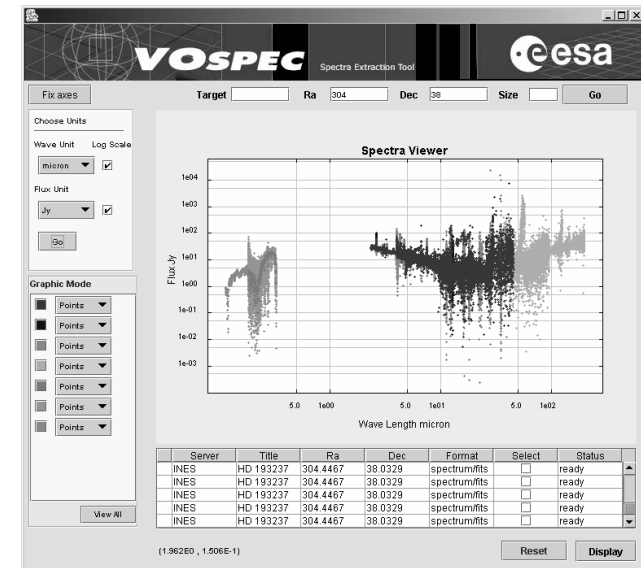




# VOSpec

- ❑ Proposal from Osuna/Salgado at IVOA meeting @ Strasbourg, October 2003, to add parameters into SSA to allow superimposition and unit handling for spectra
  
- ❑ Pilot project by a “Young Graduate Trainee”, Isa Barbarisi to develop a tool to demonstrate feasibility
  
- ❑ VOSpec
  - Get spectra from SSA servers
  - Display and superimpose spectra making unit conversion
  - Some small manipulations
  
- ❑ To be presented at Pune in September 2004 and ADASS in October 2004



Demo



# VOSpec: Interoperable Tool

SIMBAD Web Service

VOSPEC Spectra Extraction Tool

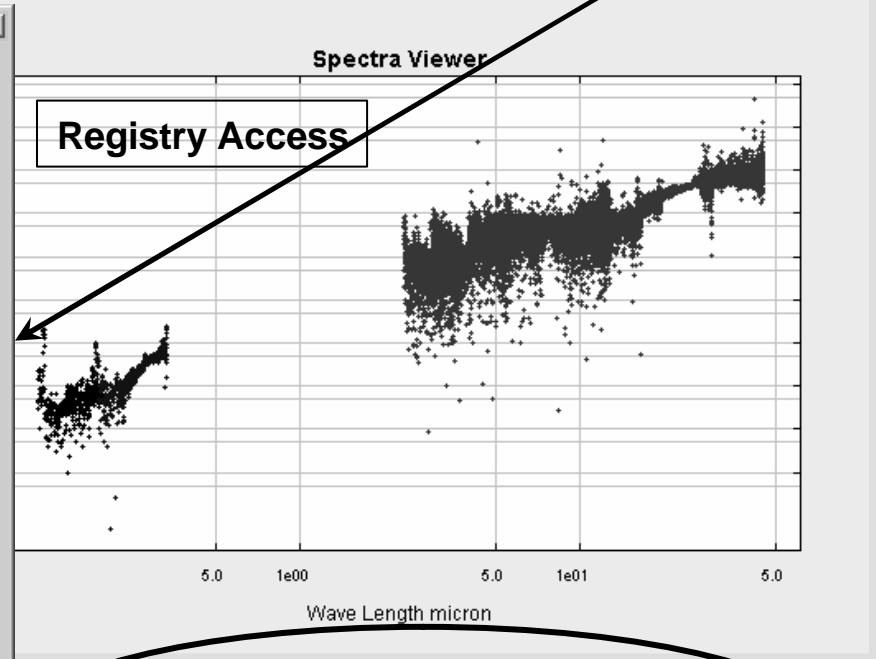
Target  Ra  Dec  Size

Fix axes

Choose Units

Server Selector

- XMM - Newton Archive Interoperability System
- Infrared Space Observatory Archive Interoperability
  - <http://pma.iso.vilspa.esa.es:8080/aio/jsp/siap.jsp?imageType=spectrum>
- INES
  - <http://sdc.laeff.esa.es/ines/jsp/siap.jsp?>



server	Title	Ra	Dec	Format	Select	Status
Infrared Spa...	ISO SWS01 ...	154.885729...	-60.22473	spectrum/fts	<input checked="" type="checkbox"/>	complete
INES	IRAS 10178-...	154.8842	-60.225	spectrum/fts	<input checked="" type="checkbox"/>	complete
INES	IRAS 10178-...	154.8842	-60.225	spectrum/fts	<input type="checkbox"/>	ready
INES	IRAS 10178-...	154.8842	-60.225	spectrum/fts	<input checked="" type="checkbox"/>	complete
INES	IRAS 10178-...	154.8842	-60.225	spectrum/fts	<input type="checkbox"/>	ready

