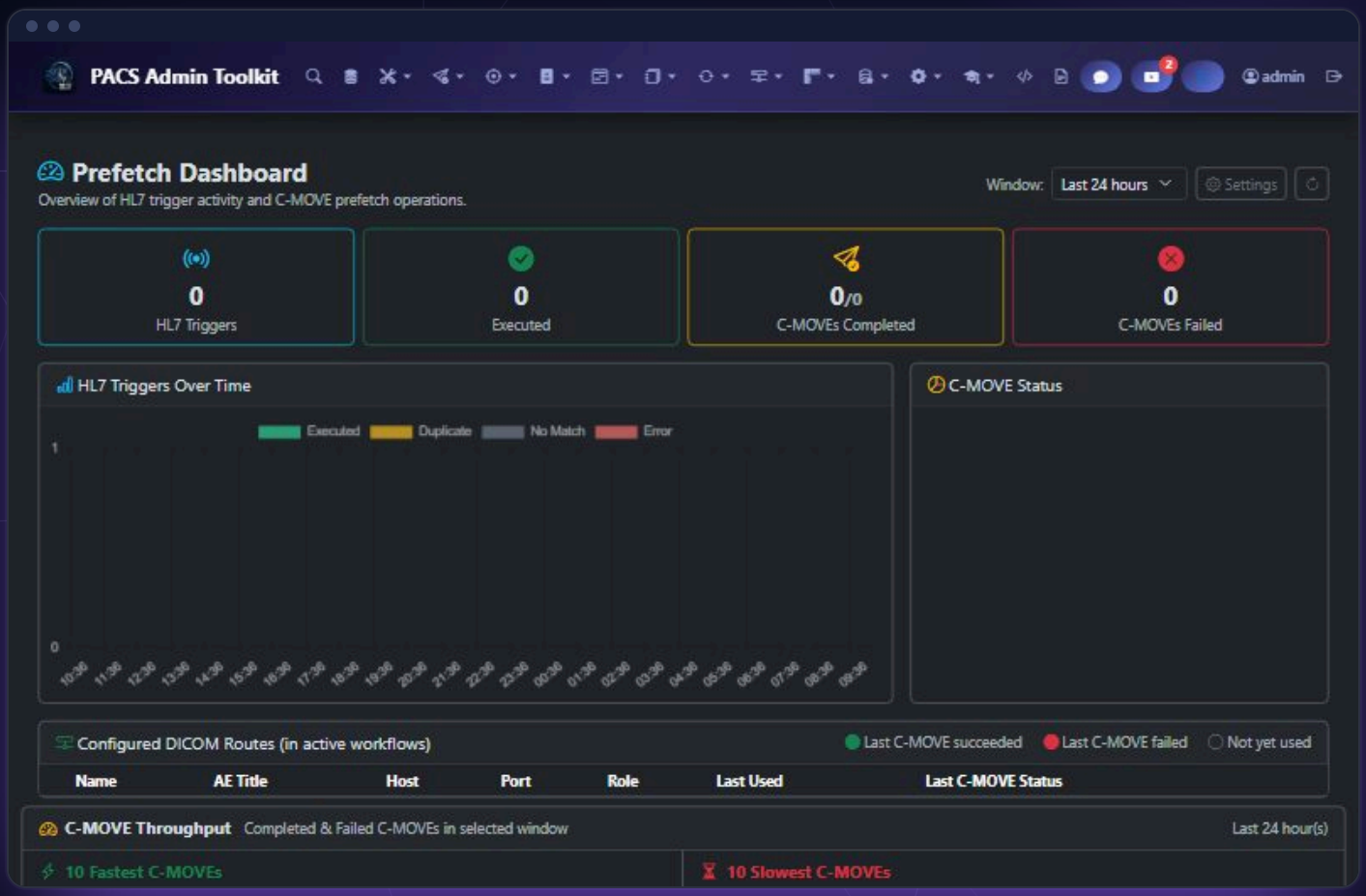
Imaging & Routing | Leads with Transform

# Prefetching & HL7 Fetching

The order arrives, and the right studies are already on their way to where they are needed.




