

VARIODYN D1

Sistem digital de adresare publică și alarmare vocală



Rolul alarmării vocale

Alarmarea vocală are un rol din ce în ce mai important în managementul siguranței clădirilor.

Un mesaj vocal informează fără ambiguități ocupanții unei clădiri în privința acțiunilor care trebuie întreprinse în caz de urgență, fiind de mult cunoscut faptul că oamenii reacționează mult mai rapid și este mult mai probabil să execute acțiunile corecte în timpul unei evacuări dacă se utilizează mesaje vocale în loc de semnale tonale.

Beneficii

- Instrucțiuni clare pentru persoanele aflate în clădire
- Mesaje transmise în direct, cu instrucțiuni precise adresate persoanelor nefamiliarizate cu clădirea
- Mesaje personalizate preînregistrate (disponibile în mai multe limbi)
- Interval de reacție la alarma de incendiu mai scurt cu până la 20 de minute
- Conectare serială la centralele de detectare a incendiului Honeywell pentru evacuare secvențială și controlată în timp
- Funcții avansate nelegate de situațiile de urgență, precum egalizare parametrică a sunetului, control automat al volumului și anunțuri pe canale multiple, precum și muzică de fundal
- Control al anulării alarmării și al inițierii manuale a evacuării

Adresare publică - mai mult decât alarmare vocală

În clădirile publice cu un număr ridicat de vizitatori, sistemele de alarmare vocală sunt utilizate mult mai frecvent ca sisteme de adresare publică și de divertisment decât exclusiv ca sisteme automate de evacuare.

Funcții suplimentare ale sistemelor de adresare publică:

- Apelare și îndrumare cu mesaje variabile dependente de zonă
- Integrare cu sisteme de control al traficului în aeroporturi / gări
- Transmitere a muzicii ambientale pe canale/zone multiple
- Integrare a sistemului audio în săli de sport/concerte și stadioane
- Anunțuri automate programate
- Panouri de comandă cu ecrane tactile
- Operare cu sisteme de management intuitive, conduse de calculator
- Redare de calitate a muzicii ambientale pentru o experiență de shopping de înaltă clasă



The Modular Solution: VARIODYN D1

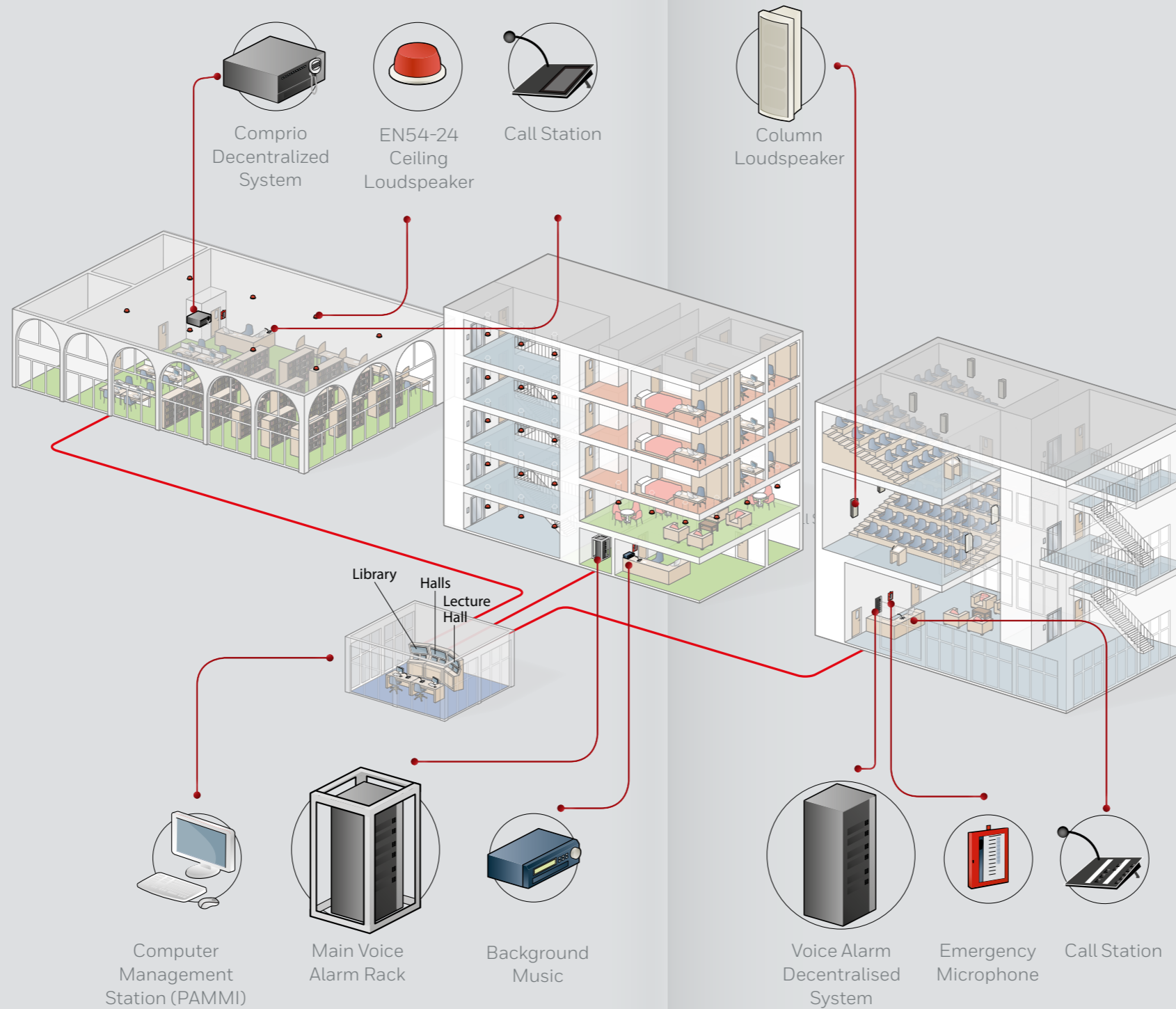
Our PA/VA systems can be distributed and networked together to deliver the most comprehensive and powerful solution for a wide range of applications. Suitable for mid to large and complex sites.

