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High resolution numerical modells on a Display Wall

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The availability of large displays (Wallace et al, 2005) with very high resolutions is creating new possibilities in a work situation. In some areas the resolution is directly related to the amount of information that is in active use. Weather forecasting using high resolution modells, is one of such areas. A typical working environment for a forecaster at duty is a workstation with at least two displays where most of the routine work is done. Often additional computers and screens for visualization of related information is also present at the work place.

The display wall consists of 28 projectors, each driven by one computer (Anshus, Bjørndalen and Larsen, 2004). The computers may also be used as a computing cluster. The display has a resolution of 7168 x 3072 pixels and is approximate 220 inches in diameter.

The main advantage with the display wall is the ability to have huge windows with high resolution. This gives both details and overview at the same time. This is very useful in several types of situations. One example is with large convective systems where multiple cells interact over large distances, and the forecaster need both the local details and the overall view.

The program used for the meteorological visualization is the DIANA system. Only a small change in one of the supporting libraries was needed for the program to use the very large window sizes.

The display wall is so large that several people can work on the wall at the same time, thus supporting both forecasting, research and educational use.

References

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