Twenty Years of HP Videos: 1986 to 2005
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The very first PPC Users Conference, held in 1979 at the Hewlett-Packard Santa Clara facility was professionally videotaped by HP and the tapes were turned over to the PPC group at the close of the event. For the following five or so years, there was no such thing as a consumer camcorder; and a separate video camera and cabled video recorder was the state of the art. (My first purchase of such a pair occurred in Spring of 1982, which allowed me to capture marginal-quality VHS video of my wedding .) Since the mid 1980s however, a few of HP handheld-computing's most avid fanatics have been videotaping subsequent conferences, mini-conferences and less formal meetings of historical significance. The early folks who sucked me into the "video craze" were Jack Stout and Paul Hubbert, both from the Chicago-area CHIP group, who were recording some of their meetings at Ace Metal Crafts (some of which I was luck enough to attend). The earliest of these is a recording of the CHIP meeting in conjunction with the Summer Consumer Electronics Show (CES) in 1986, where HP's Janet Cryer and Nancy Ullman showed off the newly-announced HP18C and IR "whistle" printer to the group. My personal recordings began the following Winter in early 1987, with a trek from my Philadelphia home down to the University of Maryland to capture Bill Wickes presenting the HP28C calculator to the Washington D.C.-area PPC chapter. You could hear a pin drop as Bill discussed for three and a half hours all the ins and outs of RPL for the first time. While the quality of the video was mediocre, I don't regret one bit having captured the moment.

It became apparent that these recordings were important in the HP handhelds community and "students" of HP calculator history would find them useful when they could not attend the events themselves. After recording various events, copies of the tapes would be offered for a nominal cost by announcing them on the HP handhelds Usenet newsgroups. The pinnacle of this effort was the June, 1990 formal conference held at the HP facility in Rolling Meadows, Illinois, when the HP48SX was just three months old and excitement was significant. Both Bill Wickes and Eric Vogel from HP Corvallis were present to speak multiple times on the new machine and its software applications to a group of between 50 and 60 enthusiasts. Over the following year, a total of 90 requests for copies of the tapes of this sixteen-hour multi-day event were received. I have been recording the meetings ever since, and attempting to improve equipment, taping and editing techniques along the way. The tape formats have progressed from analog to digital and from larger to smaller size while captured sound transitioned from the cameras' built-in microphones (where all ambient conversation and noise was inevitable) to a wireless presenter-worn lapel mike. The editing is now done completely in the digital domain and the resulting "master" tapes resemble the first-generation "raw" digital-video captured live. Most of the recent events are based on a "two-camcorder shoot" so the final video may show either presentation slides while the presenter appears in a smaller window off to the side or a split screen showing a presenter fielding a question from an audience member.

The presentation accompanying this paper is actually attributed to a brief conversation which took place back at the HHC2005 conference at Ace Metal Crafts in Franklin Park, Illinois last year. During a conference break, Eric Smith approached me and asked what I would charge him to convert all the 45 taped events to DVDs. After a little bit of thought I suggested pondering on it further and responding to him from home after the conference. Over the following months, we discussed the process of creating the disks and the acceptable level of compression (and thus the degree of quality) for the encoding. I sent some sample DVDs with video snippets from different source formats and encoded at varying degrees of compression and we finally settled on a capacity and encoding rate. The conversion began late in May and

one by one, the process was to first convert each set of analog master tapes to "large format" DV digital tape. (This applied to the first 39 of the 45 total events, which were originally recorded in analog format. Events 40 through 45 were recorded to "miniDV" tape and edited directly to large-format DV master tapes.) These tapes come in varying lengths with the upper limit being 276 minutes in "SP" recording speed or approximately 420 minutes in "LP" speed. Since DV format in "LP" speed does not degrade the video signal (like analog does), and since many of the events were much longer than 7 hours, the "LP" speed was chosen. The digital tapes would then be used to create the DVDs by connecting the playback from the digital VCR directly to the DVD recorder via an IEEE-1394 (also known as Firewire) digital cable.

Figure 1. Varying analog and digital tape formats. Clockwise from top left: VHS (analog), Hi8 (analog), full-sized DV (digital) and miniDV (digital).

The tapes were ordered in multiple boxes of 5 at a time and as they arrived, the conversion was performed. So, for all of the first 39 events, (1) the analog tapes would have to be played in real time and recorded onto digital masters; then (2) the digital master tapes would have to be played in real time into the DVD recorder to create "master" DVDs. Finally, copies of those masters were made and sent in batches to Eric. My PC requires roughly 15 minutes to copy a each DVD, so one can imagine how long this process became. An ten-hour event ended up as 4 DVD disks. In order to make them, two full ten-hour playbacks of the event would be required. Finally, it takes 4 times 15 minutes, or about an hour to make the DVD disk copy. Along the way, it seemed appropriate to make an additional copy of the disks and offer them as a door prize at the HHC2006 conference, so that was done. The project is still not quite complete, with a handful of events remaining to be worked after returning home.

