



Teaching File and Clinical Trial Export Profile

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Teaching File and Clinical Trial Export *TCE Abstract/Scope*

- **DICOM-based mechanism for connecting clinical systems to:**
 - External teaching file systems
 - External clinical trial systems
- **Meets de-identification requirements for:**
 - Teaching files (HIPAA)
 - Clinical trials (pseudonymization)

Teaching File and Clinical Trial Export *Value Proposition for Customers*

- Brings digital imaging to traditionally film-based activities
- Facilitates clinical research and grant acquisition
- Standardizes clinical trial data collection
- Improves the efficiency of teaching file production
- Supports meeting the Accreditation Council on Graduate Medical Education requirements for teaching files

Teaching File and Clinical Trial Export *Value Proposition for Companies*

- You can add TF and CT capability to your products just by implementing the TCE profile
- The RSNA MIRC implementation Teaching File and Clinical Trial system
 - TCE Receiver
 - Used by the NCI for clinical trial image transport
 - Free & open source (mirc.rsna.org)
- The RSNA MIRC TCE Export Manager

Teaching File and Clinical Trial Export

Export Selector

- a system that identifies information to be sent to a teaching file or clinical trial system
- example: a user at a PACS diagnostic workstation

Export Manager

- de-identifies and re-identifies the images, reports, evidence documents, presentation states and additional information with pseudonymous values
- supports the Remap Identifiers option to pseudonymize the images with the trial-specific identifiers and to populate the clinical trial specific attributes.
- sends the pseudonymized DICOM objects and an updated manifest to a Receiver.

Receiver

- a local teaching file or clinical trial system
- a clinical trial system responsible for transferring images to the central review facility

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Example Teaching File Use Case

Part 1: Selection

- Radiologist views images for primary diagnosis on Image Display grouped with Export Selector.
- Export Selector allows images, series and studies to be selected “For Teaching File Export”.
- Export Selector may also provide a UI allowing the user to enter text notes and select additional items (SR, KIN, GSPS, etc.) for inclusion in exported objects.

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Example Teaching File Use Case

Part 2: Export

- **User action triggers Export Selector to send objects and a Key Image Note manifest to Export Manager.**
 - Document Title of the KIN specifies “For Teaching File Export”.
 - Export Manager de-identifies objects.
- **Export Manager collects selected objects and sends to Receiver.**
 - Receiver may be part of a Teaching File system.
- **TF system receives objects and manifest and stores them for later use by radiologist when authoring the teaching file case.**
- **...other use cases are in the Technical Framework**

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Example Clinical Trial Use Case

Part 1: Selection

- A clinical trial administrator views images on Image Display grouped with Export Selector.
- The Export Selector allows images, series and studies to be selected “For Clinical Trial Export”.
- The administrator identifies the trial.
- The Export Selector sends images and a KIN manifest to the Export Manager.
 - The Document Title of the KIN specifies “For Clinical Trial Export”.
 - Export Manager de-identifies objects.

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Example Clinical Trial Use Case

Part 2: Export

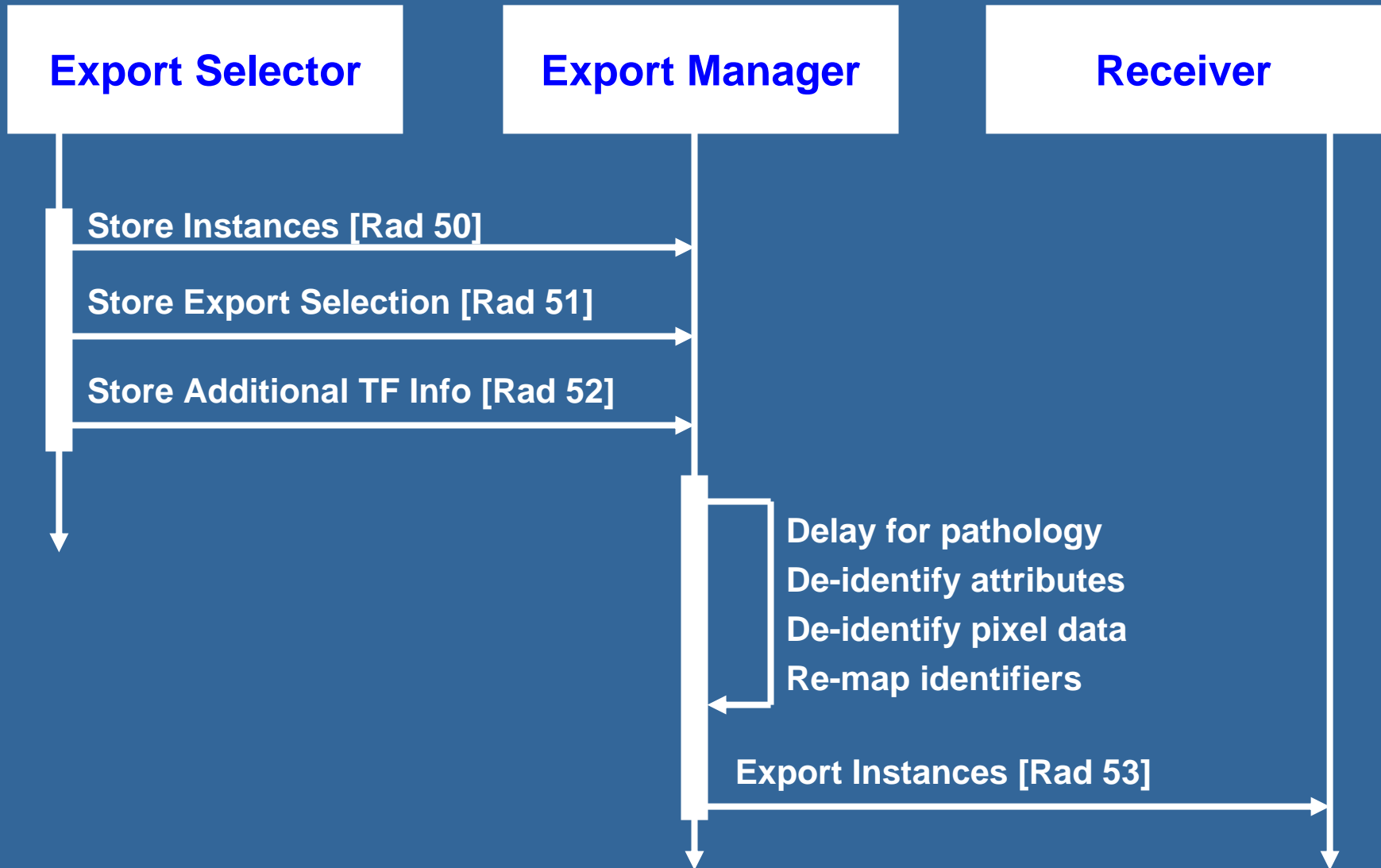
- The Export Manager collects all the objects selected and sends them to the Receiver which may be part of a Clinical Trial communication system.
- The CT system receives the objects and the manifest and forwards the relevant data to the central facility of the Clinical Trial.
- ...other use cases are in the Technical Framework

