

# HHC 2019 Conference Report

*Richard J. Nelson*

## Introduction

We celebrated another fun and educational Conference in Reno Nevada thanks to the work of David Ramsey. We previously held HHC 2014 in Reno so the location was familiar to HHC regulars. Because HP did not attend HHC 2019<sup>(1)</sup> we had an extra three hours in our schedule to cover a wide range of topics related to technical problem solving. HHC 2019 had 31% fewer attendees (33 vs. 48) compared to HHC 2018. The reasons are unclear but include the following.

1. Location and accessibility.
2. Inactivity on the part of HP.
3. Our aging group. We have been doing annual conferences since our first in Santa Clara CA in 1979.
4. Family conflicts and obligations.
5. Lifestyle and interest changes – more on this later.

Here is a plot of 19 recent conference numbers.

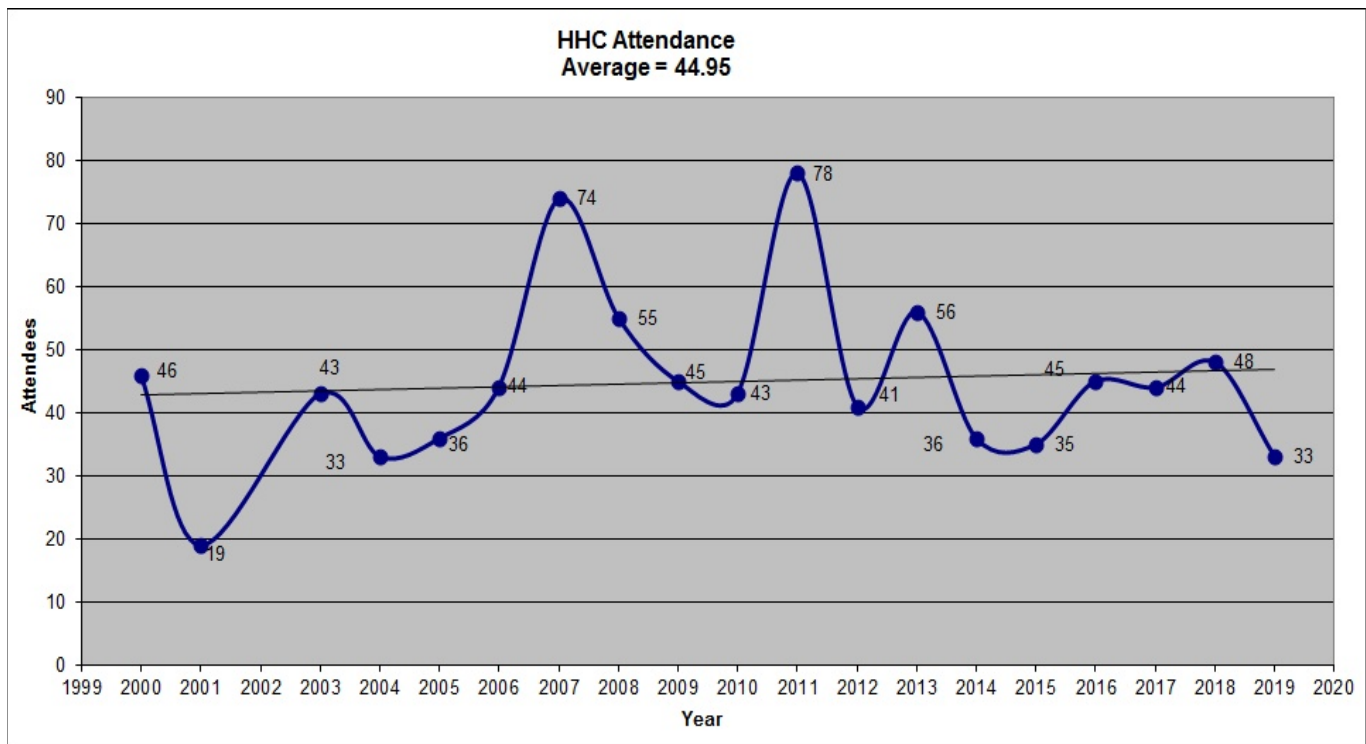


Fig. 1 – Plot of the web-sites 19 HHC attendee numbers. Attendance is not very predictable. Plot by JKH.

## Conference Presentations

We had 22 presentations and demonstrations ranging from USB charging/trouble shooting and precision machining to new community calculator designs along with a pre-announced Swiss Micros DM41X. Eric Rechlin video recorded each presentation and you may use the list below (with links) to review all of the HHC 2019 presentations. Here are his descriptions.

“I upgraded my production a bit so the videos are higher quality than in the past (well, except the first two videos, when we were still "training" the speakers to stand in the best place for the cameras, and when I didn't bother with the second camera as a result). Links are here:” *RJN: I added bold titles, numbers and ♥, ♦, & ● to group topics. See page 5.*

- 01● Jeremy Smith: **Cubic Chess** (00:15:05) [single camera only]  
<https://www.youtube.com/watch?v=1wghmueZblQ>
- 02● Jim Donnelly: **Shop Projects Update** (00:53:38) [single camera only]  
<https://www.youtube.com/watch?v=AG5r3cHqkAs>
- 03♥ Bob Prosperi: **Swiss Micros DM41X Announcement** (01:53:01)  
<https://www.youtube.com/watch?v=0lahGco03xk>
- 04♥ Namir Shammass: **Newton Method Interpolations** (00:17:00)  
<https://www.youtube.com/watch?v=pGET-JaRpgU>
- 05♥ Gunter Schink: **Overview of the WP 43C** (00:23:20)  
<https://www.youtube.com/watch?v=s5GN1Jz3RpA>
- 06♥ Eric Rechlin: My Role as an Archivist; or, **What's on the HHC USB Drives?** (00:48:09) [single camera only] <https://www.youtube.com/watch?v=Uj6cFuCages>
- 07♥ Jake Schwartz: **What's New in the PPC Archive DVD** (00:15:01)  
<https://www.youtube.com/watch?v=xaPBmXFWWiI>
- 08● Richard Schwartz: **Percent Change, Logarithms, and their interpolation** (00:19:28)  
<https://www.youtube.com/watch?v=L Ae48Yoqclg>
- 09♥ Bruce Horrocks: **Impromptu Report from Across the Pond** (00:23:25)  
[https://www.youtube.com/watch?v=\\_YzT-pI3B84](https://www.youtube.com/watch?v=_YzT-pI3B84)
- 10♥ Namir Shammass: **Multi-Variable Solver** (00:11:32)  
<https://www.youtube.com/watch?v=XcuZ1vIlhSA>
- 11● David Ramsey: **The Nature of Time** (00:32:10)  
[https://www.youtube.com/watch?v=Us3nVtqS\\_vw](https://www.youtube.com/watch?v=Us3nVtqS_vw)
- 12♥ Jim Johnson: **Graphics on the DM42** (00:17:14)  
<https://www.youtube.com/watch?v=A8DOWgo4oXU>
- 13♦ Richard Nelson: **Percentages on the HP 48** (00:04:23)  
<https://www.youtube.com/watch?v=7TqoRiV6JuY>
- 14♦ Richard Nelson: **RIP HP Calcs** (00:26:55)  
<https://www.youtube.com/watch?v=DHRmOU4s9wE>
- 15● Richard Nelson: **USB Power** (00:17:08)  
<https://www.youtube.com/watch?v=z9kJp8uHnfs>
- 16♦ Bob Prosperi: **Woodstock Low Power and ConnKit** (00:52:10)  
<https://www.youtube.com/watch?v=oTXAf-NTRD0>
- 17♥ Gene Wright: **The Financial Calculators** (presented via Skype) (00:34:55)  
[https://www.youtube.com/watch?v=lMoXI9\\_nJjA](https://www.youtube.com/watch?v=lMoXI9_nJjA)
- 18♥ Namir Shammass: **Scout Evolutionary Optimization Method** (00:28:14)  
<https://www.youtube.com/watch?v=alBaUhYMRyU>
- 19♥ Joey Shepard: **DIY Calculators (Best Speaker winner)** (00:15:52)  
<https://www.youtube.com/watch?v=dJoKI0LK5jM>
- 20♦ Tom Chrapkiewicz: **Aural Clocks and Big Ben on the 48** (00:20:01)  
<https://www.youtube.com/watch?v=ukSKLbKJtlg>
- 21♦ Bruce Horrocks: **The HP 39G/49G Overhead Projector** (00:25:03)  
<https://www.youtube.com/watch?v=HCTL6gqMM8w>
- 22♦ David Ramsey: **Programming Contest Winners** (00:11:15) [single camera only]  
<https://www.youtube.com/watch?v=MSnmWfLPkHI>

