



LDraw Tutorial Part 11

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In the last issue of HBM I explained how to install the most important components of the LDraw set of tools in the absence of an up-to-date installer, well, I hope it has served you in the interval, and I'm happy to tell you that in the meantime an all-new completely up-to-date All-In-One Installer (AIOI) has been released.

To celebrate the fact and to learn a little more about this installer I talked to the man who put it all together, Willy Tschager.

What prompted you to develop the AIOI?

To be frank I never planned to take over the maintenance of the installer from Ahui Herrera, LDraw.org's former Help Desk manager, in the first place. It all started back in 2007. As a follow-up of asking the part authors to sign the contributor agreement it came to our attention that LDraw.org also lacked permission from the programmers whose applications it was distributing via the All-In-One-Installer. As one of LDraw.org's content managers it was my task to gain those permissions and preparing the license you're asked to agree during the installation. In addition I also did some makeover of the banners since David Olofsson - who has done all the graphic stuff for the website - was short of time. No one then expected that it would take some 4 years to get a new AIOI in the pipe. In addition I never dreamt that one day I'd dive into LUA scripting and all the other skills required to get it finally shipped.

In the end the 2010 AIOI is the result of several coincidences: Ahui, with his second child under way, had less time left for LDraw than ever. The software used to compile the installer became freeware for non-commercial use. I already had all legal files needed on my disc and last but not least, it really broke my heart every time I navigated to LDraw's Get-started-page and saw that old AIOI still dated 2006. I stepped in although Setup Factory 9.0, the setup program used for the compilation, has nothing in common with the version used by Ahui and I couldn't use any of his work.

What does the AIOI include?

Short answer: A basic set of the LDraw System of Tools. Long answer: The installer targets users with little or no LDraw-experience, who want to have a quick look around without worrying about all the little hacking required to get the different programs to work flawlessly together. Just setting the correct path to the parts library in a single tool can be a hassle. At least that's what I learned from people who contacted me

through my personal site. With this picture in mind I selected a bunch of essential programs to get most of the jobs done: MLCad as editor (as I'm writing I'm working with Sergio Reano to get his SR3D ready for the AIOI); two viewers - just to offer a bit more choice; LPub, LSynth - if you want to go a step further and finally POV-Ray because many people are eager to reproduce the high-resolution images they see on the web.

Because of the low entrance level I sadly had to exclude L3P. Fussing around with command lines would be the last thing I want to face if I were a "newbie". Also the graphical interface L3PAddOn didn't help out on this because the current version is simply too buggy and despite several tries I couldn't contact its author to get the program fixed. You'll also not find any tools used by part authors such as Datheader or LDDP. People capable of authoring an LDraw .dat file have to - and surely do - know how to set up a system.

Finally it was also important not to leave any trace behind if you decide to uninstall the package - which hopefully never happens because you're just too pleased and taken by LDraw! Therefore much attention was also given to deleting folders and reversing the changes made to the nuts and bolts of the system.

How long did the programming take and what was the most difficult part to overcome?

All in all three month, counting reading the manual (I know, I know, no one ever reads the manual), and learning the setup program. The first version I developed just copied the part files and installed MLCad. Later I added language support and divided the tools into packages, leaving the decision of which programs they want on their hard disk to the users. The last thing was setting paths and registry entries or modifying settings if you select a combination of programs. Luckily I had to make almost no corrections to the beta version I sent to friends within the LDraw community for testing.

Since I'm not a programmer - and still do not call myself one - trying to become a so called "script-kiddy" was definitely the toughest part. I remember spending a week of desperate coding just to get the paths to the LGEO library into some configuration files of POV-Ray. The script snippets that did work wonderfully for MLCad were useless because one of the POV-Ray files was out of standard. I had to come up with a completely different approach - obviously first learning how those new commands actually worked. Most was trial'n'error rather than real understanding.

The current version is x32 - will there be a x64 version?

Sure it's a 32-Bit but it runs fine on 64-Bit operational systems in compatibility mode – the parts library and all tools are installed in the “Program files (x86)” folder. Well, you must have administrator rights on your account in order to properly run this installer and once you're going into depth it is best to work around the UAC - User Account Control by allowing programs to write in the LDraw directory. Apart from that and based on the feedback I've got so far, it looks like it does a decent job for what it was created for. The setup software I work with would support installing 64-Bit programs and also a mixed mode is doable, but it requires 64-Bit tools in the first place. As long as there is no editor in 64-Bit a x64 version is out of the question.

What is your planned update cycle?

LDraw.org currently releases updates to the parts library twice or three times a year and I will work along that line – at least for those publicly announced. Nonetheless bug fixes and updates to the programs shall be included immediately in a silent update with no reflection on the version numbering. A shift from LPub 4.0.0.11 to 4.0.0.12 won't change the 2010-03 in the file's title, the 2011-01 parts update will.

The installer is currently available in English, Italian and German. What plans are there for other language versions? Will (does) the installer contain other language specific files?

There is currently a Spanish and Dutch version in the works and I welcome people who want to help out translating the dialogues into their native language. The setup software comes with built-in language support for over 20 languages, so customizing the screens is fairly easy. All you have to do is editing some .xml files in a text or html editor. You're Polish or Japanese(?) – just drop me a line and you're in.

The same is valid for the single programs. Based on the language of your OS the AIOI installs language files if they are available. If you're German or Italian you get my translation for MLCad. If I can find the time someday they'll get an update on LDView too. I could also ship, say, the French or Spanish MLCad language files without translated installer screens, but it doesn't make much sense to include those files with users still having to master the English setup interface.



This is only your most recent contribution to the LDraw System of Tools. Most people will probably associate you with the constant updates to MLCad.ini and in a previous article on LDraw in this magazine I also drew attention to your helper files, particularly the “Easy Rotation” tool. How did you get started with LDraw and what prompted you to contribute?

Back in 1998 I came across an article in a hard-boiled computer magazine talking about LDraw and the very first versions of MLCad and BlockCAD. Later I got in contact with Mike Lachmann hunting a nasty bug in his program. As a consequence I became one of MLCad's primary beta testers.

Back in the nineties I did also some CAD and rendering – on an Amiga 3000 taking 2 or 3 days to calculate a 800x600 in 4096 colors. Writing some missing Classic Space parts with the skills I had was therefore a logical step to do. Nonetheless I had a hard time learning all the specification required to get a part fit to be let “into the wild”. My very first part, “3876.dat – Minifig Shield Round” I needed for the virtual version of “894 – Mobile Ground Tracking Station” had to be almost completely rewritten by other authors. LDraw was less organized then: most none-documented rules and much tribal knowledge. Maybe that was the trigger I got into tutorials trying to ease things for other people.

A giant step forward in the use of LSynth has been the complete redesign of the program and the inclusion of easily configurable information in MLCad.ini. Are there any plans for other additions to MLCad.ini that will result in improvements to MLCad??

Since the MLCad.ini only works within the boundaries of the program itself I cannot think of any new features. An example: If you compare Bricksmith for Mac (which also relays on the MLCad.ini) to MLCad, you'll notice that Bricksmith allows the correction of the head's position in case you add neckgear to your minifig. I cannot replicate that behaviour for MLCad because there is no command in MLCad supporting it. All I'm able to do is adding new parts, or in case of LSynth new constraints and syntheses. In short, no improvements in MLCad means no improvements in MLCad.ini.

Sadly things do not look promising. There hasn't been a bug fix for 3.3 for over a year (especially the broken editing feature for the rotation matrix is most annoying for part authors like I am). All initiatives to make MLCad open source have failed miserably and it looks like we have to face another stall for some years.

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