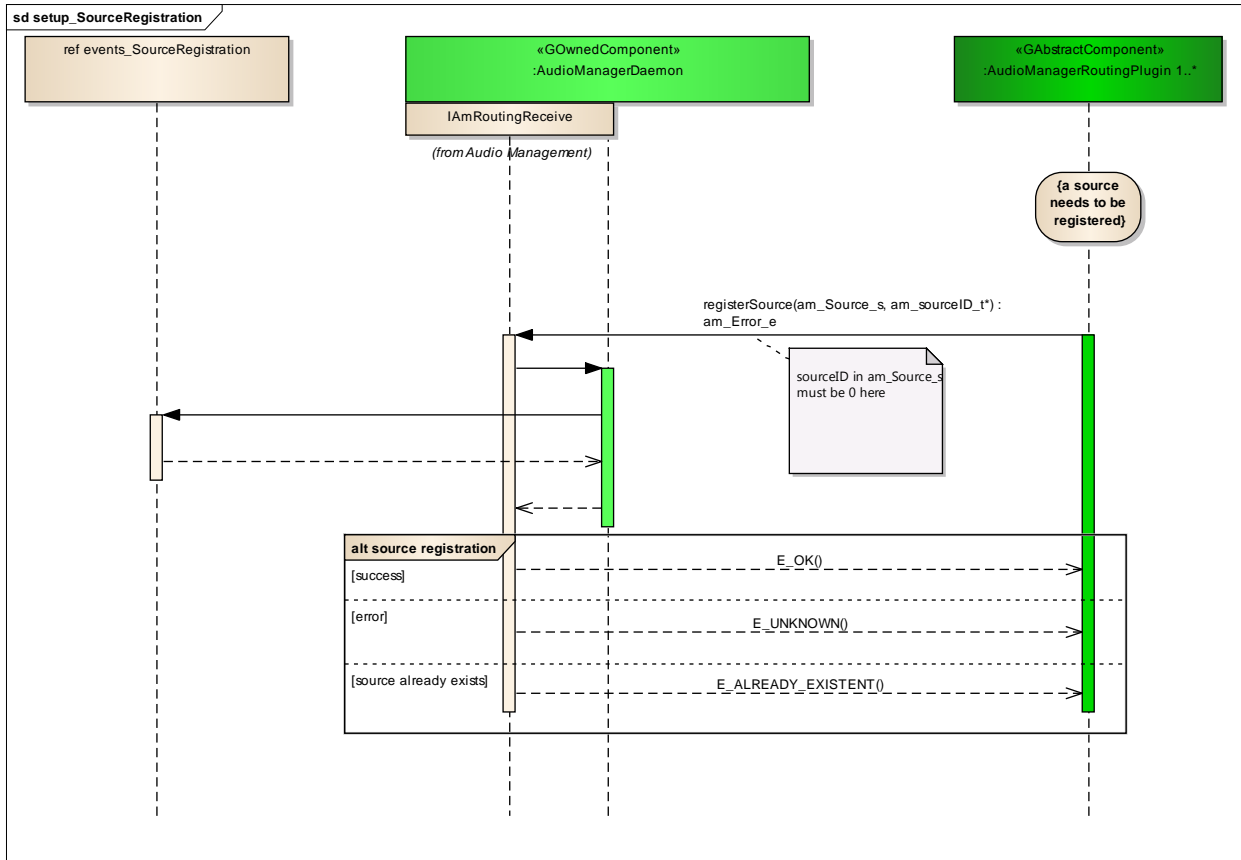


Figure: 26

### events\_SourceRegistration

Type: **InteractionOccurrence**  
 Status: Proposed. Version 1.0. Phase 1.0.  
 Package: setup\_SourceRegistration **Keywords:**  
 Detail: Created on 22.08.2011. Last modified on 11.10.2011.  
 GUID: {E7793BB9-80EC-4488-8010-4B42D09D124C}

#### Connections

Connector	Source	Target	Notes
<b>Sequence</b> Source -> Destination	Public <anonymous>	Public events_SourceRegistration	
<b>Sequence</b> Source -> Destination	Public events_SourceRegistration	Public <anonymous>	

### source registration

*Type:* **InteractionFragment**  
*Status:* Proposed. Version 1.0. Phase 1.0.  
*Package:* setup\_SourceRegistration *Keywords:*  
*Detail:* Created on 11.10.2011. Last modified on 11.10.2011.  
*GUID:* {4A1A1A91-B45C-4560-8BD5-48EC49752402}

## setup\_GatewayRegistration

*Type:* **Package**  
*Status:* Reworked. Version 1.0. Phase 1.0.  
*Package:* Registration\_&\_Startup  
*Detail:* Created on 22.08.2011. Last modified on 11.10.2011  
*GUID:* {BD8E6683-2A9C-4c22-870F-3D0061C2D3C0}

### setup\_GatewayRegistration - (Interaction diagram)

*Created By:* christian on 22.08.2011  
*Last Modified:* 17.10.2011  
*Version:* 1.0. *Locked:* False  
*GUID:* {E239BDA1-FAEE-4205-86CE-13D2E89A20AE}

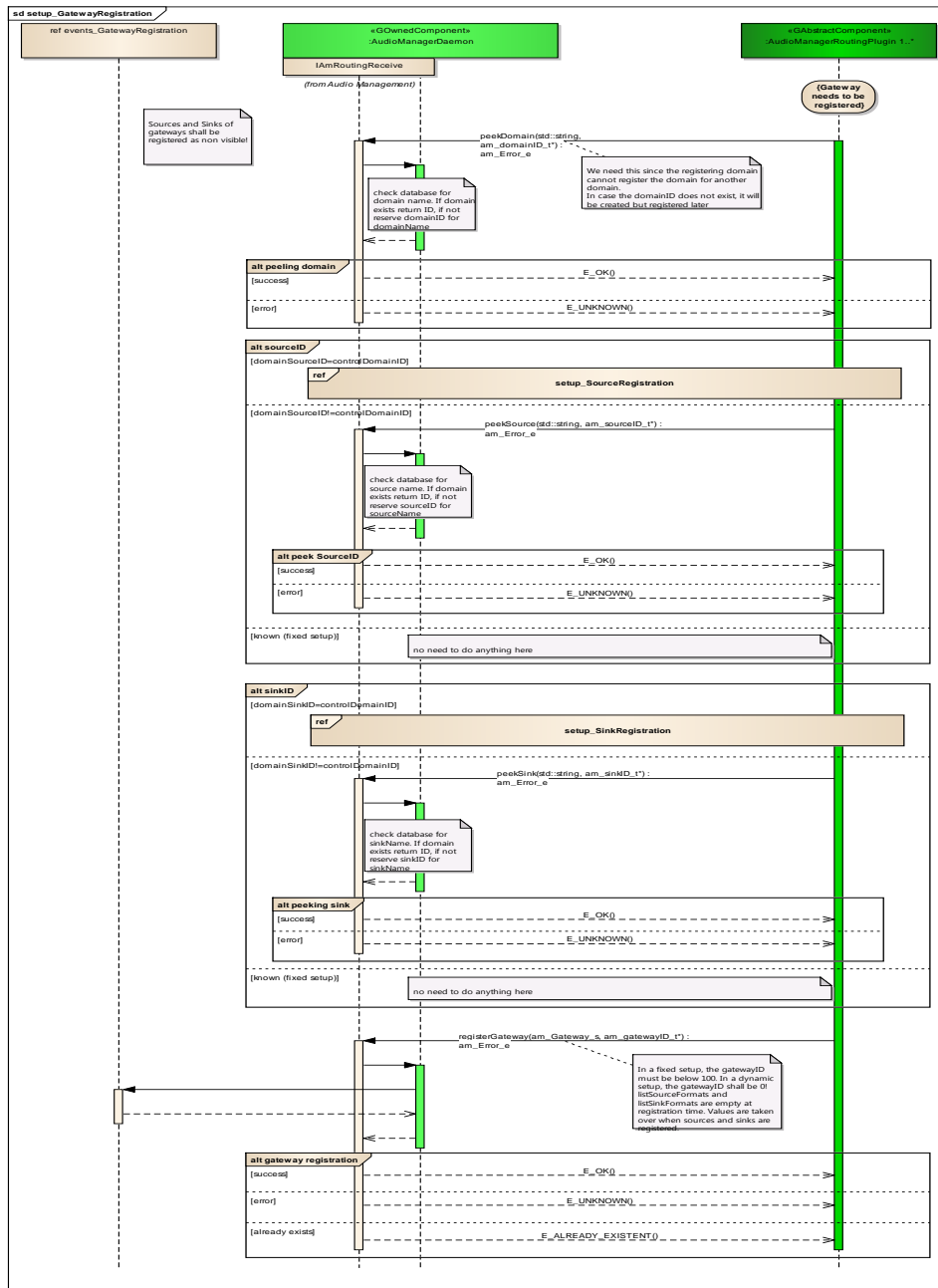


Figure: 27

## events\_GatewayRegistration

Type:

**InteractionOccurrence**

Status:

Proposed. Version 1.0. Phase 1.0.

Package:

setup\_GatewayRegistration *Keywords:*

Detail:

Created on 11.10.2011. Last modified on 11.10.2011.

GUID:

{0D9C2658-8528-42f6-A7B6-11FFFA0537E8}

**Connections**

Connector	Source	Target	Notes
<b>Sequence</b> Source -> Destination	Public <anonymous>	Public events_GatewayRegistr ation	
<b>Sequence</b> Source -> Destination	Public events_GatewayRegistr ation	Public <anonymous>	

**gateway registration**

*Type:* **InteractionFragment**  
*Status:* Proposed. Version 1.0. Phase 1.0.  
*Package:* setup\_GatewayRegistration *Keywords:*  
*Detail:* Created on 11.10.2011. Last modified on 11.10.2011.  
*GUID:* {4D6F9ECA-815D-4838-A4A9-1C5E8EB8E529}

**peek SourceID**

*Type:* **InteractionFragment**  
*Status:* Proposed. Version 1.0. Phase 1.0.  
*Package:* setup\_GatewayRegistration *Keywords:*  
*Detail:* Created on 11.10.2011. Last modified on 11.10.2011.  
*GUID:* {7547E7DF-A335-43e7-B7E6-061E9C35532F}

**peeking sink**

*Type:* **InteractionFragment**  
*Status:* Proposed. Version 1.0. Phase 1.0.  
*Package:* setup\_GatewayRegistration *Keywords:*  
*Detail:* Created on 11.10.2011. Last modified on 11.10.2011.  
*GUID:* {E802C848-54A4-46c4-92E8-2EDD726BE21F}

**peeling domain**

*Type:* **InteractionFragment**  
*Status:* Proposed. Version 1.0. Phase 1.0.  
*Package:* setup\_GatewayRegistration *Keywords:*  
*Detail:* Created on 11.10.2011. Last modified on 11.10.2011.  
*GUID:* {1AC349BB-CDC3-435f-A9C9-0456A0307517}



## setup\_SinkRegistration

*Type:* **InteractionOccurrence**  
*Status:* Proposed. Version 1.0. Phase 1.0.  
*Package:* setup\_GatewayRegistration *Keywords:*  
*Detail:* Created on 11.10.2011. Last modified on 11.10.2011.  
*GUID:* {65B11D09-C285-4128-9118-1969924FE66E}

## setup\_SourceRegistration

*Type:* **InteractionOccurrence**  
*Status:* Proposed. Version 1.0. Phase 1.0.  
*Package:* setup\_GatewayRegistration *Keywords:*  
*Detail:* Created on 22.08.2011. Last modified on 11.10.2011.  
*GUID:* {E948E232-1172-4649-9BA8-C43B63AB11BE}

## sinkID

*Type:* **InteractionFragment**  
*Status:* Proposed. Version 1.0. Phase 1.0.  
*Package:* setup\_GatewayRegistration *Keywords:*  
*Detail:* Created on 11.10.2011. Last modified on 11.10.2011.  
*GUID:* {0CA54F7A-1AEC-4e79-9C33-D6F6A20B856F}

## sourceID

*Type:* **InteractionFragment**  
*Status:* Proposed. Version 1.0. Phase 1.0.  
*Package:* setup\_GatewayRegistration *Keywords:*  
*Detail:* Created on 11.10.2011. Last modified on 11.10.2011.  
*GUID:* {9AC29E17-1F34-4d07-A2DF-C22D7A922A79}

