

# HiPS validator

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On behalf of the CDS team,



# □ What's the plan ?

- 1) HiPS ? How to generate it ?
- 2) HiPS 1.0 IVOA standard history
- 3) Hipsgen LINT
- 4) Hipslint

## □ Key dates

2009

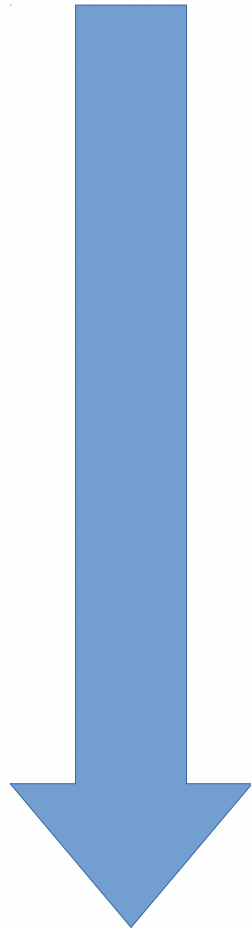
**Proto** called Allsky (CDS dev.)

2015

HiPS **IVOA endorsement**  
decision (Trieste Interop)

**2017**

**HiPS IVOA 1.0 REC** (I hope)  
=> required “HiPS validator”



# □ HiPS generation

Presently, **2 existing tools** by CDS:

1) Catalog: **Hipsgen-cat.jar** (*FX Pineau*)

2) Pixel | cube: java code (*A. Oberto, P. Fernique*)

- Aladin.jar => GUI mode

- **Hipsgen.jar** => batch mode

=> ***Last releases*** of these tools  
are ***fully HiPS 1.0 compatible***



## □ Hipsgen.jar usage

Java -jar Hipsgen.jar in=SrcDir out=TrgDir [**CMD...**]

- **INDEX TILES**: create the HiPS
- ...
- **LINT**: Check the IVOA HiPS 1.0 compatibility of an existing HiPS => Ok, Ok with warnings, Not conform
- **UPDATE**: Update an existing HiPS to be conformed to IVOA HiPS 1.0

# □ Hipsgen.jar example

```
$ java -jar hipsgen.jar out=d:/Data/CDS_P_HalphaNorth LINT
```

```
INFO : Starting HipsGen 16/05/17 05:48:01 (based on Aladin v9.623)...
OPTION: out=d:/Data/CDS_P_HalphaNorth
INFO : Action => LINT: Check HiPS IVOA 1.0 standard compatibility
RUN : ===== LINT =====
INFO : Lint local HiPS: d:/Data/CDS_P_HalphaNorth
INFO : Lint: hips_version precedes the IVOA HiPS 1.0 standard (hips_version 1.4) [1.3]
INFO : Lint: unreferenced properties keyword
[hips_hierarchy,hipsgen_date,hipsgen_params,label,coordsys,maxOrder,format,pixelCut
*ERROR: Lint[4.4.1] mandatory keyword missing [obs_title]
*WARN*: Lint[4.4.1] recommended keyword missing [obs_description]
*WARN*: Lint[4.4.1] recommended keyword missing [prov_progenitor]
*WARN*: Lint[4.4.1] recommended keyword missing [obs_regime]
*WARN*: Lint[4.4.1] recommended keyword missing [hips_creation_date]
*WARN*: Lint[4.4.1] recommended keyword missing [t_min]
*WARN*: Lint[4.4.1] recommended keyword missing [t_max]
*WARN*: Lint[4.4.1] recommended keyword missing [em_min]
*WARN*: Lint[4.4.1] recommended keyword missing [em_max]
INFO : Lint: "Moc.fits" ok
INFO : Lint: tile test [Norder3\Dir0\Npix379.fits ... Norder3\Dir0\Npix379.fits] ok
INFO : Lint: tile test [Norder3\Dir0\Npix343.fits ... Norder3\Dir0\Npix343.fits] ok
INFO : Lint: tile test [Norder3\Dir0\Npix635.fits ... Norder3\Dir0\Npix635.fits] ok
INFO : Lint: Allsky found [Norder3\Allsky.fits] ok
INFO : Lint[4.4.4] no "preview.jpg" file
*ERROR: *** HiPS CDS/P/HalphaNorth is not IVOA HiPS 1.0 compatible
DONE : LINT done (in 0.617s)
INFO : Tip: Edit the "properties" file for describing your HiPS (full description,
copyright, ...)
DONE : ===== THE END (done in 0.655s =====
```

