Medical Imaging in Chronological Order

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Abstract

The chronological events of the product creation of the medical imaging workstation are discussed. The growth in functionality and size from prototype to product is shown. Typical problems in this period are explained.

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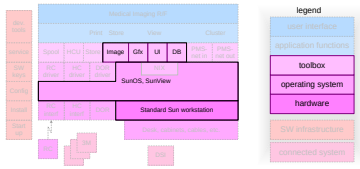
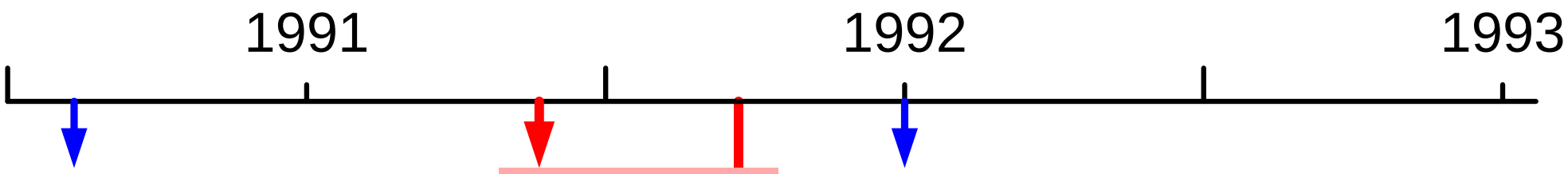
August 21, 2020
status: finished
version: 1.2