HL7 orders drive DICOM retrieval: prefetch picks a patient's relevant priors by matching rules, and HL7 Fetching pulls the exact study an order names. Every pick, skip and move is logged with its reason.

**6**
matching axes, each with its own quota

**0**
moves while a workflow runs in Demo Mode

**Every**
prior's pick or skip reason recorded

Replaces: **Prefetch engine or interface-engine scripts**

License module PREFETCH

THE CHALLENGE

## Why it matters

When the comparison study is not on the reading PACS, someone has to go and get it, often while the radiologist waits. Prefetch rules that should prevent this are hard to tune: they fetch too much, miss the study everyone wanted, and nobody can say why.

Other studies need to move because of an order too: an outside exam scheduled for a read, a study bound for an analysis platform. Interface-engine scripts do this today, with little visibility when they fail.

> IN SHORT
>
> HL7 orders drive DICOM retrieval: prefetch picks a patient's relevant priors by matching rules, and HL7 Fetching pulls the exact study an order names. Every pick, skip and move is logged with its reason.

CAPABILITIES

## What it does

- **Orders in over MLLP**
  HL7 listeners acknowledge each order, drop duplicates inside a window, and run rule sets on any HL7 field to decide which workflows run.
- **Relevant priors, by rule**
  Prefetch workflows query the sources and fill six axes (most recent, description, body part, similar description, modality, keyword), each with its own quota.
- **Matching you can tune**
  Description normalizations, alias and body-part maps, priority boosts, contrast and anatomy guards, and cross-MRN searching with name verification.
- **The exact study, when it exists**
  HL7 Fetching finds the study an order names by accession or Study UID and keeps searching on a timer until it reaches the source.
- **Many destinations, with failover**
  Move to every destination, or try them in order until one succeeds; unhealthy sources and destinations are tried last automatically.
- **Only what is needed**
  Prefetch skips studies a destination already holds or a home archive serves; HL7 Fetching can move only the series that match your conditions.
- **On your schedule**
  Delays, run windows and hold-until dates shift moves out of busy hours, with a separate concurrency cap for released backlogs.
- **Prove it first**
  Demo Mode runs everything except the C-MOVE; the Prior Match Advisor replays past orders against a change before it goes live.