## setup\_CrossfaderRegistration

Type: **Package**  
 Status: Proposed. Version 1.0. Phase 1.0.  
 Package: Registration\_&\_Startup  
 Detail: Created on 12.10.2011. Last modified on 12.10.2011  
 GUID: {053A9762-8B04-49fd-B7F2-DFB89A72EFDB}

### setup\_CrossfaderRegistration - (Interaction diagram)

Created By: christian on 12.10.2011  
 Last Modified: 12.10.2011  
 Version: 1.0. Locked: False  
 GUID: {4B3931AF-6D14-44b5-A7EA-D9D4C86B4C4D}

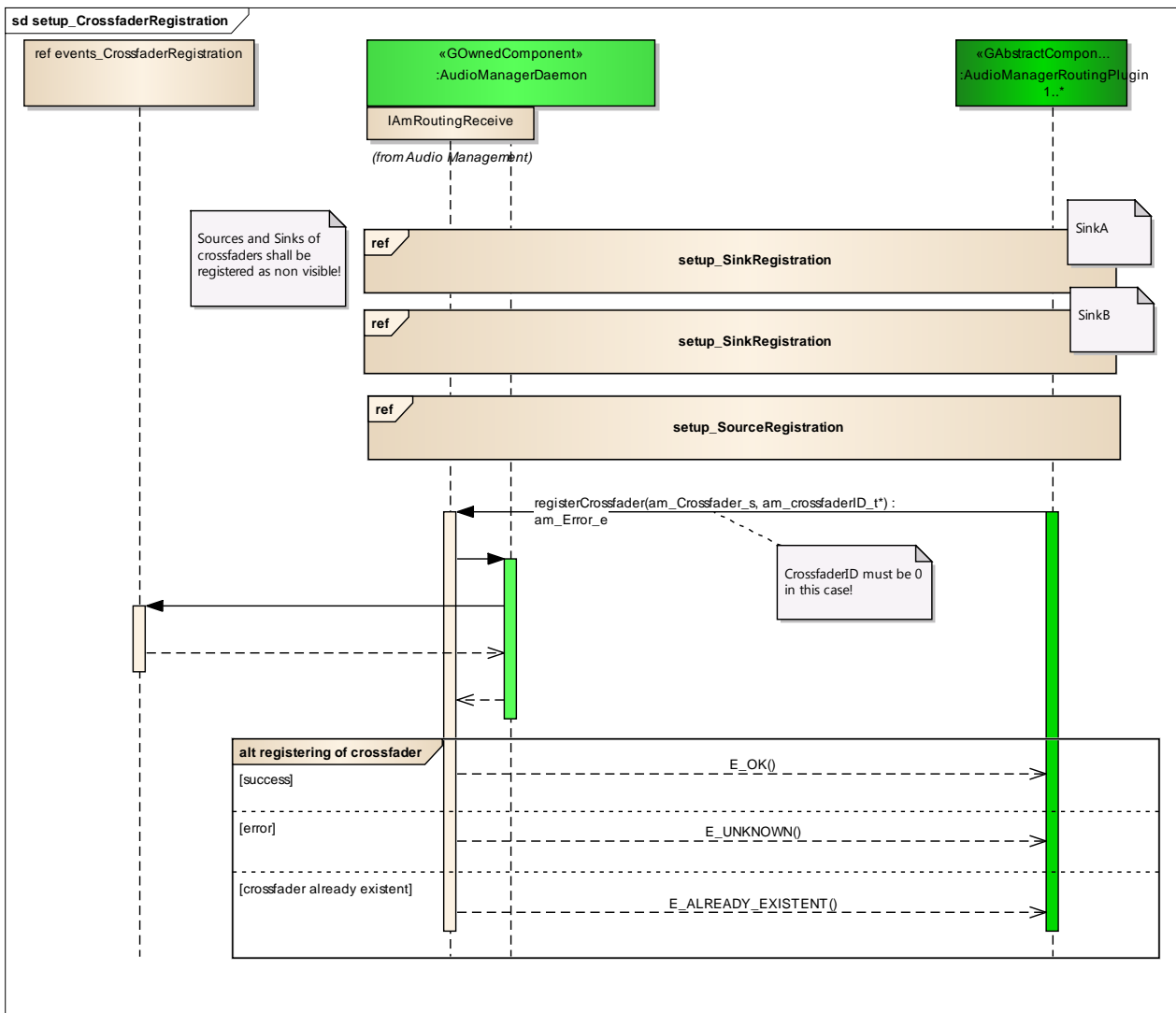


Figure: 28

## events\_CrossfaderRegistration

Type: **InteractionOccurrence**  
 Status: Proposed. Version 1.0. Phase 1.0.

*Package:* setup\_CrossfaderRegistration *Keywords:*  
*Detail:* Created on 12.10.2011. Last modified on 12.10.2011.  
*GUID:* {1AE8AA6A-13A1-469e-8A60-BEA4FD9DD5BE}

### Connections

Connector	Source	Target	Notes
<b>Sequence</b> Source -> Destination	Public <anonymous>	Public events_CrossfaderRegis- tration	
<b>Sequence</b> Source -> Destination	Public events_CrossfaderRegis- tration	Public <anonymous>	

### **registering of crossfader**

*Type:* **InteractionFragment**  
*Status:* Proposed. Version 1.0. Phase 1.0.  
*Package:* setup\_CrossfaderRegistration *Keywords:*  
*Detail:* Created on 12.10.2011. Last modified on 12.10.2011.  
*GUID:* {57C5FEC1-0695-44ce-A653-D963DB9B875B}

### **setup\_SinkRegistration**

*Type:* **InteractionOccurrence**  
*Status:* Proposed. Version 1.0. Phase 1.0.  
*Package:* setup\_CrossfaderRegistration *Keywords:*  
*Detail:* Created on 12.10.2011. Last modified on 12.10.2011.  
*GUID:* {CB1AC725-AA47-4685-816B-3D84BB7BB9EE}

### **setup\_SinkRegistration**

*Type:* **InteractionOccurrence**  
*Status:* Proposed. Version 1.0. Phase 1.0.  
*Package:* setup\_CrossfaderRegistration *Keywords:*  
*Detail:* Created on 12.10.2011. Last modified on 12.10.2011.  
*GUID:* {7E7FB1C7-B0E5-4ab1-893D-431E6C31F0AF}

### setup\_SourceRegistration

Type: **InteractionOccurrence**  
 Status: Proposed. Version 1.0. Phase 1.0.  
 Package: setup\_CrossfaderRegistration *Keywords:*  
 Detail: Created on 12.10.2011. Last modified on 12.10.2011.  
 GUID: {15FC4145-FDAC-43cb-A877-534DDA92ADC}

### setup\_SinkDeregistration

Type: **Package**  
 Status: Reworked. Version 1.0. Phase 1.0.  
 Package: Registration\_&\_Startup  
 Detail: Created on 14.09.2011. Last modified on 12.10.2011  
 GUID: {B4A95A4A-897B-4dc8-BC72-E007D1CE1726}

#### setup\_SinkDeregistration - (Interaction diagram)

Created By: christian on 14.09.2011  
 Last Modified: 11.10.2011  
 Version: 1.0. Locked: False  
 GUID: {42532F75-3310-47fb-91AF-A819CEC4246D}

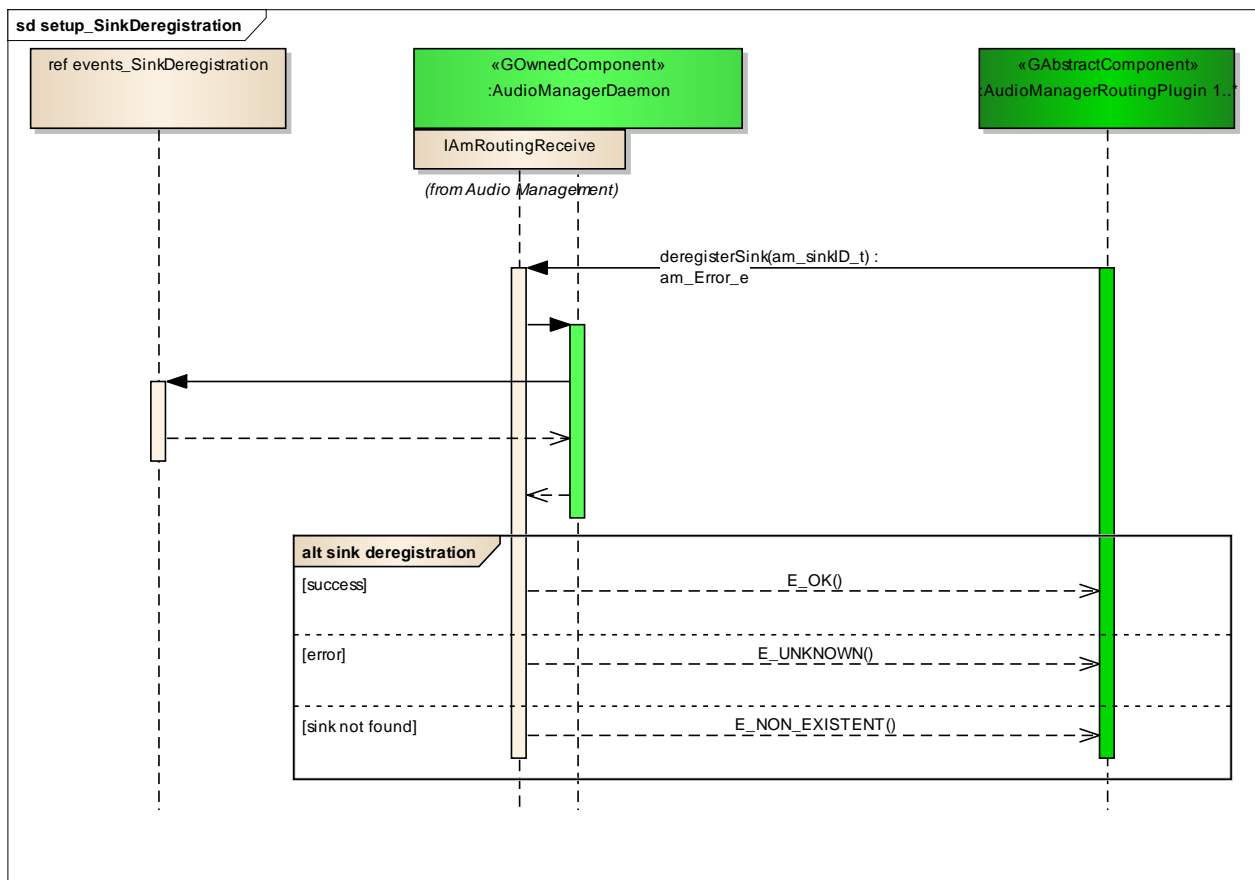


Figure: 29

## events\_SinkDeregistration

**Type:** InteractionOccurrence  
**Status:** Proposed. Version 1.0. Phase 1.0.  
**Package:** setup\_SinkDeregistration *Keywords:*  
**Detail:** Created on 14.09.2011. Last modified on 11.10.2011.  
**GUID:** {802398C0-6B77-4cc4-A156-50AB5D7F539C}

### Connections

Connector	Source	Target	Notes
<u>Sequence</u> Source -> Destination	Public <anonymous>	Public events_SinkDeregistrati on	
<u>Sequence</u> Source -> Destination	Public events_SinkDeregistrati on	Public <anonymous>	

## sink deregistration

**Type:** InteractionFragment  
**Status:** Proposed. Version 1.0. Phase 1.0.  
**Package:** setup\_SinkDeregistration *Keywords:*  
**Detail:** Created on 11.10.2011. Last modified on 11.10.2011.  
**GUID:** {5DE8ED12-5E3A-4d76-8BCE-39BBB8A494F4}

## setup\_SourceDeregistration

**Type:** Package  
**Status:** Reworked. Version 1.0. Phase 1.0.  
**Package:** Registration\_&\_Startup  
**Detail:** Created on 13.09.2011. Last modified on 11.10.2011  
**GUID:** {0921AD1E-DECD-406c-B56E-9E8D0BAE49C1}

### setup\_SourceDeregistration - (Interaction diagram)

**Created By:** christian on 13.09.2011  
**Last Modified:** 11.10.2011  
**Version:** 1.0. *Locked:* False  
**GUID:** {76846636-007D-4b73-BD36-3721EF905101}

