

EarthSoft
EQulS Products Overview

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EQiS

From private businesses to public agencies, many organizations are using EQiS to improve their environmental data and its workflows and solve their most challenging environmental data issues.

EQiS improves your organization's:

- **Environmental Data Management** — Including GIS integration, EDD management, enforcing project vocabularies and providing consistent data standards from consultants and labs
- **Planning and Analysis** — Such as sampling plans, EDD quality controls, automated reporting, reduced duplication and risk analysis
- **Business Operations** — Such as statements-of-work, monitoring and tracking, changing labs or consultants, standardizing field data collection EDDs, standardizing forms and best practices
- **Situational Awareness of Environmental Samples** — Supporting decision support and data analysis, including interfaces to models, statistics and other tools

Manage, Analyze and Present Environmental Data

EQiS is an integrated collection of SQL Server or Oracle database schemas and .NET applications providing standards-based platforms for environmental sample data management, data reporting and analysis, and integration with mapping, modeling, visualization and other tools. EQiS is scalable and integrates with other enterprise systems such as GIS, document management, project management, accounting and project dashboards. Some of the largest portfolios of environmental projects in the world have their environmental data managed in EQiS.

The EQiS product line provides comprehensive tools for:

- **Data Management** — EQiS Oracle or SQL Server schemas can organize and manage any amount of sample-test-result information. EQiS supports many different visualization and analytics applications. You can easily query and report on your EQiS data. A large library of reporting and graphics tools is available from several applications.
- **Environmental Data Analysis** — EQiS provides a complete set of integrated tools delivering your data in modeling, reporting, statistical and geographic information systems — supporting smarter, faster decisions. You can build your library of exports and reports, spatial modeling and analysis tools to support your projects and share data with other professionals faster and easier than ever before. Ad-hoc queries are much easier and EQiS delivers dozens of packaged reports and exports out of the box.
- **Workflow Automation** — EQiS uses email in advanced ways – automating data scanning, report generation and spatial modeling and, provides analysis tools to reveal trends, gaps and identify patterns in your data faster than ever. Disseminate better knowledge to analysts, decision makers and guidance to field-based personnel. Deliver environmental data graphics to more people, faster.
- **GIS Integration** — EQiS has been an ESRI Business Partner for more than twelve years and has powerful ArcGIS and ArcGIS Server software modules. These modules call the EQiS reporting libraries and allow for visualize change over time and space. GIS offers powerful visualization and cartographic mapping tools for business and scientific use.

A Complete Data Management System

Whether you work at your desktop, operate in the field or need to share information over the web, EQiS supports your environmental data needs. The EQiS product suite includes desktop, web (Enterprise) and hosted, online applications. You can buy EQiS perpetual-use licenses or buy EQiS-as-a-Service.

EQiS components include:

EQiS Schema

The EQiS Schema has over 150 tables, over 2000 columns, over 300 referential constraints (e.g. foreign keys), and over 30 procedures and functions. EQiS has been reviewed by thousands of environmental professionals over the past 15 years.

You may customize the EQiS Schema as you wish, but if you change it, EarthSoft may not maintain the new schema. EQiS Schemas have formed the nucleus for several custom data management systems.

Additional schema extensions are available for other sample types including geotechnical, air, operations and maintenance, equipment, waste and "eco-risk" (flora and fauna) samples.

.NET Smart-Client EQiS Professional

EQiS Professional is the primary platform for loading data, writing new queries, database administration, editing or appending data and providing specialized EQiS Power User functions. Many interfaces and modules are available to other vendor's software for specific functions like modeling, borehole logs, cross sections and fence diagrams, contours, statistics, data validation and risk assessment. The Sample Planning Module (SPM) and EQiS for ArcGIS are other EQiS Professional modules.

Web EQiS Enterprise

EQiS Enterprise modules allow you to centralize data management software in application servers, delivering workflow automation and web GIS capabilities to large numbers of users over networks. Enterprise EDP, EZView and EQiS Information Agents (EIA) all work together to provide Build - Serve - Push reporting on EQiS databases. Nothing is easier than automatically receiving emails about your data every day or each time you receive new data.

	enterprise@earthsoft.com	Agent 'Daily: 5b Google Earth: Analytical Res...	Thu 4/22/2010 3:01 AM	7	
	enterprise@earthsoft.com	Agent 'Action Level Exceedance (by EDD): DRI...	Wed 4/21/2010 3:22 PM	3	
	enterprise@earthsoft.com	Agent 'Crosstab: Tabulated : MONITWELLS N...	Wed 4/21/2010 3:22 PM	3	
	enterprise@earthsoft.com	Agent 'ESRI Shape Analytical Results: 1 ' gen...	Wed 4/21/2010 3:21 PM	2	
	enterprise@earthsoft.com	Agent 'Mann-Kendall S Regression (by Locat...	Wed 4/21/2010 3:21 PM	2	
	enterprise@earthsoft.com	Agent 'Google Earth: Locations: ' generated ...	Wed 4/21/2010 3:21 PM	1	
	enterprise@earthsoft.com	Agent 'MultiParam Time Series : B-33 water_el...	Wed 4/21/2010 3:21 PM	4	
	enterprise@earthsoft.com	Agent 'EDD Summary' generated report 'ED...	Wed 4/21/2010 3:21 PM	1	
	enterprise@earthsoft.com	Agent 'EDD Summary' generated report 'ED...	Wed 4/21/2010 3:21 PM	1	
	enterprise@earthsoft.com	Agent 'EDD Summary' generated report 'EDD ...	Wed 4/21/2010 3:21 PM	1	
	enterprise@earthsoft.com	Agent 'Analyte Aggregate Contours: ' genera...	Wed 4/21/2010 3:19 PM	1	
	enterprise@earthsoft.com	Agent 'Google Earth: Water Level (Contour): ...	Wed 4/21/2010 3:19 PM	8	
	enterprise@earthsoft.com	Successfully loaded EDD (APR 21 A March 2 C...	Wed 4/21/2010 3:17 PM	6	

Figure 1 – When one EDD loads into EQiS, 12 reports are automatically generated in 5 minutes

EDP and EDGE

EQiS Data Processor (EDP) and EQiS Data Gathering Engine (EDGE) can be distributed to all your labs and consultants. You can dramatically cut costs and improve the consistency of incoming data with these tools. By making the EDP and EDGE free to your labs and consultants, you can easily write these checking tools in as requirements to your statements of work. Nearly all major labs in North America, Europe, South America, and Australia already have EDP. Many US States and EPA Regions already provide EDP to their labs. Examples of large scale EDD workflows are available from Montana Department of Environmental Quality (<http://deq.mt.gov/wqinfo/datamgmt/MTEWQX.mcp>) and New York Department of Environmental Conservation (<http://www.dec.ny.gov/chemical/62440.html>).

