

System 800xA Public Address System User Manual

System Version 6.0

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System 800xA

Public Address System User Manual

System Version 6.0

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About This User Manual



Any security measures described in this User Manual, for example, for user access, password security, network security, firewalls, virus protection, etc., represent possible steps that a user of an 800xA System may want to consider based on a risk assessment for a particular application and installation. This risk assessment, as well as the proper implementation, configuration, installation, operation, administration, and maintenance of all relevant security related equipment, software, and procedures, are the responsibility of the user of the 800xA System.

This user manual describes the Installation and Configuration of *ABB 800xA Public Address System* in 800xA System.

User Manual Conventions

Microsoft Windows conventions are normally used for the standard presentation of material when entering text, key sequences, prompts, messages, menu items, screen elements, etc.

Feature Pack

The Feature Pack content (including text, tables, and figures) included in this User Manual is distinguished from the existing content using the following two separators:

Feature Pack Functionality_

<Feature Pack Content>

Feature Pack functionality included in an existing table is indicated using a table footnote (*): *Feature Pack Functionality

Unless noted, all other information in this User Manual applies to 800xA Systems with or without a Feature Pack installed.

Warning, Caution, Information, and Tip Icons

This User Manual includes Warning, Caution, and Information where appropriate to point out safety related or other important information. It also includes Tip to point out useful hints to the reader. The corresponding symbols should be interpreted as follows:



Electrical warning icon indicates the presence of a hazard that could result in *electrical shock*.



Warning icon indicates the presence of a hazard that could result in *personal injury*.



Caution icon indicates important information or warning related to the concept discussed in the text. It might indicate the presence of a hazard that could result in *corruption of software or damage to equipment/property*.



Information icon alerts the reader to pertinent facts and conditions.



Tip icon indicates advice on, for example, how to design your project or how to use a certain function

Although Warning hazards are related to personal injury, and Caution hazards are associated with equipment or property damage, it should be understood that operation of damaged equipment could, under certain operational conditions, result in degraded process performance leading to personal injury or death. Therefore, fully comply with all Warning and Caution notices.

Terminology

A complete and comprehensive list of Terms is included in the *System 800xA System Guide Functional Description (3BSE038018*)*. The listing includes terms and definitions that apply to the 800xA System where the usage is different from

commonly accepted industry standard definitions and definitions given in standard dictionaries such as Webster's Dictionary of Computer Terms. Terms that uniquely apply to this User Manual are listed in the following table.

Term/Acronym	Description			
800xA	ABB automation system (eXtended Automation).			
PAS	Public Address System			

Released User Manuals and Release Notes

A complete list of all User manuals and Release notes applicable to System 800xA is provided in *System 800xA Released User Documents (3BUA000263*)*.

System 800xA Released User Documents (3BUA000263)* is updated each time a document is updated or a new document is released. It is in PDF format and is provided in the following ways:

- Included on the documentation media provided with the system and published to ABB SolutionsBank when released as part of a major or minor release, Service Pack, Feature Pack, or System Revision.
- Published to ABB SolutionsBank when a User manual or Release note is updated in between any of the release cycles listed in the first bullet.



A product bulletin is published each time *System 800xA Released User Documents (3BUA000263*)* is updated and published to ABB SolutionsBank.

Section 1 Introduction

ABB 800xA Public Address System is delivered as an add-on to the 800xA System for announcing the information, instructions and messages through the public address system to all plant personnel. 800xA Public Address System comprises of the following main node functions

- 800x PAS Connectivity
- 800xA PAS Announcement Node

System Overview

Figure 1 shows Public Address System in System 800xA Plant Network.



Figure 1. PAS in System 800xA Plant Network

Table 1 describes the PAS Components in 800xA System:

Table 1. PAS Components

PAS Components	Description
PAS Connectivity	PAS Connectivity is responsible for monitoring the Alarm Lists and adding the announcement messages to the announcement queue.
	There will be one PAS Connectivity Server per 800xA System. PAS Connectivity can be a dedicated Application Server or can be combined with any Application Server or Connectivity Server in the System.
	In addition, PAS Connectivity includes client components that will be installed in all 800xA nodes including Aspect Server (from where the system extension is loaded).
PAS Announcement	The PAS Announcement is responsible for picking messages from announcement queue, perform text to speech conversion and do the actual announcement via the output channel.
	There can be multiple PAS Announcement nodes in a system, typically corresponding to different plant areas.
	The PAS Announcement node can be combined with any 800xA node or can also be a non-800xA ¹ Windows server or workstation node.
1) Incase of non-800xA no	de, installation has to be performed manually, refer Appendix A, Manual Installation.

Section 2 Installation and Configuration

This section describes the Installation and Configuration steps required for *ABB* 800xA Public Address System (PAS) in 800xA System.

System Installer supports PAS. During installation, PAS is selected as a System Function (see Figure 2) and PAS Announcement Server is selected as a System Node (see Figure 3). For general requirements on installation and recommended hardware, refer *System 800xA Installation and Upgrade Getting (2PAA111708*)*.



Ensure that Public Address System is installed and System Extension is loaded into 800xA System.



Figure 2. Public Address System - System Function

9	System 800xA C	onfiguration Console	- • ×
🕒 🕒 🐠 Home 🐴 System	Setup 🔥 Configure System		
Recent events	- Configure System		
	Configuration and installation of system and		
	node functions.		
	System functions System godies	Import/Export Updates View task log	Diagnostics
	Node Node Tunes Installation Status	Eurotice Descartias Installation status Redundant on	
	SOXAHISTORY Server Needs redeploy	PAS Announcement Server Not deployed	
	C ASHARMONY Client, Server Needs redeploy		
Recent tasks	O BATCHIM Server Needs redeploy		
Configure System	O BCTID444 Client Needs redeploy		
	CS800PLCFFPH Server Needs redeploy		
	O PASTEST Server Not deployed		
		Allocate functions Make redundant	
	Add ngde Bemove node Node actions *		
User: 800xalnstaller		De	ploy system
Node: BCTID444 System: System2	See also:		
		Cancel Apply	Y

Figure 3. Public Address System - System Node

Figure 4 shows the configuration workflow for the Public Address System in 800xA System. Click on a box with blue text to take you to the associated procedure.



Figure 4. PAS Configuration Flow chart

PAS Connectivity Service Provider Node

Perform the following steps to set the PAS Connectivity Service Provider node:

- 1. Open Plant Explorer Workplace and navigate to Service Structure.
- 2. Use the object browser to navigate to and right click on;

Services > PAS_Manager_Service, Service

- 3. Select **New Object** from the context menu to open a **New Object** dialog box.
- 4. Select **Service Group** from the list on the left, type a name and then click **Create**.
- 5. Use the object browser to navigate to and right-click on the newly created **Service Group**.

- 6. Select New Object from the context menu to open the New Object dialog box.
- 7. Select Service Provider from the list on the left, type a name and click Create.
- 8. Select **Service Provider Definition** in the aspect list area for the newly created **Service Provider**.
- 9. Select the node identified to host this **PAS Connectivity Service** from the Node: drop-down list box. There can only be one PAS Connectivity Service per System.
- 10. Click **Apply**. This will set the **Service Provider** host name for this **PAS Connectivity Server**.



Figure 5. PAS Service Configuration

Security Permissions

The security permissions are configured under **Security Definition** aspect. To open this aspect, navigate to **Admin Structure** > **Administrative Objects** > **System Domain Name**.

<u>hu</u>		RES-AS S	ystem //
🔀 🔎 🛅 (Enter search name)	No Filter	💌 🖻 Replace	✓ [1]
Eg Admin Structure	-	Aspects of 'RES-AS System'	Modified
Administrative Objects Administrative Objects Rott, Domain Rott, Doma		Admin Structure Admin Structure Aspect Directory Settings Audt Trail Config Do Domain Definition Domain Type Reference Engineering Security Definition Logover Settings Name Security Definition Security Definition Compared Structure Permissions Evaluation Order	3/11/20 3/11/20 3/11/20 3/11/20 3/11/20 3/11/20 3/11/20 3/11/20 3/11/20 3/11/20 3/11/20 3/11/20

Figure 6. Security Definition Aspect

There are two permission required for a PAS user:

• **Configure**: By default Application Engineers are configured for this permission. Users with this permission can configure PAS Configuration aspect and PAS global Setting aspect.