I placed a heart symbol, ♥, next to each topic that was specifically calculator related, a diamond symbol, ♦, next to a specific HP calculator related topic, and a bullet symbol, ●, next to a technical topic in Eric's list, page 2, above. Here are the totals.

1. ♥ - Calculator related, 12 of 22 = 55%
2. ♦ - HP related, 6 of 22 = 27%
3. ● – Technical, 4 of 22 = 18%

The reader will notice the wide variety of the presentations. Having been at decades of HHC presentations I noticed that the interest was very high for each and every topic. I didn't see people leaving the room for lack of interest as I have occasionally noticed in the past.

Having a very hands-on technical group of attendees' means no problem can't be solved with respect to audio visual requirements and demonstrations. Committee member Gene Wright was not able to attend (due to #4 reason listed above), but he gave his well-prepared presentation on The financial Calculators in video form from Nashville on Sunday.

One presentation by Joey Shepard requires special mention. A first time attendee, Joey told me about his DIY calculator projects on Saturday. I asked him if he could present his work on Sunday. He put together some slides Saturday night and he impressed everyone on Sunday to be voted best speaker. His DIY calculators were **completely** do-it-yourself including soldering the wires, writing the firmware CODIC code and fabricating the cases.

## Conference finances

One of the most common reactions I hear from (especially first time) attendees is: I am amazed that such a conference could be done at such a low cost. Each Conference is unique and the answer is quite simple. The low cost is the objective and work of the Committee AND the contributions of the attendees.

The Conference donation this year was \$40 which included snacks, drinks, three meals, and a 64 GB thumb drive chock full of the presentations (including previous HHCs), all of the HHC websites, other (now gone) websites, and videos of the past HHCs. See Eric's presentation #6 in the link list above. All work and materials not donated by the attendees are totaled and divided by the number of attendees. Here is the income and expenses for HHC 2019.

**Income:** 34\* Paid \$40 for a total of \$1,360.00 donation collected by Bob  
 Thumb drive sales from HHC 2018 \$ 144.00 Amount from Eric  
 Total transactions for HHC 2019 \$1,504.00

\* One attendee paid twice. (to increase his door prize odds, or for the extra drive, or both?)

**Cash out:** Food \$ 965 (higher than original guestimate of \$800)

Note: The snacks cost (\$220) was donated by David Ramsey and Geoff Quickfall who made the "snack run."

WELLS FARGO			
		Sign Off	Welcome
Date ▼	Description ↕	Deposits/Credits ↕	Withdrawals/Debits ↕
Pending Transactions			
No pending transactions to view.			
Posted Transactions			
⊕ 09/24/19	eDeposit in Branch/Store 09/24/19 09:56:09 AM 121 S POWER RD MESA AZ 9732 <a href="#">View Details</a>	\$395.00 (Income less expenses)	
⊕ 09/24/19	eDeposit in Branch/Store 09/24/19 09:53:27 AM 121 S POWER RD MESA AZ 9732 <a href="#">View Details</a>	\$144.00 (2018 Extra Thumb drives)	
⊕ 09/19/19	PURCHASE AUTHORIZED ON 09/18 BEST TROPHIES AND MESA AZ S469261841817131 CARD 0005	(Awards)	\$227.43
⊕ 09/16/19	PURCHASE AUTHORIZED ON 09/14 OFFICE MAX/OFFI 6631 EAST MESA AZ P00389257726502879 CARD 0005	(Envelope labels)	\$13.31
⊕ 09/12/19	PURCHASE AUTHORIZED ON 09/11 THE UPS STORE # 40 MESA AZ S389254823815780 CARD 0005	(UPS Shipping, prizes)	\$111.31
⊕ 07/01/19	PURCHASE AUTHORIZED ON 06/28 COSTCO WHSE # 1028 MESA AZ S389179827359789 CARD 0005	Thumb Drives (\$1)	\$368.04
Totals		\$539.00	\$720.09

Fig. 2 – HHC 2019 expenses excluding donated snacks and drinks.

**Cash Deposited:** \$539 (includes Eric's 2018 \$144 drive collections.

Here is the HHC 2019 bank account activity.

### Account balance for HHC 2020.

The total cost of the Conference is:

As noted above: . . . . . \$720.09

Cash out for food: . . . . . \$965.00

Total Conference cost: . \$1,685.09

Since our cash  
collection was \$1,360.00

Our estimates  
were low by \$325.09 or \$10 per  
attendee. We had additional income  
from HHC 2018 from Eric's Drives  
and of course our bank balance. On  
this basis we have funds for two no  
cost Conferences.

The screenshot shows the Wells Fargo mobile app interface. At the top is a red header with 'WELLS FARGO' in white. Below this is a grey bar with 'Account Summary' and a 'Switch Account' dropdown. The main section shows the account name 'HHC' with a card icon and the number '...1886'. To the right, the balance is '\$3,805.85' with 'Available balance' written below it. A navigation bar contains icons for 'Transfer Money', 'Pay Bills', 'Send Money', 'View Statements', and 'Manage'. Below this is an 'Activity Summary' table.

Activity Summary	
Current posted balance	\$3,805.85
Pending withdrawals/debits	\$0.00
Pending deposits/credits	\$0.00
<b>Available balance</b>	<b>(For HHC 2020) \$3,805.85</b>

*Fig. 3 – HHC Bank account balance after all HHC 2019 expenses.*

The Conference donation is estimated and collected to the nearest \$10 for ease and accountability. We started accruing a year to year bank account (Richard & Gene access) when HP was rumored to be selling its calculator product line (along with personal computers etc.) in 2011 in order to reduce our reliance on HP. HP participation has been quite generous over the years usually with prize donations and food. I have been asking if each Conference is the penultimate Conference to insure that these funds are spent on a Conference. **I do not want responsibility for them.**

This financially guarantees at least two more Conferences. See more on this later.