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EQiS Professional

EQiS Professional is a powerful .NET smart-client environmental data management software product allowing you to manage SQL Server or Oracle databases for your sample-test-result data. EQiS Professional is the world's premier expert system for environmental decision support and data analysis. You can load and analyze data to examine relationships, test predictions and ultimately make better, faster decisions. You can export and import data in a wide variety of formats.

The main modules of EQiS Professional share several core applications for Reference Value management, Action Level management, Groupings, Reports and Exports and Loading Data.

Reference Values

EQiS manages all the reference values or valid values for your environmental projects. We recommended that you require consultants, labs and subcontractors to use your naming conventions and vocabulary. This way, data is easily "found" later and not lost in the database.

Action Levels

EQiS Professional includes an Action Level API. The API builds on existing action level tables and calculates action levels on the fly based on specific formulas (such as hardness, temperature and PH). The API allows you define and implement the calculations and use those calculations in action level exceedance reports. Several consultants have written their own custom calculations.

Groupings

EQiS Professional gives you a user-interface to look at your projects in groupings, which may include groups of chemicals, locations, materials or sample types. By pre-building your project's logical groupings, you can significantly improve the usefulness of your reports and graphs.

Reports, Graphs and Charts

EQiS includes several tools to create custom reports, graphs, graphics, charts and tables. EnviroInsite is included in each Pro license. A run-time license of ActiveReports is also included, as is a run-time license of Tee-Chart. A large library of pre-built reports is included and with Maintenance, you continue to receive all new reports written by EarthSoft. Exports to Google Earth and other tools supports data validation, statistics, risk assessment, and other advanced environmental functions.

Crosstab Report Writer (CTRW)

CTRW was first written in EQuIS 3 and proved to be a very popular tool. Several consultants suggested that CTRW was a primary reason for using EQuIS. Based on this data, we decided to rewrite CTRW in .NET for EQuIS 5 in 2005 and to generate a number of ad-hoc/prepared crosstab reports from EQuIS data supporting environmental decisions and analysis. EQuIS for ArcGIS re-uses and posts some of these crosstabbed reports on maps. EZView can serve and push these crosstab reports.

EnviroInsite

EQuIS Professional includes a run-time license for EnviroInsite at no additional charge. EnviroInsite provides many standardized subsurface graphics including cross sections, fence diagrams, "spider diagrams", piper diagrams and stiff diagrams.

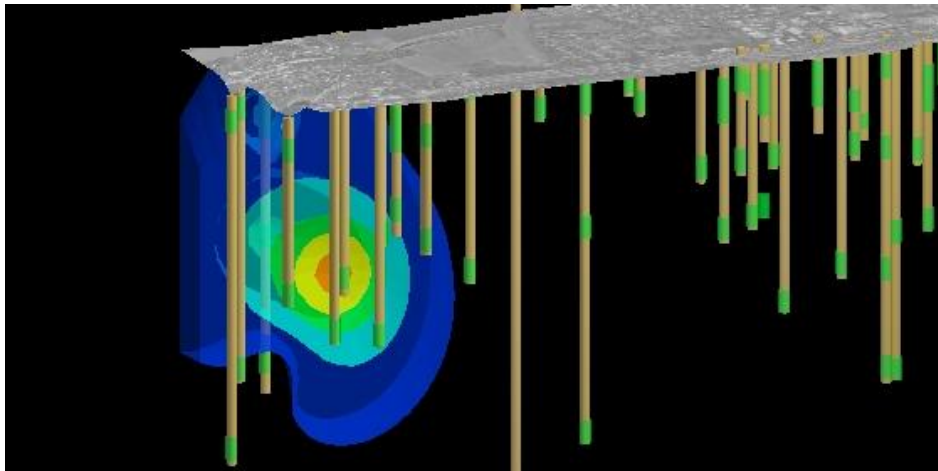


Figure 2 – A simple surface contour from EnviroInsite

EZView and EQUS Information Agents (EIA)

EZView and EIA use email and web pages for a disruptive new reporting paradigm called Build, Serve & Push. Reports, graphs and graphics are built, saved to a library and then emailed to staff when data or date triggers are tripped. In this manner, specific reports can be posted to web pages or emailed on specific dates and times, whenever new EDDs arrive or whenever new "hits" are detected in the new EDDs. EQUS can significantly increase the number of reports and graphs.

With the EZView and EIA, you can:

- **Publish many exports and reports, fast and tailored to your audience** — Dramatically strengthen business and resource decisions with real-time data management, analysis and decision support
- **Save and Serve up these reports in a library** — Shrink data and application redundancy, optimizing system configurations and consolidating enterprise systems
- **Push these reports to your email and dashboard every day, or with triggered events** (including each time you receive data) — Project data come to you instead of you searching for it. Every day, your email and dashboard deliver valuable project data to you.
- **Share data** — Significantly reduce storage costs and data processing overhead. You can copy staff or other consultants on these agents and expose EZView to them.

