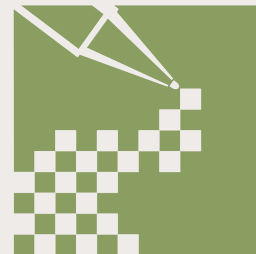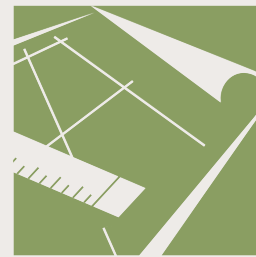# *info*Comm
INTERNATIONAL®

InfoComm
International
Catalog of

Educational
Courses &
Certifications

A complete guide to the most comprehensive program of quality AV training, professional development and certification available - anywhere!

Introducing InfoComm Academy®

InfoComm Programs

InfoComm International specializes in audiovisual (AV) education. We invite you to join the thousands of AV professionals who use InfoComm Academy to improve their skills and knowledge and to achieve their certification.

Whether you are an individual AV professional or an employer of many, today's competitive environment demands that you stay abreast of technological developments and industry trends. Your clients expect you to demonstrate a level of professionalism and performance, and your commitment to continuing education is the way to meet that expectation.

InfoComm makes it easy and cost-effective by offering big discounts on courses to members of the association. In addition to the discounts, members also receive EduBucks tuition credits. So, if you aren't yet a member, your best course of action is to join and find out how much you can begin saving right away! Read below about the many benefits of taking InfoComm Academy courses:

Benefits of InfoComm Academy Courses

Great benefits! Practical & relevant

- **Cost Effectiveness.** The most cost-effective way to take InfoComm Academy courses is to register as a member of InfoComm International. As a member, you receive training discounts called EduBucks.

- **Building Block Approach.** You can start with the basics and move into Installation, Design, Videoconferencing, Streaming, Audio and other specializations. InfoComm International's courses are coordinated across the entire curriculum to make it easy for you to determine your path to AV knowledge.

- **Relevance.** Courses are created from real work analyses. We teach what you do or aspire to do.

- **Expertise.** InfoComm Academy courses are developed and taught by experts who know the subjects inside and out and who continuously review content to keep it up to date.

- **Excitement.** The courses are refined by instructional designers who use a wide variety of techniques to help you learn.

- **Comprehensiveness.** Learn not only the technology, but other topics key to success, including trends, sales, customer service, project management and business.

- **Marketing Edge.** InfoComm International prepares you to achieve the AV industry-recognized certification, the Certified Technology Specialist (CTS) held by almost 5,000 people around the world, as well as the only company-level certification, the Certified AudioVisual Solutions Provider (CAVSP).

- **Convenience.** InfoComm International makes it easier! You can learn how to do your job better through a variety of formats that fit your needs. InfoComm also enables companies to offer InfoComm Academy curriculum in their offices either through licensing the program or by having a trainer come to you. And if you attend the InfoComm tradeshow in the U.S. or the Integrated Systems tradeshows around the world, you can maximize your time there by taking courses at the Show.

InfoComm
International
Catalog of

Educational
Courses &
Certifications

A Guide to InfoComm Academy® Training,
Professional Development and Certification
for Audiovisual (AV) Professionals

Contact InfoComm International to discuss

complete career and professional development paths:

customerservice@infocomm.org

or visit www.infocomm.org.

*info*Comm
INTERNATIONAL®

Quality, Practicality and Relevance

BEST PRACTICES

InfoComm Academy is committed to excellence – excellence in the content of its courses, in the delivery of courses to students, in the quality of instructors, and in providing the best possible education to prepare students for success in their professions.

The Academy's courses — whether delivered online, on-site, streamed on the Internet, at InfoComm or through our licensed program – are created through collaboration between members and staff.

Through the expert advice and assistance of the Professional Education and Training Committee (PETC) and other member councils, InfoComm determines technology trends that need to be understood in the real world and responds through curriculum and course development.

PETC is one of three InfoComm International standing committees, along with the Membership and Exhibitor Committees. PETC works through four subcommittees: Curriculum, Certification, InfoComm Conference and Educational Outreach Subcommittees.

The Curriculum Committee assists staff in the planning, development and implementation of the on-site and online InfoComm Academy offerings. The prime areas of course concentration parallel the various disciplines in our industry – design, installation, rental/staging and sales. New topics are also introduced that correspond to "hot" topics in the field, such as videoconferencing, or rich media.

The Certification Subcommittee oversees the InfoComm Certification program, including basic certification for the Certified Technology Specialist (CTS) level and four specialized CTS levels in the areas of design (CTS-D), installation (CTS-I), rental (CTS-R), and sales (CTS-S). These specialized certifications require extensive testing. There is also a company certification program, with companies achieving general, silver and gold CAVSPs by certifying a percentage of their technical and sales staff. CAVSP stands for Certified Audiovisual Solutions Provider and is marketed to AV clients through InfoComm and its AV Outreach Campaign.

The approximately 100 courses offered at the annual InfoComm tradeshow each year are chosen by the third PETC subcommittee, the InfoComm Conference Subcommittee. This subcommittee determines core curriculum at the show almost 15 months in advance, then supplements it from the entries that pour in as a result of an annual Call for Presenters. This ensures a well rounded program with plenty of room for innovative ideas and technologies. This is a finely tuned process that matches submissions to desired topics and sessions. Years of experience and extensive metrics aid the process.

A newly formed fourth subcommittee for Educational Outreach is investigating ways to make InfoComm Academy curriculum more available to more people.

InfoComm Academy owes much to PETC and the dedicated faculty who volunteer so much of their time to advancing the quality of education and professionalism in the AV industry. Students can rely on this extraordinary effort to support their ongoing education and career development.

An education program designed by experts in the field

Table of Contents

InfoComm International's education and certification programs are designed with you in mind and are available OnLine, OnSite (classroom courses), OnDemand (streamed to your desktop) and as licensed courses at your facility. The quality of the curriculum, courses and instructors is the best available, anywhere. All Info-Comm Academy courses, with the exception of courses that help prepare you for the first level of certification, provide students with Renewal Units (RUs) enabling those who already have a certification to keep building toward their certification renewal.

ONLINE

OnLine

InfoComm Academy's OnLine Courses are easy to access (and using members' EduBucks, can be obtained AT NO CHARGE), and designed with your ultimate convenience in mind. They cover the basics on various tracks, from fundamental AV knowledge and technology support, to sales, to design and AV systems installation. Once you receive your login, you are off and running with your course and can access it whenever you need to, leaving off and returning to it when you have the time. There is a time limit to complete the course, but InfoComm works with you to help you if you need an extension.

The beauty of these online courses is that they are highly interactive, packed with pictures and diagrams illustrating the concepts, and developed with a strong quiz/test/feedback mechanism enabling you to constantly review your progress. Courses are divided into lessons and have a simple navigation system, along with useful features such as forums (bulletin boards through which you can ask questions in real time); progress maps, quizzes, study guides and download-able reference materials. Courses are also structured to enable supervisors to review progress.

You can take InfoComm Academy courses anywhere, anytime!

ONSITE

OnSite

InfoComm Academy's OnSite program offers in-depth courses about a variety of topics at InfoComm headquarters in Fairfax, Virgina, as well as in other parts of the world, year-round. These courses typically provide in-depth and/or hands-on instruction about topics such as:

- How to obtain your certification
- How to hone your design or installation skills
- All the technical know-how you need about videoconferencing, audio or streaming
- Project management
- ......and many other skills required for various aspects of the AV profession.

The courses generally take 3-4 days and may end in a general or specialized certification test. Instructors are experts in the industry, renowned not only for their years of relevant experience and knowledge of the subject, but also for their ability to provide excellent, down-to-earth instruc-tion. InfoComm's website at www.infocomm.org carries a calendar of where and when these courses are held.

ONDEMAND

OnDemand

With this exciting method of obtaining knowledge from your desktop or conference room, you can access recorded video presentations by expert instructors directly from InfoComm's website at www.infocomm.org. These rich-media presentations include instructor video and audio as well as slides. You have the power to pause, advance, repeat, skim the slides and more. The program offers numerous streamed segments on a variety of business and technology topics, including:

Business
- FREE! MasterFormat™ 04 and How It Will Affect the AV Industry – by Tom Rauscher
- FREE! Audiovisual Best Practices: The Design and Integration Process for the AV and Construction Industries – by Mark Valenti
- Improving AV Project Flow – by Jim Maltese, CTS-D, CTS-I

Integrated Systems Europe

Integrated Systems China

Integrated Systems Asia

Integrated Systems India

LICENSED

*Note to self:
find out more about
teaching InfoComm
courses.*

Technology
- Advanced Projector Display Technologies – by Alan C. Brawn
- Microphone Basics – by Gordon Moore, CTS
- Fiber Optics for AV – by John Lopinto

Applied Technology
- How to Size a Projection Screen – by Steven J. Thorburn, PE, CTS-D, CTS-I
- Specifying the Projected Image – by Greg Jeffreys
- Lighting Control within Integrated Systems – by Robert Simpson
- Moving Video Over IP – by Richard Blackwell
- Mix-Minus Speech Reinforcement Systems – by Mario Maltese, CTS-I, CTS-D

Technology Manager
- The Interactive Classroom: Student Response Systems- by Randy Jackson, Ph.D., CTS
- Classroom of the Future – by Barbara Brandt

At InfoComm and Integrated Systems Events

InfoComm Academy offers a rich collection of courses at its events around the world. At InfoComm 06, June 3-9 in Orlando, Florida, the Academy and InfoComm's partners offer over 250 different courses, including 3-day Institute for Professional Development courses, 1-day workshops, and 2-hour and 4-hour sessions.

The courses cover from basic level to intermediate and advanced levels of instruction by world-renowned experts. Topics are organized based on industry trends. In 2006 they cover Audio, Business & Management, Conferencing, Content Creation, Control, Design, Digital Signage, Display, Distribution, IT/IP, Lighting, Rental & Staging, Project Management, Residential, Sales & Marketing, and Certification Prep. InfoComm's partners offer in-depth instruction on Rigging, Media Management, Projection Trends, AV in the Classroom, AV in Worship Environments, Conferencing, and Network Computing. www.infocommshow.org offers full details.

Courses are also offered at Integrated Systems and other events in Europe, India, China, Australia, South America and other parts of the world. For further information, e-mail customerservice@infocomm.org.

Licensed InfoComm Academy Courses

InfoComm now licenses its courses to enable companies to offer InfoComm Academy curriculum conveniently to their employees at their own offices. Two courses are now available, with more in development:

- *Certification Prep*
- *Design School Level 1: The Principles of Applied AV Design*

How it works

Your company signs an annual license agreement outlining content ownership and usage. The company also provides an employee instructor(s) who must meet the following criteria:

- The instructor must have a current InfoComm certification that correlates with the course selected (e.g., for Certification Prep, the instructor must have a valid general Certified Technology Specialist (CTS) designation; for Design 1, the instructor must have a valid CTS-D)
- The instructor must have first completed the course s/he plans to teach
- The instructor must successfully complete an InfoComm Train the Trainer program

Once the agreement has been signed and there is a qualified instructor, the company provides two weeks' notice of class, to allow time for course materials preparation and shipping.

InfoComm will provide a certificate of completion and enter this information into the student's record in the InfoComm database when provided the student's name and a signed document from the instructor that the course was completed in its entirety.

New Employee Orientation Checklist

InfoComm International provides a New Staff Orientation Supervisor's Checklist which can be customized to your company's policies, environment and office culture. This useful, practical tool covers everything from explaining procedures to ordering business cards to reviewing financial forms such as expense reports and purchase authorization forms.

Aiming for the CAVSP Company Certification

For more than 30 years, InfoComm has offered its certification programs designed to establish and maintain widespread credibility for the AV industry and the professionals who perform the work.

As a company, you can obtain a company level credential, the Certified AudioVisual Solutions Provider (CAVSP). This certification provides recognition that your company aims to maintain a level of professionalism and expertise through professional development, training, and continuously updated certification for your employees.

From a marketing perspective, AV companies can use their CAVSP status to promote themselves in bids, in advertising, on their business cards, on their trucks and offices, and on their uniforms. Just as with any other profession, customers are looking for a way to measure those they hire – in the AV world, the CTS and CAVSP standards provide credibility and recognition. Find out more by contacting customerservice@infocomm.org.

Career Site – Job Posting

InfoComm International offers an AV-specific Career Site online at www.infocomm.org. InfoComm makes it easy by offering a variety of pricing plans that you can choose based on your volume.

Employee Development Planning

InfoComm counselors are standing by to advise you on ways to strengthen your marketability as a company through staff development. Everyone in your organization who's on the front lines of service to the customer, including sales staff, receptionists, customer service professionals, designers, engineers, and installers, can be part of a comprehensive plan to boost your company through professional development and certification.

Contact customerservice@infocomm.org!

The InfoComm BusinessKit CD

Here is the resource you've always needed!