Applications

- Industrial facilities
- Universities
- Airports and transport hubs
- Stadiums
- Exhibition halls and fairgrounds
- Mega Shopping Malls
- Large Office buildings

Benefits

- Scalable and modular to adapt to constant changes and demands
- Supports a large number of evacuation and/or paging zones
- Manages complicated evacuation strategies in the event of an emergency
- IP connectivity to link multiple nodes (VARIODYN D1 DOM)
- Up to 120 announcements at the same time
- Pre-recording and playback of messages
- Secured data link to various Honeywell Fire Alarm Systems
- Decentralized and redundant system architecture
- Interface to Building Management Systems (e.g. Honeywell EBI)
- Redundant network and Call Stations links

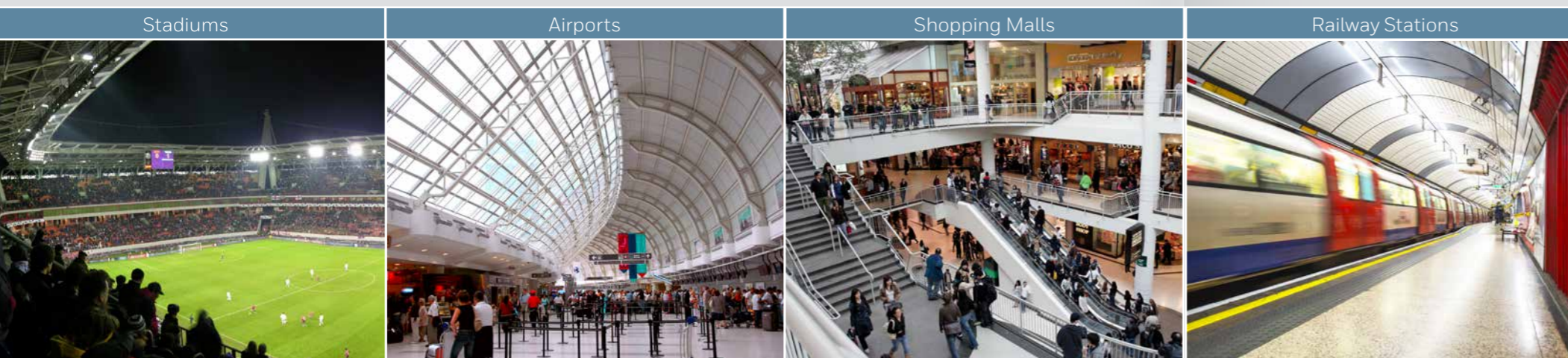


Customised Control

The **PAMMI** (Public Announcement Man Machine Interface) software provides monitoring and control of the Honeywell Voice Alarm System via a graphical user interface on a Microsoft Windows® based personal computer.