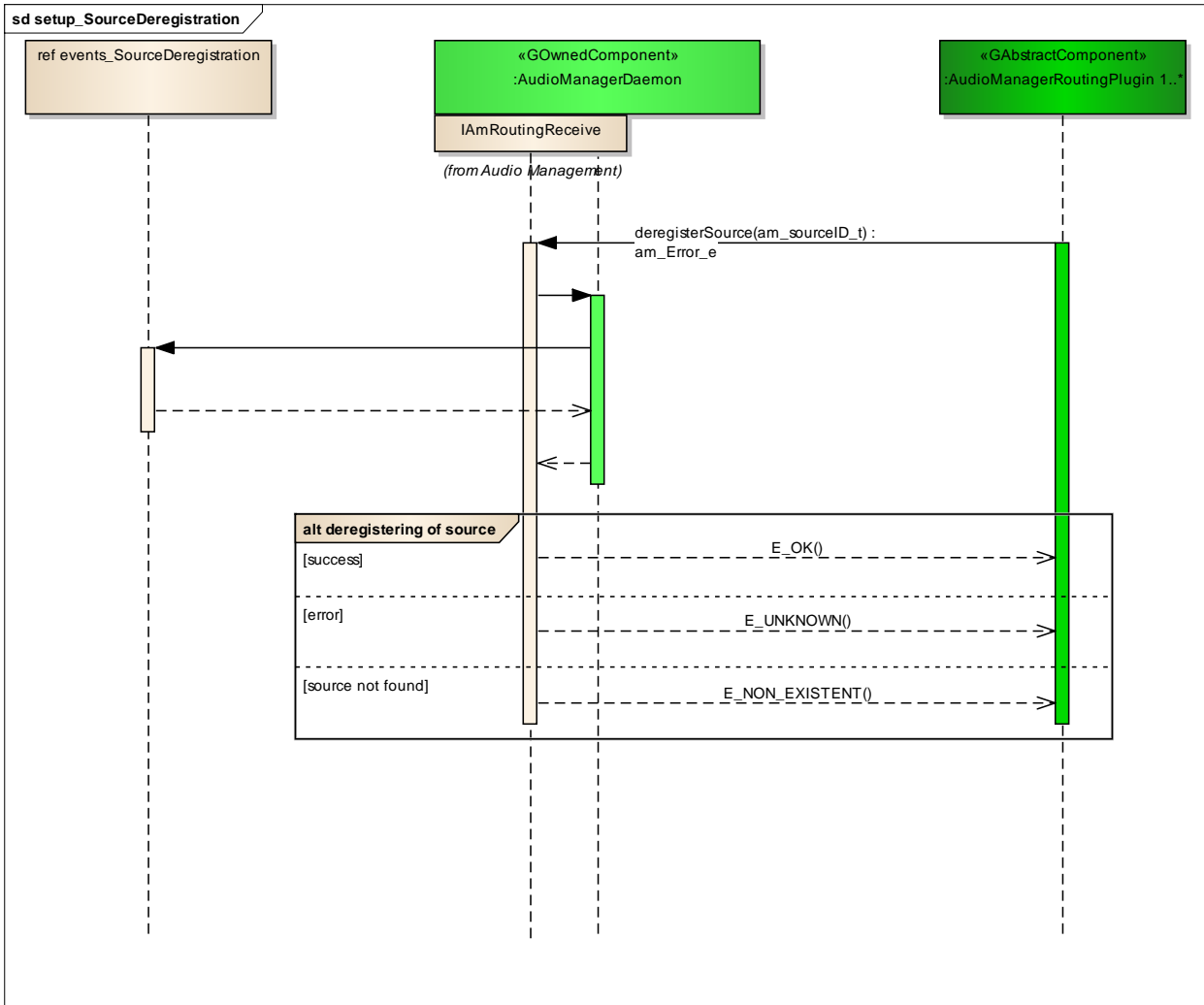


Figure: 30

### deregistering of source

Type: **InteractionFragment**  
 Status: Proposed. Version 1.0. Phase 1.0.  
 Package: setup\_SourceDeregistration *Keywords:*  
 Detail: Created on 11.10.2011. Last modified on 11.10.2011.  
 GUID: {015925B5-AAD2-4098-BAC3-45AE13CDD714}

### events\_SourceDeregistration

Type: **InteractionOccurrence**  
 Status: Proposed. Version 1.0. Phase 1.0.  
 Package: setup\_SourceDeregistration *Keywords:*  
 Detail: Created on 13.09.2011. Last modified on 11.10.2011.  
 GUID: {1E6E066D-7B87-48aa-9385-B6071BC59981}

Connections

Connector	Source	Target	Notes
<b>Sequence</b> Source -> Destination	Public <anonymous>	Public events_SourceDeregistration	
<b>Sequence</b> Source -> Destination	Public events_SourceDeregistration	Public <anonymous>	

## setup\_DomainDeregistration

Type: **Package**  
 Status: Reworked. Version 1.0. Phase 1.0.  
 Package: Registration\_&\_Startup  
 Detail: Created on 13.09.2011. Last modified on 11.10.2011  
 GUID: {7C769566-8B21-47f1-BA8D-E30A5124FB98}

### setup\_DomainDeregistration - (Interaction diagram)

Created By: christian on 13.09.2011  
 Last Modified: 11.10.2011  
 Version: 1.0. Locked: False  
 GUID: {04A3FA77-76A1-43a2-8733-E51BE756E89B}

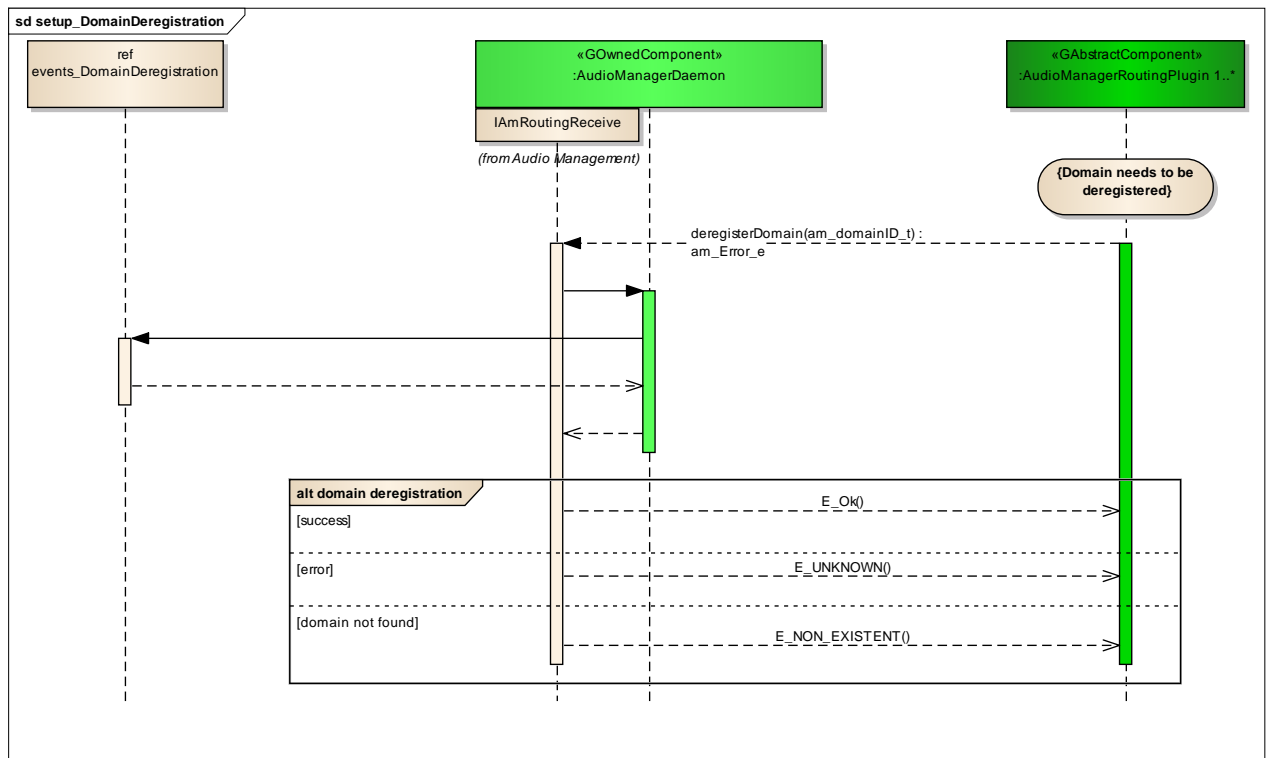


Figure: 31

## domain deregistration

**Type:** **InteractionFragment**  
**Status:** Proposed. Version 1.0. Phase 1.0.  
**Package:** setup\_DomainDeregistration **Keywords:**  
**Detail:** Created on 11.10.2011. Last modified on 11.10.2011.  
**GUID:** {21E2281B-BC5D-495d-9A38-24A4257228D2}

## events\_DomainDeregistration

**Type:** **InteractionOccurrence**  
**Status:** Proposed. Version 1.0. Phase 1.0.  
**Package:** setup\_DomainDeregistration **Keywords:**  
**Detail:** Created on 13.09.2011. Last modified on 11.10.2011.  
**GUID:** {039F4D65-4D0C-4da4-B3CD-3C99A68BAD7D}

### Connections

Connector	Source	Target	Notes
<b><u>Sequence</u></b> Source -> Destination	Public <anonymous>	Public events_DomainDeregist ration	
<b><u>Sequence</u></b> Source -> Destination	Public events_DomainDeregist ration	Public <anonymous>	

## setup\_GatewayDeregistration

**Type:** **Package**  
**Status:** Reworked. Version 1.0. Phase 1.0.  
**Package:** Registration\_&\_Startup  
**Detail:** Created on 13.09.2011. Last modified on 11.10.2011  
**GUID:** {938860D0-E5D2-4928-8D52-C46F9F7BEAB5}

### **setup\_GatewayDeregistration** - (Interaction diagram)

**Created By:** christian on 13.09.2011  
**Last Modified:** 12.10.2011  
**Version:** 1.0. **Locked:** False  
**GUID:** {7B4E60BD-B3EA-4713-B932-4E0579D7616D}



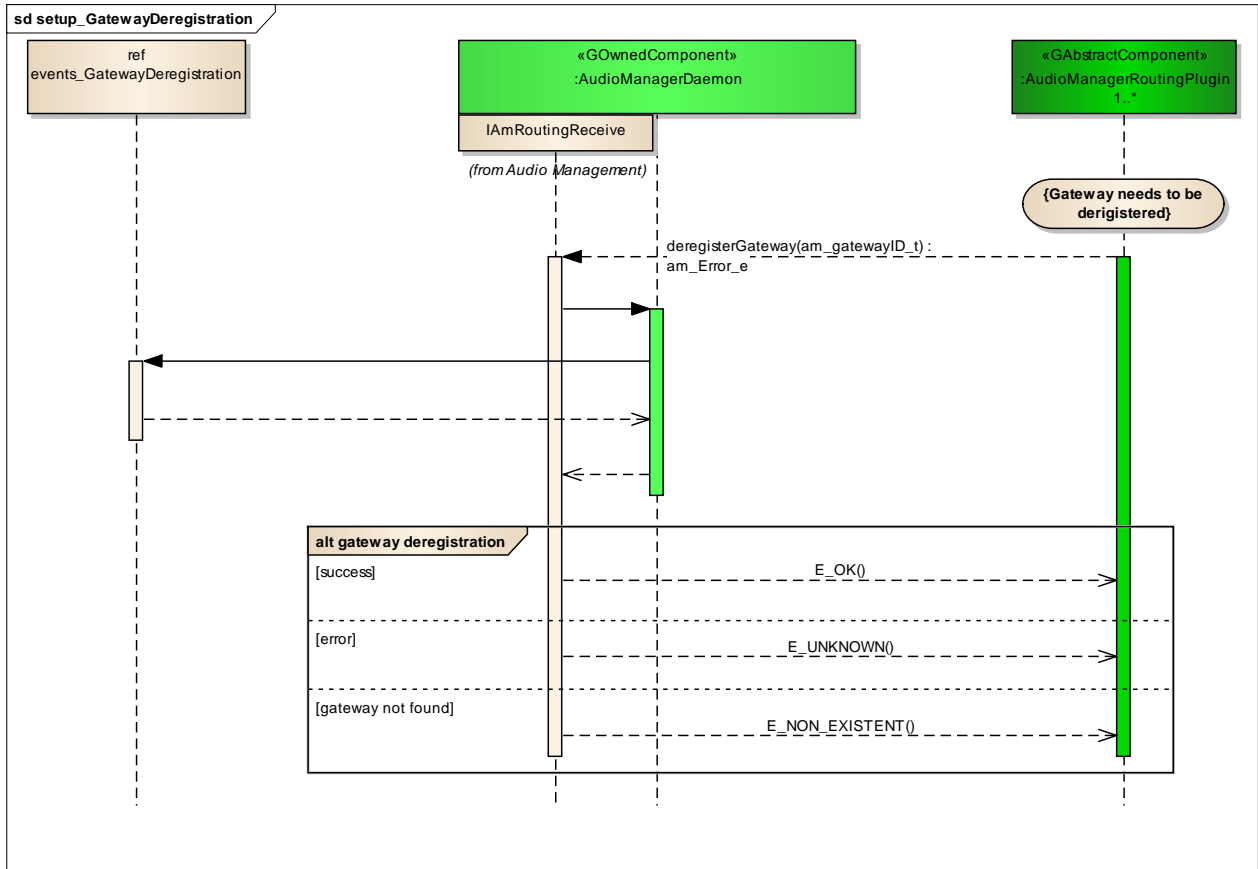


Figure: 32

### events\_GatewayDeregistration

Type: **InteractionOccurrence**  
 Status: Proposed. Version 1.0. Phase 1.0.  
 Package: setup\_GatewayDeregistration **Keywords:**  
 Detail: Created on 13.09.2011. Last modified on 11.10.2011.  
 GUID: {9EFD6E6C-0E7B-406f-80CA-6DFF95837871}

