

Welcome to PMRef page.

PMRef TRIAL reflector(G-Rated) is open.

Address : iRef.homeip.net

Conf ID	TimeLimit	Audio	Self-Reflect	max send rate	maxrecv rate
0	2 hours	No	No	64Kbps	384Kbps
1	5 mins	Yes	Yes	64Kbps	384Kbps

Enjoy it!

What is it?

It is one of CU-SeeMe(*) Reflector program written in Java.

I'd ever used Spacer's EnhancedReflector and it worked fine until I changed the OS of my machine from SunOS 4.1.4 to Solaris 2.6. After this upgrading, ERef dumps core everytime when someone geeks. Since ERef has not been Enhanced for long time, my options were

- (1) Purchase WhitePine MeetingPoint(*),
- (2) Write my own Reflector program.

MeetingPoint(*) coasts \$1,600- and I couldn't pay so much for it. So I wrote this.

Strong points

PMRef can have ["WhitePine password" protected conferences](#).

PMRef can have [Peered conferences](#).(a conference over several PMRef servers)


It can also handle ["Dual Homed"](#) machines(accepts connections from both interface, or runs different reflectors on each interface, or runs a reflector on one of them), has "CU-SeeMe Proxy" function.

See [configuration file](#) for detail.

Environment to run this.

 A machine which Java can runs on.


 JRE or Java SDK 1.2 or later. **However we strongly recommend you to use the latest version.**

 Fast CPU, hopefully. ;-P

For more performance.

Since PMRef is Java code, it processes CU-SeeMe packets slower than Machine native code. So it is a good idea to try to compile PMRef to the Machine native code if your environment allows. On my "Pentium-Linux" (Kernel 2.4.20, gcc 3.3.1) environment, the PMRef native code runs great.

To Convert PMRef.jar to the native code,

 Install the newest [gcc](#) configured with "--enable-language=c,c++,java" option. I strongly recommend you to do "make check" testing to see the reliability of your "bytecode->native code" compiler. If it reports errors about "compilation from bytecode" or "bytecode->native", give up to compile PMRef to native code on the environment. ***NOTE*** The current version of gcc has a bug about "static link". Instead of it, use "dynamic link".

❓ In the directory where PMRef.jar is installed, compile PMRef.jar with the command like "gcj PMRef.jar --main=PMRef.Main -o PMRef".

❓ Run the native code.

❓ For more performance again.

According to Sun's documentation "Java HotSpot VM Options", Java VM version 1.3 for Sparc with "-server" option never compiles(JIT) a method until it invokes the method 10,000 times !!! (Did you know this?) This means that a method (to send a data packet, for example) will be compiled after PMRef sends 10,000 packets. So It must be a good idea, if your environment doesn't allow you to convert Java code to native code, that you run PMRef with Java VM option "-XX:CompileThreshold=100" and join to a selfreflect confrence for a while to break when you start your reflector.

In comparison with the native code above, there is very little difference of performance.

You MUST try this.

❓ Version History

❓ The current version is 1.8.6

❓ What has been changed since 1.8.4

- Fixed the problem that refmon Who command abends when participant's name includes invalid charactors like "Apple mark".
- Fixed the problem that Video was not trasfered in some conditions between indirectly peered reflectors.(enbuged 1.6.0)s
- **This version doesn't work well with JRE 1.4.2 because of JRE's bug on my environment(Solaris 5.9(IA))s. Update your Java VM to 1.5.0_01.**

❓ Version 1.8.4(What has been changed since 1.8.3)

- PMRef allows simutaneous multiple clients connections from a same router which rewrites CU-SeeMe header(exp. Linux).

❓ Version 1.8.3(What has been changed since 1.8.2)

- Changed the first byte of "Virtual Address" from "10" to "127".

❓ Version 1.8.2(What has been changed since 1.8.1)

- Fixed the problem that unsuccess logins by some reasons(password incorrect, rate vioration) waste virtual addresses.

❓ Version 1.8.1(What has been changed since 1.8.0)

- "RefMon Who" command shows you the transmission rates of each participant.
- Fixed the problem that "Refmon Who" command shows you wrong "REAL IP" address.
- Fixed the problem that several dialog displayed 2 PMRef version strings.s

❓ Version 1.8.0(What has been changed since 1.7.9)

- PMRef can accept multipul clients connections simultaneously from a NAT router(assingned one global address, maps it to several private addresses) if it can hadle those packets.
- Fixed 2 "virtual address among peered conferences" problems.
- PMRef doesn't support "Real IP Mode" any more.

- ❓ Version 1.7.9(What has been changed since 1.7.8)
 - Fixed 2 minor bugs.

- ❓ Version 1.7.8(What has been changed since 1.7.7)
 - Fixed "CPU Busy problem" with VChat 1.0a46(or later) setting "Use RTP Transport" on.
 - Blushed up PMRefMon.jar.