For members only, the FREE InfoComm BusinessKit CD is chock-a-block full of business tools and resources, including HR software for AV managers, templates for presentations to clients, agreements and forms, white papers, member logos, and information on local and national government relations issues! This valuable reference gives you an edge as you navigate the increasingly complex pro-AV environment.

Educational Webinars:

A Great FREE Benefit from InfoComm International

InfoComm Webinars bring the conference room, the classroom and the seminar right to your office. AV professionals around the country and around the globe can learn and share ideas conveniently and cost-effectively. From discussions on Licensure and Apprenticeship, to MasterFormat™, to the latest market research, you and others at your office can take full advantage of the webinar format. Watch for announcements of upcoming webinars and give them a try!

Member Roundtables

Coming to a Region Near You!

Get the most out of your membership with InfoComm's new series of Regional Roundtables. These meetings bring AV professionals together to network, learn and provide feedback about how InfoComm can help to serve your needs.

These FREE, one-day events feature expert speakers discussing hot topics in the AV world. Events are scheduled for New York City (April 5) and Chicago (May 2) with plans for additional roundtables in Dallas, Atlanta, Anaheim, Calif., and Fairfax, Va. Stay tuned for more venue information in your town.

Upon joining InfoComm or renewing membership, companies and individuals receive a certain number of EduBucks (depending on the level of membership). EduBucks are like scholarship dollars that can be applied to any InfoComm Academy course. It's easy to redeem EduBucks, simply by registering for any InfoComm educational course and indicating that you are an association member and you will be paying with EduBucks to discount the fee.

Examples of the great returns in EduBucks a member receives are as follows:

Silver Commercial AV Company
Pays $400 in membership dues; receives $600 in EduBucks

Gold Commercial AV Company
Pays $800 in membership dues; receives $1400 in EduBucks

Platinum Commercial AV Company
Pays $1200 in membership dues; receives $2400 in EduBucks

Associate (Individual)
Pays $150 in membership dues; receives $225 in EduBucks

Organizations that are not AV solutions providers (i.e. end user companies or institutions) can receive the following EduBuck returns on their investment:

Silver Organization
Pays $200 in membership dues; receives $300 in EduBucks

Gold Organization
Pays $400 in membership dues; receives $600 in EduBucks

Platinum Organization
Pays $800 in membership dues; receives $1200 in EduBucks

Other membership benefits include free resume posting, free and discounted InfoComm Market Studies, free access to InfoComm, and numerous free and discounted marketing tools such as InfoComm iQ web catalogs.

Want to Join In As a Committee Member?

InfoComm's Professional Education and Training Committee (PETC) is always looking for new members to be part of advancing the industry.

Contact
customerservice@infocomm.org to learn how you can become part of this active committee!

Giving Away Your EduBucks Coupons

InfoComm International members can use their EduBucks to purchase coupons worth $100 and redeemable for one free online course. These coupons may be given to both members and non-members of InfoComm for redemption. Coupons are good for one (1) online class and valid for one year from date of issue. To purchase coupons with your available EduBucks, contact the membership department at membership@infocomm.org. Coupons are printed and mailed via USPS. Once coupons are purchased, they cannot be returned. To redeem coupons, coupon holders should contact the InfoComm staff by phone at 1.800.659.7469 or 1.703.273.7200.

Individual Certification

InfoComm International is the industry leader in certification for AV communications professionals, from beginner to advanced levels of technical, business and sales competence. InfoComm certification is the only AV certification recognized by the U.S. National Certification Commission and accepted by the U.S. Veterans Administration for reimbursement under the Montgomery G.I. Bill.

Certified Technology Specialist

The industry standard for professional expertise is InfoComm International's certified technology specialist (CTS) designation. InfoComm International offers certification testing for both general expertise and specialized levels in design and installation.

As the demand for audiovisual services grows, suppliers and industry professionals everywhere are under pressure to prove themselves in this highly competitive market.

Knowledge and expertise are critical factors when customers select a provider. They want to know that they will get the best range of services available from a highly skilled staff. But they're not going to just take your word for it anymore. You need to show that your staff is competent. InfoComm's certification program validates the credentials of its professionals, establishes a competitive advantage for individuals and companies, and distinguishes recipients as skilled and knowledgeable.

InfoComm has offered its certification program for over 30 years and certifies over 200 people every month, a rate that is growing each month as companies realize new business opportunities by having their employees certified.

InfoComm has two individual levels of certification (general and specialized), and three compny-level Certified AudioVisual Solutions Provider (CAVSP) designations.

General Certification (CTS) is for AV professionals who have demonstrated knowledge of the science and technology used in communications, including audio, video, display and systems. Technicians, engineers, designers, salespeople, customer service personnel, managers and executives are eligible to take the general certification (individual) testing.

Specialized Certification (CTS-Design, CTS-Installation) indicates at least two years' industry experience and a more advanced level than the CTS (general) designation.

InfoComm's Certified Technology Specialists (CTS) at all levels of certification have demonstrated audiovisual technology knowledge and/or skills. Certified individuals agree to maintain a Code of Ethics, (a conduct standard written and endorsed by InfoComm International), as well as continue their status through continued education.

Note: Certification is not a guarantee for performance by certified individuals. Certification demonstrates commitment to professional growth in the audiovisual industry and is strongly supported by InfoComm.

InfoComm is the authority on quality work, and customers know it.

infoComm
CERTIFIED
TECHNOLOGY
SPECIALIST

infoComm
CERTIFIED
TECHNOLOGY
SPECIALIST
DESIGN

infoComm
CERTIFIED
TECHNOLOGY
SPECIALIST
INSTALLATION

Certification Fees
General CTS: $200
Specialized CTS: $590
Certification Renewal: $50
CAVSP Application: $65
EduBucks may not be used for certification

"Achieving CAVSP Gold status is the gratifying result of our efforts to provide the highest quality service and the highest quality products available to the AV market."

Jack Gershfeld, CTS, President and CEO of ALTINEX, the first manufacturer to become CAVSP Gold, Brea, Calif.

Company Certification

"The CAVSP program has been instrumental in our success, by validating our high level of craftsmanship when compared to other firms."

Logan Campbell, CTS, Jay S. Stanley & Associates, CAVSP, North Little Rock, Ark.

Certified AudioVisual Solutions Provider

Company Certification (CAVSP) is awarded to those firms that have demonstrated their commitment to professional excellence. Companies can achieve Basic, Silver or Gold CAVSP levels based on the proportion of their technical, sales and customer service personnel who earn General or Specialized individual certification.

For more than 30 years, InfoComm has offered its certification programs, designed to establish and maintain widespread credibility for the AV industry and the professionals who perform the work.

As a company, you can obtain a company level credential, the Certified AudioVisual Solutions Provider (CAVSP). This certification provides recognition that your company aims to maintain a level of professionalism and expertise through professional development, training, and continuously updated certification for your employees.

The CAVSP is the only company level certification program available for the professional audiovisual industry, and InfoComm invests in promoting the CAVSP standard the world over to more than 15 different vertical markets. The list of markets includes: Corporate/Industry, Education, Government/Military, Legal, Healthcare, Worship, Architects, Facilities Management, Retail, Entertainment/Theme Parks, Sports, Museums, Advertising and others.

The CAVSP is based on the percentage of your personnel (technical, sales or customer service) who have achieved either the General CTS or the specialized CTS in Design or Installation. There are three levels of CAVSP:

- **Gold CAVSP**, recognizing 75 percent of all sales, customer service and technical staff have and maintain InfoComm Certification
- **Silver CAVSP**, recognizing 50 percent of staff are InfoComm Certified
- **Basic CAVSP**, recognizing that 25 percent of staff are InfoComm Certified

CAVSP companies have also agreed to comply with 10 Standards of Excellence that were developed in collaboration with industry experts to emphasize the best practices of AV businesses. The Standards of Excellence are a guidepost for AV companies and professionals who place the customer first and offer quality AV solutions. They include the commitment to provide complete customer satisfaction with AV solutions that provide value to the client. They convey the importance that AV solutions providers place on their own skills development through continuing education. They also cover the critical role that AV professionals play as partners with IT specialists, architects, building managers and others.

From a marketing perspective, AV companies can use their CAVSP status to promote themselves in bids, in advertising, on their business cards, on their trucks and offices, and on their uniforms. Just as with any other profession, customers are looking for a way to measure those they hire – in the AV world, the CTS and CAVSP standards provide credibility and recognition. Find out more by contacting customerservice@infocomm.org.

Renewal Units

To maintain the integrity and value of certification in a fast-changing industry, General Certification (CTS) and Specialized Certification (CTS-D and CTS-I) must be renewed every three years through continuing education. Individuals are required to accumulate 30 renewal units (RUs) during the three years certification is valid.

Most of the courses listed in this catalog provide eligible renewal units. Additional sources for renewal units include approved manufacturer, private vendor and association courses; and postsecondary education.

InfoComm Career Site

Audiovisual professionals are in demand, well paid and trained in a high-tech field. The InfoComm International® electronic recruitment service on its website at www.infocomm.org, geared specifically for the audiovisual industry, offers a cost-effective method of employee recruitment where employers pay a small fee to post jobs, and job seekers submit their resumes at no cost. InfoComm has teamed up with Brainhunter.com Ltd. to provide this service.

The job posting tool allows employers to post, edit and delete jobs as well as screen candidates against specific qualifications, while job seekers are able to investigate new career opportunities, receiving electronic alerts when a new posting fits their criteria.

Jobs available in the AV industry include just about anything you might imagine: sales, marketing, management, programming, electrical engineering, technical, project management, construction, training, service and repair, administration, manufacturing, journalism, art and many others. The audiovisual industry offers many career pathways. While organizations may differ in the specific job titles they give for similar job responsibilities, the following titles are the types of jobs available through the InfoComm Career Site.

- General Manager, Vice President or Area Manager
- Branch Manager
- Operations Manager, Product Manager or Rental Manager
- Director or Manager of Sales or Marketing
- Account Executive or Sales Representative
- Chief Engineer or Engineering Manager
- Installation Manager or Lead Technician
- Technical Director
- Systems Engineer or Systems Designer
- Audiovisual Systems Technician
- Video Technician
- Lighting Technician
- Installer or Installation Engineer
- Service and Repair Technician
- Rental Inventory Control
- Field Technician
- Customer Service Representative
- Driver

Finally – a job site that's relevant

Workforce Development

InfoComm is committed to helping you develop employees for the future. Learn how you can work with your local secondary and post-secondary schools to interest potential candidates in this exciting industry. Contact customerservice@infocomm.org.

"We take the CTS certification very seriously. ClearOne now employs four CTS-D engineers and two CTS Regional Sales Managers."

Chris Morrison, CTS, Regional Sales Manager, ClearOne, Cincinnati, Ohio

Introductory Courses for AV Professionals
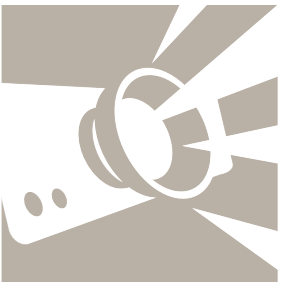
InfoComm Academy introductory courses are designed to be taken by those who are new to the AV industry (i.e. within their first six months to a year of hire), or already understand the context of their job and how the industry works, but need depth on the technical side.

The introductory courses are highly interactive. There are currently three online courses in this category and one in-person course. The online courses are highly interactive and packed with diagrams and pictures to make it easy to grasp and retain content.

The OnSite course (Certification Prep) is a three-day course providing in-depth instruction for those who want to prepare for their certification (CTS) test.

Quick Start to the Audiovisual Industry

Course Fee
FREE

Prerequisites
None.

New to the AV Industry? *Quick Start to the Audiovisual Industry* gives you the basic understanding you need to get you started on the right foot!

This course is provided online and is supplemented by a learner's workbook and manager's guide providing interactive exercises to reinforce learning on-site. The online portion of the course consists of approximately three hours of learning, plus time spent on activities.

Audience

Quick Start to the Audiovisual Industry is for technicians, managers and support staff during their first six months of hire. This course provides an introduction to the AV industry to help AV personnel understand the context of their jobs and how the industry works.

Course Content

Chapter One: Industry Overview
Examines industry segments, AV disciplines, and professional relationships

Chapter Two: Visual Display in the Presentation Environment
Identifies factors that affect a viewing environment and equipment historically associated with visual display

Chapter Three: Video in AV Applications
Describes types of video signals and typical equipment

Chapter Four: Computer Data Display
Explores fundamentals of a graphics adapter and typical display technologies

Chapter Five: Audio in AV Applications
Follows the path of an audio signal through a simple sound system

Chapter Six: Special Applications
Illustrates the relationship of AV equipment in control systems, networked environments, and videoconferencing

The Essentials of the AV Industry

ONLINE

Course Fee
InfoComm Members: $99
Applicable EduBucks: $99
Nonmembers: $150

Prerequisites
None. If you are brand-new to the industry, InfoComm Academy's *Quick Start to the Audiovisual* Industry provides a more thorough introduction to roles in the audiovisual industry and the most basic introduction to technology concepts.