### Prizes and awards

A staple of every Conference is our door prizes. The attendees bring their no-longer-needed calculators, books, accessories, tools, and technical toys to be placed on the prize table. This insures that the treasured goodies end up with an appreciative owner. The Committee divides the prizes on the table on Sunday into two groups. Some prizes are shipped to me by people who are not able to attend. See photos on page 6.

1. Premium group – most expensive, rare, or unusual, typically 9 – 12 items.
2. Primary group – most of the prizes.

The best speaker gets first pick from the primary group followed by the various contest winners. The rest of the primary group prizes are awarded by random drawing of the registration ticket number. Fig. 4 shows the best speaker and contest winners & premium prize winners – from the HHC 2019 website.

The following prizes were awarded at the end of the conference:

- **Best Speaker** (all attendees vote for the winner): **Joey Shepard**
- **Programming Contest** (decided by contest judges):
  - Best Classic RPN Programmer — **Namir Shammas** (Olivier Arbey was runner-up and Chuck McCord also entered)
  - Best Modern RPN Programmer — **David Hayden** (Craig Bladow was runner-up and Eddie Shore also entered)
  - Best RPL Programmer — **Roger Hill** (Bill Butler was runner-up and Joey Shepard also entered)
  - Overall Best Programmer — **Namir Shammas**
- **Premium Prizes:**
  - Namir Shammas — HP-75C with case, memory module, and two tubes of mag cards
  - Bob Prosperi — Pocket Sundial
  - David Thompson — HP Prime G1
  - Jeremy Smith — Prime Owner's Manual (Bound)
  - John Mohn — HP 82161A Cassette Drive
  - Craig Bladow — Raspberry Pi
  - Peter Marschall — WP 34S
  - Jake Schwartz — HP 50g new in unopened packaging
  - Bill Butler — Prime Owner's Manual (Bound)
  - Horst Hoffmann — HP-17B
- **Door Prizes** (goodies for everybody)

Note: All of the prizes were donated by attendees.

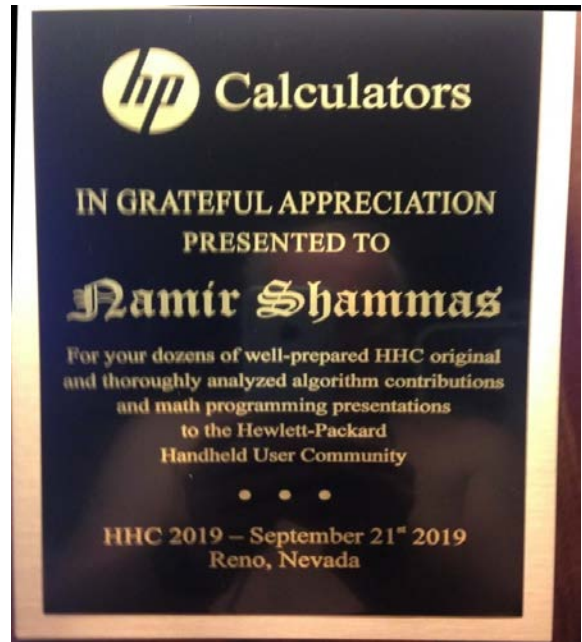
**RJN Note:** There were more than three times as many prizes as attendees.

*Fig. 4 – Best Speaker, contest winners, and premium prize winners.*

Three plaques were awarded to recognize the service of Eric Rechlin, Namir Shammas, and Gene Wright.



*Fig. 5 – Plaque to recognize Eric Rechlin.*



*Fig. 6 – Plaque to recognize Namir Shammas.*

The photos were taken “on the fly” and are not the best, but are readable and self-explanatory.

## Future HHCs

Depending on how the “end” is defined it is quite clear that the HP calculator era has come to its end. One of the last topics of an HHC is a Community discussion of issues, problems, and future Conferences. One attendee mentioned the fact that during the Conference, HP’s last product, the Prime wasn’t mentioned during the Conference. The observation raises the question of how many presentations were calculator related.

I somehow lost my last minute photos of the door prizes. The prizes are added throughout the day on Saturday and Sunday. Fig 4 provides a list of the premium prizes which gives a good idea of the quality of the donated prizes.

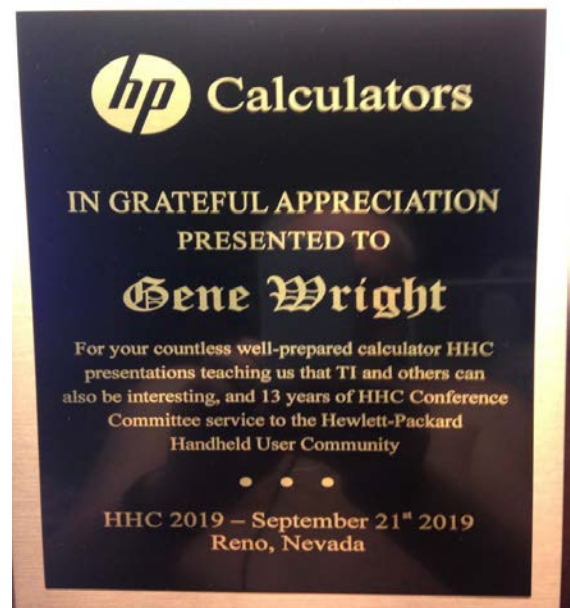
The organizing and planning of an HHC is done by a primary Committee of six longtime friends who have learned to work together after many years. Each member has taken on a specific portion of the work



to the extent that it is nearly automatic. In addition to the teamwork of task sharing is the similar interest's aspect that we back each other up. This provides a continuity aspect that is unique to HHC since the first HHC some 41 years ago.

The Committee has changed over the years since I mostly did the first Conference(s) in the early years. As the oldest Committee member (and perhaps oldest HHC attendee) I have to admit to slowing down because of age. As you get older you work smarter, and with a Conference "formula" documented on your computer it is easier to fill-in-the-blanks for each new Conference. Being retired, your schedule is your own. See Appendix A for specifics.

One of the major Conference organizer tasks is for one individual to have the overall responsibility. The primary and most important part is the financial sign-on-the- dotted-line responsibility. With the HP part of an HHC disappearing, the future needs to be reassessed. I have seen changes in the past and I am looking ahead.



*Fig. 7 – Plaque to recognize Gene Wright.*



*Fig. 8 – Saturday door prize divisions. Final grouping is done on Sunday. Photo by Jake Schwartz JS.*



*Fig. 9 – Over view of door prizes on Saturday. Photo by Jake Schwartz, JS.*



Fig. 10- Some calculators closer. Photo JS

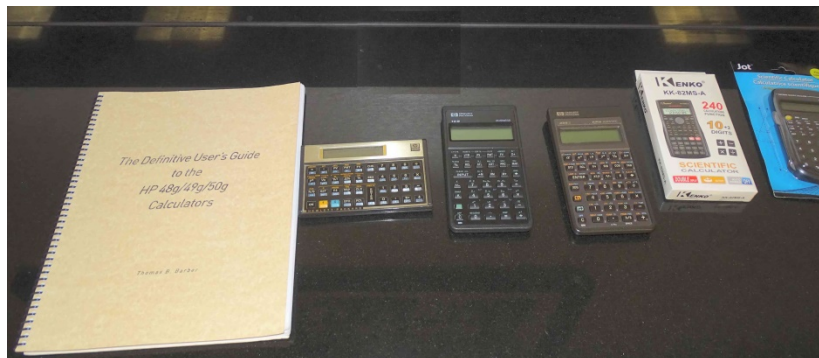


Fig. 11 – More calculators closer. On early Saturday. Photo JS.

