Applications

Geoscience

3D-AIMS®

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3D-AIMS® is a three-dimensional, interactive, forward-modeling system useful in seismic simulation and subsurface imaging applications. 3D AIMS uses raytracing techniques to create the synthetic seismic time response of a depth model. 3D-AIMS is available on a variety of UNIX-based workstations, and its 3D depth models can be constructed from gridded map data or from 2-D depth profiles. As with GX II, various data may be simulated and compared with the real seismic data to verify the interpreted depth model.

IRIX version compatibility: IRIX 5.3, IRIX 6.2

3D-VSP™

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3D-VSP™ is a software package that allows interpreters to build 3-D geologic models and simulate raytracing to receivers in boreholes. The user can define multiple deviated well tracks or import digital well coordinates. The survey design module allows the user to simulate either pressure wave, shear wave, or converted wave surveys, and receivers can be defined in vertical or wireline depth. Synthetic seismic traces, which incorporate the effects of either gimbaled or fixed-axis phones, are generated from a user-defined depth model so that geophysical interpretation hypotheses can be tested.

IRIX version compatibility:

3DMove

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3DMove is a fully interactive geologic visualization, modeling and restoration package for development and exploration teams working complex structural trends including strike-slip, oblique-slip and inversion. The package allows real-time restoration and forward modeling, offering 3-D backstripping, fault bend folding, flattening, map restoration and free form deformation on both model and real data sets. 3DMove also has an unmatched visualization and model building capability.

IRIX version compatibility:

3DPSDM

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3DPSDM: 3DGeo's 3-D Kirchhoff prestack depth migration (3DPSDM) package is based on a state-of-the-art implementation of the algorithm designed to achieve maximum efficiency on parallel-vector and cache-based supercomputers. The algorithm includes several choices of anti-aliasing and an amplitude equalization operator to preserve the amplitude information in the final image even when the spatial sampling of the imput data is irregular. Through scaling of the input and output data, 3DPSDM can be run on workstations as well as supercomputers, though the best efficiency is obtained on larger computing platforms.

IRIX version compatibility: 6.2

Geoscience

3DVIEW™

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3DVIEW™ allows visualization of simulation models in 3D on a high-resolution color monitor. The program displays any simulation attribute as color-coded shaded images across reservoir structure. The program allows the user to rotate, zoom, and slice images in real-time for interactive evaluation.

IRIX version compatibility:

3Di

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3Di is a mine safety application providing methods of routine analysis of induced seismicity. Rockmass behavior can be quantified through physical parameters derived from quantitive seismology. 3Di includes the following:

* a unique seismological analysis and interpretation functions with most parameters settings "hard coded" for simplicity

* a powerful graphics visualization interface making the product intuitive and easy to use. Seismic events can be plotted using a variety of parameters. The data can be gridded on planes in any orientation for 2-D contouring, and data can be viewed as time histories for stability analysis

* automatic mode operation when the product is interfaced with a live data base. Alarms can be triggered when preset levels are exceeded.

IRIX version compatibility:

4Di

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4Di is a mine safety application providing visualization and methods for routine analysis of induced seismicity. Rockmass behavior can be quantified using physical parameters derived from the quantitive seismology. 4Di provides the following:

* unique seismological analysis and interpretation functions where the user can change any variable used for analysis

* a powerful graphics visualization interface which included a 3-D volume visualization module and 2-D contouring (line or solid) on convoluted fault services

* automatic mode operation when the porduct is interfaced with a live data base. Alarms can be triggered when preset levels are exceeded

IRIX version compatibility:

Geoscience

5Di

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5Di is a mine safety application providing visualization and methods for routine analysis of induced seismicity. This package also has modules for creating professional presentations of the data, and a pseudo virtual reality interface. Rockmass behavior can be quantified using physical parameters derived from quantitive seismology. 5Di provides the following:

* a unique seismology analysis and interpretation functions where the user can change any variable used for analysis

* 4Di's powerful visualization interface plus basic virtual reality, and key frame animation for movie generation

* automatic mode operation when the product is interfaced with alive data base. Alarms can be triggered when preset levels are exceeded.

IRIX version compatibility:

ACTRIS®

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ACTRIS® is a 3-D visualization software package released by Institut Francais du Petrole (IFP). ACTRIS is used like an actress to create a movie of fluid flow. You can play with your model, turn it, and flip it. Another noteworthy feature of ACTRIS® is its animation facility. This permits the incorporation of time in the display of your fluid-flow simulation. ACTRIS was designed for Reservoir Engineers and Geologists.

IRIX version compatibility: 5.2, 5.3, 6.0, 6.1, 6.2

AGP

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AGP-ECSI's Airborne Geophysical Processing System is used extensively in exploration for processing a variety of remote sensing techniques.

IRIX version compatibility: 5.3, 6.2, 6.x

Geoscience

AGP™

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AGP™ is the software accepted worldwide for geophysical interpretation and image processing.

IRIX version compatibility:

AVO

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AVO is a program for analyxzing amplitude versus offset effects through modelling and data analysis, to estimate lithology and fluid content. Tools range from gradient/intercept stacks through modelling and full inversion.

IRIX version compatibility: 5.3, 6.1, 6.2

BOSS™

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BOSS™ - (Binning On Subsurface Structure) is a new model-based seismic- acquisition planning tool oriented for the geophysicist to use for planning and testing 2-D and 3-D seismic acquisition surveys on land, in transition zones, and in the marine environment - all in a model-driven simulation environment. BOSS significantly upgrades and improves the current 3-D acquisition planning systems that do not take into account the geologic structure when analyzing the coverage expected from a proposed seismic acquisition planning efforts and is tightly integrated with iXL SD™ (MIT), CENSUS® (QC Tools), and MESA™ (Green Mountain Geophysics).

IRIX version compatibility:

CGMage Builder with CGM Editing

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CGMage Builder with CGM Editing provides users with the ability to edit individual CGM files to enhance presentation quality and combine multiple files into a single, cohesive picture to fully communicate your message. With Zeh's suite of file translators DGN files. TIFF, Windows or others can be imported and combined into a single CGM file for plotting. The editing functions enable the users to highlight important information, modify attributes of individual elements, as well as create new objects directly in the CGM file. A Motif Graphical User Interface along with tool palettes and a composition canvas assure ease of use and flexibility.

IRIX version compatibility:

Geoscience

Caravel, S.E.A. (Seismic Energy Analysis), Formatter

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Discovery Bay Company develops 3D seismic data analysis software. Discovery bay Company (DBC) develops software in a niche market emphasizing sophisticated data access architecture to allow direct access into large seismic data volumes. DBC software accesses data in both post-stack and pre-stack domains for further analysis. Based on this foundation, DBC is currently developing a desktop 3D AVO functionality with the support of major exploration and production companies.

IRIX version compatibility: 6.2, 6.3

ConnecT

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ConnecT is a graphical tool for moving binary data between GeoLog6 and OpenWorks® databases. ConecT allows users of Mincom and Landmark products to easily select data types between the supporting databases, utilizing the best application for the job, without the creation of intermediate files.

Motif selection lists, radio buttons and pull down menus are extensively used throughout the application to ensure easy operation.

ConnecT has been developed by Mincom in cooperation with a major client and represents the best of both Mincom and OpenWorks technology in ease of use and usability terms.

IRIX version compatibility:

Contour

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Contour enables developers of scientific and technical applications to provide high quality contouring and gridding of data within their applications. A choice of several sophisticated contouring algorithms are provided, handling both irregularly or regularly spaced data. Contouring up to discontinuities and faults is handled particularly well. Presentation quality contour maps may be displayed as color-filled contours or contour lines, with full annotation and the ability to overlay graphics such as cultural data. Hardcopy output in PostScript® and CGM formats is supported.

IRIX version compatibility: 5.x, 6.x

Geoscience

DATAMINE

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DATAMINE is a world leader in integrated mining software packages and is currently in use in over 300 locations worldwide. DATAMINE's flexibility is proven by its use on deposits for clay, sand, limestone and gravel, iron ore, copper, gold, silver, titanium, coal, bauxite and diamonds. Users include consultancies, head offices, universities and large and small mining operations from initial capture of data through to detailed planning of open pit and underground mines. DATAMINE integrates sophisticated data management functions with a wide range of geological and mining applications using interactive graphics and user-definable menus. Optional add-on modules allow customization of applications.

IRIX version compatibility:

DLPS/WellTie

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DLPS/WellTie is a comprehensive log-based interpretation system with major functions in log editing, synthetic seismograms, synthetic section modeling, AVO modeling, VSP modeling, petrophysical analysis, stratigraphic modeling, cross-section construction, and log correlation.

DLPS/WellTie has many features that greatly enhance the geologist's ability to construct cross-sections. Theses features include data management, display versatility, and horizon entry and editing. All of the tools available in DLPS/WellTie free the user from the time-consuming steps of data manipulation and drafting, thus increasing productivity and allowing more time for interpretation.

IRIX version compatibility:

DMS™, Digital Mapping System

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The DMS™is a comprehensive real-time 2-D and 3-D acquisition, processing and display system for seafloor remote sensing devices including somars, magnetometers and navigation systems. The system allows the user to collect these data digitally onto optical disk, mosaic and view the merged 3-D product of these data types in real-time.

IRIX version compatibility: 6.x

Geoscience

EAGLES

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EAGLES (Engineering, Analytic, Geologic, and Land Management Evaluation System) is a geologic, analytic, reserve evaluation and planning package incorporating the following capabilities: Complete geologic and analytic database; two-and three-dimentional modeling and mapping; surface mine planning simulation; underground mine planning; and mine operation.The EAGLES relational database provides a flexible system for interactive data entry and retrieval. It allows interactive correlation of the data using geologic, geophysical and analytic information and graphic capabilities. Reserve evaluation tools allow reserve calcuations and categorization at different stages. Mining criteria such as minimum thickness, reduction and dilution can also be imposed on a reserve.

