



WHERE SOUND MATTERS

# HARMAN WHERE SOUND MATTERS

IDX 100 is the base system in a family of IDX solutions by Harman Professional, a leading manufacturer of high-quality, high fidelity audio products for the professional market. IDX is a proven and trusted system solution used in hundreds of Airports and Transportation Facilities worldwide. Whether your audio needs are small or large, it's time to put the power of IDX to work in your facility.

At the core of IDX 100 is a turn-key software interface paired with DSP hardware capable of distributing prerecorded messages, live paging, and audio content to multiple zones without the need to learn a programming language. Controlled by paging stations using Ethernet-based digital audio transport protocols, and managed by software, IDX is a powerfully simple way to provide public address and mass communication systems to a single building or an entire campus of facilities.

> IDX 100 is your announcement management and audio content system - at your control, on your schedule, from anywhere, anytime. It's capable of leveraging existing Ethernet networks with scalable hardware, multiple input/output capabilities, and redundancy to provide a system that meets your facility requirements. **IDX is the future of networked digital audio communication systems.**

> > by HARMAN

+NETWORKED AUDIO COMMUNICATION SYSTEMS





Distributed Audio and DSP over Digital Audio Transport and BLU link	Create Events and Schedules for Automated System Functions
Store and Play Back Audio Files	Configure, Control and Monitor Systems Remotely via Client Software
Premium Audio Hardware by BSS®, CROWN®, and AKG®	Integrate any General Purpose I/O Devices for Added Functionality
Wizard-Driven Configuration Using IDX 100 Designer Software Application	Comprehensive System Logs and Fault Reporting
Simple Zone Assignment and System Control with Easy-to-Use Paing Stations	Optional Automated Amplifier Failover to Backup Amplifier Channels



# A Completely Scalable System

Start small and go big. IDX 100 is easy to expand and is decentralized. Need more inputs? Add additional DSP. Want more zones? Add another output box. Need more paging locations? Drop in an Ethernet line and add more paging stations. IDX 100 is a seamless solution with components designed to work together.



# Network Redundancy



IDX Paging Stations and Processors include primary and secondary CobraNet<sup>®</sup> based audio ports. Under normal operation the primary port only receives and transmits audio data from and to the network. Should the primary port or connection fail, the device automatically switches to receive and transmit audio from and to the secondary port.

The PDP-DSP and BLU-BOB feature a low latency, fault tolerant digital audio bus transport protocol developed by Harman known as BLU Link. In IDX 100, BLU Link transports 96 channels of audio over Cat 5e up to a distance of 100m between compatible devices. Fiber optic media converters can be used to increase the distance between devices to over 40km. IDX 100 is completely decentralized; system components can be located wherever space allows. Never before has networked audio been so easy to integrate.

Find additional design information at idx.harman.com



# One Company for the Entire Audio System

Harman's portfolio of brands invent, design, and manufacture a complete line of audio system components that are perfectly matched with IDX 100. Guarantee the highest level of audio quality throughout every stage of the signal chain with these legendary Harman brands.



## AKG

For over sixty years AKG Acoustics has been making some of the most respected pro quality microphones in the world. The DTE-715 uses the same components in AKG's DST99S microphones to provide clean, intelligible sound for voice paging. Fifteen soft-touch paging buttons with colored LED feedback provide an easy to use interface for zone assignments. With up to twelve ten-button expansion modules, each paging station can host up to 135 buttons.



The digital signal processing, audio and logic I/O of IDX 100 are derived from the BSS Audio Soundweb London platform. The PDP-DSP contains a pre-configured signal path and is controlled by the PDC-100 Controller. PDP-BOB Output Expanders receive eight channels of digital audio from the PDP-DSP Processors via BLU link. BLU link is a device-to-device connection for distances of up to 100m, where no network appliances are required. These devices are backed by the award winning, industry trusted support and quality of BSS Audio.



Since 1974, Crown Audio has grown to become one of the world's largest and most respected manufacturers of power amplifiers. Crown amplifiers feature proven technologies and state-of-the-art advancements for high-quality, high-performance systems with the rock-solid reliability that professionals demand. With a broad catalog of two, four, and eight channel amplifiers to choose from, there is an amplifier solution perfect for every IDX installation. The CT16S Amplifier Switcher adds automatic failover to backup amplifier channels for high availability applications.



## JBL

crown

JBL is the worldwide standard for pro-quality loudspeaker installations. Every installation requires a different loudspeaker to solve a unique acoustic challenge. The design of good loudspeaker coverage that is matched to the acoustic space is critical to the quality of the IDX 100 system. The loudspeaker is the ambassador to the sound system, represented like a pro by JBL. The engineers at JBL have created a range of surface-mount, in-ceiling, in-wall, pendant, and column loudspeakers that give you complete mastery of any architectural, aesthetic or system performance requirement.

