**Zhao, Jun-Hui <jzhao@cfa.harvard.edu>**

# miriad commands

13 messages

---

**Thomas, Holly Sarah** <holly.thomas@cfa.harvard.edu>      Thu, Dec 7, 2017 at 10:06 AM
To: Jun-Hui Zhao <jzhao@cfa.harvard.edu>

Hi Jun-Hui,
I'd like to do a small test of opening a datafile that has been saved in IDL using idl2miriad.
what command do I use to open it? It's not smalod right?

thanks,
holly

--
Holly Thomas
Radio Telescope Data Center
Harvard-Smithsonian Center for Astrophysics
+1 (617) 496-0172 | holly.thomas@cfa.harvard.edu

---

**Zhao, Jun-Hui** <jzhao@cfa.harvard.edu>      Thu, Dec 7, 2017 at 10:15 AM
To: "Thomas, Holly Sarah" <holly.thomas@cfa.harvard.edu>

yes, uvindex would work for you; usage:

uvindex vis=miriad-uv-filename

when one in a miriad environment.

Jun-Hui

[Quoted text hidden]

---

**Thomas, Holly Sarah** <holly.thomas@cfa.harvard.edu>      Thu, Dec 7, 2017 at 10:32 AM
To: "Zhao, Jun-Hui" <jzhao@cfa.harvard.edu>

Thanks Jun-Hui.
[Quoted text hidden]

---

**Thomas, Holly Sarah** <holly.thomas@cfa.harvard.edu>      Thu, Dec 7, 2017 at 11:52 AM
To: "Zhao, Jun-Hui" <jzhao@cfa.harvard.edu>

Hi Jun-hui,
I get the following warning and error when trying to do invert. Do you know the cause of these?

### Fatal Error [invert]:  Too many channels for buffer in AppWts

---

### Warning [invert]:  Channel frequencies/velocities deviated by > 10% from linearity

Thanks,
Holly


On Thu, Dec 7, 2017 at 10:15 AM, Zhao, Jun-Hui <jzhao@cfa.harvard.edu> wrote:
[Quoted text hidden]
[Quoted text hidden]

---

**Zhao, Jun-Hui** <jzhao@cfa.harvard.edu>                                          Thu, Dec 7, 2017 at 11:55 AM
To: "Thomas, Holly Sarah" <holly.thomas@cfa.harvard.edu>

which version do you use?
[Quoted text hidden]

---

**Thomas, Holly Sarah** <holly.thomas@cfa.harvard.edu>                     Thu, Dec 7, 2017 at 12:04 PM
To: "Zhao, Jun-Hui" <jzhao@cfa.harvard.edu>

Hmm it looks like 2012. but thats odd because I am sourcing miriad_WB

[hthomas@rtdc9 pipeline]$ source /home/miriad/miriad_WB/automiriad.csh
[hthomas@rtdc9 miriad_WB]$ cd /data1/hthomas/pipeline/testloop/
[hthomas@rtdc9 testloop]$ invert vis=sarah map=test.map beam=test.beam cell=0.04 imsize=2049 sup=0
options=systemp

invert: CVS Revision 1.12, 2012/05/25 12:53:15 UTC

Reading the visibility data ...
Making cubes with 8192 planes
Visibilities accepted: 4299
### Warning [invert]:  Channel frequencies/velocities deviated by > 10% from linearity
Sidelobe suppression area is 0x0 arcsec
 ... this corresponds to natural weighting
Applying the weights ...
### Fatal Error [invert]:  Too many channels for buffer in AppWts

Thanks

p.s. sourcing puts me into the miriad_WB directory and I have to cd back to my working directory..

[Quoted text hidden]

---

**Zhao, Jun-Hui** <jzhao@cfa.harvard.edu>                                          Thu, Dec 7, 2017 at 1:13 PM
To: "Thomas, Holly Sarah" <holly.thomas@cfa.harvard.edu>

sourcing miriad_WB is correct, which should prompt the following message:

MIRIAD version **Miriad SMA-WB5.0.6** (test for SWARM only - 2x4 chunks; CSDI & MOSCSDI; SMODEL)
[SMA] loaded from MIR=/home/miriad/miriad_WB

also the message - invert: CVS Revision 1.12, 2012/05/25 12:53:15 UTC prompted after your submitting a

command:
invert vis=sarah map=test.map beam=test.beam cell=0.04 imsize=2049 sup=0 options=systemp,
which indicating that you were using a correct version of invert from **Miriad SMA-WB5.0.6**


There were two possibilities for the Fatal error that you got:
1) there might be more than one environments from different Miriad versions in your login setup;
   make sure that in your .cshrc only 'source /home/miriad/miriad_WB/automiriad.csh' on the RG's system
   or 'source /sma/local/miriad_WB/automiriad.csh' on the Hilo system.
   Then, login and logout

2) the maximum number of channel images that can be made in a spectral cube is 8192;
   you seemed to use the default in the input setup of the keyword "line", which attempts to make
   every channels in your spectral uv data. The total number of channels seemed to exceed the limit 8192.
   How many channels in your uv data?
   To get it around, two options are suggested:
   A: for narrow line with a high-spectral resolution, you may need to select a portion of the interested spectral
range using keyword "line" or
      using select to choose a relevant window if each of the windows has a number of channels 8192 or less.
   B: for broad line with a lower resolution, you may need to use "line" to bin number of channels to reduce
output number of channels to
      8192 or below in the imaging cube. This is often used for galactic projects. Consulting Glen P., he is an
expert for such an option.

