

cet-is - Feature #7335

Extended Python packages

11/18/2014 01:08 PM - Jan Zirnstein

Status:	Feedback	Start date:	11/18/2014
Priority:	Normal	Due date:	
Assignee:		% Done:	0%
Category:		Estimated time:	0.00 hour
Target version:		Spent time:	0.00 hour
Scope:	Internal	SSI Package:	
Experiment:	NOvA	Co-Assignees:	

Description

I'd like to propose adding NumPy and SciPy along Matplotlib to the Python packages shipped with the ups product.

Here's the dependency I've found:

```
ups depend art v1_12_02 -q debug:e6:nu
art v1_12_02 -f Linux64bit+2.6-2.12 -z /grid/fermiapp/products/nova/externals -q debug:e6:nu
|__cetpkgsupport v1_07_00 -f NULL -z /nusoft/app/externals -g current
|__messagefacility v1_11_15 -f Linux64bit+2.6-2.12 -z /grid/fermiapp/products/nova/externals -q de
bug:e6
| |__fhiclcpp v3_01_02 -f Linux64bit+2.6-2.12 -z /grid/fermiapp/products/nova/externals -q debug:
e6
| | |__cetlib v1_07_03 -f Linux64bit+2.6-2.12 -z /grid/fermiapp/products/nova/externals -q debug
:e6
| | | |__cpp0x v1_04_08 -f Linux64bit+2.6-2.12 -z /nusoft/app/externals -q debug:e6
| | | | |__boost v1_56_0 -f Linux64bit+2.6-2.12 -z /nusoft/app/externals -q debug:e6
| | | | |__gcc v4_9_1 -f Linux64bit+2.6-2.12 -z /nusoft/app/externals
| | | |__sqlite v3_08_05_00 -f Linux64bit+2.6-2.12 -z /nusoft/app/externals
|__root v5_34_21b -f Linux64bit+2.6-2.12 -z /grid/fermiapp/products/nova/externals -q debug:e6:nu
| |__clhep v2_2_0_3 -f Linux64bit+2.6-2.12 -z /nusoft/app/externals -q debug:e6
| |__fftw v3_3_4 -f Linux64bit+2.6-2.12 -z /nusoft/app/externals -q debug
| |__gsl v1_16 -f Linux64bit+2.6-2.12 -z /nusoft/app/externals -q debug
| |__pythia v6_4_28b -f Linux64bit+2.6-2.12 -z /nusoft/app/externals -q debug:gcc491
| |__postgresql v9_1_14 -f Linux64bit+2.6-2.12 -z /nusoft/app/externals
*| | |__python v2_7_8 -f Linux64bit+2.6-2.12 -z /nusoft/app/externals*
| |__mysql_client v5_5_39 -f Linux64bit+2.6-2.12 -z /nusoft/app/externals -q e6
| |__xrootd v3_3_4b -f Linux64bit+2.6-2.12 -z /nusoft/app/externals -q debug:e6
| |__libxml2 v2_9_1a -f Linux64bit+2.6-2.12 -z /nusoft/app/externals -q debug
|__cppunit v1_12_1a -f Linux64bit+2.6-2.12 -z /nusoft/app/externals -q debug:e6
|__gccxml v0_9_20140718 -f Linux64bit+2.6-2.12 -z /nusoft/app/externals
|__tbb v4_2_5 -f Linux64bit+2.6-2.12 -z /nusoft/app/externals -q debug:e6
```

So it would seem to be possible whenever go to a new version of ROOT.

History

#1 - 11/18/2014 01:10 PM - Jan Zirnstein

That dependency tree didn't come out well at all, so here it is in the right environment.

```
ups depend art v1_12_02 -q debug:e6:nu
art v1_12_02 -f Linux64bit+2.6-2.12 -z /grid/fermiapp/products/nova/externals -q debug:e6:nu
|__cetpkgsupport v1_07_00 -f NULL -z /nusoft/app/externals -g current
|__messagefacility v1_11_15 -f Linux64bit+2.6-2.12 -z /grid/fermiapp/products/nova/externals -q debug:e6
| |__fhiclcpp v3_01_02 -f Linux64bit+2.6-2.12 -z /grid/fermiapp/products/nova/externals -q debug:e6
| | |__cetlib v1_07_03 -f Linux64bit+2.6-2.12 -z /grid/fermiapp/products/nova/externals -q debug:e6
| | | |__cpp0x v1_04_08 -f Linux64bit+2.6-2.12 -z /nusoft/app/externals -q debug:e6
| | | | |__boost v1_56_0 -f Linux64bit+2.6-2.12 -z /nusoft/app/externals -q debug:e6
| | | | |__gcc v4_9_1 -f Linux64bit+2.6-2.12 -z /nusoft/app/externals
| | | |__sqlite v3_08_05_00 -f Linux64bit+2.6-2.12 -z /nusoft/app/externals
|__root v5_34_21b -f Linux64bit+2.6-2.12 -z /grid/fermiapp/products/nova/externals -q debug:e6:nu
```

```
| |__clhep v2_2_0_3 -f Linux64bit+2.6-2.12 -z /nusoft/app/externals -q debug:e6
| |__fftw v3_3_4 -f Linux64bit+2.6-2.12 -z /nusoft/app/externals -q debug
| |__gsl v1_16 -f Linux64bit+2.6-2.12 -z /nusoft/app/externals -q debug
| |__pythia v6_4_28b -f Linux64bit+2.6-2.12 -z /nusoft/app/externals -q debug:gcc491
| |__postgres v9_1_14 -f Linux64bit+2.6-2.12 -z /nusoft/app/externals
| |__python v2_7_8 -f Linux64bit+2.6-2.12 -z /nusoft/app/externals
| |__mysql_client v5_5_39 -f Linux64bit+2.6-2.12 -z /nusoft/app/externals -q e6
| |__xrootd v3_3_4b -f Linux64bit+2.6-2.12 -z /nusoft/app/externals -q debug:e6
| |__libxml2 v2_9_1a -f Linux64bit+2.6-2.12 -z /nusoft/app/externals -q debug
|__cppunit v1_12_1a -f Linux64bit+2.6-2.12 -z /nusoft/app/externals -q debug:e6
|__gccxml v0_9_20140718 -f Linux64bit+2.6-2.12 -z /nusoft/app/externals
|__tbb v4_2_5 -f Linux64bit+2.6-2.12 -z /nusoft/app/externals -q debug:e6
```

#2 - 11/18/2014 04:26 PM - Marc Paterno

We can already build the requested products on SL6. However, we have not been able to build a consistent version of matplotlib on OS X. Our attempts have run into binary incompatibilities between some of our libraries and libraries supplied by Apple.

#3 - 11/19/2014 09:48 AM - Jan Zirnstein

Since SL6 is the way forward for all GPVMs and grid nodes, it would make sense to implement it there and chip away at bugs in other OS versions and architectures before we ingrain anything related to these new packages it into our development stream.

#4 - 11/24/2014 11:43 AM - Christopher Green

- *Tracker changed from Support to Feature*
- *Project changed from art to cet-is*
- *Description updated*
- *Status changed from New to Feedback*

We already have a UPS product for numpy and a product for scipy. We need from NOvA a list of what scipy components they require. We propose to defer discussion of matplotlib until the earlier issues are resolved, because we have already run into binary compatibility problems with matplotlib and we should proceed very carefully on that front.

#5 - 03/13/2015 09:42 AM - Dominick Rocco

I was encouraged to hear that numpy wouldn't be too much of a stretch to incorporate. Would it be possible to add that at the very least?