

AP-MC5000™

Video MCU

High-performance Video MCU Solution

New Enhanced MCU Features



AddPac

AddPac Technology

2007, Sales and Marketing

www.addpac.com

Contents

- Video Display Layout
- Dynamic Session Management
- Personal Feature
- Video Conference Signaling
- MCU Management (SMM)
- OSD (Video Phone, Video Terminal,etc)
- Conference Service Diagram : Example

Video Display Layout

- **Various Layout**
 - 31 types (Symmetric Layout, Asymmetric Layout)
 - Symmetric Layout : same participant picture size
 - Asymmetric Layout : asymmetric participant picture size
 - Auto, Manually : can choice a specific video layout when a conference is started
- **Dynamic control**
 - Dynamic layout change
 - Dynamic participant movement
- **Floor**
 - Can distinguish a participant by using the concept of the right of a speaking participant
 - Floor to full screen
- **Name display**
 - Display or hide the name of a participant dynamically
- **Border**
 - Three kind of a participant picture border : empty border, a participant boarder, a speaker boarder

Personal Feature*

- Individual (Per Connection) Rate Control for Down Stream
 - Codec, Picture Size, etc
- Personal Layout
 - Example, Zooming for Detailed View

Video Conference Signaling

- Dial-in
 - Even in Dial-out started Video Conference, a participant can join the Video Conference if a participant knows the conference room number in outside.
- Mic off of invisible participant
 - Can turn off MIC of a invisible participant.
- Forced Mute (audio, video)
 - Can mute Audio/Video Capability of a participant via SMM or in Chair, Operator Terminal (Video Phone).
- Virtual Audience
 - Broadcasting solution
 - Can monitor the video conference via inter-working with AddPac Broadcasting Server.
- H323 Support *
 - Floor control(H.243)
 - Dual Video (H.239)

MCU Management (SMM)

Smart Multimedia Management

- Initial Setting
 - Video Layout Setting
 - User class
 - Chair, Operator, Participant, Audience
 - Initial position
- Active Monitoring
 - Monitoring
 - Snapshot
 - Control
 - Layout
 - Move party
 - Floor
 - Mute
- Video Conference Scheduling*
 - Scheduled Dial-Out Conference

Conference Room

Conference Name & Description
 Conference Name
 Description

Conference Number
 Conference Number

Conference Type
 : Dial-out, Meet me, AddHoc
 Conference Type: Dial-Out Conference

Media Type
 Select Conference Media Type
 Media Type: Audio Video + Audio

Audio Codec
 Select a conference audio codec
 Audio Codec: G.711U

Maximum Participant
 (Can select in Meet-Me conference type only)
 Max Participant: 16

Close on Chair Out
 Conference Disconnected if chair hang up phone
 Close on Chair Out

Secret Room
 -Secret room and Room Password
 -(Can select in Meet-Me conference type only)
 Secret Room
 Room Password: (4 digit)

Video Support
 In case of Video Media Type, select the video information
 Video Type: Continuous presence
 Target Rate: 1024K
 Picture Size: 640x480
 Video Codec: MPEG4
 Frame Rate: 30 fps

Video Endpoint
 In case of Video Media type, select the video parameter of endpoint.
 Video: Support | EndPoint | Layout

Ok Cancel

Conference - Layout

The screenshot shows the 'Add Conference' dialog box with the 'General' tab selected. The dialog is divided into several sections: 'General', 'Participants', and 'Virtual Audience'. The 'General' section includes fields for 'Conference Name', 'Description', 'Conference Number', 'Conference Type', 'Partition', 'Media Type' (Audio or Video + Audio), 'Audio Codec', 'Max Participant', 'Close on Chair' (checked), 'Secret Room' (unchecked), and 'Room Password' (4 digit). The 'Virtual Audience' section is further divided into 'Video', 'Support', 'EndPoint', and 'Layout' sub-tabs. The 'Layout' sub-tab is active, showing 'Layout Mode' (Manual), 'Arrange Mode' (Dynamic), 'Video Layout' (3), 'Floor Assign Mode' (After Release), 'Floor to Full Screen' (Symmetric checked), 'Display Participant Name' (unchecked), 'Color' (Border Line, Floor Line, Background Line, Background, Floor, Background), and 'Mic Off of Invisible Participant' (unchecked). Several yellow callout boxes provide additional information: 'Video Layout Mode' (Auto (symmetric, asymmetric), manual), 'Arrange Mode' (dynamic, fixed, fixed reserved), 'Video Layout' (Select the video layout), 'Floor Assign Mode' (After Release, On Request), 'Floor to Full Screen' (Floor to Full Screen Enable/Disable in symmetric, asymmetric Layout Mode), 'Display Participant Name' (Participant Name Display Enable/Disable and Location of Name Display), 'Color' (Layout border and Floor, Background Color Setting), and 'Mic off of Invisible Participant'.