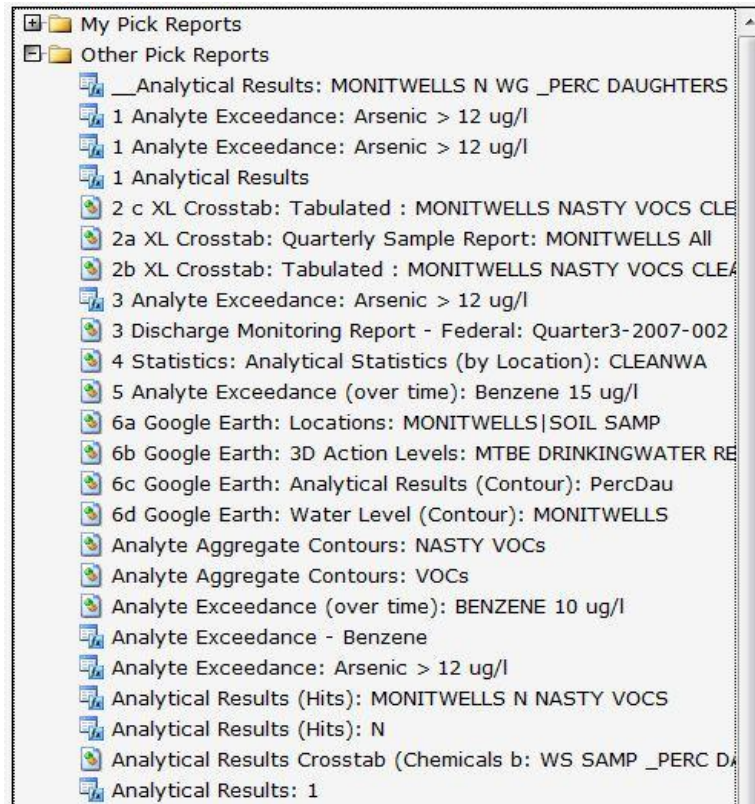


Figure 3 – Other Pick Reports, which is now up to over 100 reports. All can be re-named as you wish, all can be re-used to build new reports, and all can be pushed from EIA.

EZView and EIA Key Features

EZView and EIA provide EarthSoft's Build, Serve & Push reporting architecture.

Build Reports

Provides many report stubs for you to re-use, modify and save. A large library of pre-built reports is available. Reports is used to represent every export, graph, graphic, chart, table, spreadsheet, or any representation of data.

Pick List

Provides a library of named reports and saved queries designed for organizations that want to provide a central, server-based library of reports or graphics for publishing environmental data such as maps, contours, crosstabs and other graphics. It serves up the environmental data management reporting tools from EQUS Professional as well as from EZView Build Reports. The reports in Pick List can be renamed as you wish.

EZView and EIA are designed for organizations that want to provide a central, server-based data management system for distributing environmental reports across the organization or over the Internet. In addition to environmental data management and reporting capabilities of EQUS, these products provide:

- **EZView through ArcGIS Server** — ArcGIS Server may call the EZView library of reports so that your map and your data are connected.
- **Google Earth KML Files** — EQUS EZView includes tools for creating rich browser-based Web mapping applications.
- **Docs and Photos** — EQUS EZView includes a section for organizing any files, including videos or photos, and linking them to EQUS locations.
- **Crosstab Reports** — EZView will call the Crosstab Reports Library created by your Professional power users.
- **Graphs and Tabular Reports** — EZView includes a library of standard graphs and reports and the tools to Build - Serve and Push any of the new reports you build.
- **Web Applications** — EQUS Enterprise EZView and EIA contain tools and tasks that you can use in other Web applications, including SharePoint.
- **Customizable** — Private label all Enterprise modules so they look like your other corporate web applications.

EQUS Data Processor (EDP) and Enterprise EDP

The entry point to EQUS, EDP is:

- A checking tool you can distribute to all your labs and consultants for them to first ensure their data submissions to you;
- A checking tool for you to use to verify and submit field and lab EDDs that you receive from various labs and consultants;
- A tool to load EDDs' data into EQUS, and either create new projects and locations or merge into existing projects and locations; or
- An automated tool providing all these functions!

Electronic data deliverables (EDDs) provide standardized and consistent formats for data collection. In the US, over 300 EDDs have been developed at labs and many of these are available for re-use. EPA R5 and others have published their EDDs. EDP lets you select and enforce the EDD that is best for your project, along with all your vocabulary and valid values or reference values. Labs and consultants use reference values worldwide, providing a consistent data set for corporate roll-up.

EDP and Enterprise EDP work together to provide both a private, local checking tool for the point of data collection and, a web tool for automated workflow — for those shops that can standardize on specific EDDs. EDP's Sign & Submit tool allows for digital certificates for increase security.

With EDP and Enterprise EDP, you can:

- Check multiple EDD formats for accuracy and consistency
- Immediately spot errors and interactively fix them
- Automatically reject incorrect or poorly formed data submissions
- Check field and lab formats
- Spot labs who fail to resubmit an EDD after it was rejected
- Rank your labs and consultants by their ability to submit data properly

Enterprise EDP				
ALL				All Dates
Facility	File Name	Submitter	Received	
Springfield	APR 21 A March 2 Correct B.SPRINGFIELD.EFWEDD	mbeard	04/21/2010 12:17	
Springfield	APR 21 correct.SPRINGFIELD.EFWEDD.zip	mbeard	04/21/2010 12:10	
Springfield	APR 21 incorrect.SPRINGFIELD.EFWEDD.zip	mbeard	04/21/2010 12:10	
Springfield	APR 7 correct.SPRINGFIELD.EFWEDD.zip	mbeard	04/09/2010 07:27	
Springfield	APR 7 incorrect.SPRINGFIELD.EFWEDD.zip	mbeard	04/09/2010 07:27	
Springfield	March 26 CorrectC.SPRINGFIELD.EFWEDD.zip	mbeard	03/26/2010 08:45	
Cache Valley	BirchCreek 24 2010 03 25 0010.dat	datalogger	03/26/2010 08:39	
Cache Valley	BirchCreek 24 2010 03 24 0010.dat	datalogger	03/25/2010 18:54	
Cache Valley	BirchCreek 24 2010 03 24 0000.dat	datalogger	03/25/2010 18:39	
Cache Valley	BirchCreek 24 2009 10 29 0000.dat	datalogger	03/23/2010 20:47	
Cache Valley	BirchCreek 24 2009 10 28 0000.dat	datalogger	03/23/2010 16:59	
Cache Valley	BirchCreek 24 2009 10 27 0000.dat	datalogger	03/23/2010 16:51	

Figure 4 – An Enterprise EDP Dashboard showing correct and incorrect EDDs automatically processed. Datalogger data has successfully arrived and loaded into EQUS. All data marked with green have been loaded into EQUS.