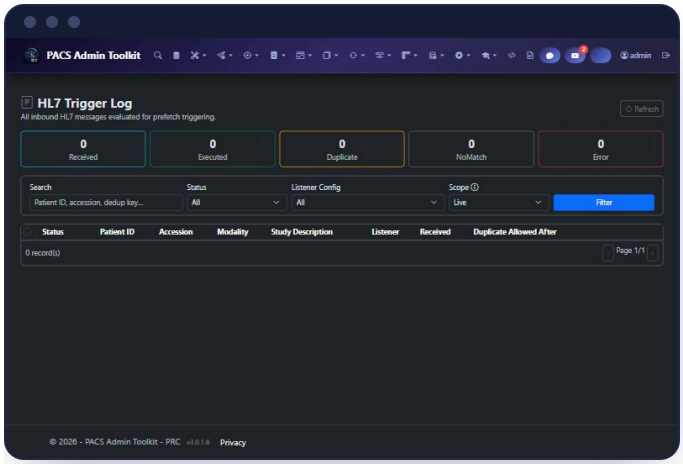
WORKFLOW

# How it works

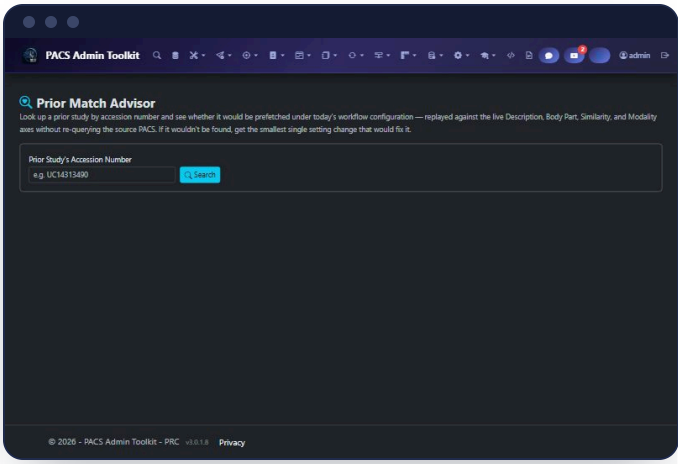
1. **Order arrives**
   The RIS or EHR sends an HL7 order; PATK acknowledges and logs it.
2. **Rules decide**
   Duplicate checks and rule sets pick the workflows to run.
3. **Sources queried**
   Healthy sources are C-ECHOed and C-FINDed for the patient or the named study.
4. **Studies chosen**
   Prefetch scores priors on its axes; HL7 Fetching takes the study the order names.
5. **Moves queued**
   C-MOVEs go to each destination with retries, schedules and a stuck-move watchdog.

IN THE PRODUCT

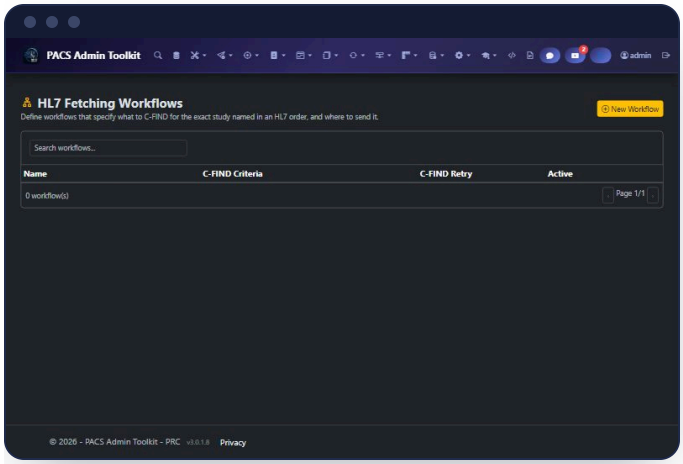
# See it in action



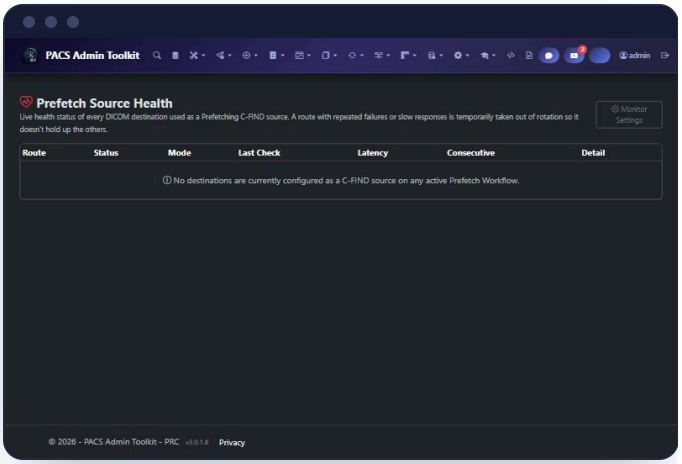

The Trigger Log shows every order and why each prior was or was not chosen




The Prior Match Advisor replays past orders against a change




HL7 Fetching workflows: sources, destinations, criteria, retries and schedules




Source Health skips archives that are down and alerts by e-mail

USE CASES

# Where it pays off

## Priors ready before the read at a hospital network

| | |
|---|---|
| CHALLENGE | CT and MR priors live in the enterprise archive, and readers keep asking for studies the old prefetch missed. |
| WITH PATK | A prefetch workflow runs in Demo Mode for a day; the Trigger Log shows abbreviated descriptions as the cause, and a mapping plus a priority rule fix them before go-live. |
| OUTCOME | **Prefetch decisions the radiologists can read and the PACS team can change, checked against real orders first.** |