## Who is an HHC attendee?

The Conference is one of the activities of “the club<sup>2</sup>” that was started and operated with a clear set of values, objectives, and specific guidelines<sup>3</sup>. Membership in “the club” attracted a specific type of person that represents only a very small percentage of the technical group in society. Here is how I see the HHC group.

1. We were originally attracted to each other by a common interest - HP Calculators.
2. The HP calculator as a personal computational tool provided a means to express a “hands on” technical problem solving approach to life.
3. Problem solving is common to many technical fields such as mathematics, physics, chemistry, aviation, electronics, photography, and astronomy, etc.
4. This unique group has a broad range of common multiple technical interests as mentioned in #3 above.
5. We tend to be do-it-yourself types.
6. We are especially curious and always wanting to expand our knowledge and learn more.
7. We are eager and willing to share our knowledge and experiences with others of similar interests.
8. We are willing to expend resources (time, club member fees, travel, etc.) in support of all of the above. Any profit motive from our activities is secondary.

In addition to the HHC attendees I experienced this special group of people while I visited foreign chapters during the active days of “the club.” I especially remember one meeting at an HP office in Mexico. I needed a translator to speak and ask questions. Even with the language and cultural differences I felt completely “at home” with the technical people<sup>3</sup> in attendance. The HP Calculator was the catalyst that brought us all together, but it is the eight technical qualities listed above that define us as a group. The question I asked of the group: Are our mix of technical interests enough to continue with an annual Conference? The answer seems to be yes. Next it is important to ask: What range of topics are suitable? Personally my list would include: DIY projects related to USB microscopes, magnets, electronics, optics, photography, sensors, chemistry, and physics – in no particular order. The question for future HHCs is the topics to focus on. This doesn’t have to be resolved right now, but it should be a dedicated topic for HHC 2020.

## HHC Committee changes

The HHC 2019 HHC Committee is as follows.

**Table 1 – HHC 2019 Committee Members**

Name	Responsibility	Comments
Richard J. Nelson*	Hotel, Speakers schedule, Proceedings	Will someone carry on?
Joseph Horn	Website, online registration	Retiring after HHC 2019.

Jake Schwartz	Videographer, Historian	What an incredible amount of work.
Eric Rechlin	Dedicated all-around helper	Active Calc. Webmaster and Archivist.
Wlodek Mier-Jedrzejowicz	European coordinator	Unable to attend HHC 2019.
Gene Wright*	On-site registration	Unable to attend HHC 2019.
David Ramsey	Reno Coordinator	Generous supporter.
Bob Properi	Check-In , Helper, insightful participant	Filled in for Gene

\* - Richard and Gene have access to the Well Fargo HHC Bank account.

Joseph is retiring as web master after HHC 2019. Eric has offered to do the web site if no one else will. He has too much to do presently. David Ramsey has offered to do the HHC 2020 website. My concern is the many internet links to the site. Gene and Jake managed the site the year Joseph was on medical leave. Perhaps David and Joseph can coordinate and let us know.

## HHC list and publicity

Most attendees are registered on the HHC List maintained by Eric Smith. Any reader interested in future HHC's should register at: <http://lists.brouhaha.com/mailman/listinfo/hhc> This report will be sent to the list as well as posted on the HHC 2019 website. Readers active on the HP Museum site might mention this report to help with publicity.

## HHC 2020

Gene Wright eagerly wants to have HHC 2020 in Nashville TN and is willing to go the extra mile to make it happen. He will NOT use the same hotel we have used for HHC 2012, 2015, & 2017 and is searching the Nashville area. At the moment the tentative dates are the 2<sup>nd</sup> weekend in September or the 2<sup>nd</sup> weekend in October. Hotel selection/availability will impact the date.

## Long term HHC future Conferences

Here are a few comments (random order) made at HHC 2019 regarding the future of HHC Conferences.

1. Hold the Conference at a fixed well selected optimized location such as Houston?, West Coast?.
2. Finances should not be a limiting factor for holding a Conference. Conference costs compared to hotel, travel, etc. are minor.
3. Some hotels offer low cost multi-year contracts. This is new to me.
4. Richard is not willing to turn the Conference over to someone else. This is not true. I have many other interests and my calculator article writing is tiny compared to my other interests. I primarily spend my time technical writing. No one has offered to take on the HHC responsibility. The willingness to help (attendees and Committee) has always been the reason it has carried on since HHC 2002 in London.
5. Swiss Micros seems to be the primary contributor for new calculator production. This, like HP, is a "company" of two people.
6. Our interests are unique in terms of our technical hands-on attitude and we could expand on our non-HP interests to continue. It is important to maintain the group.

I suggest that we make this a primary topic of discussion for HHC 2020. Research should be done to determine how large this "new" community is. I suggest compiling a list of attendees for the last five years (2015 to 2019) and check this against and combine with the HHC List. Are there any volunteers?



The fellowship of the like-minded people is a vital part of an HHC. This is the reason we are structured the way we are from Friday to Monday. Often we organize a “side outing” ranging from a mountain top caravan”(CO), picnic, (CA), or NIST tour (CO).

**My biggest concern is the responsibility/use of the HHC funds as noted in Fig. 3.** Ideas?

Make HHC 2020 grander, larger, and free? If no coordinator volunteer steps forward we can continue as in the past. Having the extra funds makes life easier, but I am pushing the old-age envelope and the future is not predictable.

## Observations and conclusions

Only one of the last 19 Conferences (see web site data, Fig. 1) HHCs had a lower attendance, 19<sup>\*</sup>, than the 33 that attended HHC 2019. **Knowing how many will attend is a vital number for planning a Conference – and having a resource for presentations.** By all measures of success HHC 2019 was very successful and everyone had a great time. A first time attendee gave an impromptu calculator DIY presentation and was voted best speaker. All presentations are listed on page 2 with links to YouTube videos. HP did not participate and I have suggested that the HP



Calculator Era is at an end in my RIP presentation. Our Conference thumb Drive is 64 GB and was full of historical information of interest to all calculator users. The Conference cost was \$40 which included drinks, snacks, three meals, and the thumb drive. Eric Rechlin has sold all extra thumb drives (also \$40, we bought 50) and has had to order more. This report includes the Conference finance report and we are in great financial shape for HHC 2020 in Nashville with adequate finances for two no cost Conferences. Readers should sign up on the HHC Conference List to keep abreast of the details.

<http://lists.brouhaha.com/mailman/listinfo/hhc>

If I am unable to coordinate future Conferences and no one takes the helm HHC 2020 could be the last HHC as this Report discusses. Things are good now, but I will soon be 80. Fig. 12 on the next page shows the HHC 2019 attendees from the UK, Germany, Canada, and the US.

\* HHC 2001 was the 911 attack and I traveled the first resumed very eerie flight to Chicago from Los Angeles. That is the reason for the low attendance which was mostly locals and drive-ins.