RES-AS System : Security Definition								
🔇 😳 🤿 🗸 RES-AS System:Security Definition 🛛 🗸 🎆 🔗 🌺 🛃 👻 🔲 👻								
Permissions Evaluation Order	Permissions Euclustice Order							
Evaluation Order								
Authority Range: Domain	n		y Sec	urity Definition				
Permission	Access	User or Group	Node	Audit				
Modify History	Allowed	Application Engineers	All Nodes					
Sirst signature	Allowed	Application Engineers	All Nodes					
Second signature	Allowed	Application Engineers	All Nodes					
Create synchronization	Allowed	Application Engineers	All Nodes					
Load synchronization pa	Allowed	Application Engineers	All Nodes					
Modify Alarm Hiding	Allowed	Application Engineers	All Nodes					
Modify Alarm Grouping	Allowed	Application Engineers	All Nodes					
Coperator Configure	Allowed	Operators	All Nodes	=				
SFC SFC	Allowed	Application Engineers	All Nodes					
Release Responsibility	Allowed	Operators	All Nodes					
	Allowed	Application Engineers	All Nodes	~				
3		ш		>				
Add Remove Edit								
			Cancel	Apply Help				

Figure 7. Security Definition aspect

• **PAS Announcement**: Users with this permission can perform operational tasks in the Announcement overview aspect during run time operations.

Perform the following for configuring PAS Announcement permission:

1. Open Security Definition aspect (see Figure 7).

	Permiss	ion Cor	nfigu	ratio	n	x
Permissions:						
Permission	Allowed	Denied	1	Audit	-	C Allowed
Administrate						C Denied
Approve						
Break Reserva						🗖 Audit
Configure						
Coofigure Engl					×	
Users and Groups:			_	_	_	
					_	Add
						Hou
						Remove
	_					
< 111					>	
< III Nodes:					>	
< III Nodes:					>	
< III Nodes:					>	Add
< III Nodes: Al Nodes					>	Add
< III Nodes: All Nodes					>	Add Remove
< III Nodes: All Nodes					>	Add Remove
< III Nodes: All Nodes					>	Add Remove
< III Nodes: All Nodes						Add Remove

2. Click Add to open the Permission Configuration window.

Figure 8. Permission Configuration

3. Select **PAS Announcement** and **Allowed** or **Denied** option and then click **Add** in **Add Users and Groups** pane.

P	ermissior	Config	uration		x
Permissions:					_
Permission	Allowed	Denied	Au A	Allowed	
Modify Alarm Hiding				\bigcirc Denied	
Operate					
Operator Configure				Audit	
PAS Announcement	х		~		
<			>		
Users and Groups:					
					-1
				A00	
				Remove	
					-
			>		
-Nodes:					_
Al Nodes				Add	
				Remove	
					-
		ок	Cancel	Help.	

Figure 9. PAS Announcement Permission

4. Select the user type and then click **Add**. You can also add **Members** to this group.

Add Users and Groups				
Names:				
Everyone - IndustrialITUser	All users belong to this group.			
Software Developers	The software developers groups is use System Engineers group holds the sys			
Application Engineers	Application Engineers group members			
Operators	Users that operates the plant should b			
Application Managers	Application Managers group members			
Machinistrators - Industrial I Admin	Users that has unrestricted permission			
< 111	>			
Add Members Searc	h			
Add Names:				
ОК	Cancel			

Figure 10. Add Users and Groups

5. The selected user type is added for this permission and then click **Ok**.

Permission Configuration	x
Permissions:	
Permission Allowed Denied A	C Allowed
Administrate	C Denied
Batch Configure	—
Break Reservation	L Audit
Configure	
Users and Groups:	
Operators	Add
	Remove
< III >	
-Nodes:	
P All Nodes	Add
	Remove
	1
OK Cancel	Heip

Figure 11. User Group

6. The permission for PAS Announcement is listed in Security Definition aspect. Click **Apply** to activate the Permission for the user.

<u>hr</u>	RES-A	S System : Security De	finition		x
🛛 😋 🕤 🤿 🗕 RES-AS System	:Security Definiti	on 🛛 🗸 🍓 🚱 🐼	- O -		
Permissions Evaluation Order					
Authority Range: Domain	1		Security De	efinition	
Permission	Access	User or Group	Node	Audit	^
Second signature	Allowed	Application Engineers	All Nodes		
Create synchronization	Allowed	Application Engineers	All Nodes		
Load synchronization pa	Allowed	Application Engineers	All Nodes		
Modify Alarm Hiding	Allowed	Application Engineers	All Nodes		
Modify Alarm Grouping	Allowed	Application Engineers	All Nodes		
Sperator Configure	Allowed	Operators	All Nodes		
SFC SFC	Allowed	Application Engineers	All Nodes		
Release Responsibility	Allowed	Operators	All Nodes		_
Sperator Configure	Allowed	Application Engineers	All Nodes		=
Operator Configure	Allowed	System Engineers	All Nodes		
PAS Announcement	Allowed	Operators	All Nodes		~
<		Ш		>	•
Add Remove	Edit		Search option for Domain C Continue Search C Terminate Search		
			Cancel Apply	Не	lp

Figure 12. Security Definition- PAS Announcement

PAS Information Aspect

PAS information aspect is used for selecting the announcement node and to update the language and voice information from Acapela tool, which is installed on PAS announcement server.



Before preforming the steps, ensure that PAS announcement service is up and running.

Perform the following steps to create and configure PAS Information aspect in Admin Structure.

- 1. Open **Plant Explorer Workplace** and navigate to **Admin Structure**.
- 2. Use the object browser to navigate to and right click on;

Administrative Objects > PAS Global Configuration

- 3. Select New Object from the context menu to open the New Object dialog box.
- 4. Select the List Presentation option, select PASInformation aspect and then click Create.
- 5. In the PAS Information aspect window select the *PAS Announcement Node*, and then click **Update Language Info** to update the supported languages and then click **Apply**.

in the second se	PAS General Configuration : PAS Information
000-	PAS General Configuration:PAS Informati 🗸 🚔 🛠 😓 🖅 🗸 🔲 🗸
Node Name :	RES-AS 🔹
Port No :	2444
	Update Language Info
	Cancel Apply Help

Figure 13. PAS Information Aspect



Update Language Info must be done first before creating the *PAS Global Setting* aspect, otherwise languages cannot be configured in *PAS Global Setting* aspect. This update must also be done each time a new language or a language package is added in the PAS system.

PAS Global Setting Aspect

PAS Global Setting aspect is used for configuring Voice settings and Announcement mode.



Only one instance of PAS Global Setting aspect must be configured in the System.

Perform the following steps to create and configure PAS Global Setting in Admin Structure.

- 1. Open Plant Explorer Workplace and navigate to Admin Structure.
- 2. Use the object browser to navigate to and right click on;

Administrative Objects > PAS Global Configuration

- 3. Select New Object from the context menu to open the New Object dialog box.
- 4. Select the List Presentation option, select PASGlobalSetting aspect and then click Create.
- 5. In the **PAS Global Setting** aspect window configure the following tabs:

System and Ha	rdware Settings	Language Voice	Setting		
Announcemen	t Mode :	Manual		•	
Priority Langua	ige :	Swedish		~	
Delay Between	Two Languages :	5		(Seconds)	
Max Retry :	3	Retry Interval :	30	(Seconds)	
Max Repeat :	3	Repeat Interval:	10	(Seconds)	

a. Configure System and Hardware Settings tab.

Figure 14. PAS Global Setting aspect - System and Hardware Settings

Item	Description
Announcement Mode	The mode in which the announcement is made.
	• Manual : If selected, the announcement is manually done using the announcement overview aspect.
	Automatic: if selected, the announcement is made as soon as the alarm is generated.
	changes the mode of announcement on a running system.
Priority Language	The priority of the language for the announcement.
Delay Between Two Languages	Time interval (seconds) between two language announcements.

ltem	Description
Max Retry	Number of retries during failure of the announcement. This is applicable only in case of manual mode.
Retry Interval	Time interval (seconds) for a retry, during failure of the announcement. This is applicable only in case of manual mode.
Max Repeat	Number of repeats of announcements. This is applicable only in case of automatic mode.
Repeat Interval	Time interval (seconds) between two repeats. This is applicable only in case of automatic mode.

b. Configure Language Voice Settings.

PAS Gene	ral Configuration : PAS	Global Setting		- 🗆 X
🔇 🕑 🌍 🗸 PAS General Configuration:	PAS Global Set 🗸 🛃 🔗 头	F3 - () -		
System and Hardware Settings	nguage Voice Setting			
S.No Language Voi Supported Kinds of Pauses : Supported Lengths of Pauses :	ce Gender PUNCT DEFAULT			Add Remove
		Cancel	Apply	Help

Figure 15. PAS Global Setting aspect - Language Voice Settings

ltem	Description
Add	Click Add to select the language along with the corresponding voice. The Gender is automatically displayed and non editable.
	German, Swedish and US English languages are only supported.
Remove	Click Remove to delete the selected language along with the corresponding voice.
Supported Kinds of Pauses	The voice is paused based on the parameter selected from the list.
	Select the following kind of pauses from the drop down:
	Punct
	Semicolon
	• Comma
	Bracket
	• Spell
Supported Lengths of Pauses	The length of text is paused based on the parameters selected from the list.
	Select the following length of pauses from the drop down:
	Default
	Very short
	Short
	Medium
	• Long
	Very Long

			inguage voice setting	Y.		
S.No	Language		Voice	Gender		
1	US English	*	Heather22k_HQ v	Female	*	Add
2	Swedish	v	Emma22k_HQ v	Female	v	Remove
			PUNCT	v		
Suppor	ted Kinds of Pauses :					

Figure 16. Language Voice Settings

 Click Apply to save the changes. Re-open the *PAS Global Configuration* aspect to verify if the updated values are reflected.

