

**AMERICAN SOCIETY OF HEATING, REFRIGERATING
AND AIR-CONDITIONING ENGINEERS, INC.
1791 Tullie Circle, NE
Atlanta, CA 30329
404-636-8400**

TC/TG/TRG MINUTES COVER SHEET

TC/TG/TRG NO. TC 1.5 DATE: 28 July 97

TC/TG/TRG TITLE: Computer Applications

DATE OF MEETING: 30 June 1997 LOCATION: Boston

Members Present	Year Appt	Members Absent	Year Appt	Additional members	Continued
Steve Blanc	1996	Jay Hall	1995	Henry Amistadi	Jim Pegues
Mike Brambley	1995	Kevin Cooney	1993	Al Black	Gene Strehlow
Dave Branson	1994	Patrick O'Neill	1995	David Bornside	Karl Stum
Richard Linton	1994	Bob Potter	1994	Rob Briggs	Keith Temple
Ron Nelson	1994			Patrick Carpenter	James Watts
Vernon Peppers	1996			Larry Degelman	Steve Yang
Mick Schwedler	1995			Ed Gut	Fredrik P. Wahlgren
Wayne Webster	1996			Kristin Heinemeier	Darrel Massie
				Brian Kammers	Dale Cagwin
				John Lewis	

(For full attendance list, including subcommittees, see Attachment O)

DISTRIBUTION:

Above list

TAC Chair: Erv Bales

TAC SECTION HEAD: Ed Gut

LIAISONS

RAC Research: Richard Pierson

Standards: Amanda Meitz

Program: Sally McInerny

Handbook: Ken Cooper

Journal: Alice Belt

Manager of Technical Services: Claire Ramspeck

Manager of Research: Bill Seaton

Manager of Standards: Jim Heldenbrand

ASHRAE TC ACTIVITIES SHEET

DATE: 31 July 1997

TC NO. TC 1.5

TC TITLE: Computer Applications

CHAIR: M. Brambley

VICE CHAIR/SECRETARY: M. Schwedler

TC Meeting Schedule

Location, past 12 mo.	Date	Location, next 12 mo.	Date
Philadelphia	1/27/97	San Francisco	Jan 1998
Boston	6/30/97	Toronto	June 1998

TC Subcommittees

Subcommittee	Chair
Emerging Applications	Rob Briggs
Handbook	Dave Branson
Internet	Richard Linton
Policy and Software Quality	Brian Kammers
Program	Wayne Webster
Research	Bob Potter

Research Projects

Project Title	Contractor	Monitoring Comm. Chair	Report Made At meeting?
966 - TC Recommendations for Research Projects That Include Software Deliverables	Scientific Computing - Henry Amistadi	Charlie Culp	

Long Range Research Plan

Ran k	Title	W/S Written	Approv al	To R&T
1	Demonstration of the use of Multimedia and Advanced Electronic Information Representations in a Portion of the Handbook	Yes	Yes	Yes WS 1017
2	Identification and Preservation of Building Design and Commissioning Information	Yes	Letter ballot	No
3	Development and implementation of an electronic method for interactive commenting of Research, Technical and Symposium Papers and Peer Approval of Research Project Documents	No	No	
4	A Demonstration Multimedia Database for Examining and Comparing HVAC Design Alternatives	Yes	Letter ballot	No
5	On-line Development of Standards	No	No	No

Handbook Responsibilities

Year & Volume	Chapter Title	No.	Deadline	Handbook Committee Liaison
1999 Fundamentals	Computer Applications	36	1998	Ken Cooper

Standards Activities

None

Technical Papers from Sponsored Research (past 3 yrs, present, planned)

Title	Presented
From TRP - 833: Demonstration of Knowledge Based to Aid Building Operators in Responding to Real-Time Pricing Electricity Rates	Poster session planned.
From TRP -808: Demonstration Knowledge-Based Tool (KB) for Diagnosing HVAC O&M Problems in Small Office Buildings.	Poster session planned.

TC Sponsored Symposia (past 3 yrs, present, planned)

Title	When Presented
The Great Energy Predictor Shoot-out II	San Antonio, 6/96
Predicting Hourly Building Energy Usage: The Great Predictor Shoot-out - The Aftermath	Orlando, 6/94

TC Sponsored Seminars (past 3 yrs, present, planned)

Title	When Presented
Emerging Applications: From PID to Fuzzy Logic & Beyond - Sun	San Francisco, 1/1998
Use of the Internet for Collaborative Efforts in HVAC - Branson	San Francisco, 1/1998
Demonstration of Inter-Operable Computer Applications for the HVAC Industry - Forrester	San Francisco, 1/1998
Use of the Internet by Technical Committees - Schwedler	San Francisco, 1/1998
Building Life Cycle Information Systems	Boston 6/97
Internet and HVAC - Integrity, Ethics, Security	Philadelphia 1/97
An Update on Industry Alliance for Interoperability	Philadelphia 1/97
How to Become a Road Warrior on the Information Super Highway	San Antonio 6/96
BACNet Implementation in Automation and Control Systems - (co-sponsor with 1.4)	San Antonio 6/96
KBS Technology Overview	Atlanta, 2/96
How to Avoid Becoming Roadkill on the Information Super Highway	Atlanta, 2/96
Novel HVAC and Computer-Related Applications at the Olympics	Atlanta, 2/96
Machine Learning Applications in Building Design and Engineering	San Diego, 6/95
Interoperability of Building Design, Construction, and Operations Software	San Diego, 6/95
Fuzzy Logic Control: Does "Fuzzy" Thinking Lead to Clear Advantages	Chicago, 1/95
How do ASHRAE Members use Computer Applications	Chicago, 1/95
New Approaches to Computer-Based Energy Design Tools	Chicago, 1/95

TC Sponsored Forums (past 3 yrs, present, planned)

Title	When Presented
What Would You Do If You Had Internet Access for Your Building Control System -Songkakul	San Francisco, 1/1998
What Do ASHRAE Members Want Form The ASHRAE Homepage - Linton	San Francisco, 1/1998
Who Should Champion Technology Transfer for the Internet User? - Branson	San Francisco, 1/1998
What ASHRAE members want/ need from Manufacturer's World Wide Web Site	Boston 6/97
What to ASHRAE Members want from the ASHRAE Web page	Boston 6/97
How Can User Interfaces for HVAC Software be Improved	Philadelphia 1/97
What Should ASHRAE's Role Be In The Industry Alliance for Interoperability?	San Antonio 6/96
What Do ASHRAE Members Want/Need from the World Wide Web?	San Antonio 6/96
HVAC, Virtual Reality, and You	San Antonio 6/96
What are the CAD/Simulation Tool Needs of ASHRAE Members?	San Antonio 6/96
Help us Define the next Generation of Compliance Software for Standard 90.1	Chicago, 1/95

Journal Publications (past 3 yrs, present, planned)

Title	When published
None	

Submitted by: Mick Schwedler -- TC 1.5 Secretary

TC 1.5 (Computer Applications) Minutes

Boston Marriott Copley

Monday -- June 30, 1997; 6:30 p.m. -- 9:00 p.m.

