

# edmq – son of edm

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- 23 Years + of EPICS at TRIUMF
- Transitions
  - Sun/Solaris → x86/Linux
  - Motorola MV162 / VxWorks → x86/Linux, Arm/Linux
  - edd/dm → edm
  - Capfast™ → tdct
  - EPICS 3.12.2 → EPICS 3.14.12
- Constants
  - Trar ASCII archiver
  - burt
  - StripTool
  - Alh

- Started to prepare for Motif demise
  - no more Motif programmers
  - Linux support?
- Progress so far
  - StripTool → TChart
  - alh → TALh
  - edm → ??

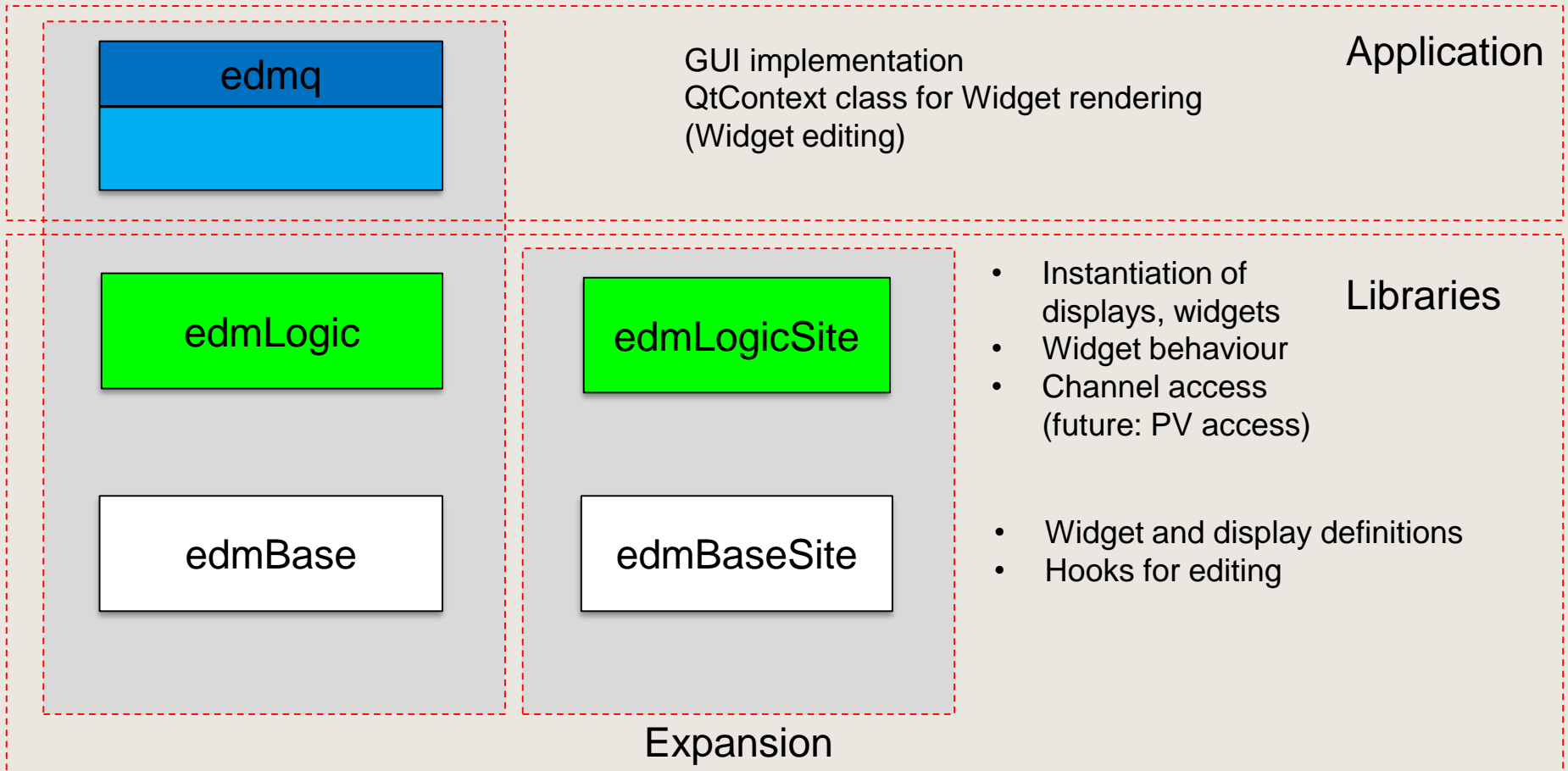
# Why upgrade edm?

- TRIUMF has big investment in edm
  - EdlBuild libraries (Perl, Python)
- Looked at the other options (CS Studio, EPICS Qt, caQtDM)
- we like edm functionality
- we converted once edd/dm → edm (2005 – painful)
- I am cheap labour


- Why “son of edm”
  - shares lots of genes
  - looks like the father
  - eats the same food (edl files)
  - thinks the father is old-fashioned ...
  - .. but behaves exactly like him
  - the older he gets, the more he
    - acts like his dad
    - appreciates his dad
  - will do things his father never did

- In different words
  - fully backward compatible with edm
    - edl file format (100%) – must be able to coexist with edm
    - functionality (as much as possible)
  - uses Qt as GUI framework
  - C++11 STL
  - not predicated on Qt
    - design makes Qt replaceable
  - clear separation of
    - widget definitions
    - run-time behaviour
    - graphics rendering / user interaction

# edmq Implementation




- All functionality used at TRIUMF:

|                 |              |                 |   |                |
|-----------------|--------------|-----------------|---|----------------|
| Arc             | Bar          | Button          | +   | TriumfSlider2D |
| Embedded Window | Byte         | Choice Button   |   | Process        |
| Lines           | Message Box  | Exit Button     |  |                |
| Rectangle       | Meter        | Include Widget  |   |                |
| Static Text     | NdArrayVideo | Menu Button     |   |                |
|                 | Symbol       | Menu Mux        |   |                |
|                 | Table        | Message Button  |   |                |
|                 | Text Monitor | Radio Box       |   |                |
|                 | XYGraph      | Related Display |   |                |
|                 |              | Shell Command   |   |                |
|                 |              | Text Control    |   |                |
|                 |              | Triumf Slider   |   |                |



- All functionality used at TRIUMF:

|                 |  |               |   |   |
|-----------------|--|---------------|---|---|
| Arc             | Bar  | Button        | + | TriumfSlider2D  |
| Embedded Window | Byte   | Choice Button |   | Process   |
| Lines           | <ul style="list-style-type: none"> <li>can coexist with edm           <ul style="list-style-type: none"> <li>all widget properties will be saved to .edl, even if they are not functionally implemented</li> <li>displays which contain non-implemented widgets cannot be saved</li> </ul> </li> </ul> |               |   |  |
| Rectangle       |  |               |   |   |
| Static Text     |  |               |   |   |
| Table           |  |               |   | Message Button  |
| Text Monitor    | Radio Box  |               |   |   |
| XYGraph         | Related Display  |               |   |   |
|                 | Shell Command  |               |   |   |
|                 | Text Control   |               |   |   |
|                 | Triumf Slider  |               |   |   |

- 1<sup>st</sup> week of May: Review with J.W. Sinclair
- → architecture improvements are implemented
- Presently: testing, bug-fix. Started use for editing
- Production version for TRIUMF: end of summer

**Thank you!**

**Merci!**