Key Features

- Full-screen application, may be operated by touch screen
- Graphic display (e.g. building layout)
- Zone scheme with selection and status
- Recording, pre-listening and discarding of announcements
- Simultaneous playback of pre-recorded audio messages
- Scheduler function for automatically controlled audio messages
- System status indication and logging
- Open Interface to other Management Systems
- Volume and audio control functions



Perfect Symbiosis - Voice Alarm and Fire Alarm

Synergies arise through digital coupling of the fire alarm system with the voice alarm system, thus facilitating an orderly, area-specific evacuation during emergencies: If a fire is detected by the connected fire detectors and then received by the fire alarm control panel, this automatically activates the voice alarm system. The endangered areas are then selected automatically and informed via the PA/VA system, while at the same time the fire alarm control panel activates fire protection systems, for example, fire doors, air-conditioning and ventilating systems, elevator controls or smoke dampers.

The combination of voice alarm and fire alarm technology not only offers functional advantages, there are economical advantages as well: PA/VA reduces the total EVAC time drastically, a PA/VA system is not much more expensive than standard sounders, while it adds valuable support by increasing productivity of building occupants.

Area by area, targeted and orderly: Evacuation procedure example at the airport



1. There is a short-circuit in the baggage sorting area on the 1st sub-level, section B of the airport.



2. The fire detector detects the formation of smoke and transmits the information to the fire alarm control panel.



3. The fire alarm system simultaneously initiates alarms to the security services and the voice alarm system.



4. The security inspector assesses the situation via the video camera installed on-site and then activates a stored announcement to the personnel with the push of a button.



5. Due to the increasing formation of smoke, the fire alarm system automatically closes the fire door in the affected area.



6. The fire alarm control panel takes over the elevator control and prevents the elevators from stopping in the affected areas and/or moves the elevator to a pre-defined end position.



7. The PA/VA system automatically initiates an announcement for the immediate evacuation of the affected area.



8. The people in the closest area (sub-level 1, arrivals)—one floor above the baggage carousels of the airport section B—are guided to the corresponding exits by specific information. Here, standard announcements are stopped and all EVAC announcements have priority. But the highest priority have the fire fighter call stations.

