GDT Integration (gdt-hl7-bridge)

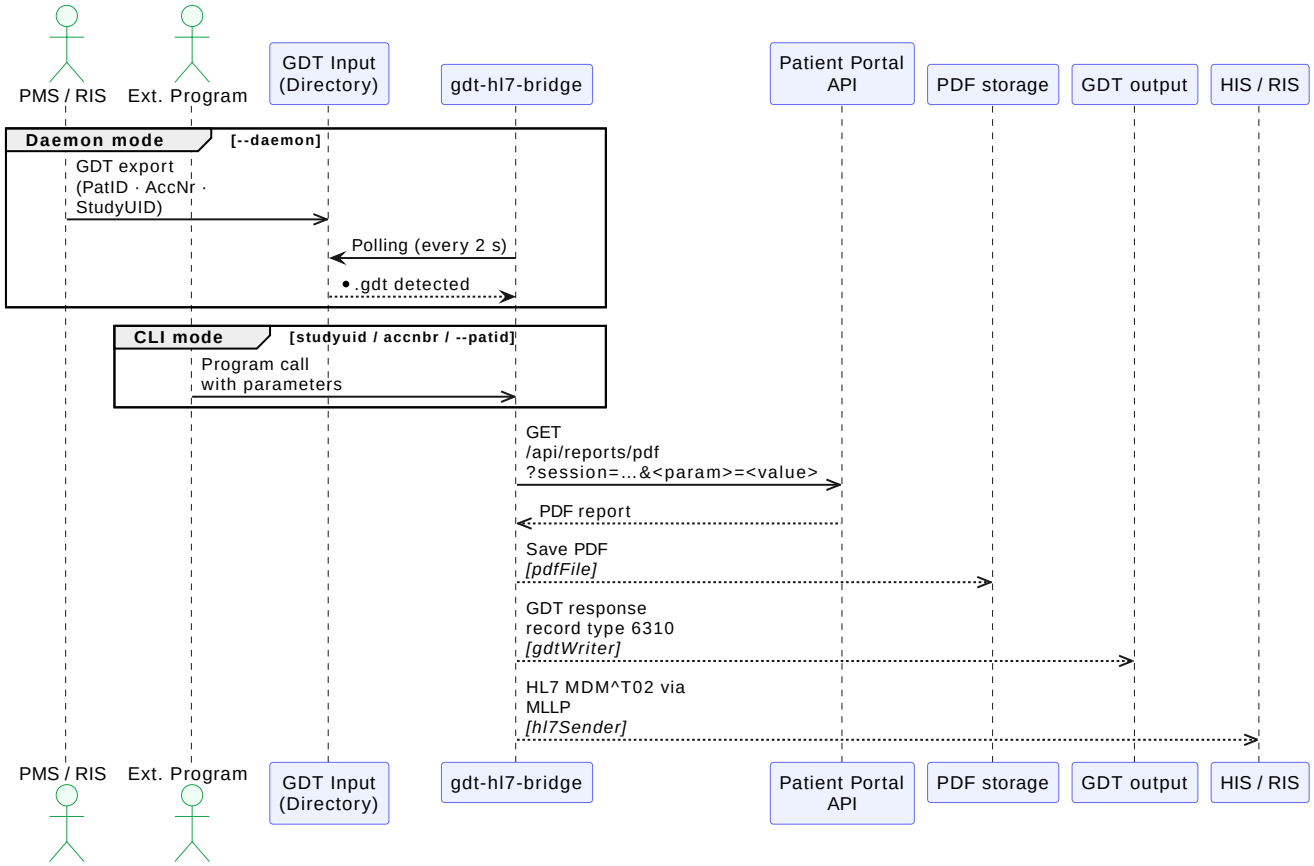
Table of Contents

How It Works . . . 1
Invocation Modes . . . 2
  Daemon Mode . . . 2
  CLI Mode . . . 2
  Help . . . 3
Directory Structure . . . 3
Modules . . . 3
Further Pages . . . 3

`gdt-hl7-bridge` is a Windows application that retrieves PDF reports from the Patient Portal and optionally generates a GDT response file and/or an HL7 MDM^T02 message. The application supports two invocation modes:

- **Daemon mode** (`--daemon`): Runs in the background and monitors a GDT directory. Each incoming GDT file from the practice software automatically triggers the retrieval.
- **CLI mode** (without `--daemon`): Single invocation with direct parameters (`--studyuid`, `--accnbr`, `--patid`). Enables integration into any external program without a GDT interface.

How It Works



Invocation Modes

Daemon Mode

```
gdt-hl7-bridge.exe --daemon
```

Starts the GDT polling service. Runs continuously in the background and automatically processes all incoming `*.gdt` files in `gdtImport.gdtInputDir`. Suitable for operation as a Windows service or autostart task.

CLI Mode

```
gdt-hl7-bridge.exe --studyuid 2.25.186760260011452398476108131496539831798
gdt-hl7-bridge.exe --accnbr 186B7928
gdt-hl7-bridge.exe --patid 3209648408 --nachname Mueller --vorname Max
```

Executes the pipeline once and exits with code `0` (success) or `1` (error). Suitable for direct integration from RIS, PACS, or worklist systems without the calling software needing to write GDT files.

Help

```
gdt-hl7-bridge.exe
gdt-hl7-bridge.exe --help
```

Displays help text. Also shown when called without any parameters.

Directory Structure

```
gdt-hl7-bridge.exe
config/
  config.json          ①
  config.json.example  ②
templates/
  gdt-output.template  ③
  mdm-output.template  ④
nssm.exe             ⑤
install.bat
uninstall.bat
```

① Active configuration file (not checked in, contains API token)

② Template with all available fields

③ Handlebars template for the GDT response file

④ Handlebars template for the HL7 MDM^T02 message

⑤ Windows service wrapper (Non-Sucking Service Manager)

Modules

Output modules can be enabled independently in `config.json`. Both invocation modes use the same enabled modules.

Module	Function
`pdfFile`	Download the PDF report from the portal and save it locally
`gdtImport`	Monitor the GDT input directory (daemon mode only)
`gdtWriter`	Generate a GDT response file (record type 6310)
`hl7Sender`	Send an HL7 MDM^T02 message via MLLP/TCP and/or save as file

Further Pages

Installation

Package contents, prerequisites, firewall requirements, Windows service setup, first start, and

testing.

Configuration

Complete reference for `config.json` — all modules, field mapping, priority logic, filename templates, and GDT response template.

Operation

CLI reference, processing workflow, error handling, HL7 message queue, and logging.

HL7 MDM^T02

Protocol overview, MLLP transport, and template reference for the MDM^T02 message.