Conference - Participants

Conference Properties

General | **Participants** | Virtual Audience

Phone Number	Par...	User
1002		hwang woo sun
1003		sim sang kwon
1004		lee young sik
1005		oh hyoung suk
1006		lee myoung won
1007		choi jin suk
1008		lee min ji
1010		kwon jong hwi
1012		kim sang mi
1013		you jae won
1015		jang byoung ju
1018		kim kyoung nam
1019		kim chang yeon
1020		kwon young pil
1021		kim do hyoung
1024		kim kwang
1026		lee jounghyuk
1027		kim so young
1101		choi woo suk
1102		sin kwang woong
1500		choi jin suk
3003		
		kim kyoung nam
		kim so young
4002		
4003		

Enter External Phone Number

Add

Conference Participants							
Number	Partition	User	Type	User Class	Media Type	Position	Display Name
3001		Steven	Internal	Chair	Video		
3004		John	Internal	Participant	Video		
3005		Jane	Internal	Participant	Video		
3010		Sally	Internal	Participant	Video		

Phone Number
Participant Phone List

External Phone Number
Register the external phone line number by inputting number directly

User Class
(Chair, Operator, Participant, Audience)

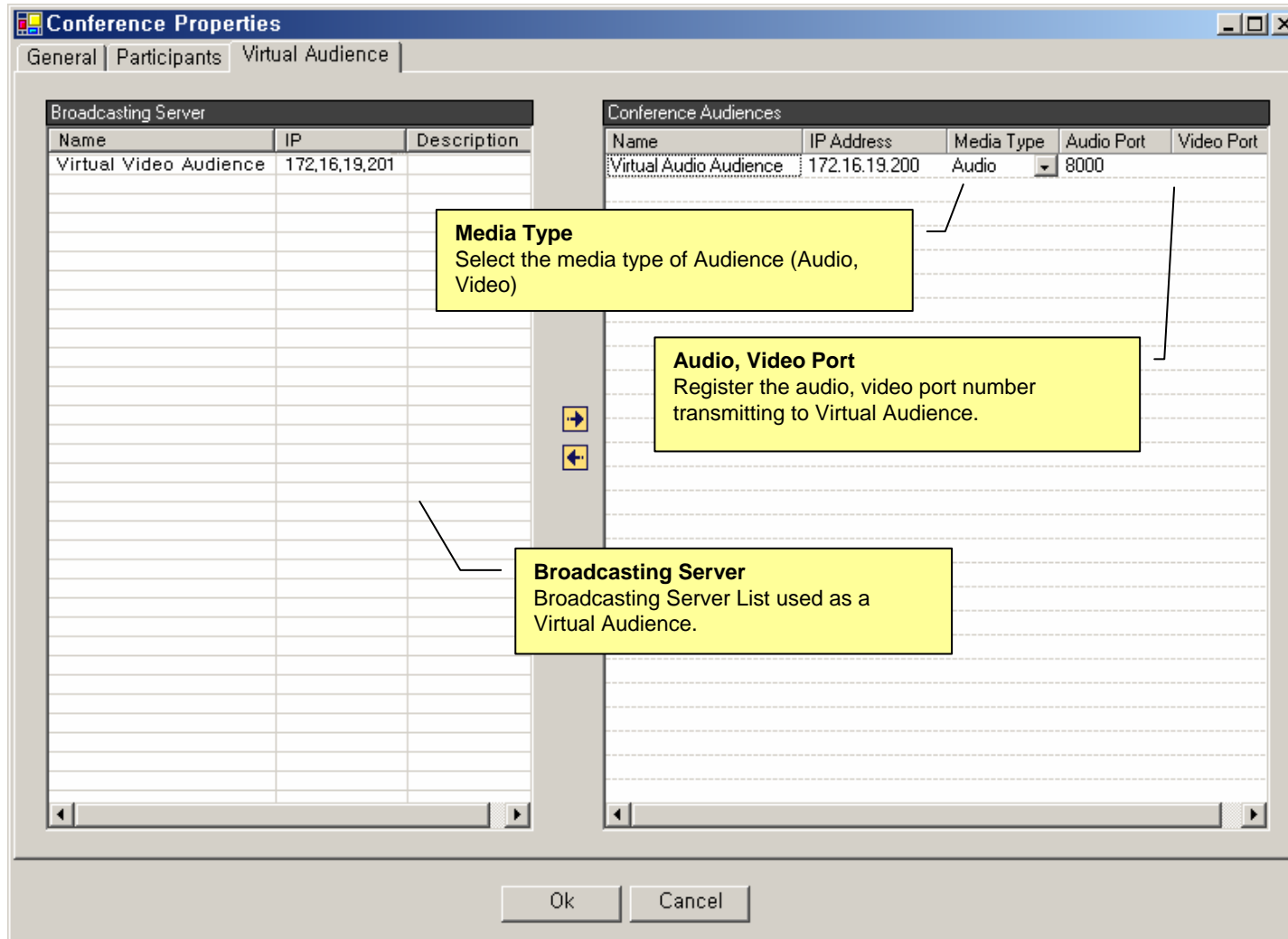
Media Type
(Audio, Audio (Seat Reserved), Video)

