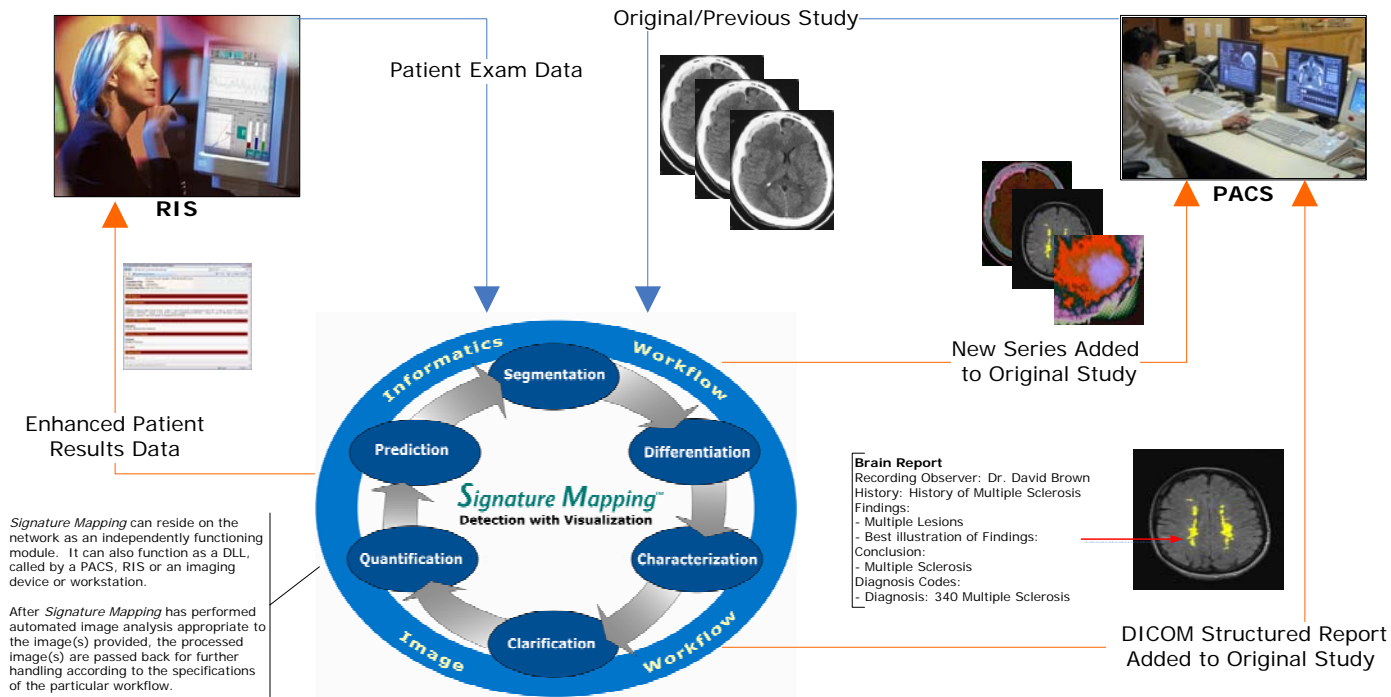


# Signature Mapping™ Integration into an Image-and-Informatics-driven CAD Workflow



## DICOM-IHE Toolkit

### Multi-Modality CAD Workflow

CAD applications developed by any manufacturer 'become' DICOM and IHE compliant. Results from various CAD applications can be integrated into the clinical diagnosis workflow of any PACS or other CAD systems including the integration of multi-modalities.

