

Visualization of Climate Data

Presented to

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Why is Visualization Important?

- **Transform numerical results/data into images**
- **Easier to understand**
- **Easier to discover patterns**
- **Good for education**
- **Links Art and Science**
- **Makes science more attractive to the common person**

Collecting Climate Data

- **Using high performance computers**
- **Implementing numerical climate models**
- **Simulating past climate conditions using algorithms**
- **Same for future predictions**

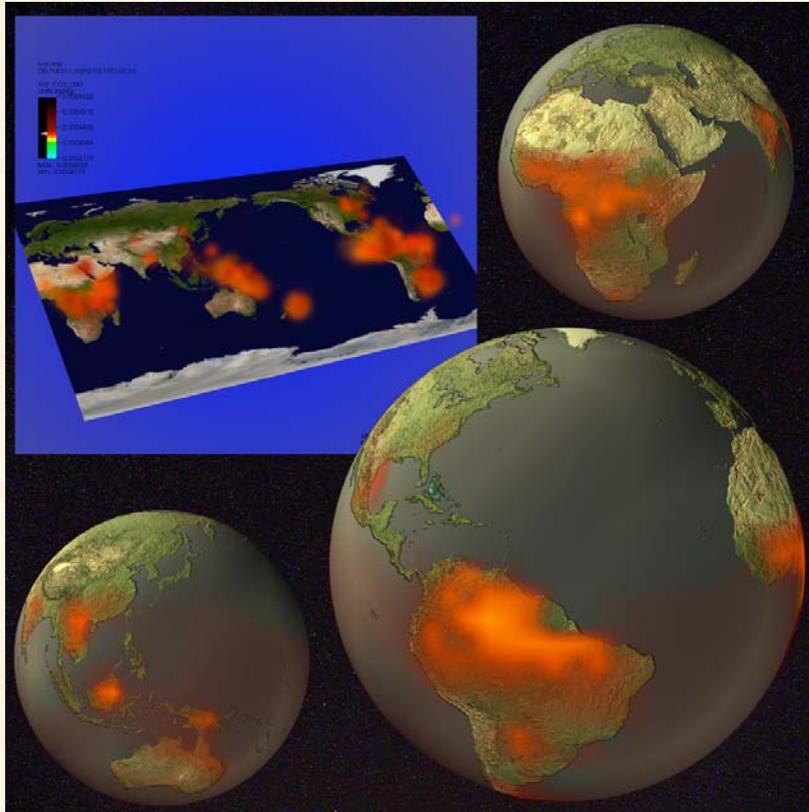


Visualizing Climate Data



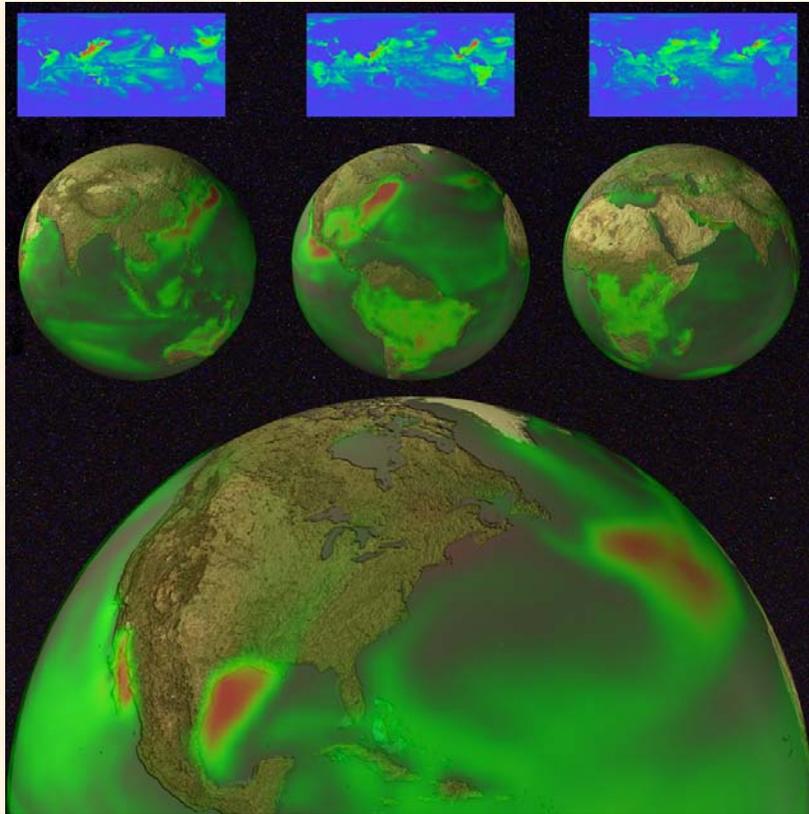
- Transforming results/data into 2D or 3D images
- Using software: Maya, VisIt, Photoshop
- Showing interesting results
- Make it look “pretty”
- Presented on EVEREST

Carbon Dioxide in the Atmosphere



- **Mathematically simulated results**
- **CO2 in Earth's atmosphere, Summer 1901**
- **Effects of industrialization**
- **Rendered in VisIt**
- **Converted to Maya**

Heat Fluctuation



- **Mathematically simulated results**
- **Series of simulated images, 6 hours per frame**
- **Heat flux in the 21st century**
- **Observe dramatic changes in flux**
- **Rendered in Maya**

Acknowledgments

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