Position
In case of video media type, Select the location of a participant in video layout

Display Name
A Participant Display Name

Ok Cancel

Conference – Virtual Audience



Active Conference (1)

Smart Multimedia Manager - [Active Conferences]

File View Tools Window Help

AddPac Smart Multimedia Manager
AddPac Technology

172.16.201.100 172.16.11.120

Conference

Conference Name	Conference Number	Status	Conference Type	Start Time	Duration (s...)	Media Type	Floor to Full...	Layout Mode	Arrange Mode	Layout	No. of Pa...
nms conference	7100	Running	Dial-Out	20061207-14:33:45	82	Video	On	Manual	Dynamic		3

Conference
Display the current conference room list

Participants (nms conference)

Participant Name	Phone Number	IP	Status	Audio	Video	Floor	In Picture	Reason
choi jin suk(js.choi)	1500	172.16.19.103	Connected					
kim kyoung nam(kn...)	3500	172.16.12.30	Connected					
lee joungh hyuk(jh.lee)	6010	172.16.11.110	Connected					

Participants
Display the participant list in conference room each

172.16.201.100 (Ok) 172.16.11.120 (Ok)

2006-12-07 오후 2:35:08 Version 2.9.2532.21338 172.16.201.100:389 administrator

Active Conference (2)

The screenshot displays the 'Smart Multimedia Manager - [Active Conferences]' window. The interface includes a menu bar (File, View, Tools, Window, Help), a toolbar, and a main content area. A yellow callout box points to the 'Conference' section, stating: 'Conference parameter setting is possible dynamically in current conference call'. The 'Conference' section contains a table with the following data:

Conference Name	Conference Number	Status	Conference Type	Start Time	Duration (s..)	Media Type	Floor to Full..	Layout Mode	Arrange Mode	Layout	No. of Pa..
nms conference	7100	Running	Dial-Out	20061207-14:33:45	173	Video	On	Manual	Dynamic	[Layout Icon]	3

Below the conference table is a 'Participants (nms conference)' section with a table listing active participants:

Participant Name	Phone Number	IP	Status	Audio	Video	Floor	In Picture	Reason
choi jin suk(js.choi)	1500	172.16.19.103	Connected	[Audio Icon]	[Video Icon]		[In Picture Icon]	
kim kyoung nam(kn...)	3500	172.16.12.30	Connected	[Audio Icon]	[Video Icon]		[In Picture Icon]	
lee joungh hyuk(jh.lee)	6010	172.16.11.110	Connected	[Audio Icon]	[Video Icon]		[In Picture Icon]	

The interface also shows a 'Layout' panel with various grid and window icons for configuring the video layout. At the bottom, there are status bars for participants (172.16.201.100 (Ok), 172.16.11.120 (Ok)), system time (2006-12-07 오후 2:36:34), version (2.9.2532.21338), and user information (172.16.201.100:389 administrator).