- **Manage your EDD Formats** — Many users deal with multiple EDD formats from a variety of project locations or sample types. Whether you have a portfolio of simple sites like gas stations or a single superfund site, managing air or water data or both, you can enforce your project vocabularies. Use aliases for supporting different languages. Our library of EDD formats is available for you to re-use when you have to build new formats.
- **Total Quality Management** — TQM teaches us that the maker of a widget is responsible for the QC of the widget. So require your labs and consultants to check their product and data and give it to you in a consistent spreadsheet format. Frequently, labs do not check their EDDs prior to submission making this your problem. Over time, missing these errors may cause you to lose data.
- Make better decisions and solve problems faster!

EDP and Enterprise EDP Key Features

EDP and Enterprise EDP:

- **Many Labs use EDP** — Labs worldwide already have site licenses for EDP and can be asked to use them on behalf of TPC. Numerous training courses exist.
- **All.Net and XML, Open Systems** — You can make your own formats. You can create, edit and manage different EDDs for different type projects.
- **Many different and Custom Formats** — EarthSoft provides a large library of different formats and consultants create their own corporate formats. EarthSoft has successfully provided support to several US states and EPA Regions, helping them design their new formats.

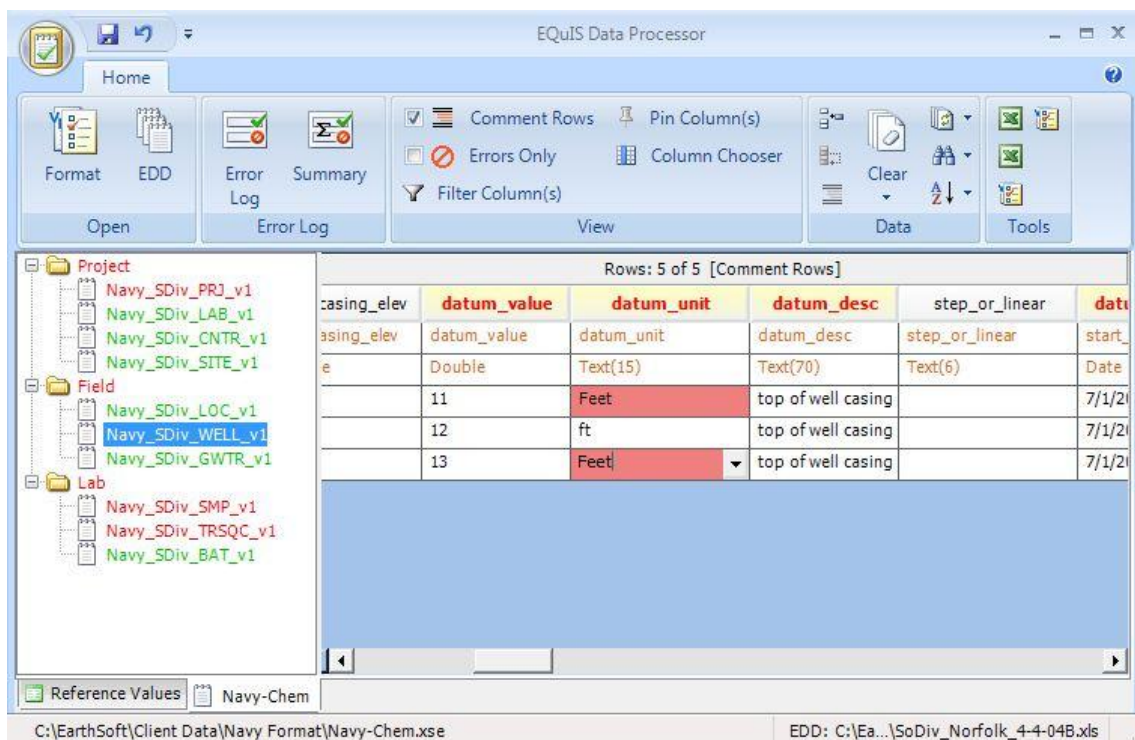


Figure 5 – EDP attaches a color to every error, making them unavoidably visible. All the red tabs and fields have errors, the green tabs are correct. Here you can see that "ft" is fine, while "Feet" is an error.

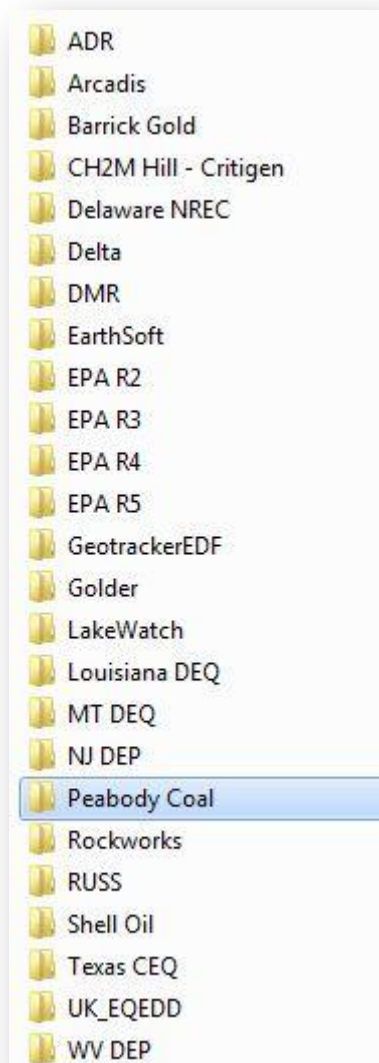


Figure 6 – Some of the common EDD formats supported in EDP and Enterprise EDP for large government, consultant, and industrial clients.

Sample Planning Module (SPM) and EQUS Data Gathering Engine (EDGE)

SPM and EDGE provide powerful modules to plan field sampling activities and field data collection. EDP is bundled into EDGE to provide instant real-time field EDD checking. SPM and EDGE are Professional modules.

SPM pre-populates EDGE for specific sampling activities and programs, minimizing field keystrokes. Chain-of-Custody (CoC) forms are created and emailed to the lab in advance of a hard copy.

With Sample Planning Module and EDGE, you can:

- Allow field staff users to simultaneously modify and edit the same data
- Email eCoCs ahead of the cooler or hard copy
- Prepare schedules in advance
- Make sure all required data, now and in the near-future, are collected while the field staff are at the location
- Ensure data completeness
- Link to sensors and dataloggers
- Collect free-form notes or graphic data with an electronic sketchpad
- Generate checked pre-printed forms and pre-populated spreadsheets



Figure 7: EDGE in the field accelerates data capture and cuts costs significantly.

