# Offline testing of ArchiCAD library containers

Before trying to upload an object library to [BIMcompontents.com](http://BIMcompontents.com/), it’s good to be sure it's free of errors, otherwise the QC mechanism of the server will reject it. There is a dedicated tool for this called LP\_XMLConverter beside ArchiCAD that comes with the ArchiCAD installation.

The basic usage of the text based LP\_XMLConverter is similar on WIN and MAC platforms. As it has no graphical interface one needs the

- WIN: Command Prompt

- MAC: Terminal

application to use it. The executable file is called (relative to the ArchiCAD folder):

- WIN: LP\_XMLConverter.exe

- MAC: LP\_XMLConverter.pl

In the rest of this document this file is referred as *LP\_XMLConverter* regardless of the platform.

The major steps of the checking is the following:

1. If the library is an *.lcf* file, it has to be extracted into a folder, with the *extractcontainer* command (one line, one command):

*LP\_XMLConverter extractcontainer* path/to/your/library.lcf path/to/the/extracted/folder

2. Now you have a folder with .gsm and other files. (Start here if you want to upload a folder of gsm files.) Convert the content of the folder to .xml files into another folder and the images to a third folder with the *l2x* command:

*LP\_XMLConverter l2x –img* path/to/the/images/folder path/to/the/xml/folder path/to/the/extracted/folder

3. Convert the .xml files back to .gsm into a new folder with quality checking enabled using the *makelibrary* command. If you want password protection for editing the gsm files you can also set it. It's recommended to set the author and copyright information of the gsm files globally if has not been done for the files individually from ArchiCAD 16 before.

Should you not need to set the license information and password, you can simply use one command for this conversion. Usually it is important to set the path for the built in ArchiCAD macros in the Library Development Toolkit:

*LP\_XMLConverter makelibrary -check 6 –img* path/to/the/images/folder path/to/the/xml/folder path/to/the/new/gsm/folder path/to/LibDevToolkit16/Bin\_INT/ArchiCADResINT path/to/LibDevToolkit16/Bin\_INT/APIToolsINT

Otherwise the conversion has to be made in two steps: first set the copyright information, and then set the password protection. (It is important to do these steps separately and in this order because no password can be set for GSMs without license information or with CC0 license, and LP\_XMLConverter may run in to problems without following these steps.)

First set (or overwrite) copyright information for all gsm files:

If you want to set the license information of all .gsm files during this conversion, you have to specify the author of the object as well, as the license belongs to her/him.

Valid copyrights are: *CC0*, *CC BY-ND* and *Commercial*.

You have to specify the version of the selected license as well, currently version in use of CC0 is 1.0, while version of CC BY-ND is 3.0.

*LP\_XMLConverter finalizelibrary -check 6 -setcopyright "*Name of the Author*" "CC0" "1.0" –img* path/to/the/images/folder path/to/the/xml/folder path/to/the/xml/folder path/to/the/new/gsm/folder path/to/LibDevToolkit16/Bin\_INT/ArchiCADResINT path/to/LibDevToolkit16/Bin\_INT/APIToolsINT

or

*LP\_XMLConverter finalizelibrary -check 6 -setcopyright "*Name of the Author*" "CC BY-ND" "3.0" –img* path/to/the/images/folder path/to/the/xml/folder path/to/the/new/gsm/folder path/to/LibDevToolkit16/Bin\_INT/ArchiCADResINT path/to/LibDevToolkit16/Bin\_INT/APIToolsINT

Second setting up password protection:

password protection may be enabled only for gsm files with "CC BY-ND" or "Commercial" license set.

*LP\_XMLConverter makelibrary -check 6 -password*yourpassword *–img* path/to/the/images/folder path/to/the/new/gsm/folder path/to/LibDevToolkit16/Bin\_INT/ArchiCADResINT path/to/LibDevToolkit16/Bin\_INT/APIToolsINT

4. If *finalizelibrary* or *makelibrary* reports errors, you can correct them directly in the .xml files, and then go back to step 3. (Alternatively some errors can be corrected in ArchiCAD as well using path/to/the/extracted/folder. If you correct things this way then go back to step 2.)

5. When *finalizelibrary* or *makelibrary* reports no errors, it is time to create an .lcf file with the *createcontainer* command:

*LP\_XMLConverter createcontainer* path/to/your/uploadable.lcf path/to/the/new/gsm/folder

For details on using LP\_XMLConverter, please refer to <http://www.graphisoft.com/ftp/techsupport/documentation/developer_docs/AC_15/APIDevKit/LPXML%20Documentation/LP_XMLConverter.html> .