Alarm and Event List (Alarm Grouping)

To make Public Address System operational, it is necessary to configure Alarm and Event list in 800xA System.

The Alarm and Event Lists are used to group alarms together. They define the list of Alarms and Events being sent as an announcement message. Alarm and Event List are part of the 800xA system and are added to the objects while creating applications. For more information on Alarm and Event configuration, refer to the *System 800xA Configuration (3BDS011222)* manual.

PAS Configuration Aspect

PAS Configuration aspect is used to configure announcement details for Alarm and Event list aspects on a particular object.

Perform the following steps to create and configure PAS Configuration aspect:

- 1. Open Plant Explorer Workplace and navigate to a desired object.
- 2. Right click on an object and select **New Aspect** from the context menu to open the **New Aspect** dialog box.
- 3. Select the List Presentation option, select PASConfiguration aspect and then click Create.
- 4. In the PAS Configuration aspect configure the following tabs:

Configured Alarm and Event tab:

а	TestPASObject : PAS Configuration
🔇 🕤 🧊 - TestPASObject:PAS	Configuration 🗸 🖓 🍃 🥶 🗕 🗖
Configured Alarm and Event	Node Configuration
Available Alarm and E	vent List
Alarm and Event Name:	Tankful
Configured Alarm and	Event
Alarm and Event Nan	ne
	Cancel Apply Help

Figure 17. Configured Alarm and Events



Configured Alarm and Event list aspect in the selected object will be listed in the **Alarm and Event Name** drop down for PAS announcement.

- a. Select the Alarm and Event list aspect from the **Alarm and Event Name** drop down field.
- b. Click **Configure** for selected Alarm and Event list to appear in **Configured Alarm and Event Name** pane.
- c. Click **Add**, the announcement is made in the language added for the Alarm and Event list.

<u>111</u>	TestPASObject : PAS Configuration	_ _ X
🛛 🕝 🌍 🗸 TestPASObject:PAS Configuratio	n ✓ 🛃 🕫 🗸 🔲 🗸	
Configured Alarm and Event Node Available Alarm and Event Lis Alarm and Event Name: Configured Alarm and Event	Configuration t	Configure
Alarm and Event Name Alarm List Remove	S.No Language Message Description 1 US English Fire Detected in Area 1 2 Swedish Brand upptäcktes i området 1 < III 	Add Remove Up Down
	Cancel App	ly Help

Figure 18. Configured Alarm and Events

ltem	Description
Configure	Select an Alarm or Event from the <i>Available Alarm and Event List</i> and then click Configure .
	The Alarm and Events appear in <i>Configured Alarm and Event</i> pane for configuring language and message description.
Add	Click Add to create one or multiple Alarm description for multiple languages
Remove	Click Remove to remove the selected Alarm description.

ltem	Description
Up	Announcement for the selected language and message description is incrementally prioritized.
Down	Announcement for the selected language and message description is prioritized low.

Select Node Configuration tab:

a. Select the announcement node from the drop down list and then click **Apply**.

		TestPASObj	ect : PAS Configu	uration	×
0	▼ TestPASObject:PAS	Configuration 🗸 🛃 🖉	🎍 💀 🗸 🔲 🗸		
Configur	ed Alarm and Event	Node Configuration			
S.No	1	Node Name		Port No	
1	RES-AS 💌		2444		Add Remove
<		ш			>
				Cancel Apply	Help

Figure 19. Node Configuration

Label	Description
Add	Add a Node name and provide the port number of the Node.
Node Name	Initially all 800xA System nodes are listed in the Drop down box. User can select any one as an announcement node. User can manually type the node to configure non 800xA node as an announcement node.
Port No.	Enter the port no. on which the PAS announcement service is running, by default the number is 2444. The range is between 1 - 9999.

PAS Announcement Aspect

PAS Announcement aspect display the list of announcement, details and their status of Alarm and Event at any point of time. This aspect can be created under any object in plant explorer.

- 1. Open **Plant Explorer Workplace** and navigate to a desired object.
- 2. Right click on an object and select **New Aspect** from the context menu to open the **New Aspect** dialog box.
- 3. Select the **List Presentation** option, select **PASAnnouncement** aspect and then click **Create** to view *PAS Announcement overview* window.

	Rt	ES-AS System	// Plant E	Explorer W	/orkplace				L		
No Filter	- 🖻	Replace 🗸	11 0 0	* 6	B A B B A S	· 📫 📗					
spects of 'PASOBJ'	Modified	Modified by	Desc	Inherited	Category name	Version					
Alarm Expression	4/21/2015 8:20:1	800xAInstaller	Speci	False	Alarm Expression	1					
Control Structure	4/21/2015 8:03:1	800xAInstaller	[Con	False	Control Structure	1					
Fire	4/21/2015 8:04:0	800xAInstaller	This	False	Alarm and Even	1					
gasleak	4/21/2015 8:04:1	800xAInstaller	This	False	Alarm and Even	1					
General Properties	4/22/2015 12:48:	800xAInstaller		False	General Propert	1					
Name	4/21/2015 8:03:1	800xAInstaller	The	False	Name	1					
PAS Announcement	4/22/2015 12:46:	800xAInstaller		False	PASAnnouncem	1					
PAS Configuration	4/22/2015 12:58:	800xAInstaller		False	PASConfiguration	1					
Announcement Ov	erview	199 A 6 19	• [] •								
O O O PASOBJEPAS / Announcement Ov Current Language Name	erview Current Announcement N	Message Object	Name Ala	irm and Eve	nt Name Overall An	nouncement Stat	us Last Announce	ment Message Tin	ne Announc	ement Co	ount
Announcement Ov Current Language Name	erview	Message Object	Name Ala	irm and Eve	nt Name Overall An	nouncement Stat	us Last Announce	ment Message Tin	ne Announc	ement Co	ount
Announcement Ov Current Language Name	erview Current Announcement N	Aessage Object	Name Ala	irm and Eve	nt Name Overall An	nouncement Stat	us Last Announce	ement Message Tim	ne Announc	ement Co	ount
Announcement Ov Current Language Name	erview Current Announcement N	Message Object	Name Ala	irm and Eve	nt Name Overall An	nouncement Stat	Last Announce	ment Message Tim	ne Announc	ement Co	ount
Announcement Ov Current Language Name	erview Current Announcement h	Message Object	Name Ala	rm and Eve	nt Name Overall An	nouncement Stat	us Last Announce	ement Message Tim	ne Announc	ement Co	ount
Announcement Ove Current Language Name Send	erview Current Announcement h	Message Object	Name Ala	irm and Eve	nt Name Overall An	nouncement Stat	Last Announce	ment Message Tin	Pause	ement Co Viev	ount

Figure 20. PAS Announcement Aspect - Main View

4. Click **F** to swap the Announcement overview from *Main* view to *Config* view.

<u>***</u>	RES-AS	System // Plant E	xplorer Workpl	ace			
🔀 🔎 📷 (Enter search name) 💌	No Filter 💌 🎅 Repl	ace 🔽 👫 🥝	1 🔻 🖆 🚳	ia 🖄 🖄	a 🖓 🖬 🔛		
Eg Admin Structure	Aspects of 'PAS General Configuration'	Modified	Modified by	Desc	Inherited	Category name	Version
	Sadmin Structure	1/9/2015 4:05:15	ABB Public Addr	[Adm	False	Admin Structure	1
E G Domains	Ame Name	1/9/2015 4:05:15	ABB Public Addr	The	False	Name	1
RES-AS System, Domain	PAS Annoucement	4/15/2015 4:08:1	800×AInstaller		False	PASAnnoucement	1
Root, Domain	PAS Global Setting	4/14/2015 8:26:0	800xAInstaller		False	PASGlobalSetting	1
Environments	PAS Information	4/14/2015 8:25:4	800xAInstaller		False	PASInformation	1
Inventory Object							
Licenses	🔇 🔘 🧊 🗸 PAS General Configura	ation:PAS Annoucen 🗸	\$ \$ \$ 50 -	0.			
PAS General Configuration				Main	View		
	Node Name : RES-AS	-		Conf	ig view		
	Note Name . Inco-Ao						

Figure 21. PAS Announcement Aspect - Config View

5. In **Config view**, select the **Announcement Node** and then click **Apply**. Announcement pertaining to this node is only listed in the Announcement overview aspect.



This configuration must be done at least once before viewing the announcement overview aspect for a particular node. This configuration can be modified in case user wants to view announcements from other nodes.

Sound Scheme

In Announcement server node Sound Scheme must be configured.

 Navigate to Control Panel > Sound or Right click from Notification area to open Sound properties window. Select Sound Scheme as No sounds (see Figure 22).