Active Conference (3)

The screenshot displays the 'Smart Multimedia Manager' interface. At the top, there is a menu bar (File, View, Tools, Window, Help) and a toolbar. The main area shows a 'Conference' table with the following data:

Conference Name	Conference Number	Status	Conference Type	Start Time	Duration (s..	Media Type	Floor to Full..	Layout Mode	Arrange Mode	Layout	No. of Pa..
nms conference	7100	Running	Dial-Out	20061207-14:33:45	318	Video	On	Manual	Dynamic	[Layout Icon]	3

Below the table, there are two windows:

- Conference Snapshot**: A window showing a real-time still image of a current video conference call. It includes an 'Auto Refresh' checkbox, a 'Refresh' button, and a 'Refresh Interval' set to 5 seconds.
- Participants (nms conference)**: A table listing participants with their parameters:

Participant Name	Phone Number	IP	Status	Audio	Video	Floor	In Picture	Reason
choi jin suk(js.choi)	1500	172.16.19.103	Connected	[Icon]	[Icon]	[Icon]	[Icon]	
kim kyoung nam(kn...)	3500	172.16.12.30	Connected	[Icon]	[Icon]	[Icon]	[Icon]	
lee jounghyuk(jh.lee)	6010	172.16.11.110	Connected	[Icon]	[Icon]	[Icon]	[Icon]	

Yellow callout boxes provide additional information:

- Conference Snapshot**: Display the real-time still image of a current video conference call
- Participants**: Participant parameter setting is possible dynamically in current conference call

The bottom status bar shows the date and time (2006-12-07 오후 2:39:02), version (Version 2.9.2532.21338), and user information (172.16.201.100:389 administrator).

OSD (Video Phone, Video Terminal,etc)

- Conference Management (Chair, Operator)
 - Layout
 - Move party
 - Floor
 - Mute
- Indicator
- Floor



Conference Room

- Application >> Conference Room
 - conference list

Conference Room

ON AIR | [Icons: AddPac, Phone, NUM, Video]

	Conference name	Conference number	User in conference / maximum	Conference room -Lock -unlock	Conference type -video -audio	Conference layout
	Conference 1	1000	3/16			
	Conference 2	2000	0/4			
	Conference 3	8888	0/16			