Figure 2. The tape editing, DVD recording and copying equipment. Camcorders are used as playback decks in order to convert the analog tapes to large-format DV tapes.

Figure 3. The tapes and disks begin to stack up. Ultimately, over 50 large-format DV tapes were required to create the 100+ DVD disks.

HP Videos

Event No.	Name	Location	Dates	Length	Format Source	No. DVD Disks	Special Guest(s)
1	CHIP SCES 86 Meeting	ACE Metal Crafts Franklin Park Illinois	5/27/1986	6:10	VHS	2	Janet Cryer, Nancy Ullman introduce HP18C
2	Wash DC Chapter Meeting	Univ of Maryland	2/5/1987	3:55	VHS	1	Bill Wickes speaks on the HP28C
3	CHIP SCES 87 Meeting	ACE Metal Crafts Franklin Park Illinois	5/29/1987	4:04	VHS	1	Richard Nelson and Brian Walsh discuss HP41/71/75 topics
4	WCES 88 Meeting	Denny's Restaurant Las Vegas	1/9/1988	4:01	VHS	1	Dennis York presents HP28S, 19B, 17B and 27S calcs
5	CHIP SCES 88 Meeting	ACE Metal Crafts Franklin Park Illinois	6/3/1988	4:30	VHS	2	Ron Brooks presents HP22S and 32S calcs
6	WCES 89 Meeting	Denny's Restaurant Las Vegas	1/7/1989	2:48	VHS	1	Chris Bunsen discusses 20S, 22S, 32S and 42S calcs
7	1989 HP Conf	Triton College Melrose Park, Illinois	6/3/1989	6:39	VHS	2	Ron Brooks - 10th anniv of HP41C
8	WCES 90 Meeting	Denny's Restaurant Las Vegas	1/6/1990	3:40	VHS	1	
9	1990 HP Conf	HP Facility Rolling Meadows, Illinois	6/1-6/90	15:15	VHS/8mm	5	Bill Wickes, Eric Vogel speak on HP48SX
10	PAHHC Meeting	Travelodge Hotel Mt Laurel NJ	11/11/1990	3:52	8mm	1	Bill Wickes speaks on the HP48SX
11	WCES 91 Meeting	Denny's Restaurant Las Vegas	1/12/1991	4:07	8mm	1	
12	CHIP Meeting	ACE Metal Crafts Franklin Park Illinois	4/10/1991	2:04	8mm	1	Eric Vogel Speaks on the HP32SII, HP48 PDL and HP48S
13	PAHHC Meeting	Drexel University Philadelphia, PA	4/29/1991	3:28	8mm	1	Eric Vogel Speaks on the HP95LX
14	PAHHC Meeting	Drexel University Philadelphia, PA	5/1/1991	2:17	8mm	1	Karl Smith of Sparcom speaks on various products
15	CHIP SCES 91 Meeting	ACE Metal Crafts Franklin Park Illinois	5/31/1991	3:14	8mm	1	
16	1991 HP Conf	Oregon State Univ Corvallis OR	8/1-4/91	16:20	8mm	5	11 HP-person panel discussion on calc & palmtop topics
17	WCES 92 Meeting	Denny's Restaurant Las Vegas	1/11/1992	5:14	8mm	2	Gil DeLiso speaks on Sharp products, Andy Fu talks about ACE Technologies, Scott Burke presents Sparcom products and Roy Bryzlowski speaks on HP calc and palmtop topics
18	CHIP Meeting	ACE Metal Crafts Franklin Park Illinois	2/26/1992	1:51	8mm	1	Megha Shyam of Sparcom speaks on various topics
19	1992 HP Conf	Drexel University Philadelphia, PA	3/27-29/92	13:09	8mm	4	Dennis York speaks on HP48, HP95 topics
20	CHIP SCES 92 Meeting	ACE Metal Crafts Franklin Park Illinois	5/29-31/1992	4:05	Hi8	2	Many talks on Mac-HP48 connectivity, HP95 BBS activities, Palmtop Paper, CD ROM production
21	HPCC 10th Anniv Conf	Imperial College, London	9/19-20/92	12:18	Hi8	4	HP35 20th Anniv.; Raan Young sends a page around the world; Views of the Babbage Difference Engine replica; A video tour of Corvallis facility
22	WCES 93 Meeting	Denny's Restaurant Las Vegas	1/7/1993	3:47	Hi8	1	Joe Horn discusses Goodies Disk progress, Jake Schwartz presents the HP16C emulator library for the HP48
23	CHIP SCES 93 Meeting	Red Cross Bldg Chicago Illinois	6/3/1993	8:12	Hi8	3	Dennis York speaks on HP48, HP95 topics
24	PAHHC Meeting	Drexel University Philadelphia, PA	7/21/1993	1:48	Hi8	1	Jim Lawson speaks on the HP48GX
25	PAHHC Meeting	Drexel University Philadelphia, PA	10/16/1993	0:59	Hi8	1	Lew Thomas presents various HP95LX peripherals
26	WCES 94 Meeting	Denny's Restaurant Las Vegas	1/6-9/94	3:56	Hi8	1	Henry Horn visits; Joe Horn presents Goodies Disk 9; the group writes an HP48 program "on the fly"
27	CHIP SCES 94 Meeting	Red Cross Bldg Chicago Illinois	6/23-26/94	6:02	Hi8	2	Eric Vogel talks (via speakerphone) about HP Omnibook 530; discussion of British and Dutch group meetings; presentation of an HP48 triangles solution program; Rayovac Renewal rechargable batteries