## Workflow-driven fetching for an AI platform

| | |
|---|---|
| CHALLENGE | A multi-site radiology group needed studies sent to an AI analysis platform when specific orders arrive, without manual sends. |
| WITH PATK | A dedicated, rebranded PATK instance receives HL7 triggers, C-FINDs the source archive and C-MOVEs the matching studies to the AI platform, retrying until the study arrives. |
| OUTCOME | **Studies reach the analysis platform as part of the order workflow, with every trigger and move logged.** |

## Priors under a partner hospital's MRN

| | |
|---|---|
| CHALLENGE | Patients transfer from a partner hospital whose studies sit in the same archive under different MRNs. |
| WITH PATK | Cross-IPID searching finds studies by name and birth date; name verification and name equivalences drop near misses. |
| OUTCOME | **Partner priors are fetched with the order, and each exclusion is logged with its name score.** |

## Backlog moves outside clinical hours

| | |
|---|---|
| CHALLENGE | A large batch of outside studies must reach the reading PACS without slowing the archive during the day. |
| WITH PATK | An HL7 Fetching workflow finds each study when the order arrives but holds its move for a 02:00 to 06:00 window with a lower concurrency cap. |
| OUTCOME | **The archive keeps its daytime performance, and the studies are on the PACS by morning.** |

3T

# Trust · Truth · Transform

### Trust

Duplicate orders are suppressed, unhealthy sources are skipped, stuck moves are re-queued, and Demo Mode tests changes without moving a single study.

### Truth

The Trigger Log records each order, each source's results and the reason every prior was or was not chosen; dashboards show moves by result.

### Transform

Studies are where readers and platforms need them when the order arrives, instead of being requested by hand afterwards.

VALUE MODEL

# What it can be worth

An example 150,000-exam-a-year network moving from manual retrievals to order-driven prefetch and fetching.

| | |
|---|---|
| Exams per year | 150,000 |
| Exams whose priors live in another archive | 60% (90,000) |
| Manual retrieval requests avoided (5% of those exams) | 4,500 |
| Staff time per manual retrieval | 8 minutes |
| Outside or archived studies fetched by order per year | 3,000 |
| Staff time saved per fetched study | 5 minutes |
| Blended PACS staff cost per hour | $50 |

**$42,500**

Estimated yearly value

Illustrative example. Your volumes, staffing and costs will differ; we will build this model with your own numbers.

DIFFERENTIATORS

# Why it stands out

- **Explains every decision**
  Each pick and skip has a reason, and the advisor suggests the setting to change, where typical prefetch engines are a black box.
- **Two jobs, one module**
  Relevant-priors prefetch and exact-study HL7 fetching share routes and monitoring but keep separate rules and queues.
- **Safe to change**
  Demo Mode and side-by-side workflow copies let you tune on live orders without moving anything.
- **One platform**
  Orders, routing, priors browsing and worklist share one product, one login and one audit trail.

SPECIFICATIONS

# At a glance

| | |
|---|---|
| **Standards** | HL7 v2 orders over MLLP with ACK; DICOM C-ECHO, C-FIND and C-MOVE at study and series level |
| **Triggers** | Listeners with field mappings, duplicate windows, sending-application and message-type filters, rule sets |
| **Matching** | Six axes with quotas, normalizations, description and body-part maps, priority rules, cross-IPID with name checks |
| **Delivery** | Multiple destinations, first-success order, automatic failover, delays, run windows, retries, watchdog |
| **Monitoring** | Dashboards, Trigger Logs, C-MOVE queues, Source Health with e-mail alerts, Prior Match Advisor |

## See Prefetching & HL7 Fetching with your own data

Ask for a guided demo or a trial license. PACS Admin Toolkit installs on your own Windows server in under an hour, and every module comes with step-by-step guides and in-app guided tours.

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