Chronology of Easyvision RF R1 development



basic application
toolboxes
100 kloc

interactive viewing

performance
problems

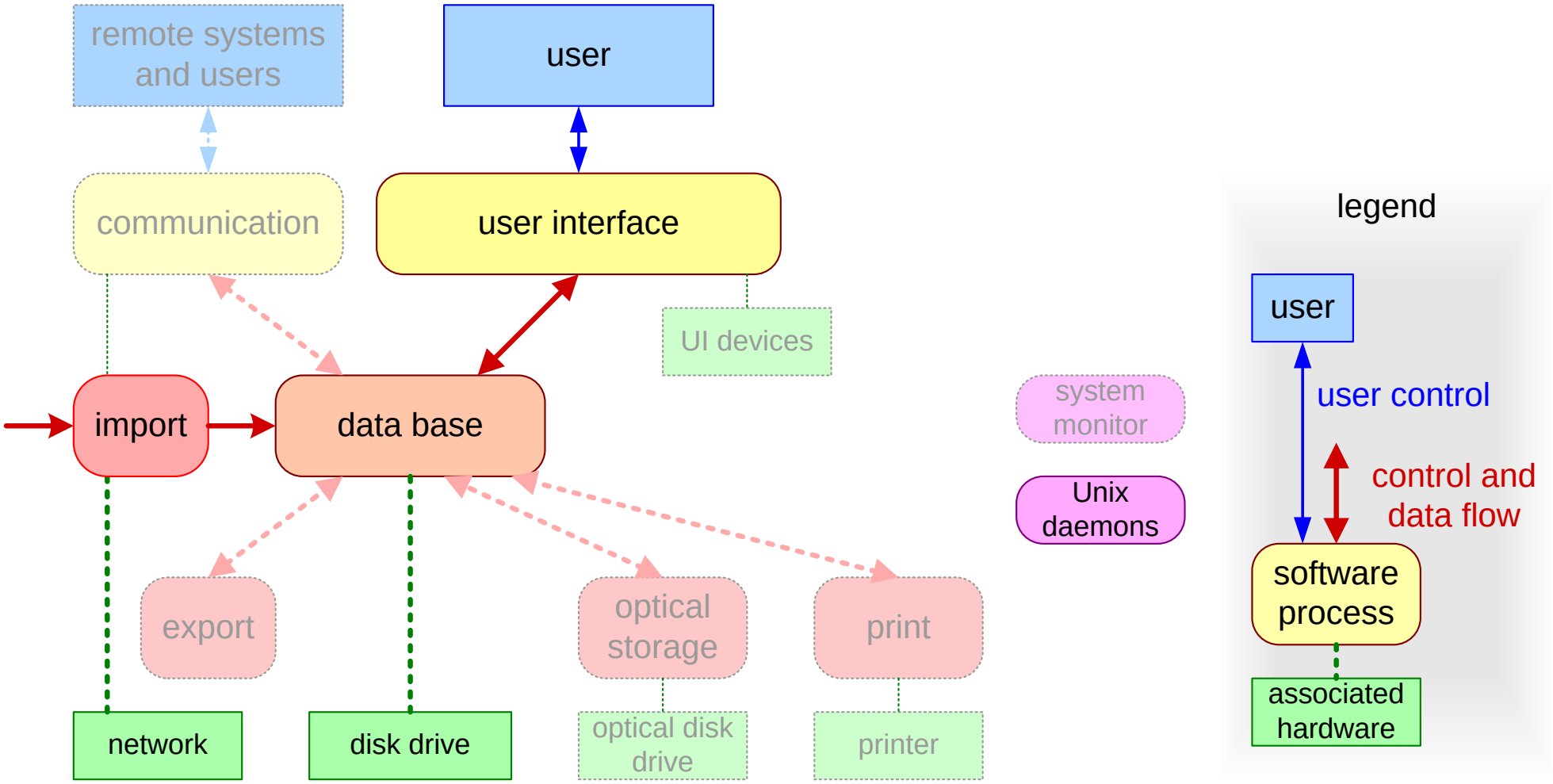
IQ
problems

Easyvision RF
integrated product
360 kloc

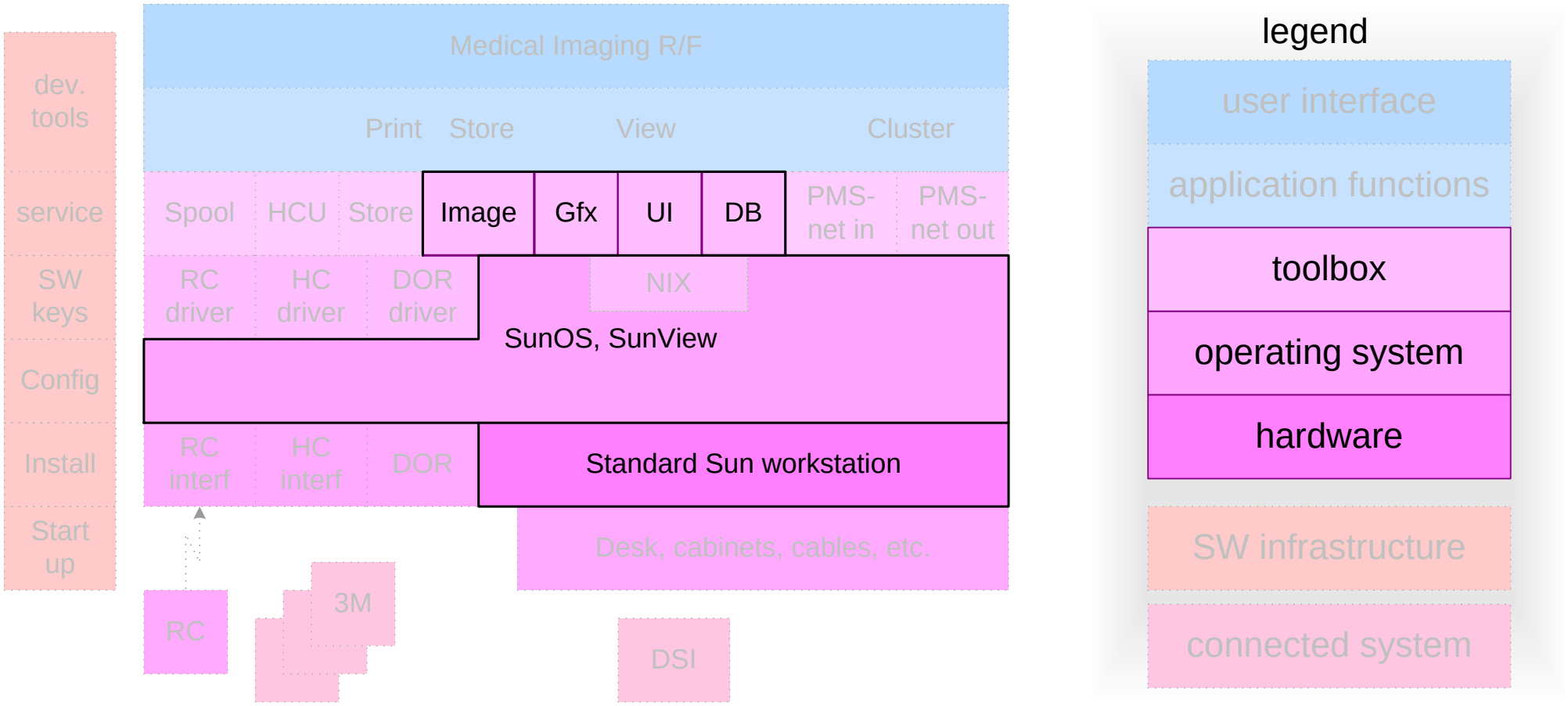
print server +
communication +
interactive viewing

