GRASS 4.1 Beta

RELEASE NOTES

GRASS 4.1-Beta contains significant changes that affect the installation, programming, and operation of the GRASS code. New programs have been written and many old programs have undergone enhancement, bug fixes, name changes, and/or reclassification. The release notes included in this document highlight some of those changes.

General Notes

v.digit

v.digit has been redesigned. Documentation about this program, and about the original *v.digit* it has replaced (now called *v.digit2*), can be found in Sections 9 and 17.6 of the *Installation Guide*, and Chapters 21 and 24 of the *Programmer's Manual*. (Chapter 24 is the "tutorial" referred to in the *v.digit2* man page.)

The new *v.digit* eliminated some digitizer interface programs used by *i.points*, which were designed to use the digitizer to register UTM coordinates from a map rather than the user typing them in by hand. There were three programs (*geo_quest geo_reg geo_point*) that were etc programs. *i.points* will not attempt to use the digitizer if these programs are not accessible, so *i.points* will still work, but it will not have access to the digitizer. Users can either (1) get the UTM coordinates outside of *i.points*, perhaps using *v.digit*, or (2) build *v.digit2* for their digitizer, which would also build these three missing programs for each digitizer driver the user asks to be compiled.

i.vpoints is a clone of *i.points* and uses the same logic as *i.points* to access the digitizer; therefore, this program will have the same behavior as *i.points* with regard to the digitizer.

Digitizer / paint drivers

Some digitizer or paint drivers have not been fully tested for compilation on all platforms. The user may experience compilation problems, depending on the driver and hardware platforms she/he is trying to use.

Installation Guide

The *Installation Guide* discusses the features and procedures which differ from the 4.0 release. Please read the entire document carefully before beginning installation.

Programmer's Manual

Information about the new digitizer configurations can be found in Chapter 21. The 4.0 procedures, "Writing a Digitizer Driver", are still available in Chapter 24 for those who wish to use the 4.0 version of v.digit, now renamed v.digit2.

User's Reference Manual

The GRASS 4.1beta *User's Reference Manual* is divided into the following sections:

* Main programs and programs in alpha testing
* Shell script programs
* Index of contributed programs
* Descriptions of program formats

The final release manual will also include a section of hardware- and software-specific programs and supporting information (e.g., XGRASS, SG3d, and Intergraph). For the beta release, this documentation is included in a separate section in the beta package.

Main and alpha programs are combined in the same chapter in the manual and are distinguishable by the designation <main> or <alpha>.

The index of contributed code lists program names and, in some cases, program descriptions. More complete documentation is presented on-line in the *src.contrib* directory. Because OGI does not support or test the code and documentation, nor the documentation, users are advised

that the code may not operate as expected and that there may be no consistency in documentation format.

Main and Alpha

Programs which have undergone significant enhancement include:

g.region	i.cluster	i.grey.scale
m.dem.extract	r.cost	r.slope.aspect
r.thin	v.spag	v.to.sites
d.measure	m.tiger.region	

New programs include:

g.setproj	i.gensig	i.gensigset
i.in.erdas	i.rectify2	r.colors.paint
i.smap	i.tape.spot	i.tape.tm.fast
ps.select	i.vpoints	m.proj
p.map.new	ps.icon	ps.map
r.contour	r.digit	r.in.poly
r.mask.points	r.median	r.mode
v.out.point	s.surf.tps	v.alabel
v.cutter		

v.digit (is a new version of 4.0 v.digit, which has been renamed v.digit2)
v.in.dlg (is a new version of 4.0 v.in.dlg, which has been renamed v.in.dlg2)
v.in.transects

New TIGER/Census Commands (in alpha):

m.in.pl94.db3	m.in.stf1.db3
m.in.stf1.tape	v.apply.census
v.in.tig.basic	v.in.tig.lndmk

Name changes include:

i.median	to	i.quantize
v.in.tiger	to	v.in.tig.rim
Gen.tractmap	to	tig.rim.sh
d.p.labels	to	d.paint.labels
r.weight.new	to	r.weight2

Special note. The programs:
i.build.blk i.camera i.mod.camera i.rectify.blk
have been incorporated into *i.ortho.photo*.

Contributed Code

New programs include:

d.linegraph	s.medp	f.acap
f.detail	f.econ	f.input
f.reach	f.wsurf	f.xsection
i.texture	r.traj	s.to.rast
s.voronoi	v.autocorr	v.in.poly
v.mkgrid	v.reg	wrat

Hardware- and Software-Specific Programs and Information

Intergraph Hardware Platforms

There are three new programs which will not compile on the Intergraph hardware platform due to portability issues. The required changes were not completed in time for the beta release. Those users compiling on an Intergraph should be aware that the compilation process will be stopped at these three programs, or should delete the program names from the list being used by the GISGEN process before beginning compilation. These programs are:

src.alph/mapdev/v.in.tig.lndmk
src.alpha/misc/m.flip
src.alpha/misc/m.lulc.read

Garden and Related Software

GRASS Informix Tools

The on-line man pages and README files for the GRASS Informix tools (under *src.garden*) refer to a particular sample data set. Although this data set was used in conjunction with the software development, it is not part of the general GRASS release. There is an alternate data set under the GRASS sample database location (spearfish) for use with these tools. The user will need to translate from one set of examples in the documents to the alternate data being supplied.

TIGER Tutorials

Along with the six new programs written for the TIGER/Census code, two TIGER tutorials are available for the 4.1 GRASS release.

"A Tutorial for Tiger in GRASS with the Database Manager RIM" discusses GRASS programs that use the relational database manager RIM to import and manipulate TIGER/Line data in GRASS. In addition to creating map layers, this suite of programs builds and uses a RIM database of the associated TIGER/Line data. The building of the RIM database, depending on the area the user is dealing with, can be very time consuming and, once built, take up a large amount of memory.

For a few kinds of operations, the suite of "TIGER in GRASS" programs described in this tutorial may be preferred, but for other operations, the suite of programs described in the tutorial "Importing TIGER/Line Maps and STF1 Data in GRASS" might be preferred. Along with describing how to import TIGER/Line data in GRASS without using a database manager, this second tutorial describes the importing and use of TIGER/Line landmark features and the 1990 Census STF1 data in GRASS. Before importing TIGER/Line data to GRASS, both tutorials should be reviewed so that the user can decide the method that best fits her/his needs.

Tiger import routines using RIM

There was an upgrade to the programs that existed under GRASS 4.0 for importing TIGER/Line files from the Census Bureau using the RIM database manager. The change to the programs, which included the additional capability of using a lat/lon location, resulted in a different look and feel to the command-line input for the main importing routine, now named "v.in.tig.rim." As a result, the command-line format in the database manager RIM TIGER tutorial (p. 7) that reads:

```
v.in.tig.rim dbname=sprfish in1file=tg46081.f21 in2file=tgr46081.f22 zone=13
```

should be:

```
v.in.tig.rim sprfish tgr46081.f21 tgr46081f22 13
```