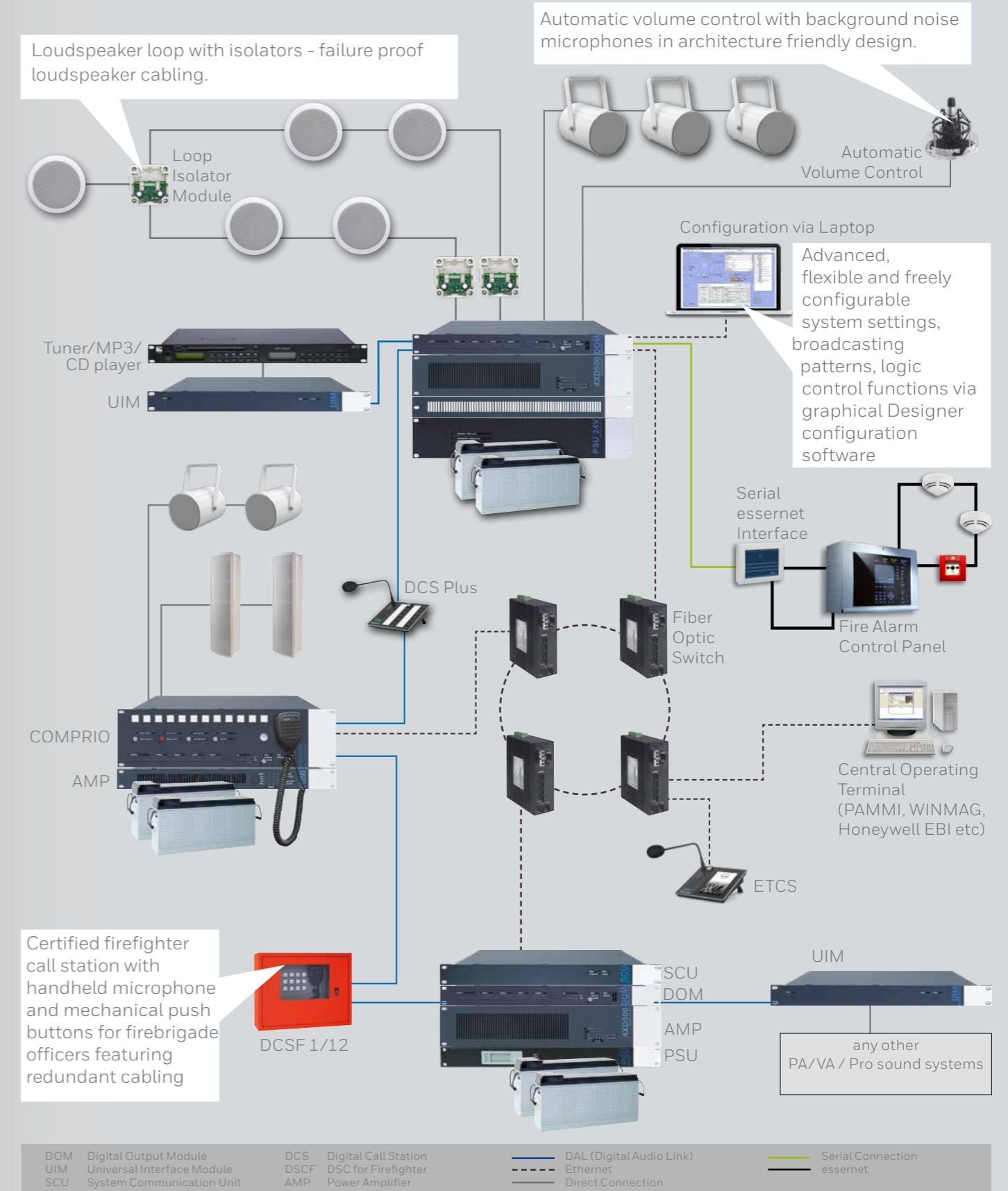


9. The fire department arrives and uses emergency firefighter call station for evacuation control of remaining people and later for paging instructions to firefighters.



VARIODYN D1 and Comprio PA/VA system diagram

Thanks to its modular construction and the various system components, the VARIODYN D1 system can easily be adapted to the object specific requirements.



WINMAGplus – One Management System for All

The WINMAGplus hazard management system lets you create a scalable software solution with superb levels of integration with different sub-systems.

In case of Voice Alarm system, VARIODYN D1 is connected via Ethernet/RJ45 to the same network as the WINMAGplus server. This enables the VARIODYN D1 integration with systems such as: fire alarm, fire extinguishing, smoke and heat control, escape routes, CCTV, access control, intrusion detection, emergency lighting as well as BMS and others via open protocols.

Performance features of the VARIODYN D1 interface WINMAGplus driver

- System configuration readout of a VARIODYN D1 network to take it over via import files to WINMAGplus application.
- Fault and status indication of the VARIODYN D1 system components:
 - DOM, SCU, DAL bus devices like DCS and UIM, Amplifiers (each channel)
 - Audio and control contact inputs and outputs
- Display, update and control of:
 - Volume
 - Volume presettings (min., max., alarm)
 - Audio signal levels
 - Control contacts
- Call station function:
 - Microphone switched to pre-selectable or fixed targets for live-spoken announcements
 - Playback of pre-recorded announcements on selectable or fixed targets

