

**PLAINTIFF'S  
EXHIBIT**  
**364a**  
Comes v. Microsoft

Return-Path: kgh@zebadee  
 Return-Path: <kgh@zebadee>  
 Received: from zebadee.Eng.Sun.COM by wcmbat.Eng.Sun.COM (8.X/SMD-57R4)  
   id AA13550; Mon, 29 Jan 1995 17:16:09 -0800  
 Received: from zebadee by zebadee.Eng.Sun.COM (SMD-3.6/SMD-57R4)  
   id RAA13506; Mon, 29 Jan 1995 17:17:01 -0800  
 Message-Id: <199501300117.RAA13506@zebadee.Eng.Sun.COM>  
 To: barator@wombat, schmidt@wombat, james@wombat, mike.clary@central.  
   wni@wombat  
 Subject: "putting JAVA into Windows 95"  
 Cc: kgh@wombat, inaron@wombat  
 Date: Mon, 29 Jan 1995 17:17:00 -0800  
 From: Graham Hamilton <kgh@zebadee>  
 Content-length: 4086  
 Status: RO

We visited Microsoft today to hear the technical details of their plans to "put Java into Windows 95". We met with two techie people from their tools group and one from Windows.

There were very few surprises: They confidently expect to build "the world's best Java implementation", and they were hazy on the details.

- (0) A lot of our specific questions got answers like "we haven't decided yet" or "since we haven't seen the Java VM source we don't know", but towards the end of the conversation we got a little more friendly and they admitted "without a licensing deal we can't tell you about everything that's going on".
- (1) We asked about how Java ISVs will get at all the wonderful Microsoft APIs from within Java. We used the new game APIs as an example. The answer is that Microsoft will either provide Java class wrappers to C interfaces, or maybe provide an automated way of accessing Win32 APIs via OLE/COM. This will be done on a case-by-case basis as needed and/or requested.

Clearly this is a very disturbing answer. This basically means they will be encouraging Java ISVs to write to a broad set of APIs that are only available on Win32.

- (2) They were fairly clear on the basic "putting Java inside Windows 95" issues. They haven't seen the Java VM source so they don't know exactly what the right answer is, but they can see that they might add new Win32 API calls to help support Java more efficiently. We talked about what it means to "be part of the Win32 API". Basically it's what at Sun we would call a "public committed interface". It's publically documented, available to ISVs, and will normally only change in a Major Release (if then).

- Specific things that came up were:
- adding better support for Java debugging
  - tying Java heap/GC into the kernel heap/gc.
  - exploiting win32 threads better

They will provide Sun with all the Java VM code above the Win32 API but none of the code that supports the API.

From a techie standpoint all this seemed relatively harmless.

- (3) They expressed extreme concern about the "contamination" issue. They don't want to lose ownership of their intellectual property just because Java is in the same box.

MS-PCA 1008127

SUN V. MSFT  
 CPT-20864 RMW(PVT) ENE  
 SUN 21 00006

**DEFENDANT'S  
EXHIBIT**  
**2053**

TXAG2 0017331  
 CONFIDENTIAL

**EXHIBIT**  
10  
Enc Schmidt 7-11-98

CONFIDENTIAL

The Windows9X representative said he didn't want to have to build "chinese walls" within his group. He wanted people to be able to look at Java code and then later go and do win32 kernel work without having to worry about contamination.

- (4) They want an answer soon on whether there is going to be a contract. This came up a bunch of times. They are getting close to their final planning deadlines for their developers conference in March and want to know how much to cover Java. Etc, etc. They also want to know if Sun is promoting Java only as an applet language for browsers or as a full fledged programming language.
- (5) We checked whether this was just a Windows9X discussion or also covered NT. The answer was that all new win32 APIs and functionality is being designed for both Windows9X and Windows NT.
- (6) They volunteered that even if the contract falls through they would still be interested in working with Sun on Java standards, etc, and would still want a copy of the compliance test suite.
- (7) They are looking at a wide range of different uses for Java:
  - as a browser extension language (obviously)
  - as an alternative/supplement to Visual Basic for application scripting
  - as a full fledged programming language
  - as a good way of implementing OLE controls (OCXs)
- (8) They expect to integrate Java with OLE/COM. They are unsure of exactly how to do this. Some MS people think they need language extensions but the guys we were talking to thought it could all be done in libraries (and they're right).
- (9) It came up in passing, that like everyone else who knows C++ intimately, their C++ guys loathe the language too. :-)

Graham Hamilton  
Theron Tock

TXAG2 0017332  
CONFIDENTIAL

CONFIDENTIAL

SUN V. MSFT  
CP7-20884 RMW(PVT) ENE  
SUN 21 000007

MS-PCA 1008128