🖗 Sound
Playback Recording Sounds Communications
A sound theme is a set of sounds applied to events in Windows and programs. You can select an existing scheme or save one you have modified.
Sound Scheme:
No Sounds
To change sounds, click a program event in the following list and then select a sound to apply. You can save the changes as a new sound scheme.
Program <u>E</u> vents:
Windows
Asterisk
Critical Battery Alarm
Critical Stop
Default Beep
Play Windows Startup sound
Sounds:
(None)
OK Cancel Apply

Figure 22. Sound Scheme
Section 3 Typical Plant Configurations

This chapter describes a typical plant configuration using PAS *ABB 800xA Public Address System* in 800xA System.

Configuring Announcement Messages

User can perform PAS configuration based on the announcement message requirement and the plant layout. Following scenarios depicts the different possible ways to configure PAS.

Scenario 1

Announcement Message configuration can be performed in two different ways.

- Option 1 One-to-One: Each signal is configured with different announcement message.
- Option 2 Many-to-One: More than one signal is configured to send announcement message.

Option 1

Each signal to be announced is configured with PAS Configuration aspect containing corresponding announcement message.

In the following example, there are four signals, FD1_FireDetector1, FD2_FireDetector2, GD1_GasDetector1, and GD2_GasDetector2 for which announcement has to be made. As announcement message is different, a separate PAS Configuration Aspect is configured for each signal.

Figure 23 shows signal for Fire Detection (FD1_FireDetector1) with PAS configuration aspect configured for sending its corresponding announcement message **Fire Detected in Zone 1**.

Color (Enter correct name)		, ,								-	
K / (cnter search name)	No Filter	r <u>*</u>		Replace	~	łi	0 (1	S	ia 🟚	B 4
E Control Structure	-	Aspects of 'FD1_FireDetector	1'	Mod	fied		M	todified b	by	Desc	1 ^
Root, Domain Control Network, Control Network Project1, Control Project Applications, Application Group Application, J, Control Application Control Modules, Control Mod	roup off off etector1:	Coveride Coveride Parameters PAS Configuration RedFaceplate	etector	10/7 10/7 7/2/ 10/7	/2009 7 /2009 7 2015 2: /2009 7	7:56:3 7:56:3 00:33 7:56:3	A A A A A A A A	C800M (C800M (dministr C800M (C800M (Connect Connect ator Connect	Obje Obje Obje	1 F 1 ×
Configured Alarm and Event Node Configurat Available Alarm and Event List Alarm and Event Name: Event List Configured Alarm and Event	ion				*	Co	nfigur	e	v (Configur Help	ABI
Alarm and Event Name Alarm List US Remove	Lang	uage Messa Fire Detec	ge De	Zone 1	> Note	R	Add emove Up Down				

Figure 23. PAS Configuration for signal 1(Fire Detection)

Figure 24 shows signal for Fire Detection (FD2_FireDetector2) with PAS configuration aspect configured for sending its corresponding announcement message **Fire Detected in Zone 2**.

<u>ka</u> 1	N-V-ITLIS052 Syst	tem // Plant Explorer	Workplace		- 🗆 🗙
💌 🔎 📑 (Enter search name)	No Filter	•	🖻 Replace 🔽 👫	0 i) 🐴 🖆 🛙	🏊 🖾 🏚 💁
Control Structure	▼ As	pects of 'FD2_FireDetector2'	Modified	Modified by	Desc I ^
Root, Domain Root, Domain Project J, Control Network Root, Jontrol Project Root, Jontrol Project Root, Applications, Application Group Root, Control Modules, Contro	ion lodule Group patinBoolM	Operator Note Override Parameters PAS Configuration ♪	6/30/2015 9:43: 10/7/2009 7:56: 10/7/2009 7:56: 7/2/2015 1:47:4 ector2:PAS Configuration	S Administrator 3 AC800M Connu 3 AC800M Connu 2 Administrator	Oper F sct Obje 1 sct Obje 1 F v >
FD2_	FireDetector2 : P/	AS Configuration	-		
Configured Alarm and Event List Alarm and Event Name: Event List Configured Alarm and Event List	on V 🌺 🔗 🔈		× C	onfigure	Configure Help ministrator
Alarm and Event Name	Languag	ge Message	e Description		
Alarm List	US English	Fire Detecte	ed in Zone 2	Add Remove Up Down	
		Canc	el Apply	Help	

Figure 24. PAS Configuration for signal 2(Fire Detection)

Figure 25 shows signal for Gas Detection (GD1_FireDetector1) with PAS configuration aspect configured for sending its corresponding announcement message **Gas Detected in Zone 1**.

hay		IN-V-IT	LIS052 System	// Plant Explorer	Workplace			-		x
🔀 🔎 📷 (Enter search name)	•	No Filter		- 🏱 Replace 🗸	!: 🛛 🗊 🌂	a 🔁	🕍 🖄 🖄 🗟	o? 🔛		
Control Structure			GD1_GasDetector1	Modified	Modified by	Desc	Inherited	Category name	Versi	or ^
Root, Domain Root, Domain Root, Control Network, Control Network Root, Control Notices, Control Network Root, Control Notices, Control Root, FO2, FireOetector2, Root, GasOetector2, Root, GasO	ation Il Module Grou SignalInBoolh SignalInBoolh r1, SignalInBoolh	WinFace MainFace Object Io Operator December Minite Parameter Minite Param	rol iplate Note ers iguration	5/19/2010 6:06:3 11/11/2009 4:57: 6/3/2005 9:45:0 6/3/2005 12:26:0 6/30/2015 9:45:0 10/7/2009 7:56:3 7/2/2015 4:04:07	AC800M Connect AC800M Connect Administrator AC800M Connect Administrator AC800M Connect AC800M Connect AC800M Connect	Grap Main The Obje Obje Obje	True True False True False True True False	Graphic Elemen Faceplate PG2 Name Object Icon Operator Note Faceplate Elem PASConfiguration		~
ber	GD1 Gas	Detector1 · P	AS Configurati	on	- 0	×	1			
Configured Alarm and Event Node Available Alarm and Event Lis Alarm and Event Name: Event L	Configurationst	on			~ Config	ure				
Configured Alarm and Event										
Alarm and Event Name	S.No	Lang	luage	Message Descr	iption					
Alarm List	1	US English		Gas Detected in Zon	Add Remo Up Dow	ve n				
				Cancel	Apply H	eln				

Figure 25. PAS Configuration for signal 1(Gas Detection)

Figure 26 shows signal for Gas Detection (GD2_FireDetector2) with PAS configuration aspect configured for sending its corresponding announcement message **Gas Detected in Zone 2.**

ha			IN-V-ITLIS052 System /	// Plant Explorer Work	place			-	×
	(Enter search name)	• No	Filter	👂 Replace 🔽 👫	0 🛈 🔻 🖆	2	a da 46 💕 🕻	4	
E Contro	I Structure	-	Aspects of 'GD2_GasDetector2'	Modified	Modified by	Desc	Inherited	Category name	Version A
R Ro	ot. Domain		V-Name	6/30/2015 9:46:0	Administrator	The	False	Name	1
i i i	Control Network, Control Network		Sold Design Contract	6/3/2005 12:26:0	AC800M Connect	Obje	True	Object Icon	1
Te	Project1, Control Project		👹 Operator Note	6/30/2015 9:45:4	Administrator	Oper	False	Operator Note	1
	E- S Applications, Application Group		Dverride Override	10/7/2009 7:56:3	AC800M Connect	Obje	True	Faceplate Elem	1
	E - Application_1, Control Appli	cation	R Parameters	10/7/2009 7:56:3	AC800M Connect	Obje	True	Faceplate Elem	1
	🖻 🐯 Control Modules, Contro	Module Group	PAS Configuration	7/3/2015 1:45:33	Administrator		False	PASConfiguration	1
	- 5 FD1_FireDetector1,	SignalInBoolM	LS RedFaceplate	10/7/2009 7:56:3	AC800M Connect	Obje	True	Faceplate Elem	1
	FD2_FireDetector2,	SignalInBoolM	Shelved Alarm List	5/13/2009 1:47:0	AC800M Connect	This	True	Alarm and Even	1
	FT1_FlowTransmitte	r1, SignalInRealM	SignalInBoolM Type Reference	6/30/2015 9:45:4	Administrator	Signa	False	SignalInBoolM	1
	- 12 GD1 GasDetector1	SignalInBoolM	R Status	10/7/2009 7:56:3	AC800M Connect	Obje	True	Faceplate Elem	1 4
	ben a	GD2	SacDetector2 : PAS Conf	iguration	_	• ×			
+	Configured Alarm and Event Available Alarm and Event Alarm and Event Name: Configured Alarm and	Node Confi vent List Event List Event	guration		~ Cor	nfigure			
	Alarm and Event Nar	ne lo	Language	Message Descript	tion				
	Alarm List		US English	Gas Detected in Zone	2	Add			
				- 3	Re	move			
						Up			
	<	>				own			
<	P	<			>	oun			
	The second se	in ore							
				Cancel	Apply	Help			

Figure 26. PAS Configuration for signal 2(Gas Detection)

Option 2

Signals to be announced can be grouped and configured with a single PAS Configuration aspect containing an announcement message.

