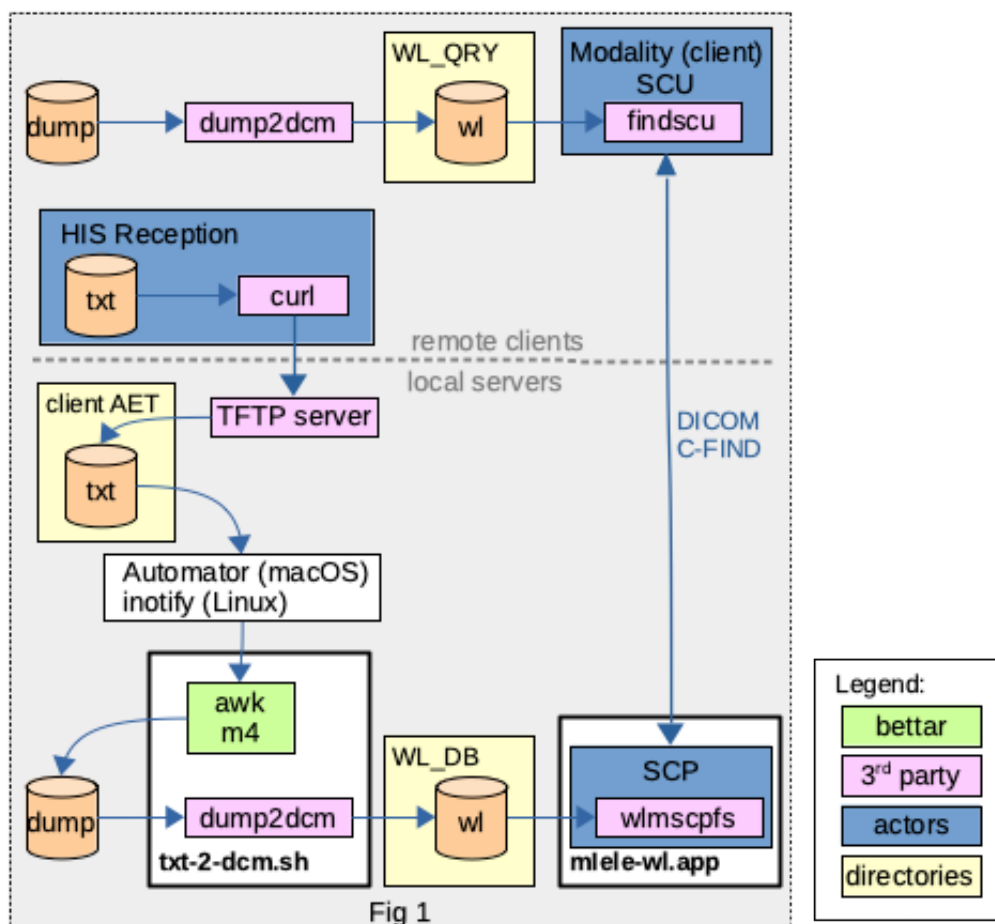


# TXT2DCM - USER MANUAL

- Alessandro Bettarini - 7 Nov 2020
- Version 1.0

- System diagram



There is no graphical application used in this system.

The system is implemented with bash scripts (macOS and Linux).

For detecting the source .txt files it uses

- an Automator script (macOS)
- the `inotify` command (Linux).