- ❓ Version 1.7.7(What has been changed since 1.7.4)
 - Fixed a problem that the video is not sent to VChat 1.0a45(or later).
 - Changed the name of the property ".ipmasquerade" to ".allownat"
 - Added "169.254.0.0/16"(link local address) to be treated as s"Private address".
 - Added to log the version string of clients to "log in" message
 - Added to display clients' version string to refmon who command.

- ❓ Version 1.7.4(What has been changed since 1.7.3)
 - Fixed a problem that specifying domain name instead of ip address to "conferece-peer-" property causes "Redundant configuration....this should not occur" error.
 - Added a check if it is "virtual address mode" when the reflector is specified to have peer conferences.

- ❓ Version 1.7.3(What has been changed since 1.7.1)
 - Fixed a "SelfReflect conference" problem.

- ❓ Version 1.7.1(What has been changed since 1.7.0)
 - Fixed "Conf Max Min Send", "Conf Max Min Recv" RefMon command problems.
 - Fixed the problem that flushed messages in Logger window wasn't displayed.
 - Added inconsistency check between Ref and Conf properties when RefMon Attb commands are issued.

- ❓ Version 1.7.0(What has been changed since 1.6.4)
 - Changed WP Password logic. BE CAREFULL. "passworddiff" property of the older version are NOT COMPATIBLE. You must set it up again on this version.
 - Added RefMon commands which allow you to change several properties dynamically.
 - Added RefMon "Logger" window which shows you pmref.log

- ❓ Version 1.6.4(What has been changed since 1.6.1)
 - Fixed the bug which might send wrong Participant list to each participants in a BUSY conference on multi-CPU machine.
 - Added RefMon "Param" command which shows you reflector's parameters.

- ❓ Version 1.6.1(What has been changed since 1.4.5)
 - Added Virtual Address mode, which hides IP Addresses of each participant to the others.
 - On dual home machine, PMRef can have "Peer"ed reflectors on both interfaces.
 - Improved performance.

- ❓ Version 1.4.5(What has been changed since 1.4.4)
 - Blushed the code up for performance.

- ❓ Version 1.4.4(What has been changed since 1.4.3)
 - Fixed a problem that "Conference Menu" wasn't displayed on some environments.
 - Fixed a problem "RefMon TERM, RESTART commands" didn't work on some environments.
 - Changed "pmref" script.
- ❓ Version 1.4.3(What has been changed since 1.4.2)
 - Fixed to accept localhost(127.0.0.1) Refmon.
- ❓ Version 1.4.2(What has been changed since 1.4.1)
 - Added "Penalty Box" RefMon command.
- ❓ Version 1.4.1(What has been changed since 1.4.0)
 - Fixed the problem with VChat in "Self-Reflect" conferences.
- ❓ Version 1.4.0(What has been changed since 1.3.0)
 - Added the function that accepts WhitePine password protected conference.
 - Fix "Datagram socket error" when pre-login errors(non-existent conference, penalty box, etc.).
- ❓ Version 1.3.0(What has been changed since 1.2.3)
 - Added the function that fixes the MS Kanji code(2-byte characters) inconsistency problem between WP Win Clients Ver 3.x and WP Mac Clients Ver 3.x
- ❓ Version 1.2.3(What has been changed since 1.2.0)
 - Fixed "Invalid type 204" message accessed by CU Pro 5.0.
 - Fixed the problem that the refmon Who reply sometimes reported incorrect IP Address.
- ❓ Version 1.2.0(What has been changed since 1.1.0)
 - Support "Dual Homed" Machines(which have 2 network interfaces).
 - Support "CU-SeeMe Proxy" on "Dual Homed" machines.
 - Log never display the message which is same as it displayed last time, but the number of times.
- ❓ Version 1.1.0(What has been changed since 1.0.0)
 - Improve AUX Data transfer performance.
 - Change "Restart/Shutdown" code.
 - Add "Reflector already running" check.
- ❓ Version 1.0.0(What has been changed since 0.9d76)
 - Nothing actually. After beta running for 4 months, PMRef is GA now. For Win JDK, the packages are not "jar"ed with compression. Password has been implemented on the reflector, but not yet on the clients.
- ❓ Version 0.9d76(What has been changed since 0.9d68)
 - Peer reflectors now can be configured redundantly, loop configuration.
 - Performance enhancement.
 - A few threads are set as daemon.

- ❓ Version 0.9d68(What has been changed since 0.9d18)
 - Peer reflectors function was added.
 - Monitoring conference function was added.
 - IPMasquerade bug was fixed.

❓ Programs

❓ [PMRef \(jar file 128920 bytes\)](#)

(Use "Save this Link As..."(Netscape) or "Download link to disk"(Explorer) to download jar file.)

❓ Etc.

❓ [WhitePine ver. 3.* Macintosh "Mojibake" utility \(for Japanese ONLY\)](#)

❓ [WhitePine ver. 3.* Windows "Mojibake" utility \(for Japanese ONLY\)](#)

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