

art - Feature #3349

A new overload of getByLabel

01/24/2013 05:25 PM - Rob Kutschke

Status:	Closed	Start date:	01/24/2013
Priority:	Normal	Due date:	
Assignee:	Marc Paterno	% Done:	100%
Category:	Navigation	Estimated time:	0.00 hour
Target version:	1.06.00	Spent time:	0.00 hour
Scope:	Internal	SSI Package:	
Experiment:	-		

Description

My standard mantra for getting a data product is:

```
string moduleLabel(pset.get<string>("moduleLabel"));

art::Handle<StatusG4> g4StatusHandle;
event.getByLabel(moduleLabel, g4StatusHandle);
StatusG4 const& g4Status = *g4StatusHandle;
```

It occurred to Adam and I that maybe the following might work:

```
auto const& g4Status = event.getByLabel<StatusG4>(moduleLabel);
```

Even better would be if we can get rid of the const & and still have the variable g4Status be const&.

```
auto g4Status = event.getByLabel<StatusG4>(_g4ModuleLabel);
```

We propose to extend the API to include this new method. We recognize that this method has no way to indicate failure except to throw an exception - that is the behaviour we want. People who need to deal with the possibility of a product being absent or with multiple valid answers to the get can still use the old version. We believe that the new version can be implemented by calling through to the old version.

If it is necessary to change the function name that's fine too.

Rob

History

#1 - 01/25/2013 12:31 PM - Adam Lyon

If we can believe <http://stackoverflow.com/questions/7138588/c11-auto-what-if-it-gets-a-constant-reference>, then it looks like we'll need the

```
auto const & myData = ...
```

Which is fine. I think boiling down the three lines to one goes a long way to make things easier.

#2 - 02/01/2013 11:18 AM - Christopher Green

- Description updated

#3 - 04/16/2013 03:28 PM - Christopher Green

- Category set to Navigation

- Status changed from New to Resolved

- Assignee set to Marc Paterno

- Target version set to 1.06.00

- % Done changed from 0 to 100

This was implemented with commits [ea83f1d](#) and [2884d40](#). See [Release notes for 1.06.00](#).

#4 - 04/23/2013 10:09 AM - Christopher Green

- Status changed from Resolved to Closed