In the following example, the signals, FD1_FireDetector1 and FD2_FireDetector2 are grouped under object **Fire Detectors** (using Insert Object) configured with PAS Configuration aspect containing an announcement message.

Similarly, the signals GD1_GasDetector1 and GD2_GasDetector2 are grouped under object **Gas Detectors** (using Insert Object) configured with PAS Configuration aspect containing an announcement message.



The parent objects (**Fire Detectors** and **Gas Detectors**) needs to be configured with an Alarm List and its filter set to **Object and descendents**.

Figure 27 and Figure 28 shows signals grouped under parent objects where a single PAS configuration aspect is configured.

(Enter cearch name)	w No Elber	- N Replace		X A	Sta the	nh. D3. 📌 🙌		
	Aspects of 'Fire'	Modified	Modified by	Desc	Inherited	Category name	Version	
Location Structure Roch, Comain Roch, Roch	Appeters of Fire Marm List Marm List Marme PAS Configuration Configured Alarm and Event Available Alarm and Event Alarm and Event Name: Configured Alarm and I	7/3/2015 5:16:40 7/3/2015 5:17:3 7/3/2015 5:17:3 7/3/2015 5:19:01 7/3/2015 5:19:01 Node Configurati	monined by Administrator Administrator Administrator Administrator	Desc This [Loca The	False False False False False	Category name Alarm and Even Location Structure Name PASConfiguration	verson 1 1 1 1 1 ×	Configure
	Alarm and Event Nam	e S.No	Language		Messa	ge Description		
	Alarm List	1	US Englis	~	Fire Detec	ted in Plant		Add
	<	>					>	Remove Up Down
	Ken							

Figure 27. PAS Configuration for Fire Detectors

ha	IN-V-ITLIS	052 System // Pla	ant Explorer Wor	kplace			- 🗆 🗙
(Enter search name)	No Filter	- P Replace	V 👫 0 🛈	* 2	🎦 🖬 🖄	ga 🔓 🗊 🔛 📗	
E Location Structure	Aspects of 'Gas'	Modified	Modified by	Desc	Inherited	Category name	Versic
E-S Root, Domain	🛄 Alarm List	7/3/2015 5:16:53	Administrator	This	False	Alarm and Even	1
E- S PAS Config	Structure	7/3/2015 5:17:25	Administrator	[Loca	False	Location Structure	1
E Fire Detectors	Configuration	7/3/2015 5:15:29	Administrator	The	False	Name	1
FD1_FireDetector1, SignalInBoolM	PAS Configuration	//3/2015 5:18:03	Administrator		False	PASConfiguration	1
GD1_GasDetector1, SignalInBoolM	Gas:PAS Configuratio	on 🗸	∕ 🛃 g 🕹 🖂 -	•			
	Configured Alarm and Event	Node Configurati	on				
	Available Alarm and Ev Alarm and Event Name: Configured Alarm and	vent List Event					 Configure
	Alarm and Event Nan	ne S.No	Langua	qe	Messa	qe Description	
	Alarm List	1	US English	Ý	Gas Detect	ted in Plant	Add
	Re	> move					Remove Up Down
					C	ancel Apply	/ Help
	1					🤒 - Administra	

Figure 28. PAS Configuration for Gas Detectors

Scenario 2

Announcement message configured in a PAS Configuration aspect for a signal can be announced through multiple announcement nodes.

Figure 29 shows signal for Fire Detection (FD1_Firedetector1) with PAS configuration aspect configured for sending its corresponding announcement message **Fire Detected in Zone 1** through announcement nodes **Node1** and **Node 2**.

		I la et					a. a.a. 1202	-2 -1	
(Enter search name)	/	No Filter		- P Repla		* 🖻 🐴 🗠 🛛	21 23 42		
Control Structure		-	Aspects of 'FD1_Fire	eDetector1'	Modified	Modified by	Desc	Inherited	Category name
📦 Root, Domain			LockControl		5/19/2010 6:06:3	AC800M Connect	Grap	True	Graphic Elemen
E 🔁 Control Network, Control	Network.		Main-aceptate		11/11/2009 4:57:	AC800M Connect	Main	True	Faceplate PG2
Project1, Control Proj	ject		Chiect Icon		6/30/2015 9:42:3	Administrator	Obie	True	Object Icon
E Applications, Appl	Control Application		Operator Note		6/30/2015 9:42:3	Administrator	Oper	False	Operator Note
E- Control M	indules, Control Mor	tule Group	0verride		10/7/2009 7:56:3	AC800M Connect	Obie	True	Faceplate Elen
-Id FD1	FireDetector1, Sign	alInBoolM	25 Parameters		10/7/2009 7:56:3	AC800M Connect	Obje	True	Faceplate Eler
-IA FD2	FireDetector2, Signe	alt-DoulM	PAS Configuratio	n	7/3/2015 1:23:00	Administrator		False	PASConfigurat
14 671 6	Slaw Transmittart C	inn all n D o all M				t	Obje	True	Faceplate Elem
onfigured Alarm and Event	Node Configu	uration				+	Thir	True	Alarm and Ever
larm and Event Name: Configured Alarm and	Event List Event				v	Configure			
larm and Event Name: Configured Alarm and Alarm and Event Nar	Event List Event	Lang	uage	Mes	v sage Description	Configure			
larm and Event Name: Configured Alarm and Alarm and Event Nar	Event List Event ne	Lang US English	uage v	Mes:	sage Description	Configure			
Jarm and Event Name: Configured Alarm and Alarm and Event Nar Alarm List	Event List Event	Lang US English	uage v	Mes: Fire Detected	vage Description	Configure Add Remove			
larm and Event Name: Configured Alarm and Alarm and Event Nar Alarm List	Event List Event i.No Configur	Lang US English red Alarm and Event	uage Vode Config	Mess Fire Detected	v sage Description d in Zone 1	Configure Add Remove			
larm and Event Name: Configured Alarm and Alarm and Event Nar Alarm List	Event List Event Configur	Lang US English red Alarm and Event	uage Vode Configuent Node Name	Mess Fire Detected	v age Description d in Zone 1	Configure Add Remove Port No			_
larm and Event Name: Configured Alarm and Alarm and Event Nar Alarm List	Event List Event No Configue S.No	Lang US English red Alarm and Event Node 1	uage Vode Configu Node Name V	Mese Fire Detecter	v Rage Description d in Zone 1 2444	Configure Add Remove Port No			Add
larm and Event Name: Configured Alarm and Alarm and Event Nar Alarm List	Event List Event No Configur S.No 1 2	Lang US English red Alarm and Event Node 1 Node 2	vage Node Config Node Name	Mess Fire Detected uration	v sage Description d in Zone 1 2444 2444	Configure Add Remove Port No			Add Remove
larm and Event Name: Configured Alarm and Alarm and Event Nar Alarm List	Event List Event No Configur S.No 1 2	Lang US English red Alarm and Event Node 1 Node 2	Node Config Node Name	Mes Fire Detecter uration	v age Description d in Zone 1 2444 2444	Configure Add Remove Port No			Add
larm and Event Name: Configured Alarm and Alarm and Event Nar Alarm List	Event List Event No Configurent S.No 1 2	Lang US English red Alarm and Event Node 1 Node 2	Node Config Node Name	Mes- Fire Detected	v sage Description d in Zone 1 2444 2444	Configure Add Remove Port No			Add Remove
larm and Event Name: Configured Alarm and Alarm and Event Nar Alarm List	Event List Event No Configu S.No 1 2	Lang US English red Alarm and Event Node 1 Node 2	uage Node Config Node Name V V	Mes: Fire Detecter	v sage Description d in Zone 1 2444 2444	Configure Add Remove Port No			Add Remove

Figure 29. Multiple Node configuration - Announcement message

Scenario 3

Announcement message configured in a PAS Configuration aspect for a signal can be announced through a dedicated announcement node.

Figure 30 shows signal for Fire Detection (Application_1\FD_Firedetector) with PAS configuration aspect configured for sending its corresponding announcement message **Fire Detected in Area 1** through announcement node **Node1** pertaining to a plant area.