See Detail Participant list

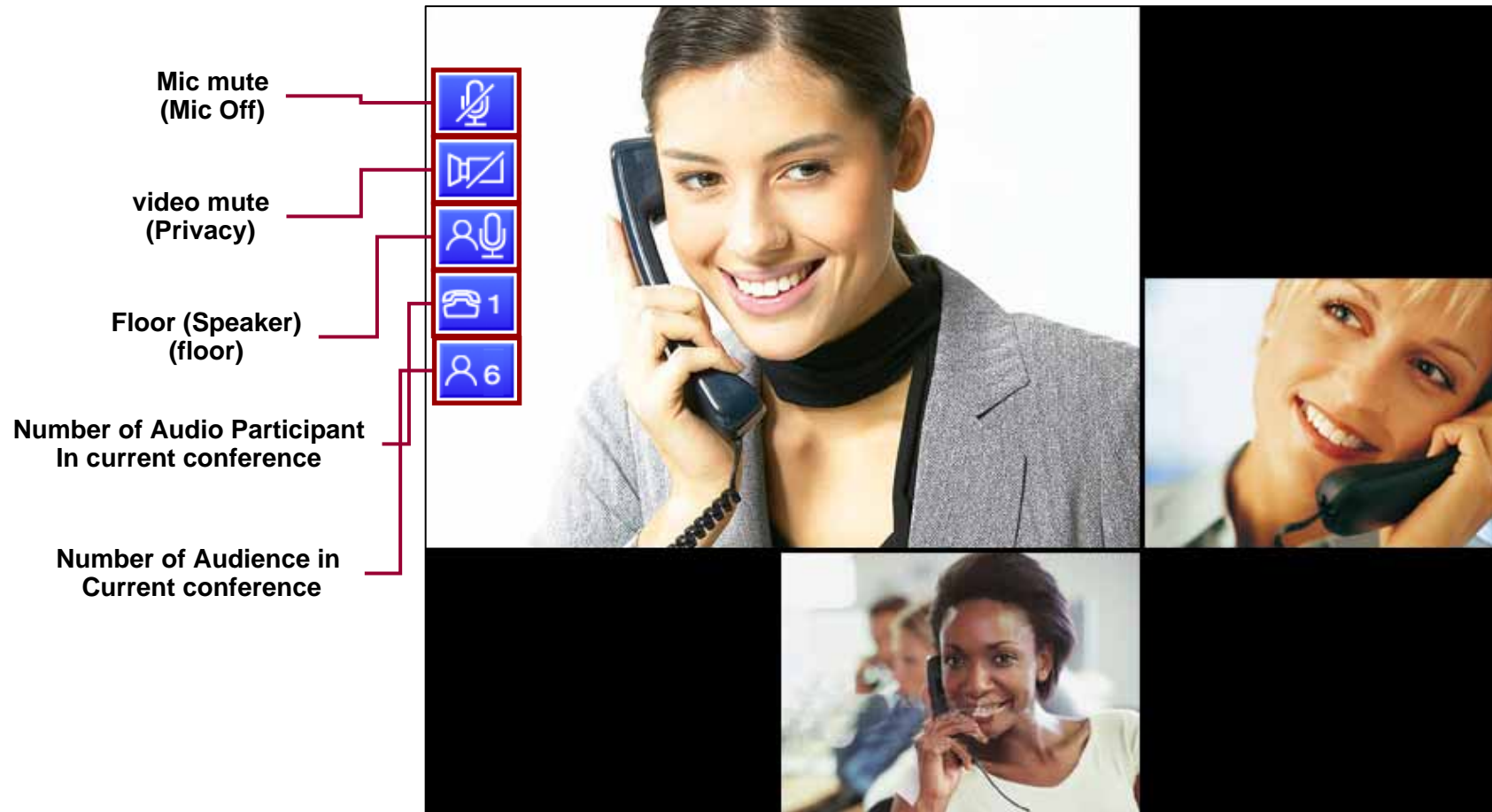
Detail View

Conference Open

- Conference open
 - OK or Send Key in Conference Room List
 - Dialing using Conference Room List

Indicators

- User conference status information (function key)



Add Party

- New User Invite in Current Conference

The screenshot shows the 'Add Party' interface. At the top, there is a title bar with the text 'Add Party' and several icons: 'ON AIR', a grid icon, a telephone icon, 'NUM', and a refresh icon. Below the title bar, there are four video thumbnails. The top-left thumbnail shows a woman on a phone, with a semi-transparent overlay containing the text 'Incoming Call' and the number '3000'. The top-right thumbnail shows a man and a woman. The bottom-left thumbnail shows a woman on a phone. The bottom-right thumbnail is mostly black. At the bottom of the interface, there are two buttons: 'Participant' and 'Audio Call'. Red lines connect text labels on the left to these elements: 'Invite new user' points to the 'Incoming Call' overlay; 'Select User class -participant -audience' points to the 'Participant' button; and 'Select Media type -audio call -video call' points to the 'Audio Call' button.