marketing opinion:
"All the functionality is available,
we only have to provide a clinical UI"

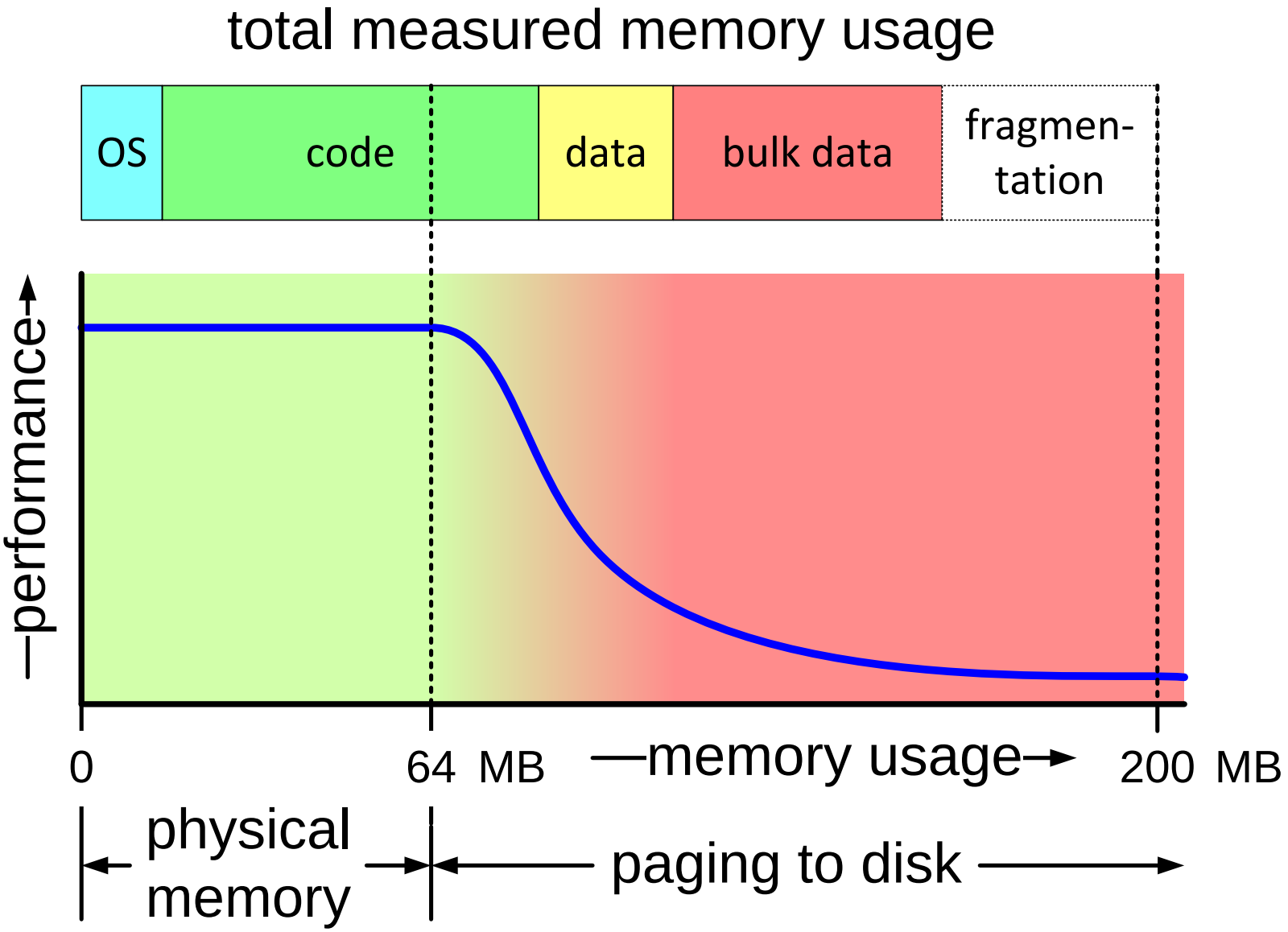
SW Process structure 1991



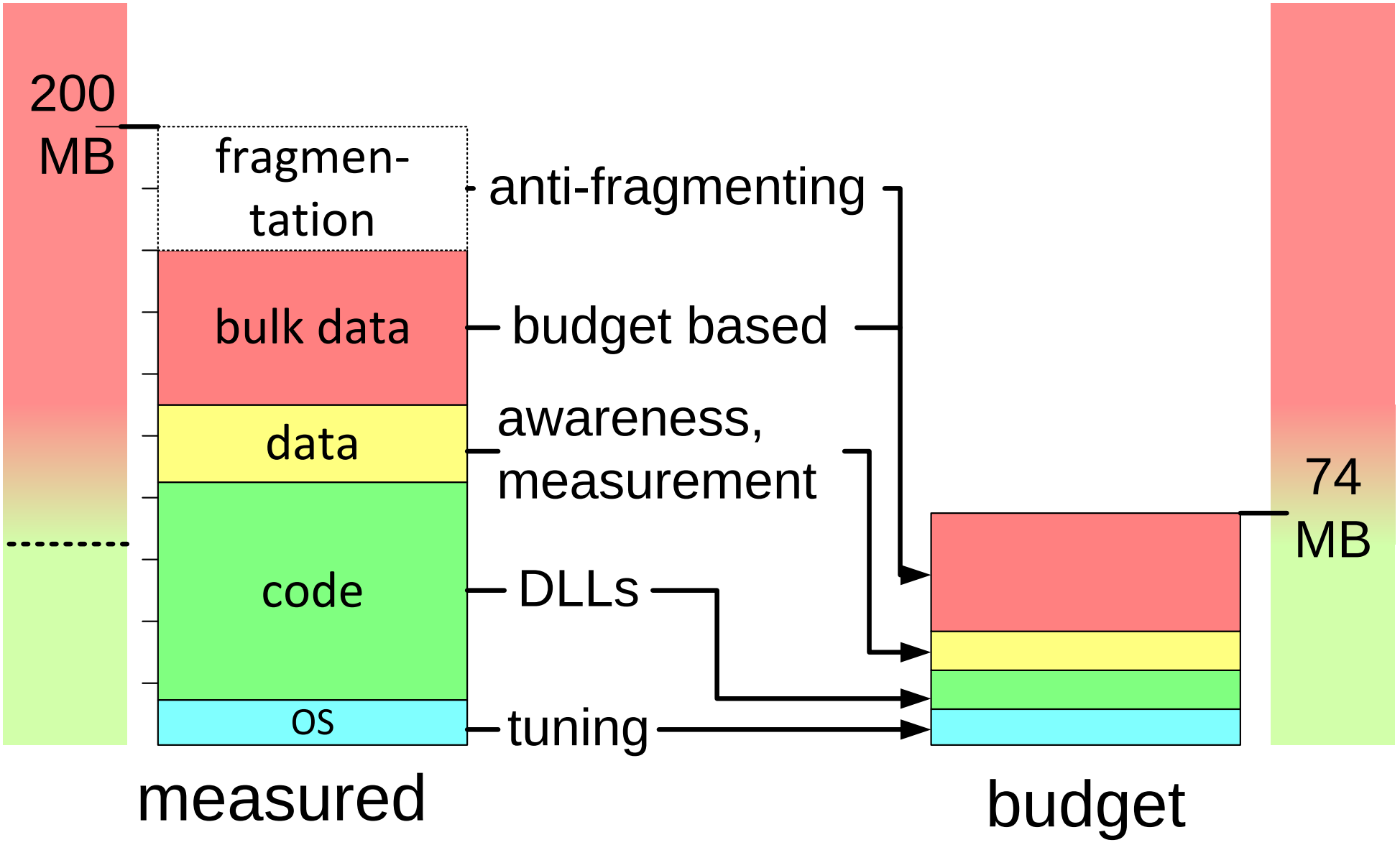
SW layers 1991