#### Connections

Connector	Source	Target	Notes
<b>Sequence</b> Source -> Destination	Public <anonymous>	Public events_GatewayDeregistration	
<b>Sequence</b> Source -> Destination	Public events_GatewayDeregistration	Public <anonymous>	

## gateway deregistration

Type: **InteractionFragment**  
 Status: Proposed. Version 1.0. Phase 1.0.  
 Package: setup\_GatewayDeregistration *Keywords:*  
 Detail: Created on 11.10.2011. Last modified on 11.10.2011.  
 GUID: {DFE8CF8A-FF6A-4914-A81C-C7F90100C3F5}

## setup\_Crossfader\_Deregistration

Type: **Package**  
 Status: Proposed. Version 1.0. Phase 1.0.  
 Package: Registration\_&\_Startup  
 Detail: Created on 12.10.2011. Last modified on 12.10.2011  
 GUID: {09B1E6D6-C329-4c57-9303-1E6C44325527}

### setup\_Crossfader\_Deregistration - (Interaction diagram)

Created By: christian on 12.10.2011  
 Last Modified: 12.10.2011  
 Version: 1.0. Locked: False  
 GUID: {AF4C761A-5473-40bd-A0E9-F16E9683A9F3}

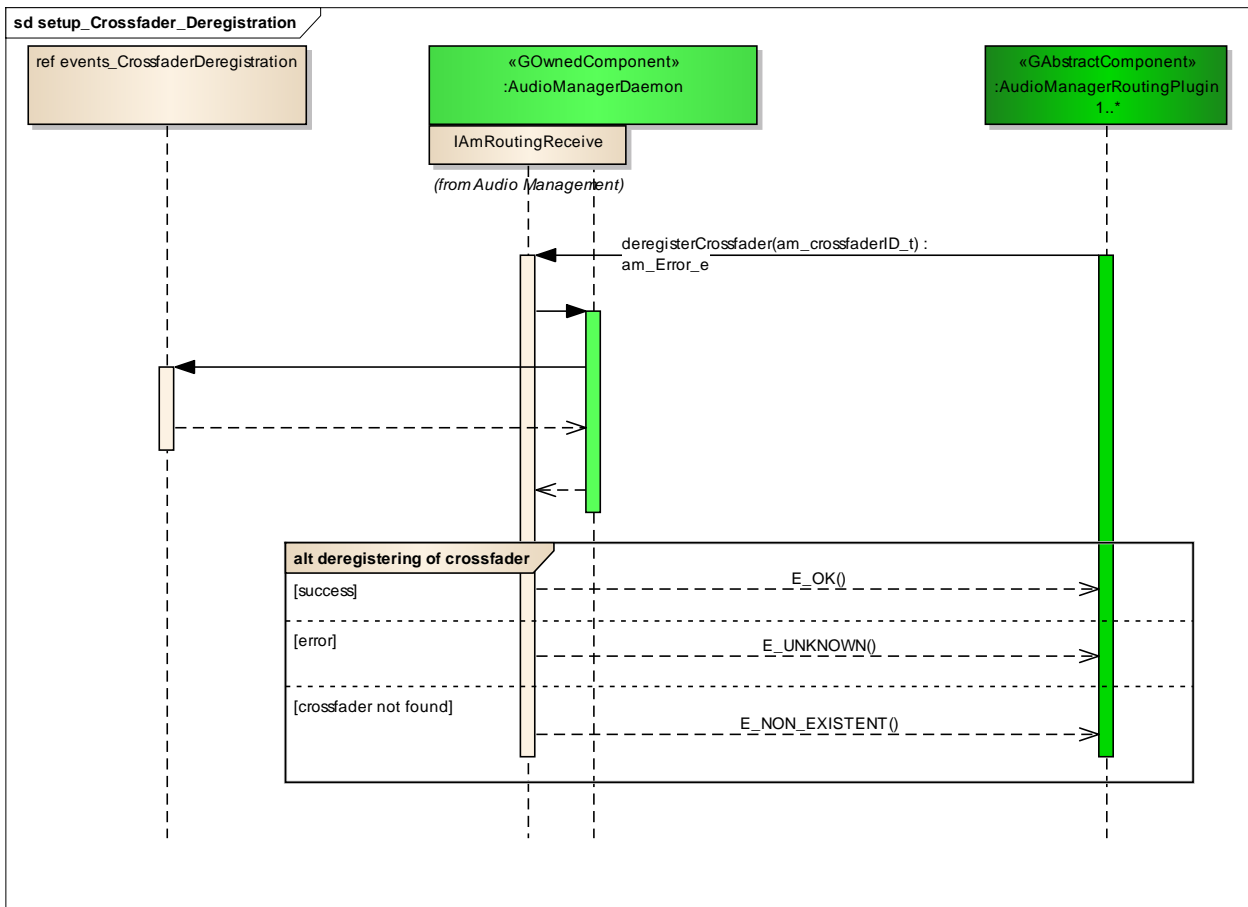


Figure: 33

## deregistering of crossfader

**Type:** **InteractionFragment**  
**Status:** Proposed. Version 1.0. Phase 1.0.  
**Package:** setup\_Crossfader\_Deregistration **Keywords:**  
**Detail:** Created on 12.10.2011. Last modified on 12.10.2011.  
**GUID:** {4362610A-6FD6-4390-A9E8-442CE16A2B39}

## events\_CrossfaderDeregistration

**Type:** **InteractionOccurrence**  
**Status:** Proposed. Version 1.0. Phase 1.0.  
**Package:** setup\_Crossfader\_Deregistration **Keywords:**  
**Detail:** Created on 12.10.2011. Last modified on 12.10.2011.  
**GUID:** {849AA62B-2070-435f-B5FD-031A399706B7}

### Connections

Connector	Source	Target	Notes
<b>Sequence</b> Source -> Destination	Public <anonymous>	Public events_CrossfaderDere gistration	
<b>Sequence</b> Source -> Destination	Public events_CrossfaderDere gistration	Public <anonymous>	

## setup\_LoadPlugins

**Type:** **Package**  
**Status:** Reworked. Version 1.0. Phase 1.0.  
**Package:** Registration\_&\_Startup  
**Detail:** Created on 23.08.2011. Last modified on 11.10.2011  
**GUID:** {5D6BE2BB-0A84-4319-948B-4FE4F9F907D3}

### **setup\_LoadPlugins** - (Interaction diagram)

**Created By:** christian on 23.08.2011  
**Last Modified:** 12.10.2011  
**Version:** 1.0. **Locked:** False  
**GUID:** {5D080FFE-A3FC-4fef-B55B-FB4BEB419563}

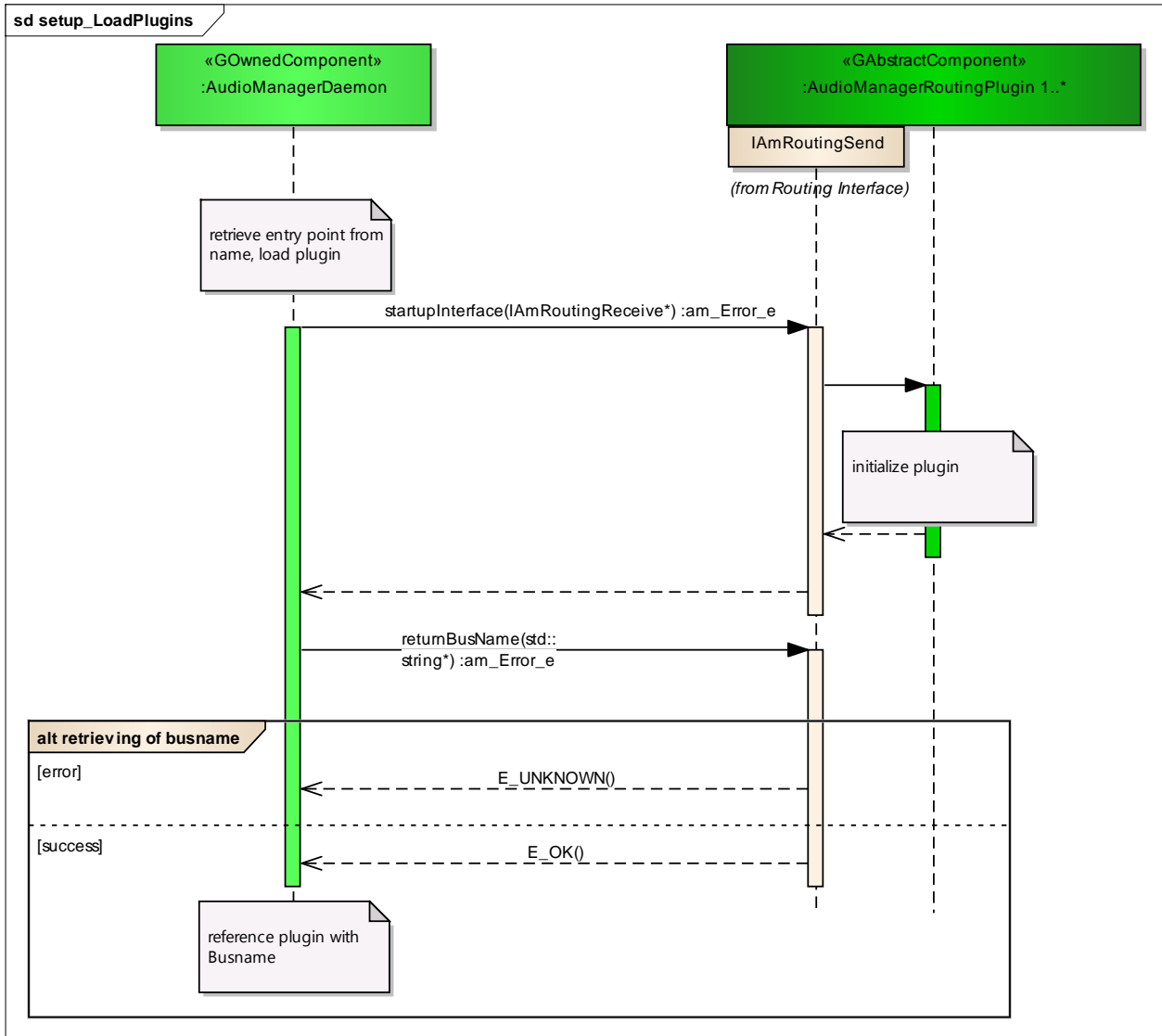


Figure: 34

### retrieving of busname

Type: **InteractionFragment**  
 Status: Proposed. Version 1.0. Phase 1.0.  
 Package: setup\_LoadPlugins *Keywords:*  
 Detail: Created on 11.10.2011. Last modified on 11.10.2011.  
 GUID: {508E0140-73EB-4a26-9D42-C821B6CC4E28}

### setup\_RegisterAllElements

Type: **Package**  
 Status: Reworked. Version 1.0. Phase 1.0.