General

- **Call to order** at 6:30 p.m.
- **Introductions/Sign up sheet**, Mike Brambley passed out the "Guide to TC 1.5" to guests.
- **Agenda Review**, No additions were made. Our liaison to Intelligent Buildings, Brian Kammers, had not received word on his appointment. Mike needs to confirm Brian's appointment. (action)
- **Roll Call (Blanc, Brambley, Branson, Linton, Nelson, Peppers, Schwedler, Webster)** Quorum was established.
- Ed Gut, our section head, and a member of technical activities committee, thanked Mike Brambley for his work as a committee member and as TC chair over the last two years.. Mike will receive a (virtual?) plaque.
- **Philadelphia Minutes Approval** - Nelson/Peppers moved/seconded. Mike Brambley submitted some minor editorial changes. Amendment was made to motion and second. Passed unanimously by voice vote. CNV

Chair's Report - Mike Brambley

Announcements.

- Mike reported that the research plan is due September 1 to Research (maximum 5 pages). Each one pager needs to include the research "category" it's in. (action) ASHRAE expenditures for 1996-7 was well below the budget. in 1995-6, 40 WS's were submitted, last year only 35. Only 19 of the 57 one pagers have work statements submitted. Whether or not a project is on the plan, there is a fair chance that the WS will be approved if it has a champion and well written WS.
- TC 1.6, Terminology, the cognizant committee for SI units, need members.
- Mike announced that Vernon Peppers was approved as the liaison to 134P, Graphic Symbols. He is an observer on 134P, not a voting member.
- There is a proposal under consideration to "shorten" the ASHRAE meeting to Saturday to Wednesday. This means that any Thursday or Friday meeting would be stopped. TC meetings may begin on Saturday. Some overlap between TC and program may occur. There will be an overlap between section breakfasts and the plenary session. Mike needs to provide feedback to Ed Gut by tomorrow night. Three program sessions will take place on Sunday, Monday and Tuesday. Our feedback.

It was raised that there will be more conflicts between TC meetings and programs. Also, there was discussion concerning "cramming" so much into so little time. The public session interferes with TC sessions today. If people have to stay too long, they can get less involved. President's luncheon may not be a sacred cow. More credit may be given to awards. It was pointed out that engineers are the only species who actually go to meetings on weekends. It would be nice to have meetings on regular work days. There are many committees trying to put many programs on. The program committee may need to "ration" the number of programs. Mike asked that any other input for Mike be given to him no later than 8 am at the Westin. A Straw poll in favor of changing it as proposed. 0. Extending it Monday-Thursday - and eliminating the weekend (9) . 11 - keeping as is. 4 not voting. A chat group for virtual meetings could be used instead.

- Dinner at Skipjacks, seafood, reservation at 9:30. 9 people.
- An announcement from 4.7 was passed around. It is not attached to the minutes.
- Action Item Review. All but one of the actions items was completed. The report on research project 883 should have been sent to the TC by Patrick O'Neill. Mick needs to contact Patrick on this (action).

Subcommittee Reports

Program -- Wayne Webster (Attachment A)

Boston June 28 - July 2, 1997

- Two items, a seminar and forum were held here.

San Francisco, January 17-21, 1998 (copy from attachment)

Wayne stated there had been an excellent response from subcommittees, Thank you.

- 1: Seminar: Emerging Applications: From PID to Fuzzy Logic & Beyond - Sun
- 2: Seminar: Use of the Internet for Collaborative Efforts in HVAC - Branson
- 3: Seminar: Demonstration of Inter-Operable Computer Applications for the HVAC Industry - Forrester
- 4: Seminar: Use of the Internet by Technical Committees - Schwedler
- 5: Forum: What Would You Do If You Had Internet Access for Your Building Control System - Songkakul
- 6: Forum: What Do ASHRAE Members Want Form The ASHRAE Homepage - Linton
- 7: Forum: Who Should Champion Technology Transfer for the Internet User? - Branson

Jim Watts discussed the general concept of how many programs might be accepted. Webster/Branson moved/seconded the above order as our program for San Francisco. 7-0-0. CNV. Motion passed.

Wayne reported that Les Norford expects the paper from TRP 833 to be presented in San Francisco as a technical paper or a poster session.

Toronto June 20-24, 1998

- 1: Symposium: Computers in HVAC Education - Nelson
- 2: Seminar: Overhauling Current CAD Engines - Kammers
- 3: Seminar: ASHRAE Computer Outreach Activities in the Educational Community - Potter
- 4: Seminar: How to Help Employees Properly and Productively Use the Internet - Linton
- 5: Seminar: Buildings in the Year 2000 =<> or 1900 - ?
- 6: Forum: International Aspects of the Internet - Sandelewski.

Mike commended Wayne and the members of the committee for the input for the high participation rate. Mick pointed out that our number 1 program item is being headed by people new to the committee. Great job!

Research - Mick Schwedler reporting for Bob Potter (Attachment B)

Present Research

- “*Small-scale, On-line Diagnostics for an HVAC Subsystem*” - co-sponsor with TC 1.4, Patrick O’Neill, PMSC member. No report has been received yet.
- 966-TRP - “*TC Recommendations for Research Projects That Include Software Deliverables*” - Brian Kammers, PMSC Chair. The PMS reviewed a report from the contractor. Discussion on the formatting (simplification) was made. The research has broad focus for ASHRAE. Brian requested a noon Sunday slot for their San Francisco meeting.
- TRP - ‘*Demonstration of the Use of Multimedia and Advanced Electronic Information Enhancements For A Chapter Of The Handbook CD-ROM*’ - Jim Watts, PMSC Chair reported that various committees have no objections. It is very likely that it will be approved at the RAC meeting and sent out for proposals in October. Mike asked if we needed anyone present for questions at the R&T. 7 am - 3 p.m. Mike will check with Van Baxter to see if there is a particular time that our representative should be at the meeting.

Work Statements

“*Identification and Preservation of Building Design and Commissioning Information.*” Get any changes to Dave Branson by July 19th. Dave will make updates by July 25th. Bob Potter will letter ballot the Work Statement in early August(action).djbranson@csg.net

Steve Blanc. Wayne Webster. Kammers. Massie, want to receive an electronic copy.

“*A Demonstration Multimedia Database for Examining and Comparing HVAC Design Alternatives .*” Get any changes to Walter Grondzik by July 19th. Mick will send copies to same people as above. Dave will make updates by July 25th. Bob Potter will letter ballot the Work Statement in early August(action).

One Pagers

ASHRAE is attempting to speed up processes. They are looking at societies that have already done this. The objective is to increase speed and reduce costs.

On line Development of Standards - Art Hallstrom could be a possible author of the WS? Mick will check with him (action). Henry Amistadi will work on writing it as a backup. David Bornside is willing to help either Art or Henry.

On-line review and commenting on papers. Bob Potter will be asked to find a champion for this work statement.

Other

None.

TC 1.5 Prioritized Research Plan

1. Demonstration of the use of multimedia and advanced electronic information representations in a portion of the handbook.
2. Identification and preservation of building design and commissioning information.
3. Development and implementation of an electronic method for interactive commenting of Research, Technical and Symposium Papers and Peer Approval of Research Project Documents.
4. A Demonstration Multimedia Database for Examining and Comparing HVAC Design Alternatives.
5. On-line Development of Standards

Motion to prioritize the above list as the TC 1.5 Research Plan, as passed in Research, was made. Schwedler/Branson moved/seconded.. 7-0-0. CNV. Motion passed.