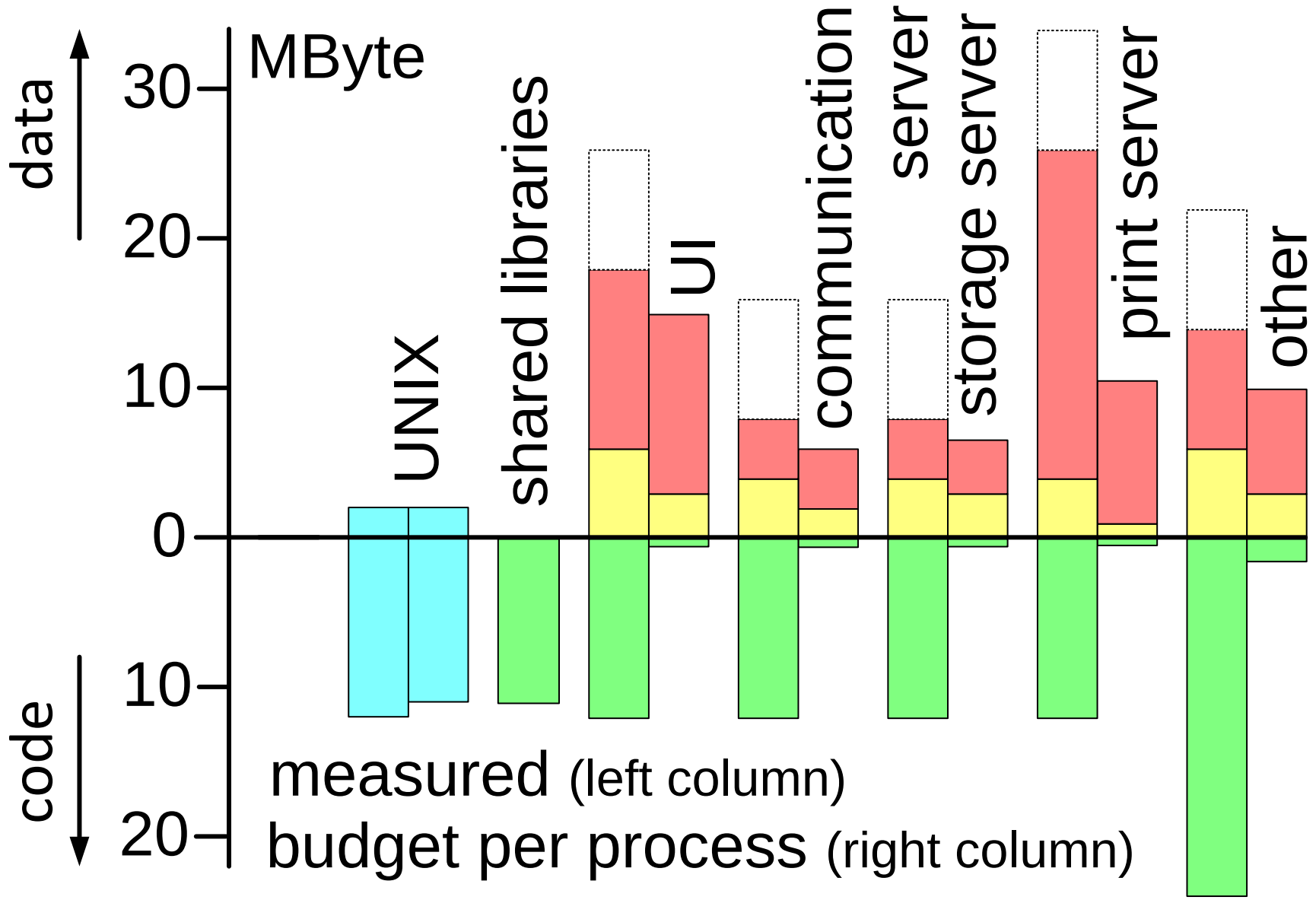
Memory usage half way R1



Solution of memory performance problem