SPM and EDGE Key Features

SPM and EDGE provide integrated modules for managing the expensive field activities. The key features of SPM and EDGE are:

- **Completeness Checker** — Provides multiple users with the ability to modify the same data (simultaneously) without interfering with each other — taking the data offline or creating multiple copies of the data. You can also monitor how the database has evolved over time, edit data in the field with disconnected editing and implement QA procedures for validating edits.
- **eCoC/CoC Generator** — Preserves data integrity and maintains the high quality of your data by automatically locating and fixing errors according to rules and behaviors you set for your geodatabase.
- **Real Time Field EDD Checking and Generation** — Uses advanced COGO editing tools, construction tools and conflict detection and resolution tools to help automate the editing workflow. You can also store historical snapshots of your data and analyze what-if scenarios without affecting your base data.
- **Tablets and Laptops** — Add even more capabilities and extend the power of ArcEditor by using one or more of the many optional ArcGIS Desktop extensions. Analysis, productivity and solution-based extensions allow you to perform extended tasks such as raster geoprocessing and three-dimensional analysis.
- **Dataloggers & GPS Support** — EDGE imports data into EQuIS from field sensors and data loggers. Imported data is checked with EDP and merged with other field data. EDGE currently supports select data loggers from QED and Campbell Scientific, with more under development. EDGE supports GPS receivers outputting NMEA data to a USB, RS232 or Bluetooth COM ports. EDGE features automatic detection of connected GPS devices and a user-friendly interface showing device status and current position.

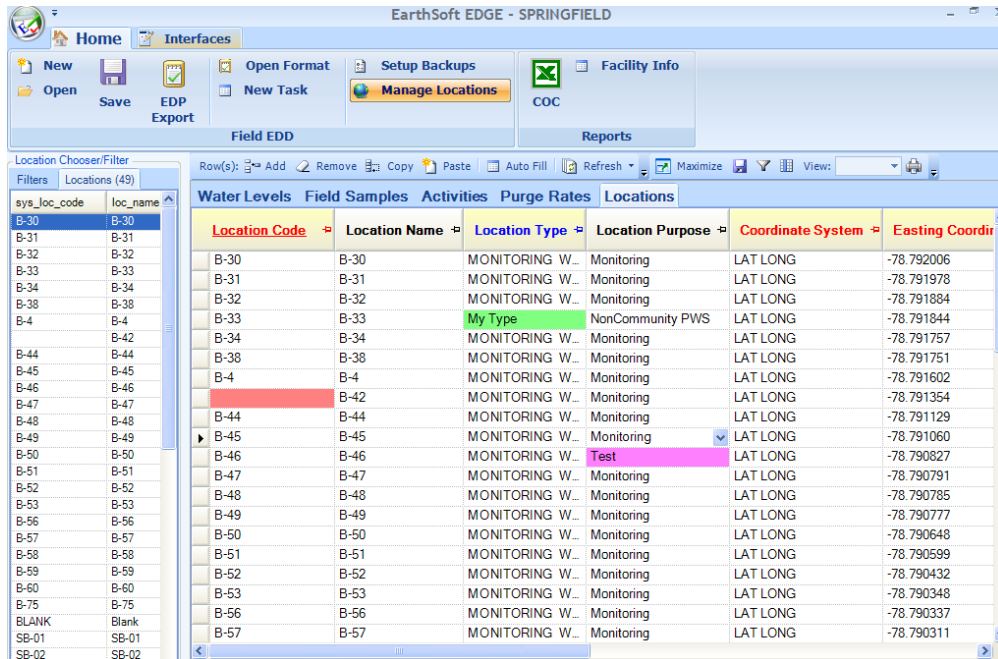


Figure 8 – EDGE manages all your data collection activities

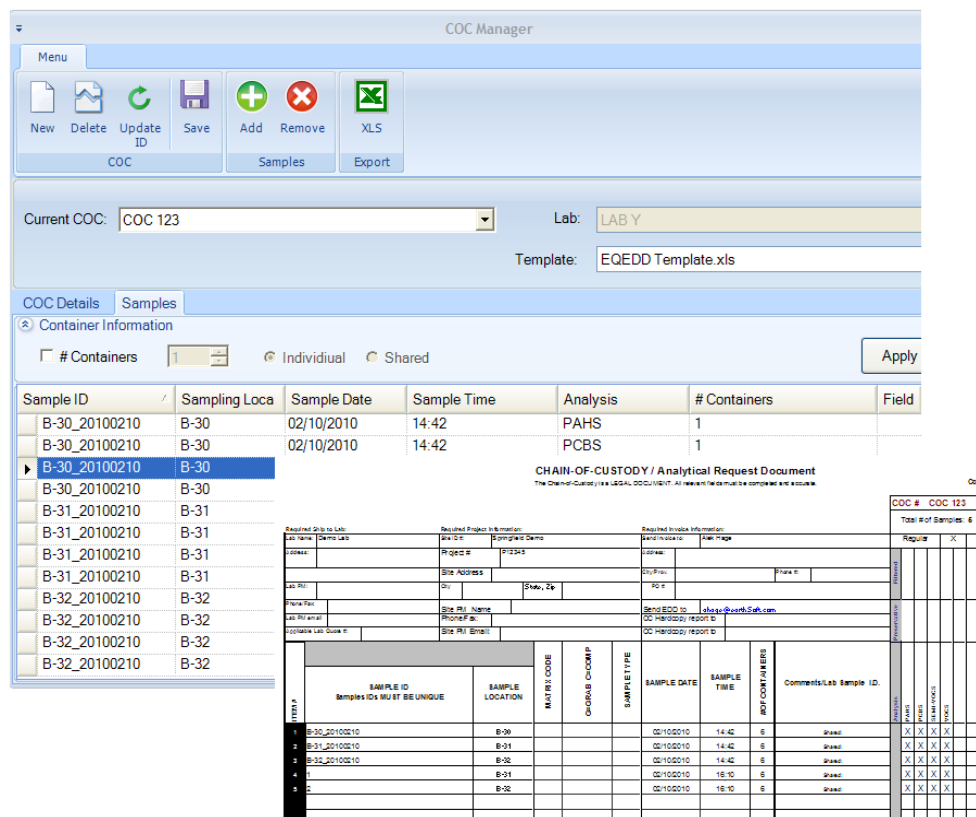


Figure 9 – The eCoC Generator in SPM

EQuIS for ArcGIS and ArcGIS Server

EQuIS for ArcGIS and EQuIS for ArcGIS Server are extensions of ESRI's widely used GIS tools — tailored for the environmental data management industry. EarthSoft first released a GIS connection to EQuIS in 1998 with ArcView 3, and it was an instant hit. Today, all of EQuIS for ArcGIS has been migrated to .NET and provides advanced power user GIS functions and links to the EQuIS Professional Reports library.