It's available in German and Spanish too

"The best aspect of this course was InfoComm International's ability to organize all information into a progress sheet, status chart, and cover the knowledge thoroughly and professionally...
...Thank you for giving this class...
...I now know the answers to questions clients ask frequently."

Frank Kelske, CTS

The Essentials of the AV Industry online course provides a brief overview of the sales, rental, design and installation functions, with more in-depth explanations of the science and technology for basic audio, visual, and audiovisual systems integration. This introduction will build your understanding of the fundamentals used on a daily basis in the audiovisual industry. If you know how things work, you will be able to apply these fundamentals to new technologies and applications as they develop. When you know how things work, it helps you solve problems and meet your client's needs (or your own).

The course is recommended to help you prepare for the general certification (CTS) exam.

Audience
Those new to the AV industry (i.e., within their first six months to a year of hire) or those who already understand the context of their job and how the industry works, but need depth on the technical side.

Topics Covered

Audio	Visual	Audiovisual
Dynamic Sound	Vision and Light	Audiovisual Systems Integration
Capturing Sound	Display Concerns	
Audio Processing	Display Technology	Subsystems
Digital Audio	Display Equipment	Lighting Systems
Audio System Set-up	Visual Signs	Systems for Conferencing Applications
Specialized Audio System	Visual Sources	
	Visual Processing	Electrical Systems
	Video Signal	Signal Management
	Video Recording	Control System
	Video Output	Computer Systems
	Video Distribution	Audiovisual Networking

AV from A-Z for Sales Professionals

Course Fee
InfoComm Members:$99
Applicable EduBucks: $99
Nonmembers: $150

Prerequisites
None. If you are brand-new to the industry, InfoComm Academy's *Quick Start to the Audiovisual* Industry provides a more thorough introduction to roles in the audiovisual industry and the most basic introduction to technology concepts.

AV from A-Z for Sales Professionals online provides an introduction to selling audiovisual products, an overview of the products sold and their applications. It is perfect for sales professionals requiring in-depth product and technology information to help close the sale.

While providing the same technical and scientific knowledge as *The Essentials of the AV Industry*, this course is more tailored to sales.

The course is recommended to help you prepare for the general certification (CTS) exam.

Audience
Sales staff who are new to the AV industry (i.e., within their first six months to a year of hire) or those who already understand the context of their job and how the industry works, but need depth on the technical side.

Topics Covered

Audio
Dynamic Sound
Capturing Sound
Audio Processing
Digital Audio
Audio System Set-up
Specialized Audio Systems

Visual
Vision and Light
Display Concerns
Display Technology
Display Equipment
Visual Signs
Visual Sources
Visual Processing
Video Signal
Video Recording
Video Output
Video Distribution

Audiovisual
Audiovisual Systems
    Integration
Subsystems
Lighting Systems
Systems for Conferencing
    Applications
Electrical Systems
Signal Management
Control System
Computer Systems
Audiovisual Networking

Sales
Professional Sales Skills
Who Buys AV?
Know your Client's Objectives
    and Interests
How to Identify Client Needs
Effective Listening
Who's Who in the Client
    Organization
Selling to Executives
Use AV to Sell AV
Why Some Sales Don't
    Happen
Customer Service
Collaborative Ventures
Sales Skills Summary

Principles of AV Technology Support Online

Achieving Customer Satisfaction in a Technology-Based Environment

Sponsored by

AMX

CRESTRON®

InFocus®
The Big Picture™

MITSUBISHI ELECTRIC
PRESENTATION PRODUCTS

NEC
Empowered by Innovation

Course Fee
InfoComm Members:$99
Applicable EduBucks: $99
Nonmembers: $150

Prerequisites
None. If you are brand-new to the industry, InfoComm's *Quick Start to the Audiovisual Industry* provides a more thorough introduction to roles in the audiovisual industry and the most basic introduction to technology concepts. If you want a comprehensive introduction to the science and technology of AV and/or plan to challenge InfoComm's general Certified Technology Specialist (CTS) exam to achieve your certification, InfoComm's *The Essentials of the AV Industry* OnLine is also recommended. Please contact an InfoComm training counselor for guidance if you have questions about which course is right for you.

CTS Renewal Units
This course provides 15 renewal units (RUs) towards InfoComm Certification renewal.

"There are 200 people in the room and I can't get my presentation to work!"

If you're the person responsible for fixing this problem, this course is for you. It integrates customer service skills, technical knowledge and practical tips to prepare you to meet the needs of technology users in universities, corporations, government facilities, healthcare facilities, houses of worship, retail environments, museums and everywhere audiovisual technology is used to help people communicate effectively. If you're the manager of the customer service function in your organization, this course is the ideal way to introduce the common sense approach to customer service along with very audiovisual-specific technical support problems and how to solve them. Providing this online course upon hire allows you to spend your time reinforcing key concepts rather than on introducing the basics over and over again to every new hire.

NEW!

Audience
- Technicians supporting audiovisual communications technology from a help desk and face-to-face.
- Managers responsible for audiovisual technology who need this training themselves or who are responsible for training their direct reports.
- IT professionals who work with audiovisual professionals or who are newly responsible for the management of audiovisual technology.

Newly hired customer service staff need to get up to speed quickly on how to work with clients and how to solve common problems as soon as possible. This course is designed to help customer support staff do just that. This course is full of practical how-tos to help customer support staff become a productive part of the team right away. It is also an excellent refresher for those who have learned on the job and may have missed important steps along the way.

Topics Covered

- Welcome and Introduction
- Effective Customer Service
- Educating Your Customer
- Effective Communication

- Temporary Systems Setups
- Technology Troubleshooting Basics
- The Top 10 Common Audiovisual Problems and How to Solve Them

"Great refresh on a lot of issues. Tends to make you think before answering questions you've been answering for a long time. The best aspect was the testing immediately following the course material. If you were glossing over the material, it really made you stop and think."

Rob Owen, Sales Manager, Industrial Video Corp.

Certified Technology Specialist (CTS) Prep Course

Course Fee
InfoComm Members: $595
Applicable EduBucks: $297
Nonmembers: $795

Please note that you need to register for the CTS Exam separately.

Prerequisites
None. Newly hired customer service staff need to get up to speed quickly on how to work with clients and how to solve common problems as soon as possible. InfoComm's *Quick Start to the Audiovisual Industry* provides a more thorough introduction to roles in the audiovisual industry and the most basic introduction to technology concepts. If you want a comprehensive introduction to the science and technology of AV and/or plan to challenge InfoComm's general Certified Technology Specialist (CTS) exam to achieve your certification, InfoComm's *The Essentials of the AV Industry OnLine* is also recommended.

Since this is a course to prepare individuals for the first level of InfoComm certification, it may not be used for renewal units (RUs) toward InfoComm certification renewal.

Also available in Spanish

Certification Prep, a three-day classroom course, prepares you for the general Certified Technology Specialist (CTS) exam. If you prefer to learn in a classroom environment, this is an opportunity to work with an instructor and participate in exercises that clarify key concepts provided in InfoComm's *The Essentials of the AV Industry* online course. The content for this course comes directly from InfoComm Academy's *The Essentials of the AV Industry online course.*

The goals of this course are to educate AV professionals on the science and technology behind audiovisual systems and lead professionals toward certification achievement. InfoComm's philosophy is that if you know how and why things work, you will be able to apply this knowledge to new technologies and applications as they develop and to solve problems and meet your client's needs (or your own).

This classroom course is three days long, eight hours per day. Students have the option of taking the general Certified Technology Specialist (CTS) exam in writing starting at 3 p.m. of the third day. This is a 90-minute exam that can be graded onsite upon completion.

Audience
Technicians supporting AV communications technology from a help desk and face-to-face. Managers responsible for AV technology who need this training themselves or who are responsible for training their direct reports. IT professionals who work with AV professionals or who are newly responsible for the management of audiovisual technology.

Course Content

The Essentials of Audio
Follow the audio path from sound waves and how we hear, to acoustics and what we hear, to the audio signal and electronic processing, and finally to the listener and effective communication of a desired message.

- Describe characteristics of a sound wave and explain how sound is qualified, quantified and compared.
- Define acoustics, and contrast direct, reflected and reverberant sound.
- Explain the process of audio transduction, contrast microphone characteristics and describe microphone performance parameters.
- Summarize the functions of audio mixers, switchers and various signal processors.
- Identify and describe the equipment needed to transduce audio signals into sound.
- Compare and contrast analog and digital audio signals and explain how digital signals are created and processed.
- Identify and describe loudspeaker systems.
- Identify signal distortion and feedback and summarize how it occurs.

*info*Comm

CERTIFIED
TECHNOLOGY
SPECIALIST

The Essentials of Visual

Follow the visual path from the dynamics of light, to visual display components, to display technologies and the signals used, and finally to the viewing environment and display system setup.

- Describe characteristics of light and explain how light is qualified, quantified and compared.
- Contrast front- and rear-screen projection, describe the effects of screen gain and hot spotting and explain how projector brightness is compared.
- Contrast analog and digital displays, summarizing progressive and interlaced scanning and how pixels build images.
- Identify monitor and projector technologies and summarize how they work.
- Summarize how various video signals are created, encoded and decoded.
- Describe the primary equipment and functions in video signal production, recording and distribution.
- Describe the computer data display signal and special considerations it is given in a visual display system.
- Describe the functions of focus, clock, phase and center, and summarize how adjustments for brightness and contrast are made.
- Summarize the factors that establish image quality with respect to view placement.

The Essentials of Systems

- Learn about types of audiovisual systems, typical subsystems in an AV system, and primary functions and components.
- Summarize how an audiovisual system is created, identifying the parties involved.
- Summarize the general goals of a lighting system.
- Contrast types of conferencing systems and the type of equipment used.
- Describe the relationship among current, voltage, resistance, impedance and power in an electrical system.
- Identify various cables and connectors used in signal management systems.
- Explain the purpose of a control system and its primary components.
- Define basic computer systems terminology.
- Describe applications of audiovisual networking.

"After being in the CTS prep course, I felt that through learning and discussing the information in a classroom environment, I was able to understand and retain it ten times better. The instructor was knowledgeable and actually entertaining to learn from ......I wish more of my classes followed their suit!"

Natalie Neal, CTS
AV Specialist, GrayHawk Systems

Buy the Books!

Audiovisual Best Practices: The Design and Integration Process for the AV and Construction Industries
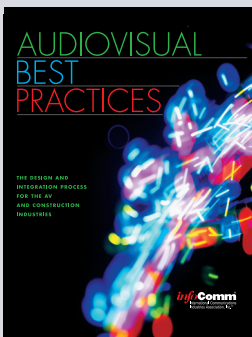
The comprehensive, definitive guide that addresses AV process questions of architects, building and construction trade personnel, consultants, contractors, developers, engineers, facility owners, project managers and AV professionals is now available!

This extraordinary industry-encompassing publication presents an overview of the industry, explores the inner workings of AV projects with start-to-finish process descriptions, and concludes with an assessment of what the future holds for the industry. Included are details about Planning, the Program or Design Phase, Installation, and System Commissioning, along with useful charts, graphs, checklists, appendices and a complete glossary of AV terms.

Visit the InfoComm Store at www.infocomm.org to purchase. Bulk discounts available. Give one to each team member on your next AV project for best results in communication!

Single Copy Audiovisual Best Practices:
Members: $45.50
Non-Members: $64.50

Bulk orders of 10 AVBPs:
Members: $409.50 (discounted @ 10% off $455)
Non-Members: $580.50 (discounted @ 10% off $645.00)

Bulk orders of 25 or more AVBPs:
US Dollars—Members $38.68 ea.; Non-Members $54.83 ea.
Euros—Members €30.60 ea.; Non-Members €43.35 ea.
Pounds—Members £21.25 ea.; Non-Members £30.18 ea.
Australian Dollars—Members AUD 51.00 ea.; Non-Members AUD 72.25 ea.

The Basics of Audio and Visual Systems Design: Revised Edition

The ultimate resource to find the diverse set of physics, electronics, ergonomics and design that make up the audiovisual industry. The first edition, written by Ray Wadsworth, PE, and published by InfoComm in 1983, has been revised to provide the latest generation of audiovisual professionals with an updated knowledge of the industry.

"Although the basic science behind the AV industry hasn't changed, today's technology and applications provide a power to ideas never dreamed of in 1983," said Randal A. Lemke, Ph.D., Executive Director of InfoComm International. "It is InfoComm's privilege to provide this work to a new generation of audiovisual professional with gratitude to those who came before."

Single Copy Basics of Audio and Visual Systems Design:
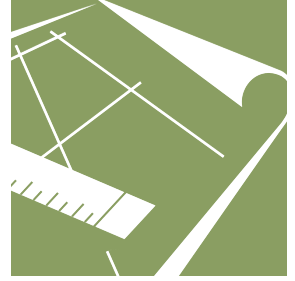Members: $34.99
Non-Members: $39.99

Get Both and Save!
Purchase Audiovisual Best Practices and *Basics of Audio and Visual Systems Design* together and save 10%

Members: $72.50 (10% discount)
Non-Members: $94.00 (10% discount)

Designing an AV system is a skill and an art. InfoComm Academy teaches both!