2	IN-V-ITLIS052 System //	Plant Explorer Wo	orkplace			-
🗙 🔎 📑 (Enter search name) 💽 No Filter	💌 👂 Rep	ace 🔽 👫 🥹 🕻) 🤻 🖆 🖄	📩 🖄 🗗 🛍	1	
Control Structure	Aspects of 'FD_FireDetector'	Modified	Modified by	Desc Inherite	d Category name	Version
Root, Domain Zontrol Network, Control Network Control Network, Control Network Control Project Andreating control Project Andreating control Control	TrimCurve Trend Signal Properties PAS Configuration	10/7/2009 7:56:3 12/3/2013 2:52:1 7/6/2015 6:16:56	AC800M Connect AC800M Connect Administrator	Obje True This True False	Faceplate Elem Property Exten PASConfigurati	1 1 on 1
Control Application Control Application Control Application Societal Modules: Control Module Group Societation Societatio	Configured Alarm and Event Available Alarm and E	Node Configuration	on		×	Configure
- I GO2_GasDetector2, SignalinBooM - I GPTI-PressueTransmitter1, SignalinRealM - I TTI_TemperatureTransmitter1, SignalinRealM - I GPTI_TemperatureTransmitter1, SignalinRealM	Configured Alarm and	Event	Language	Message	Description	Add
Bograms, Diagram Group Bograms, Diagram Group Control Application, Control Module Group Control Modules, Control Module Group Gortrol Modules, Control Application, Signal Result	Alarm List	USE	English	Fire Detected in	n Area 1	Remove
- 146 GDI_GasDetector1, SignalInBoolM - 146 GDI_GasDetector1_1, SignalInBoolM - 146 GD2_GasDetector2, SignalInBoolM - 146 PTI_PressureTransmitter1, SignalInRealM - 146 PTI_PressureTransmitter1, SignalInRealM	Configured Alarm and Event	> Node Configurati	on			Down
3 Th_reliperature training of a signal area	S.No	Node Name		Port	No	
- By Programs, Program Group	1 Node 1	v	2444			Add
Controllers, Controller Group Cost And Found Gor r/w, Generic OPC Server Network OPC Servers, System Alarm and Event Group					2	Remove
				Can	cel Apply	Held

Figure 30. Announcement message to Node 1, Area 1

Figure 31 shows signal for Fire Detection (Application_2\FD1_FireDetector1) with PAS configuration aspect configured for sending its corresponding announcement message **Fire Detected in Area 2** through announcement node **Node 2** pertaining to another plant area.

	IN-V-ITLI:	S052 System // Pl	ant Explore	r Workplace					
No	Filter	- 🏱 Replace	✓ <u><u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u></u></u>	0 🗊 🤻 🖆	N	11 (1) (1) (1) (1) (1) (1) (1) (1) (1) (e? 🔛 📗		
Control Structure	 Aspects of 'FD1_F 	FireDetector1'	Modified	Modified	by	Desc I	Inherited	Category name	
Root, Domain Root, Domain Project 1, Control Network By Project 1, Control Project By Applications, Application Group	TrimCurve	roperties tion	10/7/2009 7:5 12/3/2013 2:5 7/6/2015 6:17	6:3 AC800M 2:1 AC800M :37 Administ	Connect Connect trator	Obje 1 This 1 F	frue frue False	Faceplate Elem Property Exten PASConfiguration	
Application_1, Control Application B Control Modules, Control Module Group	Configured Alarm a	and Event Node	Configuration	n					
PO_FreeDetector, SignalinBoolM PO_FreeDetector, SignalinBoolM PO_FreeDetector2, SignalinBoolM Po_FreeDetector2, SignalinBoolM Soz_GasDetector1, SignalinBoolM Po_GOZ_GasDetector2, SignalinBoolM PTI_PressureTransmitter1, SignalinBoolM PTI_TremsetureTransmitter1, Sign	Available Alar Alarm and Event N	rm and Event Li ame: Event L larm and Event	st				, ¥.	Configure	
Control Modules. Control Module Group September 25 PD2_Prevbetcor2, signalin80001 September 25 PD2_Prevbetcor2, signalin8001 September 25 PD2_Prevbetcor2	Alarm an	Alarm List			o Language Message Description US English Fire Detected in Area 1				
-14 GD1_GasDetector1, SignalInBoolM -14 GD1_GasDetector1_ -15 GD2_GasDetector2, S -14 PT1_PressureTransmi -14 TT1_TemperatureTras	d Alarm and Event	Node Configuration			Port N	lo		Down	
Controllers, Controller Group	Node 2	v	24	44]			Add	
<						Cancel	ânniv	Help	
					0	Lancei	Apply	Heip	

Figure 31. Announcement message to Node 2, Area 1

Section 4 Runtime Operations

This section describes the run time operations of *ABB 800xA Public Address System* in 800xA System.

Generate an Alarm and verify that the Announcement is made on your speakers

1		P	AS General Co	nfiguration : PAS Annoucen	nent		- 🗆 🗙
🔾 🜔 🧊 🗣 PAS General Co	onfiguration:PAS Annoucer 🗸 🗟 🔗	s - O -					
Appouncement Our	an in the second s						
Announcement ove	aview						
Current Language Name	Current Announcement Message	Object Name A	larm and Event	Name Overall Annoncement Sta	itus Last Announcement Message	Time Announcement Count	
Swedish	Brand upptäcktes i området 1	PASOBJ	Alarm	NotStarted	07-13-2015 11:28:35	0	
Send					Clear	All Clear Paus	e View

Figure 32. PAS Announcement Aspect Overview

Label	Description
Send	Send the selected message from the list of the announcement.
Clear All	Clears all the messages from the list view.
Clear	Clear the selected message from the list.

Label	Description
Pause	The selected message is paused from sending to public address system.
	When a selected message is paused, the message is skipped from making an announcement and the overall status message is pause .
	1
	In an Automatic mode if overall status message is completed , then the announcement message will be skipped.
	User cannot pause a message that is in progress (ongoing announcement). That particular message is paused only after the announcement is completed.
Activate	The message is active and is ready for the announcement. The Overall Announcement Status column indicates NotStarted . This status indicates that a new message has arrived.
View	Click View to see the ongoing announcement in multiple languages (see Figure 33) and the status of the remaining announcements.

Щ.	PASOBJ , Fire @ Node RES-AS			
Language Name	Announcement Message	Announcement Status	Last Announcement Message Time	Retry Count
Swedish	Brand upptäcktes i området 1	NotStarted	04-22-2015 12:48:09	0
US English	Fire Detected in Area 1	NotStarted	04-22-2015 12:48:09	0
				Close
				68

Figure 33. PAS Announcement Aspect Detailed Info

The state diagram (see Figure 34) shows different announcement status displayed, before an announcement message is made to the public address system.



Figure 34. A Typical State Diagram showing Announcement Status

Announcement State	Description	
Not Started	This is the initial state of the announcement	
In Progress	The announcement moves from "Not Started" to "In Progress" when announcement is initiated. In auto mode, the announcement is initiated automatically while in manual mode it is initiated by clicking the Send button. From this state, the announcement can move to various different states:	
	 If announcement is successfully done, the state changes to "Successful". 	
	• If announcement fails due to some reason, the State changes to the "Failed" state.	
	 If a Pause button is clicked, the announcement changes to the "Paused" State. 	

Announcement State	Description	
Successful	From this state, the announcement can move to various different states:	
	 In automatic mode the announcement repeats n times where the n is the specified number of repeat count where as in manual mode the announcement can be repeated by clicking on the Send button. In case of Repeat the announcement moves to "In Progress". 	
	 When the Specified number of Repeats are successfully done in the automatic mode, the announcement moves to the "Competed" State. 	
	 Successful is the logical end of the announcement state in case of the Manual mode. 	
Failed	In this state, announcement can be retried in automatic mode, whereas in manual mode, announcement can be sent again. In both the cases, the state may move to the "In Progress".	
Paused	In this state, an announcement can be activated using Active button. If activated, In automatic mode the announcement goes to the "In Progress" automatically the number of repeats are not done yet, where as in manual mode if the Send button is clicked the announcement moves to the "In Progress".	
Completed	This state is the logical end of the announcement state in Automatic mode.	

Appendix A Manual Installation

This appendix is applicable only for manual installation of Public Address System (PAS).

Overview

Following needs to be planned for Public Address System:

- Install System 800xA and its dependencies as a pre-requisite for PAS.
- Identify a node (PAS Connectivity) that runs the PAS software and interact with the Event Service.
- Identify a node (PAS Announcement node) that interacts with the PAS having sound output support.

Windows Firewall Settings

The *PASService.exe* must be included in the Windows Firewall exception list on the PAS Connectivity node installed on the Application server. Similarly, the *PASServerHost.exe* must be included in the Windows Firewall exception list on the Announcement Server node.

The port that is in use for the Announcement Server, must be included in the TCP port exception list of the Windows Firewall on the announcement server node.

For example: If PAS Announcement server is configured to run on port 2444 (default), then this port must be included in the Firewall exception list on the Announcement Server node.

The Windows Firewall must be turned off. To perform this task:



This step is only applicable while performing manual installation of PAS announcement node, System extension on the aspect directory, and PAS service on the application server or connectivity server.

- 1. Start the **Run** command and run *Services.msc*.
- 2. Right-click Windows Firewall and then click Stop.
- 3. Open Windows Firewall, in the Inbound Rules set the port number 2444 under Specific Local Ports.
- Enter the Rule name for Inbound rules to complete adding PAS Connectivity node on the windows firewall exception list. For example: PAS_Announcement_Server_portNo

Node Based Installations

Table 2 provides the list of Nodes on which the PAS components must be installed.