EQuIS for ArcGIS also supports Spatial Analyst and 3D Analyst. EQuIS for ArcGIS supports ArcGIS 10 for its extension for ESRI's ArcMap and ArcScene 3D Analyst applications. In addition to supporting all of the existing EQuIS for ArcGIS features on the ArcGIS 10 platform, we have added support for ArcGIS 10-specific features including:

ArcGIS 10 Time-Aware Layers

The EQuIS EZView LayerBuilder creates time-aware layers that are used with the new ArcGIS 10 time slider control for creating temporal animations

ArcGIS 10 Basemap and Templates

The new ArcGIS 10 locations for styles and map templates are supported

The Springfield tutorial site includes ArcGIS 10 map template documents that use the new basemap layers concept

ArcGIS 10 Metadata

In addition to writing FGDC metadata for ArcGIS 9.3 users, we also support ArcGIS 10 metadata descriptions and have updated our custom 'Metadata' layer properties tab to use the new ArcGIS 10 styles

ArcGIS 10 User Interface

The ProjectView utility window is dockable or can be left floating, just like the new ArcGIS 10 info tool and table windows

Unless one has already been defined for the document, when new EQuIS layers are added to your document, the Default Geodatabase is set

Spatial Analyst is an extension to ArcGIS Desktop that provides powerful tools for comprehensive, raster-based spatial modeling and analysis. Using ArcGIS Spatial Analyst, you can derive new information from your existing data, analyze spatial relationships, build spatial models and perform complex raster operations. Self-documenting models make it easy for others to understand the spatial analysis process applied, examine what-if scenarios and compare results.

With EQuIS for ArcGIS tools, you can:

- Call EQuIS Reports from ArcGIS
- Generate maps labeled with EQuIS data
- Create "spider diagrams"
- Export EQuIS data to other common modeling, statistical and visualization software
- Call the Pro and EZView Report Libraries
- Represent multiple chemical concentrations using the EQuIS EZView LayerBuilder
- Visualize in 3D using Multivariate Sphere Multipatch "Beach Balls"
- Automate symbology using Color Ranges, Graduated Symbols, Pie Charts and Unique Values
- Visualize in ArcMap using pie chart symbology
- Easily create complex labels and annotations
- Perform land-use analysis
- Determine pollution levels

EQuIS for ArcGIS Key Features

You can use EQuIS for ArcGIS to:

- **Query EQuIS Data from Maps** — Select the best location for a new site, whether for a new road, pipeline, housing development or retail store. EQuIS for ArcGIS uses data from multiple layers you specify.
- **Create Spider Diagrams** — Label your maps for quick analysis, EQuIS for ArcGIS provides spider diagrams with leader lines to the locations.
- **Export Data to Generate Models** — Identify patterns or features. Many patterns that are not readily apparent in the original data are derived from the existing surfaces. EQuIS for ArcGIS supports analysis methods such as inverse distance weighted, kriging and spline, polynomial trend and natural neighbor, which is used to estimate elevation, rainfall, temperature, chemical dispersion or other spatially continuous phenomena.
- **Create Environmental Buffer Zones** — Select the EQuIS locations within your buffer zones to create groups and generate queries.
- **Perform Hydrologic Analysis** — Derive new information from hydrologic and environmental data. Groundwater tools are used to perform simple 2D advection — dispersion modeling of groundwater flow and constituents in groundwater.
- **Geodatabase Class Extensions** — With automatic symbology rendering when adding data to ArcMap/ArcScene or previewing in ArcCatalog.
- **Automated Metadata Creation** — Output created with ArcMap/ArcScene extensions populate all required FGDC metadata fields and can be viewed/edited with ArcCatalog.
- **Interface Maps to Other Non-ESRI Tools** — ArcGIS may be used as a graphical user interface (GUI) to link your maps to other contouring, modeling, graphics, or reporting tools.
- **Integrate 3D Symbols** — Represent GIS features such as trees or fire hydrants. EQuIS for ArcGIS uses the standard ArcGIS symbol library includes over 500 industry-standard 3D symbols to enhance scientific visualization and real-world simulation. ArcGIS 3D Analyst supports specialized three-dimensional models in several formats including MultiGen OpenFlight, 3D Studio MAX and SketchUp. ArcGIS 3D Analyst also allows you to display three-dimensional text.

