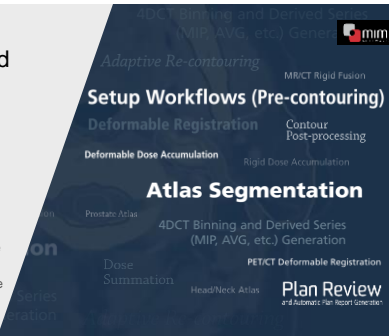


**Practical Automation with
MIM Workflows™ and MIM Assistant®**

Matt Gerace
Director, Radiation Oncology
MIM Software Inc.


**MIM Workflows
Clinician-Assisted
Automation**

- Scripts that walk clinicians through a clinical task
- Highly customizable
 - Many MIM Workflows are available "out of the box," but all can be customized to fit the needs of the individual clinic



**MIM Workflows
Clinician-Assisted
Automation**

- Easily created used our graphical user interface
 - No coding!
- Expansive automation capabilities
 - Nearly every manual command in the software can be used in a MIM Workflow



MIM Workflows Clinician-Assisted Automation

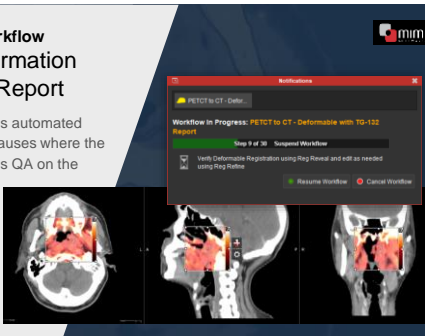


- **Benefits:**
 - Time savings - quicker processing, fewer clicks, faster learning curve
 - Consistency - all clinicians use the same workflow. Cases are done the same way each time
 - QA is built into the process
 - The clinician is asked to perform QA every time when appropriate
- **Drawbacks:**
 - Must be manually initiated by clinician

Example MIM Workflow PET/CT Deformation with TG-132 Report



- Fusion process is automated except for two pauses where the clinician performs QA on the registration
- QA is built into the automated process



Example MIM Workflow PET/CT Deformation with TG-132 Report

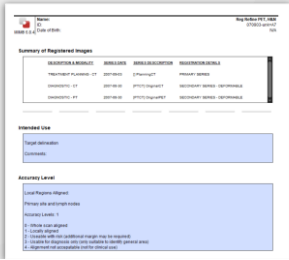


- Automation goes beyond the registration process, but also creates a summary report following the TG-132 guidelines
- Summary of Registered Images



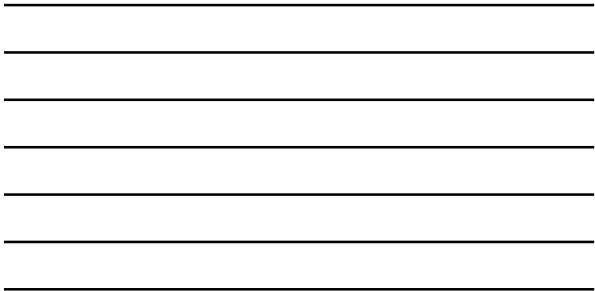
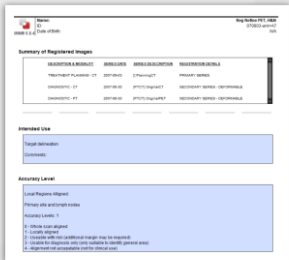
Example MIM Workflow PET/CT Deformation with TG-132 Report

- Automation goes beyond the registration process, but also creates a summary report following the TG-132 guidelines
 - Summary of Registered Images
 - Intended Use



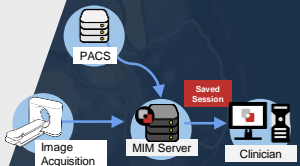
Example MIM Workflow PET/CT Deformation with TG-132 Report

- Automation goes beyond the registration process, but also creates a summary report following the TG-132 guidelines
 - Summary of Registered Images
 - Intended Use
 - Accuracy Level



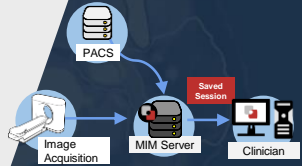
MIM Assistant Headless Automation

- Automated workflows can be run with no user interaction on the MIM server
- Robust, rule-based platform to initiate the automated workflows on the server



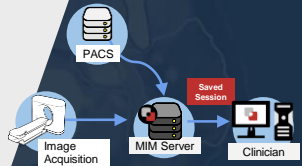
MIM Assistant Headless Automation

- Types of automation rules on the MIM Server:
 - Time - Periodic maintenance or cleanup
 - Event - Act on data when it arrives
 - Message - HL7
 - File System - Monitor folders



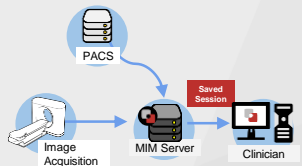
MIM Assistant Headless Automation

- Same level of customization as user-initiated **MIM Workflows**
- Allows for stops or pauses by use of **Session Save** for a clinician to pick up where automation left off



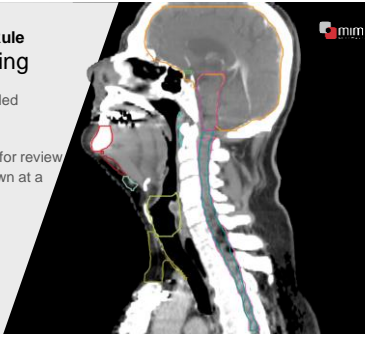
MIM Assistant Headless Automation

- **Benefits:**
 - Same as **MIM Workflows**, plus automatically initiated on the server
 - Even more time savings
 - QA steps are still requested by the clinician where appropriate
- **Drawbacks:**
 - Automation rules used to initiate must be customized to match all data scenarios
 - Requires thoughtful planning to accommodate "one off" scenarios



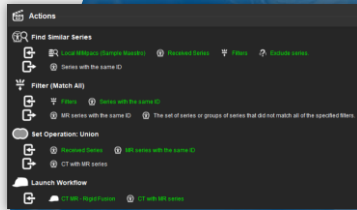
Example MIM Assistant Rule Atlas Auto-Contouring

- No user intervention needed
- Completely automated
- Results saved and ready for review when the clinician sits down at a workstation



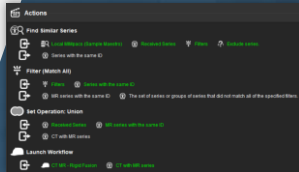
Example MIM Assistant Rule Rigid MR Fusion

- No user intervention needed to kick off the process
- Upon receipt of the planning CT, the MIM Assistant finds all previous MR series
- Initiates CT-MR fusion workflow



Example MIM Assistant Rule Rigid MR Fusion

- No user intervention needed to kick off the process
- Fusions created automatically
- Session saved for clinician to review the fusions
- Continuation workflow runs after the QA process is completed by the clinician to finish up the process and setup for contouring as well as generate an AAPM TG 132 summary report



Summary:



- Automation with MIM Workflows can substantially reduce the time needed for routine tasks
- Scripted workflows increase consistency
- QA tasks can be built into the process
- Easy to create and implement using a unique graphical user interface
- Automation with MIM Assistant can be headless and initiated on the server



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