

## ISIS - Bug #4414

### voy2isis error SPICE(INVALIDTIMESTRING) The input string contains an unrecognizable substring

2016-09-28 05:42 AM - Brian Burns

<b>Status:</b> Acknowledged <b>Priority:</b> Normal <b>Assignee:</b> <b>Category:</b> Applications <b>Target version:</b> <b>Impact:</b> <b>Software Version:</b> 3.4.12 (FY16 R2 2016-03-17 Mar)	<b>Test Reviewer:</b>
<b>Description</b> The file C1483440.IMQ seems to have 'UNKNOWN' for IMAGE_TIME: <pre>\$ wget http://pds-rings.seti.org/volumes/VG_0xxx/VG_0013/JUPITER/C1483XXX/C1483440.IMQ \$ voy2isis from=C1483440.IMQ to=C1483440.cub  **ERROR** An unknown NAIF error has been encountered. The short explanation provided by NAIF is [SPICE(INVALIDTIMESTRING)]. The Naif error is [The input string contains an unrecognizable substring beginning at the character marked by &lt;U&gt;: "&lt;U&gt;NKNOWN"].  \$ cat C1483440.IMQ   tr '\0' '\n'   grep TIME IMAGE_TIME                = UNKNOWN7 EARTH_RECEIVED_TIME       = 1979-01-13T01:04:23Z</pre> The PDS cleaned up some of the data for the IMG/LBL files, as the corresponding LBL file does have an image time - <a href="http://pds-rings.seti.org/volumes/VGISS_5xxx/VGISS_5101/DATA/C14834XX/C1483440_RAW.LBL">http://pds-rings.seti.org/volumes/VGISS_5xxx/VGISS_5101/DATA/C14834XX/C1483440_RAW.LBL</a> <pre>IMAGE_TIME                = 1979-01-12T16:17:23.00</pre> So I guess I'll need to edit the IMQ files where this happened before importing - I've got the complete set of image times so should be able to automate it.  Does ISIS have a way to edit IMQ files?	
<b>Related issues:</b> Related to ISIS - Question #4421: Voyager - voy2isis throws **USER ERROR** Un... <b>Closed</b>	

## History

### #1 - 2016-09-29 09:25 AM - Brian Burns

There turned out to be 8 of these UNKNOWN time records in VG\_0013 - I assume there will be more in other volumes.

So I got this working in Python to edit the IMQ files before running voy2isis - voy2isis does create a cube file even if it throws this error, but if you use editlab to edit the time there, spiceinit will fail on the cube file due to missing reseau data.

```
def getNextRecord(f):
    "Get next variable-length record and the position of its contents in the file"
    low = ord(f.read(1))
    high = ord(f.read(1))
    nbytes = high * 256 + low
    startPos = f.tell()
    s = f.read(nbytes)
    if (nbytes % 2) == 1:
        f.read(1) # read padding byte
    return s, startPos
```

```
def getImageTimeRecord(f):
```

```

"Search through records for IMAGE_TIME and return entire record and start file position"
imageTimeRecord = None
startPos = None
while True:
    s, startPos = getNextRecord(f)
    if s.startswith('IMAGE_TIME'):
        imageTimeRecord = s
        break
    if s == 'END':
        break
return imageTimeRecord, startPos

def updateImageTime(sourceFile, time):
    "Replace IMAGE_TIME=UNKNOWN label in the given file with a UTC time"
    # the record fortunately has lots of spaces in it so can
    # fit the new time into it
    f = open(sourceFile, 'rb+')
    imageTimeRecord, startPos = getImageTimeRecord(f)
    if imageTimeRecord.endswith('UNKNOWN'):
        newImageTimeRecord = 'IMAGE_TIME = ' + time + 'Z'
        nspaces = len(imageTimeRecord) - len(newImageTimeRecord)
        newImageTimeRecord += ' ' * nspaces
        f.seek(startPos)
        f.write(newImageTimeRecord)
    f.close()

# ... walk over files, get time from updated PDS indexes ...

# import IMQ file to CUB file
# if image time is UNKNOWN, this will return nonzero, which throws an error -
# **ERROR** An unknown NAIF error has been encountered. The short explanation
# provided by NAIF is [SPICE(INVALIDTIMESTRING)]. The Naif error is [The input
# string contains an unrecognizable substring beginning at the character marked
# by <U>: "<U>NKNOWN"].
# it does create a cubefile, but if use editlab on that, spiceinit fails
# due to missing reseau info, so need to edit the IMQ file.
try:
    cmd = "voy2isis from=%s to=%s" % (sourceFile, destFile)
    lib.system(cmd)
except: # voy2isis will return nonzero, which throws an error
    print
    print "IMQ missing image time - adding value " + time

# make sure IMQ file has an IMAGE_TIME
updateImageTime(sourceFile, time)

# try voy2isis again
lib.system(cmd)

```

**#2 - 2016-10-05 01:23 PM - Tammy Becker**

*- Status changed from New to Acknowledged*

**#3 - 2017-05-08 05:11 PM - Stuart Sides**

Brian, ISIS does not have any ability to edit the IMQ. They are compressed.

**#4 - 2017-05-08 05:12 PM - Stuart Sides**

*- Related to Question #4421: Voyager - voy2isis throws **\*\*USER ERROR\*\*** Unable to set PDS file. Decompressed input file does not appear to be a PDS product. added*