IRIX version compatibility:

EAGLES-DTMS

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EAGLES-DTMS (Digital Terrain Modeling System) Contour maps that have been hand-drawn or generated by other computer systems may be converted to gridded EAGLES models. The maps can represent topography, geologic structures, quality parameters, hydrology, air quality, or any other information. Source data for regional topography modeling can be in the form of digital data provided directly by photogrammetric services or contour maps. Some special features include:

* Entry and verfication of contours
* Modification of contours
* Modeling of contoured data
* Digitization of boundaries or linear features
* Entry or modification of data
* Entry of geophysical log traces
* Entry of mapped control point information

IRIX version compatibility:

EAGLES-GARNETS

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EAGLES-GARNETS (Geological Analytic Retrieval, and Edit Tabulation System) is a comprehensive database managment system which facilitates the entry, analysis, coorelation, display and storage of geologic and quality data. It combines access by support programs and flexible data retrieval. Screen-driven forms assist the geologist in entering the geologic and analytic information into the database. This system checks data as it is entered to assure that it is consistent with established parameters and help to detect data entry errors. The database can be structured to accomodate coal, phosphate, oil shale, oil sands, limestone, and other types of deposits and minerals.

IRIX version compatibility:

Geoscience

EAGLES-GEMS

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GEMS (Grid Extension and Modification System) is a package for grid editing, modifications, verification, and display of the contents of any gridded geologic model developed by EAGLES or other computer system. Also provided are arithmetic and logical changes that allow the user to create new grids from finishing touches, update the model with new information, or add localized geologic features based on nonquantifiable knowlegde of the deposit. The primary functions are:

- Model edit by cross section
- Regional model modification
- Localized model update
- Post-mining generation
- Cross section generation
- Variable block cross sections

IRIX version compatibility:

EAGLES-MODELS

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EAGLES-MODELS (Resource Modeling System) provides grid or block oriented modeling for various deposits. The user can review, modify, and confirm gridded or variable block models before reserves are calculated and mine planning is started. Display for all gridded information is avaliable in the form of contour maps, block sections, and isometric (3-D) diagrams. Features include:

- Geometric (grid-oriented) models
- Variable zone models
- Geostatistics and block models
- Contour maps
- Isometric plots
- Comparative histograms
- Polygonal method of modeling and volumetrics

IRIX version compatibility:

EAGLES-PROFITS

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EAGLE-PROFITS (Production Reporting Operations Forecasting, and Inventory Tabulation System). This module of EAGLES allows direct entry of field survey data and generates reports which monitor production, quality, equipment usage, personal statistics, and mine volumetrics. The principal features include:

- Calculations of volumetrics
- Production forecasting
- Daily mine activity records
- Monthly activity records
- Equipment monitoring
- Personnel reporting
- Royalty calculationsEngineers can develop time and cost forecasting by specifying the next area to be mined and the equipment to be employed. Tonnages and associated costs can then be projected.

IRIX version compatibility:

Geoscience

EAGLES-SURPASS

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EAGLES-SURPASS (Surface Mine Planning Analysis and Simulation System) Tools are provided to evaluate both proposed and operating surface mining properties. Bedded, vein, and disseminated deposits can be analyzed. The system can accommodate numerous surface mining methods, simulate various as-mined conditions, and sequence operations utilizing multiple equipment fleets. Pit design uses interactive graphics to set up cut patterns and mining direction to automatically generate cut plans. The model includes optimization techniques for each of the following surface mining methods:

- Open Pit Mining
- Area Mining
- Mountain Top Removal
- Contour Mining

IRIX version compatibility:

EAGLES-ULTRA

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EAGLES-ULTRA uses interactive color graphics and advanced scheduling methods to simplify underground mine design and sequencing. The purpose is to assist the engineer in becoming more productive by automating tedious drafting and calculation tasks. ULTRA allows integration of the geologic model with mine planning to provide estimates of tonnage as well as important quality parameters. The mine layout portion of ULTRA uses computer-aided graphics techniques for quick design and modification of new or existing mine plans. Previously designed panels can be used by selecting them from a panel library; the selected panels can be modified to suit the new layout. Various pillar configurations (herringbone, chevron, etc.) can be automatically generated. Crew assignment and animation sequencing provides easy and quick evaluation of the plan.

IRIX version compatibility:

EAGLES-VIMS

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EAGLES-VIMS (Volumetric In-Place and As-Mined System) provides various methods of determining geologic, mining, and reclamation volumetrics up to the point of detailed mine design. VIMS can calculate geologic reserves for in-site volumes independent of mining parameters; mining reserve estimations including factors for pit configuration; slope of advancing face, mining recovery factors, and product grade or quality, and cut and fill estimation are used in material balancing evaluation. Geologic reserve estimations measure in-place volumes with or without a geologic model. Product and waste volumes, areas, and ratios may be calculated, accumulated, and reported within an area and accumulated for multiple areas.

IRIX version compatibility:

Geoscience

EARTHPAK 1.0

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The EARTHPAK 1.0 suite of environmental models consolidates many of the space environmental models in current use throughout the space physics community into a convenient package. EARTHPAK 1.0 includes models for the geomagnetic field, atmospheric density, ionospheric parameters, and astronomical ephemerides. Each of these models has been compiled and tested for the Silicon Graphics platform, and includes Explorer maps for easy 3-D visualization of output.

EARTHPAK 1.0 includes the following models:

Atmospheric Density dacchia Models

Ionospheric Models: IRI 86

IRIX version compatibility: 5.3

EM Vision

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EM Vision is an interactive product for the earth sciences, including mineral exploration, engineering geophysics, groundwater, salinity investigations and pollution monitoring. It can display and analyze data from time domain electromagnetic (TDEM) surveys. EM Vision is a unique TDEM analysis package, the result of 14 years collaborative research by the Australian government research agency (CSIRO) and industry groups. Data can be read and processed from any commercially available TDEM field instrument prior to display and analysis. Presentation of the data can be in the form of profiles, transient decay curve, image sections and countours. Decay curve analysis aids in the interpretation of the subsurface conductivity distribution. EM Vision also acts as an interface to a powerful suite of forward and inversion modelling routines. Simple geometric bodies plus complex layered earth models can be created and their responses computed. Real time graphics displays are presented where appropriate to assist the interpreter.

IRIX version compatibility:

ENERGY

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ENERGY is a purpose-built customer information and billing system for electricity, gas and water providers. ENERGY supports all business functions including

- customers - accounts receivable, credit control, enquiry, process tracking, call logging and customer help desk
- premises and key management
- meter and tariff management
- electricity, gas and water billing
- consumption assessments and profiling analysis
- financial and distribution status
- revenue collection and debt management
- equipment tracking
- sales and forecasting analysis
- time of use and handheld meter reader input

ENERGY provides a totally unique busineiness partnership opportunity for utilities who recognize the need to use business information for competitive advantage.

IRIX version compatibility: 5.2

Geoscience

ENVISAGE

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ENVISGE is a comprehensive modular software package designed for interactive geographical modeling. It is used by engineers, surveyors, geographers, and other earth scientists in the design, analysis, simulation, and generation of general maps and terrain modeling. ENVISAGE accepts data derived from a wide variety of surveying methods, including the direct downloading of captured data to the interactive editing of string data and volume calculations. Both gridding and triangular modeling are fully supprted with extensive surface manipulation capability. Polygonal and other text-based databases can be readily accessed from the screen. The spatial databases allow full 3-D geographic data to be stored and dynamically displayed.

IRIX version compatibility:

EarthVision®

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EarthVision® is a family of software used by earth scientists for geospatial visualization and analysis. It provides capabilities to analyze the geometries and relationships of features in the earth's surface and subsurface, atmosphere, and oceans, as well as to model the distribution of properties therein. EarthVision is used extensively by oil and gas, environmental, and governmental organizations to solve complex spatially-based problems.

EarthVision users develop and integrate three types of models from scattered data input: 2-D surfaces, 3-D property volumes, and 3-D geologic structures.

IRIX version compatibility: 5.x, 6.x, Pre 5.x

Engineer

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Engineer provides an easy to use GUI for engineering designers to the engineering database, while facilitating the sharing of specification data within a concurrent engineering environment. Provides editing functionality, a full audit trail of changes and instrument input into the design at an early stage.

SEE RaPID & SpEID

IRIX version compatibility: 5.2

Environmental WorkBench™

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The Environmental WorkBench™ is used by environmental scientists and engineers for visualization, animation, analysis and communication of complex 3-D phenomenon in the meteorology/air pollution market and the groundwater market. This is a 3-D interactive visualization system that allows simultaneous viewing of gridded model data, map data, particle clouds from dispersion models, and observation data such as soil borings and sodars. All this data is geo-referenced, and the user can animate through time steps in either direction. Multiple slices may be created interactively and viewed with streamlines, contour lines, false colored fields, and 3-D flow vectors. Multiple isosurfaces can also be used to show structures, aquifers, pollution plumes, etc.

IRIX version compatibility: 5.x, 6.x

Geoscience

Fathom™

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Fathom™ v3.0 offers 2-D and 3-D First Break Picking and Refraction Statistics Solutions. Geologists and Geophysicists use this product, especially in the oil exploration industry.

It runs on Microsoft Windows and X-Windows/Motif environments. Platforms include SUN, PC, RS/6000.

It is fully compatible with all Green Mountain products.

IRIX version compatibility:

Fault Modeling Procedures (FMP)

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The Fault Modeling Procedures (FMP) build and intersect fault surface grids and merge them with existing structure and isochore grids to create a set of faulted structure grids.