Component	PAS Connectivity Server ⁽¹⁾	Aspect Server (AS)	All other 800xA Node	PAS Announcement Node
PAS Announcement Server	Not Required	Not Required	Not Required	Required
PAS Connectivity	Required	Required	Required	Not Required
Acapela Software	Not Required	Not Required	Not Required	Required

Table 2. Node Based Installation

(1) Should be installed on 800xA Connectivity Server or 800xA Application Server.



PAS Connectivity and PAS Announcement Server can be combined as a single node.



For Operating System requirement on PAS Connectivity, refer to *System 800xA Third Party Software (3BUA000500*)*. PAS Announcement Server must be installed on Windows 8.1 or Windows 2012.

Install Acapela Software

The Acapela Software is a fully automatic installation procedure on Windows (custom *AcaWizard* installer). Run this software for installing the Text To Speech (TTS).

Perform the following steps to manually install the Acapela Software:

1. Double-click *SetupLaunch.exe* and then click **Next**.

岁 Aca	apela - InstallShield Wizard ×
System 800xA	Welcome to the InstallShield Wizard for Acapela
	The InstallShield(R) Wizard will install Acapela on your computer. To continue, click Next.
	WARNING: This program is protected by copyright law and international treaties.
	< Back Next > Cancel

Figure 35. InstallShield Wizard

2. Read and accept the License Agreement, and then click Next.



Figure 36. License Agreement

3. Retain or modify the destination folder and then click Next.



Figure 37. Destination Folder

- 쀓 Acapela - InstallShield Wizard Setup Type Choose the setup type that best suits your needs. Please select a setup type. Complete All program features will be installed. (Requires the most disk 1 space.) Ocustom Choose which program features you want installed and where they will be installed. Recommended for advanced users. 1 InstallShield < Back Next > Cancel
- 4. Select **Complete** and then click **Next**.

Figure 38. Installation Setup Type

5. Click **Install** to start the installation process.



Figure 39. Installation Confirmation

6. Notice the Installation progress.



Figure 40. Installation Progress

7. Click **Finish** to complete installation.



Figure 41. Installation Complete

Verify Installation

It is recommended to verify if the Acapela has been successfully installed after software installation. To accomplish this:

1. Select, **Control Panel > Programs > Programs and Features** to see if *Acapela* is installed.

a	Programs and Features – 🗖 🗾				×	
	Panel > All Control Panel Items > Programs and Features		~ (Search Pro	ograms and Features	P
Control Panel Home	Uninstall or change a program					
View installed updates	To uninstall a program, select it from the list and the	n click Uninstall, Change, or Repa	ir.			
😵 Turn Windows features on or						
off	Organize - Uninstall/Change				800 -	•
	Name	Publisher	Installed On	Size	Version	^
	ABB Central Licensing System 6.0.0-0	ABB	10/23/2014	5.12 MB	6.0.0.26	
	ABB PAS Announcement Server	ABB	5/21/2015	1.36 MB	6.0.0.6	
	2 ABB PAS Connectivity	ABB	5/21/2015	4.35 MB	6.0.0.6	
	ABB PC, Network and Software Monitoring 6.0.0-0	ABB	7/1/2015	80.9 MB	6.0.0.11	
	ABB SFCViewer 6.0	ABB	6/16/2015	2.44 MB	6.0.0.19859	_
	Acapela	Acapela Group	7/12/2015	0.99 GB	9.2.2000	
	Acapela TTS 9.220 for Windows	Acapela Group	5/21/2015		9.220	
	Adobe Reader XI (11.0.09)	Adobe Systems Incorporated	10/23/2014	291 MB	11.0.09	

Figure 42. Acapela - Programs and Features

Install ABB PAS Announcement Server

Perform the following steps to install the ABB PAS Announcement Server manually:

- 1. Insert the ABB Public Address System Installation media into CD drive.
- Browse for ABB PAS folder (<DVD Media>\System_1_of_3\Applications\Public Address System) and then doubleclick SetupLaunch.exe. The Installation Wizard appears, read the instructions and then click Next.

B ABB PAS Anno	🖞 🔋 ABB PAS Announcement Server - InstallShield Wizard 🛛 💌		
System 800xA	Welcome to the InstallShield Wizard for ABB PAS Announcement Server		
	The InstallShield(R) Wizard will install ABB PAS Announcement Server on your computer. To continue, click Next.		
	WARNING: This program is protected by copyright law and international treaties.		
	<back next=""> Cancel</back>		

Figure 43. Installation Wizard

3. Read and accept the license agreement, and then click **Next**.

😸 🛛 ABB PAS Announcement Server - InstallShield Wizard	x
License Agreement Please read the following license agreement carefully.	3
END USER LICENSE AGREEMENT This end-user license agreement is a legal agreement between you and ABB for the Product identified below. An amendment or addendum to this agreement may accompany the Product. BY INSTALLING, COPYING, OR OTHERWISE USING THE PRODUCT YOU AGREE TO BE BOUND BY THE TERMS OF THIS AGREEMENT. IF YOU DO NOT AGREE,	<
I accept the terms in the license agreement I do not accept the terms in the license agreement InstallShield	
< Back Next > Cancel	

Figure 44. License Agreement

4. Enter User Name and Organization, and then click Next.

뤙	ABB PAS Announcement Server - InstallS	Shield Wizard 🛛 🗶
Custo Plea	mer Information se enter your information.	
User	r Name:	-
Orga	anization:	2
InstallShi	ald	
A BAGILDE IN	< Back N	lext > Cancel

Figure 45. Customer Information

5. Retain or modify the PAS Announcement Server folder path, and then click **Next**.



Figure 46. Destination Folder

6. Select **Complete** and then click **Next**.



Figure 47. Installation Setup Type

7. Click Install to start the Installation process.



Figure 48. Installation Confirmation

8. Notice the progress of the installation.

壘	ABB I	PAS Announcement Server - InstallShield Wizard		
In	stalling The prog	ABB PAS Announcement Server ram features you selected are being installed.		
	i 🛃	Please wait while the InstallShield Wizard installs ABB PAS Announcement Server. This may take several minutes.		
		Status:		
		Starting services		
Insta	llShield			
	nan nond	< Back Next > Cancel		

Figure 49. Installation Progress

9. Click **Finish** to complete the ABB PAS Announcement Server installation process.



Figure 50. Installation Complete



In 800xA System, Announcement server should not be combined with Audible Alarm node.

Verifying Installation

It is recommended to verify if the ABB PAS Announcement Server has been successfully installed after software installation. To accomplish this:

1. Open **Programs and Features** from **Control Panel** and verify if *ABB PAS Announcement Server* is installed.

B	Programs and Features				×		
🔄 💿 🔹 🕆 🕅 🕨 Control P	Panel + Programs + Programs and Features			v € Se	arch Programs and	Features	P
File Edit View Tools Help							
Control Panel Home View installed updates	Uninstall or change a program To uninstall a program, select it from the list	and then click Uninstall, Change, or Repai	r.				
off	Organize 🕶 Uninstall Change Repair					₩ •	
	Name	Publisher	Installed On	Size	Version		^
	ABB 800xA Base 6.0.0-0	ABB	3/11/2015	544 MB	6.0.00100.33126		
	ABB 800xA Common Install	ABB	3/11/2015	75.0 MB	6.0.5388.15976		
	ABB 800xA DataDirect 6.0.0-0	ABB	1/28/2014	5.22 MB	6.0.1013.1219		
	ABB PAS - System Services	ABB	1/28/2014	178 MB	6.0.813.1112		
	ABB PAS Announcement Server	ABB	6/16/2015	1.37 MB	6.0.0.8		
	Acapela	Acapela Group	7/12/2015	0.99 GB	9.2.2000		
	Acapela TTS 9.220 for Windows	Acapela Group	5/21/2015		9.220		

Figure 51. ABB PAS Announcement Server - Programs and Features

Verify PAS Announcement Service

It is recommended to verify that the *ABB PASService* is running after installing PAS Announcement Server, to accomplish this:

1. Click Start, in the start Search box, type services.msc, and then press Enter.

or

Click **Start**. and then type run, in the list of results, click **Run** and then type **Services.msc**.



Figure 52. ABB PASService

2. Incase the service is stopped, right-click **ABB PASService** and then click **Start**.

Install ABB PAS Connectivity

 Insert the ABB Public Address System Installation Media into the CD drive. Browse to the ABB PAS Connectivity folder (<DVD Media>\System_1_of_3\Applications\Public Address System) and double-click SetupLaunch.exe. The Installation Wizard appears, read the instructions and then click Next.

