

MEDM Is Not Dead, Yet

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Topics Covered

- **History**
 - **Features**
 - **Philosophy**
 - **The Future**
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- **The short MEDM update is that it continues to work well**

Historical Facts

- **MEDM was started by Mark Anderson at Argonne in 1990**
 - It was based on DM and EDD
 - It used Motif, which was new at that time
 - *MEDM stands for Motif Editor and Display Manager*
- **Fred Vong maintained MEDM from 1994 – 1996**
- **Ken Evans took over in 1996**
- **Many others have contributed**
- **There has been at least one major derivative, DM2K**



MEDM Design Philosophy

- **Performance, robustness, and maintainability come first**
 - KISS [Keep It Simple Stupid] tends to work well
- **Features are important but feature bloat is incommensurate with robustness and maintainability**
- **MEDM tries to strike a balance**
 - Robustness and maintainability come first
- **MEDM tries to enable, not restrict, the user**
 - You are responsible for not shooting yourself in the foot
- **This philosophy has been successful in that MEDM is, in fact, very robust and stable today**
 - And still has enough features to run a very large control system

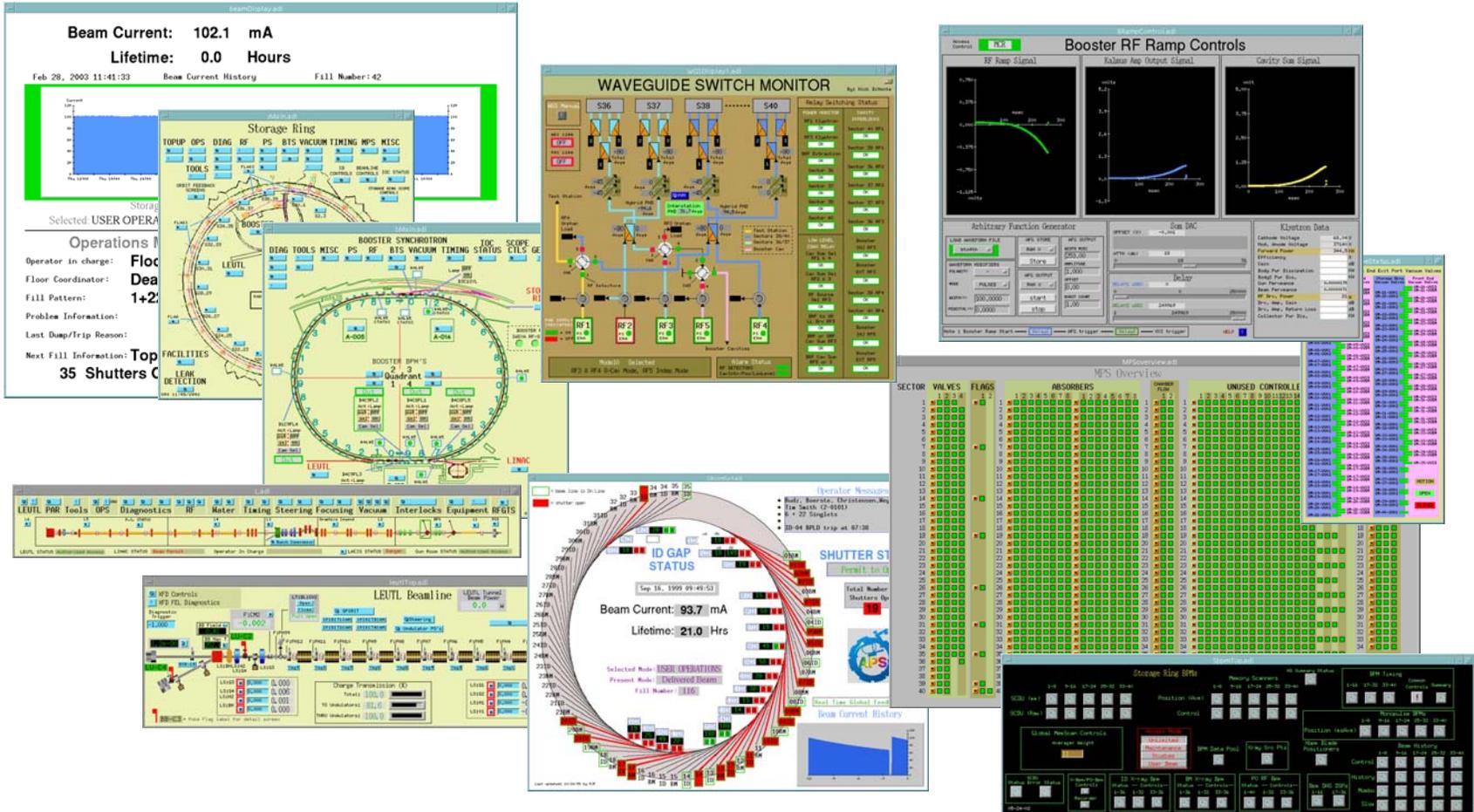
What MEDM Has Going for It

- **It is a mature program**
 - Robust: Hardly ever crashes or misbehaves
 - Powerful: Is the principal control method for many facilities
 - Efficient: Is optimized for speed and performance
- **Tens of thousands of screens have been designed for MEDM**
- **It is and has been used worldwide at many sites**
 - Over a long period of time
- **There has been time to discover and fix bugs that only occur infrequently or in special circumstances**
- **It is tested and runs on all the major platforms**
 - Solaris, Linux, HPUX, Mac OS X, Windows
- **It hardly ever crashes or misbehaves**
 - In spite of touching almost every device in the facility
 - Rather, it is relied upon to diagnose other problems