## Preface

- The purpose of this software is to convert `.txt` files (from a HIS system) to DICOM worklist files `.wl`.
- The structure of the `.txt` files is like:

```
PATNAME=LUCAS DE JESUS  
PATSEX=M  
PATBD=19930823  
...
```

**Important:** it is assumed that text after the = character on each line is valid DICOM data for the corresponding tag.

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## Software Dependencies

- `m4` macro processor

```
$ which m4  
/usr/bin/m4
```

- DCMTK `dump2dcm` utility

# Installation

1. Create a new directory containing

- `common.conf`
- `txt-2-dcm.sh`
- `m4/wklist1.m4`

This directory is referred to as `TXT2DCM_HOME`

2. Edit `~/.bashrc` and define `TXT2DCM_HOME=...`

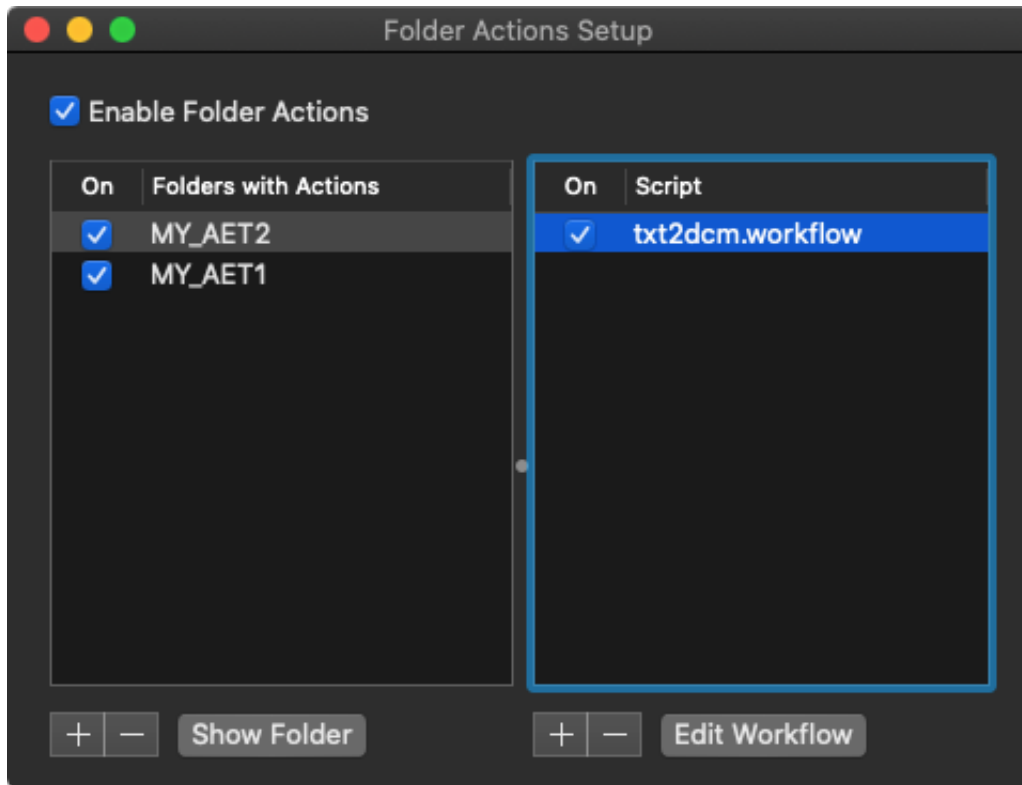
3. Customize `common.conf`

- `LOG_DIR` location of log files
- `DUMP_DIR` location of dump files
- `WL_DB_FOLDER` location of WL files to be used by the DICOM worklist server
- `DCMTK_HOME` location of DCMTK utility `dump2dcm`

4. To configure "Automator" functionality, put `txt2dcm.workflow` into `~/Library/Workflows/Applications/Folder Actions/`

5. This step can be done at any time, even while the system is running. For each client AET directory, in Finder

- right-click the directory
- **Services, Folder Actions Setup..., Run Service, Attach**
- Add or delete extra folders and associate them to `txt2dcm.workflow`



6. Done. At this point the system is configured and active. Any new `.txt` file appearing in any of the client AET directories will generate a corresponding DICOM Worklist file `.wl` in the server database. The mechanism by which input `.txt` files are created and put in the expected directory is beyond the scope of this document (Fig.1 shows a possible implementation with protocol TFTP).