Emerging Applications - Rob Briggs (attachment C)

It was the subcommittee's first meeting. The subcommittee is a successor to our past KBS and Computer Aided Design subcommittees. 20 people signed the attendance list. Charter and scope were discussed. It was a validation of the concept for the subcommittee and will most likely evolve. A number of new people put together a proposal for a seminar. The seminar is more a survey of a fundamental and educational seminar than a cutting edge seminar. Two one pagers were written by Dave Branson (see above)

Policy, Algorithm and Software Quality - Brian Kammers (Attachment D)

Brian stated that the subcommittee is to work on its scope. Brian directed incoming chair (Mick) to change the title of the subcommittee to Policy and Software Quality for the San Francisco meeting and beyond. ASHRAE's direction for software quality and ad hoc committee were discussed. We should be involved in this work. Branson/ Webster moved/seconded that If the software advisory committee is formed by ASHRAE that TC 1.5 request membership on that committee, appointed by the TC 1.5 chair. 7-0-0. CNV. Motion passed (action)

Brian Kammers reported that the committee was directed, a number of years ago, to develop guidelines to implement software quality in ASHRAE research. There is now activity that may obsolete this before it is done. Linton/Branson moved/seconded to table development of guidelines until the two ASHRAE projects are complete. The two pieces of work are TRP 966 and the possible Electronic Oversight Committee. We have been working with the ad hoc committee that may recommend that the Electronic Oversight Committee be created. Brian has worked with Art Hallstrom to generate the draft of the ad hoc committee. 7-0-0. CNV. Motion passed.

Motion that a letter be written to the board stating that we have tabled this work. Peppers/Linton moved/seconded that the Policy and Software Quality chair write a letter to the board that stated we have tabled this work. Motion was amended to state the TC chair write the letter. 7-0-0. CNV (action)

Richard Linton provided cookies and chocolates.

Internet - Richard Linton (Attachment E)

Attendance at the subcommittee meeting was about 30. Discussed CIBSE virtual conference in September. We may want to look at the form of the conference. Richard will include address, date and time in his minutes. Steve Comstock has been looking to the Internet subcommittee chair for advice on the ASHRAE home page. It's new, look at it, email Steve

ASHRAE may be setting up a page for TC's (limited by manpower and money), links to manufacturer's (through the Journal) has links to manufacturers, and Standards. Server is old and will be replaced with secure commerce server this fall.

An email "alias" may be rolled out this fall. Your new membership card has a membership number AND a PIN. This is planned for future use. Also aliases like "TC 1.5 chair" may also be available. Mailing lists for TC's may be added at a later date.

Discussion on hosting a virtual conference or follow-ups for symposia or seminars took place. A usenet group may be added as a moderated group.

There was discussion of a "virtual chapter" for a nominal fee.

We should be a model for using these electronic tools. TC 1.5 does not have a home page. Richard has this as an action item to work with others and figure this one out for us.

There was discussion about continuing education and CEU's. Action items for the Internet Subcommittee are in those minutes.

Handbook - Dave Branson (attachment F)

Met this afternoon. Intended to have a draft ready for distribution here. (add schedule right here also). Missing sections will be filled by the middle of August.

Mike stated that the handbook was a very tough, but important job. It's also very important that all committee members review the chapter before.

Liaisons

- SPC 134P--Vernon Peppers. Went to the meeting twice. Request that committee buy him a bicycle to shuttle between 134P and TC meetings! No motion was made. Second draft was put together for November. To get the draft there is a small nominal fee, it may also be on-line. There are many graphics, so it's large. Vernon will not be able to be in San Francisco for personal and business reasons. 134P would love to have more members. They will respond to every comment during the draft.
- Florida Design Initiative--Walter Grondzik. Walter was not present. A written report was given. The website is very good and has links to many sources of energy and environmentally "benign" technologies. Walter can be contacted via the web page or by his email address. Any questions or comments should be directed to Walter. (action) An electronic copy will be included in the minutes. (attachment G)
- International Alliance for Interoperability--Jim Forester. Jim was not present. Jim Forester sent email to Rob Briggs. An electronic copy will be included in the minutes. (attachment H) 105 companies. Version 1.5 is the first release (August) that will be ready for commercial use. Release 2.0 is likely to be done in December. www.interoperability.com, meeting is in July in Seattle. It was asked if there are plans for demonstration at the ASHRAE exposition? There is a seminar proposed at the meeting.
- Intelligent Building Council (CIBW98) -- Brian Kammers. A seminar/symposium was held in March of this year in Israel.

Old Business

Discussion: In which handbook does Computer Applications belong?

Dave Branson stated that discussion in Philadelphia at the ASHRAE Handbook Committee some informal discussion took place about the location of our chapter. Dave met with our handbook liaison, Ken Cooper, and told him we felt it should remain in the Applications Handbook. We have reconstructed the content of

the chapter so it looks more like and applications chapter. One note is that the incoming chair of the Handbook Committee is the person who initiated the informal discussion and Ken felt it would be interesting to do this. Discussion ensued about whether or not the section number was relevant. A number of examples were shown where this was not true.

Branson/Nelson moved/seconded that the TC chair send a letter to the chair of the handbook committee that the computer applications chapter remain in the 1999 Applications Handbook and remain in this handbook thereafter. (action) 7-0-0 chair VOTING. Note that the chair generally does not vote.

Special pubs appointed Wayne Webster and Chuck Belt (nbelt@systemscorp.com) to the PMSC for 966. Charlie Culp, present chair has asked to be replaced. Linton as new, Kammers as chair. Action, Mick send to Seaton/Baxter. Representative from 4.7 may want to be replace, but 4.7 needs to do this.

New Business

Meeting times for San Francisco. Add 966 TRP. 12-2 p.m. Sunday. New Research project 5-7 on Sunday.

Committee	Day	Time	Chair
TRP-966 PMS	Sunday	12:00 - 2:00	Brian Kammers
Internet	Sunday	2:30 - 3:30	Richard Linton
Emerging Applications	Sunday	3:30 - 5:00	Rob Briggs
TRP-1017 PMS	Sunday	5:00 - 7:00	Jim Watts
Research & Program	Sunday	7:00 - 9:00	Bob Potter & Wayne Webster
Policy and Software Quality	Monday	2:30 - 4:30	Brian Kammers
Handbook	Monday	4:30 - 5:30	Dave Branson
Main TC	Monday	6:30 - 9:00	Mick Schwedler

Information on San Francisco hotels will be mailed in late summer for reservations at the Marriott to chairs. There is a flyer available for other hotels. Expect hotels to be tight.

Vernon Peppers mentioned that he attended COMDEX and at the software showcase competition he saw some very interesting industrial process control be run with scripts off a PC, with no other software. Also monitoring the bearing on the turbines. An on-line and CD version of a catalog. Vernon felt all manufacturers should do this. The software was outstanding. Those interested in more information should contact Vernon directly.

A 10K ASHRAE pin was given to outgoing chair Mike Brambley in appreciation for his work with the TC.

Mike stated that the participation of voting and non voting members is wonderful. Mick has done an outstanding job as secretary.

Adjournment

Peppers/Linton moved/seconded 7-0-0. Adjournment at 8:40 p.m. -- EARLY!!!