Visualization memory use per process



Causes of performance problems other than memory use

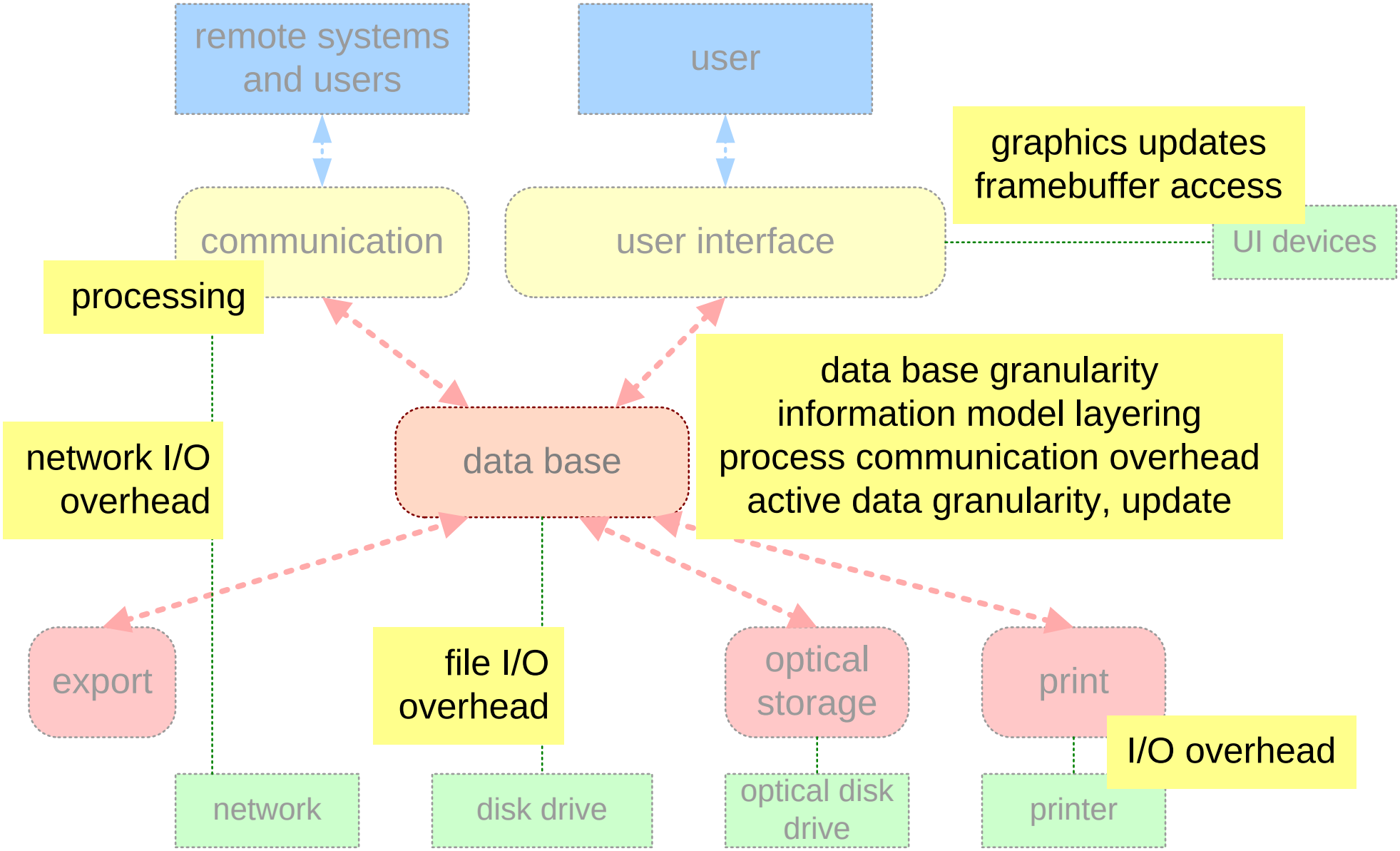
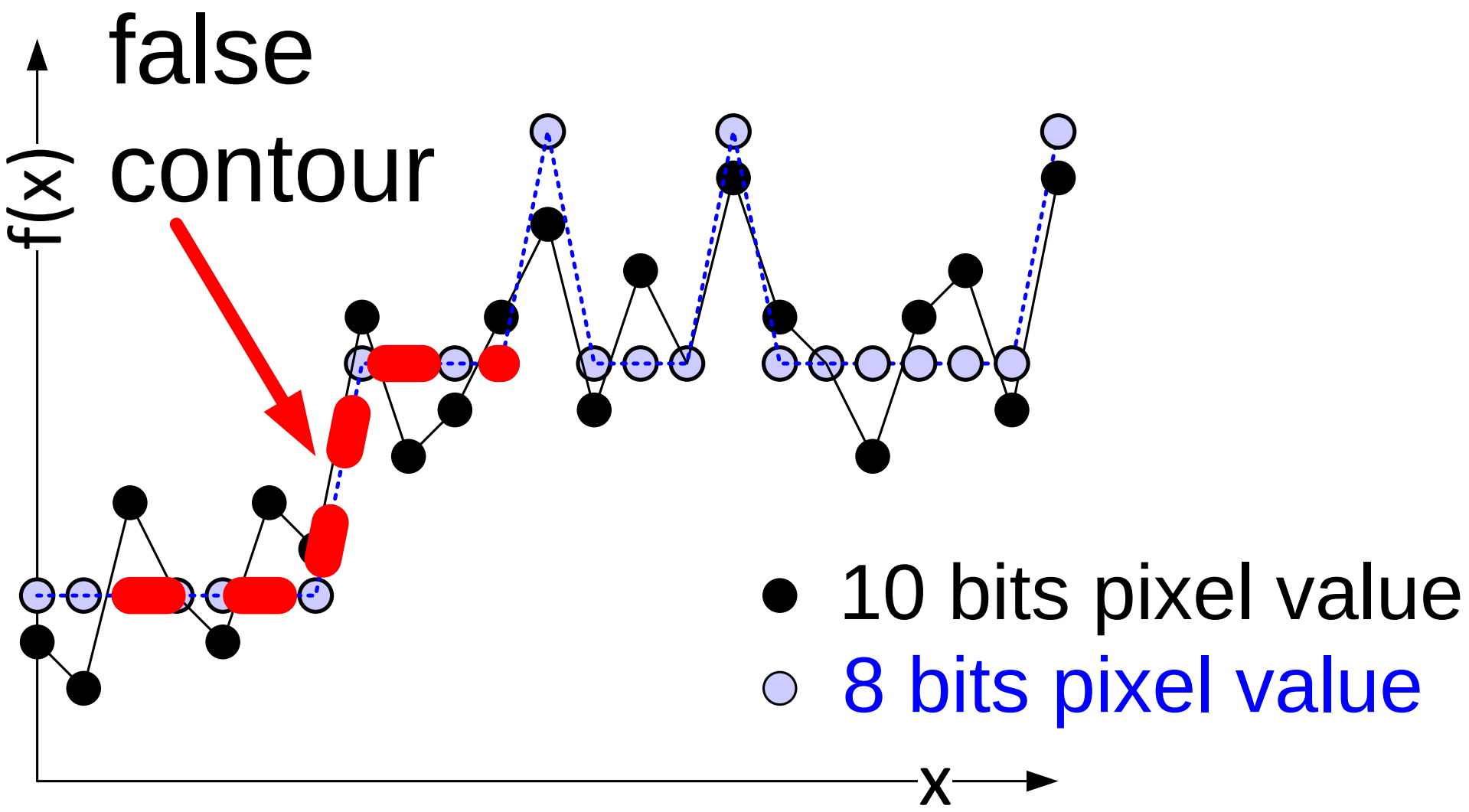
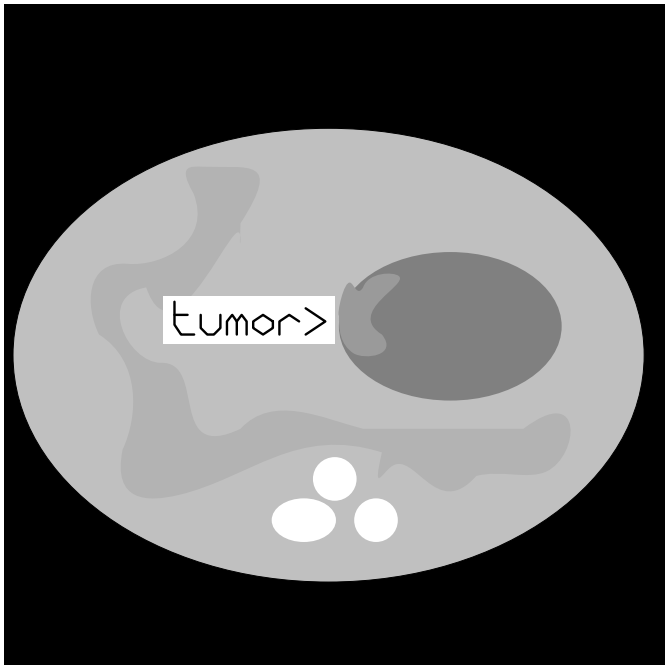