VO Table standard



# Superimposition and Multiwavelength analysis

```
FIELD ID="AXES"    ucd=VOX:Spectrum_axes  [...]
FIELD ID="UNITS"   ucd=VOX:Spectrum_units  [...]
FIELD ID="DIMEQ"   ucd=VOX:Spectrum_dimeq  [...]
FIELD ID="SCALEQ"  ucd=VOX:Spectrum_scaleq  [...]
```

<TD>40001501</TD> \_  
<TD>- <![CDATA[ http://[...]swaa]]></TD>  
<TD>ISO SWS01 Spectrum Target:  
M31\_BULGE</TD>  
<TD>20-Dec-1996 21:09:09</TD>  
<TD>20-Dec-1996 21:28:09</TD>  
<TD>10.691809995</TD>  
<TD>41.27003</TD>  
<TD>SWAAWAVE SWAAFLUX</TD>  
<TD>um Jy</TD>  
<TD>L MT-2</TD>  
<TD>10.E-6 10.E-26</TD>  
<TD>spectrum/fits</TD>

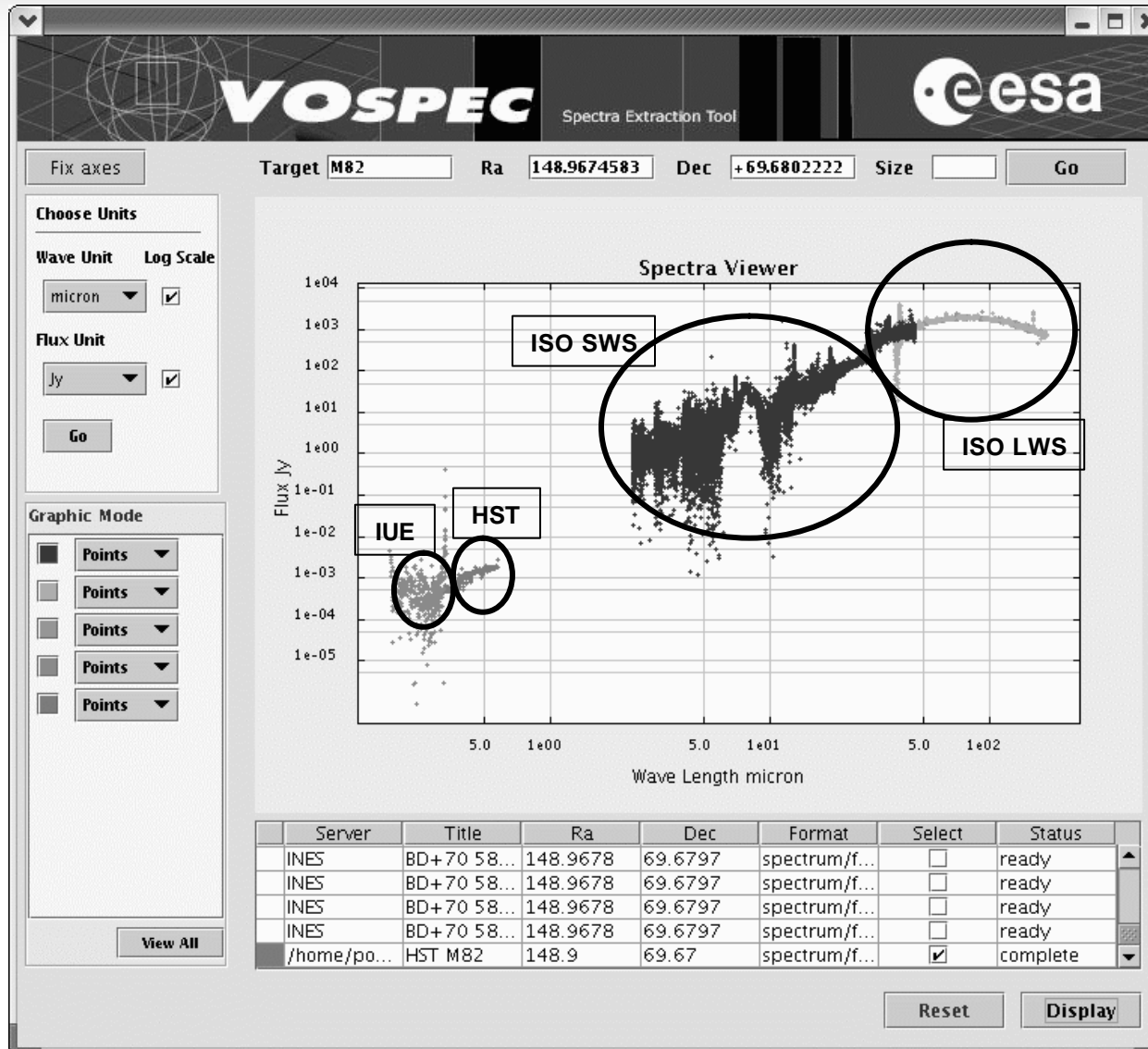
<TD>58001701</TD> \_  
<TD>- <![CDATA[ http://[...]lsan]]></TD>  
<TD>ISO LWS02 Spectrum Target:  
M31\_BULGE</TD>  
<TD>18-Jun-1997 10:19:19</TD>  
<TD>18-Jun-1997 11:10:09</TD>  
<TD> 10.691809995 </TD>  
<TD> 41.27003 </TD>  
<TD>LSANWAV LSANFLX</TD>  
<TD>microns watts/cm^2/micron</TD>  
<TD>L ML-1T-3</TD>  
<TD>10.E-6 10.E+10</TD>  
<TD>spectrum/fits</TD>

