GammaLib - Change request #623

Change deprecated INCLUDES to AM_CPPFLAGS in Makefile.am files

12/06/2012 10:58 AM - Deil Christoph

Status:	In Progress	**Start date:**	12/06/2012
Priority:	Low	**Due date:**	
Assigned To:	Knödlseder Jürgen	**% Done:**	10%
Category:		**Estimated time:**	0.00 hour
Target version:			

Description

With an up to date automake 1.12.5 I get these deprecation warnings:

$ ./autogen.sh
inst/com/Makefile.am:4: warning: 'INCLUDES' is the old name for 'AM_CPPFLAGS' (or '*_CPPFLAGS')
inst/cta/Makefile.am:4: warning: 'INCLUDES' is the old name for 'AM_CPPFLAGS' (or '*_CPPFLAGS')
inst/lat/Makefile.am:4: warning: 'INCLUDES' is the old name for 'AM_CPPFLAGS' (or '*_CPPFLAGS')
inst/mwl/Makefile.am:4: warning: 'INCLUDES' is the old name for 'AM_CPPFLAGS' (or '*_CPPFLAGS')
src/Makefile.am:7: warning: 'INCLUDES' is the old name for 'AM_CPPFLAGS' (or '*_CPPFLAGS')
src/app/Makefile.am:4: warning: 'INCLUDES' is the old name for 'AM_CPPFLAGS' (or '*_CPPFLAGS')
src/base/Makefile.am:4: warning: 'INCLUDES' is the old name for 'AM_CPPFLAGS' (or '*_CPPFLAGS')
src/fits/Makefile.am:4: warning: 'INCLUDES' is the old name for 'AM_CPPFLAGS' (or '*_CPPFLAGS')
src/linalg/Makefile.am:4: warning: 'INCLUDES' is the old name for 'AM_CPPFLAGS' (or '*_CPPFLAGS')
src/model/Makefile.am:4: warning: 'INCLUDES' is the old name for 'AM_CPPFLAGS' (or '*_CPPFLAGS')
src/numerics/Makefile.am:4: warning: 'INCLUDES' is the old name for 'AM_CPPFLAGS' (or '*_CPPFLAGS')
src/obs/Makefile.am:4: warning: 'INCLUDES' is the old name for 'AM_CPPFLAGS' (or '*_CPPFLAGS')
src/opt/Makefile.am:4: warning: 'INCLUDES' is the old name for 'AM_CPPFLAGS' (or '*_CPPFLAGS')
src/sky/Makefile.am:4: warning: 'INCLUDES' is the old name for 'AM_CPPFLAGS' (or '*_CPPFLAGS')
src/support/Makefile.am:4: warning: 'INCLUDES' is the old name for 'AM_CPPFLAGS' (or '*_CPPFLAGS')
src/test/Makefile.am:4: warning: 'INCLUDES' is the old name for 'AM_CPPFLAGS' (or '*_CPPFLAGS')
src/xml/Makefile.am:4: warning: 'INCLUDES' is the old name for 'AM_CPPFLAGS' (or '*_CPPFLAGS')
test/Makefile.am:56: warning: 'INCLUDES' is the old name for 'AM_CPPFLAGS' (or '*_CPPFLAGS')

http://www.delorie.com/gnu/docs/automake/automake_47.html explains:

AM_CPPFLAGS
The contents of this variable are passed to every compilation which invokes the C preprocessor; it is a list of arguments to the
 preprocessor. For instance, `-I' and `-D' options should be listed here.
Automake already provides some `-I' options automatically. In particular it generates `-I$(srcdir)', `-I.', and a `-I' pointing to the
 directory holding `config.h' (if you've used AC_CONFIG_HEADERS or AM_CONFIG_HEADER). You can disable the default `-I'
 options using the `nostdinc' option.

AM_CPPFLAGS is ignored in preference to a per-executable (or per-library) _CPPFLAGS variable if it is defined.

INCLUDES
This does the same job as `AM_CPPFLAGS'. It is an older name for the same functionality. This variable is deprecated; we suggest
 using `AM_CPPFLAGS' instead.