For the HHC 2019 Conference committee (**see below**),

Richard J. Nelson

**Any comments regarding HP’s calculator activity or future are mine and not necessarily those of the HHC Committee.**



Name (A-Z)	From	Presentation Title
1. Olivier Arbey	WA	
2. Bruce Bergman	CA	
3. Craig Bladow	CO	
4. Mary Boetcher	NV	
5. Bill Butler	Canada	
6. Thomas Chrapkiewicz	CA	48G Sound
7. Sylvain Cote	Canada	
8. Jim Donnelly	OR	Shop Projects Update: Cube Chess, Harmonic Transformer, Cometarium, Genaille-Lucas Rulers for $\times$ & $+$ , and Napier's Bones
9. Felix Gross	Germany	
10. David Hayden	NJ	
11. Roger Hill	CA	
12. Horst Hoffmann	Germany	
13. Joe Horn	CA	
14. Bruce Horrocks	England	<ul style="list-style-type: none"> <li>• Impromptu Report from Across the Pond</li> <li>• The HP 39g/49g Overhead Projector</li> </ul>
15. Jim Johnson	IN	Graphics on the DM42
16. Lora Marschall	OK	
17. Peter Marschall	OK	
18. Charles McCord	OR	
19. John Mohn	WA	
20. Richard J. Nelson	AZ	<ul style="list-style-type: none"> <li>• Is the End Here?</li> <li>• Presentation of Recognition plaques (to Eric Rechlin, Namir Shammas, &amp; Gene Wright)</li> <li>• New Calculator Announcement</li> <li>• Woodstock Low Power and ConnKit</li> </ul>
21. Bob Prosperi	NY	
22. Geoff Quickfall	Canada	
23. David Ramsey	NV	The Nature of Time
24. Eric Rechlin	TX	My Role as an Archivist, or: What's on the HHC USB Drives?
25. Günter Schink	Germany	Overview of the WP43C
26. Jake Schwartz	NJ	What's New in the PPC Archive DVD
27. Richard Schwartz	NV	<ul style="list-style-type: none"> <li>% Change, Logarithms, and their interpolation</li> <li>• Newton Method Interpolations</li> </ul>
28. Namir Shammas	VA	<ul style="list-style-type: none"> <li>• Multi-Variable Solver</li> <li>• The Scout Evolutionary Optimization method</li> </ul>
29. Joey Shepard	VA	DIY Calculators
30. Eddie Shore	CA	
31. Eric Smith	CO	
32. Jeremy Smith	OR	Cubic Chess Set
33. David Thompson	NV	

Fig. 12 – HHC 2019 Attendees and the presentations given. From the HHC 2019 website.

## Notes for HHC 2019 Conference Report

- (1), *See my HHC 2019 RIP presentation explaining what active means. It simply means no new calculator product development and milking the Chinese student Prime market for all it is worth. What a sad situation for such an incredible product – so close and yet so far for the general market.*
- (2), *“the club” is the HP-65 User’s Club founded in June 1974. The name was changed to PPC because of later high-end calculator model numbers. After the PPC ROM project Emmitt Ingram was able to gain corporate control of “the club.” HP wanted to deal with a stronger legal entity. I was ousted as editor/manager and I then started CHHU. Most PPC members joined CHHU because Emmitt had a different set of values. See my RIP Conference paper Appendix C – PPC/CHHU “Card in the Box” – a bit of HP calculator history on page 12. Even HP was able to see and understand the differences and they didn’t want to deal with Emmett. They even demanded the return of the Users Library that I personally trucked down from Corvallis.*
- (3), *PPC and CHHU operational values are well known and well published. See the 2002 UK published book RCL 20 page 44. I also list the values of “the club” that also apply to CHHU Conferences. The section/ article starting on page 36 titled Starting A Calculator Club is a good summary of these values. The list on page 44 is reproduced below.*

“Here are the values I believe in and have attempted to practice with the club.

1. **It is an open group.** There are no secrets. All activities are openly discussed. There are no hidden/management activities. Example: PPC under board management "died", CHHU lived.
2. **Sharing is a vital activity.** You are here to share what you know. Remember #1. Example: There was never a shortage of material to publish.
3. **Resources are distributed.** Each member brings and contributes resources. Remember #2. Example: The readers prepared Indexes to the newsletters.
4. **Ideas are work.** If you have an idea share it. If it is a good idea known by a positive response from the group you may work on it. If you need resources remember #3. Example: Every meeting has a "show and tell".
5. **Recognize and respect (the work of) others.** Remember and credit the ideas and work of others in the club. Remember #4. Example: Lampman Split Logic, Phase 1 interrupt switch.
6. **Show don't just tell.** We are an enthusiastic group who practices the concepts of technology. Don't just tell me, show me how. Remember #5. Example: Full page photos of machine internals.
7. **Focus on the goal.** If all of the above are practiced you will contribute your resources because you believe in the club and the project at hand. Individual issues are more easily "given up" if the member understands and agrees to the goal. Example: PPC ROM - \$238,000 (more than half a million in 2002 US dollars) donated and hundreds of people working for two years without a single penny of compensation.

What are my motives in maintaining an organization of people who have Hewlett-Packard calculators as their focus? Certainly the unique qualities of HP's calculator products is one motive. I have tried to express this idea in many articles over the last 28 years. If, however, I look at what I personally get from all this it is simple. No matter what meeting of people I have attended, and I have attended over 800 meetings, from Mexico, Sweden, the UK, to the US, I have noticed something very interesting. It didn't matter where I was because the people were all like-minded. They were technical people. They were very intelligent people. They were very curious, and they were all happy to be with people of similar interests.

Most importantly they shared similar values. They valued education and teaching.

What motivates me? I truly enjoy learning new technology and having fun with it. Curiosity got me started, learning and fellowship keeps me going, and writing about it makes it worthwhile.”

## Appendix A – Conference Coordinator/Organizer Responsibilities

### Hotel, Speakers schedule, proceedings

In order to make a Conference happen someone has to coordinate activities, set a date, and select a location. This requires a multiple year time, skill set, and financial commitment. Here is a list of tasks that I perform in this roll. Any person in this roll will do it his way and in his style, but the basic mechanics of a unique CHHU Conference will apply. If you don't discuss all the details with the hotel you may get stuck with unexpected hotel charges especially those of #1 a in the list below.

A. **Set a date.** We have a tried and proven “formula” for this and the date usually ranges from the 3<sup>rd</sup> or 4<sup>th</sup> weekend in September or the 1<sup>st</sup> or 2<sup>nd</sup> weekend in October after the end of the summer season. This is a Committee decision, but the coordinator needs to gather the data for the committee to vote. The over-all cost – total – needs to be considered. A critical decision is an estimate of the number of attendees. The total costs required are:

1. **Negotiate the room rate** based on the number of room-nights the Conference needs from the hotel. I have always used a conservative room-night number and we have always exceeded it. This is important. If 35 attendees are expected I use the lower range number as 35. The higher number is 1.5x or 50. Some attendees will share and most will stay for two nights. Foreign attendees will make a vacation around the Conference weekend and will stay longer. This must be discussed with the hotel to extend the Conference rate a few days before and after the weekend. This gets a bit complicated when certain hotels have different weekday vs weekend rates with their own definition as which days these are. The number of room-nights is important because it may impact other hotel charges especially the meeting room charges. Some hotels have a sliding scale of discounts based on the number of room-nights. If your room nights are high enough the meeting room rate may be zero. This was the case for HHC 2019. Hotels are basically of two types.
  - a. Those with their own full kitchen and catering staff.
  - b. Those with only a breakfast capability. This usually works better for us to keep costs reasonable. This also requires extra work on our part to manage the catering.

