

## PERCEPTION and REPRESENTATION

- Why is it important to consider how people perceive interfaces
- Problems involved in representing objects on a screen
- How to represent 3-D models on screen
- Graphical Coding

### Constructivists

- Process of seeing is active in which the view of the world is constructed from the environment and previous knowledge

### Ecological

- Perception involves process of picking up information from the environment and does not require any processes of construction

TAE

CAT

### Main Problem: Real Time

- Approach: Consider the actual needs of the application and see if such a degree of realism is necessary
- Example: Flight Simulators

## 3-D Representation

- Size
- Interposition
- Contrast, Clarity, Brightness
- Shadow
- Texture
- Motion Parallax

## Graphical Coding

- Graphical representations used as a form of coding at the interface
- Data objects and other features of the interface can be represented by this

## Coding for Quantitative Data

- Easier to perceive relationships between multidimensional data
- Easier to perceive trends in data
- Easier to perceive defects in patterns of real-time data

## Coding with Color

- Helps structure information in the interface
- Segmentation
- Amount
- Task Demands
- Experience of the User