IRIX version compatibility: 6.x

Focus

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Only Focus delivers 2-D and 3-D seismic processing, in interactive and production modes, on the workstation. Focus is built on the entire array of DISCO modules while complementing these applications with ray trace modeling, extensive analysis and QC capabilities, and optional interpretation packages. In addition, the Focus design delivers true interactive processing with comparison and overlay displays at every step. An OSF/Motif structure insures the standard look and feel required in today's systems, as well as the capability of running applications from multiple vendors as the interpretation systems provide for the easy transfer of data between the systems. All these components make Focus a dynamic tool for the exploration geologist or geophysicist.

IRIX version compatibility:

Geoscience

GEOSTAT

Stephen Bircher
General Manager
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Services (US), Inc.
3000 Willcrest Drive
Suite 105
Houston, TX 77042
USA
713-780-8334
713-780-8335 (fax)
frhanpson-russell@msu.
com

GEOSTAT is a geostatistical analysis progrman which analyzes relationships between geological geophysical parameters for improved mapping. Options include plotting, kriging, cokriging conditional simulation, etc.

IRIX version compatibility: 5.3, 6.1, 6.2

GLI3D

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com

GLI3D is an interactive program for picking and interpreting first break pick times from 2D/3D seismic data, deriving near surface geological models and calculating statistic corrections.

IRIX version compatibility: 5.3, 6.1, 6.2

GMAplus - Integrated Exploration System

Steve Bircher
Corporate Sales Manager
GMA International Ltd.
11757 Katy Freeway
Suite 800
Houston, TX 77079
USA
713-589-6898
713-589-0617 (fax)

GMA is a proven leader in the development of geological and geophysical software for a global exploration market. The GMAplus - Integrated Exploration workstation is comprised of: synthetic generation, log editing, log modeling, X-section generation, 2-D and 3-D seismic interpretation, structural modelling, wavelet extraction and AVO analysis.

Upon request, interested parties can be converted to this platform at any time.

IRIX version compatibility:

GOCAD™

Pierre Jacquemin
Research Scientist
A.S.G.A.
Rue du Doyen Marcel
Roubault
BP40
Vandoeuvre, 54500
France
011-33-83-50-30-15
011-33-83-51-23-12 (fax)
jakmin@ensg.u-nancy.fr

GOCAD™ software is a powerful tool designated to interactively build a 3-D model of subsurfaces. It is based on a new interpolation method (discrete smooth interpolation) specially adapted to the easy modeling of complex 3-D geological surfaces (reverse faults, salt domes, lenses, etc.). This method is numerically very efficient, can handle control points and geological constraints such as 3-D throw vectors, slopes, etc., and can take into account precise and imprecise data. In addition, GOCAD offers one complementary tool for seismic applications and reservoir engineering.

IRIX version compatibility: 5.x, 6.2 Certified, 6.3 Certified

Geoscience

GTM™

Tim White
Product Development
Landmark Graphics
Corporation
220 Foremost Drive
Austin, TX 78745-7324
USA
512-292-2200
512-292-2220 (fax)
twhite@lgc.com
http://www.lgc.com/
Product/StrataModel/
StrataModel.html

GTM™ (Geocellular Template Modeling) is a companion module to SGM that allows the incorporation of geologic interpretation into the modeling process. GTM enables the geoscientist's understanding of the reservoir to influence the interpolation of modeled data in SGM. GTM provides interactive 3-D visualization, manipulation, and animation of surfaces and modeled data.

IRIX version compatibility:

GX II™

Ray Dillahunty
Marketing Manager
GX Technology Corporation
5847 San Felipe
Suite 3500
Houston, TX 77057
USA
713-789-7250
713-789-7201 (fax)

GX II™ is a workstation-based, 2-D modeling system for model building, editing, visualization, and retracing. GX II retracing includes both forward (seismic simulation) and inverse (time-to-depth) methods. GX II features an elegant, general purpose, geologic model-builder that can be used in conjunction with a suite of geoscience applications. Interpretation, verification, seismic survey design, interpretation training, and research and development studies are some of the many applications of the new GX II package.

IRIX version compatibility:

GemCad™

Herve Oheix
Geophysicist
PETROSYSTEMS
1 Rue Leon Migaux
Massy, 91307
France
33-1-64-47-3549
33-1-64-47-3906 (fax)

GemCad™: A 3D gravity and magnetic modeling tool.

IRIX version compatibility:

GeoDepth®

Peter N. O'Connor
President
Paradigm Geophysical
Corporation
16945 Northchase Drive
Suite 1400
Houston, TX 77060
USA
713-876-3473
713-876-1359 (fax)
peter@geodepth.com

Paradigm Geophysical developers of the GeoDepth® Earth Model Building and Depth Imaging software, have taken full advantage of the SGI R8000 chip on the Power Challenge. Paradigm offers geoscientists the capabilities to perform 2-D pre-stack depth migration, 3-D post stack depth migration, and very soon, target oriented 3-D pre stack depth migration. Depth migrations can now be performed on cost-effective and powerful SGI Challenge systems and Indigo2 workstations. GeoDepth is chosen by 11 of the top 12 oil companies as the depth imaging application with the broadest offering of tools for developing accurate velocity depth models - the key to successful depth migration! GeoDepth takes full advantge of SGI's GL for 3-D volume rendering and is available on IRIX 6.

IRIX version compatibility: 6.x

Geoscience

GeoDepth® 2D/3D Velocity Estimation & Depth Imaging

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713-876-1359 (fax)
peter@geodepth.com

GeoDepth® 2D/3D Earth Model Building and Depth Imaging software allows 2D pre-stack depth migration. 3D post-stack depth migration and target oriented 3D pre-stack depth migration. Depth migration applications, previously requiring supercomputers, are performed on cost-effective and powerful SGI Challenge systems and Indigo 2 workstations. Chosen by 12 of the top 13 large independent oil companies as the application for developing accurate velocity depth models. GeoDepth includes

- Coherency Inversion, creates velocity-depth models;
- Target-oriented Kirchoff migration to 3D depth migrate a few key lines;
- Global Tomography automates the velocity/depth model building process.
- Complex Model Building builds and edits multi-2 valued structures.

IRIX version compatibility: 6.x

GeoLog6

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Technology
MINCOM, Inc.
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carcher@minpet.com

GeoLog6 is a multiwell, multizone, multiuser geological database application for processing downhole data regardless of its sample increment or vertical reference. It operates in a variety of modes: single well interactive, multiwell interactive, and multiwell batch. Data elements include wireline logs, formation tops, producing intervals, paleontology, lithology, gas curves, seismic traces, dipmeter data, DST results, engineering data, mud log data, core data descriptions, sidewall core data, production logs, and MWD data. Data can be imported from LIS, LAS, BIT, User ASCII flat files. Graphical data edit facilities include depth matching, core corelation, merging/splicing, reversing, and baseline shifting. A user-programmable environment is supplied that is compatible with graphical elements such as contractor charts, polygons from x-plots, curves, regression macros, qualifications, quantifications, and character presentation graphics. Plotter drivers include CGM and PostScript. GeoLog6 is modular in design, fully X-Motif compliant, object oriented, and written in ANSI Standard C.

IRIX version compatibility: 6.x

GeoScribe II™

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USA
303-444-6925
303-444-8632 (fax)
shannon@gmg.com
http://www.rmi.net.gmg

With easy to use 2-D and 3-D geometry entry, quality control, and a spreadsheet technique, oil explorationists, geophysicists, and geologists use GeoScribe II™ v1.1 for entering and monitoring 2-D and 3-D seismic acquistion information. It is designed for speed, accuracy and the ease of use.

Platforms: PC, SUN, Solborne, RS/6000

Interfaces: PROMAX, Insight, GeoVecteur, Disco, Vantage, SPS, I/O

IRIX version compatibility:

Geoscience

GeoSec

Robert Ratliff
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CogniSeis Development,
Inc.
2401 Portsmouth
Houston, TX 77098
USA
800-888-3273
713-960-3968 (fax)
webmaster@cogniseis.com
http://www.cogniseis.com

GeoSec is a fast and powerful 2D geological restoration, balancing and fault prediction system designed for hydrocarbon and mining exploration/production geoogists and geophysicists. GeoSec integrates a wide variety of data constraints with stuctural restoration and forward modeling to confirm and validate seismic, well, and/or field based geologic interpretations. GoeSec provides independent, scientifically sound interpretations that not only reveal correct solutions but also help eliminate physically impossible answers. Although functionally sophisticated, GeoSec is designed for use by non-structural geologists and geophysicists as well as structural experts.

IRIX version compatibility:

GeoSec 2D

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http://www.cogniseis.com

GeoSec 2D is an interactive system for the construction, restoration, and balancing (validation) of geologic cross sections. GeoSec 2D integrates a wide variety of data constaints with tools for depth conversion, fault prediction, analytical fault/fold/sedimentation forward modeling, and interactive restoration with decompaction and isostatic adjustment. These constuction techniques are applicable to contractional, extentional, strike-slip, and salt deformation regions, and include vertical/oblique slip, flexural slip, slip line, and length/area conserving kinematic models. Although functionally sophisticated, GeoSec 2D is designed for use by non-structural geologists, geophysicists, and mining/reservoir engineers, as well as structural experts.

IRIX version compatibility:

GeoTracker 3.0

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The Square
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UK
011-44-134-282-5543
011-44-134-282-5591 (fax)
100042,2435@compuserve
.com

GeoTracker 3.0 is the Open Systems 3-D Visualization system of choice for the petroleum exploration and production sectors, for investigating amplitude, impedance, AVO, velocity or any other data described by a point-sampled 3-D grid. Using transparency, GeoTracker 3.0 gives insight into 3-D structural and stratigraphic relationships, and speeds interpretation with greater confidence. GeoTracker 3.0 provides a continuous navigation display; amplitude anomolies, flat spots and channels are all easily seen and extracted; horizons can be generated, imported and exported;volume packet statistics and maps can be exported. Faults and wells can be inserted into the 3-D cube.