Design School

For those seeking to advance their careers as AV systems designers or independent design consultants, InfoComm Academy training is the only available program.

Design School consists of four courses - the first is an online course, after which the student can take three in-person courses, each of which is three days long. There is also an InfoComm Certification for Design (CTS-D) test that can be taken at any time, although it is recommended that students prepare through the Design School.

A CTS-D is an individual who earned this specialized certification by demonstrating detailed knowledge of how to analyze, select and plan seamless audiovisual communications equipment interoperation. This knowledge is demonstrated by the CTS-D in the form of complete specifications and drawings that deliver a desired outcome to meet a client's needs. A minimum of two years of industry experience accompanies the theoretical and practical competencies. To achieve a CTS-D, the individual must also agree to a Code of Ethics pledging truth, accuracy, and a commitment to excellence in all aspects of his or her profession. More information on obtaining the CTS-D designation is available at www.infocomm.org.
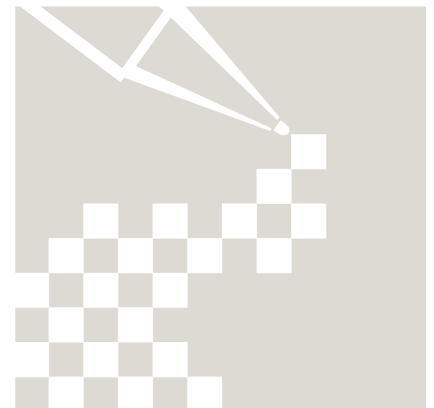
Design School OnLine

Sponsor
AMX

Course Fee
InfoComm Members: $99
Applicable EduBucks: $99
Nonmembers: $150

Prerequisites
It is strongly recommended that students complete courses in the following sequence: either *The Essentials of the AV Industry* online course or the *AV from A-Z for Sales Professionals* online course, and/or have a general CTS designation, followed by *Design School OnLine* and *Levels 1, 2* and *3*.

Time Commitment
Design School Online consists of over 300 lessons and may take as long as 40 hours to complete, depending on the student's background. Each classroom course is three days long, eight hours per day, plus three hours of evening work. Students should be prepared to work in the evenings of the first two days of class when attending these courses.

Certification Renewal
This course counts for 30 Renewal Units toward InfoComm Certification renewal.

Already certified? Renew your certification within 3 years by collecting 30 RUs!

Design School OnLine is the first of four courses in the InfoComm Academy Design School and contains over 300 lessons introducing the core concepts of audiovisual systems design.

Audience
Design School courses are valuable for anyone who works in or has the responsibility for the design of audiovisual facilities, including: Systems Sales Professionals; Designers; Engineers; Senior Designers; Senior Engineers; Project Managers; Technology Managers

Topics Covered

This course provides an introduction to:
- Design Process
- Codes and Regulations
- Facility Design
- The Room
- Visual Environments
- Image Size
- Projection Screens
- Acoustics
- Systems Design
- Audio Systems and Sources
- Display System Technology
- Projection Technology
- Control Systems
- Configuration & Connectivity

"We have gained a competitive edge in the marketplace as an AVolved CAVSP. By underwriting the costs of training and certification testing, we are able to recruit and retain top talent, and our clients reap the valuable benefits of technical expertise and avoid potential disruptions caused by distracting employee turnover issues."

David Goldenberg, Vice President, ACE Communications, A DOAR Company, CAVSP, Lynnbrook, N.Y.

Design Track

Design School Level 1: The Principles of Applied AV Design

Sponsor

AMX

Course Fee
InfoComm Members: $995
Applicable EduBucks: $497
Nonmembers: $1,495

Prerequisites
It is strongly recommended that students complete courses in the following sequence: either *The Essentials of the AV Industry* online course or the *AV from A-Z for Sales Professionals* online course, and/or have a general CTS designation, followed by *Design School OnLine* and *Levels 1, 2* and *3*.

Time Commitment
Each classroom course is three days long, eight hours per day, plus three hours of evening work. Students should be prepared to work in the evenings of the first two days of class when attending these courses.

Certification Renewal
This course counts for 24 Renewal Units toward InfoComm Certification renewal.

Design School Level 1: The Principles of Applied AV Design is the second of four courses in the InfoComm Academy® Design School. This three-day classroom course explores the principles of design for proper visual display systems, audio systems and control systems with hands-on opportunities to apply what is learned.

Audiovisual design to deliver a required outcome based on a client's needs is an art and a science challenging those new to the field and those with many years of experience. In all instances, proper design requires adherence to certain principles. This course explores the principles necessary to design proper visual display systems, audio systems and control systems. Hands-on opportunities to reinforce what is learned in a variety of applications are provided.

Audience
Design School courses are valuable for anyone who works in or has the responsibility for the design of audiovisual facilities, including systems sales professionals, designers, engineers, senior designers, senior engineers, project managers and technology managers.

Course Content

Overview of the design process from start to completion
- Scope of the design process: Where does it start? Where does it end?
- Roles and responsibilities of all parties involved
- Project management
- How the puzzle pieces fit together — what do we mean by facilities design and systems design?
- World of codes and regulations

Principles of visual display system design
- Overview of vision, light and perception and the pertinent attributes for human ergonomics for sight
- What do we mean by viewability?
- Determine the appropriate projector based on brightness output, options, orientation, resolution capability
- Determine image size and required screen type

Principles of audio system design
- Overview of how the human perceives sound and the pertinent attributes for human ergonomics for sound
- Dynamics of sound
- Acoustics – the impact of the environment on sound
- Identify required audio coverage and system type
- Determine loudspeaker placement
- Determine required and potential gain of an audio system in presentation applications
- Develop speech (voice) reinforcement systems and audio (sound) reproduction systems
- Determine type of audio sources
- Design a distributed audio system
- Determine type, quantity and location of microphones

Principles of control system design
- Overview of what a control system is
- Draw control panel diagrams
- Verify quality and integrity of systems design
- Select the control interface type

Design School Level 2: Facilities Design

Sponsor
AMX

Course Fee
InfoComm Members:$995
Applicable EduBucks: $497
Nonmembers: $1,495

Prerequisites
It is strongly recommended that students complete courses in the following sequence: either *The Essentials of the AV Industry* online course or the *AV from A-Z for Sales Professionals* online course, and/or have a general CTS designation, followed by *Design School OnLine* and *Levels 1, 2* and *3*.

Time Commitment
Design School Level 2, a classroom course, is three days long, eight hours per day, plus three hours of evening work. Students should be prepared to work in the evenings of the first two days of class when attending this course.

Certification Renewal
This course counts for 24 Renewal Units toward InfoComm Certification renewal.

Design School Level 2: Facilities Design focuses on the environment, ergonomics and infrastructure of the presentation space.

Level 1 teaches how to pick the right components; *Level 2* teaches how to put the components correctly in the space; and *Level 3* teaches you to make sure everything works together.

Audience
Design School courses are valuable for anyone who works in or has the responsibility for the design of audiovisual facilities, including systems sales professionals, designers, engineers, senior designers, senior engineers, project managers and technology managers.

Course Content

Environment
Structure
- Identify the structural elements of a building and determine the proper mechanical attachment of audiovisual equipment to that infrastructure
- Define custom construction of the facility to incorporate audiovisual equipment

Acoustics
- Define the physical elements of the room and how they interact with sound energy, including: noise criteria; reverberation characteristics of an environment; absorption and reflection of the various elements within a space
- Determine how to place a sound reproduction/reinforcement system in that environment that provides proper acoustic gain
- How to use advanced audio systems design and technology to maximize potential acoustic gain

Lighting
- Design appropriate lighting for a variety of AV environments including general illumination and presentation specific illumination
- Control and zoning of lighting systems in a variety of applications

Mechanical Systems
- Quantify the amount of heat audiovisual equipment is introducing into a space and how to convey that information to an engineer or architect so they can design HVAC systems appropriately
- Recognize causes of HVAC noise and ways to mitigate them

Ergonomics
- Design for ease of interface and interaction between the user and the audiovisual equipment and the environment

Infrastructure
- How to determine the electrical power required for a system and quantify how to deliver that power to the components that comprise the system
- Communicate systems needs to the electrical engineer
- Determine how to provide a proper ground for an audiovisual system to avoid noise and interference from other equipment
- Design, specify and lay out conduit, floor boxes and electrical boxes

Design School Level 3: Systems Design

Sponsor

AMX

Course Fees
InfoComm Members: $995
Applicable EduBucks: $497
Nonmembers: $1,495

Prerequisites
It is strongly recommended that students complete courses in the following sequence: either *The Essentials of the AV Industry* online course or the *AV from A-Z for Sales Professionals* online course, and/or have a general CTS designation, followed by *Design School OnLine* and *Levels 1, 2* and *3*.

Time Commitment
Design School Level 3, a classroom course, is three days long, eight hours per day, plus three hours of evening work. Students should be prepared to work in the evenings of the first two days of class when attending this course.

Certification Renewal
This course counts for 24 Renewal Units toward InfoComm Certification renewal.

Design School Level 3: Systems Design is the fourth of four courses in the InfoComm Academy Design School.

This course focuses on how to analyze, select and plan for seamless equipment interoperation to deliver a desired outcome.

Audience
Design School courses are valuable for anyone who works in or has the responsibility for the design of audiovisual facilities, including systems sales professionals, designers, engineers, senior designers, senior engineers, project managers and technology managers.

Topics Covered

- Video and data display signal processing and distribution
- Audio analog and digital signal processing and distribution
- How to properly specify the interconnection of all equipment in the system
- How to develop functional system diagrams
- How to identify control signal types and the corresponding protocols and physical information
- How to design rack elevations/layouts, including termination issues; the grounding scheme and power distribution within the rack space
- IT and networking issues, including IT infrastructure and how it relates to today's AV systems including wireless applications
- Digital audio; wireless; RF; IR; security
- How to specify functionality and connectivity of a control system
- Touch panel design: how to design an effective touch panel based on client needs

Read the White Paper!

Demystifying ...
   Apprenticeships
   Licensure
   Certification
   U.S. Dept. of Labor Standard Occupation Codes

InfoComm's white paper and PowerPoint presentation, developed together with a leading labor attorney, provide definitive answers to questions and confusion surrounding labor laws that may affect your business.

At the same time, InfoComm continues to put the AV industry on the map with AV-specific SOC codes approved by the U.S. Department of Labor, a government relations program, and legislative updates aiming to keep members informed about important legislation on a state-by-state basis.

Find out more! www.infocomm.org/resources, Government Relations program.

InfoComm and BICSI, Partners in Excellence

InfoComm International® is proud to make great materials available to you from other sources. One of those sources is BICSI®, the association advancing Information Transport Systems. InfoComm and BICSI share common interests and have been working closely together on an association level, just as InfoComm and BICSI professionals work together to serve their clients.

As part of the InfoComm and BICSI relationship, members of each association can now participate in a range of both associations' curriculum programs at member pricing. Additionally, InfoComm CTS designees may use BICSI courses hour for hour towards their 30 Renewal Units. In a reciprocal agreement, InfoComm courses may be used towards the BICSI Registered Communication Distribution Designer (RCDD®) Continuing Education Credits.

Coming Soon! Audiovisual Design Reference Manual
BICSI is known for its comprehensive, internationally recognized reference manuals. InfoComm and BICSI are pleased to announce the upcoming jointly-authored Audiovisual Design Reference Manual (AVDRM). Written by experts from both associations, this reference work will be a must on everyone's desk. Watch for details.

The following BICSI courses are now available for registration in our store:

DD100: Introduction to Voice/Data Cabling Systems
DD102: Designing Telecommunications Distribution Systems
DD120: Grounding and Protection Fundamentals for Telecommunications Systems
DD200: Telecommunications Distribution Design Review
FO110: Fiber Optic Network Design
DA100: Introduction to LANs and Introduction to Networks

Join in AV Week
October 22-28, 2006
Sponsored by InfoComm
in support of the AV Industry

Join the movement to create awareness of the audiovisual industry, the role of AV professionals and the value that AV products add to people's lives! Participation can take many forms: Hang an AV Week Poster in a storefront, sponsor an AV Career Day, write a letter to your newspaper concerning an industry issue or conduct a community open house; whatever form it takes, plan to get involved in AV Week!

InfoComm provides a FREE tool kit and materials to help you create you own events, ads and outreach to clients, job candidates and the community at large. Contact InfoComm to find out more at press@infocomm.org.

Discuss Key Business Topics with Experts and Peers!

InfoComm Executive Conference Tentative dates: Sept. 22-23, Chicago, IL

CEOs and CFOs will hear from experts and work with one another on the business topics that matter most.

Watch for details!

Installation School

There's installation and there's installation - InfoComm Academy trains installers on the best practice in AV installation - bar none!