      Jun-Hui



[Quoted text hidden]

---

**Thomas, Holly Sarah** <holly.thomas@cfa.harvard.edu>                    Thu, Dec 7, 2017 at 1:27 PM
To: "Zhao, Jun-Hui" <jzhao@cfa.harvard.edu>

Thanks Jun-Hui, I'll look into it.

One more question - is there a way to tell in Miriad how many channels are in the data? I'm thinking about
scripting it so each file would have to be checked.


[Quoted text hidden]

---

**Thomas, Holly Sarah** <holly.thomas@cfa.harvard.edu>                    Thu, Dec 7, 2017 at 1:51 PM
To: "Zhao, Jun-Hui" <jzhao@cfa.harvard.edu>

n Thu, Dec 7, 2017 at 1:13 PM, Zhao, Jun-Hui <jzhao@cfa.harvard.edu> wrote:
   sourcing miriad_WB is correct, which should prompt the following message:

   MIRIAD version **Miriad SMA-WB5.0.6** (test for SWARM only - 2x4 chunks; CSDI & MOSCSDI; SMODEL)
   [SMA] loaded from MIR=/home/miriad/miriad_WB

I dont get this. I donesn't show anything.

> also the message - invert: CVS Revision 1.12, 2012/05/25 12:53:15 UTC prompted after your submitting a command:
> invert vis=sarah map=test.map beam=test.beam cell=0.04 imsize=2049 sup=0 options=systemp,
> which indicating that you were using a correct version of invert from **Miriad SMA-WB5.0.6**

Yes I get
 invert: CVS Revision 1.12, 2012/05/25 12:53:15 UTC

Reading the visibility data ...
Making cubes with 2784 planes
......

> There were two possibilities for the Fatal error that you got:
> 1) there might be more than one environments from different Miriad versions in your login setup;
>     make sure that in your .cshrc only 'source /home/miriad/miriad_WB/automiriad.csh' on the RG's system
>     or 'source /sma/local/miriad_WB/automiriad.csh' on the Hilo system.
>     Then, login and logout
>
> 2) the maximum number of channel images that can be made in a spectral cube is 8192;
>     you seemed to use the default in the input setup of the keyword "line", which attempts to make
>     every channels in your spectral uv data. The total number of channels seemed to exceed the limit 8192.
>     How many channels in your uv data?
>     To get it around, two options are suggested:
>     A: for narrow line with a high-spectral resolution, you may need to select a portion of the interested
> spectral range using keyword "line" or
>        using select to choose a relevant window if each of the windows has a number of channels 8192 or
> less.
>     B: for broad line with a lower resolution, you may need to use "line" to bin number of channels to reduce
> output number of channels to
>        8192 or below in the imaging cube. This is often used for galactic projects. Consulting Glen P., he is
> an expert for such an option.
>
>        Jun-Hui

Cheers, Holly
[Quoted text hidden]
[Quoted text hidden]

---

**Zhao, Jun-Hui** <jzhao@cfa.harvard.edu>                    Thu, Dec 7, 2017 at 2:00 PM
To: "Thomas, Holly Sarah" <holly.thomas@cfa.harvard.edu>

Dear Holly,
    Can we have a meeting next Monday (12/11) at 3pm EST to go through these issues ?
I have something more urgent matters need to handle now.
    Jun-Hui
[Quoted text hidden]

---

**Thomas, Holly Sarah** <holly.thomas@cfa.harvard.edu>              Thu, Dec 7, 2017 at 2:03 PM

To: "Zhao, Jun-Hui" <jzhao@cfa.harvard.edu>

No problem. Though I am off next monday. I'm around the following one though - the 18th if that works?
[Quoted text hidden]

---

**Zhao, Jun-Hui** <jzhao@cfa.harvard.edu>                          Thu, Dec 7, 2017 at 2:18 PM
To: "Thomas, Holly Sarah" <holly.thomas@cfa.harvard.edu>

18th is fine but not afternoon when I will have an appointment for eye examination at 2pm. Can we have a meeting at 10am on 18th?
    Jun-Hui
[Quoted text hidden]

---

**Thomas, Holly Sarah** <holly.thomas@cfa.harvard.edu>             Thu, Dec 7, 2017 at 2:27 PM
To: "Zhao, Jun-Hui" <jzhao@cfa.harvard.edu>

Sound good, I'll see you then.


[Quoted text hidden]