Returns
Bool

Example

```
cs:=conesearch();
cs.list();
cs.done()
```

1.1.2 cscatalog - Tool

Package vo
Module conesearch

tool for VO conesearch queries

Description
cscatalog is an tool that facilitates queries to VO conesearch services related to specific catalogs. Currently supported are NVSS, FIRST, and WENSS The services used are hosted by NRAO. The services may be tried by hand at http://www.aoc.nrao.edu/e2e/java/vocone.html
In the following example, the NVSS catalog is queried for all sources overlapping the given image. cscatalog.queryimage returns a componentlist tool that may be used in imager or converted to a skycatalog for display overlaid on an image.

```
#
# Make an image tool
#
include 'image.g';
im:=image('C1200M24.sub');
#
# Make a conesearch catalog. This will return a componentlist
#
include 'cscatalog.g';
cs:=cscatalog();
cl:=cs.queryimage(im, 'NVSS');
if(is_fail(cl)) fail;
cs.done();
#
```

```
# Skycatalog is a simple format for displaying catalogs
#
include 'skycatalog.g'
sc:=skycatalog(spaste(im.name(), '.sc'));
sc.fromcomponentlist(cl);
if(is_fail(sc)) fail;
#
# Now the image and the skycatalog should be visible in the viewer
#
include 'viewer.g';
dv.gui();
```

In this example, we have queried for an NVSS image (actually a subsection). The result (after using the viewer to load the image and the skycatalog) is shown in the figure below:

Constructors

cscatalog	Construct an cscatalog tool

Functions

done	Delete the tool
querydirection	Query a catalog for a direction return a componentlist
queryimage	Query a catalog for an image

cscatalog - Constructor

Package	**vo**
Module	**conesearch**
Tool	**cscatalog**

Construct an cscatalog tool

Synopsis
cscatalog()

Description
This is used to construct `cscatalog` tools.
This returns a Glish variable containing the tool functions of cscatalog.

Returns
cscatalog tool

Example

```
cs:=cscatalog();
rec:=cs.query(180, 45, 1, 'FIRST')
cs.done()
```

---

cscatalog.queryimage - Function

Package	**vo**
Module	**conesearch**
Tool	**cscatalog**

Query a catalog for an image

Synopsis
queryimage(im, catalog, fluxrange)

Description
This queries a specific catalog for all sources overlapping the specified image tool. The VOTable is returned after conversion to a componentlist tool. The componentlist tool is anonymous and must be renamed using the componentlist.rename function.
Note that the componentlist contains all sources from the cone that circumscribes the image so there are points in the componentlist that will not be overlaid on the image.

Arguments

im	Image tool Allowed:Image tool Default: None
catalog	Catalog to be queried Allowed:NVSS—FIRST—WENSS Default: NVSS
fluxrange	Flux limitation Allowed:Vector of quantities Default: F

Returns
componentlist

Example

```
#
# Make an image tool
#
include 'image.g';
im:=image('C1200M24.sub');
#
# Make a conesearch catalog. This will return a componentlist
#
include 'cscatalog.g';
cs:=cscatalog();
cl:=cs.queryimage(im, 'NVSS', fluxrange='5mJy');
if(is_fail(cl)) fail;
cs.done();
#
# Skycatalog is a simple format for displaying catalogs
#
include 'skycatalog.g'
sc:=skycatalog(spaste(im.name(), '.sc'));
sc.fromcomponentlist(cl);
if(is_fail(sc)) fail;
#
# Now the image and the skycatalog should be visible in the viewer
#
include 'viewer.g';
dv.gui();
```

---

cscatalog.querydirection - Function

Package	**vo**
Module	**conesearch**
Tool	**cscatalog**

Query a catalog for a direction return a componentlist

Synopsis

querydirection(direction, sr, catalog, fluxrange)

Description

This queries a specific catalog for a given direction. The VOTable is returned after conversion to a componentlist tool. The componentlist tool is anonymous and must be renamed using the componentlist.rename function.

Arguments

direction	Direction measure Allowed:Measure Default: none
sr	Search radius Allowed:Quantity Default: '1deg'
catalog	Catalog to be queried Allowed:NVSS—FIRST—WENSS Default: NVSS
fluxrange	Flux limitation Allowed:Vector of quantities Default: F

Returns

componentlist

Example

```
#
# Make a componentlist holding all sources with 10 degrees of 3C84
#
include 'cscatalog.g';
cs:=cscatalog();
cl:=cs.querydirection(dm.source('3C84'), sr='10deg', 'NVSS', fluxrange='5mJy');
if(is_fail(cl)) fail;
cs.done();
```

---

cscatalog.done - Function

Package	**vo**
Module	**conesearch**
Tool	**cscatalog**

Delete the tool