Attachment A

TC 1.5 - Program Subcommittee

Proposed Programs:

San Francisco January 1998

- 1: Seminar: Emerging Applications: From PID to Fuzzy Logic & Beyond - Sun
- 2: Seminar: Use of the Internet for Collaborative Efforts in HVAC - Branson
- 3: Seminar: Demonstration of Inter-Operable Computer Applications for the HVAC Industry - Forrester
- 4: Seminar: Use of the Internet by Technical Committees - Schwedler
- 5: Forum: What Would You Do If You Had Internet Access for Your Building Control System - Songkakul
- 6: Forum: What Do ASHRAE Members Want Form The ASHRAE Homepage - Linton
- 7: Forum: Who Should Champion Technology Transfer for the Internet User? - Branson

Toronto June 1998

- 1: Symposium: Computers in HVAC Education - Nelson
- 2: Seminar: Overhauling Current CAD Engines - Kammers
- 3: Seminar: ASHRAE Computer Outreach Activities in the Educational Community - Potter
- 4: Seminar: How to Help Employees Properly and Productively Use the Internet - Linton
- 5: Seminar: Buildings in the Year 2000 =<> or 1900 - ?
- 6: Forum: International Aspects of the Internet - Sandelewski

From Before:

- Poster: Demonstrate Knowledge Base for Diagnosing HVAC O & M Problems in Small Office Buildings - Kreider
- Poster: Demonstrate Knowledge Base to Aid Building Operations - Real Time Pricing Electricity Rates - Norford
- Seminar: Use of Energy Tools - Brambley
- Paper: Mathematical Integration of Refrigeration Systems with CAD - author Vaisman, MCCI Chicago Jan 1999
- None yet

Other TC Program Items

- 1.4 Fuzzy Logic Applications (2 in Boston)
- 1.4 Advanced Control Strategies (Boston)
- 1.4 CAB & BACnet (Toronto)
- 1.4 Innovative HVAC Control Application (SF)
- 4.6 Fault Detection & Diagnostics (Toronto)
- 4.6 Implementation of Control Strategies for Thermal Storage (Boston)
- 4.7 Accurate Tests for Simulation Models (SF)
- 4.7 What Can Modular Simulation Models do Today (SF)
- 6.9 Tools for Simulation and Economical Analysis of Thermal Storage (Toronto)
- 6.9 Experiences with Thermal Storage and Real Time Pricing (Toronto)
- 6.9 Thermal Storage System Operating Costs & Energy Conservation (SF)
- 9.1 Methods of Demand Control (Toronto)

Attachment B

Research Subcommittee Meeting Minutes TC 1.5, Computer Applications Sunday, June 29, 1997

Call to Order/Introductions - Called to order at 7:45 p.m. by acting subcommittee chair, Mick Schwedler

TRP-966 PMS Report

- PMS meeting Monday at 11:00 am. Henry Amistadi (contractor) handed out a one-page summary. The software criteria is six pages. Setting the requirements and establishing the quality attributes are the two top priorities. Henry felt that the project was on schedule and within budget. Deliverables and guide have a table of the software requirements.
- Administrative matters. Mike Brambley was informed indirectly that Charlie Culp may want to withdraw as a member of the PMS. Mike needs to confirm this. Special pubs said that they would put two people on the PMS. Wayne Webster will bring this up at the PMS meeting. We will attempt to get them appointed after this meeting. Two copies of the interim report will be given to the chair of Special Publications. Richard Linton volunteered to replace Charlie if necessary.

Proposed Research

Richard Linton, Chair, Internet Subcommittee, none

Rob Briggs, Chair, Emerging Applications Subcommittee had two new topics

- On-line Development of Standards - Dave Branson
- Development and implementation of an electronic method for interactive commenting of Research, Technical and Symposium Papers, and Peer Approval of Research Project Documents.

Discussion/Review of Work

Status of Work Statement #1017, "*Demonstration of the use of Multimedia and Advanced Electronic Information Enhancements for A Chapter of the Handbook CD-ROM*" - (James Watt)

- Jim Watts shared correspondence between Van Baxter (TAC Liaison) and himself, the work statement author. Jim called the ASHRAE manager of research and their seemed to be no objections. Jim and Mike Brambley felt it was likely that the work statement would be approved. ASHRAE sent the WS to Steve Comstock (Publications) who approved it. Jeff Haberl stated that he had concerns about what was to be made as a deliverable.

Identification and preservation of building design and commissioning information. (Dave Branson)

- Wayne Dunn from TC 9.9, Building Commissioning, totally endorses the WS. It is TC 9.9's #1 priority project. Vote was 8-0-0.
- Discussion ensued concerning the "breadth" of how the work statement was written. TC 9.9 liked this breadth. Do we have a problem guaranteeing what we get from the successful contractor?
- Comments to Dave Branson by July 19th. It will then be emailed to 9.9 - Cathie Radke and Wayne Dunn.

A Demonstration Multimedia Database for Examining and Comparing HVAC Design Alternatives.

(Walter Grondzik)

- This is written as a product to ASHRAE publications. It may be more of a product than research. The licensing clause is included in this work statement also. No co-sponsor is known at this time. Bob Potter or Mick Schwedler should contact special publications about this work statement. Mike Brambley felt that there are several checkpoints that should be added. Comments to Walter Grondzik by July 19th. To go for letter ballot approximately the beginning of August.

New One Pagers (copies of all one-pagers are attached)

- On-line Development of Standards (one pager attached)
- Development and implementation of an electronic method for interactive commenting of Research, Technical and Symposium Papers, and Peer Approval of Research Project Documents. (one pager attached)

Research Topic Prioritization

1. Demonstration of the use of multimedia and advanced electronic information representations in a portion of the handbook.
2. Identification and preservation of building design and commissioning information.
3. Development and implementation of an electronic method for interactive commenting of Research, Technical and Symposium Papers and Peer Approval of Research Project Documents.
4. A Demonstration Multimedia Database for Examining and Comparing HVAC Design Alternatives.
5. On-line Development of Standards

Brambley/Linton moved/seconded the above prioritization. Passed unanimously.

New Business

Has the subcommittee chair defined a subcommittee chair yet?

Adjourned at 8:45 p.m.

RESEARCH PLAN
TECHNICAL COMMITTEES 1.5 AND 8.2
PRIORITY 1

PROJECT TITLE

Demonstration of the use of multimedia and advanced electronic information representations in a portion of the handbook.

OBJECTIVE

Develop a set of presentations of a portion of the ASHRAE Handbook to illustrate the effectiveness of multimedia and other advanced electronic information representation techniques that can be used in a CD-ROM version of the Handbook. Using a centrifugal compressor-based chiller system as the subject, the presentation will cover the physical characteristics of the components making up a typical chiller system, the equations and parameters defining principles of operation, and the operating characteristics of the chiller as a system.

BENEFITS

State-of-the-art multimedia techniques can be used to provide a uniquely insightful and motivating method of learning about complicated systems such as chillers. Advanced techniques such as interactive 2-D diagrams and charts, alternate graphical approaches for presenting sets of data, ways of allowing algorithms to be extracted as pieces of usable code, the 3-D animation of dynamic elements (rotating parts, fluid flow, condensation/evaporation, etc.) and the direct manipulation of external and internal images of actual equipment can be integrated with factual information to create new content that will greatly enhance the value of the CD-ROM version of the Handbooks.

As a demonstration, this project would allow ASHRAE to:

- illustrate the power of advanced presentation techniques to further the educational objectives of the Handbook
- show how the information in the Handbooks can be sold in new ways
- develop a list of development tools and techniques that can be used by other TC's to develop Handbook data as an incentive to encourage further use

ESTIMATED COST

\$70,000

ESTIMATED DURATION

1 year

METHOD OF PUBLISHING RESEARCH RESULTS

Incorporation with the CD-ROM version of Chapter 35 of the Equipment Handbook or Chapter 2 of the Refrigeration Handbook (System Practices for Halocarbon Refrigerants). The presentation could also be produced in a standalone form for educational and promotional purposes such as posting it at ASHRAE's web site.

POTENTIAL CO-SPONSORS

Manufacturers of chiller system equipment.