B ABB PAS Connectivity - InstallShield Wizard				
System 800xA	Welcome to the InstallShield Wizard for ABB PAS Connectivity			
	The InstallShield(R) Wizard will install ABB PAS Connectivity on your computer. To continue, click Next.			
	WARNING: This program is protected by copyright law and international treaties.			
	<back next=""> Cancel</back>			

Figure 53. Installation Wizard

2. Read and accept the License Agreement, and then click Next.

19	ABB	PAS Conne	ctivity - Installs	Shield Wizard	×
License / Please r	Agreement read the following	ng license agre	ement carefully.		
END US This e agreen you an amendm this a BY INS PRODUC TO BE DO NOT	ER LICEN and-user lent betw d ABE fo lent or a sgreement TALLING, T YOU AG BOUND BY AGREE,	SE AGREE license een r the Pr ddendum may acc COPYING REE THE TEF	agreement : coduct ident to company the 5, OR OTHERI RMS OF THIS	is a legal tified belo Froduct. WISE USING AGREEMENT.	w. An THE IF YOU
• I accept	the terms in th	e license agree	ement		Print
○ I do not	accept the terr	ns in the licens	e agreement		
InstallShield					

Figure 54. License Agreement

3. Enter User Name and Organization, and then click Next.

뤙	ABB PAS Announcement Server - I	nstallShield Wizard	×
Custor Pleas	mer Information se enter your information.		
User	Name:		ana na sa
Orga	anization:		
InstallShie	< Back	Next > Cano	
	Court	Conc	-

Figure 55. Customer Information

4. Retain or modify the PAS Server folder path, and then click Next.

谩	ABB PAS Connectivity - InstallShield Wizard
Destina Click N	tion Folder ext to install to this folder, or click Change to install to a different folder.
Þ	Install ABB PAS Connectivity to: C:\Program Files (x86)\ABB 800xA\PAS Connectivity\ Change
InstallShield	< Back Next > Cancel

Figure 56. Destination Folder

5. Select **Complete** and then click **Next**.



Figure 57. Installation Setup Type

6. Click **Install** to start the Installation process.



Figure 58. Installation Confirmation

7. Notice the progress of the installation.



Figure 59. Installation Progress

8. Click **Finish** to complete the ABB PAS Connectivity installation process.



Figure 60. Installation Complete

Verify Installation

It is recommended to verify that ABB PAS Connectivity has been successfully installed after software installation. To accomplish this:

1. Open **Programs and Features** from **Control Panel** and then verify if ABB PAS Connectivity is listed.

8			Program	s and Features					x
🛞 🕕 🔹 🕈 🛃 🕨 Contro	ol Panel 🕨 Programs 🕨	Programs and Featu	ures			~ C	Search Programs ar	nd Features	P
File Edit View Tools He	lp								
Control Panel Home	Uninstall or	change a progr	ram						
View installed updates	To uninstall a pr	ogram, select it from	m the list and then a	click Uninstall, Change, or Repair.					
😵 Turn Windows features on or	r								
110	Organize 🕶 Uni	nstall Change	Repair					I ⊞ ▼	
	Name	•		Publisher	Installed On	Size	Version		~
	ABB 800xA Base 6	0.0-0		ABB	3/11/2015	544 MB	6.0.00100.33126		
	ABB 800xA Comm	non Install		ABB	3/11/2015	75.0 MB	6.0.5388.15976		
	ABB PAS - System	Services		ABB	1/28/2014	178 MB	6.0.813.1112		
	ABB PAS Announ	cement Server		ABB	6/16/2015	1.37 MB	6.0.0.8		
	ABB PAS Connec	tivity		ABB	6/16/2015	2.81 MB	6.0.0.8		
	Acapela			Acapela Group	7/12/2015	0.99 GB	9.2.2000		
	Acapela TTS 9.2	20 for Windows		Acapela Group	5/21/2015		9.220		
	📐 Adobe Reader X	I (11.0.09)		Adobe Systems Incorporated	10/23/2014	291 MB	11.0.09		

Figure 61. ABB PAS Connectivity - Programs and Features

Post Installation

Load System Extension

Perform the following steps to load the System extensions on Aspect Server:

1. Open Configuration Wizard from the Windows Taskbar.



Figure 62. Configuration Wizard

2. Select System Administration and then click Next.

<u>ن</u>	Configuration Wizard
Select Type of Configuration Please choose which task to accon Next	nplish by selecting appropriate icon and pressing
Action	Description
System software User settings	Windows Users and Groups used by the System software
System Administration	Start, stop, delete and maintenance of system
Start Server	Starts all manually started systems on a server
Stop Server	Stops all systems running on a server
📑 Create System	Creates a new system
😥 Restore System	Restores a saved system
T Maintenance	Maintenance functions for the local machine.
C Applog	Applog settings
😹 Connect Node	Connect this computer to a system
liagnostics	Allows enabling of fault detection routines
L	
Yiew Log	< Back Next > Exit Help

Figure 63. Configuration Wizard - System Administration

- 0 x **Configuration Wizard** Select System Pick the system to perform futher actions on System Name State Start with server RES-AS System* Up Active Cancel View Log ... < <u>B</u>ack $\underline{N}ext >$ Help
- 3. Select the System Name and then click Next.

Figure 64. Configuration Wizard - Select System

4. Select System Extension Load and then click Next.

(Configuration Wizard	x
Select Type of Configuration - R Please choose which task to accon Next	RES-AS System nplish by selecting appropriate icon and pressing	
Action	Description	
System Extension Maintenance	System extension update and completion of al	ported system e
System Extension Load	Initially load extension	
E Systems	Start, stop or delete a system	
夏 Nodes	Add or remove nodes	
System Network	Configure system network	
S Users	Add or remove Windows users in the system	
D Environment setup	Select the wanted environment setup.	
<	III e	>
Yiew Log	< Back Next > Exit	Help

Figure 65. Configuration Wizard - Configuration Type

5. Select *ABB 800xA Public Address System* and then press >.

ame 3B Batch Advanced Templates	Installed 6.0-0	Press header to autosort
B Public Address System	6.0-0	
		»
		<
escription		

Figure 66. Configuration Wizard - System Extension Loaded

A green Tick mark indicates that the System Extension *ABB 800xA Public Address System* is ready loading. Click **Next** to load the extension.
6. Notice the progress of the **System Extension Loading** process.

Apply App	Configuration Wizard Iy Settings - RES-AS System plying settings. Please wait.	×
Lođ	Loading aspect systems	<u>^</u>
	PASConfigurationADD.add	
	Abort	.og >>
View	w Log	Help

Figure 67. loading Aspect Systems

7. Click **Finished** to complete the loading of *ABB 800xA Public Address System* extension in 800xA System.

This completes the loading of *ABB 800xA Public Address System* into the 800xA System.

Verify PAS System Extensions

Verifying *ABB 800xA Public Address System extension* can be done using two options:

1. Navigate to Admin Structure > Administrative Objects > System Domain Name > System Extension.

<u>54</u>		RES-AS S	System // Plan	t Explorer Work	place			l	- • ×
🔀 🔎 📑 (Enter search name)	▼ No Filt	er	- 5	Replace 🗸	11 0	1 🖲 🖉	🔁 la 🕸 🕼 🖌	gî 🔛	
Es Admin Structure 👻	Aspects of 'RES-AS System'	M	odfied	Modified by	Desc	Inherited	Category name	Version	^
Administrative Objects Administrative Objects Administrative Objects Administrative Objects Administrative Object Administr	Do Domain Definition Domain Type Reference Engineering Security Defini- Logover Settings Security Definition System Extensions System Extensions Identifi Name ABE Inform IT History ABE Industrial IT Archival ABE Industrial IT Archival ABE Moltic Address System ABE Public Address System Name	33 33 33 33 34 33 34 44 44 44 44 44 45 45 45 45 45 45 45 45	11/2015 7:38:1 11/2015 7:38:1 11/2015 7:38:1 11/2015 7:38:2 11/2015 7:38	ABB 8000A Base ABB 800A Base ABB 800	The This This This This This This This This This This This This This This This This This This A Extension ory objects eent Archive ss. Xtension	False False False False False False False and aspects. Function 800xA	Domain Definition Domain Definition Engineering Sec Logover Settings Name Security Definition System Extensi Installed on this n X X X X X X X X X X X X X X	ode Successful X X X X X X X X X X X X X	III loaded
							Cancel	Apply	Help
, 							8	▼ 800xAInsta	aller ABB

Figure 68. ABB 800xA Public Address - System extension aspect

2. Click ① on the *Plant Explorer* to open the list of *Installed Products and Extensions* screen and verify if *ABB 800xA Public Address System* is loaded.

	About Industrial	IT	×			
System 800xA	Installed Products and Extensions:					
	Name	Version	^			
	ABB Inform IT Scheduler	6.0-0				
	AB8 Public Address System	6.0-0				
	ABB VideONet Connect	6.0-0	~			
	Details:					
	ABB Public Address System E	xtension				
	<		>			
	© Copyright 2004-2014 ABB.	All rights reserved.				
ABB	System Info		ОК			

Figure 69. ABB 800xA Public Address System - Installed Products and Extensions

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