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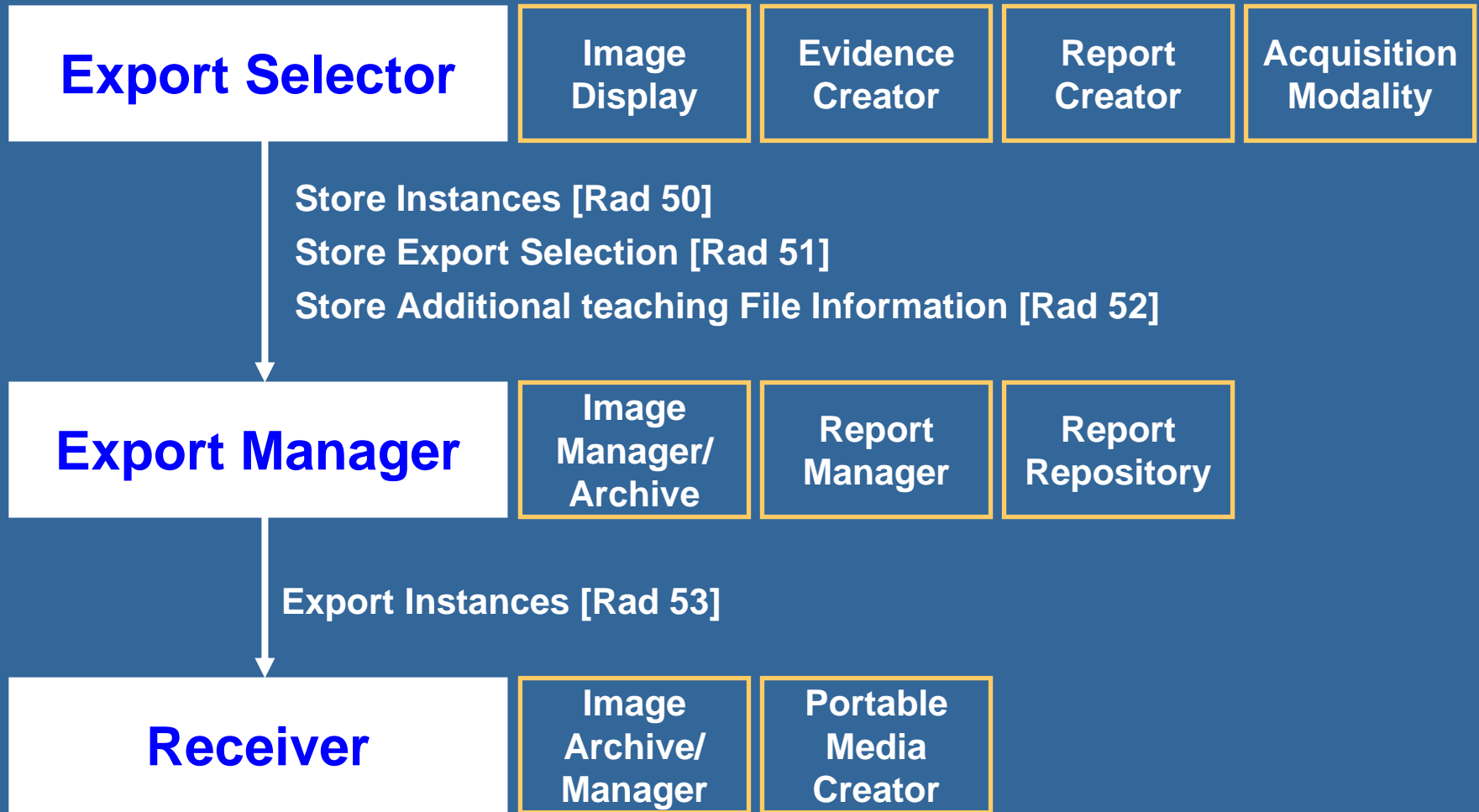
Export Selection

- **Key Image Note used as a manifest of exported objects:**
 - List of images and other DICOM objects
 - Coded Document Title
 - “For Clinical Trial Export”
 - “For Teaching File Export”
 - Text “disposition”
 - Information about the requesting user
- Optional Additional Teaching File Information Key Image Note can contain more information for a teaching file case.
- **Sent via conventional C-STORE**
 - Not a new SOP Class

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