

Kepler - Bug #1334

need installer for kepler

02/09/2004 08:53 AM - Chad Berkley

Status:	Resolved	Start date:	02/09/2004
Priority:	Immediate	Due date:	
Assignee:	Dan Higgins	% Done:	0%
Category:	installer	Estimated time:	0.00 hour
Target version:	1.0.0rc1	Spent time:	0.00 hour
Bugzilla-Id:	1334		
Description			
<p>We need a user friendly installer for Kepler. We could possibly use installanywhere or a similar commercial product to produce the installer. it would be nice if the creation of the installer is automated into the ant build process so that it's easy to create releases. This needs to be done by the SEEK meeting in EDI May 8.</p>			

History

#1 - 02/09/2004 10:41 AM - Christopher Brooks

By way of introduction, I'm the release engineer for the Ptolemy project.

We are currently using ZeroG's InstallAnywhere. It works reasonably well. I did use InstallShield for the Ptolemy II 1.0 release in 2001. I had a number of problems at that time with InstallShield, see <http://ptolemy.eecs.berkeley.edu/ptolemyII/ptII1.0/installshield.htm#bugs> maybe InstallShield has fixed these problems, maybe not.

In any case I recommend InstallAnywhere. It is not cheap, we ended up upgrading to the Enterprise edition (\$3000? for initial purchase, \$1500? for annual support for the second and subsequent years?) If there is a free installer available, I would consider moving away from InstallAnywhere.

It turns out that a fairly powerful release mechanism is to build a Web Start installer first, which will help sort out jar file contents issues, and then use InstallAnywhere. I found the build/test cycle to be faster with Web Start. \$PTII/mk/jnlp.mk has rules for building a Web Start release. See also \$PTII/doc/webStartHelp.htm, which can be found on the web as <http://ptolemy.eecs.berkeley.edu/ptolemyII/ptII3.0/ptII/doc/webStartHelp.htm>

There is also the applet code generator, which can be used to create applets of Ptolemy models. I was playing around with having the applet code generator create Web Start installers, but have not quite finished.

One can also reduce the size of the download by using tree shaking, where we run the model, note which jar files are actually used, and ship only those jar files. Of course, we need to be sure to include the error handling mechanism etc., so treeshaking works best for non-GUI intensive products like applets that have a plot as an output etc.

Anyway, I can provide some help in this area.
-Christopher

#2 - 05/25/2004 09:30 AM - Matt Jones

Initial installer created using InstallAnywhereNow. Still have some issues to work out, mainly in size of distribution.

#3 - 01/20/2005 09:23 AM - Chad Berkley

this bug should probably be to create an automated system for building an installer. We will have to create an installer for each release. Dan says that the new full version of InstallAnywhere is xml based so the possibility for doing an automated scripting install is good. Need to check in to this as it would speed up our release times.

#4 - 01/21/2005 11:16 AM - Jing Tao

check and report on size of various components in installer with view of reducing installer size

#5 - 01/24/2005 02:57 PM - Dan Higgins

size of various components in installer reported in e-mail

At the recent Kepler developer meeting in Juneau, the question of how much space components in the Kepler installer require came up. This email is a summary of the alpha4 installer size requirements.

kepler-1.0.0alpha4-jre.exe --- 144,057 KB ; This is a compressed version that includes the jre.

When uncompressed, the kepler install requires 296 MB !

kepler/ptII4.0.1 --- 54.0 MB

kepler/ptII4.0.1/ptolemy-doc.jar --- 53.5 MB

kepler/build/kepler.jar --- 13.1 MB

kepler/build/kepler-configs.jar --- 621 KB

kepler/docs --- 33.6MB

kepler/jre --- 39.7 MB kepler/lib --- 145 MB

kepler/lib.jar --- 30.5 MB

kepler/lib/testdata --- 106 MB

kepler/lib/testdata/garp --- 97.0 MB

We thus see that almost 100 MB of the installed version are due to the garp test data. However, the GARP test data can be compressed quite effectively. (It requires only about 7 MB in the compressed installer.) [7/144 ~ 5% of the compressed package; 97/296 ~ 33% of uncompressed package.]

We can reduce the jar files used in actors by dynamic loading, but there is only 30.5 MB there. ptII documentation is ~53 MB in a jar and kepler docs is 33.6 MB. We can reduce size by separate loading of this documentation.

Dan

#6 - 11/02/2005 12:37 PM - Matt Jones

Final installer for 1.0.0 should resolve size issues, partially by excluding many actors that might be distributed through an actor repository.

#7 - 12/13/2005 06:48 PM - Christopher Brooks

Hi Dan,

I no longer recommend InstallAnywhere.

Macrovision bought both InstallShield and InstallAnywhere.

I suspect InstallAnywhere will be end-of-lived.

Macrovision is a big copyprotection company. Personally, I feel it sends the wrong message to use their products on a freely available BSD licensed product.

Professor Arne Huseby, who is visiting the Ptolemy group writes:

Regarding the tool I use to build native versions of my java applications, the tool is called JET and is available at:

<http://www.excelsior-usa.com/home.html>

They have versions both for Windows and Linux. Recently they also started to offer academic licenses at affordable prices.

According to their website Excelsior JET is nominated for 2005 Java Developer's Journal Readers' Choice Awards in the "Best Java Virtual Machine" category.

Personally I am very happy with JET. It is very easy to use, and does not require me to make any changes to my original java code. The tool also includes a utility for making software installers

#8 - 01/22/2008 11:22 AM - Dan Higgins

Currently, the plan is to use the open source software Izpack and Launch4J for the next Kepler release. (also JarBundler for the Mac)

See:

<http://launch4j.sourceforge.net>

<http://lzpack.org/>

<http://informagen.com/JarBundler/>

#9 - 01/23/2008 03:47 PM - Dan Higgins

An open source installer package is made up of several packages, especially for use on Windows OSs. The various steps are summarized here.

- 1) The ant target called 'makeinstaller' uses lzpack to create a jar file that can be executed on any java enabled OS to step through an installer that unpacks the various files of Kepler. The jar contains all the needed files from within the \$KEPLER directory.
- 2) The ant target 'buildwinexe' creates a Windows file called 'Kepler_launch.exe'. This file is already saved in CVS. It will launch Kepler on a Windows machine (assuming kepler.jar has been created). It is inside the lzpack installer.
- 3) The ant target 'buildwininstaller' creates a Windows executable file that will start the jar file installer built by lzpack. This executable should check for the presence of java and take the user to a web page for installing Java if it is not present.
- 4) Another target is 'macjarbundler'. This is used for creating a standard double-clickable application on the Mac from the lzPack jar file.

#10 - 02/01/2008 10:49 AM - Dan Higgins

lzPack installer system that is open-source and uses ant has been implemented and is in build.xml ant file.

Thus, closing this bug. Any specific bugs to lzPack installer will be added as new bugs

#11 - 03/27/2013 02:16 PM - Redmine Admin

Original Bugzilla ID was 1334