GeoTracker 3.0 is GeoShare compatible.

Fairfield Imaging is Landmark Open Works developer.

Pre-requisites: IRIX 4.0.5F+.

IRIX version compatibility: Pre 5.x

Geoscience

Geodes

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Geodes produces 3-D structural models from geological dip data allowing the structures to be analyzed, displayed, and modeled with ease. Using SCAT, and other modern structural techniques, Geodes converts dip data into geologic cross-sections and structure-contour maps. Geodes allows the interpreter to quickly identify and handle domain boundaries. Although Geodes implements advanced structural techniques, users need not be specialists in structural geology.

IRIX version compatibility:

HERESIM 3D

Jean Marc Chautru
Product Manager
Institut Francais du Petrole
232 av Napoleon Bonaparte
Rueil Malmaison, 92502
France
011-33-1-47-08-82-32
011-33-1-47-08-41-85 (fax)

Conventional estimation of reservoir properties tends to produce an over-simplified model of the heterogeneous reservoir. HERESIM 3D offer tools for determining complexity from outcrop or developed field analogues, and from sequence stratigraphic interpretation of facies ordering. HERESIM 3D powerful geostatistical simulation techniques can then introduce real-world complexity providing improved numeral modelling of field performance.

HERESIM 3D is a product of the French Institute of Petroleum (IFP) and the Paris School of Mines. It is marketed by Beicip-Franlab.

IRIX version compatibility:

HRPT Module

Leslie Davis
Director of Marketing
Satellite Mapping and Resources Technoloiges, Inc
1725 Signal Point Road
Charleston, SC 29412
USA
803-795-5621
803-795-5793 (fax)
ldavis@smartstation.com
http://www.smartstation. com

HRPT Module: The HRPT Module operates within the ERDAS Imagine environment for processing and interpreting HRPT data, including processing of AVHRR, TOVS, DCS and SeaWiFS data. The ERDAS Imagine environment offers the most powerful suite of image processing and Geographic Information System tools available for use with satellite data. Powerful import and export functions let you use data from a variety of sources, in addition to those supplied via a SMART Station. The HRPT Module calibrates and formats raw and level 1B data, and generates standard data products or products using your own algorithms. Our proprietary recitfication technique supports more than 20 map projections, and provides 1 km accuracy across the entire AVHRR scan line. Future upgrades will include support for the SPOT Vegetation Sensor, the Ocean Color and Temperature Scanner (OCTS) onboard the ADEOS satellite and the Modular Optoelectronic Scanner (MOS) onboard the IRS-P3 satellite.

IRIX version compatibility:

Geoscience

IESX™ - Integrated 2D/3D/4D Multisurvey Interpretation

Sales Department
GeoQuest Systems, Inc.
5599 San Felipe
Suite 1700
Houston, TX 77056-2722
USA
713-513-2000
713-513-2050 (fax)

The IESX™ product line introduces new tools for multiple-survey seismic visualization and interpretation. This revolutionary advance in interactive E&P interpretation software allows the geoscientist to quickly and easily combine multiple 2-D and 3-D surveys and well data into a single project, increasing interpretation accuracy and providing greater confidence in the resulting drilling recommendations. DataManager™, Seis2DV™ and Seis3DV™ comprise the backbone of the IESX product line, providing data management, data loading and advanced seismic interpretation features. Applications are tightly linked via intertask communications (ITC) and share a common database to create a dynamically active interpretation process. IESX will achieve full POSC compliance as it is integrated into the GeoFrame Reservoir Characterization system.

IRIX version compatibility:

INTEGRA - Geophysical 3-D Modeling Package

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http://www.wai.com/

INTEGRA is a suite of modules for forward and inverse modeling of three dimensional complex geological structures from seismic data. The INTEGRA modules are:

- GEOBLD-MDLSRF: an interactive geological model builder
- RAY3D™: 3-D seismic ray tracing for simulating reflection and refraction seismic, well-to-well tomography and Vertical Seismic Profiling.
- GEOMAP/FLEXIN: Automatic mesh generator
- GeoFLEX: Finite element elastic wave equation solver
- TIME-TO-DEPTH: Map migration of stacked travel time data
- FULINV: Nonlinear travel time inversion of picked, pre-stack travel time data.

Languages: FORTRAN 77, C, X-11 graphics. UI: Sun OPENLOOK.

Available early 1995.

IRIX version compatibility:

IRAP Reservoir Modeling System

Reidar Bratvold
President
Smedvig Technologies a.s.
Karenslyst Alle 9-11, P.O.
Box 16
Skoyen
Oslo, N-0212
Norway
47-22-54-78-00
47-22-54-78-22 (fax)
info@smedtech.com
http://www.smedtech.com

The IRAP Reservoir Modeling System (RMS) is an integrated system for 3-D modeling and 3-D visualization of reservoirs. The geological modeling process can now be carried out within one system, from modeling large scale heterogeneities caused by faulting to small scale variation at pore scale. Both deterministic and stochastic modeling techniques are available.

This integration of methods enables the project team to apply stochastic modeling methods during the appraisal stage and then gradually increase the deterministic content of the reservoir description as the field is developed. The main elements of the system are modeling of: faults, facies types, petrophysical properties, up-scaling and interactive design of optimal well plans and volume calculations. IRAP RMS offers simultaneous 3-D visualization of seismic data, reservoir attributes, surface grids, flow simulation grids and well data.

IRIX version compatibility: 5.3, 6.2

Geoscience

IREX™

Thomas Lasseter
President
Tech Logic, Inc.
15325 189th Avenue NE
Woodinville, WA 98072
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206-483-3875
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tom@techlogic.wa.com

IREX™ offers unique 3-D visualization tools enabling rapid interpretation of geophysics, petrophysics, geology and reservoir engineering data for construction and editing of realistic reservoir models. IREX™ provides a single model which can be edited in either time or depth using 3-D and well windows.

Seismic data, seismic pick files, maps, well deviation surveys and well data can be loaded and displayed. Three dimensional solid models are interactively constructed. Properties are interpolated over each of the geological units using several methods.

The models can be used for volumetrics calculations or reservoir simulation. Simulation results can be displayed on the geological model.

IRIX version compatibility:

ISATIS 2.2

Jean-Louis Gelot
President
GEOMATH, Inc.
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Houston, TX 77079
USA
713-293-8550
713-293-8294 (fax)
JLouis@geomath-us.com

ISATIS is a multipurpose geostatistical toolbox developed by the Centre of Geostatistics, Fontainbleau, France. ISATIS is used in Petroleum for Reservoir Modeling; in Mining for Orebody Modeling; and in Environment for Risk Mapping. ISATIS offers the most advanced geostatistical functions in kriging, simulation, and image processing. It also includes a very user-friendly data exploratory module. ISATIS combines the best in geostatistics with a user-friendly environment at an affordable cost.

IRIX version compatibility: 5.3, 6.0, 6.1, 6.2

IntelliMap™

Shannon Moore
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Geophysics, Inc.
1800 38th Street
Suite 100
Boulder, CO 80301
USA
303-444-6925
303-444-8632 (fax)
shannon@gmg.com
http://www.rmi.net.gmg

Oil explorations, geophysicists, and geologists use this product; it is especially poular in the petroleum industry. IntelliMap™ v1.1 cuts costs related to acquiring and analyzing data it is a map building and analyzing tool.

Requirements: MS-DOS 3.2 or higher, Microsoft Windows 3.0 or higher, color monitor, mouse, 4 MB memory or greater, 1.22 or 1.44 MB floppy drive. For the SUN: Motif Window Manager 1.1, OpenWindows 2.0 or more, SUNOS 4.1x, tape drive.

Runs on SUN, PC, Solborne, RS/6000.

IRIX version compatibility:

Geoscience

IntelliTrack™

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USA
303-444-6925
303-444-8632 (fax)
shannon@gmg.com
http://www.rmi.net.gmg

IntelliTrack™ combines Geophysical Information Software and Geographical Positioning Software for plotting or "tracking" positions on a geo-referenced image. It is a scouting and mapping tool used by geologist and geophysists in the oil exploration industry as well as a tool for recording acurate raw field data.

Version 1.0

Runs in PC, SUN, Solburne, DECstation, and RS/6000

IRIX version compatibility:

Interactive Radar Information System

Richard Passarelli
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Sigmet, Inc.
2 Park Drive, Unit 1
Westford, MA 01886-3528
USA
508-692-9234
508-692-9575 (fax)
support@sigmet.com
http://www.sigmet.com

The Interactive Radar Information System provides all the features required for operational network and research weather radar applications including: data acquisition from SIGMET's RVP6 Doppler signal processor; radar control and BITE monitoring; comprehensive nowcasting and forecasting image products; automatic alert for severe storm and flood potential; and automatic storm tracking. In addition, utilities for radar test, alignment and calibration are included.

IRIX version compatibility:

LYNX™ Geoscience Modeling System

Garth D. Kirkham
Vice President, Sales &
Marketing
Lynx Geosystems, Inc.
400-322 Water Street
Vancouver, BC V6B 1B6
Canada
604-682-5484
604-669-3659 (fax)
mkt@lynxgeo.com
http://www.lynxgeo.com/

The LYNX™ Geoscience Modeling System has been developed for generic application across the geosciences, including contaminated site characterization and remediation, mineral resources evaluation and planning, waste storage site characterization, hydrogeological studies and geotechnical investigation design. LYNX is available on UNIX workstations from Hewlett-Packard, Silicon Graphics and IBM and Sun Microsystems.

LYNX incorporates data structures which provide for a wide range of geoscience information sources. The core technology is a 3-D vector-based volume modeling approach to interpretation and representation of geological structure and stratigraphy. This is integrated with a 3-D raster-based grid modeling approach to prediction of variables such as contamination, mineral grades and geomechanical properties.