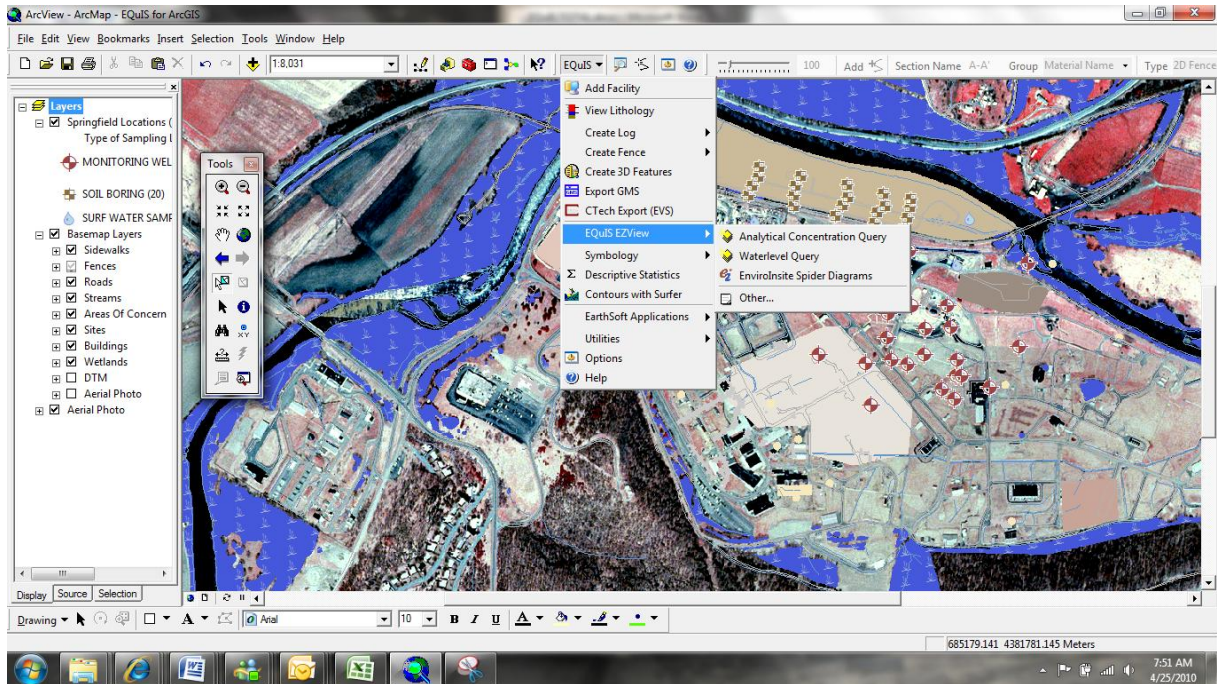


Figure 10 – Pull-down Menu EQiS for ArcGIS

EQuIS Interfaces (EnviroInsite, HoleBASE, EVS, gINT, GMS, RockWorks, Surfer and LogPlot)

EQuIS interfaces with many common environmental graphics applications commonly used by environmental professionals. EQuIS also supports Spatial Analyst and 3D Analyst, and calls many of these 3rd party interfaces from ESRI software. For example, you can create a LogPlot boring log and contour in Surfer from ArcGIS 10, and save the contour as a shape-file, integrating it onto your map along with your water-level queries.

ArcGIS 3D Analyst is an extension to ArcGIS Desktop that allows you to effectively visualize and analyze surface data. Using ArcGIS 3D Analyst, you can view a surface from multiple viewpoints, query a surface, determine what is visible from a chosen location on a surface, create a realistic perspective image that drapes raster and vector data over a surface and record or perform three-dimensional navigation.

Video demonstrations of these EQuIS Interfaces are available on our YouTube channel:

EnviroInsite: <http://www.youtube.com/watch?v=v1ppZOPomLc>

EVS: http://www.youtube.com/watch?v=c2SF_m6Sujo&feature=youtu.be&hd=1

gINT: <http://www.youtube.com/watch?v=b0XWesRAU00>

GMS: <http://www.youtube.com/watch?v=kelfowWPI70>

RockWorks: <http://www.youtube.com/watch?v=chPKwzUPMo>

Surfer: <http://www.youtube.com/watch?v=EAEWsV1Ky8g>

LogPlot: http://www.youtube.com/watch?v=9PNEOv7n_30

EQuIS and ArcGIS 3D Analyst Features

EQuIS and ArcGIS 3D Analyst provides an extensive set of features to build, visualize, and analyze data in three dimensions. It gives you tools to:

- **Visualize three-dimensional GIS data** for data exploration and synthesis. You can drape your data over terrain, use attributes such as elevation to display data at a preset height or use attributes to extrude data. You can also use ArcScene and ArcGlobe, two specialized 3D viewing applications included with ArcGIS 3D Analyst, to manage your 3D GIS data, conduct 3D analysis, edit 3D features, create layers within 3D viewing properties and create 3D features from two-dimensional data.

- **Interactively navigate three-dimensional data** with ArcGlobe. ArcGlobe is designed to integrate large amounts of GIS data and allows you to seamlessly navigate 3D data with little or no preprocessing.
- **Create and analyze 3D surfaces** for sophisticated modeling, viewing and analysis. You can create surfaces as regularly spaced grids or as triangulated irregular networks (TINs) using methods such as inverse distance weighting, kriging, spline, natural neighbor interpolation, topo-to-raster interpolation and trend interpolation.

Once surface data has been created, you can perform further analysis by enhancing visualization, determining visibility from a specific position or route or by using many other analysis tools, including GMS, EVS, EnviroInsite, RockWorks, gINT, and others.

- **Create fly-through paths and animations** to more effectively communicate and present important concepts. Using a simple toolbar, you can create flybys, give layers motion, smoothly transition sun position and background color and fade layer visibility. You can also save animations in standard video formats (such as MPEG, AVI or QuickTime), allowing you to easily share information with others.



Figure 7 – The EQiS Professional interfaces ribbon bar with interfaces to many 3rd party software

Create contours with Surfer

EQiS is integrated with Golden Software's Surfer 6 or higher.

- Grid data from any map layer using any of the Surfer algorithms
- Seamlessly import various Surfer outputs with ArcGIS
- Save data in ESRI Personal GeoDatabase or Shapefile format
- Surfer contours as either polylines or polygons
- Surfer Vector Map (gradient arrows)
- Surfer grid as ESRI raster grid
- Style gallery integration for layer symbology to be applied

EnviroInsite

EnviroInsite provides specialized subsurface graphics for:

- 3D and Profile Views
- Well Construction Diagrams
- Stiff and Piper Diagrams
- Radial Diagrams and Pie Charts
- Time History Charts
- Gradient Vectors
- Fence Diagrams
- Contours