Selecting a hotel should be done as early in the year as possible. June is too late, March is better.

2. Determine **meeting room suitability and rate**. This is critical and we have our own requirements concerning size, power outlets, LCD projector & screen, sound system, class room tables, air conditioning, location, security, accessibility, and hours of availability. The meeting room may cost from \$700 to \$900 per day to rent. A high room-night number helps to keep this cost down.
3. Determine how the **food and snacks** are handled. Do we outside cater, walk to a restaurant, use the hotel restaurant or coffee shop, or have the hotel cater. If the latter, a package deal needs to be negotiated. We have done it all ways, and eating “in place” is the best use of Conference time.
4. Coordinate the **hotel registration** with the website registration in terms of providing the details for the attendees. The attendee must register at both locations.
5. **Get the speakers organized**. The Conference website formally manages this, but there is a lot of work that must be done to seek, suggest, inspire, and encourage, speakers to prepare. Previous project up dates, hot topics of current interest, and suggesting new projects must be done at the personal level. Knowing the speaker personally is a great help. You must compile a speaker's email list to email them with information useful to getting their topic prepared. Recent



conferences have used large thumb drives because the memory size technology has advanced. We naturally want to fill them and this requires that they be prepared before the Conference and not at the Conference as we have done in the past.

Ideally the speakers should prepare a paper and a Power Point Presentation, PPP. Many will want to just prepare a Power Point Presentation which is less desirable for future reading. Paper and PPPs need to be checked for having page or slide numbers, the HHC logo, and a compatible format (I have seen submittals that use software I have never heard of). Word, PDF, and Power Point are the formats I use and I have to convert some submittals to make them compatible. The author will be focusing (under time pressure) on the content, and not the format. I usually receive two or more (in some cases many more) versions. Coordinating the file flow during the ten days prior to a Conference is nearly a full time job.

6. **Make a schedule.** This will always change and up to five versions are made before a Proceedings version is printed for the handout envelope. The many demands on table space for demonstrations, duration, special equipment, preferred day or time need to be accounted for.
7. Buy and **print the numbered handout envelopes, labels, and name tags.**
8. **Print the best speaker forms.** Apply labels and stuff envelopes.
9. **Buy the thumb drives**, typically 50 initially. **Print and apply labels.**
10. **Assemble the speaker files** (and others for historical purposes) to be added to the Conference Thumb drive to prepare a master.
11. **Arrange for any donated door prizes to be shipped to the hotel.** Two or three people will send their door prizes even if they are not able to attend. **These people provide inspiration for continued Conference support.**
12. **Coordinate with hotel staff** during the Conference and coordinate the speakers and schedule during the Conference.



## Appendix B – Conference Coordinator/Organizer Check List

I dubbed the HHC 2002, the HPCC Conference in London, as the most documented Conference. I wrote a report for that Conference that included extensive details for organizing such conferences. A check list from that report is reproduced here for completeness.

**Table 4 — HHC Check list**

#	Item	Your Plan/Solution
1.	<b>Conference Purpose</b> While this may seem obvious it helps to spell it out. For me the purpose of the Conference is to have fun. Additionally the purpose is to share and learn about those things related to buying, owning, using, understanding, sharing, and maintaining our HP Handhelds and accessories.	
2.	<b>Conference Objectives</b> This will vary from Conference to Conference. I have described the Conference objective as a "snapshot" of the accomplishments of the HP User Community since the last Conference. Each Conference, however, also has other goals and objectives and the Theme helps focus on these. At the 15 <sup>th</sup> HPCC Conference in 1997 one of the objectives was to provide some ideas for the path of the newly formed ACO. The realization of these ideas was expressed at the 20 <sup>th</sup> HPCC Conference. These things may not be obvious to the newcomer, but those who have been around for a decade or two know very well how certain objectives are formulated and executed. It is important to look at the big picture. Once again the sense of Community requires that you look beyond the few steps before you. Keep these thoughts in mind as you continue on your path to organizing an HHC.	
3.	<b>Financial Responsibility</b> Someone has to assume the financial responsibility for the conference. Often this person is also the organizer of the conference, but not always. This may be an organization such as HPCC, etc. In the past a company has played this role. This is usually not recommended because they will want to control the conference and we all know that is a BAD idea. Not all conferences have broken even financially. Some have lost thousands of dollars. In one specific case this person was also the organizer and he could not look after things properly and the Hotel provided all kinds of expensive services that were not planned had to be paid. I know this first hand. Because this Conference was "business biased" it did not function using the principles being expressed here. You can't have it both ways. The attendees will not "chip in" a little extra to fill an individuals pocket.	
4.	<b>Conference Organizer</b> This person is the most important person because it is he that will inspire others to participate. Just making a call to the community saying that you are having a conference will not get the attendance you need. There may be special circum-stances that will attract attendees such as the first showing of a fantastic new machine, etc. The organizer keeps things on track and must have the resources to coordinate all the various activities and people involved. This person must have the communications tools required such as unlimited telephone service (I had an outgoing 800 number for ten years while at EduCALC and permission to use it for this purpose.) Alternately you could use email - with a broadband connection and reliable ISP if possible. (I have this capability at work).	

#	Item	Your Plan/Solution
5.	<p><b>Conference Type and Theme</b> This is also another important definition that must be made in the promotion of the conference. What will be covered and why should the attendees come? The HPCC mini-conferences don't have to worry too much about this because of their history and membership. If, however, you don't have enough locals to support the conference you will depend on visitors and this decision is much more important. Following the activities as described in this report is familiar to most members of the HP Calculator User Community and this makes it easier. After 26 conferences there is a lot of experience of what works.</p>	
6.	<p><b>Conference Dates</b> This is a critical decision because it affects the ability of various groups of people to attend. We have used the last half of September because it is after the 15<sup>th</sup> for lower travel and hotel rates. This is often too early, however, for those involved with Universities or Colleges because the school year (in the US) has just started and it is too early to get a way. If this group of attendees is important consider early or mid October as good time. We have learned this over the years. We have always used a weekend for the conferences because it reduces the need for many to take vacation days from work. In the US we don't have the paid long vacations that most Europeans enjoy so this is often an important consideration. The organizer should set the dates as early as possible taking into account any National Holidays and get the word out.</p>	
7.	<p><b>Conference Location</b> We have had conferences in hotels, HP's offices, at universities, and even in Community Halls. The cost will vary greatly and this decision is probably the most important and the most difficult of all. The costs must be known and predictable. I left a lot of this type of information on the HHC 2000/2001 CD just to illustrate this aspect. The organizer must have the help of others and usually my personal choice is not the one decided upon. Community feedback is vital in any decision-making.</p>	
8.	<p><b>Conference Rooms</b> The actual meeting room is vital. Allow space for people flow, especially for registration. Keep this in mind as you inspect various possibilities. I typically look at a dozen rooms in the search for the right one (usually based on cost, more space means a higher cost). Hotels will often give the meeting room free if there are enough guests staying in the hotel. Where will meals be taken? Is there an area that people may meet and talk if they are not interested in the present presentation, or they wish to discuss "business".</p> <p>A vital aspect of selecting the conference room is the available hours. I suggest that you think in terms of 7 AM to Midnight for Saturday and 9 AM to 8 PM for Sunday as minimum. Most places will want to close the room after the dinner hour. Room security is vital. If the same room is used for both days, and it can be locked, valuable tear down and set up time is saved. One problem I always observe is the shortage of tables. Put them everywhere. People need space to display and demonstrate their "toys". We need lots of horizontal space.</p>	