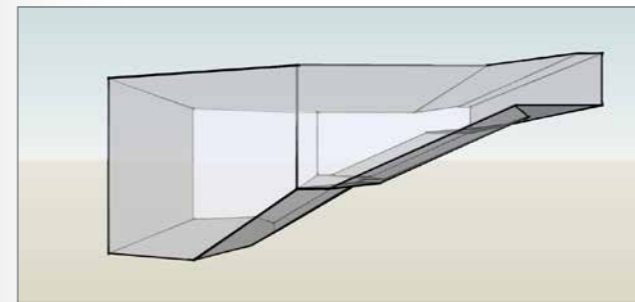
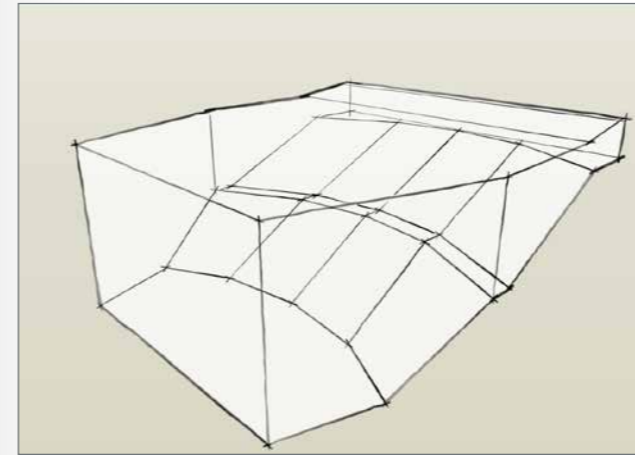


Challenging Projects Require Best Design and Expertise

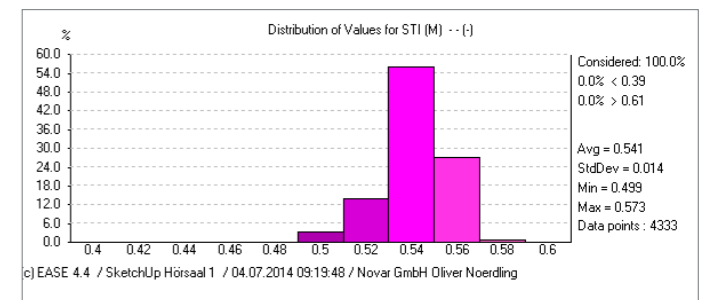
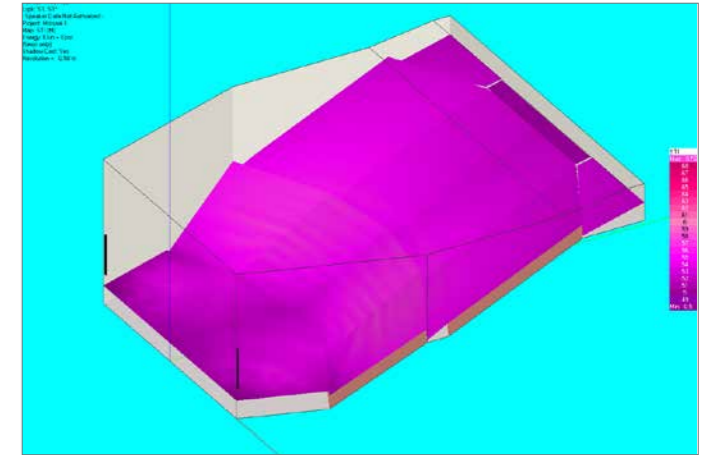
Acoustic simulations are foundations and of necessity of proper PA/VA system design in complex, difficult and large areas. EN 50489 and CEN/TS 54-32 require minimum intelligibility level from installed VA systems. Installing and planning VA systems bears a risk of failure during intelligibility measurements in the handover phase. To prevent such critical situations and underbudgeting of VA systems acoustic simulations are the only guarantee.

By CEN/TS 54-32 European standard VA system can be designed in 2 ways to achieve required intelligibility:

1. Simplified, prescriptive method, requiring loudspeakers mounted every 6 meters or less.
2. Detailed method, requiring in practice acoustics simulations as VA system design base regarding spacing, location, type selection, audio equalizing and proper orientation of loudspeakers.



Example of the acoustic simulation of an auditorium



Acoustic simulation software provides to precisely and reliably assess sound pressure level (dB) and intelligibility level (STI/CIS). The software calculates the simulated room as a space map in 3D, enabling the user to verify the selected type, location and setting of loudspeakers.

Voice Alarm system design for acoustically challenging areas must be based on professional, quality simulations, prepared by experienced acoustic experts.

Our Technical Support Team provides expertise, experience, tools and wide portfolio of certified VA loudspeakers to assure our partners and system designers that VARIODYN D1 system designs will pass acceptance tests.



