Major Changes or Bug Fixes

Impact	Package	Section	Change
1	Cdms	Axis	Time dimension does not generate bounds automatically anymore – use cdms.setAutoBounds('on') -
1	Cdms	Curvilinear grids	CurveGrids can be supplied in the axis list.
1	Cdms	Curvilinear grids	Added conversion routines: rect => curve => generic
1	Cdms	Curvilinear grids	MV works with curvilinear grids
1	Cdms	Curvilinear grids	Can read grids from scrip remap files
1	Cdms	Curvilinear grids	getMesh returns a transposed mesh grid if requested.
1	Cdms	Curvilinear grids	On reading grids from files, check for cell convexity. Where that fails by default fix cells that straddle the 0 / 2pi boundary.
1	Cdms	Curvilinear grids	Added routines to write grids to external files in scrip format
1	Cdms	I/O	Trapped seg faults on closed file objects.
1	Cdms		Fixed memory leaks.
1	Doc	Tutorials	New tutorials
1	Exsrc	DODS	Now builds by default under Linux, updated to Version 3.4
1	Vcdat	DV	A number reflecting selection/operation order appears next to selected variable
1	Vcdat	DV	Templates and Graphic Method Listbox available (on/off) in Variables and Calculator area
1	Vcdat	Editors	Template editor accessible from VCDAT (click and drag technology)
1	Vcdat	Editors	Graphic Method Editors updated, preview/reset option added
1	Vcdat	General	4 mode: 1-user defined layout; 2- Browse Variable; 3- Data Manipulation; 4- Graphics Display
1	Vcdat	GUI	Layout changed, now has mode for plot edititng, letting you copy/paste and edit existing template and method
1	Vcdat	Plot	Annotation pop-up available, with preview/reset/apply/cancel
1	Vcdat	Plot	Page Layout Table to control what is displayed on the VCS Canvas, can turn on/off plots with one click
1	Vcs	Animations	update to handle two or more on a page
1	Vcs	Animations	Can read from a file
1	Vcs	Animations	Can save to a file
1	Vcs	Curvilinear grids	Handled automatically
1	Vcs	Projection	Added gctp package to vcs, 28 new types of projection avalaible
1	Vcs	Templates	Template editor by clicking

Important Changes or Bug Fixes

Impact	Package	Section	Change
2	Cdms	I/O	Added writeScripGrid, readScripGrid can read from a SCRIP mapping file
2	Cdms	Libcdms	Removed spurious calendar error
2	Cdms	Time axis	TransientAxis getCalendar returns DefaultCalendar if none specified. This is consistent with FileAxis.getCalendar()
2	Doc	Tutorials	Data can now be anywhere on user's space
2	Genutil	Arrayindexing	New module, allows array indexing, e.g:C=genutil.arrayindexing.get(A,B)
2	Genutil	Filters	Added filters module, so far only "running average", 121 and custom
2	Genutil	Statistics	fixed a bug in linear regression when trend is 0, probability are not set to missing
2	Install	All	Updated external Packages to their latest versions, see README files
2	Install	CDAT	Mac OS X "offically" supported
2	Install	Cdms	Fix CDMS build for FreeBSD
2	Install	Cdms	Added --cdms-only option to express_install.
2	Install	Exsrc	Now can build indiviudal package or exclude some
2	Install	Exsrc	--list option added
2	Install	Exsrc	--help option in install_script
2	Vcdat	0D (numbers)	if no dimensions are present, then show the single vaule in the Defined Variables window
2	Vcdat	1D plot	Overlay applies, use page layout for other types
2	Vcdat	DV	Different mode of variable selection single/multiple
2	Vcdat	GUI	Remove the 1-Plot, 2-Plot, 3-Plot, 4-Plot per page
2	Vcdat	I/O	Simple binary file reader added
2	Vcdat	I/O	Can read column arranged ascii files
2	Vcdat	I/O	Save netcdf now has browser to go between directories
2	Vcdat	I/O	Simple ascii file reader added
2	Vcdat	Menu	New interface to user menu, more robust and intuitive
2	Vcdat	Scripting	Added limited recordings of the functions (not available on beta)
2	Vcs	Boxfill	Now can specify levels just like in isofill
2	Vcs	Isofill	Now has legend otpion (i.e can specifiy where to put values)
2	Vcs		Linewidth option added where line are controlled
2	Vcs		User can click on the plot and get worldcoordinate/index values, and actual value

Significant Changes or Bug Fixes

Impact	Package	Section	Change
3	Cdms	I/O	picker selector, let you pick non contiguous values
3	Cdutil	Times	Yearly and xDaily Time Bounds setting, plus accept either slab or axis
3	Contrib	F2py	Added F2PY, fortran wrapper
3	Install	HDF	--HDF= option let user point to HDF libraries
3	Install	Scrip	Source code distributed but not installed
3	Vcdat	DV	Replacing the eval call for the exec call. Now the user can enter any command
3	Vcdat	DV	Fix for the automatic Numeric and MA conversion to MV. The user now has a choice to convert Numeric and MA to MV. That is, the user will need to select the "Automatic Conversion to MV" toggle in the "Preferences" menu to turn this feature on or off
3	Vcs	Plot	Very High Resolution Continent Files generated via GMT are available on the web
3	Vcs	Templates	Scaling, now can scale fonts
3	Vcs	Text	Bg option works