# □ Hipslint.jar usage

**Java -jar Hipslint.jar HipsListURL**

- Check the HipsList syntax
- Check each HiPS described in the HipsList

*Note:* Hipslint.jar shares the same code of Hipsgen LINT



# □ Hips list example

```
Wget http://darts.isas.jaxa.jp/astro/judo2/common/hipslist.cgi
```

```
# Hipslist of http://darts.isas.jaxa.jp/pub/judo2/HiPS HiPS node
```

```
# Date: 2017-05-16T04:23Z
```

```
creator_id      = ivo://JAXA/P/SUZAKU  
hips_release_date = 2016/11/04 15:49:40  
hips_service_url = http://darts.isas.jaxa.jp/pub/judo2/HiPS/suzaku/  
hips_status     = public master clonableOnce
```

```
creator_id      = ivo://JAXA/P/ASCA_GIS  
hips_release_date = 2016-10-25T07:12Z  
hips_service_url = http://darts.isas.jaxa.jp/pub/judo2/HiPS/ASCA\_GIS  
hips_status     = public master clonableOnce
```

```
(...)
```



# □ Hipslint.jar example

```
$ java -jar Hipslint.jar http://darts.isas.jaxa.jp/astro/judo2/common/hipslist.cgi
```

```
INFO : ===== CHECKING HiPSserver [http://darts.isas.jaxa.jp/astro/judo2/common/hipslist.cgi] =====
INFO : ----- Checking HiPSList record [JAXA/P/SUZAKU] -----
*ERROR: Lint[4.4.1] HiPSList not ISO 8601 date [2016/11/04 15:49:40]
INFO : ----- Checking HiPS [JAXA/P/SUZAKU] -----
INFO : Lint remote HiPS: http://darts.isas.jaxa.jp/pub/judo2/HiPS/suzaku/
INFO : Lint: hips_version precedes the IVOA HiPS 1.0 standard (hips_version 1.4) [1.31]
INFO : Lint: unreferenced properties keyword
[creator,hips_hierarchy,hipsgen_date,hipsgen_params,isColor,label,coordsys,maxOrder,isColored,format]
*WARN*: Lint[4.4.1] recommended keyword missing [hips_initial_ra]
*WARN*: Lint[4.4.1] recommended keyword missing [hips_initial_dec]
*WARN*: Lint[4.4.1] recommended keyword missing [hips_initial_fov]
*ERROR: Lint[4.4.1] not ISO 8601 date [2016/11/04 15:49:40]
INFO : Lint: "Moc.fits" ok
INFO : Lint: tile test hierarchy [Norder3/Dir0/Npix458.png ... Norder6/Dir20000/Npix29364.png] ok
INFO : Lint: tile test hierarchy [Norder3/Dir0/Npix545.png ... Norder6/Dir30000/Npix34903.png] ok
INFO : Lint: tile test hierarchy [Norder3/Dir0/Npix34.png ... Norder6/Dir0/Npix2229.png] ok
INFO : Lint: Allsky found [Norder3/Allsky.png] ok
INFO : Lint[4.4.4] no "preview.jpg" file
*ERROR: *** JAXA/P/SUZAKU is not HiPS IVOA 1.0 compatible
INFO : ----- Checking HiPS [JAXA/P/ASCA_GIS] -----
INFO : Lint remote HiPS: http://darts.isas.jaxa.jp/pub/judo2/HiPS/ASCA\_GIS
*WARN*: Lint[4.4.1] recommended keyword missing [hips_initial_ra]
*WARN*: Lint[4.4.1] recommended keyword missing [hips_initial_dec]
```

# □ A suggestion

*Please, check & update your HiPS*

Thanks !  
Questions ?

<http://aladin.u-strasbg.fr/hips/Hipsgen.jar>

<http://aladin.u-strasbg.fr/hips/Hipslint.jar>