For those seeking to advance their careers as AV systems installers, InfoComm Academy training is second to none.

Installation School consists of three courses - the first is an online course after which the student can take two in-person courses, each of which is three days long. There is also an InfoComm Certification for Installers (CTS-I) test that can be taken at any time, although it is recommended that students prepare through the Installation School.

A CTS-I is an individual who earned this specialized certification by demonstrating skills and knowledge through a rigorous regimen of testing in a broad array of installation practices and techniques. A CTS-I is proficient in installing all components of a professional audiovisual system. A CTS-I takes on additional responsibility for projects to ensure quality, efficiency, and safety on the job site. To achieve a CTS-I, the individual must also agree to a Code of Ethics pledging truth, accuracy, and a commitment to excellence in all aspects of his or her profession. More information on obtaining the CTS-I designation is available at www.infocomm.org.

Installation School OnLine

Sponsored by

NEC
Empowered by Innovation

Course Fee
InfoComm Members: $99
Applicable EduBucks: $99
Nonmembers: $150

Prerequisites
It is strongly recommended that students complete courses in the following sequence: either *The Essentials of the AV Industry* online course or the *AV from A-Z for Sales Professionals* online course, and/or have a general CTS designation, followed by *Installation School OnLine* and *Levels 1* and *2*.

CTS Renewal Units
This course provides 30 renewal units (RUs) towards InfoComm Certification renewal.

Installation School OnLine is highly interactive, newly revised online course with over 300 lessons addressing advanced science and technology concepts, specifically as they relate to installation. In addition, it contains over 40 downloadable PDFs of step-by-step instructions.

Developed by industry professionals with years of experience in the AV installation industry, the program was designed to be easy and cost effective for employers to implement. The course outlines installation procedures in preparation for hands-on practice at InfoComm Academy's two OnSite courses, *Installation School Level 1: Installation Technician* and *Installation School Level 2: Lead Installation Technician*.

Benefits to the employer
- Takes the knowledge of experienced and expert installation technicians and industry experts and captures it in one online program, including highlighted "best practices"
- Lets the employer take advantage of this content without pulling one of his/her own employees from a job to provide it
- Contains over 40 downloadable PDFs of step-by-step instructions, often with photos, that can be used as on-the-job reference tools. Topics include soldering procedures (so many photos "you can almost smell the fumes") to setting up microphones
- Provides instruction developed by an award-winning team of instructional designers
- Dovetails with the hands-on component of InfoComm Academy's two OnSite courses
- Provides consistent training, available 24 hours a day, 7 days a week
- Provides section tests that can be sent to the supervisor to keep up with student's progress

Audience
Anyone who works in or has the responsibility for the installation of audiovisual facilities, including: Installation Technicians, Lead Installation Technicians, Field Engineers, Project Managers.

Course Content

- "Best practices" highlighted in each section as a way to reinforce the professionalism expected of an installer. While all organizations may not subscribe to the practices highlighted, the point is to consider new ways to be efficient, creative, and professional.
- A troubleshooting section for audio, video, RF, data display and control
- References to equipment and media not widely available at the time of the original offering, e.g.; widescreen formats and using applicable test patterns; plasmas; electronic projector adjustments like keystone correcting; clock and phase
- More comprehensive content on power and grounding
- Real drawings from real projects
- Insights into the business surrounding installation technicians to help them focus on "the big picture."

"We are heavily committed to achieving CASVP status in order to differentiate ourselves from our competitors who don't share the same goals."

Andy Brymer, Managing Director, Reflex Ltd., UK

Installation School Level 1: Installation Technician

Sponsored by

NEC
Empowered by Innovation

Course Fee
InfoComm Members: $995
Applicable EduBucks: $497
Nonmembers: $1,495

Prerequisites
It is strongly recommended that students complete courses in the following sequence: either *The Essentials of the AV Industry* online course or the *AV from A-Z for Sales Professionals* online course, and/or have a general CTS designation, followed by *Installation School OnLine* and *Levels 1* and *2*.

Time Commitment
This classroom course, is three days long, eight hours per day, plus three hours of evening work. Students should be prepared to work in the evenings of the first two days of class when attending this course.

CTS Renewal Units
This course provides 24 renewal units (RUs) towards InfoComm Certification renewal.

Installation School Level 1: Installation Technician is aimed at the new installer with six months to a year on the job. Attendees should have some knowledge of AV equipment and installation tools, familiarity with signal types and levels, experience with electronics soldering, crimping, and the basics of audio interconnection. Please note that the course provides instruction on proper soldering equipment, supplies and techniques, including lab time for hands-on practice. However, if this is a first soldering experience, students will not be given enough practice to be considered proficient, as this usually requires more experience.

Audience
Anyone who works in or has the responsibility for the installation of audiovisual facilities, including: Installation Technicians, Lead Installation Technicians, Field Engineers, Project Managers.

This course is strongly recommended for anyone considering taking the Certified Technology Specialist-Installation (CTS-I) exam.

Course Content

This course is 60% hands-on and 40% classroom. Upon completion of the course, students will be able to:

Installation Technician Role and Job Site
- Explain installation technician role
- Explain difference between client-occupied space and new construction
- List basic jobsite safety rules

Working with Documentation
- Read and interpret AV systems' diagrams
- Describe the function of architectural drawings
- Describe a reflected ceiling plan and what may be found on it

Cable Handling
- Discriminate among many types of cable and cross reference a cable

Cable Termination
- List at least four methods of cable termination
- Explain the importance of proper pin out
- Prepare and terminate typical AV connections

Soldering
- Explain why we use solder and list four elements of effective soldering

Cable Labeling
- Describe a proper cable label and labeling methods

Rack Assembly
- Explain equipment rack units
- Build an integrated system rack
- Read and interpret a system diagram
- Set equipment in the proper places
- Explain rack ventilation principles

Signal Levels
- Explain how cables carry electronic information
- List at least eight types of signal levels
- Explain signal separation practices
- Explain cable bend radius limitations

Electrical Conduit and Boxes
- List four types of electrical boxes or enclosures
- List four types of conduit
- Describe the concept of conduit capacity

How to Plot a Cable Route

Cable Pulling Tools and Methods
- Describe safety concerns when pulling cable
- Describe pulling tension limits for cable
- Build a cable pulling device (snout)

Code Awareness
- Describe a construction code, the NEC and list AV installer codes

Audio Systems
- Contrast series and parallel connections
- Contrast direct connect and transformer coupling
- Explain how to use an impedance bridge
- Use the Power/Voltage/Impedance formula

Testing and Troubleshooting
- Use a multi-meter safely to measure continuity and an impedance bridge to measure load

Control Systems
- Describe six ways to control AV equipment
- Define distance limitations for RS-232
- Describe at least four typical modules
- Describe the programming required

Video and Display Set Up
- Define aspect ratio
- Calculate screen dimensions
- Describe projector orientation
- List three project placement dimensions
- Define a keystoned image
- Adjust screen image for optimum clarity

Structural Mounting Principles and Practices

Installation School Level 2: Lead Installation Technician

Sponsored by

NEC
Empowered by Innovation

Course Fee
InfoComm Members:$995
Applicable EduBucks: $497
Nonmembers: $1,495

Prerequisites
It is strongly recommended that students complete courses in the following sequence: either *The Essentials of the AV Industry* online course or the *AV from A-Z for Sales Professionals* online course, and/or have a general CTS designation, followed by *Installation School OnLine* and *Levels 1* and *2*.

Time Commitment
This classroom course, is three days long, eight hours per day, plus three hours of evening work. Students should be prepared to work in the evenings of the first two days of class when attending this course.

CTS Renewal Units
This course provides 24 renewal units (RUs) towards InfoComm certification renewal.

Installation School Level 2: Lead Installation Technician is the second of two classroom courses in the InfoComm Academy Installation School. It prepares the experienced installer to move towards a leadership role for jobsite supervision of all aspects of the installation process.

Audience
Anyone who works in or has the responsibility for the installation of audiovisual facilities, including: Installation Technicians, Lead Installation Technicians, Field Engineers, Project Managers.

Course Content

Upon completion of the course, the student will be able to:

Cable Handling
- Define conduit permissible area
- Calculate conduit capacity

Power and Ground
- Recognize different power configurations possible in various facilities
- Determine difficulties an AV system may have due to facility power distribution
- Discriminate between good grounding practices and typical electrical ground

System Troubleshooting
- Define logical steps for troubleshooting
- State benefits to logical troubleshooting

Testing Procedures
- Review of basic electronics
- Use test equipment to set up systems, including visual test pattern generator; pink noise generator; tone generator; Real Time Analyzer; impedance bridge for loudspeaker impedance measurements
- Discuss advanced audio and video troubleshooting

Introduction to Networking
- Describe how networks are used in AV today
- List five network components
- Define UTP termination practices
- Describe TCP/IP addressing

Control Systems
- Analyze current control system condition testing for presence of all components and proper addressing of components
- Load a touch panel program and a control processor program and verify operation

Audio Systems
- Set up; gain stage adjustment
- Audio systems gain structure: define an audio gain stage; define clipping; describe measurement practices and tools; describe the dB measuring method; perform proper gain stage adjustment
- System equalization: define equalization; describe how the environment influences sound; describe the process of equalization; perform system equalization to match a preferred curve

RF Systems
- Define typical system topology
- Calculate system loss values

Rear Screen Installation
- Discuss science of rear projection
- Determine how to place rear projection elements in room
- Determine how to angle the mirror properly

Display Set Up
- Projection throw distance: list at least three factors that affect throw distance; list common aspect ratios; calculate image diagonal; calculate image height or width; calculate throw distance

Project Management Basics
- List five elements in AV project management
- List and define the four variables
- List the steps involved in project management
- Describe two scheduling tools for tracking projects

Project Management Track

Finally – courses on AV project management!

InfoComm International® offers two Project Management courses: *Project Management: Competencies and Structure* and *Project Management for Executives*.

Learn project management best practices with AV industry-specific case studies and start working towards your CAPM® or PMI Project Management Professional (PMP®) designation and increased credibility with your clients.

The Project Management courses are available for delivery at your company. For more information, please contact customerservice@infocomm.org.

Training is provided by Twin Star Consulting Company, a project management and corporate transformation consulting company that is a Project Management Institute (PMI®) Registered Education Provider (REP®). The course is taught by an instructor with a PMI Project Management Professional (PMP®) designation. Course materials include audiovisual-specific examples and case studies reinforcing the core project management content.

Project Management: Competencies and Structure

Course Fee
InfoComm Members: $995
Applicable EduBucks: $497
Nonmembers: $1,495

Where and When
Project Management: Competencies and Structure is offered as a three-day Institute for Professional Development (IPD) at InfoComm 06 in Orlando. It is also offered Sept. 11-13, 2006, at InfoComm Academy in Fairfax, Virginia. This course is available to be delivered upon request in both a two-day and a three-day format at your company site.

CTS Renewal Units
Successful completion of the 3-day course earns you 24 renewal units (RUs) towards general and specialized certification renewal.

Also offered at InfoComm

Project Management: Competencies and Structure is an intensive program provides the practical knowledge and hands-on exercises needed to start and complete an AV project successfully.

Success as a Project Manager depends on understanding the competencies and structure of project management. Through discussion, facilitation and practical exercises, the nine areas of the *Guide to the Project Management Body of Knowledge* (PMBOK®Guide) are presented and a framework provided so that they can be integrated and applied during each phase of a project's lifecycle.

Training focuses on how to integrate the PMBOK®Guide knowledge areas into effective processes with which to establish priorities and proactively manage projects — an important task for Project Managers. The curriculum focuses on the project lifecycle phases, the corresponding project management processes, and the nine knowledge areas (below). Through utilization of AV case studies and scenarios you see how quality project management can improve your team communication and bottom line. Content is customized to address specific AV project management needs.

Audience
Project managers who need to participate in a foundational course that can lead to more advanced programs; technicians promoted to project management.

Course Content

1. Establish guidelines for team communication and initiate team development.
2. Define and understand the typical AV industry project lifecycle(s)
3. Create a deliverable-based Work Breakdown Structure describing applicable projects.
4. Create a network schedule with activities, durations, and interdependencies.
5. Delineate and assign resources and budget associated costs to the project(s).
6. Identify, assess, and plan for the mitigation and response of the project's risks.
7. Understand basic contract types, their terms and conditions, and their ramifications.
8. Identify the important project metrics to be captured, measured and analyzed within the typical AV industry methodology.
9. Create a high performing project team focused on customer satisfaction.

Project Management for Executives

Course Fee
InfoComm Members: $995
Applicable EduBucks: $497
Nonmembers: $1,495

Where and When
This course will be offered at InfoComm 06 as a one-day Super Tuesday program. It is also available at your company site upon request.

CTS Renewal Units
Successful completion of this course earns you 6 renewal units (RUs) towards general and specialized certification renewal.