*Package:* Registration\_&\_Startup  
*Detail:* Created on 23.08.2011. Last modified on 11.10.2011  
*GUID:* {40E8D4FF-0063-49bd-A9CF-D7BA4C97BF3C}

**setup\_RegisterAllElements** - (Interaction diagram)

*Created By:* christian on 23.08.2011  
*Last Modified:* 14.02.2012  
*Version:* 1.0. *Locked:* False  
*GUID:* {076D5409-ECF1-4272-B619-2453773AE772}

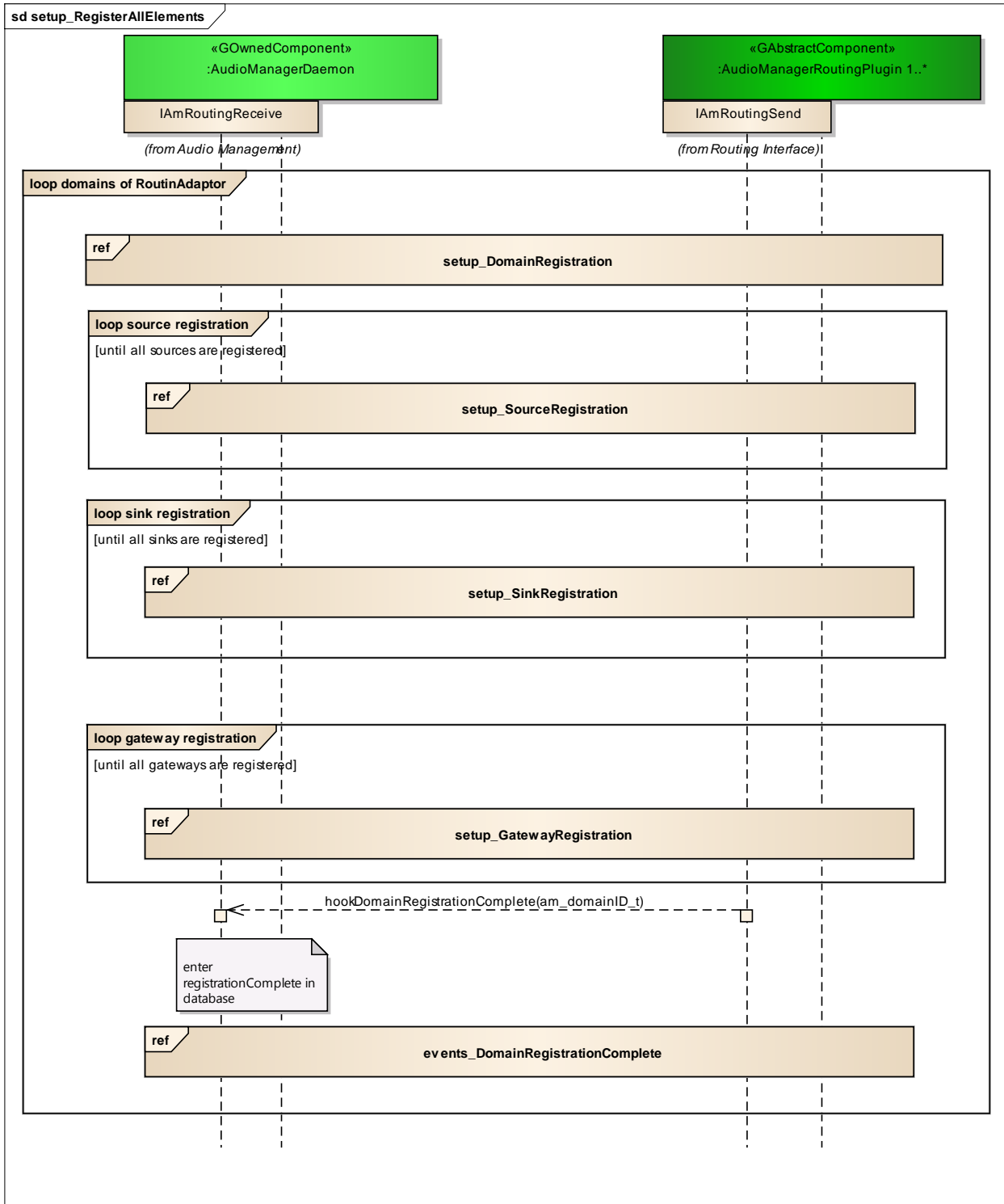


Figure: 35

### domains of RoutinAdaptor

Type: **InteractionFragment**  
 Status: Proposed. Version 1.0. Phase 1.0.  
 Package: setup\_RegisterAllElements *Keywords:*  
 Detail: Created on 12.10.2011. Last modified on 12.10.2011.

*GUID:* {5337587D-856E-43c9-A6BD-8096D1ABC50B}

### **events\_DomainRegistrationComplete**

*Type:* **InteractionOccurrence**  
*Status:* Proposed. Version 1.0. Phase 1.0.  
*Package:* setup\_RegisterAllElements *Keywords:*  
*Detail:* Created on 12.10.2011. Last modified on 12.10.2011.  
*GUID:* {4B3B5AEF-4EDF-49e5-B8AC-EBF53327624B}

### **gateway registration**

*Type:* **InteractionFragment**  
*Status:* Proposed. Version 1.0. Phase 1.0.  
*Package:* setup\_RegisterAllElements *Keywords:*  
*Detail:* Created on 23.08.2011. Last modified on 11.10.2011.  
*GUID:* {EC7B06E5-BBD4-42be-B8B6-3656C5860E5D}

### **setup\_DomainRegistration**

*Type:* **InteractionOccurrence**  
*Status:* Proposed. Version 1.0. Phase 1.0.  
*Package:* setup\_RegisterAllElements *Keywords:*  
*Detail:* Created on 23.08.2011. Last modified on 11.10.2011.  
*GUID:* {64FACD46-446E-421a-8B40-0AAF930FB5ED}

### **setup\_GatewayRegistration**

*Type:* **InteractionOccurrence**  
*Status:* Proposed. Version 1.0. Phase 1.0.  
*Package:* setup\_RegisterAllElements *Keywords:*  
*Detail:* Created on 23.08.2011. Last modified on 11.10.2011.  
*GUID:* {8E8D8339-FAB4-4227-A695-26FC3A4E19B9}

## setup\_SinkRegistration

*Type:* **InteractionOccurrence**  
*Status:* Proposed. Version 1.0. Phase 1.0.  
*Package:* setup\_RegisterAllElements *Keywords:*  
*Detail:* Created on 23.08.2011. Last modified on 11.10.2011.  
*GUID:* {A2742F69-75B3-4ce3-BE18-18EDDF1F5288}

## setup\_SourceRegistration

*Type:* **InteractionOccurrence**  
*Status:* Proposed. Version 1.0. Phase 1.0.  
*Package:* setup\_RegisterAllElements *Keywords:*  
*Detail:* Created on 23.08.2011. Last modified on 14.02.2012.  
*GUID:* {AE31C658-E69E-499a-861E-060B26922353}

## sink registration

*Type:* **InteractionFragment**  
*Status:* Proposed. Version 1.0. Phase 1.0.  
*Package:* setup\_RegisterAllElements *Keywords:*  
*Detail:* Created on 23.08.2011. Last modified on 23.08.2011.  
*GUID:* {F093ED4B-09C1-4bef-823C-316E9C6113D3}

## source registration

*Type:* **InteractionFragment**  
*Status:* Proposed. Version 1.0. Phase 1.0.  
*Package:* setup\_RegisterAllElements *Keywords:*  
*Detail:* Created on 23.08.2011. Last modified on 23.08.2011.  
*GUID:* {7416017D-0818-4359-BE8F-A735D2AAA792}

## setup\_Startup

*Type:* **Package**  
*Status:* Reworked. Version 1.0. Phase 1.0.  
*Package:* Registration\_&\_Startup  
*Detail:* Created on 16.08.2011. Last modified on 11.10.2011  
*GUID:* {9452C519-00CE-47d5-9293-6B84B57C3FBA}



**setup\_Startup** - (Interaction diagram)

Created By: christian on 23.08.2011  
 Last Modified: 07.03.2012  
 Version: 1.0. Locked: False  
 GUID: {04744B52-4E87-40c3-9F46-F40E15A58FF9}

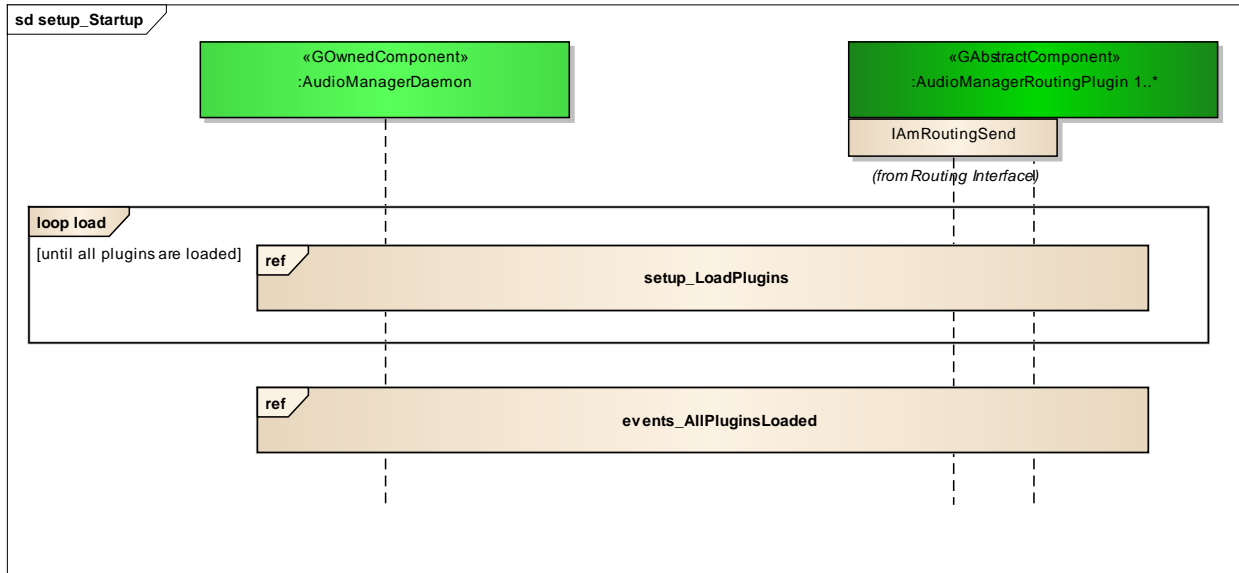


Figure: 36

**events\_AllPluginsLoaded**

Type: **InteractionOccurrence**  
 Status: Proposed. Version 1.0. Phase 1.0.  
 Package: setup\_Startup **Keywords:**  
 Detail: Created on 12.10.2011. Last modified on 12.10.2011.  
 GUID: {1B3B3592-7F90-4e11-8D02-B8F56DE3417A}

**load**

Type: **InteractionFragment**  
 Status: Proposed. Version 1.0. Phase 1.0.  
 Package: setup\_Startup **Keywords:**  
 Detail: Created on 23.08.2011. Last modified on 23.08.2011.  
 GUID: {2FBC20D4-3979-4628-B57A-7716D9CE0B54}

**setup\_LoadPlugins**

**Type:** InteractionOccurrence  
**Status:** Proposed. Version 1.0. Phase 1.0.  
**Package:** setup\_Startup *Keywords:*  
**Detail:** Created on 23.08.2011. Last modified on 11.10.2011.  
**GUID:** {9ABBCD5F-D966-4b9d-8D3E-220EC1523275}

Constraints

- r\_: (Invariant, Status is Approved)

## setup\_UpdateSourceData

**Type:** Package  
**Status:** Proposed. Version 1.0. Phase 1.0.  
**Package:** Registration\_&\_Startup  
**Detail:** Created on 28.06.2012. Last modified on 28.06.2012  
**GUID:** {576BF82B-30F4-4bb1-9888-467548CBF2FF}

setup\_UpdateSourceData - (Interaction diagram)

**Created By:** q232968 on 28.06.2012  
**Last Modified:** 05.02.2013  
**Version:** 1.0. *Locked:* False  
**GUID:** {DBE9D087-3356-4ad5-9CD4-F279D4A9BBF0}