Invite new user

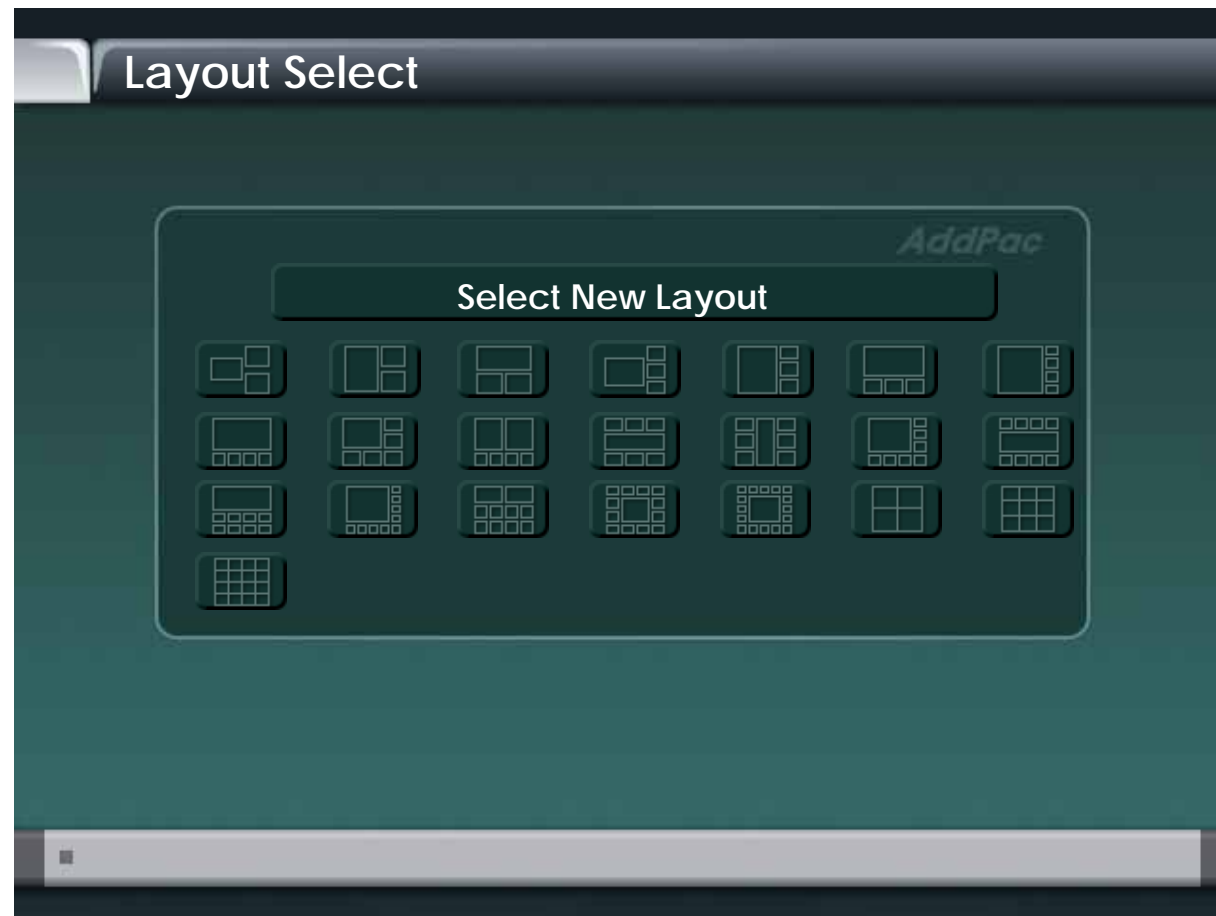
Select User class
-participant
-audience