VARIODYN D1 Product Family

All of the components of the VARIODYN D1 product family are compatible, interchangeable and optimally adapted to the customers growing needs. As varied as the requirements may be, all of the components are modular designed and can be combined with each other quick and easy.



Digital Output Module (DOM)

The Digital Output Module (DOM) is the heart of the Honeywell Voice Alarm and Public Address system. Managing either 8 or 24 zones the DOM routes up to 4 channels of audio from amplifiers to any individual zone or group of zones.



Universal Interface Module (UIM)

Interface module enables audio or control connection to third party systems such as CD players, security systems and other PA/VA or building management control systems.



Comprio

Comprio is a voice alarm system optimised for small and medium-size facilities such as schools, hotels, leisure centres and offices. It's characterised by its compact design, wide performance range and its flexibility.



System Communication Unit (SCU)

The System Communication Unit (SCU) is an integrated digital audio memory source able to simultaneously record and play back multiple audio data streams.



Class D Power Amplifiers

Combining the latest in digital audio technology with the integrity necessary for emergency Voice Alarm systems to satisfy the requirements of EN54 part 16.



Direct Drive Power Amplifier

4-channel Direct Drive Amplifier 4 x 300 W or 4 x 500 W power outputs or unit providing 4 x 125 W or 4 x 250 W power outputs with integral EN 54-4 certified battery charger.



Ethernet Touch Call Station (ETCS)

This EN 54-16 certified touch screen call station provides a user friendly, multilingual and multi-user interface support with high failure safety due to redundant transmission routes via Ethernet (PoE possible). It includes audio memory up to 27 hour and a USB stick can be connected to play audio files as well.



PAMMI Public Announcement User Interface

The PAMMI software provides connection and control of the Honeywell Voice Alarm System via a graphical user interface on a Microsoft Windows® based PC.



Emergency Microphones

Emergency Microphone used to select and broadcast pre-programmed alarm messages and live voice announcements during emergency situations by security operator or fire brigade commander.



Paging Microphone DCSPPlus

The paging microphone allows for the selection of loudspeaker zones, and the transmission of voice announcements via programmable buttons.

Loudspeakers

Honeywell offers loudspeakers, specially designed to meet various requirements and specifications in many project types e.g.

- Excellent acoustic performance to realize clear, understandable voice announcements or high quality background music.
- Cost-effective types
- Well designed, modern appearance
- Easy for installation to reduce time, efforts and costs
- Robust material to offer long lifetime
- Models with ceramic terminal block and thermofuse



Extract from our extensive product offerings:



Ceiling Loudspeaker

- Metal or plastic ceiling loudspeakers
- Several power tapings with simple setting
- Partly dual-cone speaker to ensure best audio performance
- Appropriate for indoor applications such as offices, warehouses, schools etc



Column Loudspeaker

- Flat, directed sound propagation, minimized reverberation
- Intelligible voice and superior sound reproduction
- IP65 rating
- Great choice for theme parks, exhibition halls and any open, high-volume rooms with high reverberation time.



Horn Speaker

- Clear voice message reproduction for open and outside areas
- Offers a high sound pressure and long-lasting weather resistance



Sound Projector

- Wide frequency response range, low distortion
- Robust aluminum housing
- IP65 rating
- Best option for applications such as corridors and railway platforms



Cabinet Loudspeaker

- Simple power setting and easy installation
- Practicable for wall mount application
- Plastic, MDF or metal vandal-proof cabinet



Spherical Loudspeaker

- Where wall mount or ceiling mounting is not possible
- Variable hanging height
- 360° sound propagation



Special Loudspeaker for tunnels

- Specially designed and EN 54-24 certified for tunnel applications
- Boundary effect and loudspeaker phasing for best intelligibility in extremely difficult tunnel projects

Novar GmbH a Honeywell Company

Dieselstrasse 2

DE-41469 Neuss

Phone: +49 2131 40615 - 600

Fax: +49 2131 40615 - 606

www.esser-systems.com

info@esser-systems.com

Honeywell Life Safety Austria GmbH

Technologiestr. 5

AT-1230 Vienna

Phone: +43 1 600 60 30

Fax: +43 1 600 60 30-900

www.hls-austria.com

hls-austria@honeywell.com

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