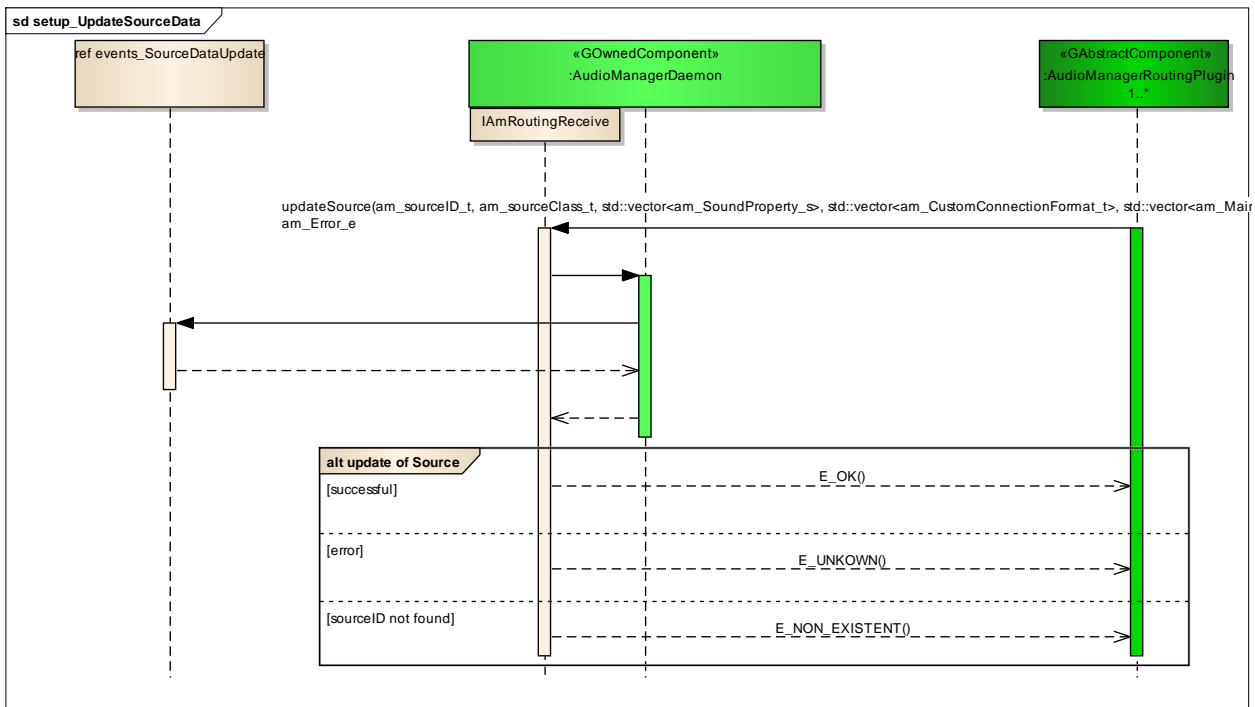


Figure: 37

## events\_SourceDataUpdate

**Type:** InteractionOccurrence  
**Status:** Proposed. Version 1.0. Phase 1.0.  
**Package:** setup\_UpdateSourceData **Keywords:**  
**Detail:** Created on 28.06.2012. Last modified on 28.06.2012.  
**GUID:** {A65CD954-9FBF-4769-B2F6-AEFBC0F7B0AC}

### Connections

Connector	Source	Target	Notes
<b>Sequence</b> Source -> Destination	Public <anonymous>	Public events_SourceDataUpdate	
<b>Sequence</b> Source -> Destination	Public events_SourceDataUpdate	Public <anonymous>	

## events\_SourceDataUpdate

**Type:** InteractionOccurrence  
**Status:** Proposed. Version 1.0. Phase 1.0.  
**Package:** setup\_UpdateSourceData **Keywords:**  
**Detail:** Created on 28.06.2012. Last modified on 28.06.2012.  
**GUID:** {48D50C04-AE12-4b82-ACE2-03EADC7B1CEF}

## update of Source

**Type:** InteractionFragment  
**Status:** Proposed. Version 1.0. Phase 1.0.  
**Package:** setup\_UpdateSourceData **Keywords:**  
**Detail:** Created on 28.06.2012. Last modified on 28.06.2012.  
**GUID:** {529500F7-9686-4dee-9942-77CB5186F5F4}

## setup\_UpdateSink

**Type:** Package  
**Status:** Proposed. Version 1.0. Phase 1.0.  
**Package:** Registration\_&\_Startup  
**Detail:** Created on 29.06.2012. Last modified on 29.06.2012  
**GUID:** {9B67B60E-2CD3-475d-8ADF-3F9CFDC380CF}

**setup\_UpdateSink** - (Interaction diagram)

Created By: q232968 on 29.06.2012  
 Last Modified: 27.11.2012  
 Version: 1.0. Locked: False  
 GUID: {29A3AA59-B4B5-4c4e-B6E6-EA8476645A8D}

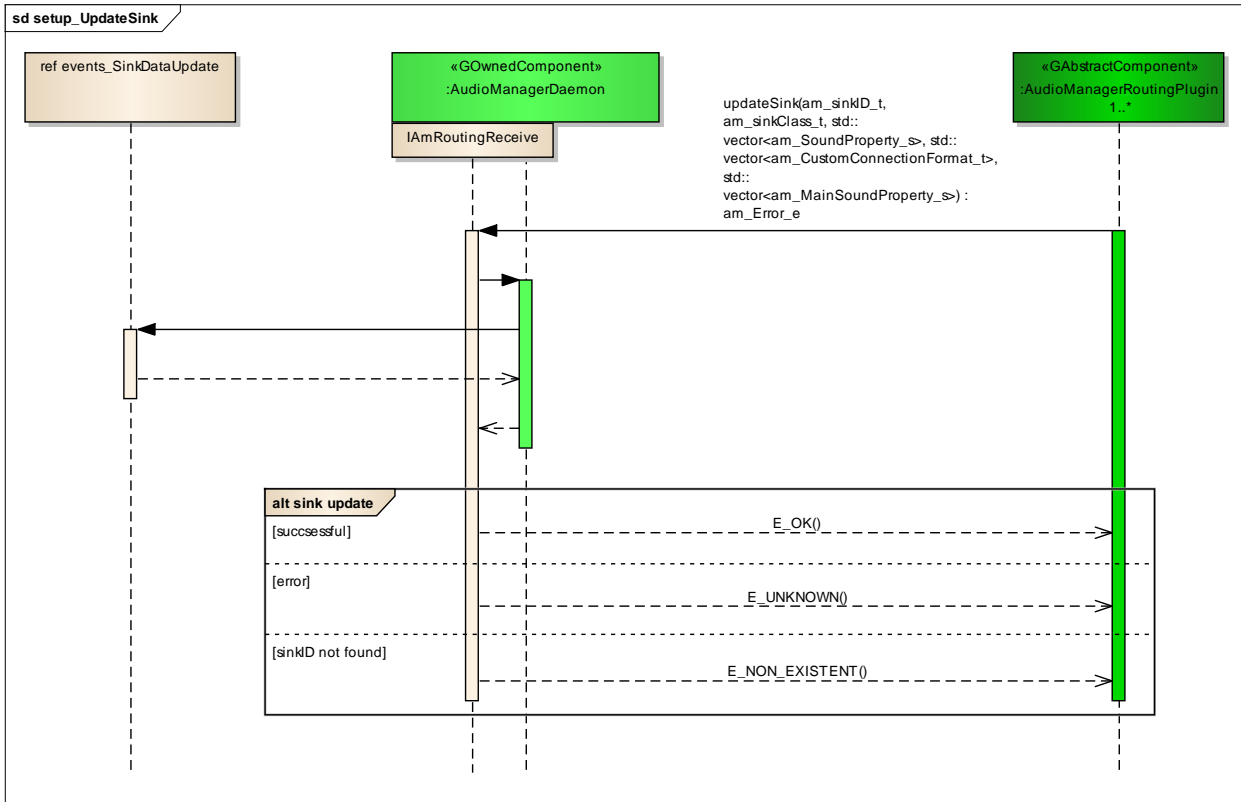


Figure: 38

**events\_SinkDataUpdate**

Type: **InteractionOccurrence**  
 Status: Proposed. Version 1.0. Phase 1.0.  
 Package: setup\_UpdateSink **Keywords:**  
 Detail: Created on 29.06.2012. Last modified on 29.06.2012.  
 GUID: {A245486C-2E82-48de-95A7-91725F2A7D58}

Connections

Connector	Source	Target	Notes
<b>Sequence</b> Source -> Destination	Public <anonymous>	Public events_SinkDataUpdate	
<b>Sequence</b> Source -> Destination	Public events_SinkDataUpdate	Public <anonymous>	

## **sink update**

*Type:* **InteractionFragment**  
*Status:* Proposed. Version 1.0. Phase 1.0.  
*Package:* setup\_UpdateSink *Keywords:*  
*Detail:* Created on 29.06.2012. Last modified on 29.06.2012.  
*GUID:* {42212245-CDE0-4bb4-89CD-C1C9F4DAD6E8}

## **setup\_UpdateGateway**

*Type:* **Package**  
*Status:* Proposed. Version 1.0. Phase 1.0.  
*Package:* Registration\_&\_Startup  
*Detail:* Created on 29.06.2012. Last modified on 29.06.2012  
*GUID:* {953D6E87-B1B1-4011-B983-58E0AD20C41A}

### **setup\_UpdateGateway** - (Interaction diagram)

*Created By:* q232968 on 29.06.2012  
*Last Modified:* 27.11.2012  
*Version:* 1.0. *Locked:* False  
*GUID:* {15BAAB28-904E-44a9-B212-4FF9D113EFC0}

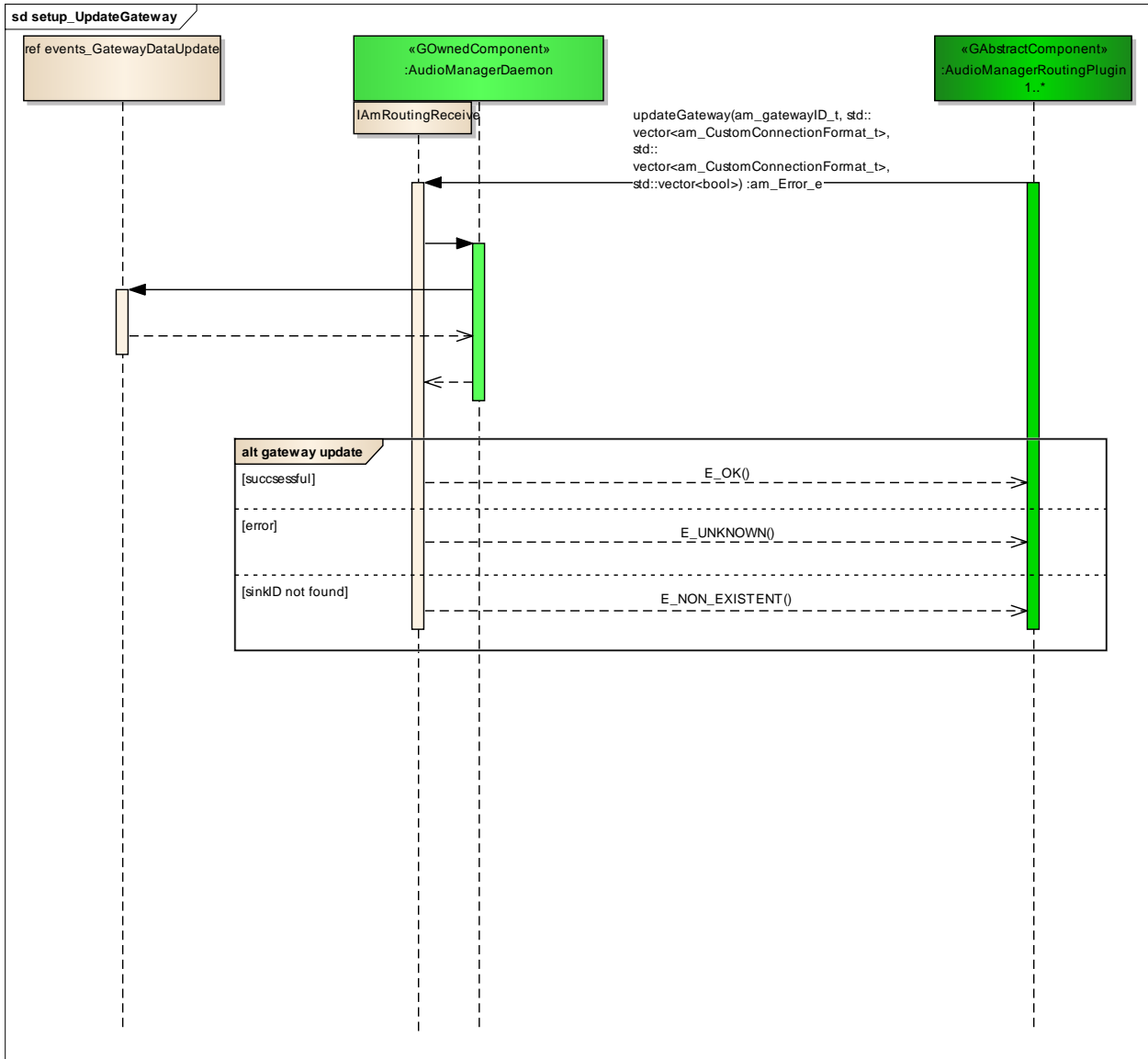


Figure: 39

### events\_GatewayDataUpdate

Type: **InteractionOccurrence**  
 Status: Proposed. Version 1.0. Phase 1.0.  
 Package: setup\_UpdateGateway *Keywords:*  
 Detail: Created on 29.06.2012. Last modified on 29.06.2012.  
 GUID: {1EE37937-629F-44af-A1EE-518892F3DABC}