CONTRIBUTORS

James Watt
Rob Briggs

**RESEARCH PLAN
TECHNICAL COMMITTEE 1.5
PRIORITY 2**

PROJECT TITLE

Identification and preservation of building design and commissioning information.

OBJECTIVES

- a. Identify building design and commissioning information with potential value for use in building operations and monitoring processes and future modification projects.
- b. Develop a computer-based methodology or procedure, based upon building classification, size and usage, to identify pertinent information collection domains.
- c. Determine the appropriate level of data retention for these design and commissioning information domains.

BENEFITS

Vast amounts of building engineering design and commissioning information are generated during the design and commissioning processes. Typically, the majority of this information is not transferred or otherwise made available to the building owner. The ability to retrieve or reconstruct these data diminishes rapidly with time. Proper collection and computer-based preservation of this information would greatly facilitate maintenance of building operations at a high level of efficiency, future building operations and control upgrades, potential building monitoring efforts, and lastly, major renovation projects. Proper identification and preservation of this information holds great potential economic and operational benefit.

ESTIMATED COST

\$50,000

ESTIMATED DURATION

1 year

METHOD OF PUBLISHING RESEARCH RESULTS

Technical Paper would be presented at ASHRAE meeting.

Co-Sponsor

TC 9.9 - Commissioning

CONTRIBUTORS

David J. Branson, PE, (806) 748-0040

Bob Potter, PE, (914) 938-4093

RESEARCH PLAN
TECHNICAL COMMITTEE 1.5
Priority 3

PROJECT TITLE

Development and Implementation of an Electronic Method for Interactive Commenting of Research, Technical and Symposium Papers and Peer Approval of Research Project Documents.

OBJECTIVES

- a. Perform a survey of other societies and organizations to determine how they conduct interactive commenting and peer approval of research, technical and symposium papers and research projects.
- b. Develop a process for on-line commenting and peer approval of papers and research project documents.
- c. Recommend a technology solution for implementation of 'objective b' based on ASHRAE's current and proposed computer resources.
- d. Prototype the recommended process on a sample of each category described in 'objective a' and evaluate the results.

BACKGROUND

Other societies are experimenting with on-line commenting and peer approval of papers and research project documents. ASHRAE has a need to improve on the present manual method of document review by use of on-line techniques. The present process is very time inefficient and expensive. This work statement authorizes a survey of other societies' and organizations' automated commenting and peer approval processes and intends to bring the best practices into ASHRAE as a coherent and formalized process.

BENEFITS

By providing a formal computer-based process in the conduct of interactive commenting and peer approval of research, technical and symposium papers and research projects, ASHRAE will reduce the time and cost resources necessary to manage and distribute those documents.

ESTIMATED COST

\$75,000

ESTIMATED DURATION

8 months

DELIVERABLES

Identification of ASHRAE software and hardware required. Implementation of the developed prototype on the ASHRAE platform using a sample of each category of research, technical and symposium papers and research projects documents. Evaluation of the process and solution of the prototype on the samples.

CONTRIBUTORS

Henry Amistadi
Fred Buhl
David Bornside
David Branson
Art Hallstrom

**RESEARCH PLAN
TECHNICAL COMMITTEE 1.5
PRIORITY 4**

PROJECT TITLE

A Demonstration Multimedia Database for Examining and Comparing HVAC Design Alternatives.

OBJECTIVES

- a. Identify a broad range of existing HVAC systems that represent good design practice and successful implementation.
- b. Obtain and/or generate descriptive information about each of the installations (e.g., schematics, photographs, simulations, performance statistics).
- c. Create a prototype CD-ROM-based database that allows the rapid retrieval of HVAC system descriptions by key features.

BENEFITS

Design is frequently accomplished by modifying existing designs to fit the context of the current problem. This project will allow an engineer to easily gain access to an information-rich databases of existing designs that are relevant to a problem under consideration. These designs will be presented in a graphic, multimedia format, providing images and schematics that are of greatest interest and impact during design. HVAC engineers can quickly scan, search, retrieve, and compare a broad range of existing solutions that can be used as a basis for new design or as a starting point for generating new ideas. Ultimately the designs stored in the database should be directly accessible by commercial CAD systems for adaptation and modification.

ESTIMATED COST

\$100,000

ESTIMATED DURATION

2 years

METHOD OF PUBLISHING RESEARCH RESULTS

A Final Report and a Technical Paper will be presented at an ASHRAE meeting. CD-ROM and databases access software to be distributed by ASHRAE for IBM PC-compatible machines.

POTENTIAL CO-SPONSORS

Manufacturers of equipment used in the examples in the database. CAD software developers.

CONTRIBUTOR

Walter Grondzik, (904) 599-3244

**RESEARCH PLAN
TECHNICAL COMMITTEE 1.5
PRIORITY 5**

PROJECT TITLE

On-line development of Standards.

OBJECTIVES

- a. Perform a survey of other societies and organizations to determine how they develop on-line standards.
- b. Develop a process for on-line circulation, review, comments and approval of standards in accordance with ANSI specifications.
- c. Recommend a technology solution for implementation of 'objective b' based on ASHRAE's current and proposed computer resources.
- d. Prototype the recommended process on two (2) sample standards and evaluate the results.

BACKGROUND

Other societies are experimenting with on-line standards development. ASHRAE has a need to improve on the present manual method of developing standards by use of on-line techniques. The present process is very inefficient and expensive, as illustrated by the problems associated with development of Standard 90.1. This work statement authorizes a survey of other societies' and organizations' automated standards development processes and intends to bring the best practices into ASHRAE as a coherent and formalized standards development process.

BENEFITS

By providing a formal computer-based process in the development of standards, ASHRAE will reduce the time and cost resources necessary to manage and develop those standards.

ESTIMATED COST

\$75,000

ESTIMATED DURATION

8 months

DELIVERABLES

Identification of ASHRAE software and hardware required. Implementation of the developed prototype on ASHRAE's hardware and software on two (2) sample standards. Evaluation of the process and solution of the prototype on the sample standards.

CONTRIBUTORS

Henry Amistadi
Fred Buhl
David Bornside
David Branson
Art Hallstrom

Attachment C

Minutes

TC 1.5 Emerging Applications Subcommittee

Sunday, June 29, 1997

ASHRAE 1997 Annual Meeting, Boston, MA

The inaugural meeting of Emerging Applications Subcommittee was called to order at 3:35 PM by Rob Briggs. There were 15 in attendance at the beginning of the meeting and 20 who signed the attendance roster.

[The Emerging Applications Subcommittee has replaced the Computer-Aided Design and Knowledge-Based Systems Subcommittees and has inherited oversight of in-progress activities from those subcommittees.]

Following introductions, we conducted a general discussion of the scope, purpose, and role of the new subcommittee using the one-page proposed charter and scope document as a point of departure. That document was prepared at the Winter meeting in Philadelphia by an ad hoc committee and circulated in advance with the agenda for this meeting.

The ensuing discussion appeared to validate the role outlined in the draft charter and scope document. There appeared to be a consensus that having a subcommittee whose purpose is to educate the ASHRAE membership about emerging computer technologies and to accelerate the use of those technologies by the ASHRAE and the industry is both a useful role and one to which subcommittee members were interested in contributing. This topic did not lead to discussion of specific new or emerging technologies to add to the current statement of areas of interest of the subcommittee. However, it did lead to a discussion of new focus areas for programs and research.

- The first focus area was programs that survey available technologies. Rather than exploring cutting-edge technologies for computer experts, the idea was to help the general ASHRAE membership keep up with what is available and better understand how they can make use of it. This discussion led to a proposed seminar for the San Francisco meeting with a working title of “Emerging Applications: From PID to Fuzzy Logic and Beyond...” Benjamin Sun agreed to organize the session and several others in attendance agreed to participate as speakers.