"When we selected the Project Management: Competencies and Structure course for inclusion in our InfoComm Academy program, we immediately saw the need for business owners and principals to be included in the process their employees go through. To do this right, companies may find that their employees need to change certain ingrained ways of doing things. If the boss isn't aware of these changes, or doesn't agree with these changes, the value of training their employees is greatly diminished."

Melissa Taggart
VP of Education and Workforce Development
InfoComm International

Project Management for Executives provides an executive overview of the five Project Management processes. If you are sending your project managers to the *Competencies and Structures* course, this course is highly recommended to help you maximize your project managers' effectiveness within your company. Examine the authority and responsibilities associated with the key roles within a project and explore the different facets of an organization which must be in alignment in order to gain the full benefits of mature project management.

This one-day presentation provides an executive overview of the five Project Management processes to senior management within an organization. It shares insights into the authority and responsibilities associated with the key roles within a project: Customer(s), Sponsor, Project Manager, Functional Managers and Project Team members. It also includes a discussion on the different facets of an organization which must be in alignment in order to gain the full benefits of mature project management.

Audience
President, Vice President, Director, Principal, Owner level management who want to take a fresh look at project management and promote internationally recognized project management best practices for implementation in their companies. If you are sending your employees to the *Project Management: Competencies and Structure* course, you are strongly urged to participate in this program to support what they learn when they return.

Course Content

Definitions
- Project/Project Management

Project Elements

Scope, Time, Cost, Quality and Risk
- Prioritization of Elements
- Variance Thresholds

Roles/Authority/Responsibilities

Initiating

Purpose - Value - Prioritization
- Project Charter
- Product or Service Life Cycle

Planning
- Product vs. Project Scope
- Work Breakdown Structure
- Quality Standards/Specifications
- Activity Definition/Sequencing
- Estimates - Effort/Duration/Cost
- Risk Identification/Analysis/Response
- Planning
- Project Plan Development/Communication

Executing
- Status
- Project Reviews
- Product or Service Delivery

Controlling
- Variance Analysis

Change Control

Closing
- Lessons Learned
- Operational Value Attainment

Project Management Culture
- Components
- Alignment

Discussion

Sales
Track

The InfoComm Sales Track has two courses. The first is an introductory course, *AV from A-Z for Sales Professionals* described on page 12. The second is *Professional Integrated Systems Sales* detailed below. In addition, InfoComm offers Webinars throughout the year and courses about sales and marketing at its tradeshows.

Professional Integrated Systems Sales

Sponsored by

SONY.

Course Fee
InfoComm Members: $795
Applicable EduBucks: $397
Nonmembers: $995

Prerequisites
None. Candidates may enroll at any level of skill or experience. Completion of the *AV from A-Z for Sales Professionals* online course is recommended. *Professional Integrated Systems Sales* contains few technical elements and presumes funda-mental product knowledge, a basic under-standing of the industry and some field experience with integrated systems sales. Emphasis is on applied skills in a highly interactive seminar format.

Time Commitment
This classroom course is three days long, eight hours per day. Classes are from 8:00 am to 5:00 pm daily. Classes run until 5:00 pm on the final day, so please make travel plans accordingly.

CTS Renewal Units
This course provides 24 renewal units (RUs) towards InfoComm Certification renewal.

As systems get larger and more integrated with IT, more purchase decisions are made at enterprise level. *Professional Integrated Systems Sales* addresses both the knowledge and the skills professional account executives need to persuasively communicate their ideas to decision makers at all levels. The course covers issues of differentiation among providers and building a more competitive position in the market; client interaction through the buying process; and skills that support the sales process such as market and account planning, forecasting, selling in writing, proving your claims and overcoming obstacles to the sale.

Audience
Sales professionals who sell integrated systems, designs and/or installations of substantial size; factory representatives who work with resellers to assist with their sale of your products; sales reps or managers with strong product or technical foundation; people who support com-pany sales (e.g. technical staff, customer service, inside sales, sales management).

Course Content

- How to increase your sales by helping people buy
- How the "IT/AV convergence" affects the way you sell
- How to manage complex, high level relationships and multiple buying influences
- How to dramatically reduce price resistance and competitive issues
- How to write utterly bulletproof proposals
- How to get higher in the organization where the bigger dollars and easier sales are
- How to manage your sales pipeline for higher productivity and payoff
- How to avoid problems after the sale to keep 'em happy and coming back.

Rental and Staging

Rental & Staging is a critical aspect of the pro-AV industry, serving as it does the many needs of live corporate events, concerts, meetings and other non-permanent functions.

InfoComm International is soon rolling out a new, in-depth Rental & Staging Course Program to be taught by industry experts. In addition, numerous courses are offered at InfoComm each year on rental, staging, lighting, audio, video and other useful topics for the rental and staging industry.

Rental School OnLine

Sponsored by:

InFocus®
The Big Picture™

Course Fee
InfoComm Members: $99
Applicable EduBucks: $99
Non-Member: $150

Prerequisites
None. *The Essentials of the AV Industry* online course is recommended.

CTS Renewal Units
This course provides 30 renewal units (RUs) towards InfoComm Certification renewal.

More Rental and Staging courses coming in 2006!

Rental School OnLine targets employees new to the industry. The online format provides excellent training that fits the trainee's schedule. The interactive program is application-driven providing a real-world setting to explain the equipment and technology as well as the customer service aspects of the job. Developed by industry professionals with years of experience in the AV rental industry, the program is designed to be easy and cost effective to implement.

Audience
Rental School OnLine is ideal for new rental technicians/drivers in their first 18 months of employment as well as rental sales and customer service representatives responsible for developing orders. More experienced technicians who have gaps in their rental AV knowledge and skills will also benefit from the course.

Topics Covered

- The Job
- AV Events
- Overhead Display Systems
- Slide Presentations
- Video Presentations
- Video Playback with Multiple Monitors
- Projector Technology, Performance and Set up
- Front and Rear Projection
- Data Display Systems
- Signal Distribution
- Simple Sound Systems
- Wireless Microphones
- Multiple Microphones
- Adjustments and Amplification
- Room Setup and System Connections

NEW!

Check out InfoComm's newest online course, *Principles of AV Technology Support* on p. 13 – it may be just the course you or your company needs!

AV/IT Convergence Networking Track

AV/IT Convergence is here, and InfoComm International provides the tools and training needed for AV professionals to traverse the divide!

Audio-Video and Control System Networking

Sponsored by Crestron e-control

Course Fee
InfoComm Members: $99
Applicable EduBucks: $99
Non-Member $150

Prerequisites
None. It can be a standalone course or it can supplement other InfoComm Academy courses. It is also designed as a prerequisite for more advanced manu-facturer-specific application courses.

CTS Renewal Units
This course provides 15 renewal units (RUs) towards InfoComm Certification renewal.

The Audio-Video and Control System Networking online course was created to help the AV professional prepare for the impact of convergence of information technology (IT) and AV technology. There are many computer networking courses and certification programs available. This course provides the link between courses on computer networking and its application to AV industry applications.

Audience
This course is designed by AV and IT professionals for AV professionals in Sales, Design, Installation or Rental.

Course Content

Includes the basics of networking such as network architecture, standards and terminology and more advanced concepts such as network topology and IP addressing. The course covers:

- An Introduction to AV Networks
- AV Networking Displays
- Control
- Designing a Network Infrastructure
- Building the Infrastructure
- Common Network Protocols

Networking for the Commercial AV Professional

Course Fee
InfoComm Members: $795
Applicable EduBucks: $397
Non-Member $995

Prerequisites
Although this course may be taken as a standalone course, it is strongly recommended that students first complete *The Essentials of the AV Industry* online course or the *AV from A-Z for Sales Professionals* online course, or have a general CTS designation, followed by *Audio-Video and Control System Networking* sponsored by Crestron e-Control.

Time Commitment
This classroom course is three days long, eight hours per day

CTS Renewal Units
This course provides 24 renewal units (RUs) towards InfoComm Certification renewal.

Networking for the Commercial AV Professional is the second of three courses in the InfoComm Academy Networking Track.

This three-day classroom course provides a practical overview of network basics, and covers how networking can be used to leverage additional functionality in AV systems and their components.

This course provides the opportunity to apply networking terminology and concepts in a hands-on environment. The key difference between this course and the *Selling and Integrating Networked AV Systems* course is that this course has a hands-on portion providing the steps of designing and building a simple network and incorporating networking appliances from the AV industry. *The Selling and Integrating Networked AV Systems* course is much more sales and business oriented.

Audience

The information provided in this course is a must for anyone in the AV industry who wants to explore networking terminology and concepts in a hands-on practical way. It is an appropriate supplemental course for students who plan to attend or who have attended InfoComm Academy Design School, Installation School, and Rental and/or Sales School courses.

Topics Covered

Day 1
- Why AV/IT, market overview
- Basic terminology
- Hands-on setup
- Evolution of AV devices on the network
- User and IT/AV managers' perspective
- Categorizing solutions in the marketplace
- Computer roles and OS
- Connectivity, wires, NICs and distribution devices
- Switches, hubs, routers and gateways in detail

Day 2
- Wireless technologies and product examples
- Wireless contrasted to wired
- Hands-on Cat-5 cable making
- Hands-on join a domain
- Network Protocols, TCP/IP, SNMP, SMTP
- IP addressing and sub netting
- Configuring, testing and tracing addresses
- Hands-on DHCP/Static IP and test & trace
- Router configurations, NAT and IC sharing
- Network interconnectivity and multiple networks

Day 3
- Specifying a fully integrated system
- Elements of AV/Network integrated design
- Hands-on design with AV/IT and security
- Implementing AV devices in the network
- Hands-on add AV devices to a network

Selling and Integrating Networked AV Systems

Course Fee
InfoComm Members: $750
Applicable EduBucks: $375
Nonmembers: $1,125

Prerequisites
Although this course may be taken as a standalone course, it is strongly recommended that students first complete *The Essentials of the AV Industry* online course or the *AV from A-Z for Sales Professionals* online course, or have a general CTS designation, followed by *Audio-Video and Control System Networking* sponsored by Crestron e-Control.

Time Commitment
Selling and Integrating Networked AV Systems, a classroom course, is two days long, eight hours a day. Classes are from 8:30 a.m.-5:30 p.m. daily, with the possibility of later hours on one or two evenings. The last day of training is a full day and classes will run until 5:30 p.m., so please make travel plans accordingly.

CTS Renewal Units
This course provides 16 renewal units (RUs) towards InfoComm Certification renewal.

Networking is playing a significant role in the infrastructure of today's presentation systems, and IT managers are quickly becoming one of the most influential decision makers in the purchase of audiovisual presentation systems. *Selling and Integrating Networked AV Systems* is the third of three courses in the InfoComm Academy Networking School. This two-day course focuses on the practical approach to selling, designing, and programming audiovisual presentation systems using IT infrastructure. It is designed and delivered by Kayye Consulting, Inc. InfoComm International supports this course with other key pro-AV industry leaders (Biamp, Crestron, Da-Lite, Sanyo, and Sound & Communications magazine).

The key difference between this course and the *Networking for the Commercial AV Professional* course is that the latter has a hands-on portion providing the steps of designing and building a simple network and incorporating networking appliances from the AV industry. This course, on the other hand, is much more sales and business oriented.

Audience
This course is designed for sales professionals and managers to help them understand the dynamics of AV/IT convergence and how to respond to them.

Topics Covered

Business Case Justification of Networked AV Systems
Explain/justify the concept
The world of networkable AV gear
Projectors
Audio processing
Routers/access points
Control systems
Why care about networking AV gear?
How to Sell It
Typical customers
IT managers
Facility managers
AV managers
Presenters
Value proposition of AV professional vs. IT professional
Applications
Case Study A
Case Study B
Case Study C
Networking Basics

Infrastructure
TCP/IP
Devices
Wireless systems/standards
Requirements
Design
Application specific issues
Configuration
Programming Issues
Router configuration
Firewalls
Communicating with telcos
Ordering Internet access
Ordering WLAN services
Ordering ISDN services
User Interface Design
Designing a System
Hands-on design
Presentation
Review and Testing for Certificate

Videoconference: Technology, Applications and Trends

Course Fee
InfoComm Members: $795
Applicable EduBucks: $397
Non-Member $995

Prerequisites
Although there are no prerequisites for this course, completion of *The Essentials of the AV Industry* online course or a general Certified Technology Specialist (CTS) designation is recommended.

Time Commitment
Videoconference: Technology, Applications and Trends, a classroom course, is three days long, eight hours a day.

CTS Renewal Units
This course provides 24 renewal units (RUs) towards InfoComm certification renewal.

**Note: This course is also taught at InfoComm 06 as a 3-day IPD (IPD 7).
See www.infocommshow.org**

Videoconferencing is now a central component in the arsenal of communication tools for business, government and education. Now that the end-users are reaching beyond a simple talking head, and during this complex and dramatic evolution from Circuit Switched to Packet Switched networks, it is critical that both Network and AV professionals understand the full array of issues related to successful deployment of video communication across the enterprise. It is taught by Scott Sharer, BA, MFA, CTS of Communication Design Group.