Select Media type
-audio call
-video call

Participant Audio Call

Layout

- Video Layout Change in current conference



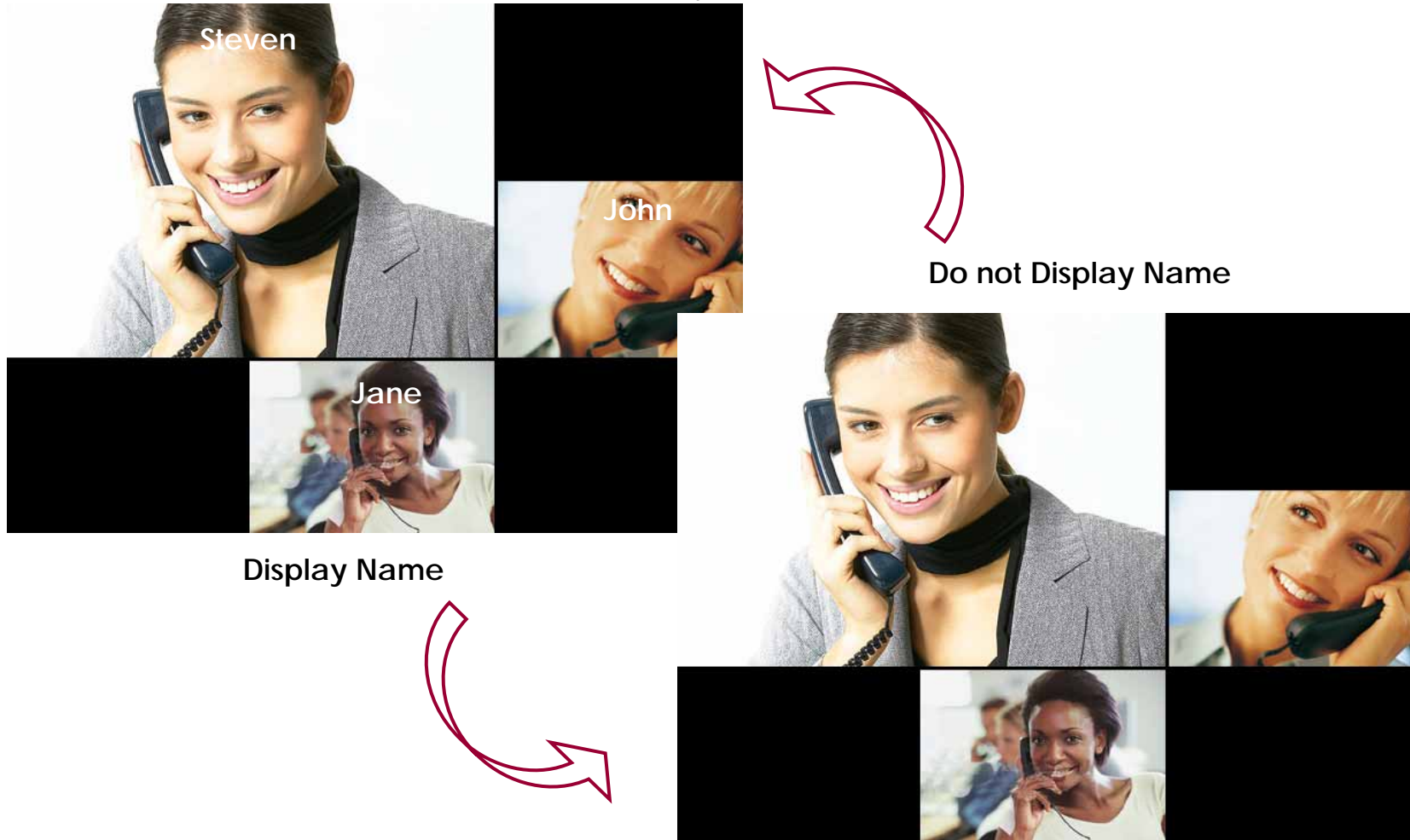
Floor To Full Screen

- Large view display mode : Floor Participant



Display Name

- Conference Participant Name Display Enable/Disable



Accept

- User unregistered want to join the conference
 - User can join the conference by Chair or Operator's Permission,

The screenshot displays a user interface for handling an incoming call. At the top, a dark bar contains the word "Accept" and several icons: "ON AIR", a grid icon, a telephone handset icon, "NUM", and a moon icon. Below this, a large video window shows a woman on the left and a man on the right. A semi-transparent blue box is overlaid on the video, containing the text "Incoming Call" and the number "3000". At the bottom of the interface, there are four buttons: "Accept", "Reject", "Participant", and "Audio Call".