DIMEQ= MT-2

DIMEQ= ML-1T-3

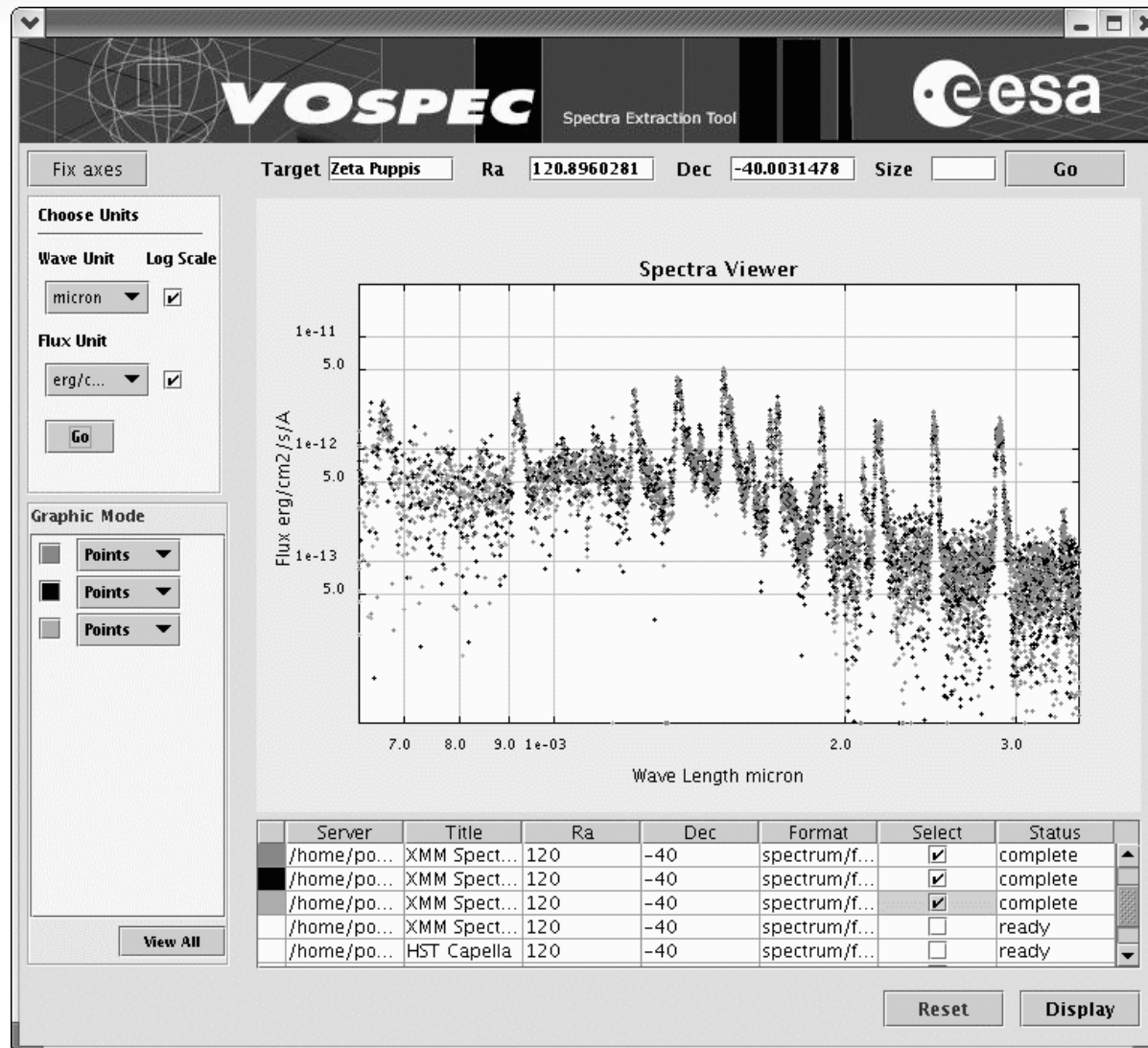


# VOSpec: Multi-wavelength Analysis





# VOSpec: Superimposition





# VOSpec: Unit Conversion