The perennial problem of presenting information about computer tools at ASHRAE meetings while avoiding commercialism was discussed. The idea of including a look at math toolkit programs (such as Mathcad, Ease, and TK Solver) in the above proposed seminar with a possible title of “Are you still using spreadsheets?” was discussed but tabled due to commercialism-related concerns.

- The second focus area was actions that TC 1.5 could take to help ASHRAE streamline and expedite its internal processes using computer technologies. The dominant feeling of the subcommittee was that available technologies (e.g., the Internet), could be better harnessed by ASHRAE to improve the timeliness and quality of ASHRAE products. Members felt that it would be helpful for TC 1.5 to propose research projects that would examine opportunities for deploying computer-based systems and demonstrating pilot solutions. These discussions lead to two new one-page research topic descriptions, which were written immediately following the meeting and taken to the Research Subcommittee meeting for inclusion in the research plan.

The research topics involve on-line development and review of ASHRAE standards and an electronic review process for technical papers.

Existing program and research proposals from the KBS and CAD subcommittees were not discussed, although these were addressed later in the Program and Research Subcommittee meetings. All of the liaisons reports that were on the agenda for this meeting were deferred to the TC 1.5 meeting Monday night.

Under New Business, the issue was raised of whether TC 1.5 should develop a web site. There appeared to be considerable interest in this idea. In the interest of time, discussion was deferred until members had an opportunity to discuss the subject informally among themselves and then address a proposal to the appropriate 1.5 subcommittee.

The meeting was adjourned at 4:55 p.m.

ACTION ITEMS [*Mick—for inclusion in the master list*]

Rob Briggs - Submit minutes for Boston Emerging Applications Subcommittee Meeting - July 1997

Benjamin Sun - Submit package to ASHRAE [*or Program Chair?*] for seminar for San Francisco meeting with a working title "Emerging Applications: From PID to Fuzzy Logic and Beyond..." - August 1997

Rob Briggs - Submit agenda for San Francisco Emerging Applications Subcommittee Meeting - January 1998

Attachment D

**Policy and Software Algorithms
Meeting Minutes Boston
June 29, 1997
Subcommittee Chair: Brian Kammers**

- I. Meeting was called to order at 2:35 p.m. There were 6 people in attendance.
- II. The current activities related to software quality were reviewed.
 - A. Several years ago the ASHRAE Board approved a policy related to algorithms that are created as a result of research. At that time the ASHRAE Board directed TC 1.5 to develop guidelines for the review of algorithms. This work was never completed.
 - B. The Electronic Communication Ad Hoc Committee was to submit their final report at this meeting. The recommendations were to be presented to the Executive Council. In the report are several recommendations related to software created, used, and distributed by ASHRAE.
 - C. One of the recommendations of ECAH is to create a committee to advise ASHRAE on software policy.
 - D. Currently 966-TRP is developing a set of guidelines related to the process of obtaining software as part of research project deliverables.
- III. The Subcommittee approved a recommendation to the full Technical Committee that work on developing guidelines for algorithm review be tabled in light of the other activities taking place in the Society.
- IV. The Subcommittee approved a recommendation that the TC Chair send a letter to the Board indicating that we have tabled any effort to the development of guidelines for algorithm review in light of the other activities taking place in the Society.
- V. The Subcommittee approved a recommendation that the TC Chair send a letter to ASHRAE Management indicating our willingness of TC 1.5 and specifically the PASAQ subcommittee to participate in a software advisory committee should it be formed.
- VI. There were two ideas presented for programs. One was a seminar on the Year 2000 issue facing computer systems. The other was a training session based on the results of 966-TRP. Richard Linton will consider creating a one pager for the Year 2000 seminar. The training proposal will not be acted upon until the results of 966-TRP are known.
- VII. No research topics were presented. There was a discussion about research initiated by other subcommittees that are somewhat related to the mission of PASAQ. These included a one pager for on-line development of standards and on-line commentary and review of seminars, papers and research.

- VIII. The subcommittee decided to change the name of the subcommittee to better reflect the mission. The name drops the reference to algorithms. The new name is Policy and Software Quality.
- IX. The subcommittee will request that the TC chair ask that the subcommittee name not be abbreviated in the schedule of meetings at the next meeting.
- X. There was a reaffirmation about the mission of the subcommittee. The Policy and Software subcommittee assists the ASHRAE Society in the development of policies, procedures, and guidelines relative to the use, creation, and dissemination of computer applications.
- XI. The meeting was adjourned at 4:15 p.m.

Attachment E

TC 1.5 Computer Applications
Internet subcommittee
Meeting Minutes – Boston, Sunday, June 29, 1997

Action items for Chair:

1. Ask education council about short course (if approved) discuss issues of course expenses and cost for attendees.
 2. Ask education council about offering classes on the ASHRAE home page.
 3. Contact several ISPs to determine if a “home” may be found for TC 1.5 for a homepage
 4. Determine URL and time for CIBSE virtual conference.
-

Meeting called to order at 2:35pm

Attendance list passed around
Agenda reviewed
Introduction of attendees
Minutes from Philadelphia approved

Discussion on the Boston program: Richard Linton presented “ASHRAE web crawling: explore the ASHRAE homepage and learn what it can do for you” during Seminar 13 – “Becoming a power user of the latest ASHRAE electronic tools”. Attendance was about 30.

Passed out announcement on the CIBSE virtual conference in September

Discussion on new program ideas for future ASHRAE meetings. After discussion approved following for presentation at the Program subcommittee meeting:

For San Francisco (Jan 98):

Seminar – “TC use of the Internet”

Chair: Mick Schwedler

Forum – “Who should champion the technology transfer for Internet use?”

Chair: Dave Branson

Forum – “What would you do if you had Internet access to your building control system?”

Chair: Pornsak Songkakul, Landis & Staefa

For Toronto (June 98):

Seminar -- “How to help employees to properly and productively use the Internet”

Chair: Richard Linton

Other items discussed, no specific action taken at this meeting but provide for potential direction for the committee and as input to ASHRAE.

Discussion on Intranets and collaborative design using the internet/intranet. Fits with Dave Branson’s program on collaborative design. Several attendees discussed their experience using collaborative design.

How ASHRAE uses the web. Things that could be done more helpful

- 1) setting up page for TC or other committees
- 2) tech docs in SSPC 90.1 need a place to park
- 3) links to manufacturers

Questions about TC on the ASHRAE web page. Because of amount of work required, current ASHRAE policy is to allow a link to a TC homepage somewhere else but not to host it. Requirements for what may, may not reside on a TC page. There is a need to develop a standard for TC home pages to maintain continuity and to reduce "problems".

ASHRAE will be developing an e-mail alias for members and perhaps for TCs. Example could be: TC1.5CHAIR@ASHRAE.ORG.

Discussed "chat rooms" – specific times for specific topics. Limited to ASHRAE members.

Mail list for TC members – maintained by ASHRAE?

Various TCs automated mailing list – members of committee

Host a virtual conference. Need to see how well the CIBSE conference in September is.

Follow-up on symposia or seminars at ASHRAE meetings

Usenet user group, develop a moderated group for ASHRAE. Existing hvacr group is unmoderated and use is declining (as is quality of content).