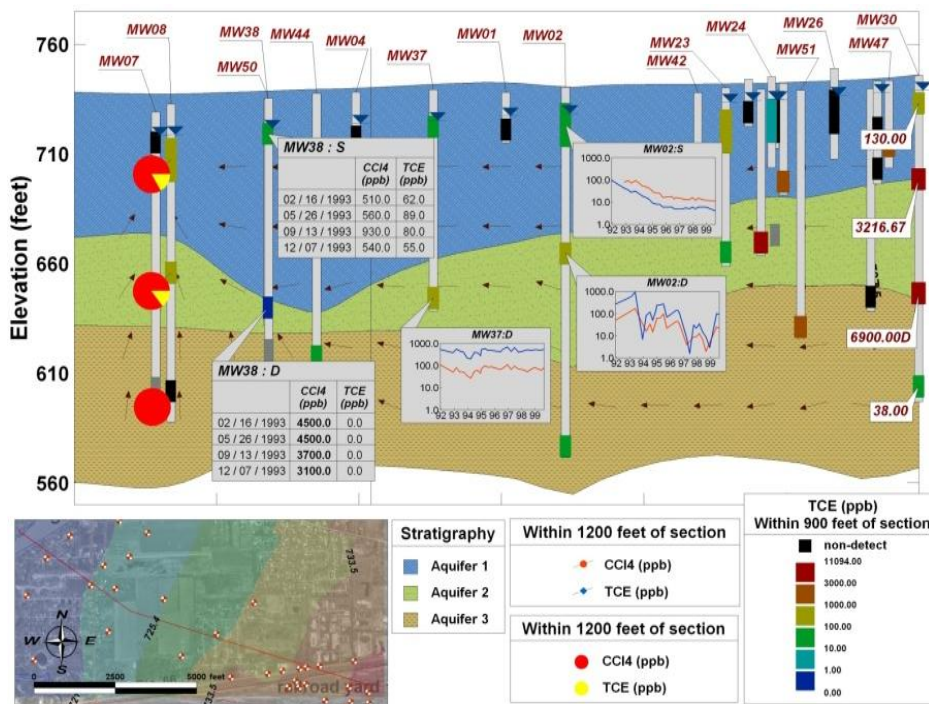


Figure 82 – EnviroInsite subsurface cross section with labels.

EQuIS Data Exchanges and Open Systems

Many organizations are using EQuIS as the backbone of a corporate or enterprise data exchange platform. EQuIS is an open system with available source code. You can customize and extend the kernel schema. You can modify the schema. You can share data with consultants that have EQuIS, or consultants that use other systems. You can export and import data from any other electronic source or other data systems.

With EQuIS Data Exchange, you can:

- **Read and write any electronic format and almost 100 different EDD data formats** — including formats from states, EPA Regions and consultants. Read and write AGS and DIGGS for geotechnical data.
- **Share data with anyone** — by exporting to Excel, Word or flat files in more than 100 different reports. Release clear specifications for data transfers, both incoming and outgoing.
- **Convert data from one format to another** — using EDD import and export tools. These tools help you easily map data translations between source and destination formats.
- **Reduce costs associated with changing labs and consultants** — These transfer costs can be dramatically lessened by requiring a commercially available open system like EQuIS.
- **Integrate real time and time series data** — for instruments and data loggers into the EQuIS workflow.

EQuIS Source Code Key Features

EQuIS source code is available with our standard Source Code License Agreement (SCLA). With the SCLA, you have perpetual use rights to the EQuIS source code, as long as you do not give away the EQuIS source code to others. This is much better than an Escrow agreement because EarthSoft does not have to default for you to obtain the source code. The SCLA allows you to connect to many systems providing other MIS support including SharePoint, document management, project management, permit management and others.

EQuIS Online & SPLA

EQuIS Online is EarthSoft's hosted EQuIS, co-located on our servers. EarthSoft maintains about 30 servers around the US, Germany, the UK, and Australia with our dedicated IT staff. Contact us to see a network diagram of the EarthSoft cloud.

With EQuIS Online, you can:

- **Ramp-up new projects quickly** in our sandboxes and transfer them in-house when you are ready
- **Test new modules** by running your test on our test-bed servers, instead of on your production server.
- **Provide neutral vendor 3rd-party hosting** for those client situations where it seems somehow more comforting not to give it to one of the concerned parties
- **Train and demonstrate** your EQuIS projects to your peers, clients or others, on a test-bed server without firewall issues.

EQuIS Online

- Secure, high-availability, multiply-redundant servers and facilities
- Multiple facilities which are geographically diverse
- Shared or dedicated processors and servers

Services Provider Licenses Agreement (SPLA)

SPLA is for those consultants with the EQuIS licenses, skills and infrastructure to offer hosted EQuIS to their clients. SPLA supports these consultants extending their EQuIS configurations for direct client access and offer hosted EQuIS software-as-a-service.

EarthSoft's Help Desk, Training and Services

EarthSoft's Help Desk is entirely devoted to EQulS support and provides extensive infrastructure support. Help Desk provides regular Office Hours, Frequently Asked Questions (FAQs), YouTube videos, and other implementation assistance services. EarthSoft has significant experience deploying EQulS for many large governments, consultants and multi-national companies. EarthSoft uses FogBugz to track all incoming emails and open cases, and uses SkyTap for cloud-computing support.

EarthSoft has probably provided more training courses on environmental data management than any other firm. EarthSoft staff have provided approximately 500 Training Classes. Some of our Trainers have personal experience from over 100 classes.

With an annual Maintenance License, you receive:

- **Help Desk** — EarthSoft has nine, full-time, Help Desk Support Analysts, completely dedicated to customer support (not programmers forced to provide support occasionally). They use a tracking software called FogBugz to manage all their calls, emails and responses. Our Help Desk receives continuously kudos and acclamations from our large client base.
- **Version Upgrades** — EarthSoft has a long record of releasing new EQulS versions each year. Furthermore, EarthSoft agrees to match its partners' releases from Oracle, ESRI and Microsoft, as well as a number of the smaller graphics vendors like Surfer, RockWorks, LogPlot, EVS, GMS and others.
- **Pilot Sandboxes and Personal Use Licenses** — EarthSoft's Help Desk maintains a free sandboxes for clients for limited testing, training and back-up purposes. EarthSoft supplies free licenses to select staff that travel or wish to practice their EQulS skills on a temporary laptops or home PC licenses. EarthSoft uses GoToMeeting providing immediate remote desktop viewing and for demonstration purposes.
- **Assigned SE/CM** — EarthSoft assigns a dedicated Systems Engineer or Client Manager to all large accounts for more proactive service than "normal" Help Desk.
- **Community Center** — Significant web resources are available through our portal and dashboard, including a library of videos, data dictionary, EDD formats, FAQs and other content.

Training

EarthSoft has significant experience running EQUIS Training Courses. We have supplied over 400 training courses over the last decade. EarthSoft runs 3 kinds of Training:

- **Open Trainings** — Standard training agenda, provided several times a year, all around the world
- **Onsite Trainings** — Client-specific training sessions, at the customer site, provided on an as-needed basis (about 14 times a year)
- **Online Trainings** — Ongoing, online training, provided several times each month

EarthSoft Training can be arranged for your labs or data providers. Attendees of our Training Classes receive updated materials for subsequent years.