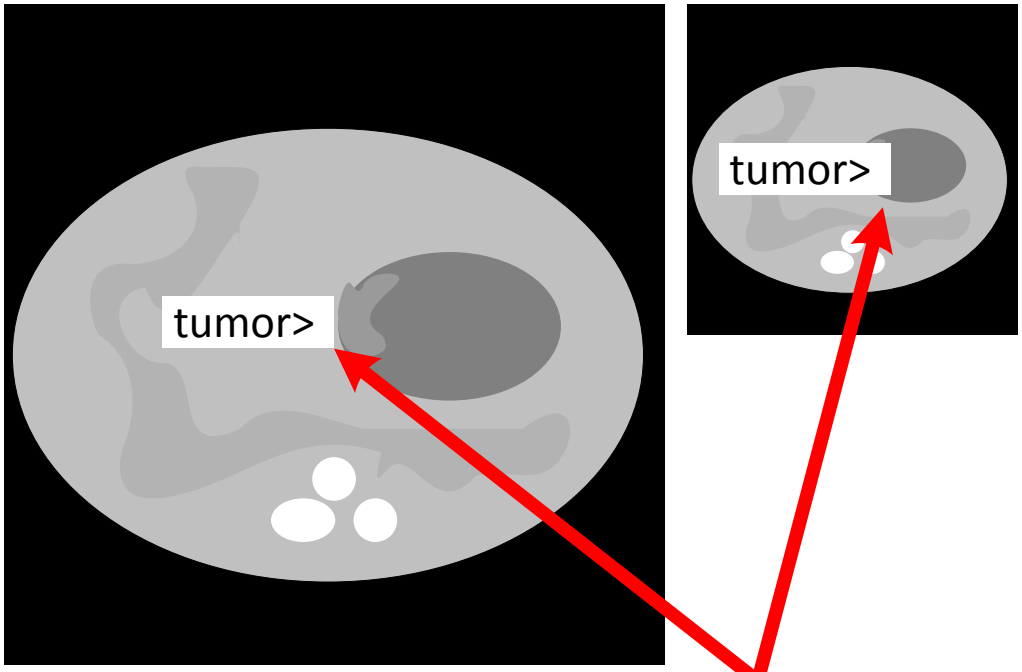
Image quality and safety problem



Safety problem



URF monitor output:
fixed size letters at fixed grid



for user readability the font-size was determined "intelligently"; causing a dangerous mismatch between text and image

EV output: scaleable fonts in graphics overlay