The goal of *Videoconference: Technology, Applications and Trends* is to hear, see and touch actual solutions for videoconference communications within the organizational enterprise. This goal is accomplished through fast-paced and lively in-class presentation, including presentations given by the attendees, augmented by dialup videoconference connection with selected industry experts, each of whom is highly skilled at certain aspects of videoconference communications and integration. Find out about the skills that are required to be successful in this field. Explore hardware, software, AV, networks, human factors and the business issues involved in your work with videoconferencing and digital communications.

Audience
Architects involved in design of technology equipped spaces; VC and AV Systems Sales engineers; VC and AV System Design Engineers; technically-minded end users; facility Managers responsible for maintenance and upgrade to VC systems

Course Content

The course includes:

- Lecture and discussion of the audiovisual components and integration
- Lecture and discussion of the facility/room aspects of lighting, layout, interior finish
- Discussion of the elements of, and hands-on construction of, actual working analog POTS, digital ISDN and 100BaseT Ethernet IP networks
- Discussion and use of the class-built networks for the setup, configuration and attachment of a wide variety of videoconference hardware (more than 10 systems to be set-up in the classroom by the class attendees), illustrating a broad range of price, capability and per-formance
- Hands-on troubleshooting of the class-built networks and class-attached attached VTC sys-tems and components, developing a step by step approach to troubleshooting both net-works and systems
- Discussion of the issues related to securing digital visual communication systems

All About Audio

Course Fee
InfoComm Members: $795
Applicable EduBucks: $397
Non-Member $995

Prerequisites
Although this course may be taken as a standalone course, it is strongly recommended that students complete *The Essentials of the AV Industry* online course, *AV from A-Z for Sales Professionals OnLine* or have a general CTS designation.

Time Commitment
All About Audio, a classroom course, is three days long, eight hours per day, plus three hours of evening work. Students should be prepared to work in the evenings of the first two days of class when attending this course.

CTS Renewal Units
This course provides 24 renewal units (RUs) towards InfoComm certification renewal.

All About Audio is a bridge course between design and installation to help refine and focus both systems designers and installers in the factors audio systems bring into an AV installation. It is taught by Gordon Moore, CTS of Lectrosonics, Inc.

Audience
All About Audio is a valuable course for anyone looking to increase their knowledge of audio including system designers, engineers and installation and rental technicians.

Course Content

Day One: Design
- Human hearing response process: What and how people hear and process sound
- Acoustical issues — How sound behaves in different environments and what a designer/installer can and cannot change
- Systems design — Audio function selection whether via DSP or discrete components
  - Compression
  - Limiting
  - Equalization
  - Delay
  - Latency
  - Routing and control
  - Speaker selection issues
  - Review systems designs for systemic flaws, acoustical errors and other potential problems

Day Two: Installation
- Review pitfalls of systems installation from an audio only point of view
- Detailed review of:
  - Connections
  - Cabling
  - Speaker placement
  - Microphone placement
  - "Tricks of the Trade"
- Commissioning a system — pros and cons of setting up system gain through system optimization method or unity gain method
- Equalization

Day Three: Troubleshooting
- How to tackle a "problem" from the design phase — Correcting architectural errors and/or procedural problems
- Hunting down and correcting common and uncommon audio problems — What the installer can and cannot fix

NEW in 2006!

AV Installation Best Practices
Since 1995, InfoComm Academy has proudly taught hundreds of audiovisual installation technicians. The industry still needs hundreds more to meet its needs. Coming soon are ways to help you take advantage of InfoComm's world-class installation best practices representing the experience of over 100 audiovisual professionals who have worked for years to capture it in one place so it can be shared with others.

AV Installation OnLine
The completely revised InfoComm Academy Installation OnLine course contains over 30 downloadable pdfs of Installation Best Practices, and it's available right now!

La Academia InfoComm en Español

La Academia InfoComm se complace en ofrecer dos cursos en línea y el examen en español Certified Technology Specialist (CTS) general. (Especialista Certificado en Tecnología). Para ayuda en español llamar 1.703.273.7200 Ext. 3200

Los Fundamentos de la Industria Audiovisual en Linea

Costo
Miembro $99
Se puede aplicar EduBucks $99
No miembro $150

Prerrequisitos
Ninguno. Si usted es completamente nuevo en la industria, Inicio rápido a la industria audiovisual de InfoComm International le provee una introducción más exhaustiva de los roles en la indus- tria audiovisual y la introducción mas básica a los conceptos de la tecnología.

Objetivo del Curso
Dar una introducción a los fundamentos de la tecnología usada a diario en la industria audiovisual. Si sabe como funcionan las cosas, usted podrá aplicar esos fundamentos a las nuevas tecnologías y aplicaciones tal como se desarrollan. Saber cómo trabajan las cosas, lo ayuda a resolver problemas y encontrar las necesidades de su cliente (o las suyas).

Audiencia
Los técnicos audiovisuales, gerentes y personal de soporte en sus primeros seis meses a un año de contrato, que entiendan el contexto de su trabajo y como funciona la industria pero necesiten profundizar en el aspecto técnico.

Contenido
Este curso provee una visión general breve de las funciones de ventas, alquiler, diseño e instalación, con explicaciones mas profundas de ciencia y tecnología para el audio básico, lo visual, y la integración de sistemas audiovisuales.

Certificación
La realización de este curso se recomienda para aquellos que busquen el nombramiento de Certified Technology Specialist (CTS) general. (Especialista Certificado en Tecnología)

Para más información sobre Los Fundamentos de la industria audiovisual, por favor contac- tarse con Rose Kleriotis:

rkleriotis@infocomm.org o llamar 1.703.273.7200

AV de A-Z para Profesionales de Ventas

Costo
Miembro $99
Se puede aplicar EduBucks $99
No Miembro $150

Prerrequisitos
Ninguno

Dos formas fáciles de registrarse
Llamar a un asesor de capacitación InfoComm al 1.800.659.7469 x 3200

Descripción del curso
Una introducción a los productos audiovisuales de venta, y una revisión de los productos comercializados y sus aplicaciones para los profesionales de ventas requiere información pro- funda del producto y tecnológica para cerrar la venta.

Contenido
A pesar de proveer el mismo conocimiento técnico y científico que Los Fundamentos de la industria audiovisual, este curso se ajusta más a las ventas.

Método de Entrega
Entregado en línea con gráficos.

Certificación
Recomendada para aquellos que buscan el nombramiento de Certified Technology Specialist (CTS) general (Especialista Certificado en Tecnología).

Para más informacion sobre AV de A-Z para profesionales de ventas, por favor contactarse con Rose Kleriotis:

rkleriotis@infocomm.org o llamar 1.703.273.7200

Especialista con Certificación General en Tecnologia

Costo

Por $200, usted tiene 3 oportunidades de tomar la evaluación dentro de un periodo de 30 días. Usted tendrá disponible una extensión de 30 días bajo pedido. Si un aspirante falla al pasar el examen en los 3 intentos asignados, se exigirá que el o ella se registre para otras 3 sesiones.

Se ofrece la evaluación de certificación general en línea, permitiendo que los estudiantes lo tomen según su conveniencia.

Se ofrece a todas las disciplinas y niveles, incluye ventas, técnicos, gerenciales y ejecutivos, la evaluación consiste en 100 preguntas y tiene una duración de 90 minutos.

Usted no puede usar materiales de referencia o individuos para ayudarse durante la evaluación.

Las preguntas se basan en cuatro tópicos generales de la industria: audio, video, sistemas y visualización.

Los participantes deben obtener un 80% o más para pasarlo, y aceptar inscribirse a un Código de Ética profesional y Declaración de Honor.

Por completar la evaluación exitosamente, reciben la designación ampliamente reconocida de Certified Technology Specialist (CTS), que es requerida para proceder al nivel especializado de certificación.

Requerimientos mínimos de hardware, software y conexión a Internet
Esta evaluación es compatible con Mac y Netscape.
También requiere:

Windows 98 o superior con un microprocesador Pentium 200 MHz (o más rápido)   Mac PowerPC con OS 8 o superior

32 MB (o más) RAM

Tarjeta de Video para mostrar miles de colores a una resolución de 800x600 (o superior)

Microsoft Internet Explorer 5.0 o superior conexión a internet a través   de un proveedor de servicio Internet (ISP) o cualquier otro medio donde pueda usar Microsoft Internet Explorer como su navegador. También es compatible con Netscape.

Parlantes, monitor SVGA, teclado y mouse

Agenda
CTS General se ofrece sobre las bases de un alistamiento continuo a través del sitio web de InfoComm.

Para más información sobre Especialista con Certificación General en Tecnologia, por favor contactarse con Rose Kleriotis:

rkleriotis@infocomm.org o llamar 1.703.273.7200

InfoComm Akademie-Kurse auf Deutsch

InfoComm Academy freut sich, Ihnen zwei online Kurse und die Certified Technology Specialist (CTS) Prüfung in Deutsch anbieten zu können.

Grundlagen der AV-Branche Online

Kosten
Mitglieder €85
Übertragbar die EduBucks €85
Nicht-Mitglieder €130

Voraussetzungen
Keine. Wenn Ihnen die Branche ganz neu ist, vermittelt Ihnen Quick Start to the Audiovisual Industry (in englische Sprache) von InfoComm Academy eine gründliche Einführung in die Rolle der audiovisuellen Branche und eine grundlegende Einführung in technische Konzepte.

Zweck des Kurses
Eine Einführung in die Grundsätze der Technologie anzubieten, die alltäglich in der audiovisuellen Branche angewendet werden. Wenn Sie wissen, wie etwas funktioniert, können Sie diese Grundsätze bei neuen Technologien und Anwendungen, sobald sie sich entwickeln, verwenden. Ausserdem hilft dieses Wissen Ihnen, Probleme zu lösen und die Erwartungen Ihrer Kunden (oder Ihre eigenen) zu erfüllen.

Zielgruppe
AV-Techniker, Manager und Support Personal, die sich in den ersten 6 bis 12 Monaten ihrer Einstellung befinden, die den Inhalt ihrer Arbeit verstehen und wissen, wie die Branche funktioniert, die aber eine Vertiefung der technischen Aspekte brauchen.

Inhalt
Dieser Kurs bietet einen kurzen Überblick über Verkaufs-, Miet-, Design- und Installierungsfunktionen, mit genauen Erläuterungen zur Wissenschaft und Technik, die sich hinter grundlegender Audio-, Visio- und Audiovisio-Systemintegrierung verbergen.
Klicken Sie hier, um den Kurzüberblick als Adobe Acrobat Datei einzusehen.

Zertifizierung
Für diejenigen, die den allgemeinen Titel "Certified Technology Specialist (CTS)" anstreben, ist es empfehlenswert, diesen Kurs zu belegen.

AV von A-Z für Verkaufsprofis

Kosten
Mitglieder €85
Übertragbar die EduBucks €85
Nicht-Mitglieder €130

Voraussetzungen
Keine

Kursbeschreibung
Die Einführung in den Verkauf von AV-Produkten, ein Überblick über diese und deren Anwendungen für Verkaufsprofis die weiterreichende Informationen über Produkt und Technologie benötigen, um erfolgreich verkaufen zu können.

Inhalt
Es wird das gleiche technische und wissenschaftliche Wissen wie in "Grundlagen der AV-Branche" vermittelt, jedoch ist dieser Kurs mehr auf die Bedürfnisse von Verkäufern zugeschnitten.

Hier klicken für die Acrobat-Version des Kursüberblicks.

Liefermethode

Online, mit Grafiken.

Zertifizierung
Empfohlen für diejenigen, die den allgemeinen Titel "Certified Technology Specialist (CTS)" anstreben.

> "InfoComm International's CTS courses form the basis of our training programme."
>
> *Mike Weston, Operations Director, Audio Visual Machines, U.K.*

Allgemeine Zertifizierung - CTS

Kosten

Für €170 erhalten Sie dreimal die Möglichkeit, die Prüfung innerhalb von 30 Tagen abzulegen. Eine Erweiterung um 30 Tage kann auf Nachfrage gewährt werden. Sollte ein Bewerber die Prüfung innerhalb der drei erlaubten Versuche nicht schaffen, muss er oder sie sich wieder gegen Gebühr neu registrieren.

Die allgemeine Zertifizierungsprüfung wird online angeboten, sodass der Teilnehmer selbst entcheiden kann , wann er diese ablegt.

Angeboten wird die Prüfung für alle Fachrichtungen und auf jedem Niveau, einschließlich Verkauf, Techniker, Manager und Vorstand. Der Test besteht aus 100 Fragen und ist auf 90 Minuten beschränkt.

Referenzmaterialien dürfen während der Prüfung nicht verwendet werden, andere Personen dürfen während der Prüfung nicht helfen.

Die Fragen basieren auf vier allgemeinen Sachgebieten: Audio, Vision, Systeme und Display.