#	Item	Your Plan/Solution
9.	<p><b>Audio Visual Aids</b> These items include (1) A sound system; (2) HP HP48/49 Overhead projector; (3) Screen pointer (LASER and physical); (4) Overhead projector, low heat type for item 2; (5) Video camera projection system; (6) Laptop LCD projector; (7) blackboard, with chalk or easel with grease pencils; 35 mm projector with zoom lens. These items may seem obvious or trivial but they can be very expensive if they have to be rented. Usually the local members have access to them and will bring them to the meeting. Of course the speaker coordinator must know the needs of the speakers.</p> <p>The use of Power Point has become so standard that item (6) is a must have item for all future Conferences. Included with these items are adequate extension cords with tape to secure them (for safety purposes) if run around the room. Some hotels or conference halls are unionized; in this case special "problems" will have to be addressed.</p>	
10.	<p><b>Conference Publicity</b> This is much easier these days. We will have a Conference List running and everyone will provide the feedback required to make a decision. Even having a publication like Datafile doesn't solve the problem because of the timing of the issues. Having a web page dedicated to the conference is very nice. One of the useful ideas for promotion is to design a logo that can be used for the proceedings and put on all documentation related to the Conference including a web page. Here are two examples from recent HHC's.</p> <div data-bbox="204 982 1114 1157">   </div> <p>A vertical (for the spine of the proceedings) and a horizontal version is most desirable as page space is always at a premium. Joseph Horn designed the HHC 2000 logo. The CHIP group came up with the HHC 2001 logo. With a sense of Community it is easier to leverage from what is known. Take advantage of the past to leverage into the future. While we technical folks naturally tend to discount marketing, this is one principle that is worth thinking about.</p>	
11.	<p><b>Conference Registration</b> This requires a trusted dedicated person who must receive the registration fees and account for the registration materials. You may make it difficult - most inexperienced people do - or you may make it easy. The secret is to number each and every proceeding copy. This allows you to keep track of them. They tend to grow legs and sprout wings in the blink of an eye and "disappear". I KNOW that HPCC can't account for all copies of their proceedings. I watched, I know this first hand. If they are numbered and there is a numbered sign in list there is always a match and you know who has what. There will always be a few - keep it to a very qualified few - complementary copies. If they are controlled like gold they will be treated like gold. People sometimes leave them behind. I know because I help with the cleanup and I often take them for backup copies. This will happen less if they have "gold" value. Each proceedings set should have the same value. If there are discounts, etc. it gets too complicated. Keep it simple. At any moment during the Conference, the finances are known. The highest number left (minus 1) times the cost is the proceedings. Who has</p>	



#	Item	Your Plan/Solution
	bills, what are their the total? Subtract the two totals and you have a finance report for the User's Forum. There will be all kinds of pressures to deviate from this system. Don't get sucked into the normal human craziness. Keep it straight and do it right and there will be little doubt. If you don't have your bill ready AT THE CONFERENCE, fine. We say, thank you for your donation. Life is too short for complicated systems. I have done this many times and I know this system works.	
12.	<b>Conference Speakers</b> This is related to #2. The Conference organizer must know the key members of the HP Community to be able to work with them to get things done and on time. I have written papers for speakers who had much to contribute but didn't like to write - or were too busy. The organizer must seek presentations towards the Theme and actually "arm twist" speakers to participate. This is a full time job in itself.	
13.	<b>Conference Schedule</b> This is prepared at the last moment and as you can see it changes in real time even once made. Some people get real hung up on this. Time must be distributed as needed. Obviously if the audience is glued to their chairs you don't want to drag the speaker from the podium. We has a Saturday evening speaker from Microsoft who gave a technical presentation on hand writing recognition because we knew that every one would be interested. He would not allow cameras or video taping and it was GREAT! This was way back in the early days and it was new stuff. The Conference Organizer MUST be flexible to take advantage of the situation. Rigidness is not a good attitude for this person.	
14.	<b>Conference Proceedings</b> Some people argue that this is not necessary. I disagree. We must document our work or we don't make a contribution. Space and reproduction costs are no longer issues with modern CD's. The proceedings should be numbered from 1 to N. This is a challenge and I have tried all different ways to do this but other numbering schemes are too confusing and you don't know if you are missing pages.	
15.	<b>Special Activities</b> These will vary with the resources available and the theme of the conference. These have been described above. Create some of your own. The programming Contest is very difficult and you must be sure there is interest. I even conducted one wirelessly over the Internet when this technology was first available. I don't recommend that this be done unless you have lots of time. Typically there are five to 11 participants.	
16.	<b>Social Time</b> One of the most common suggestions from the feedback at the HPCC 20 <sup>th</sup> Anniversary Conference was that there was not enough social time. I suspect that this is more important at an International Conference because of the distances involved. Some of this time is allocated at the Friday Gathering and Monday Morning breakfast. It is quite difficult to attend just one day of the Conference because, traditionally, Sunday is "group business" and a lot of discussion usually takes place at the Users Forum. This is a form of public social time. Somehow I doubt that a three day Conference is possible. In reality it is a three day Conference now if you count Friday and Monday activities. This situation has evolved over time and it continues because it works. I suppose it is ultimately up to the Conference organizers to allow longer breaks for this time. Often, however, break time is used for unplanned changes.	

