

This is a plugin for Fiji (ImageJ) that reads *.xrm, *.txrm, and *.txm image files (from Xradia XRM systems, in their proprietary format, a form of OLE container) and opens them as image stacks, along with a text window displaying some metadata parameters. Download and extract the .zip folder and just drop the two jar files (poi-3.7.jar and XRM_Reader.jar) onto the Fiji main window. The program will put them in the right places. Restart Fiji and you should find it under Plugins > XRM_Reader.

This code is publicly available at this link and free for anyone to use. If you use it in a publication, please cite the Zenodo doi.

<https://doi.org/10.5281/zenodo.7124263>

I modified the above plugin from this one:

https://github.com/mrsutherland/XRM_Reader/releases by [mrsutherland](#), released 14 Nov 2017

The folder at Zenodo also contains an ImageJ macro (XRM_files_thumbnails.ijm) for making a thumbnail image and metadata text file for every Xradia-format image in a folder. This is in the ImageJ macro language and requires the XRM Thumbnails plugin, also included in the same archive.

This plugin isn't meant to be run on its own, so I put XRM_Thumbnails.jar in the folder Fiji.app/plugins/Utilities, so that it does not appear in the Plugins menu, where it is confusing to see next to the XRM_Reader plugin.

I put the .ijm macro in either Fiji.app/plugins/Scripts/File or Fiji.app/scripts/File, and then it appears in the File pull-down menu.

I made this macro to help survey and index the many hundreds of Xradia scan files that have accumulated on my storage server. The script automatically processes a directory and its subdirectories, leaving an easily readable thumbnail image (PNG) and metadata file (.txt) with the same filename base as each unpreviewable *.xrm, *.txrm, or *.txm image file.

This version is working pretty well, and it makes an XYZ montage for each reconstructed stack and a 0°+ 90° mugshot for each projection series (really first and middle projection - for a 360° scan it will be front and back images; my machine didn't do full rotations).

I finally figured out how to read the date/time from the txrm files, and this is now incorporated. (Fun fact: the container files *.xrm, *.txrm, or *.txm can be extracted to a bunch of hex files with 7zip. I opened some of these with Hex Fiend or HxD to get the format of the date entry.)

Current versions can also be found here:

<https://ucloud.univie.ac.at/index.php/s/RSJ05Nb9FTViCVK>

If you have questions or comments, feel free to contact me.

Brian Metscher
Vienna, Dec. 2024

** Note that Xradia .txm files can also be opened directly in Amira 6.4 and higher (Windows), and also in **Drishti** (<https://github.com/nci/drishti>). (Also in ORS Dragonfly Pro, but not in the free Dragonfly version.)

** Real progress toward a Python solution can be found here: <https://pypi.org/project/xrmreader/>

It's based on the dxchange Python code, which seems to cover the reading of the xrm container files better than the Java parser: <https://github.com/data-exchange/dxchange>

TXM-Wizard by [fmeirer](#), [liuyijin](#) can open Xradia files also:

<https://sourceforge.net/projects/txm-wizard/files/?source=navbar>

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3284347/>