Figure 4a. HP Events on Video, part 1 of 2.

HP Videos

Event No.	Name	Location	Dates	Length	Format Source	No. DVD Disks	Special Guest(s)
28	1994 PROMPT Conf	Hotel Inntel Zandaam Netherlands	10/1-2/94	6:40	Hi8	2	Diana Byrne presents the HP38G; Kheng Joo Khaw talks about R&D at Singapore
29	WCES 95 Meeting	Denny's Restaurant Las Vegas	1/6-10/95	5:27	Hi8	2	Discussion on Goodies Disk 10, inkjet printing, the Omnibus HP48 spreadsheet application
30	PAHHC Meeting	Drexel University Philadelphia, PA	6/17/1995	1:38	Hi8	1	Gene Rawdin speaks on the HP19BII
31	PAHHC Meeting	Drexel University Philadelphia, PA	6/28/1995	1:44	Hi8	1	Jim Lawson speaks on the HP38G
32	CHIP Meeting	Red Cross Bldg Chicago Illinois	7/28/1995	3:13	Hi8	1	Talks on HP38G, Educalc, Batteries, inkjet cartridges and classic-calc emulator for PCs
33	1995 HP Conf	Mall of America Minneapolis, MN	8/5-6/95	15:25	Hi8	5	Diana Byrne discusses 38G development via the internet; Many palmtop presentations; More Goodies disks; Battery and ink alternatives
34	HHC96 Conf	Anaheim Marriott Hotel Anaheim CA	8/24-25/96	17:26	Hi8	5	Dual palmtop/calculator tracks - Singapore HP group led by Keng Joo-Khaw discusses HP in the palmtop arena; Also the Omnigo 100, a classroom datalogger, HP48 sysRPL and machine code, palmtop memory, the "data egg" presented
35	WCES 97 Videos and Slides	Las Vegas Convention Center	8/24-25/96	2:31	Hi8	1	Windows CE presentations from Casio and Philips, HP reps discuss their palmtops, many other products shown
36	PAHHC Meeting	Drexel University Philadelphia, PA	6/5/1997	4:02	Hi8	1	Eric Vogel presents the HP Logic Dart
37	HPCC97 15th Anniv. Conf	Imperial College, London	9/20-21/97	11:10	Hi8	3	Chris Wallin, Gary Heinze of new ACO present their vision; Tony Duell intros I2C interface for HP handhelds, Meta Kernel and ALG48 libs presented
38	HHC98 Conf	HP Facility Vancouver WA	8/29/1998	12:00	Hi8	4	Raan Young and Jim Donnelly present palmtop and calc topics; Bill Wickes discusses the future of handheld calcs
39	HHC99 Conf	Phienix Inn Hotel Vancouver WA	8/20-21/99	15:00	Hi8	5	Jean-Yves Avenard, Gerald Squelart, Cyrille deBrebisson present HP49G; Dennis York presents TDS surveying handheld; Jim Donnelly discusses RPL library development
40	HHC2000 Conf	Ramada Plaza Hotel Los Angeles, CA	9/9-10/00	12:30	MiniDV	4	Discussions of HP Third Party troubles; Large HP49 poster presented
41	HHC2001 Conf	Four Points Sheraton Hotel Chicago Illinois	9/15/2001	8:15	MiniDV	3	Discussion of the HP Xpander
42	HPCC2002 20th Anniv Conf	Imperial College, London	9/21-22/02	13:00	MiniDV	4	Fred Valdez, Tony Jones present new San Diego team and strategy; Cyrille and Jean-Yves talk about ACO closure & Xpander and X25 product cancellations
43	HHC2003 Conf	Radisson Hotel Newport Beach CA	9/20-21/03	14:00	MiniDV	4	Tony Jones, Cyrille and Lee-Kuan Goh present HP activities; Joe Horn introduces the PDQ algorithm; the HP33S is presented
44	HHC2004 Conf	Radisson Hotel San Jose CA	9/25-26/04	15:00	MiniDV	4	Roke Ghodsi, Cyrille and Art Garcia present HP activities; Eric Rechlin presents hpcalc.org ; Dave Hicks discusses the HP Museum website; Monte Dalrymple presents HP41 replacement CPU design
45	HHC2005 Conf	ACE Metal Crafts Franklin Park Illinois	9/17-18/05	14:15	MiniDV	4	Cyrille de Brebisson presents HP activities, Gene Wright shows the HP49g+ AUR, many Solver presentations, Ron Johnson speaks on HP Lightscribe technology, Tim Wessman talks about HP49G+ surveying software and hardware
			totals:	321:01		103	

