

MAD8 for Windows

- SLAC/Daresbury MAD8DL for Windows had branched off from MAD Version 8.23:
 - Did not include latest changes at CERN for LHC
 - SLAC changes to CERN source code to include acceleration, different output from Twiss, etc.
 - Some of those changes later incorporated in CERN Unix versions by HG
- New CERN Version for (32-bit) Windows systems
 - Fortran code is almost identical to Unix Version 8.51/07 (I.e. **mad -new** on Ixplus etc.)
 - Results appear almost identical (modulo numerical noise)
 - Win32 console application only (for now...)

Installation and use

- All explained at:
<http://jowett.home.cern.ch/jowett/ComputingNotes/mad8onWindows.htm>
- Get ZIP file (0.7 MB).
- Unzip mad8 folder to C:\Program Files\
- Set DI CT environment variable
- Set file associations (if desired)
- Create shortcuts where you want (Start menu, Send To, ...)
- You can then do:
 - Right-click an input file
 - Drag input files onto an icon
 - Unix-style terminal sessions
 - Run from Mathematica notebooks or functions
- *Pretty simple but may get it all automated later anyway.*

Ways to run MAD8

```
Select MAD8
1'MAD' Version 8.51/07 Win32 Copyright (C) 1990 by CERN.
22/08/01 17.19.36

Input stream and message log:

MAD. Reading standard input file.
M: ==>
help,ibs
      help,ibs

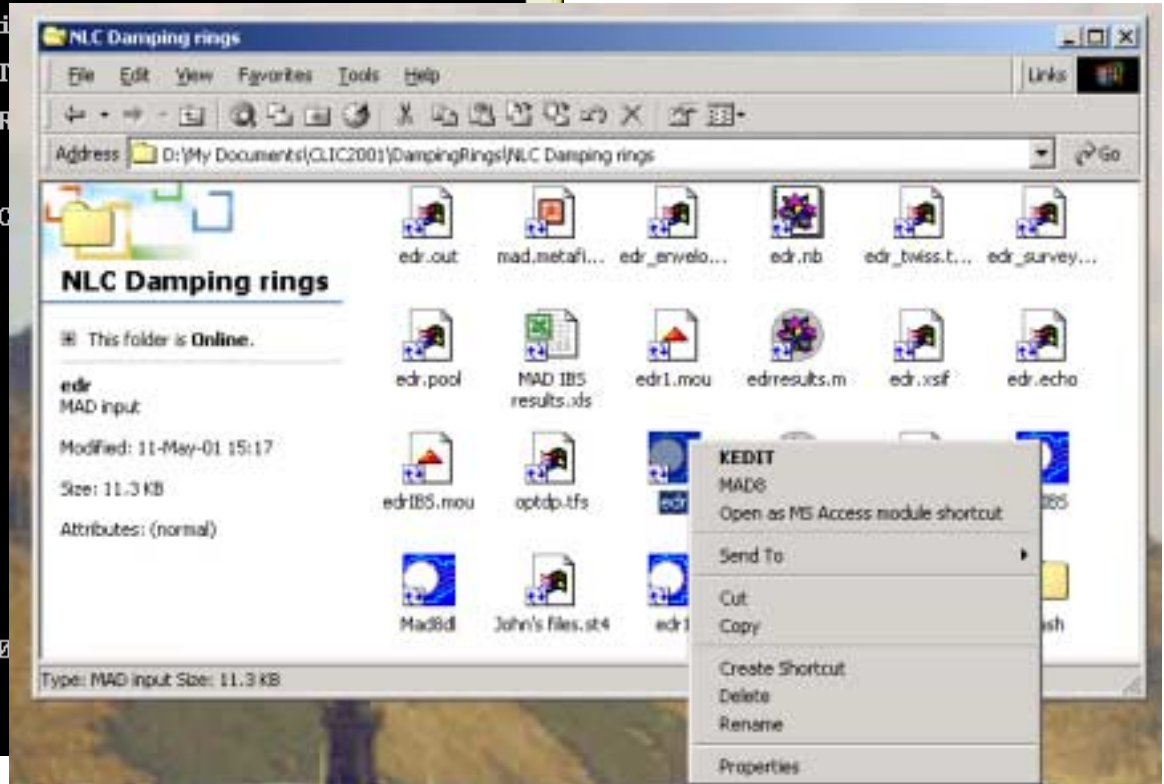
Command: IBS
Attribute      type      dimension  Attri
TABLE          name      < 1, 1, 1>  START
FACTOR         real      < 1, 1, 1>  TOLER
STEPS          integer   < 1, 1, 1>
Default values used for attribute name without
M: ==>
system,"dir/b/x"
system,"dir/b/x"

MAD8.BAT
mad8.dic
mad8.exe
MAD8.ICO
print
Shortcut to System.lnk

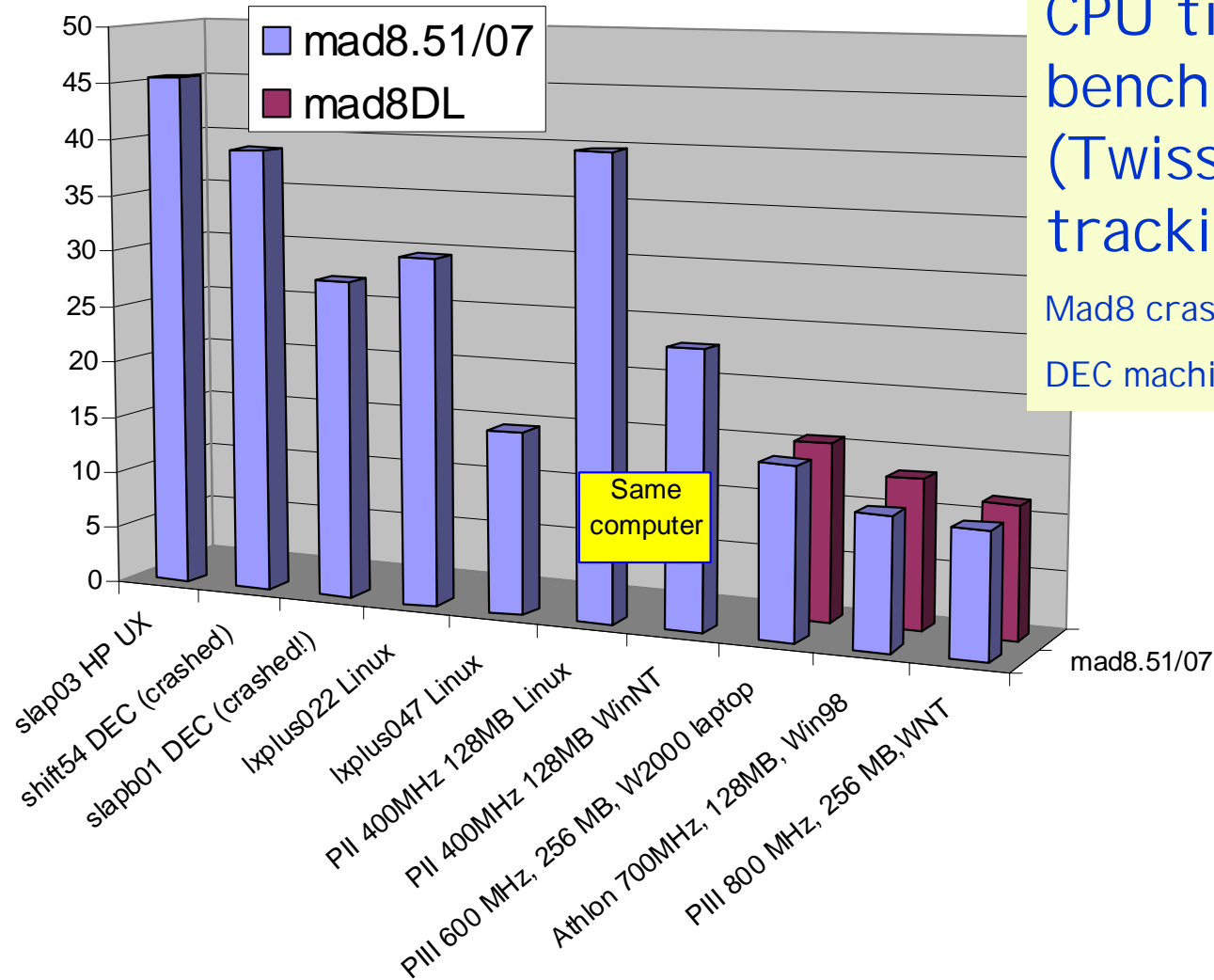
FLCSYS. System call completed.

M: ==>
value,sin(2.3)
      value,sin(2.3)

Value of expression "0.745705212177" is: 0.74570
M: ==>
```



Performance comparison



CPU time for a benchmark job:
(Twiss, Lie4 tracking, plotting)

Mad8 crashed at plotting step on DEC machines.