Notable Changes or Bug Fixes

Impact	Package	Section	Change
4	Cdms	I/O	Implemented isClose().
4	Contrib	Install	Automatically built
4	Exsrc	VTK	VTK (beta version) added to distrib, not built by default this is experimental
4	Genutil	Xmgrace	Now can pass arguments at init time, safe mode problem introduced by latest versions of xmgrace fixed
4	Vcdat	General	Retains user settings
4	Vcdat	General	Predefined Region
4	Vcdat	General	Can define colors using intensiy
4	Vcdat	Taylordiagram	GUI updated
4	Vcs	Primitives	Projection accessible
4	Vcs	Taylordiagram	standard dev added to xaxis
4	Vcs	Taylordiagram	taylor control the xtic/ytic/cticks
4	Vcs	Yxvsx, Xyvsy	Auto now works again (no more blank canvas)
4	Vcs		Improved thread support

Good to Know Changes or Bug Fixes

Impact	Package	Section	Change
5	Cdms	Cdscan	Added –nofiles, --execfile option
5	Cdms	Cdscan	Added --notrim-lat option
5	Cdms	Cdscan	Added --filesxml option

5	Cdms	Curvilinear grids	Raise error if nonrectangular grid has no bounds associated
5	Cdms	I/O	Added gridftp protocol
5	Cdutil	Times	fixed times.setTimesBoundsMonthly for end of month storage
5	Cdutil	Vertical	Vertical Interpolation Tools (sigma2pressure)
5	Contrib	IaGraph	Package of interactive graphing tools. IaGraph will create line plots, scatter plots, and contour plots
5	Exsrc	R	Added R (statistical package) sources to distrib, not built by default
5	Genutil	Xmgrace	safe/nosafe problem solved, version controled before passing the argument
5	Ncml		New Package
5	Scrip		New module, interface to scrip regridder
5	Vcdat	DV	Icons tools added
5	Vcdat	General	Keep (or not) Windows in front of main window
Minor Changes or Bug Fixes			
6	Cdms	Axis	Align isLatitude, isLongitude test with CF convention
6	Contrib	ComparisonStatistics	fixed a bug for TimeComponent 18, the seasonal weights used in computing the annual means were slightly off
6	Contrib	Rpy	Added Rpy package, works if you have R on your system
6	Exsrc	Pbm	Pbmplus replaced with netpbm on Linux and Mac systems
6	Genutil	Statistics	Geometric Mean, Median and Rank functions added
6	Vcdat	1D plot	Fixed multiplier annotation for 1D plots.
6	Vcdat	DV	Support for chemistry attributes
6	Vcdat	General	Exit Popup to retain settings (can be turned off)
6	Vcdat	Menu	Option pull down from main menu was changed to "Preferences"
6	Vcs	Animations	bug fix for pan and zoom
6	Vcs	Templates	Ratio options now supported, let user definean y/x ratio or if lat/lon let vcs find a good one
7	Contrib	ComparisonStatistics	Handles fortran NaN
7	Vcdat	Annotations	Changed annotation so a blank text field will print nothing in on the Canvas
7	Vcs	boxfill/isofill	Extension bug fix, if levels set after ext_1
7	Vcs	Taylordiagram	Taylordiags single precision ok now
8	Cdms	Cdscan	Fixed bug when file has 'bounds' dimension.
8	Contrib	ComparisonStatistics	Updated doc
8	Vcs	Markers	0 means no marker
8	Vcs	Taylordiagram	fixed taylordiagrams.script and also listelements('taylordiagram') now works (x.show returns None)
9	Cdms	Drs	Fixed the cycle process for DRS files. Must close DRS files before you open them again.
9	Cdutil		Removed Propertied Class dependencies, replaced with standard python (object/property)
9	Contrib	ComparisonStatistics	Bug fixing
9	Contrib	Pyfort	New version 8.4
9	Vcdat	General	User can defined the name of its default template/graphic methods
9	Vcs	1D plots	Bug fixes for graphics methods. That is, if the data only has 1 dimensions and 2 or more dimensions are required, then use Yxvsx to plot the data
9	Vcs	Printer	lanscape/portrait argument bug fix
9	Vcs	Taylordiagram	Skill drawing, bug fix
9	Vcs		Major changes to the VCS graphics methods
9	Vcs		Fixed attribute settings for missing attributes
10	Cdms	I/O	Fixed bug in dataset.write when time axis is a float. This shows up with Numeric V23.1
10	Cdms		Added xmllib to ditrib since it'll be abandoned in future python
10	Cdutil	VariableMatcher	Added comment keyword
10	Genutil		Removed Propertied Class dependencies, replaced with standard python (object/property)
10	Vcs	Colormap	Added the NCAR Color Map to the initial.attribute file.
10	Vcs	Colormap	Cleanedup
10	Vcs	Templates	fixed JYP comments about "inconsistency" on comment#1 of UL1of4 template
10	Vcs		Removed Propertied Class dependencies, replaced with standard python (object/property)
11	Cdms	Curvilinear grids	auxcoord, gengrid modules
11	Esg		New Package
11	Install	CDAT	Building GNU tar on older systems...
11	Install	CDAT	--psql option added