IRIX version compatibility: pre-5.x, 5.x, 6.x

Geoscience

MAPPER

Tracy Thorleifson
VP, Engineering
Eagle Information
Mapping, Inc.
6565 West Loop South
Suite 500
Bellaire, TX 77401-3504
USA
713-662-9165
713-662-9180 (fax)

A product of Eagle Information Mapping, Inc., GISEP MAPPER software is designed to meet the petroleum industry's demanding requirements for cartographic qulaity mapping. Built around ESRI's ARC/INFO Geoegraphic Information System (GIS) tool kit software, MAPPER provides a range of features not found in any other available mapping product.

Ease of Use: In MAPPER, the user manipulates a document familiar to any geoscience professional - a map. The MAPPER graphical user interface is designed to provide a similar look and feel to ArcView 2, ESRI's premier desktop mapping product. MAPPER facilitates easy access to the functions commonly used by casual users, allowing novices to quickly and easily produce quality maps. Expert users still have full access to all the underlying power of ARC/INFO.

IRIX version compatibility:

MEDSYSTEM®

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602-795-3891
602-325-2568 (fax)
sfa@taz.mintec.com
http://www.mintec.com

MEDSYSTEM® is a comprehensive group of programs applicable to all phases of mine evaluation from exploration drilling analysis to feasibility studies. MEDSYSTEM® has been under continuous development and application for over 20 years and is used by mines worldwide. Includes geostatistics, pit design algorithms including Lerchs-Grossmann and a long range scheduling program. Ore control and Survey modules are also included in one complete software package.

IRIX version compatibility: 5.3, 6.2

MESA™

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303-444-8632 (fax)
shannon@gmg.com
http://www.rmi.net.gmg

MESA™ v2.0 stands for Model-Evaluate-Shoot-Analyze, an advanced 3D survey design and quality control application, used extensivley in oil exploration. With Windows and Motif interfaces, it runs on IBM compatible PC, SUN/Sparc, and IBM RS/6000.

Offers add on modules: MESA TIFF, MESA Geologic Modeling, MESA Noise Modeling, MESA Marine and MESA Processing. Developed in conjunction with Seismic Image Software, Ltd.

IRIX version compatibility:

MINEX

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Senior Geoligist
ECS International Pty. Ltd.
P.O. Box 160
Bowral, NSW, 2576
Australia
048-61-2122
048-61-2902 (fax)
pjh@ecsaus.02.au

MINEX-ECSI's open-cut and underground mine planning system is the most comprehensive product available for:

- resource evaluation
- pit optimization
- mine design
- long-term mine planning
- equipment simulation
- short-term scheduling
- surveying
- day-to-day pit operations

Geoscience

IRIX version compatibility: 5.3, 6.2, 6.x

MINEX™

Jon Barber
Manager, Mining Systems
Engineering Computer
Services P/L
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MINEX™ is a comprehensive interactive software system for the evaluation of coal deposits and the planning and scheduling of open cut and underground mining operations.

IRIX version compatibility:

MINEX™-3D

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Engineering Computer
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61-4-861-3902 (fax)
jon@ecsaus.02.au

MINEX™-3D is a comprehensive interactive software system for the evaluation of mineral deposits and the planning and scheduling of open cut and underground mining operations.

IRIX version compatibility:

MINEX™-UG

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Exploration Computer
Services, Inc.
165 South Union Blvd.
Suite 410
Lakewood, CO 80228-1803
USA
303-988-1183
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ecsmgr@minex.com

MINEX™ Software Systems allow you to model any type of deposit and design and schedule a mine, regardless of orientation or complexity. Use MINEX or MINEX-UG for modeling and designing surface or underground stratified deposits like coal, trona, bauxite, diatomite, or beach sands. Use MINEX 3-D for surface or underground complex deposits such as those found in most precious metals or base metals operations. MINEX, MINEX-UG, and MINEX-3D allow you to take any prospect from the exploration stage through final mine design and scheduling, including equipment simulation for draglines, trucks and shovels.

IRIX version compatibility:

Geoscience

MORE® Reservoir Simulation Software Family

Sue Trippet
Director of Marketing
Reservoir Simulation
Research Corporation
2538 East 21st Street
Tulsa, OK 74114-1700
USA
918-742-4330
918-742-5710 (fax)
5146459@mcimail.com

MORE® (Modular Oil Reservoir Evaluation) is a software family of the following reservoir simulation tools: MORE®-EOS™ (Equation of State), MORE®-BLACK OIL™, MORE®-POST PROCESSOR, MORE®-GRAPHICS, and MORE®-PVTx™. MORE®-BLACK OIL™ and MORE®-EOS™ easily and efficiently solve reservoir problems including dry gas, gas/oil, hydrocarbon/water, 3-phase black oil, and fully compositional problems. MORE® is typically five to ten times faster than other simulators. MORE's efficiency is supported by a complete set of features such as well management, flexible initialization, fluid recycle, regions, flexible grids based on finite element discretization technology, and pre and post processing.

IRIX version compatibility:

MicroCosmaE Software

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Van Martin Systems, Inc.
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Rockville, MD 20847
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301-770-6555 (fax)
vmsi@erols.com

MicroCosmaE is a precision orbit and geodetic parameter determination software system for use on computer workstations. MicroCosmaE may be used to accurately compute receiver coordinates and GPS and LEO orbits. Each copy of MicroCosmaE ships with a complete set of documentaion. Physical models used include: Earth gravitational harmonics, third body gravitation, polar motion and Earth rotation, drag and solar radiation pressure, GPS y-bias, tectonic plate motion, solid and ocean tides, precession and nutation, ocean loading, troposheric refraction, biases, ambiguities, gravitational path bending and clock variations. Measurements modeled include: GPS carrier phase and pseudorange (plus single, double and triple differences), lasers, radars, altimeters, TDRSS, Dopplers, right ascension & declination, angles, direction cosines and spacecraft ephemeris. MicroCosmaE includes service after the sale. We are responsive to customer needs and offer annual upgrade maintenace to keep customers up-to-date with the latest product innovations.

IRIX version compatibility: IRIX 5.3, 6.2

MineScape

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MineScape is a modular product set providing technical data management for mining operations. It provides server-based, "real-world coordinate" spatial data management via a 3D CAD "window." It also provides a suite of discipline-specific modules including geological database, deposit modeling, mine design, dragline modeling, drill and blast, surveying, and mine scheduling. Totally soft interfaces combined with powerful base functionality means that MineScape can be tailored to any operation. MineScape was designed for workstation networks as a multiuser, cooperative processing system.

IRIX version compatibility:

Geoscience

MineSight™

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http://www.mintec.com

MineSight™, the newest addition to the MEDSYSTEM® package, is a powerful 3-D graphics viewer and planning tool. Available on several UNIX platforms as well as PCs.

IRIX version compatibility: 5.3, 6.2

ModelVision

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ModelVision is an interactive, 3-D gravity and magnetic field modeling program for the mineral and oil exploration industries. It is a powerful tool for producing geologic models that satisfy known geology, well, seismic and observed magnetic and gravity field data. Observed data can be imported in a wide range of formats and is compatible with the image processing package, ER Mapper. Innovative data compression techniques are employed to provide fast model response computation. A range of standard 3-D body types is provided as well as true 3-D bounded surface bodies enabling accurate modeling of ore bodies or sedimentary basins. After creating and graphically editing models, their responses can be calculated immediately, allowing rapid convergence on an acceptable geological model. Highlights include: Linked map, section and perspective views of data and models, import line, grid, image, well log and cartographic data, comprehensive multi-channel graphics, convolution and FFT filtering.

An additional module called AutoMag, is designed to automatically compute magnetic source solutions for depth-to-basement analysis. This option con greatly improve the speed of interpretation for line-based magnetic geophysical data.

IRIX version compatibility: 5.x

Moderate Spectral Atmospheric Radiance and Transmittance (MOSART)

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MOSART is a code for predicting the radiative environment (UV, visible, IR, mm-wave) globally. The atmosphere characterization uses a combination of model atmospheres, user input, and global climatology data bases. The terrain characterization uses two 10-minute resolution data bases to obtain altitude and ecosystem type. Radiative transfer is performed at 1 cm(-1) (or greater) spectral resolution. The current version number is 1.40, and is written in ANSI X3.9-1978 FORTRAN for portability.

IRIX version compatibility:

Geoscience

MultiMin

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MultiMin is a Probabilistic analysis tool for statistically determining Mineral and Fluids characteristics from petrophysical data, including, Logs, Core data, XRD/ID and Petrography. MultiMin produces depth plots and listings of quantitative lithology by mineral volume, and porosity with its contained fluids. Depending on the data available, many different minerals and fluids may be chosen from a menu of over thirty options. The components for a detailed permeability analysis are calculated. MultiMin user-detailed mathematical modeling and optimizing techniques are presented to the user in a simple to learn menu system. Extensive defaults parameters are supplied to the user for input. Output from the program includes comprehensive diagnostics which provide the user information on the model as run. Reconstructed inputs provide the user a quality measurement on a curve by curve basis. MultiMin is completely integrated with Geolog and shares directly all the data stored in the Geolog database.

IRIX version compatibility:

NAVTRAK

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NAVTRAK is an interactive graphical mapping and geologic modeling system, well suited to mine exploration, mine design, and day-to-day mine management. Both stratigraphic deposits (such as coal) and complex ore bodies are handled with equal ease. NAVTRAK places particular emphasis on a user's interpretation, and allows for full interaction during all steps of the mine development process. All geographical interaciton is in 3-D, with real-time sectioning, rotations, and walking.