Figure 4b. HP Events on Video, part 2 of 2. The total time of all 45 events is over 321 hours.

In reality, the important aspect of these events is the content rather than the format. Figures 4a-4b list all the items along with a short description. Primarily, these events may be divided into formal conferences, mini meetings in conjunction with the CES and local club meetings.

The local club meetings were recorded due to the presence of a special guest or the demonstration of a new product of interest. For instance, HP's Eric Vogel visited the Philadelphia Area HP Handheld Club (PAHHC) on June 5, 1997 to demonstrate the HP Logic Dart. Our local Philly group was also lucky enough to have local members Jim Lawson and Gene Rawdin courageous enough to get in front of the group and demonstrate the HP48GX, HP38G and HP19BII when they were first interoduced.

The CES meetings were held in Chicago (with the CHIP group) in the summer and in Las Vegas (usually at a Denny's restaurant) in the winter. An example is the multi-hour meeting on January 11, 1992 in Las Vegas where we were treated to presentations from folks from Sharp (Gil DeLiso), ACE Technologies (Andy Fu), Sparcom (Scott Burke) and Hewlett-Packard (Roy Bryzlowski). Another was the CHIP meeting held on 6/3/88 where HP's Ron Brooks introduced the HP22S and HP32S. In January of 1994, we even were delighted to have Henry Horn (former editor of HP Key Notes) and his wife pay us a visit.

Figure 5. Video-captured still image from HP panel at 1991 Corvallis Conference at Oregon State Univ. From L to R: Richard Nelson at podium, Eric Vogel, Bill Wickes, Roy Bryslowski, Everett Kaser, Jim Donnelly, Kermit Jansen, Max Jones, Preston Brown, Diana Byrne, Hank Schroeder and Gary Steiger.

Also, a total of 17 formal conferences so far have been captured on video. Practically every time, we got to hear at least one HP person discuss current and possibly future products. The ultimate recorded extravaganza was the 1991 conference at Oregon State University in Corvallis, Oregon, where a panel of eleven(!) HP hardware, software, marketing and documentation people endured interrogation from the enthusiastic audience. (See figure 5.) In the recent past, crews from HP's Singapore division (Feng Yuan, Kheng-Joo Khaw), the Australian Calculator Operation [ACO] (Gary Heinze, Chris Wallin, Jeff Blough, Whit Hickman) and most recently the San Diego group (Fred Valdez, Lee-Kuan Goh, Roke Ghodsi, Tony Jones) spoke with us. Also, we have been lucky enough to have the guys from the original HP48 Meta Kernel team – Cyrille de Brebisson, Jean-Yves Avenard and Gerald Squelart - as current, former and non-HP employees visit us repeatedly over the past several years to discuss HP49-and-beyond topics. The conference venues have been schools (Triton College, O S U, Drexel Univ., Imperial College etc.), hotels (Radisson, Marriott, Phoenix Inn etc.) HP facilities (Rolling Meadows, IL; Santa Clara, CA; Vancouver, WA), the Mall of America in Minnesota ('95) and Ace Metal Crafts in Franklin Park, IL; the place where the CHIP group regularly meets.

A significant amount of calculator history and memorable moments lives on those tapes and disks. If you didn't win the full set as the conference door prize but are still interested in obtaining copies of any of the DVD sets, feel free to check http://www.pahhc.org/video.htm on the web or email me at jakes@pahhc.org.