So I updated INCLUDES to AM_CPPFLAGS in these files.
You can find it in the INCLUDES_to_AM_CPPFLAGS branch and review it here:
https://cta-redmine.irap.omp.eu/projects/gammalib/repository/revisions/479e4540055cf1bb27c0ea4d9e663783a9c28a97/diff

make runs find on my machine, but I do get this error with make check:

Making check in test
make test_GSupport test_GVector test_GMatrix test_GSymMatrix test_GSparseMatrix test_GNumerics test_GFits test_GXml
 test_GApplication test_GModel test_GSky test_GOptimizer test_GObservation test_MWL test_CTA test_LAT test_COM

```
clang++ -DHAVE_CONFIG_H -I. -I..  -I/opt/local/Library/Frameworks/Python.framework/Versions/2.7/include/python2.7
 -I/opt/local/include -I/opt/local/Library/Frameworks/Python.framework/Versions/2.7/include/python2.7 -I/opt/local/include  -g -O2 -c -o
 test_GSupport-test_GSupport.o `test -f 'test_GSupport.cpp' || echo './'`test_GSupport.cpp
test_GSupport.cpp:34:10: fatal error: 'GammaLib.hpp' file not found
#include "GammaLib.hpp"
         ^
1 error generated.
```

Jürgen, do you know how to fix this?

History

#1 - 12/06/2012 01:18 PM - Knödlseder Jürgen

Is this new feature backward compatible?

The are important changes as the autotools evolve, and I was wondering whether using AM_CPPFLAGS is also working on older systems. The autotools configuration things is a nightmare.

I started a special autoconf / automake matrix test on your new branch (see https://cta-jenkins.irap.omp.eu/job/gammalib-release-tools/14/). This may tell how compatible the feature is.

#2 - 12/06/2012 01:27 PM - Deil Christoph

- Assigned To changed from Deil Christoph to Knödlseder Jürgen

Jürgen Knödlseder wrote:

> Is this new feature backward compatible?

No idea.
Note that with make check an include is missing (see error above).
I could start to understand auto tools and try to fix this myself, but it would take time ...

#3 - 12/06/2012 03:24 PM - Knödlseder Jürgen

- % Done changed from 0 to 10

I recognized that #include "GammaLib.hpp" was in both the .cpp and .hpp files of test_GSupport (and two other test routines).

I removed this, although this should not pose any problem in principle.

But I recognized that in

```
clang++ -DHAVE_CONFIG_H -I. -I..  -I/opt/local/Library/Frameworks/Python.framework/Versions/2.7/include/python2.7 -I/opt/local/include
 -I/opt/local/Library/Frameworks/Python.framework/Versions/2.7/include/python2.7 -I/opt/local/include  -g -O2 -c -o test_GSupport-test_GSupport.o
 `test -f 'test_GSupport.cpp' || echo './'`test_GSupport.cpp
```

I can't see an include path towards the GammaLib header files. On my Mac I get

```
g++ -DHAVE_CONFIG_H -I. -I.. -I../include -I../src -I../src/support -I../inst/mwl/include -I../inst/cta/include -I../inst/lat/include -I../inst/com/include
 -I/opt/local/Library/Frameworks/Python.framework/Versions/2.6/include/python2.6 -I/opt/local/include
 -I/opt/local/Library/Frameworks/Python.framework/Versions/2.6/include/python2.6 -I/opt/local/include  -g -O2 -fopenmp -c -o
 test_GSupport-test_GSupport.o `test -f 'test_GSupport.cpp' || echo './'`test_GSupport.cpp
```

and here, -I../include, -I../inst/mwl/include, etc. are essential. These includes are missing in your version ...

#4 - 12/06/2012 04:23 PM - Deil Christoph

Hmm, I'll try this branch on mac-ci.mooo.com now, hopefully the issue will show up on that machine where we both have access now.

#5 - 12/06/2012 04:46 PM - Deil Christoph

I see the same missing include -I flags on mac-ci.mooo.com:

```
clang++ -DHAVE_CONFIG_H -I. -I..  -I/opt/local/Library/Frameworks/Python.framework/Versions/2.7/include/python2.7 -I/opt/local/include
 -I/opt/local/Library/Frameworks/Python.framework/Versions/2.7/include/python2.7 -I/opt/local/include  -g -O2 -c -o test_GSupport-test_GSupport.o
 `test -f 'test_GSupport.cpp' || echo './'`test_GSupport.cpp
test_GSupport.cpp:34:10: fatal error: 'GammaLib.hpp' file not found
#include "GammaLib.hpp"
         ^
1 error generated.
```

I don't know where to look for the problem ...

#6 - 12/06/2012 05:52 PM - Knödlseder Jürgen

It looks as if the includes are simply ignored.

#7 - 01/08/2014 08:58 PM - Knödlseder Jürgen

Christoph, is this issue still relevant?

#8 - 01/09/2014 01:01 PM - Deil Christoph

The warnings in the original issue description are still there.
The error with the missing include is not there any more on my current machine, which runs Mac OS X 10.9 with Xcode 5.

#9 - 01/09/2014 01:10 PM - Knödlseder Jürgen

Indeed, warning are still there. But when I change things I break the package for older autoconf/automake versions.

Since these are still warnings only, we probably have to live with them.