IRIX version compatibility:

NCAR Graphics

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The NCAR Graphics System was originally developed by the National Center for Atmospheric Research. It consists of a suite of utility and applications subroutines that produce graphical output in the form of a metacode instruction file. Metacode translators are provided to display the output on a variety of output devices. All of this software is designed to produce output to a device-independent output file. Metacode translators are included to output these files to a large variety of graphical devices.

IRIX version compatibility:

Geoscience

NIMBUS©

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http://www.sima.sintef.no/
visual/nimbus.html

NIMBUS© is an integrated graphics presentation system for broadcasted weather forecasting. NIMBUS utilizes output data from forecasting models running on supercomputers to animate the weather prognosis for the days to come, visualized as "satellite imagery from the future." NIMBUS also displays traditional satellite and radar imagery. NIMBUS integrates a complete broadcasting production environment. This includes provisions for infrared or radio remote control, auto-scripter, sequence transitions and automated pre-recorded weather forecasts with graphics and audio. NIMBUS runs on any true-color IRIS workstation. Explore the NIMBUS Web Home page http://www.sima.sintef.no/visual/nimbus.html for more information.

IRIX version compatibility:

Neuralog Digitizing System for Logs© NDS/Log

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http://www.neuralog.com

Well log data has never been so easy to obtain. The Neuralog Digitizing System for Logs© (NDS/Log) is an on-screen, automated, raster to vector conversion system designed specifically for use with paper well logs - even faded, damaged, or extra long logs. Archive both your images and your log vectors eliminate the table top digitaizers. Scanning is done with the economical FaxScan scanning system; or high-speed scanners are available for production-oriented users. Automatic tracing of curves is provided through neural algorithms. Paper wrap or stretch is accounted for by the calibration grid. NDS/Log is not only easy to use, but is the fastest, most accurate solution available for capturing Well Log data.

IRIX version compatibility: 5.2, 5.3

Nucleus

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Nucleus is an advanced seismic analysis package for planning and analyzing seismic acquisition parameters. Functionality includes Marine Source Modeling, 1D Full Reflectivity, 2D Ray Tracing and Full Elastic and 3D Ray Tracing seismic modeiling. Marine Survey Planning, Noise Analysis, Wavelet Analysis and Seismic Data Processing.

IRIX version compatibility:

Geoscience

OILGEN

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edu**

OILGEN is a 2-D finite element and tracking code that can be used to simulate deep groundwater flow, heat transport, and oil migration in geologic basins. The package comes with a menu-driven preprocessor for building the input data file for the numerical processor, which can simulate either steady-strata or transcient flow fields. A menu-driven, graphical postprocessor is included for visual display of the simulation results. The same code package can be used to simulate contamtruant migration in porous media and groundwater aquifers.

IRIX version compatibility:

OILGEN-3D

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OILGEN-3D is a 3-D finite element code that can be used to simulate coupled groundwater flow and heat transport in sedimentary basins. The package comes with a menu-driven preprocessor for building the input data file, and produces output files formatted for Wave-Fronts Data Visualizer™ software.

IRIX version compatibility:

OILVISION

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com**

OILVISION is a 3-D mapping and modeling GIS tailored for the oil and gas industry that can be readily configured to meet customer-specific requirements. OILVISION's unique features include seismic data captured by digitizing or imported from other systems, mis-tie analysis with user-controlled graphical 3-D editing and adjustment, velocity models and depth conversions, structure models with non-vertical faults, high-quality drafting of geologic contours, geological database of downhole reservoir characteristics, full display and manipulation of surfaces for intersections and volumes, fast 2-D and 3-D triangulation, comprehensive gridding and contouring, and optional 3-D block and sub-block models. OILVISION gives users the power to combine geological and interpretive skills with high-performance, interactive 3-D modeling and GIS.

IRIX version compatibility:

Geoscience

Omega® Seismic Processing System

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An initial requirement for the Omega® Seismic Processing system was to provide complete 2-D and 3-D functionality with both interactive and batch processing capabilities. For large 3-D surveys, the results of the interactive testing are efficiently utilized to process data in the batch mode. Industry-leading tools for interactive velocity processing (IVP™) and interactive geometry processing (IGP™) reduce turn-around time for 2-D and 3-D projects. 2-D and 3-D pre-stack and post-stack depth migration routines are optionally licensable. To complete the requirements for the production 3-D processing, Omega system provides complete data and job management tools which free users from time-consuming, non-productive tasks.

IRIX version compatibility: 6.2

PAL (Poststack Attribute Library)

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PAL is a new interactive application used for the calculation of post stack seismic attributes. PAL computes complex and statistical attributes which allow seismic interpreters and engineers to extract more geologic information from their seismic data. Used in conjunction with Advance Geophysical's RAVE/DV software, subtle relationships between attributes and data can be identified and used to provide a better understanding of a prospect or reservoir. Currently, PAL integrates with 2D &3D interpretation products available from Landmark Graphics Corporation.

IRIX version compatibility:

PDMS

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PDMS is a three-dimensional (3-D) design engineering system for the process plant, oil, gas, and power related industries. PDMS dramatically increases efficiency and reduces costs throughout the engineering life cycle, from design through to fabrication, operation and maintenance. PDMS does this by creating an accurate full color 3D computer engineering model which can be accessed by designers, engineers and project managers. Project deliverables, such as drawing and bills of materials, are then generated intelligently from the model, ensuring consistency of information across all design documents.

IRIX version compatibility:

Geoscience

PVSD©

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PVSD© is used by geologists, reservoir engineers and hydrodynamicists to interpret pressure flow regimes in the subsurface. The primary focus of the software would be for use in finding commercially viable oil and gas reservoirs.

An analyst supplies to PVSD a data set containing drill stem test data such as pressure, sub-surface depth, oil, gas, condensate, water and mud recoveries as well as contaminants. The analyst then interacts with a display of pressure versus subsea depth; interpreting pressure gradients of the various constituents and ultimately isolating pressure regimes. The flexibility of the user interaction, the types of displays and the different kinds of geological and reservoir data that can be assimilated are the main features of the software.

PVSD is marketed by the authors of the software. PVSD version 1.0 will run on Microsoft Windows and X-Windows/Motif environments. Platforms include PC, SGI and Sun.

Available September 1995

IRIX version compatibility:

PetroCaem™

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PetroCaem™ is more than a 3-D visualization tool. it is a complete 3-D earth modeling environment in which the user can input, view and edit data from a variety of sources. The user may then create and manipulate a 3-D earth model refining it as needed when new data becomes available. PetroCaem™ uses the GoCad libraries and 3-D object representation as the building blocks for the PetroCaem™ core.

The PetroCaem™ core has two fundamental parts:

* A structural modeling capability which allows the user to create surfaces from 3-D scattered points, well data, seismic data or cross-sections. The user can then modify and update the resulting surfaces, without the need to use external systems.

* A volumetric property modeling capability which allows the user to create gridded volumes bounded by the surfaces created during the structural modeling. Multiple properties can be associated with the volumes thus created.

IRIX version compatibility:

PostStack

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PostStack is a new, interpretive, post stack seismic processing system designed to give seismic interpreters more control over the data they are working on. The system features a powerful suite of post stack geophysical processing routines all of which can be executed directly from the user's interpretation system. This tight integration gives geoscientists the ability to improve the interpretability of the data. By integrating processing into the interpretation workflow, realtime processing decisions which impact the interpretation are achieved in a shorter amount of time. Currently, PostStack integrates with 2D & 3D interpretation products available from Landmark Graphics Corporation.

IRIX version compatibility:

Geoscience

ProMAX VSP Version 6.0

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ProMAX VSP is a complete seismic profile system designed for the processing of bore-hole date. Its design is to provide petroleum companies the ability to do further well research like "look aheads" and salt proximity surveys for better well site analysis. The system allows users the flexibility to process both surface and borehole date on the same workstation. Its capabilities include the ability to process zero offset, and reverse VSPs. In addition, cross-well functionality is included to handle well-to-well and surface-to-well tomography applications. Finally, a basic well-log package is included so synthetic seismograms may be created. ProMAX VSP is completely integrated into Advance's ProMAX 2D/3D software, allowing VSP results to be used in the processing of 2D/3D surface data.

IRIX version compatibility:

Q'Pit

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Q'Pit Inc.
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613-547-3034 (fax)

Mine planning software aimed at the mining engineer designing both large and small open pits. The software features high-end interactive graphics and a flexible user interface. Ultimate Pit shell generation, ramp design, long range sequencing, daily shovel placement, estimation of required truck hours, waste dump design and flexible reserve reporting from the key components of the system.

IRIX version compatibility:

RAVE/DV

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RAVE is a new data visualization tool used for petroleum reservoir characterization. It enables geoscientists and engineers to visualize relationships and explore correletions among various seismic and reservoir attributes. Completely integrated with the Landmark Graphics family of petroleum exploration and production software, RAVE features point and click access so that many types of information can be cross analyzed and mapped. Subtle changes across seismic and reservoir information can now be easily identified allowing for a higher degree of success in reservoir exploitation eforts. RAVE is the first product in a new series of reservoir characterization tools being developed by Advance Geophysical.

IRIX version compatibility:

RAY3D: 3D Geological Modeling and Seismic Ray Tracing

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RAY3D is a complete modeling and seismic ray tracing package for three-dimensional complex geology. It can simulate all of the standard acquisition geometries, including off-set, normal incidence sections, VSP and cross-well modalities. A distributed PVM version exists to take advantage of multiple processors in large scale production simulations. RAY 3D models are integrated with other Weidlinger Associates, Inc. products like GEOFLEX, a finite element elastic wave propagation code, and with a suite of nonlinear travel time inversion codes for determining geometry and material properties from seismic data.

