

## art - Feature #10099

### Extended --print-available/--print-description facility

09/10/2015 08:56 AM - Kyle Knoepfel

<b>Status:</b>	Closed	<b>Start date:</b>	09/10/2015
<b>Priority:</b>	Normal	<b>Due date:</b>	
<b>Assignee:</b>	Kyle Knoepfel	<b>% Done:</b>	100%
<b>Category:</b>	Application	<b>Estimated time:</b>	16.00 hours
<b>Target version:</b>	1.17.05	<b>Spent time:</b>	56.00 hours
<b>Scope:</b>	Internal	<b>SSI Package:</b>	art
<b>Experiment:</b>	-		

#### Description

The --print-available-modules and --print-available-services options should be made more general to allow for other types of plugins. We suggest the following options:

```
--print-available=(plugin|module|service|source)
--print-available-modules # retains current behavior
--print-available-services # ""
```

In addition, we should consider abstracting the description-printing facilities so that users do not need to separately specify --module-description and --service-description, but just 'art --print-description module1 service1 ...'.

#### History

##### #1 - 09/14/2015 11:42 AM - Christopher Green

- Category set to Application
- Estimated time set to 16.00 h

##### #2 - 09/14/2015 11:42 AM - Christopher Green

- Status changed from New to Accepted

##### #3 - 09/28/2015 08:23 AM - Kyle Knoepfel

- Status changed from Accepted to Assigned
- Assignee set to Kyle Knoepfel
- % Done changed from 0 to 40

##### #4 - 10/23/2015 11:48 AM - Kyle Knoepfel

- Status changed from Assigned to Resolved
- Target version set to 2.01.00
- % Done changed from 40 to 100
- SSI Package art added
- SSI Package deleted ()

### Description of feature

This has been resolved according to the description above. The one exception is that art --print-available-modules no longer includes the sources in its list. To see the sources, one must type art --print-available=source. The relevant portion of the art --help printout is:

```
--print-available arg          List all available plugins with the
                               provided suffix. Choose from:
                               'module'
                               'plugin'
                               'service'
                               'source'

--print-available-modules      List all available modules that can be
                               invoked in a FHiCL file.

--print-available-services     List all available services that can be
```

```
invoked in a FHiCL file.
--print-description arg      Print description of specified module,
                             service, source, or other plugin
                             (multiple OK).
```

Notice that the --module-description and --service-description options are gone. One can now specify multiple plugin types for the same --print-description incantation:

```
[> art --print-description message EmptyEvent RPTest "test/Integration/IntProducer"
```

```
=====
service : message
```

```
  provider: art
  source  : [ See https://cdcvns.fnal.gov/redmine/projects/art/wiki/Messagefacility ]
  library : [ none ]
```

```
Allowed configuration
-----
```

```
[ provided in future release ]
=====
```

```
module_type: EmptyEvent (or "art/Framework/Modules/EmptyEvent")
```

```
  provider: art
  source  : /home/knoepfel/art/art/Framework/Modules/EmptyEvent_source.cc
  library : /home/knoepfel/scratch/build-art-prof/lib/libart_Framework_Modules_EmptyEvent_source.so
```

```
Allowed configuration
-----
```

```
[ provided in future release ]
=====
```

```
plugin_type: RPTest (or "test/Integration/RPTest")
```

```
  provider: user
  type    : ResultsProducer
  source  : /home/knoepfel/art/test/Integration/RPTest_plugin.cc
  library : /home/knoepfel/scratch/build-art-prof/lib/libtest_Integration_RPTest_plugin.so
```

```
Allowed configuration
-----
```

```
[ None provided ]
=====
```

```
module_type : IntProducer (or "test/Integration/IntProducer")
```

```
  provider: user
  type    : producer
  source  : /home/knoepfel/art/test/Integration/IntProducer_module.cc
  library : /home/knoepfel/scratch/build-art-prof/lib/libtest_Integration_IntProducer_module.so
```

```
Allowed configuration
-----
```

```
  module_label : {
    module_type : IntProducer
    errorOnFailureToPut : true # default
    ivalue : <int>
    branchType : 0 # default
  }
```

Implemented with art:commit:21d1665.

## Potentially breaking behavior

The `DEFINE_ART_EMPTYEVENTTIMESTAMP_PLUGIN` and `DEFINE_ART_FILECATALOGMETADATA_PLUGIN` macros now also call `PROVIDE_FILE_PATH`, which depends on `boost::filesystem`, etc., just as in `DEFINE_ART_MODULE`. New library dependencies are thus required when building these specialized plugins. These can be provided in `BuildPlugins.cmake`. For users who do not use `cetbuildtools`, they will need to link against (e.g.):

```
boost/v1_57_0a/Linux64bit+2.6-2.12-e9-prof/lib/libboost_filesystem.so  
boost/v1_57_0a/Linux64bit+2.6-2.12-e9-prof/lib/libboost_system.so
```

### #5 - 12/17/2015 01:41 PM - Kyle Knoepfel

- *Target version changed from 2.01.00 to 1.17.05*

### #6 - 12/23/2015 08:54 AM - Kyle Knoepfel

- *Status changed from Resolved to Closed*