Take a deeper look at the specifications of the IDX 100 hardware at **idx.harman.com** 

# Designer Software The Wizard

IDX 100 Designer Software is the configuration, control and monitoring application for IDX 100 systems. The software runs on a Windows PC and provides wizard-driven configuration of the PDC-100 Controller.

	Event Name : Store Closing Announcement- 15 min	]
	Description : Closing Announcement- 15 min to Close	
	Is Emergency :	
	2000200200	
iew IDX System Wizard	Actions	
Step 1 of 12 Step 2 of 12 Step 3 of 12 Step 4 of 12 Step 5 of 12 Step 5 of 12 Step 7 of 12 Step 8 of 12 Step 9 of 12 Step 9	Action Lists: Details:	All Logs Refresh Logs Expert Logs
which is restrict a subject which is restrict a subject is restrict in which is re-	Action Delay Name : Closing Message- 15 min	Time Stamp T . Type T Message T Description T Tra
	File   Closing Announcement +	10/31/2012 6:23 PM 🕖 Information New file loaded.
	Zone Groups :	10/31/2012 6:23 PM 🚯 Information Wizard is closed.
1. Project Name:	V 2nd Floor Offices- East Wing	10/31/2012 6:23 PM 🗼 Warning No event is defined.
2. Number of Output Channels:	2nd Floor Offices- West Wing	10/31/2012 6:23 PM 🚯 Information tricand data is saved.
	All Zones- Emergency Page Engineering Qube: East Wing	10/31/2012 6:23 PM 🕕 Information Save binary file succeeded.
3. Check here if system uses Failover:	Logistics Warehouse- West V	10/31/2012 6:23 PM 🚯 Information The audio files were updated.
	Main Lobby	10/31/2012 6:23 PM 🕕 Information The audio files were updated.
	Delay(Sec) = 0	10/31/2012 6:23 PM 🚯 Information The audio files were updated.
		10/31/2012 5:36 PM 🕕 Information Added a new audio file. 005b2249-a5ef-4454-
Hardware Configuration:		10/31/2012 5:36 PM 🕖 Information The audio files were updated.
	• •	10/31/2012 5:36 PM 🕕 Information Paging Station added.
PDP-DSPs 1	Event Schedule Is Scheduled  Expiration (Sec): 300	10/31/2012 Si27 PM () Information Wigard controls are loaded.
POP-BOBs 1	Start Date : 06/10/2012	10/31/2012 5:27 PM 🕖 Information IDX100 objects are loaded
POP-BOBS		10/31/2012 5:26 PM 🚺 Information Widard is started.
CT165s 0	End Date : 06/10/2013	10/31/2012 S:24 PM 🕕 Information Test a zone
	Days of Week : Sun Mon Tue Wed Thu Fri Sat	10/31/2012 5:24 PM 🕖 Information Test a zone
		10/31/2012 5:24 PM 🕖 Information Test a zone
	Repeats : 0 Continuous	10/31/2012 5:24 PM 🕖 Information Test a zone
Name the Project, define the Number of Output Channels that will be used, and select if this system will use Pailover. The IDX100 System Wizard will generate	Interval (Sec) : 0 🖕 Supposted Value : 192	10/31/2012 5:24 PM 🚯 Information Test a zone
the main Hardware Configuration automatically.		10/31/2012 5:24 PM 🚯 Information Test a zone .
	Save Carcel	•

#### Step-by-Step Setup Wizard

Name your project, choose your failover and jump to the next step. The Wizard walks you through every important process, from setting up hardware to adding paging stations, adding music playback, creating logic, adding audio files, and assigning buttons.

## **Event Scheduling**

The heart of automation lies in the Event Scheduler. Create simple playback alerts on a calendar, or create lists of actions that can be triggered manually. The simple, straightforward interface allows you to add delay times between actions, repeat events, add or subtract events, and create a weekly calendar.

#### **Event Monitoring**

It's all in the details, and anything that happens within the IDX 100 system is logged. Complete monitoring of all activities 24/7 with client and server logs. Export data to .csv files for review. Five different queries to choose from: All, Event, Warning, Error and Debug.

# More System Management Tools

Input S	ource	s :																	
Enput Name			Input Gain																
BGM 1	0					4	6	:	ł										
BGM 2	1					1		•											
BGM 3		1	1 1			1		:											
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BGM 5		- <u>i</u>	1 1			4		÷											
BGM 6			1 1			1		:											
Did Pri G																			
Channe	ls :	PDP-BOB Ch.	Channel Name	-	_					_	- 50	ium	e		_	_			
Channe	ls :	POP-BOB Ch.	Channel Name System Output 3		,	,			,	,	50	lum		,	,	,	40	1	÷
Channe POP-DSP   P	IS : DP-808					•		•	•	,	- 50				,	•	- 0		+ +
Channe POP-DSP   P	1 1 1	3	System Output 3	1	•	•		-	•	•							- [	1	
Channe POP-DSP P 1	1 1 1	4	System Output 3 System Output 4	1	•	1		-	1	•	- Vi -				1	1	- 0	1	÷
Channe POP-DSP P 1	1 1 1	3 4 5	System Output 3 System Output 4 System Output 5		1	1		-	•	1					1 1 1 1	1 1 1 1		1	:

Adjust Input Source and Output Channel volume in real time.