MEDM Has Substantial Power

- **A deck of cards has 52 cards**
 - That has lead to endless games
- **MEDM has 24 Objects**
 - All of these have multiple features and options
 - That is enough to design tens of thousands of screens
 - It is enough for the basic control of a large facility
- **It does not have every feature you may need or want**
 - No program does
- **It does not do everything the way you might like**
 - No program does

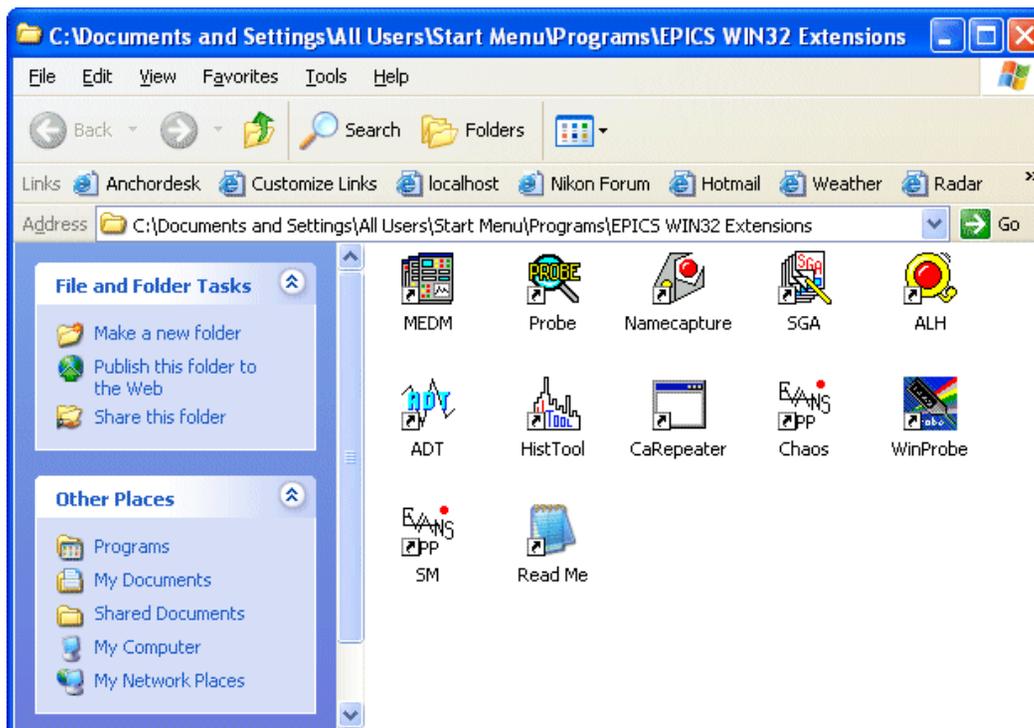
MEDM Is Capable of Impressive Screens



- And tens of thousands of others

MEDM Runs on Microsoft Windows

- **Is part of the EPICS WIN32 Extensions**



- **Many experimental teams use Windows**
- **Home and notebook users tend to use Windows**

The E in MEDM Does Not Mean Extensibility

- **MEDM is not easily extensible**
 - Owing to its original design
 - *Started before the days of standardized C++*
 - *Could have been, but was not Object Oriented*
- **Extensibility is best added with additional applications**
 - StripTool is a good example
 - As are all the Tcl/Tk apps at the APS or XAL at SNS
 - Can be coded with the developer's language of choice
 - They can be made to do whatever the developer wants
 - If these crash or use resources, they do not bring down MEDM
 - MEDM is free to do the few things it does rapidly and efficiently
- **This philosophy has worked out well at the APS**

There Should Only Be One DM

- **Many share the opinion that there should be one DM**
 - As with most other parts of EPICS
 - Except that there are now CA and CAJ and this is good
- **I do not share this opinion**
- **There is a significant advantage to having the DM developer “In House”**
 - He / she will be more responsive to your needs
 - Communication is vastly better
 - Problems will be fixed much faster
 - New ideas will be implemented
- **Duplication of effort need not be a problem**
 - DMs, along with EPICS in general, are Open Source
 - There is no reason not to copy features or use code from an existing DM (provided credit is appropriately given)

The Future

- **MEDM is not being actively developed**
 - There are no planned major new features
 - However, features will be added if there is a need and resources permit
 - A WheelSwitch Object is currently being added



- **MEDM will be maintained**
 - Because it is essential to the APS

Thank You

*This has been an
APS Controls Presentation*

Thank You

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