IRIX version compatibility: 6.1

Geoscience

RECALL

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The many disciplines involved in the evaluation of oil field data have been continually plagued by problems of integration, communication, and consistency. RECALL successfully addresses these problems and provides a uniform platform for a variety of petrophysical, geophysical, and geological applications. The RECALL Multi-well Data Management System stores all types of wireline well data including zones and zonal parameters, open hole log data, core descriptions, dipmeter logs, borehole images, and scanned core photographs. The specialized applications available include dipmeter processing, borehole imaging, sonic wave form processing, and log analysis. RECALL integrates with relational databases and other software packages.

IRIX version compatibility: 5.2

ROADVISION

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ROADVISION is a full 3-D Road Design System providing a powerful set of tools for planning and designing urban and rural roads. The ease of use of the interactive 3-D graphics reduces the time taken in the design cycle, allowing the designer to experiment with a range of options and produce optimal designs in terms of cost, safety, and environmental considerations. ROADVISION features include input of survey data from field recorders or note form, road alignment to existing terrain, cross-sectional profile generation, fast triangulation providing powerful foundation for maintaining accurate digital terrain models, conventional drafting utilities, costing utilities, and visualization of final design.

IRIX version compatibility:

RaPID

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Marketing Assistant
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UK
0171-937-9251
0171-937-9638 (fax)

RaPID is a database driven application which creates and controls intelligent schematics including P+ID's and PFO's etc. It creates a complete database of your plant incorporating all the engineering information and design rules that apply to process and power facilities. The line list, equipment schedules and instrument lists are generated as reports off the database.

See SpEID & Engineer

IRIX version compatibility:

RealSeis

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RealSeis is a real-time 3-D Seismic Data Acquisition system. It is used for petroleum exploration either in land or marine seismic data acquisition. Operator interface can be high-end PC or workstation.

IRIX version compatibility:

Geoscience

ResGram

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ResGram is an interactive variogram calculation and modeling program. It provides user-friendly analysis tools for assesisng 3D spatial continuity of reservoir properties. Eight theoretical variogram functions are available with nested structure and hold effect modeling utilities. ResGram allows interactive analysis of h-scatterplots to fully understand the computation of variogram lag values. Data may be transformed to uniform, normal, and indicator (both cdf and pdf) spaces to develop the necessary variograms for the large suite of estimation/simulation algorithms in ResMod. In additon, modeling may be performed on continuous and categorical properties and may be performed on continuous properties with dependence on categorical classifications. Cross-variograms may be computed and modeled for categorical variables.

IRIX version compatibility:

ResMod

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ResMod/ResGram are a set of interactive graphics-based 2D/3D data and spatial correlation analysis tools for engineers and geologists in the oil & gas environmental fields. It features an extensive set of estimation and simulation alogorithms for both hard and soft data, including ordinary kriging, collocated cokriging, fractals, sequential gaussian, indicator, and simulated annealing. With ResGram the user models one or more equiprobably reservoir models as needed for simulation, uncertainty determination, and risk analysis.

IRIX version compatibility:

ResSeis

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ResSeis is an interactive graphics-based application designed to condition seismic information for direct integration with well data. This is accomplished through a set of tools for converting seismic traces to pseudo-logs constrained by the available well information. ResSeis relies heavily upon the geostatisical techniques in ResMod and ResGram to build 3D models for full wide-band 3D seismic inversion.

Features Include:

- Full 3D constrained seismic inversion
- Crosswell seismic inversion
- Waveform estimation and time-depth analysis
- Sparse-spike reflectivity estimation
- Vertical resolution sensitivity modeling
- Importing wavelets

IRIX version compatibility:

Geoscience

SACS™

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SACS™ is an integrated structured analysis software package used by the commercial industry worldwide. It is the most comprehensive design and analysis package offered to both offshore and general structure design industries. It is used worldwide and is available on PC's, UNIX workstations adn mainframes.

IRIX version compatibility:

SGM™

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Product Development
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http://www.lgc.com/
Product/StrataModel/
StrataModel.html

SGM™ (Strategic Geocellular Modeling) provides state-of-the-art technology for characterizing reservoir heterogeneities. The system uses stratigraphic patterns to generate a three-dimensional framework of cells within layers. These layers define stratigraphically equivalent well-data intervals and ensure geologically sound interpolations that are constrained by key reservoir features. SGM acts as a data repository for up to 100 reservoir attributes that are simultaneously available for modeling operations using complex equation parsing, conditional operations, and Boolean logic. The system enables geoscientists to calculate accurate volumetrics, perform permeability transforms, summarize net sand maps, and perform other necessary reservoir tasks. SGM's ability to quantify reservoir qualities makes it the perfect tool for generating data for fluid-flow simulation or for other field maintenance programs.

IRIX version compatibility:

SHAPES® Geometric Computing System

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SHAPES® is a revolutionary software tool that uniquely satisfies the geometry requirements of applications that span many industries. These include advanced CAD/CAM, Finite Element Analysis, mechanical design, geophysical analysis, animation, and medial imaging.

IRIX version compatibility: 5.3, 5.x, 6.x

Geoscience

SHAPES® Micro Topology

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The SHAPES® Micro Topology module facilitates modeling with composite surfaces. Each composite surfae is defined as a mesh of triangles or rectangles and can contain on the order of 100,000 elements. The micro-topology module is ideally suited for the following kinds of applications:

* Geo-Sciences: In this application area, the micro-topology module is used to represent geological models of earth structures for seismic and oil-exploration purposes.

* Medical Imaging: In medical imaging, layered data - such as that obtained from CAT scans - is processed to get a 3-dimensional meshed model of a human body.

* Animation: Animation applications are concerned with the creating of mesh models for graphics purposes. These meshes are used as a basis for geometric computations to perform intelligent animation.

* Advanced MCAD: In mechanical CAD, once a model is created, it is processed for deformations under stresses. Deformed models can be brought back into SHAPES using the micro-topology module even though the initial model consisted only of smooth parametrized surfaces.

IRIX version compatibility: 5.3, 5.x, 6.x

SMIGS®

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au

SMIGS® is a string-based, 3D, computer-aided design system for Civil works designers. Developed by the technical computing company, CEANET in Australia, SMIGS® has achieved wide acceptance in many markets and for many applications. Used for surveying, digital data capture, design, earthworks volumetrics and all phases through the complete project documentation, SMIGS® provides a complete solution for all civil works requirements. Applications include design of Airports, Railways, Urban and Rural Roads, Highways, Toll Motorways, Dams, Golfcourses, Site works and Landscape Architecture, quarrying, photogrammetry and mine volumetrics. SMIGS® key benefits are the speed of its Graphical User Interface, the power to handle models of unlimited size and complexity, and the ease with which new users can become fully productive.

IRIX version compatibility:

STA Tools

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STA Tools will allow the user to evaluate and share data and graphics between applications through use of geospatial modeling and geostatistics. The user will be able to do data validation or petroleum and environmental data. It will also provide data and graphics reformatting between existing vendor applications.

IRIX version compatibility: 5.x, 6.x

Geoscience

STRATA

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com

STRATA is a seismic inversion program offering constrained, stochastic, band limited and square spike inversion methods.

IRIX version compatibility: 5.3, 6.1, 6.2

SeisCad™

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PETROSYSTEMS
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SeisCad™ is a 3D structural modeling toolwhich provides the user a 3D view of different geophysical and geological data including seismic attributes, interpreted relectors, geological information, and well data.

IRIX version compatibility:

SeisCube

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Houston, TX 77084
USA
713-560-1000
713-560-1278 (fax)
swelch@lgc.com
http://www.lgc.com

SeisCube is a seismic data volume animation and interpretation application. Users can scan through the entire 3-D cube onscreen even before beginning to interpret, to get a feel for the geology quickly. Geoscientists can interpret faults and horizons directly on any surface of the cube, either manually or as input for autotracking, then peel away the overlaying data to view data attributes along the surface. Dynamic zoom allows the user to zero in on data for interpretation or to better understand stratigraphic features. Choose any available colorbar to better differentiate data attributes and display existing surfaces and wellbores to aid in the interpretation.

IRIX version compatibility:

SeisUP®

Jim Haig
VP, Sales
GeoCenter, Inc.
18121 Ammi Trail
Houston, TX 77060-1108
USA
713-443-8150
713-443-8010 (fax)

SeisUP® represents a step forward in standards compliant, workstation-based seismic technology by virtue of being specifically designed for 3-D parallel processing of both land and marine surveys.

IRIX version compatibility: 5.x6.x

Geoscience

SeisUP™

Jim Haig
VP, Sales
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USA
713-443-8150
713-443-8010 (fax)

SeisUP™ represents a step forward in standards compliant, workstation-based seismic technology by virtue of being specifically designed for 3-D parallel processing of both land and marine surveys.

IRIX version compatibility:

SeisX™

David A. Richards
Sales Mgr, Canadian Ops
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520 - 5th Avenue, SW
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Calgary, AB T2P 3R7
Canada
403-750-3548
403-750-3536 (fax)
david@photon.com

SeisX is a comprehensive seismic interpretation product that allows the geoscientist to comprehend 2D, 3D, multiple 3D and wells all within the same project. It is a powerful mapping and display tool with a complete set of horizon and fault interpretation utilities. SeisX's modules include: Easy data management, interactive mistie analysis, automatic grid balacing, well and synthetic functionality, 3D autopicking, hard copy tools and robust gridding and contouring.

IRIX version compatibility:

SpEID

Lara Leventhal
Marketing Assistant
Intelligent Computer
Solutions Ltd.
7 Holland Street
Kensington, London, W8
4NA
UK
0171-937-9251
0171-937-9638 (fax)

SpEID is an object oriented database driven application for the production of electrical and instrumentation deliverables. SpEID combines graphics with data management capabilities bringing together all E & I related information, into one integrated database of your plant. Deliverables include automatic generation of loops, cable block diagrams, hookups, instrument and cable schedules and mTO's.