#### Connections

Connector	Source	Target	Notes
<b>Sequence</b> Source -> Destination	Public <anonymous>	Public events_GatewayDataUp	

Connector	Source	Target	Notes
		date	
<b>Sequence</b> Source -> Destination	Public events_GatewayDataUp date	Public <anonymous>	

### **events\_SinkDataUpdate**

*Type:* **InteractionOccurrence**  
*Status:* Proposed. Version 1.0. Phase 1.0.  
*Package:* setup\_UpdateGateway *Keywords:*  
*Detail:* Created on 29.06.2012. Last modified on 29.06.2012.  
*GUID:* {FECE6E89-0A49-4b3d-866E-61A3CD7AC875}

### **gateway update**

*Type:* **InteractionFragment**  
*Status:* Proposed. Version 1.0. Phase 1.0.  
*Package:* setup\_UpdateGateway *Keywords:*  
*Detail:* Created on 29.06.2012. Last modified on 29.06.2012.  
*GUID:* {04D27B4A-10D3-4868-A98A-BDEB5D764A22}

## 8 Headers

### 8.1 IAmRouting

```
/**
 * Copyright (C) 2012 - 2014, BMW AG
 *
 * This file is part of GENIVI Project AudioManager.
 *
 * Contributions are licensed to the GENIVI Alliance under one or more
 * Contribution License Agreements.
 *
 * \copyright
 * This Source Code Form is subject to the terms of the
 * Mozilla Public License, v. 2.0. If a copy of the MPL was not distributed with
 * this file, You can obtain one at http://mozilla.org/MPL/2.0/.
 *
 *
 * \author Christian Linke, christian.linke@bmw.de BMW 2011 - 2014
 *
 * \file
 * For further information see http://projects.genivi.org/audio-manager
 *
 * THIS CODE HAS BEEN GENERATED BY ENTERPRISE ARCHITECT GENIVI MODEL.
 * PLEASE CHANGE ONLY IN ENTERPRISE ARCHITECT AND GENERATE AGAIN.
 */
#if !defined(EA_6B9C54C0_2366_4139_97CF_28563364DACA__INCLUDED_)
#define EA_6B9C54C0_2366_4139_97CF_28563364DACA__INCLUDED_

#include <vector>
#include <string>
#include "audiomanagertypes.h"

namespace am {
class CAmDbusWrapper;
class CAmSocketHandler;
}

#include "audiomanagertypes.h"

#define RoutingVersion "4.0"
namespace am {

/**
```



```

* Routing Receive sendInterface description. This class implements everything
* from RoutingAdapter -> Audiomanager
* There are two rules that have to be kept in mind when implementing against this
* interface:\n
* \warning
* 1. CALLS TO THIS INTERFACE ARE NOT THREAD SAFE !!!! \n
* 2. YOU MAY NOT CALL THE CALLING INTERFACE DURING AN SYNCHRONOUS OR ASYNCHRONOUS
* CALL THAT EXPECTS A RETURN VALUE.\n
* \details
* Violation these rules may lead to unexpected behavior! Nevertheless you can
* implement thread safe by using the deferred-call pattern described on the wiki
* which also helps to implement calls that are forbidden.\n
* For more information, please check CAmSerializer
*/
class IAmRoutingReceive
{
public:
    IAmRoutingReceive() {

    }

    virtual ~IAmRoutingReceive() {

    }

    /**
     * This function returns the version of the interface
     */
    virtual void getInterfaceVersion(std::string& version) const =0;
    /**
     * acknowledges a asyncConnect
     */
    virtual void ackConnect(const am_Handle_s handle, const am_connectionID_t connectionID,
const am_Error_e error) =0;
    /**
     * acknowledges a asyncDisconnect
     */
    virtual void ackDisconnect(const am_Handle_s handle, const am_connectionID_t
connectionID, const am_Error_e error) =0;
    /**
     * acknowledges a asyncsetSinkVolume
     */
    virtual void ackSetSinkVolumeChange(const am_Handle_s handle, const am_volume_t volume,
const am_Error_e error) =0;
    /**

```

```

    * acknowledges a asyncsetSourceVolume
    */
    virtual void ackSetSourceVolumeChange(const am_Handle_s handle, const am_volume_t volume,
    const am_Error_e error) =0;
    /**
    * acknowlegde for asyncSetSourceState
    */
    virtual void ackSetSourceState(const am_Handle_s handle, const am_Error_e error) =0;
    /**
    * acknowledges asyncSetSinkSoundProperties
    */
    virtual void ackSetSinkSoundProperties(const am_Handle_s handle, const am_Error_e error)
=0;
    /**
    * acknowledges asyncSetSinkSoundProperty
    */
    virtual void ackSetSinkSoundProperty(const am_Handle_s handle, const am_Error_e error)
=0;
    /**
    * acknowledges asyncSetSourceSoundProperties
    */
    virtual void ackSetSourceSoundProperties(const am_Handle_s handle, const am_Error_e
error) =0;
    /**
    * acknowledges asyncSetSourceSoundProperty
    */
    virtual void ackSetSourceSoundProperty(const am_Handle_s handle, const am_Error_e error)
=0;
    /**
    * acknowledges asyncCrossFade
    */
    virtual void ackCrossFading(const am_Handle_s handle, const am_HotSink_e hotSink, const
am_Error_e error) =0;
    /**
    * acknowledges a volume tick. This can be used to display volumechanges during
    * ramps
    */
    virtual void ackSourceVolumeTick(const am_Handle_s handle, const am_sourceID_t sourceID,
const am_volume_t volume) =0;
    /**
    * acknowledges a volume tick. This can be used to display volumechanges during
    * ramps
    */
    virtual void ackSinkVolumeTick(const am_Handle_s handle, const am_sinkID_t sinkID, const
am_volume_t volume) =0;
    /**
    * This function returns the ID to the given domainName. If already a domain is
    * registered with this name, it will return the corresponding ID, if not it will

```

```

* reserve an ID but not register the domain. The other parameters of the domain
* will be overwritten when the domain is registered.
* @return E_OK on success, E_UNKNOWN on error
*/
virtual am_Error_e peekDomain(const std::string& name, am_domainID_t& domainID) =0;
/**
* registers a domain
* @return E_OK on succes, E_ALREADY_EXISTENT if already registered E_UNKNOWN on
* error
*/
virtual am_Error_e registerDomain(const am_Domain_s& domainData, am_domainID_t& domainID)
=0;
/**
* deregisters a domain. All sources, sinks, gateways and crossfaders from that
* domain will be removed as well.
* @return E_OK on succes, E_NON_EXISTENT if not found E_UNKNOWN on error
*/
virtual am_Error_e deregisterDomain(const am_domainID_t domainID) =0;
/**
* registers a converter. @return E_OK on succes, E_ALREADY_EXISTENT if already
* registered E_UNKNOWN on error
*/
virtual am_Error_e registerConverter(const am_Converter_s& converterData,
am_converterID_t& converterID) =0;
/**
* registers a gateway. @return E_OK on succes, E_ALREADY_EXISTENT if already
* registered E_UNKNOWN on error
*/
virtual am_Error_e registerGateway(const am_Gateway_s& gatewayData, am_gatewayID_t&
gatewayID) =0;
/**
* deregisters a converter. Also removes all sinks and sources of the controlling
* domain.
* @return E_OK on succes, E_NON_EXISTENT if not found E_UNKNOWN on error
*/
virtual am_Error_e deregisterConverter(const am_converterID_t converterID) =0;
/**
* deregisters a gateway. Also removes all sinks and sources of the controlling
* domain.
* @return E_OK on succes, E_NON_EXISTENT if not found E_UNKNOWN on error
*/
virtual am_Error_e deregisterGateway(const am_gatewayID_t gatewayID) =0;
/**
* This function returns the ID to the given sinkName. If already a sink is
* registered with this name, it will return the corresponding ID, if not it will
* reserve an ID but not register the sink. The other parameters of the sink will

```

```

    * be overwritten when the sink is registered.
    * @return E_OK on success, E_UNKNOWN on error
    */
virtual am_Error_e peekSink(const std::string& name, am_sinkID_t& sinkID) =0;
/**
    * Registers a sink. If the sink is part of a gateway, the listconnectionFormats
    * is copied to the gatewayInformation
    * @return E_OK on succes, E_ALREADY_EXISTENT if already registered E_UNKOWN on
    * error
    */
virtual am_Error_e registerSink(const am_Sink_s& sinkData, am_sinkID_t& sinkID) =0;
/**
    * deregisters a sink.
    * @return E_OK on succes, E_NON_EXISTENT if not found E_UNKOWN on error
    */
virtual am_Error_e deregisterSink(const am_sinkID_t sinkID) =0;
/**
    * This function returns the ID to the given sourceName. If already a source is
    * registered with this name, it will return the corresponding ID, if not it will
    * reserve an ID but not register the source. The other parameters of the source
    * will be overwritten when the source is registered.
    * @return E_OK on success, E_UNKNOWN on error
    */
virtual am_Error_e peekSource(const std::string& name, am_sourceID_t& sourceID) =0;
/**
    * registers a source. If the source is part of a gateway, the
    * listconnectionFormats is copied to the gatewayInformation
    * @return E_OK on success, E_UNKNOWN on error, E_ALREADY_EXIST if either name or
    * sourceID already exists
    */
virtual am_Error_e registerSource(const am_Source_s& sourceData, am_sourceID_t& sourceID)
=0;
/**
    * deregisters a source
    * @return E_OK on succes, E_NON_EXISTENT if not found E_UNKOWN on error
    */
virtual am_Error_e deregisterSource(const am_sourceID_t sourceID) =0;
/**
    * this function registers a crossfader.
    * @return E_OK on succes, E_ALREADY_EXISTENT if already registered E_UNKOWN on
    * error
    */
virtual am_Error_e registerCrossfader(const am_Crossfader_s& crossfaderData,
am_crossfaderID_t& crossfaderID) =0;
/**

```

```

    * this function deregisters a crossfader. removes all sources and sinks assiated
    * as well.
    * @return E_OK on succes, E_NON_EXISTENT if not found E_UNKOWN on error
    */
virtual am_Error_e deregisterCrossfader(const am_crossfaderID_t crossfaderID) =0;
/**
    * this function peeks a sourceclassID. It is used by the RoutingPlugins to
    * determine the SinkClassIDs of a sinkClass.
    * @return E_OK on succes, E_DATABASE_ERROR on error
    */
virtual am_Error_e peekSourceClassID(const std::string& name, am_sourceClass_t&
sourceClassID) =0;
/**
    * this function peeks a sourceclassID. It is used by the RoutingPlugins to
    * determine the SinkClassIDs of a sinkClass.
    * @return E_OK on succes, E_DATABASE_ERROR on error
    */
virtual am_Error_e peekSinkClassID(const std::string& name, am_sinkClass_t& sinkClassID)
=0;
/**
    * is called when a low level interrupt changes it status.
    */
virtual void hookInterruptStatusChange(const am_sourceID_t sourceID, const
am_InterruptState_e interruptState) =0;
/**
    * This hook is called when all elements from a domain are registered.
    * Is used by the Controller to know when all expected domains are finally
    * registered
    */
virtual void hookDomainRegistrationComplete(const am_domainID_t domainID) =0;
/**
    * is called when a sink changes its availability
    */
virtual void hookSinkAvailabilityStatusChange(const am_sinkID_t sinkID, const
am_Availability_s& availability) =0;
/**
    * is called when a source changes its availability
    */
virtual void hookSourceAvailabilityStatusChange(const am_sourceID_t sourceID, const
am_Availability_s& availability) =0;
/**
    * is called when a domain changes its status. This used for early domains only
    */
virtual void hookDomainStateChange(const am_domainID_t domainID, const am_DomainState_e
domainState) =0;
/**
    * is called when the timinginformation (delay) changed for a connection.