Teilnehmer müssen 80% oder mehr erreichen, um die Prüfung zu bestehen, und verpflichten sich schriftlich dem "Code of Professional Ethics and Honor Declaration". Ist die Prüfung erfolgreich abgeschlossen, erhalten die Teilnehmer den anerkannten Titel "Certified Technology Specialist (CTS)". Dieser ist Voraussetzung für spezialisierte Zertifizierungen wir z.B. CTS-D

Mindestanforderungen an Hardware, Software und Internetverbindung

Dieser Test ist mit Apple Macintosh und Netscape kompatibel und benötigen:
Windows 98 oder höher mit Pentium 200 MHz (oder schneller), oder
Mac PowerPC mit OS 8 oder besser
32 MB (oder mehr) RAM
Videokarte mit tausenden von Farben und Auflösung 800x600 (oder höher)
Microsoft Internet Explorer 5.0 oder höhere Version, Internetverbindung über einen Anbieter (ISP) oder jegliche andere Möglichkeit, die es Ihnen erlaubt, Microsoft Internet Explorer als
    Browser zu verwenden. Der Test ist auch mit Netscape kompatibel.
Lautsprecher, SVGA-Bildschirm, Tastatur und Maus

Anmeldung

Mann kann sich jederzeit für die allgemeine CTS-Prüfung über die InfoComm Academy Website einschreiben.

Fragen?

Rufen Sie:
Godwin Demicoli, CTS
European Representative
Western, Eastern and Southern Europe
gdemicoli@infocomm.org
+49 (0) 8102 784 5409 TEL
+49 (0) 8102 784 5410 FAX
+49 (0) 172 835 1056 MOBILE

North America
customerservice@infocomm.org
1.800.659.7469
1.703.273.7200 x3200
1.703.278.8082 FAX

Europe
Geoff Turner, CTS
+44 (0) 1424 845459 TEL
+44 (0) 7973 128105 MOBILE
+44 (0) 1273 376873 eFAX
gturner@infocomm.org

Godwin Demicoli, CTS
+49 (0) 172 835 1056
+49 (0) 8102 784 5410 FAX
gdemicoli@infocomm.org

Asia
Andy Tan, CTS
+65 62386478
+65 62386479 FAX
atan@infocomm.org

Australia and New Zealand
Jonathan Seller, CTS
Syd: +61 (0)2 8206 0979
Mel: +61 (0)3 9017 0923
Bris: +61 (0)7 3118 5333
Per: +61 (0)8 6363 5625
FAX: +61 (0)2 9383 8550
MOBILE: +61 (0)417 463 833
jseller@infocomm.org

Central and South America
Rose Kleriotis
703.273.7200
703.278.8082 FAX
rkleriotis@infocomm.org

About InfoComm International

InfoComm International® is the international trade association of the professional audiovisual and information communications industries. Established in 1939, InfoComm's nearly 4,000 members include manufacturers, systems integrators, dealers and distributors, independent consultants, programmers, rental and staging companies, end-users and multimedia professionals from more than 70 countries. InfoComm International is the leading resource for AV market intelligence and news. Its training and education programs, along with its Certified Technology Specialist (CTS) and Certified AudioVisual Solutions Provider (CAVSP) credentials, set a standard of excellence for AV professionals. InfoComm International is the founder of InfoComm, the largest annual conference and exhibition for AV buyers and sellers worldwide. The association also co-sponsors Integrated Systems shows in Europe, Asia, China and India. Additional information is available at www.infocomm.org.

InfoComm
International Academy Faculty
2005 – 2006

Emeritus Level
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Bill Cuttle
Fred Dixon, CTS
Terry Friesenborg, CTS,
Dee Friesenborg, CTS
M.K. Milliken, Jr.
Toby Payne, CTS
Danny Pett
Luke Rawls, CTS
Bob Singleton
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Irv Stasick
Harald Thiel, CTS
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Senior Academy Level
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    Concepts, Inc.
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Joel Rollins, CTS-R, Everett Hall and Associates
Bill Sharer, CTS, Exxel Management &
    Marketing Corp.
Scott Sharer, BA, MFA, CTS, Communication
    Design Group
Steven J. Thorburn, PE, CTS-D, CTS-I, Thorburn
    Associates, Inc.
Mike Weems, CTS, MCP, Netstreams, LLC
Scott Wills, CTS-D, CTS-I, InfoComm International

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    Design
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Don Cogliano, CTS-I, Univision-Crimson Group
Paul Depperschmidt, Polycom, Inc.
S. Ann Earon, Ph.D., TRI, Inc.
Nick Efstratiou, CTS-I, CTS-D, NE Audiovisual
    Solutions Ltd.
Chris Gillespie, CTS-R
Roy A. Hermanson, Jr., CTS-D, CTS-I, Extron
    Electronics
Max Kopsho, CTS, MCSE, BARCO
Mario Maltese, CTS-D, CTS-I, Audio Visual
    Resources, Inc.
L. William Nattress III, CTS-I, Shen Milsom
    & Wilke, Inc.
Jody Thomas, CTS, Kayye Consulting
Bill Thomas, CTS-I, InfoComm International
Jim Yorgey, PE, LC, Lutron Electronics Co., Inc.

Adjunct Level
Idham Aljarro, CTS, Extron Electronics
Cliff Atkinson, Sociable Media
Md Zain Bin Aziz, Crestron Asia
Bill Battaglia, D-Tools, Inc.
Robert Befus, CTS, Presentation Strategies, Inc.
Rosanne Bell, Benham
Richard Blackwell, IVCi
Joseph Bocchiaro, III, Ph.D., CTS-D, InfoComm
    International
J.P. Brozyna, CTS, AGF Media Services
Jan Braams, Extron Electronics
Barbara Brandt, Emory University
Alan Brawn, Brawn Consulting
Tim Broderick, VTV Learning, LLC.
Greg Bronson, CTS-D, Cornell University
Pat Brown, Syn-Aud-Con
Blake Brubaker, CTS, Da-Lite Screen Company
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    Consulting
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Matt Cowan, Entertainment Technology Consultants
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Bill Davis, PE, EC, CTS, Image Media Group, Inc.
Thomas Densmore, Center for Professional
    Education
James Dias, Sonic Foundry
John Dijkstra, Extron Electronics
Michael S. Dobson, Management Concepts
Charles Duncan, Crestron Electronics
Billy Duncan, CTS, AMX Corporation
Michael H. Dunn, PolyVision Corporation
Jim Endicott, Distinction Communications
Ariel Fabius, CTS, Analisis de Sistemas
Yao Kai Feng, Stewart Filmscreen Corporation
Michael Frank, CTS, Crestron Electronics
Jerry Gale, SPL Integrated Solutions
Jim Gavloski, CTS, Christie Digital
Jacob Geil, Extron Electronics

Ray Guyot, Outlook Presentations, Ltd.
Donald Guzauckas, Jr., CTS, HB Group, Inc.
Brandon Haberman, CTS-D, Thorburn Associates, Inc.
Richard Hanna, CTS, Extron Electronics
Kelly Hannig, CTS, ClearOne Communications
Jerry Harding, CTS-D, CTS-I, Jerry Harding Designs, Inc.
Anne Hardwick, Virginia Department of Information Technology
Michael Heiss, Residential Systems
Jim Herrick, Middle Atlantic Products
Jim Hevel, CTS, Vista Presentation Solutions
Carrie Higbie, The Siemon Company
Clint Hoffman, CTS, Kramer Electronics
James Horn, CTS-D, Thorburn Associates, Inc.
Andrew Hug, Polycom
Randy Jackson, Ph.D., CTS, University of Washington
Greg Jeffreys, Paradigm Audio Visual, Ltd.
John Jensen, CTS-D, Thorburn Associates, Inc.
Tom Kehr, CTS-D, InfoComm International
Peter Knapp, CTS, AMX Corporation
Chris Kopin, CTS, Kramer Electronics
Don Kreski, Kreski Marketing Consultants, Inc.
David Kroeger, CTS, Extron Electronics
Thaddeus Leopoulos, EIT, HFP Acoustical Consultants
Travis Lisk, CTS-I, Advanced Audio Visual, Inc.
Jeffrey Loether, Electro-Media Design, Ltd.
Claus Lohse, a/c/t Beratungs & Systems GmbH
John Lopinto, Communication Specialties, Inc.
Michael Ray Lorenz, Accordent Technologies, Inc.
Mitsuo Maeda, Seiko EPSON
Bill Magod, Advanced Concert & Event Resources
Christopher Maione, CTS-D, CMS Innovative Consultants
Randy Malta, St. Louis Community College
James Maltese, CTS-D, CTS-I, Audio Visual Resources, Inc.
Rich Mavrogaenes, Vbrick Systems
Tom McDonough, Sonic Foundry
Derek Meares, CTS-D, Thorburn Associates, Inc.
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Charles E. Minihan, CTS, Emory University
Marvin Mitchell, Mayo Clinic
Frank Moizio, Texas Instruments/DLP Technology
Simon Mouer, TANDBERG, Inc.
John Murray, TOA
Gary Musgrave, CTS-D, Conception Associates
Leonard Nah, Extron Asia
Peter Nelson, CTS-D, Wassman Audio Video Inc.
Stevie Ng, Stewart Filmscreen Corporation
Alfred Ng, RADVISION
Richard Nimtz, CTS, University of Notre Dame
Dennis Olson, CTS, Extron Electronics
Jon Ottesen, CTS, Crestron Electronics
James Peng, Taiwan Micro Display Corporation
Candace Petersen, InFocus Corporation
John Pfleiderer, MA, CTS-D, Cornell University
Dave Pincek, Extron Electronics
Andreas Promny, a/c/t Beratungs & Systems GmbH
Peter H. Putman, CTS, ISF, Roam Consulting, Inc.
Thomas C. Rauscher, Archi-Technology, LLC
Raymond Rayburn, K2 Audio, LLC
Bob Reider, Shure Incorporated
Markus Reis, Land Audiovision AG
Jim Reisterter, Interlink Electronics
Craig Richardson, Ph.D., Polycom Installed Voice Business
Gary Ricke, Orbis Web Design
Karl Rosenberg, CTS, Extron Electronics
Kenneth P. Roy, Ph.D., FASA, Armstrong
Rob Schluter, Middle Atlantic Products
Joe Schuch, CTS-D, University of North Carolina
Dan Schwass, Clarity Visual Systems
Steve Scorse, BARCO
Ron Shaver, RCDD/LAN/OSP Specialist, BICSI
Steven Shaw, Rice Daubney
Dave Silberstein, CTS, Crestron Electronics
Robert Simpson, Electronic Systems UK
Jeff Skarvan, Interlink Electronics
Jim Smith, Polycom, Inc.
Steve Somers, Extron Electronics
Heidi Sormaz, Ph.D., Rainmaker Thinking, Inc.
Tim Spence, Clarity Visual Systems
John Stark, Jupiter Systems

Don Stewart, Stewart Filmscreen Corporation
Jeanne Stiernberg, Stiernberg Consulting
John Stiernberg, Stiernberg Consulting
Gary Tay, CTS-D, Extron Asia
Wayne Taylor, Ph.D., Apogee Solutions
Tan Meng Teck, Arcturus Technology Pte. Ltd.
KS Teng, Taiwan Micro Display Corporation
Paul Lee Thaim Seng, Diagram Asia Pte. Ltd.
David Theis, Theis Consulting, Inc.
John Thomas, CTS, Visitec Marketing Associates, Inc.
Charles P. Townsend, PE, T-COMM Systems Engineering
LY Tseng, Taiwan Micro Display Corporation
Tatsuy Tsutsumi, Seiko EPSON
Richard E. Van Deusen, Media Strategies, Inc.
JD Vaughn, c4 Consulting
Tim Vear, Shure Incorporated
Alex Villiard, CTS-D, Crestron Electronics
Mike Walker, TANDBERG, Inc.
Jim Webb, CTS, Extron Electronics
Connie Webber, Benham
Bill Whitlock, Jensen Transformers
Jan Wintersberg, ClearOne Communications
David Woolf, InFocus Corporation
Roy Zhang, Crestron Asia
Wei Zhou, Da-Lite Screen Company
Adrienne Zoble, Adrienne Zoble Associates, Inc.
Rich Zwiebel, K2 Audio, LLC

The list of InfoComm Faculty was compiled in early 2006. As changes may occur throughout the year, please check the InfoComm web portal at www.infocomm.org for the most recently updated list of Faculty.

The 10 Standards of Excellence

InfoComm's international outreach campaign aims to help AV clients understand the AV industry and select qualified AV solutions providers (AVSPs) to perform the work.

Ten standards of excellence have been developed for AVSPs and for AV clients:

1. **Complete Solutions**
2. **Informed Advice**
3. **Best Value**
4. **On-Going Technical Support**
5. **Systems Compatibility**
6. **Scalability**
7. **Clear Scope of Work**
8. **Appropriate Documentation**
9. **Expert Technical Staff**
10. **Training Support**

These Standards of Excellence, along with continued commitment to professional development, education and certification are agreed to by both AVSPs and their clients in their ongoing efforts to enhance recognition for the AV industry.