

SOFTWARE RELEASE NOTICE

1. SRN Number: GLGP-SRN-192 <i>A BSW 2/7/2001</i>		
2. Project Title: N/A, on CNWRA overhead charges.		Project No. 20-0751-013
3. SRN Title: Post Processing Software for Geomagnetic Surveys Version 1.1		
4. Originator/Requestor: Brandi L. Winfrey		Date: October 13, 2000
5. Summary of Actions		
<input type="checkbox"/> Release of new software <input checked="" type="checkbox"/> Release of modified software: <input checked="" type="checkbox"/> Enhancements made <input type="checkbox"/> Corrections made <input type="checkbox"/> Change of access software <input type="checkbox"/> Software Retirement		
6. Persons Authorized Access		
Name	Read Only/Read-Write	Addition/Change/Delete
Laura Connor	Read-Write	Addition
Charles Connor	Read-Write	Addition
Brandi Winfrey	Read Only	Addition
7. Element Manager Approval: <i>A. L. McHoyne</i>		Date: <i>10/19/00</i>
8. Remarks: To be used for field and any other applicable activities.		

SOFTWARE SUMMARY FORM

01. Summary Date: 10/13/00		02. Summary prepared by: Brandi Winfrey		03. Summary Action: NEW	
04. Software Date: 10/13/00		05. Short Title: Post Processing Software			
06. Software Title: Geomagnetic Post Processing Software Version 1.1				07. Internal Software ID: none	
08. Software Type: <input type="checkbox"/> Automated Data System <input checked="" type="checkbox"/> Computer Program <input type="checkbox"/> Subroutine/Module		09. Processing Mode: <input type="checkbox"/> Interactive <input checked="" type="checkbox"/> Batch <input type="checkbox"/> Combination		10. Application Area a. General: <input checked="" type="checkbox"/> Scientific/Engineering <input type="checkbox"/> Auxiliary Analyses <input type="checkbox"/> Total System PA <input type="checkbox"/> Subsystem PA <input type="checkbox"/> Other b. Specific: Software is intended for use in geologic surveys dealing with magnetometer readings.	
11. Submitting Organization and Address: CNWRA/SwRI 6220 Culebra Road San Antonio, TX 78228			12. Technical Contact(s) and Phone: Charles Connor, Programmer SWRI Div 20 (201) 522-6649 Laura Connor, Programmer SWRI-Div 09 (201) 522-4667		
13. Software Application: Associates location data, gathered with a GPS unit, and magnetometer readings. Determines magnetometer base station drift relative to the first day, first base station reading, and adjusts measured magnetometer readings to remove this drift effect. Determines the heading at each magnetometer reading and adjusts the reading to eliminate directional variations caused by the magnetic field of a bicycle (if used) while surveying. Filters a data file by eliminating data lines containing readings above and below specified min and max values. Performs an IGRF (International Geomagnetic Reference Field) correction on a data set of magnetometer readings using geodetic coordinates. Converts latitude/longitude coordinates into UTM coordinates using the NAD83 ellipsoid (State Plane Coordinate Systems, North American Datum 1983).					
14. Computer Platform PC or SGI		15. Computer Operating System: Windows NT or IRIX 6.2		16. Programming Language(s): C	
17. Number of Source Program Statements: 1433 lines					
18. Computer Memory Requirements: 640K		19. Tape Drives: N/A		20. Disk Units: N/A	
				21. Graphics: none	

SOFTWARE CHANGE REPORT (SCR)

<p>1. SCR No. (Software Developer Assigns): GLGP-SCR-341</p>	<p>2. Software Title and Version: Post Processing Software for Geomagnetic Surveys Version 1.1</p>	<p>3. Project No: 20-0751-013</p>
<p>4. Affected Software Module(s), Description of Problem(s): Copyright comments were added to the following filters in the software. Exactly four (4) comments were added to each filter at the beginning, end, and twice in random places within the software. These comments in no way affect the operation of the listed filters.</p> <p>Drift, Filter, Heading, Igrf, Nad83, and Stn2xyz</p>		
<p>5. Change Requested by: <i>Brandi Winfrey</i> <i>[Signature]</i> Date: <i>October 13, 2000</i></p>	<p>6. Change Authorized by (Software Developer): <i>[Signature]</i> Date: <i>10/19/00</i></p>	
<p>7. Description of Change(s) or Problem Resolution (If changes not implemented, please justify):</p> <p>The change includes the addition of a copyright notice to the source code for all six of the filter codes, as well as to the documentation. Each printout and all distributed printouts, to include the User's Manual, supplemental Source Code manual, and CDROM, have had the following line added to them. This includes all labeling as well as marking on the media on which the program is stored.</p> <p>© 2000 Southwest Research Institute. All rights reserved.</p> <p>No other changes were made.</p>		
<p>8. Implemented by: <i>Brandi Winfrey</i> <i>[Signature]</i></p>	<p>Date: <i>OCTOBER 13, 2000</i></p>	
<p>9. Description of Acceptance Tests:</p> <p>None required as there was no alteration to the functioning code in the software (i.e., only comments were added).</p>		
<p>10. Tested by: <i>Brandi Winfrey</i> <i>[Signature]</i></p>	<p>Date: <i>OCTOBER 13, 2000</i></p>	

NOTE: The only change to this code was adding the copyright notice symbol. *Spencer Malin 2/7/2001*
No Design Verification Report required. *[Signature]*