```

```

    */
    virtual void hookTimingInformationChanged(const am_connectionID_t connectionID, const
am_timeSync_t delay) =0;
    /**
    * this function is used to send out all data that has been changed in an early
    * state.
    * @return E_OK on success, E_UNKNOWN on error
    */
    virtual void sendChangedData(const std::vector<am_EarlyData_s>& earlyData) =0;
    /**
    * this function is used to retrieve a pointer to the dbusConnectionWrapper
    * @return E_OK if pointer is valid, E_UNKNOWN if AudioManager was compiled without
    * Dbus Support
    */
    virtual am_Error_e getDBusConnectionWrapper(CAmDbusWrapper*& dbusConnectionWrapper) const
=0;
    /**
    * This function returns the pointer to the socketHandler. This can be used to
    * integrate socket-based activites like communication with the mainloop of the
    * AudioManager.
    * returns E_OK if pointer is valid, E_UNKNOWN in case AudioManager was compiled
    * without socketHandler support,
    */
    virtual am_Error_e getSocketHandler(CAmSocketHandler*& socketHandler) const =0;
    /**
    * confirms the setRoutingReady Command
    */
    virtual void confirmRoutingReady(const uint16_t handle, const am_Error_e error) =0;
    /**
    * confirms the setRoutingRundown Command
    */
    virtual void confirmRoutingRundown(const uint16_t handle, const am_Error_e error) =0;
    /**
    * updates data of an converter. @return E_OK on success, E_NON_EXISTENT if the
    * gatewayID is not valid.
    */
    virtual am_Error_e updateConverter(const am_converterID_t converterID, const
std::vector<am_CustomConnectionFormat_t>& listSourceFormats, const
std::vector<am_CustomConnectionFormat_t>& listSinkFormats, const std::vector<bool>&
conversionMatrix) =0;
    /**
    * updates data of an gateway. @return E_OK on success, E_NON_EXISTENT if the
    * gatewayID is not valid.
    */
    virtual am_Error_e updateGateway(const am_gatewayID_t gatewayID, const
std::vector<am_CustomConnectionFormat_t>& listSourceFormats, const
std::vector<am_CustomConnectionFormat_t>& listSinkFormats, const std::vector<bool>&
conversionMatrix) =0;

```

```

/**
 * updates data of an gateway. @return E_OK on success, E_NON_EXISTENT if the
 * sinkID is not valid.
 */
virtual am_Error_e updateSink(const am_sinkID_t sinkID, const am_sinkClass_t sinkClassID,
const std::vector<am_SoundProperty_s>& listSoundProperties, const
std::vector<am_CustomConnectionFormat_t>& listConnectionFormats, const
std::vector<am_MainSoundProperty_s>& listMainSoundProperties) =0;

/**
 * updates data of an source. @return E_OK on success, E_NON_EXISTENT if the
 * sourceID in the struct is not valid.
 * Please note that only the following data out of am_Source_s have effect when
 * they are changed:
 * sourceClassID,
 * listSoundProperties,
 * listConnectionFormats,
 * listMainSoundProperties
 */
virtual am_Error_e updateSource(const am_sourceID_t sourceID, const am_sourceClass_t
sourceClassID, const std::vector<am_SoundProperty_s>& listSoundProperties, const
std::vector<am_CustomConnectionFormat_t>& listConnectionFormats, const
std::vector<am_MainSoundProperty_s>& listMainSoundProperties) =0;

/**
 * acknowledges a asyncSetSinkVolumes
 */
virtual void ackSetVolumes(const am_Handle_s handle, const std::vector<am_Volumes_s>&
listvolumes, const am_Error_e error) =0;

/**
 * The acknowledge of the SinkNotificationConfiguration
 */
virtual void ackSinkNotificationConfiguration(const am_Handle_s handle, const am_Error_e
error) =0;

/**
 * The acknowledge of the SourceNotificationConfiguration
 */
virtual void ackSourceNotificationConfiguration(const am_Handle_s handle, const
am_Error_e error) =0;

/**
 * is called whenever a notified value needs to be send
 */
virtual void hookSinkNotificationDataChange(const am_sinkID_t sinkID, const
am_NotificationPayload_s& payload) =0;

/**
 * is called whenever a notified value needs to be send
 */
virtual void hookSourceNotificationDataChange(const am_sourceID_t sourceID, const
am_NotificationPayload_s& payload) =0;

/**
 * E_OK in case of success

```

```

        */
        virtual am_Error_e getDomainOfSink(const am_sinkID_t sinkID, am_domainID_t& domainID)
const =0;
        /**
        * E_OK in case of success
        */
        virtual am_Error_e getDomainOfSource(const am_sourceID_t sourceID, am_domainID_t&
domainID) const =0;
        /**
        * E_OK in case of success
        */
        virtual am_Error_e getDomainOfCrossfader(const am_crossfaderID_t crossfader,
am_domainID_t& domainID) const = 0;

};

/**
* This class implements everything from Audiomanager -> RoutingAdapter
* There are two rules that have to be kept in mind when implementing against this
* interface:\n
* \warning
* 1. CALLS TO THIS INTERFACE ARE NOT THREAD SAFE !!!! \n
* 2. YOU MAY NOT CALL THE CALLING INTERFACE DURING AN SYNCHRONOUS OR ASYNCHRONOUS
* CALL THAT EXPECTS A RETURN VALUE.\n
* \details
* Violation these rules may lead to unexpected behavior! Nevertheless you can
* implement thread safe by using the deferred-call pattern described on the wiki
* which also helps to implement calls that are forbidden.\n
* For more information, please check CAmSerializer
*/
class IAmRoutingSend
{

public:
    IAmRoutingSend() {

    }

    virtual ~IAmRoutingSend() {

    }

    /**
    * This function returns the version of the interface
    */
    virtual void getInterfaceVersion(std::string& version) const =0;

```



```

/**
 * starts up the interface. In the implementations, here is the best place for
 * init routines.
 */
virtual am_Error_e startupInterface(IAmRoutingReceive* routingreceiveinterface) =0;
/**
 * indicates that the routing now ready to be used. Should be used as trigger to
 * register all sinks, sources, etc...
 */
virtual void setRoutingReady(const uint16_t handle) =0;
/**
 * indicates that the routing plugins need to be prepared to switch the power off
 * or be ready again.
 */
virtual void setRoutingRundown(const uint16_t handle) =0;
/**
 * aborts an asynchronous action.
 * @return E_OK on success, E_UNKNOWN on error, E_NON_EXISTENT if handle was not
 * found
 */
virtual am_Error_e asyncAbort(const am_Handle_s handle) =0;
/**
 * connects a source to a sink
 * @return E_OK on success, E_UNKNOWN on error, E_WRONG_FORMAT in case
 * am_ConnectionFormat_e does not match
 */
virtual am_Error_e asyncConnect(const am_Handle_s handle, const am_connectionID_t
connectionID, const am_sourceID_t sourceID, const am_sinkID_t sinkID, const
am_CustomConnectionFormat_t connectionFormat) =0;
/**
 * disconnect a connection with given connectionID
 * @return E_OK on success, E_UNKNOWN on error, E_NON_EXISTENT if connection was
 * not found
 */
virtual am_Error_e asyncDisconnect(const am_Handle_s handle, const am_connectionID_t
connectionID) =0;
/**
 * this method is used to set the volume of a sink. This function is used to drive
 * ramps, to mute or unmute or directly set the value. The difference is made
 * through the ramptype.
 * @return E_OK on success, E_UNKNOWN on error, E_OUT_OF_RANGE if new volume is
 * out of range
 */
virtual am_Error_e asyncSetSinkVolume(const am_Handle_s handle, const am_sinkID_t sinkID,
const am_volume_t volume, const am_CustomRampType_t ramp, const am_time_t time) =0;
/**

```

```
* sets the volume of a source. This method is used to set the volume of a sink.
* This function is used to drive ramps, to mute or unmute or directly set the
* value. The difference is made through the ramptype.
* @return E_OK on success, E_UNKNOWN on error, E_OUT_OF_RANGE if volume is out of
* range.
* triggers the acknowledge ackSourceVolumeChange
*/
virtual am_Error_e asyncSetSourceVolume(const am_Handle_s handle, const am_sourceID_t
sourceID, const am_volume_t volume, const am_CustomRampType_t ramp, const am_time_t time) =0;
/**
* This function is used to set the source state of a particular source.
* @return E_OK on success, E_UNKNOWN on error
*/
virtual am_Error_e asyncSetSourceState(const am_Handle_s handle, const am_sourceID_t
sourceID, const am_SourceState_e state) =0;
/**
* this function sets the sinksoundproperty.
* @return E_OK on success, E_UNKNOWN on error, E_OUT_OF_RANGE in case the property
* value is out of range
*/
virtual am_Error_e asyncSetSinkSoundProperties(const am_Handle_s handle, const
am_sinkID_t sinkID, const std::vector<am_SoundProperty_s>& listSoundProperties) =0;
/**
* this function sets the sinksoundproperty.
* @return E_OK on success, E_UNKNOWN on error, E_OUT_OF_RANGE in case the property
* value is out of range
*/
virtual am_Error_e asyncSetSinkSoundProperty(const am_Handle_s handle, const am_sinkID_t
sinkID, const am_SoundProperty_s& soundProperty) =0;
/**
* this function sets the sourcesoundproperty.
* @return E_OK on success, E_UNKNOWN on error, E_OUT_OF_RANGE in case the property
* value is out of range
*/
virtual am_Error_e asyncSetSourceSoundProperties(const am_Handle_s handle, const
am_sourceID_t sourceID, const std::vector<am_SoundProperty_s>& listSoundProperties) =0;
/**
* this function sets the sourcesoundproperty.
* @return E_OK on success, E_UNKNOWN on error, E_OUT_OF_RANGE in case the property
* value is out of range
*/
virtual am_Error_e asyncSetSourceSoundProperty(const am_Handle_s handle, const
am_sourceID_t sourceID, const am_SoundProperty_s& soundProperty) =0;
/**
* this function triggers crossfading.
* @return E_OK on success, E_UNKNOWN on error
*/
```

```
    virtual am_Error_e asyncCrossFade(const am_Handle_s handle, const am_crossfaderID_t
crossfaderID, const am_HotSink_e hotSink, const am_CustomRampType_t rampType, const am_time_t
time) =0;

    /**
     * this function is used for early and late audio functions to set the domain
     * state
     * @return E_OK on success, E_UNKNOWN on error
     */
    virtual am_Error_e setDomainState(const am_domainID_t domainID, const am_DomainState_e
domainState) =0;

    /**
     * this method is used to retrieve the busname during startup of the plugin. Needs
     * to be implemented
     * @return E_OK on success, E_UNKNOWN on error
     */
    virtual am_Error_e returnBusName(std::string& BusName) const =0;

    /**
     * This command sets multiple source or and sink volumes within a domain at a time.
     * It can be used to synchronize volume setting events.
     * @return E_OK on success, E_UNKNOWN on error.
     */
    virtual am_Error_e asyncSetVolumes(const am_Handle_s handle, const
std::vector<am_Volumes_s>& listVolumes) =0;

    /**
     * sets the notification configuration of a sink.
     * @return E_OK on success, E_UNKNOWN on error.
     */
    virtual am_Error_e asyncSetSinkNotificationConfiguration(const am_Handle_s handle, const
am_sinkID_t sinkID, const am_NotificationConfiguration_s& notificationConfiguration) =0;

    /**
     * sets the notification configuration of a source.
     * @return E_OK on success, E_UNKNOWN on error.
     */
    virtual am_Error_e asyncSetSourceNotificationConfiguration(const am_Handle_s handle,
const am_sourceID_t sourceID, const am_NotificationConfiguration_s& notificationConfiguration)
=0;

};

}

#endif // !defined(EA_6B9C54C0_2366_4139_97CF_28563364DACA__INCLUDED_)
```