See RaPID & Engineer

IRIX version compatibility:

StrataMap™

Tim White
Product Development
Landmark Graphics
Corporation
220 Foremost Drive
Austin, TX 78745-7324
USA
512-292-2200
512-292-2220 (fax)
twhite@lgc.com
http://www.lgc.com/
Product/StrataModel/
StrataModel.html

StrataMap™ incorporates gridding, contouring, and interactive grid editing into the Stratamodel product line. StrataMap enables geoscientists to generate surfaces using scattered data tops, contoured points, or interpreted 2-D/3-D seismic picks. The StrataMap module yields fast solutions of faulted and unfaulted data, handles random or clustered data points, and provides an intuitive, easy-to-use grid editor. StrataMap's unique grid editor and fast gridding algorithms combine to allow the geoscientist to incorporate stratigraphic interpretation and structural definition into SGM reservoir models.

IRIX version compatibility:

Geoscience

SurfCube™

Susan Welch
Product Marketing Mgr
Landmark Graphics
Corporation
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USA
713-560-1000
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SurfCube™ is a 3-D surface visualization application. It allows the interpreter to vary surface features like precision, mesh displays, and lighting angles to get the best understanding of subtle features. In addition, the user can better understand the geometric relationships among interpreted surfaces. SurfCube also supports attribute overlays so you can see the combined picture of data attributes over structure.

Even experienced interpreters, who are highly skilled at seeing three dimensional images in their minds, find that SurfCube increases their confidence in their interpretations. SurfCube allows the user to effectively communicate several months of seismic interpretation to co-workers, managers or investors in minutes.

IRIX version compatibility:

Synthetic Scene Generation Model (SSGM)™

William Cornette
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The Synthetic Scene Generation Model (SSGM)™ Release 6.0 provides the capability to generate two-dimensional, time-sequenced images and data to support the design and development of remote sensing systems. Output spans the visible through infrared portion of the spectrum. Output images consist of natural (e.g. terrain, cloud) backgrounds with embedded foreground elements (e.g. missiles).

An easy-to-use Graphical User Interface creates scene-sequence scenario input. Based on the scenario, the SSGM™ generates required databases and renders the output. Additional tools are provided to display and analyze output images.

SSGM™ requires an SGI with at least 2GB of disk space.

IRIX version compatibility:

TAP-Graph

Marilyn Airey
Customer Support Manager
MINEsoft Ltd.
165 S. Union Boulevard
Suite 510
Lakewood, CO 80228
USA
303-980-5300
303-969-0022 (fax)

TAP-Graph is a menu-driven integrated graphing and mapping program that is designed to graphically display any of the values stored in a TECHBASE database as well as external data. Written to international GKS standards, output is device-independent. TAP-Graph includes random contouring, gridded contouring, cross-section generation, bench plan plotting, location posting, and proportional symbol plotting. Output drivers are included for common graphics screens, plotters, and graphics printers (dot matrix and laser).

IRIX version compatibility:

TAP-Graph II

Marilyn Airey
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TAP-Graph II provides additional power and flexibility to the original TAP-Graph. This package, designed to be purchased in conjunction with TAP-Graph, includes a library of fonts, predefined symbols, and three additional graphing programs. 3D perspective views from any point can be generated from data stored in a TECHBASE database. Options include hidden line removal, plotting of traditional mesh plots, and 3D contour maps. Data values can be points, lines, surfaces, or any combination of values. All views can be plotted in stereo for viewing with a stereo viewer.

IRIX version compatibility:

Geoscience

TAP-Model

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303-980-5300
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TAP-Model is a collection of menu-driven estimators and utilities that provide capabilities for calculation of spatial statistics for 2-D or 3-D data values in a TECHBASE database. TAP-Model includes a compositor that produces equal-basis composites from sequentially related data. Several estimators are included for 2-D or 3-D modeling. These include triangulation, inverse distance, kriging, and trend surface analysis. TAP-Model also includes a program to produce 2-D or 3-D variograms.

IRIX version compatibility:

TAP-Openpit

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303-980-5300
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TAP-Openpit is a menu-driven software package providing preliminary mine planning and scheduling capabilities for mineral deposits that will be mined using open pit techniques. Application programs are included for entry of topography and other bounding conditions, defining pit-slope geometry, user-defined or automatic bench expansion, generating ultimate pits using floating cones, and reporting in-place and recoverable reserves. Pit geometry can be varied by bench, radial sector, zone, or rocktype; and cone modeling input parameters include slope geometry, grade cutoffs, blending constraints, and estimated block data.

IRIX version compatibility:

TAP-Stat

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TAP-Stat is a menu-driven statistical software package specifically designed to perform univariate and multivariate statistical analysis on data stored in a TECHBASE database. Filtering capability allows for this analysis to be done on an arbitrary subset of the data. Both graphical and tabular output can be produced. Application routines include summary statistics (for example, mean, range, standard deviation, variance, and kurtosis), histograms, cumulative frequency diagrams, scatter plots, and correlation coefficients. Graphical output can be directed to graphics screens, plotters, or graphics printers (dot matrix or laser).

IRIX version compatibility:

TECHBASE

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MINEsoft's core product, TECHBASE, is a relational database system with sophisticated graphics and statistics. It is specifically designed for engineering data. Calculated and automatic fields are provided to assist in the manipulation and modeling of large databases commonly used in technical applications. Available application packages include basic statistics, contouring, modeling, perspective graphics, and strip-mine planning. Current industry-type users include environmental, hazardous waste, aerospace, mining, petroleum, reclamation, civil, and photogrammetry.

IRIX version compatibility:

Geoscience

The Rad4™ Image Display Controller

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714-964-7818
714-968-7884 (fax)
sales@psitech.com
http://www.primenet.com/
~psitech

The Rad4™ Image Display Controller adds a second, powerful, imaging head to SGI workstations.

Features:

* High flip rate (supports cine operation).

* High resolution (up to 1600x1200 at 88Hz).

* Low cost.

* Supports auotmatic color calibration.

* Supports applications in AEC, GIS, CAD/CAM, medical, high resolution defense and medical imaging, and air traffic control.

* Drives displays in both landscape or portrait orientation.

* The Rad4™ Image Display Controller is a PCI half length card with X Windows and Open GL® support.

* PsiTech has been manufacturing color graphics products since 1980.

IRIX version compatibility: 6.3

VIEWS™

Craig Limbaugh
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Advanced Data Solutions
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USA
713-877-1388
713-877-1399 (fax)

VIEWS™ is a 2-D and 3-D velocity model building and Kirchhoff-based imaging system. The system employs seismic velocity analysis, velocity model building, visualization, global tomograph, ray trace modeling, Eikonal finite difference modeling, and Kirchhoff time and depth migrations. These modules are used interactively, combining the latest computer graphics technology with interlocking windows and interprocess communication. This presents the explorationist with feedback from several methods of velocity analysis. The result is an accurate velocity model used in the depth migration, producing the best subsurface image.

IRIX version compatibility:

VULCAN

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com

VULCAN is an interactive graphical mapping and geologic modeling system, well suited to mine exploration, mine design, and day-to-day mine management. Both stratigraphic deposits (such as coal) and complex ore bodies are handled with equal ease. VULCAN places particular emphasis on a user's interpretation, and allows for full interaction during all steps of the mine development process. All geographical interaction is in 3-D, with real-time sectioning, rotations, and walking.

IRIX version compatibility: 5.x, 6.1, 6.2 Certified, 6.3 Certified

Geoscience

Various Electromagnetic Imaging Instruments

Bob Osmond
Marketing
ElectroMagnetic
Instruments, Inc. (EMI)
1301 S. 46th Street
UCRFS #300
Richmond, CA 94804
USA
510-232-7997
510-232-7998 (fax)
mktg@emiinc.com
http://www.emiinc.com

Founded in 1984 by a group of Berkeley sceintists and engineers, ElectroMagnetic Instruments, Inc. (EMI) is a world leader in the development and manufacture of electromagnetic systems used in geophysical exploration. Using both surface and borehole applications, EMI equipment is employed in petroleum, mineral, geothermal and groundwater exploration as well as in environmental and petroleum production monitoring. The company develops custom aquisition and processing software.

IRIX version compatibility: 6.2

VelCad™

Herve Oheix
Geophysicist
PETROSYSTEMS
1 Rue Leon Migaux
Massy, 91307
France
33-1-64-47-3549
33-1-64-47-3906 (fax)

VelCad™: A 3D velocity model building tool which can easily cope with progressive model requirements.

IRIX version compatibility:

VoxCube

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VoxCube is a volume rendering application for analysis of seismic data attributes. VoxCube allows users to adjust opacity and color to selectively display data attributes showing the distribution of probable hydrocarbon indicators. Interpreters can freely rotate the data about the x, y and z axes. Displayed attributes may include: amplitude, frequency, phase, porosity or velocity. VoxCube supports surface area or volumetric calculations on data clusters.

Surface and well bore displays orient the user in the data volume. VoxCube supports seed-point horizon interpretation in an attribute display. Animation sequences allow real-time rendering, to rotate surface and amplitude cloud displays or see seismic data rendered from opaque to transparent.

IRIX version compatibility:

iXL

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Technology, Inc.
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http://www.mitixl.com

The Mercury International Technology, Inc. iXL Interactive Seismic Data Processing Software System is a full 2D and 3D processing system with an extensive array of functions featuring full processing capabilities from field tapes to the final section. This includes survey design, processing and final display capabilities.

Survey Design gives the explorationist state-of-the-art tools to design 2D and 3D surveys for both land and marine exploration. This same package also performs extensive analysis of the geometries. After the survey is acquired it performs geometry definition and quality control functions that are mandatory for quality exploration.

IRIX version compatibility: 6.2, 6.x

Geoscience