Annotations on the right side of the interface:

- User class**
 - participant
 - audience
- Media type**
 - audio call
 - video call

Annotations on the left side of the interface:

- Conference Join**
 - Accept
- Conference Join**
 - Reject

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Participant info

- Party Info
 - Simple Participant info list View/Modification
 - Chair, Operator can modify the status of participant
 - Participant, Audience can read only the status of participant



Detail participant list

- Can view the status information of member In conference

The screenshot shows the 'Participant List' interface. At the top, there are control buttons: 'ON AIR', a grid icon, a microphone icon, 'NUM', and a moon icon. The list contains four participants: Sally (ID 3010), Stever (ID 3001), Jane (ID 3005), and John (ID 3004). Each row includes a user class icon, name, ID, and media status icons for video, audio, and position. A bottom bar contains 'Assign Floor', 'Remove Party', 'Position', and 'more' buttons.

Media type
-video
-audio

Audio/Video enable status

position

User class

Participant's name

Participant's number

User class	Participant's name	Participant's number	Media type	Audio/Video enable status	position
[Icon]	Sally	3010	[Video/Audio]	[Status]	[Position]
[Icon]	Stever	3001	[Video/Audio]	[Status]	[Position]
[Icon]	Jane	3005	[Video/Audio]	[Status]	[Position]
[Icon]	John	3004	[Video/Audio]	[Status]	[Position]

Assign Floor Remove Party Position more

Assign floor

- Give floor (Right of Speaking) to Participant selected in List
 - The ICON of Participant having Floor is changed as MIC ICON

The screenshot displays the 'Participant List' interface. At the top right, there are icons for 'ON AIR', a grid, a microphone, 'NUM', and a moon. The list contains four participants: Sally (ID 3010), Steven (ID 3001), Jane (ID 3005), and John (ID 3004). Each participant row includes a status icon, the name, ID, and several control icons. A red box highlights the microphone icon for Steven, with a red arrow pointing to the text 'Have a right of speaking'. Another red box highlights the person icon for Jane, with a red arrow pointing to the text 'Don't have a right of speaking'. At the bottom, a control bar contains buttons for 'Assign Floor', 'Remove Party', 'Position', and 'more'. A red arrow points from the text 'Give Floor (Speaker) to Participant' to the 'Assign Floor' button.

Participant	ID	Right of Speaking
Sally	3010	Don't have a right of speaking
Steven	3001	Have a right of speaking
Jane	3005	Don't have a right of speaking
John	3004	Don't have a right of speaking

Remove Party

- Conference Call Disconnect of a Participant selected in List

The screenshot displays the 'Participant List' interface. At the top, there are icons for 'ON AIR', a grid, a microphone, 'NUM', and a moon. The list contains four participants: Sally (3010), Steven (3001), Jane (3005), and John (3004). The 'Jane' row is highlighted with a red box, and a red line connects this box to the text 'Participant Select'. Below the list, a control bar contains buttons for 'Assign Floor', 'Remove Party', 'Position', and 'more'. The 'Remove Party' button is highlighted with a red box, and a red line connects this box to the text 'Conference call disconnect of a participant selected'.

Participant Icon	Name	Number	Microphone	Camera	Screen
	Sally	3010			
	Steven	3001			
	Jane	3005			
	John	3004			

Position

- Participant Location Change In Conference View Layout
- Display the Position List in current conference view layout



User Class

- Change the Right of Participant selected in List
- User class icon change



Audio/Video Mute

- audio, video mute enable/disable

The screenshot displays the 'Participant List' interface. At the top right, there are control buttons for 'ON AIR', a grid icon, a phone icon, 'NUM', and a video icon. Below these are two labels: 'Audio Mute/Enable' and 'Video Mute/Enable'. The main area is a table with four participants: Sally (ID 3010), Steven (ID 3001), Jane (ID 3005), and John (ID 3004). Each row has icons for audio and video. A red box highlights the audio and video icons for Steven and Jane. At the bottom, there is a navigation bar with 'User Class', 'Audio Enable', 'Video Mute', and 'more'. A red box highlights the 'Audio Enable' and 'Video Mute' buttons. A label 'Audio, video mute/ enable' points to this bar.

Participant	ID	Audio Mute/Enable	Video Mute/Enable
Sally	3010	Enabled	Enabled
Steven	3001	Muted	Muted
Jane	3005	Muted	Muted
John	3004	Enabled	Enabled

Video MCU Series

Thank you!

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