Confidence level of communication is a major issue. At least know that everyone is ASHRAE member

Discussed the creation of a virtual chapter on the ASHRAE home page. One idea for content would be to develop programs that would be on-line and could be downloaded or viewed directly by local chapters for they're own programs. Programs would have to be self-contained and easily understood (problem of someone not familiar with topic doing the presentation).

If the virtual chapter required a membership fee then would have to see a specific benefit unique to the virtual chapter.

Role of TC 1.5

TC 1.5 should be taking the role of leader in this area as well as in the area of using electronic tools for TC business. Should be the model for how other TCs should function. Concern of the "glacial pace" that ASHRAE moves.

Provide models for what works (role of 1.5) change the glacial pace

Does TC 1.5 have a home page? Not at this time. Action item by the chair – can we find a home for TC 1.5?

Discussion about continuing education over the Internet. Where would the idea start with TC 1.5, the Education Council? The goal would be to offer professional development workshops where the "attendees" would receive CEU.

Meeting adjourned at 3:33 pm (one vote against adjournment)

ACTION ITEM FOLLOW-UP (15 July 1997)

The URL for the CIBSE conference is:

<http://www.virtual-conference.com/vcc/cibse97.htm>

And has just started. I visited the site and the structure is interesting. There is not much content there as the papers are only now being reviewed. I have pasted the introduction and content text here as a summary of the page.

Introduction

Our rationale, for a virtual conference, is to make it easier, quicker and more cost effective for building services engineers and related disciplines such as architects, structural engineers, quantity surveyors, facility managers, property managers and owners world-wide to attend and participate in an international conference. The virtual conference runs parallel to the land conference focused on Quality for People with an additional theme on Quality in Information unique to the virtual conference. The conference content aims to speed the distribution of building services engineering knowledge, thereby increasing the quality of discussion and the internationalization of the subject.

CIBSE 97 will provide an excellent opportunity for discussion of preliminary data and establishing contacts to pursue at land-based conferences around the world. It also has the advantage of allowing building services engineers and related disciplines to participate in international quality discussions at a fraction of the cost of a land-based conference. We hope to make the conference interactive and it will be introducing a number of features to take advantage of the capabilities of the latest generation of browsers.

Conference Content

Authors have been asked to address the conference theme of quality under one or more of the following headings: specification, design, construction, operation and overall.

Unique to the Virtual conference is an important additional theme: Quality in information.

The CIBSE97 Virtual conference is now hosting abstracts for all papers which have passed the initial refereeing procedure. CIBSE encourage delegates to review the abstracts and to enter into threaded discussions with other delegates, authors and referees.

During October 1997 you will be able to review full conference papers. Please pose questions or comments in the discussion session at the end of each paper, other professionals can respond during the months in which the conference is active. We hope that authors will have more time to prepare their answers than would normally be the case in a land-based conference. Through this we hope that the quality of scientific discussion will be improved. We also have a Virtual Bar, where issues which are more generic can be posted and responded to and a Noticeboard where people can leave messages.

Attachment F

Minutes of TC 1.5 Handbook subcommittee
June 30, 1997 Boston

The meeting was called to order at 4:30 p.m.

The attendance list is attached.

The minutes from the Philadelphia meeting were approved as written.

The schedule of milestones was revised to read as follows:

Date	Milestone
May 6, 98	Completed chapter submitted to ASHRAE
Jan 19, 98	TC 1.5 committee votes approval of final draft
Dec 1, 97	Subcommittee submits final draft to TC secretary for distribution to full TC with January meeting agenda
Oct – Nov 97	Subcommittee incorporates comments into final draft
By Oct 1, 97	Subcommittee receives comments on draft from TC members
Sep 1, 97	Subcommittee sends 1 st draft to full TC for comment

The following action items are to be taken:

1. The section in the chapter outline on ASHRAE Policies and Guidelines has nothing to put in it, so we will eliminate it from the chapter;
2. Duane Barrett w/ Bentley Systems will be solicited by Brian Kammers to complete the revisions to the Graphic Applications section;
3. Dave Branson is to solicit three additional persons (external to this subcommittee) to participate in an *inner circle* of interim draft reviewers.

The meeting was adjourned at 5:10 p.m.

TC 1.5 Handbook Subcommittee Attendance List
June 30, 1997

Member

Dave Branson, Chair
Brian Kammers
Richard Linton, Secretary
Ron Nelson
Mick Schwedler

Email

djbranson@csg.net
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Attachment G

Liaison Report from Florida Design Initiative to TC 1.5 for Boston Meeting

The original purpose of establishing a liaison between ASHRAE TC 1.5 and the Florida Design Initiative (FDI — a non-profit funded by the Florida Energy Office) was to coordinate efforts between these two groups with respect to a regional/national conference on Design Tools for High-Performance Buildings. Preliminary planning for this conference led to the conclusion that Florida design professionals were not “ready” for such a conference — it seemed to be addressing issues at a more advanced level than appropriate for the audience and the times. Thus, although building performance simulation remains a key element of FDI’s “best practices” program, a conference specifically on this topic will not be held in the near future. FDI continues to support conferences of a more general nature, such as the upcoming AIA/Green Building Council conference in Miami in November of 1997.

Several ongoing activities of the Florida Design Initiative continue to bear directly on the scope and interests of TC 1.5 and are summarized herein. FDI continues to publish an electronic journal of “best practices” in facility design and operation — *e design On-line*. ASHRAE activities play an important role in this journal’s coverage. A World Wide Web-resident database on sustainable development resources is scheduled to become publicly available in early July. The current database includes entries selected by practicing members of the Florida chapters of the American Society of Landscape Architects and the American Planning Association. Funding to expand this database to include resources of use to ASHRAE members (through an agreement with a Florida chapter of ASHRAE) is currently under negotiation.

FDI has also established the Built Environment Center as a one-stop center on the Florida Communities Network — Florida’s main public Internet gateway to government and private sector services. The Built Environment Center is intended to encompass Buildings and Facilities, Infrastructure, Open Space, and Urban and Community Development; with the Buildings and Facilities area of the site being developed first. FDI is also working with the Florida Department of Management Services to update and migrate existing print documents dealing with energy conservation in state facilities to an on-line database called the *Process Guidelines for High-Performance Buildings*. The *Guidelines* are now being revised and expanded and converted to a World Wide Web-accessible format, with project completion scheduled for December 1997. Sample pages for the *Guidelines* may be viewed in the Built Environment Center. In conjunction with the *Process Guidelines* project, FDI is developing a World Wide Web-based Issues/Document Manager system to permit the Department of Management Services to coordinate all facility design, review, construction, and operation over the Internet — an major step toward the Department’s surprisingly short-term goal of “paperless” projects.