**Parametric EQ** Create custom Parametric EQ profiles for each output.



**Real-Time Device Monitoring** See the LED status of any active paging station, failover device, or messaging channel.



# Designed to Serve Ways to Harness the Power of IDX 100

## Hotels

Create unique audio environments in the lobby, recreational areas, and meeting spaces with zoned background music. Integrate paging stations in back of house operations to streamline work processes.



# Educational Facilities

Automate bell schedules for classes. Create and manage custom emergency/evacuation messages and integrate with existing fire or blue-light systems.

# Shopping Malls

Provide customized in-store audio and paging capabilities for tenants. Send audio into common areas, food courts, and automate building closing announcements.

## Hospitals

Provide television audio or music in multiple waiting areas. Set up security paging for nurses, doctors, and security staff. Integrate patient call buttons in recovery rooms throughout the facility.

# Warehouses

Provide paging capabilities for operators to office cubicle areas and to private offices. Provide background music in lobbies, break rooms, fitness facilities, and customer-facing areas.



# Convention Centers

Automate pre-function space welcome messages, pre/post meeting chimes, exhibit floor notifications. Provide back of house support for audio/visual and food services vendors with paging capabilities.



#### ENVIRONMENTAL RESPONSIBILITY

Harman GreenEdge systems combine new environmentally friendly design with dramatic energy savings, without compromising the excellent performance for which Harman products are known.

- Reduced power consumption with increased audio performance
- Improved acoustic transparency and dynamic response
- Amplifier efficiency up to 90%. Reduced heat dissipation
- Lower system weight and packaging requirements

# Full Solution Provider

#### SYSTEM TRAINING, TESTING, SUPPORT, AND EXTENDED WARRANTY



#### A PARTNER AS WELL AS A PLATFORM

When you choose Harman you are choosing a company with extensive experience in large system planning and deployment who understands your communications system is a missioncritical component of your operation. Comprehensive system training is provided on all aspects of your system. Harman training engineers will work with your operations, administrative, and IT staff on-site to ensure that they have a thorough understanding of their system. Additionally, regularly scheduled system training seminars are offered at our Salt Lake City training facility for new staff or refresher training.

#### WARRANTY AND MAINTENANCE PLANS ENSURE PEAK PERFORMANCE

Our support will continue after system testing and acceptance. We offer a full extended-warranty and maintenance plan to ensure your Harman communication systems are operating at peak performance levels. Our Help Desk is staffed 24 hours a day, seven days a week by support engineers who can use built-in diagnostic tools to remotely assist your staff or troubleshoot and correct system problems. On-site support is always available through our network of trained Harman system dealers who can provide preventative maintenance, hardware upgrades, and system support.

#### MISSION CRITICAL TESTING

System quality assurance and specified performance validations are achieved through factory and site acceptance testing. Testing of your system will include certification of components, networks, and other devices to ensure that all design goals are met.

For more information about IDX 100 system components, visit idx.harman.com or email us at idx@harman.com



#### LOCATIONS

- 1. JBL/ Harman Pro Headquarters Northridge, CA
- 2. Harman Pro Manufacturing Center Tijuana, Mexico
- 3. Harman Pro Signal Processing & Amplification Headquarters - Sandy, UT
- 4. Crown Audio Headquarters/North America Regional Sales Office - Elkhart, IN
- 5. Harman Pro Latin America Regional Sales Office - San Juan, Puerto Rico
- 6. Harman Pro Manufacturing Center Manaus, Brazil
- 7. Selenium/Harman Pro Brazil Headquarters - Nova Santa Rita/RS, Brazil
- 8. Soundcraft Headquarters/EMEA Regional Sales Office - Potters Bar, UK
- 9. Studer Professional Headquarters - Regansdorf, Switzerland
- 10. AKG Acoustics Headquarters- Vienna, Austria
- 11. Harman Pro Russia/CIS Operations Center - Moscow, Russia
- 12. Harman Pro India Operations & Engineering Center - Bangalore, India
- 13. Harman Pro Asia Regional Sales Office - Kuala Lumpur, Malaysia
- 14. Harman Pro Design Center Shenzhen, China
- 15. Harman Pro Manufacturing Center Dandong, China

For more information on IDX 100 visit idx.harman.com or email us at idx@harman.com

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