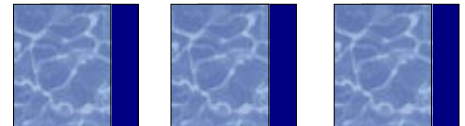


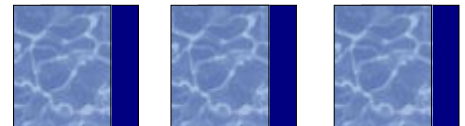
Simulation Activities at DESY

Ralf Gerhards
DESY FH1
Simulation Workshop, November 15 – 16, 2001



the start

- ❑ a few weeks ago a "simulation group" has been established at DESY
- ❑ 5 – 10 persons interested in simulation, mainly for LC Detector, possibly working part of their time on this topic
- ❑ regular meetings
- ❑ ideas
 - ❑ discuss and coordinate activities at DESY
 - ❑ implement LC detector into GEANT 4 framework
 - ❑ avoid duplication of work
 - ❑ contribute to the simulation effort within the LC studies
 - ❑
 - ❑ ... basically the same topics as at this workshop ...



first steps (1)

- ❑ provide common CVS repository for code
 - ❑ located on AFS at DESY (Zeuthen)
 - ❑ installation of common tools (e.g. the US LC Physics software resouce)
 - ❑ propose structure of repository
 - ❑ propose release strategy
- ❑ schedule: available by the end of 2001



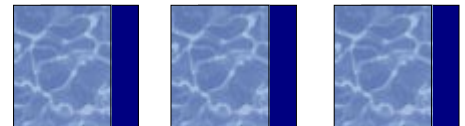
first steps (2)

- ❑ discuss usage of software tools
 - ❑ do we need it, do we want it, how would we use it, ... ?
 - ❑ seems to be beneficial for large software projects ... shouldn't we give it a try at least ?
 - ❑ possible candidate tools: kdevelop, sniff+, source navigator, ...



first steps (3)

- ❑ set-up a simulation cluster
 - ❑ 20 dual processor PCs
 - ❑ 1 (Linux) file server
- ❑ accessible for all workshop participants
 - ❑ access via AFS
 - ❑ software distribution via AFS and CVS
 - ❑ resource sharing ... to be discussed
- ❑ schedule: operational beginning of 2002



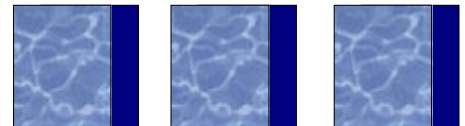
next steps

- ❑ ... the real thing ...

- ❑ detector geometry
- ❑ persistency
- ❑ reconstruction and analysis

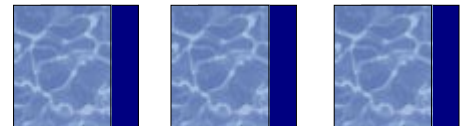
- ❑ goal

- ❑ we want a tool with some key properties
 - ❑ re-useability
 - ❑ flexibility
 - ❑ extendeability
 - ❑ modularity, ...
- ❑ agree on interfaces and tools



DESY activities

- ❑ there is general agreement at DESY that GEANT4 is the simulation toolkit of choice for the future, in particular for LC studies
- ❑ there is some discussion taking place if and how DESY could contribute to GEANT4 beyond the user level
 - ❑ first tutorial to make GEANT4 known to a broader community at DESY still this year
 - ❑ decision on further procedure soon



conclusions

- ❑ GEANT4 is considered the tool of choice for simulation for the future, in particular the LC
- ❑ a significant simulation effort has been launched at DESY
- ❑ very eager to join a common effort with the aim to have finally
a flexible, extendable, modular tool
available for
physics, detector and machine studies for a linear collider