#	Item	Your Plan/Solution
17.	<b>Prizes</b> This is another item some people question. We have been so successful during past conferences at getting prizes donated - often from our own members - that we have had a prize for every person attending. Everyone likes to take something home that he or she never suspected that they would. Again, the ability to get these items will depend on the reputation of the organizer or the "connections" of the local group to those in the business.	
18.	<b>HP Participation</b> We have had HP participation ranging from zero - # 24 & #25 - to full sponsorship including paying for the Saturday dinner. The Corvallis Conference included a tour through the factory that required a great deal of preparation by HP. HPCC Tony has raised the question of the importance of "working with" HP. This question is fundamental to the Community. HP doesn't donate material and Prizes to snobs and inconsiderate groups or people. You have the letter of the Constitution and you have the Spirit of the Community. We are pro HP and have always been.	
19.	<b>Users Forum</b> This is the part of the conference in which the User Community has an open and free discussion of what has happened and what should happen next. This is usually 1 to 2 hours depending on available time and it takes place at the very end of the conference. A tired group is more free in their discussions and they want to finish and go home so it works out very well for productivity. Of course this assumes an open Conference - no one is excluded from attending.	
20	<b>Attendee Lodging</b> If a conference hotel is selected this problem is solved. In the early days the locals offered lodging to the visitors in their homes. I have lodged with just about every leader over the years either at their home or at a hotel. With HPCC's connections with Imperial College they have arranged lodging at the student facilities. This is low cost and central to the Conference and other activities. See additional information on this topic in Personal Comments.	
21.	<b>Conference Information Sheet</b> I consider this a vital part of the conference. It contains all the "facts" related to the conference on a single page. Important topics are What, Where, When, Why, Activities, Contacts, etc. The attendees can print this at the last minute and take it with them to the Conference.	
22.	<b>Conference Report</b> This is an important aspect that helps for the future and informs those who didn't attend what happened. Many of the leaders will write their own reports, it doesn't matter who does it as long as it is representative of what happened. HPCC publishes their reports in Datafile. Web pages are often used. Any way that the community can have the information is good.	
23.	<b>Openness</b> This is a vital aspect of any HP User Community activity. Why should there be secrets? In years past, especially with companies sponsoring the conference, the attendee list was "secret". What for? By making this an issue you force others to reconstruct the information and it may not be accurate. Not sharing this information slows down the process of people knowing what is going on and it hampers the sense of Community. I can't think of any reason - unless dictated by law - that this information should be secret. Do you think the personal computer would have reached its present state of development in a closed society? Secrets and closed minds hamper progress. Let those people stay in their dark closets; the sunlight is so much better for every ones health. The finance report	

#	Item	Your Plan/Solution
	should be provided before the end of the conference. If you don't have the numbers you are NOT organized. Plan these things so that this happens. If a club sponsors the conference this is unimportant as the club can sort it out later. The problem is that later is more time consuming and in reality more difficult. Balance the books and settle accounts at the Users Forum. The Conference need not make money, it just has to break even. Remember #1, the purpose of the Conference.	
24.	<b><i>Keeping The Schedule</i></b> Another criticism made of many Conferences is keeping to the schedule. This is very difficult, but one year (Corvallis #2?) we were able to follow a suggestion made by Eric Vogel, an HP Manager. He described a conference he attended (at HP) where a traffic light was used. A green light is on during the talk, a yellow light means three minutes wind it up, and a red light means you are on your way to your seat. We announced that we would follow this format and it worked quite well, and some attendees didn't like the rigidness, but we stayed on schedule. It is difficult, but doable if well enough organized. This is good advice to any organizer.	

“How many dedicated hard working people does it take to organize a conference? One person could do it if he has the help of the local members. Registration is a major task and one person must be dedicated to this task. One person should select and encourage the speakers. One person should address the mechanics of the Conference acting as a Conference Manager. There are many roles to play.”

## Appendix C – Relative Hotel Rates for 50 Selected US Cities

Choosing the location of an HHC involves many considerations: Hotel ranking, Hotel type, Hotel room rate, Hotel costs for meeting room and food, Travel costs (near hotel, shuttle/bus cost if not), Time lost for meal traveling, Meeting room accessibility and constraints, Wireless capability, Supplies, Business support (on site printing), Weather, Additional side trips, etc.

The following table shows hotel rates in 50 urban destinations across the United States. The prices shown reflect the average rate for each city's cheapest available double room (minimum 3-star hotel) for the period spanning 1 October through 31 October, 2019. # is the cost ranking. The cost numbers should be used for relative comparisons and not actual costs. Las Vegas (a past HHC location) is highly variable depending on other events which may push prices quite high e.g. a major show such as the Consumer Electronics Show in January.

**Table C1 – US City Hotel Costs (October 2019)**

High To Low Cost Order				Alphabetical City Order			
Nashville \$223	#1	Mesa \$136	#26	Albuquerque \$198	#5	Mesa \$136	#26
Boston \$221	#2	Philadelphia \$136	#27	Atlanta \$114	#37	Miami \$107	#44
San Jose \$214	#3	Memphis \$135	#28	Austin \$189	#7	Milwaukee \$119	#34
San Francisco \$209	#4	Minneapolis \$134	#29	Baltimore \$97	#47	Minneapolis \$134	#29
Albuquerque \$198	#5	Cleveland \$134	#30	Boston \$221	#2	Nashville \$223	#1
New York City \$196	#6	Kansas City \$128	#31	Charlotte \$146	#23	New Orleans \$109	#43
Austin \$189	#7	Pittsburgh \$126	#32	Chicago \$183	#12	New York City \$196	#6
Los Angeles \$186	#8	Columbus \$121	#33	Cincinnati \$156	#20	Oklahoma City \$139	#25
Dallas \$185	#9	Milwaukee \$119	#34	Cleveland \$134	#30	Omaha \$114	#36
Detroit \$185	#10	San Diego \$117	#35	Columbus \$121	#33	Orlando \$149	#21
Denver \$184	#11	Omaha \$114	#36	Dallas \$185	#9	Philadelphia \$136	#27
Chicago \$183	#12	Atlanta \$114	#37	Denver \$184	#11	Phoenix \$179	#13
Phoenix \$179	#13	St. Louis \$113	#38	Detroit \$185	#10	Pittsburgh \$126	#32
Louisville \$176	#14	Honolulu \$112	#39	El Paso \$159	#18	Portland \$142	#24
Sacramento \$175	#15	Fort Worth \$112	#40	Fort Worth \$112	#40	Raleigh \$148	#22
Washington DC \$175	#16	Indianapolis \$110	#41	Fresno \$85	#48	Sacramento \$175	#15
Houston \$167	#17	Jacksonville \$109	#42	Honolulu \$112	#39	San Antonio \$84	#49
El Paso \$159	#18	New Orleans \$109	#43	Houston \$167	#17	San Diego \$117	#35
Seattle \$158	#19	Miami \$107	#44	Indianapolis \$110	#41	San Francisco \$209	#4
Cincinnati \$156	#20	Tulsa \$101	#45	Jacksonville \$109	#42	San Jose \$214	#3
Orlando \$149	#21	Tucson \$99	#46	Kansas City \$128	#31	Seattle \$158	#19
Raleigh \$148	#22	Baltimore \$97	#47	Las Vegas \$69	#50	St. Louis \$113	#38
Charlotte \$146	#23	Fresno \$85	#48	Los Angeles \$186	#8	Tucson \$99	#46
Portland \$142	#24	San Antonio \$84	#49	Louisville \$176	#14	Tulsa \$101	#45
Oklahoma City \$139	#25	Las Vegas \$69	#50	Memphis \$135	#28	Washington DC \$175	#16

The location decision (Committee votes) must be based on the total attendee costs and not based on any single cost. The negotiated room rate may not be optimum, but the Meeting room costs are zero (saves \$1,500 or more), etc. A car rental may not be required (optimal) and that is a major cost saving. Hotels that do not have their own kitchen usually allow outside catering and that is a big cost saver if someone is able to assume this responsibility. This also saves time as we eat “in place.” **A major issue: what is the minimum number of attendees to justify a Conference?**

The Hotel and travel costs are the major costs of attending an HHC. The actual Conference cost has ranged from zero to \$60 maximum and usually below \$50 – which usually includes meals. HHC 2020 attendee Conference donations will be very low (probably zero?) because of past accrued finances and high non-attendee demand (\$40) for the HHC 2019 Conference Thumb Drive – 64 GB. Considerably more thumb drives have been copied for the Community than attended the Conference in person.