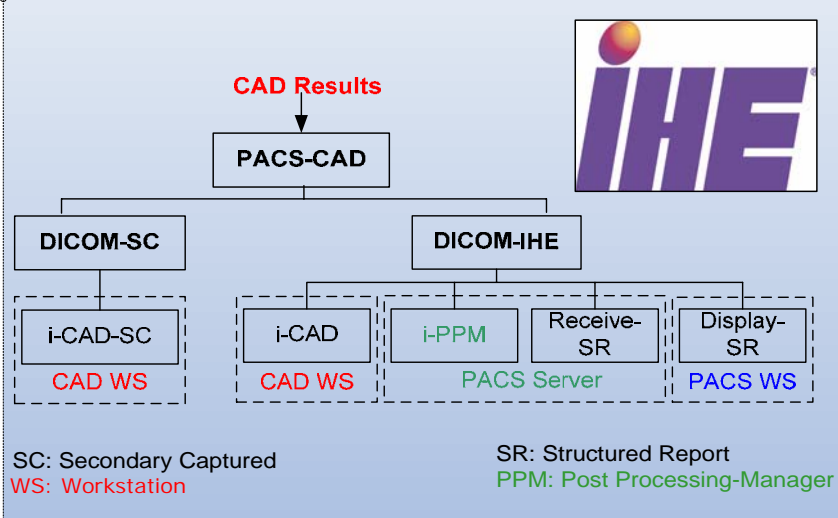
#### Example of Multi-Modality Workflow:

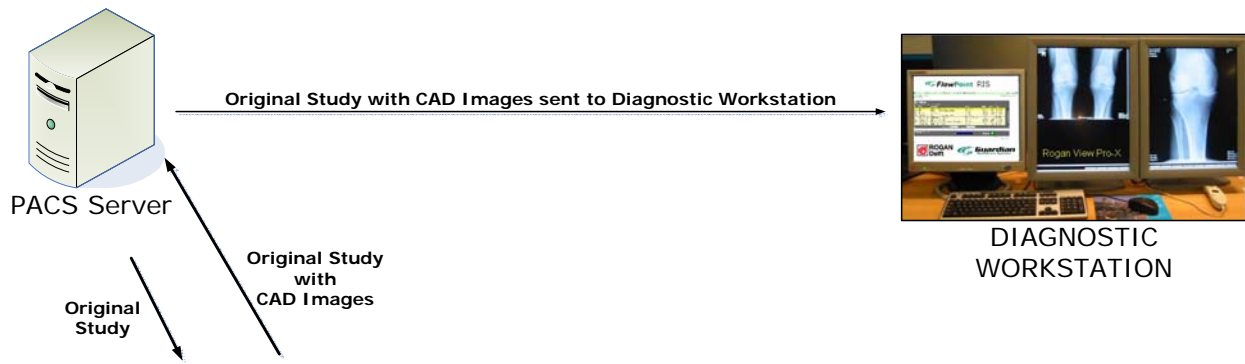
The PACS server pushes DICOM Mammogram, MRI Breast and Ultrasound Breast studies to Signature Mapping for processing. The Signature Mapping results are converted to DICOM SR and pushed to the multi-modality diagnostic workstation.

#### Detailed Workflow Steps

1. PACS server pushes a DICOM worklist to i-PPM to the requesting CAD process for the studies. If PACS server cannot push the worklist, the i-PPM can query the PACS server for DICOM worklist automatically.
2. The CAD WS queries the CAD worklist from i-PPM. The CAD claims work items to be performed.
3. The CAD WS queries/retrieves DICOM images from the PACS server for CAD process.
4. The CAD WS sends "work item in progress" message to the Post-Processing Manager (i-PPM).
5. The CAD Workstation performs CAD process and stores the CAD results in the Receive-SR installed in the PACS server.
6. The CAD WS reports Work Item PPS & Work Item Completed Message to the i-PPM.
7. The PACS WS retrieves the DICOM SR CAD results for physicians' review. A Web-based Display-SR can be used in the PACS WS to view the CAD results.

### Structured Report & IHE Post-Processing Workflow





Signature Mapping™  
Processing

PACS Server sends DICOM study to CAD Server.  
CAD Server performs the Signature Mapping process.  
CAD images are sent back to the PACS Server.