Clinical Appeal

Tailoring Computer Tools to the Real User

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Overview

- Introduce Projects
- Participants / Roles
- Technology Driven/User Driven Solutions
- Tangible Outcomes
- Intangible Outcomes
- Intangibles revisited
Advanced Informatics in Medicine (AIM) Projects (1)

- **Computer Vision in Radiology – COVIRA**
  - 22 partners across Europe
    - Industrial
      - IBM, Philips, Siemens
    - Academic
      - 13 University Departments
  - Clinical
    - 6 Clinics,
  - Radiotherapy, Radiological Diagnosis, Neurosurgery
Radiotherapy Treatment Planning
AIM Projects (2)

- Telematics application in radiation and general oncology treatment– TARGET
  - Industrial
    - IBM, Siemens
  - Academic
    - 3 University Departments
  - Clinical
    - 2 Clinics + satellites, Florence, Kent

- Remote Clinical Diagnosis and Planning
Image Data

- **Stacks of slices**
- **Routine Clinical Acquisition**
  - Magnetic Resonance
    - Soft Tissue
    - Distortions
  - X-Ray Computed Tomography
    - Bone
    - Dose data
    - Dimensionally stable
Volumes of Interest
Low Hanging Fruits
Pretty Pictures, but of what value?
Pretty Pictures (2)
Pretty Pictures (3)
Producer / Consumer?
Simple concepts to direct processing
3D Manual Interpolation
Model Guided Manual Volume Initialisation
Model Guided Volumes (2)
Model Guided Volumes (3)
3D Geometric Volume Initialisation
3D Geometric Volume Initialisation (2)
3D Geometric Volume Initialisation
Core Diagnostic Data
Combining Data
Planning Treatment
Planning Treatment (2)
Tosca
Conclusions

- Simple things mean a lot
- Get to know your users well
- Application development is assisted by scientific background
- Emerging Component technology and Role based development make the barriers lower
Backup Slides ....