Dear Herculans,

Most of the developers came to Paris for a 3 day Hercules workshop. It was great to see the people in real life after emailing them for more than 8 years. My goodness how time flies and didn't we come a long way to Hercules as it is today.

The following participants came to Paris:

Roger Bowler
Roger is the original starter and contributor of Hercules. Roger is living and working in Paris. The hotels were booked and together with Ivan the others were collected from the airport or the train station. Thanks Roger, I would otherwise be lost.

Ivan Warren
Ivan is a VM expert and a main contributor to Hercules for a long time. Ivan found a sponsor for the Regus rooms where we all could debate about the Hercules future. There is one thing I can say about Ivan, you will never miss an opinion on subjects. Thanks Ivan for the good discussions.

Jay Maynard
Jay came all the way from the States to visit us for the first 2 days. Jay is the maintainer of Hercules. The site www.hercules-390.org and the Hercules CVS repository is maintained by him. Thanks Jay for finding time to join us.

Volker Bandke
Volker is the maintainer of the MVS turnkey product.

Dave Wade
Dave Wade worked with Jeff Savit on the Hercules Solaris port. Dave is a VM expert and has got pertinent things to say on the different Hercules forums on a wide range of Hercules and mainframe related issues.

Bernard van der Helm
I became a Hercules developer after meeting (at work) Jan Jaeger. I have/had a lot of fun creating compression, cryptographic and other instructions. I started the idea of organizing a Hercules Workshop, created an agenda and this wouldn't be a success without the commitment of the other participants. Thanks guys for the experience!!

Day1

z/Architecture backward portability
There is a request to add S/390 and z/Architecture instructions to the S/370 architecture. The main idea is to allow people to develop z/Architecture software within the MVS3.8j environment. Our conclusion was that we want to implement this feature as a deviate. The default is and will stay the original architecture as IBM has defined it within the principles of operation.

Parallel Sysplex
There is a request for Parallel Sysplex now and then. We have discussed the different implementation options and decided that we will not support this feature.

System/380
In response to a perceived demand for a 31-bit version of MVS 3.8, Harold Grovesteen on the hercules-380 yahoo group has proposed the idea of making a customized build of Hercules which would combine System/390 architecture with System/370 I/O. A small number of anomalies in Hercules currently prevent this hybrid architecture from being successfully compiled. The developers agreed that we could fix these anomalies in the next-but-one release (the release after 3.06). We could architect it the other way round by extending the System/370 with 31-bit address mode, but in the absence of any architecturally sound proposal, the developers were not willing to proceed along this route.

OpenSolaris
We can conclude that OpenSolaris will not work on Hercules as OpenSolaris will not run on the hardware directly. OpenSolaris depends on some DIAG calls provided by z/VM. Some of these DIAG calls are documented and could be implemented in Hercules. But OpenSolaris also uses Diag 2A8 for networking which is subject to a non-disclosure agreement between IBM and Sine Nomine Associates. We decided we would not attempt to implement DIAG 2A8 unless it is publicly documented by IBM.

Licensing
There was some discussion about open source licensing. The developers decided to remain with the existing QPL license.

GUI
We see that for different platform there are different GUIs available. This does not comply with the principle that we develop a platform independent product. We concluded that Fish is not likely to port the Windows GUI to the other supported platforms. We will develop an API or protocol and invite developers to write their own GUI communicating through that API or protocol.

QDIO
Jan Jaeger already has implemented the basic infrastructure within Hercules. There is no documentation about QDIO other than the Linux driver sources. We can start with the Linux driver implementation.

Channel Hardware Support
Some of the users have asked for Parallel Channel, Escon and Ficon support. There are very few Parallel channel adapters in the world. For Escon and Ficon you need special drivers under Windows. Ficon is documented so we could do it. The main idea within the group is "Do we really need it?".

3990 Cache

We could have better performance if we allow the guest to control it. We need to have the proper documentation (3390, ESS, DS8000) before implementation.

Additional platform support

This support is easy to provide with the exception of SCSI tape support and networking.

CVS repository backup

Ivan and Jay agreed to set up an automated system to mirror the CVS repository onto Ivan's servers for disaster recovery purposes.

Ivan's CVS snapshots

Ivan agreed to implement some improvements to his daily snapshot website:

1. Produce snapshots only for days when there have been change(s) to the codebase
2. Start the interface with the tree structure opened at the latest Windows and the latest Linux snapshots

Day2

Bug reporting

Bugs are reported via mail on the Hercules-390, zHercules site or to one of the developers. As the developers we have a bug reporting tool, but the discussions within are not made public. We have decided that the reporting tool, currently maintained by Volker Bandke, should go to the site of Jay Maynard.

Test suite

Ivan Warren is working on a test suite that should a) work on a real machine and b) allow automated testing. The test suite currently being worked on is built on VM/360 R6. It allows stand alone testing of System/370, ESA and z/Architecture. It was decided to make this public, allowing other people to write additional tests. Maybe we should convert Roger Bowler's tests to this environment.

Releases

The current source is maintained with Concurrent Version System and it is falling out of fashion. We discussed Subversion and we think it is a better solution. Jay will propose a conversion to the zHercules list. There are some conversion tools available. We also need to install a (probably informal) release scheduling procedure to prevent hastily made features from creeping in.

Source code reorganisation

The current code is written by people individually. We can see different formats and usage. We discussed a standard format. But as Jay perfectly said "This looks like bureaucracy". With the limited number of lines, files and developers, please keep the current strategy. We all have decided to remove NLS support, because (a) it was only ever partially implemented and (b) Hercules is aimed at technicians who are accustomed to reading messages in English.

Day 3

MVS3.8j TCP/IP driver

The intention would be to offer similar facilities to applications that the now unavailable DYN75 provides. A key difference would be that problem state programs would not be able to access it directly but would have to go through the Supervisor so that it could be properly controlled. We would look at using VMCF and IUCV so that if possible code would be transportable forward from MVS3.8j to z/OS and also between VM and MVS.

Summary of decisions

a) Move from CVS to subversion.

b) Remove NLS support

c) Implement Harold Grovesteen's patch to permit enablement of System/370 IO within System/390

d) Keep existing QPL license

e) Implement test suite driver

f) Create socket interface to underlying TCP/IP stack

Left to right: Dave Wade, Jay Maynard, Volker Bandke, Bernard van der Helm, Roger Bowler and Ivan Warren is unfortunately not on the picture.