Walter Grondzik, Liaison

June 25, 1997

<http://fcn.state.fl.us/fdi/e-design/online/edo.htm>

<http://fcn.state.fl.us/fdi/bec/bec-home.htm>

Attachment H

IAI Liaison Report -- Jim Forrester June 1997

Things that have happened during the past few months include:

- R1.5 Model due to be released at the end of August.
- Continued work on the R2.0 model by all domains in all chapters, with completion slated for the end of December.
- Constructique Conference in Paris 16-18 March where two IFC 1.0 implementations were demonstrated. The French Chapter was formally announced at this time.
- An International Technical Management (ITM) and International Board meeting was held in Tokyo in early April. This was the third International Summit held since the IAI's formation. A demonstration was presented to both the Board and the Japanese membership. Following these meetings were three days of ITM meetings.
- A/E/C Systems Singapore 14-17 May where several seminars were presented regarding the IAI. The Singapore Chapter is involved with the first Government sponsored project which is requesting that this project be done in conformance with the IFC 1.5 model.
- Specifications Task Force (STF) met in a workshop 28-30 May for IFC 1.5 model coordination.
- Industry Day 6 June held in Germany where implementations based on IFC 1.0 were demonstrated.
- ISO STEP meetings held 2-6 June in San Diego where several presentations about the IAI were conducted. Liaison 'A' status was granted in this meeting.
- A/E/C Systems Conference 16-19 June show had a demonstration of live implementations of IFC 1.0 applications. This demonstration was well received and generated interest from many sectors. A press conference was held to announce the STEP liaison status as well as information about the relationship formed with CIMsteel. A new North American Chapter Board Seat has been awarded to Bovis, who will be chairing the Construction Group. Newboard members from Honeywell and Bentley Systems have been named by each of these organizations. There were four press releases announced, which will be published on the IAI Web site (www.interoperability.com).
- North American Chapter now has 105 members, with the total over 500 internationally.

Upcoming events include:

- UK Chapter has its first annual meeting on 26 June
- W78 Conference in Caines in mid July where a paper on the IAI will be presented.
- STF 2.0 Workshop planned for early August in London.
- IBSPA Conference in early September in Prague, where a paper on the IAI will be presented.
- International IAI meetings to be held in conjunction with BauCon in early October in Singapore. There will also several papers on the IAI presented at BauCon IT.
- ACS show in Frankfurt, where the first demonstrations based on IFC 1.5 will be presented. These demonstrations may include previews of products that may be shipping. 16 companies have indicated they are interested in participation in this.

Attachment I
Attendance - TC 1.5, Computer Applications - June 1997

First and Last Names	Affiliation	Address1	Address2	Address3	Phone
Osman Ahmed	Landis & Staefa	1000 Deerfield Parkway	Buffalo Grove, IL 60089		847-215-1000
Henry Amistadi	Scientific Computing	PO Box 904	Brunswick, ME 04011-0904		207-729-5546
Al Black	McClure Engineering Association	7616 Big Bend Blvd	St. Louis, MO 63119-2195		314-645-6232
Steve Blanc	PG & E -- Research and Development	2303 Camino Ramon, Suite 200	San Ramon, CA 94583		510-866-5570
David Bornside	Honeywell HBC	Honeywell, Inc.	1500 W. Dundee Rd.	Arlington Heights, IL 60004	847-797-4527
Mike Brambley	Pacific Northwest Lab	K7-50	Richland, WA 99352		509-375-6875
David Branson	Compliance Services Group, Inc.	7619 University	Lubbock, TX 79423-2616		806-748-0040
Rob Briggs	Pacific Northwest Lab	Box 999, K5-16	Richland, WA 99352		509-375-3854
Mil Buckley	Buckley Associates	7700 Briarwood Drive	Crestwood, KY 40014-9094		502-241-5925
Fred Buhl	Lawrence Berkeley National Laboratory	90-3147	Berkeley, CA 94720		510-486-4912
Dale Cagwin	Facilities Design, Inc.	3904 Abel Drive	Columbia, PA 17512		717-285-9442
J. Patrick Carpenter	Kling Lindquist	2301 Chestnut St.	Philadelphia, PA 19103-3035		215-569-5956
Larry Degelman	Texas A&M University	Dept. of Architecture	College Station, TX 77843-3137		409-845-1891
Rod Dougherty	Landis & Staefa				847-215-1000
Wayne Dunn	3730 Harbor Acres Lane	Jacksonville, FL 32257			904-635-5108
Walter Grondzik	Florida A&M University	School of Architecture	Tallahassee, FL 32307		850-599-3244
Ed Gut	Honeywell, Inc.	1500 W. Dundee	Arlington Heights, IL 60004-1436		847-797-4431
Jeff Haberl	Texas A&M	Dept of Architecture	College Station TX 77843-3581		409-845-6065
Art Hallstrom	The Trane Company	P.O. Box 11250	1500 Mercer Road	Lexington, KY 40511	606-272-3927
Kristin Heinemeier	Honeywell Technology Center	3660 Technology Drive, MN65-2700	Minneapolis, MN 55418		612-951-7577
Brian Kammers	Johnson Controls Inc.	N26 W22599 Oakwood Lane.	Waukesha, WI 53186		414-274-5985
Kevin Keeney	Compass Management & Leasing	455 N. Cityfront Plaza	Suite 2510	Chicago, IL	312-656-0550
Sandy Klein	University of Wisconsin	Madison, WI			608-263-5626
John Lewis	Consulting Engineer	253 N. Vinedo Ave	Pasadena, CA 91107		818-449-3790
Richard Linton	EPRI - HVAC & R Center	University of Wisconsin	150 East Gilman Street, Suite 2200	Madison, WI 53703-1493	608-265-3008
Darrell Massie	U.S. Army	2260 Spruce Street, Unit C	Boulder, CO 80302		303-545-9628
Ron Nelson	Iowa State University	Dept. Of Mechanical Engr	Black Engineering Building	Ames, IA 50011	515-294-6886
Jim Pegues	Carrier Corporation	PO Box 4808	Carrier Parkway, TR-1	Syracuse, NY 13221	315-432-6526
Vernon Peppers	Peppers Engineering	3819 Beya Way	Atlanta, GA 30340		770-493-9042
Chet Sandberg	Raychem	604/6785	300 Constitution Drive	Menlo Park, CA 94025-1164	415-361-4770
Mick Schwedler	The Trane Company	3600 Pammel Creek Rd.	Building 12-E	La Crosse, WI 54601-7599	608-787-4339
Klaus Sommer	Fachhochschule Koeln	Fachhochschule Koeln	Bet2dorfer Str. 2	50679 Koeln, Germany	
Pornsak Songkakul	Landis & Staefa, Inc.	1000 Deerfield Parkway	Buffalo Grove, IL 60089		847-215-1000
Gene Strehlow	Johnson Controls	507 E. Michigan Ave.	Milwaukee, WI 53202		414-274-4804
Karl Stum	PECI	921 SW Washington, Suite 312	Portland, OR 97205		503-248-4636
Benjamin Sun	Flack & Kurtz	343 Sansome Street, #450	San Francisco, CA 94104		415-398-3833x234
Keith Temple	Lennox Industries	1600 Metrocrest Drive	Carrollton, TX 75006		972-497-7895

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Fredrik P. Wahlgren	ScanVac	Kungston Strand 25	11226 Stockholm	Sweden	46-8-654-0830
James Watts	IR/NREC	39 Olympia Avenue	Woburn, MA 01801		617-937-4649
Wayne Webster	CMHC	700 Montreal Rd.	Ottawa, On K1A 0P7	Canada	613-748-2308
Steve Yang	Yang Associates	1153 Bordeaux Drive, # 199	Sunnyvale, CA 34089		408-734-2907

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207-729-5546	amistadi@ScientificComputing.com	X			X	X		X
314-645-4128	mcclureeng@aol.com	X						
510-866-5447	SLB4@PGE.COM	X				X		
847-797-3586	david.bornside@hbc.honeywell.com	X				X		X
509-375-4481	mr_brambley@pnl.gov	X	X	X	X	X		
806-748-0030	djbranson@csg.net	X	X	X	X	X	X	X
509-375-3614	RS_Briggs@pnl.gov	X	X	X		X		X
	milbuckley@juno.com					X		X
	buhl@gronk.lbl.gov					X		X
717-285-3102	dcagwin@redrose.net	X						
215-569-5992	jpc47@aol.com	X				X		X
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