



## Data Mining

### Datapult<sup>SM</sup>

A portfolio of products and services delivering meaningful, accurate and timely energy information enabling users to save time and save money.

### Data-Information-Knowledge

Datapult Data Mining Services transform data into information - Information that provides knowledge for reducing operating costs and minimizing equipment maintenance costs. Data Mining Services provide customers with tools to quickly sift through the clutter of vast amounts of data to identify potential areas of improvement. In addition, Datapult's capabilities include a dedicated staff of Energy Experts to help identify opportunities and to provide energy use and maintenance consultation. At the customer's option, Datapult Energy Experts will "mine" their usage data for valuable information to uncover savings opportunities.

### Standard Service

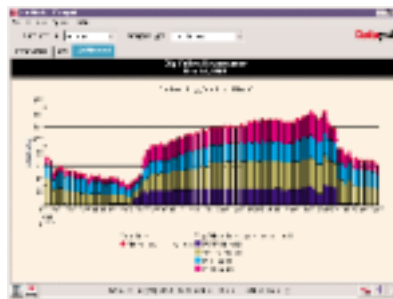
The standard Data Mining service enables customers to graph, retrieve, and analyze data. The standard service offering begins with data collection services from Datapult Central, a leading-edge, secure, and robust energy information technology center. Enabling access to collected data and information is Datapult's DataManager website. Standard DataManager access allows customers to graph and download data, and use its pre-defined analysis tools. DataManager provides secured, password-protected access to Datapult Central. The Datapult Central information sheet provides additional detail on this process.

### DataManager

DataManager is an Internet-based service that transforms energy data into powerful information. DataManager is the ultimate tool for quickly and dynamically finding useful, money saving information from raw utility data. DataManager enables customers to view, manipulate

and analyze their energy consumption from a standard web browser. Included with the standard service are:

**Graphing Tools**--Graphically display

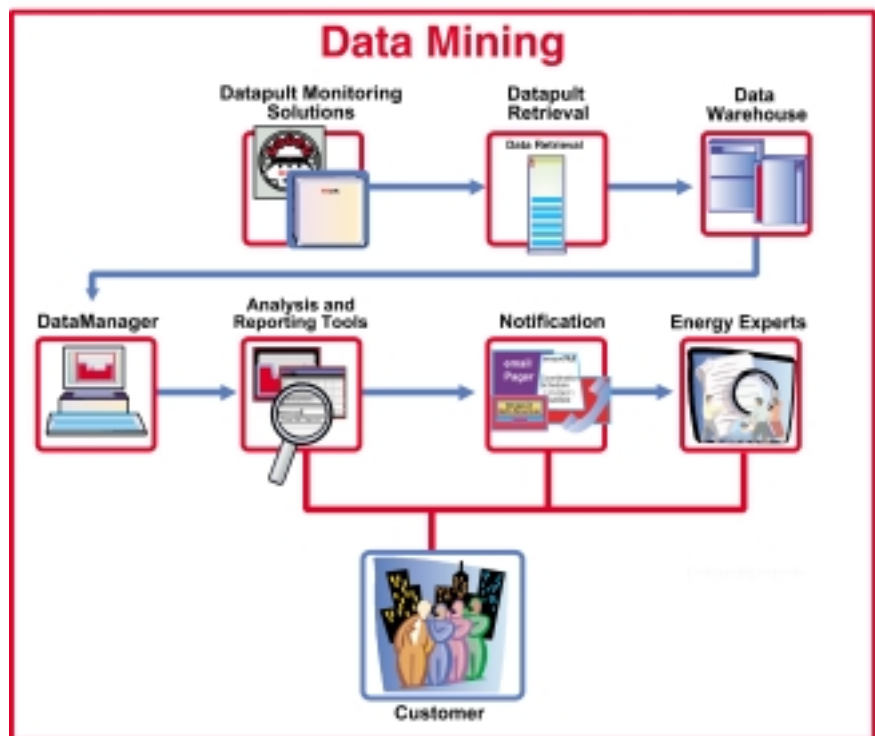


raw "as metered" data from Datapult Central by choosing the time period and data channels of interest.

**Pre-defined Analysis Tools**--

Datapult's powerful analysis tools mine valuable information from your data and allow quick answers to the following common questions:

- **Summary** - Quickly answer questions such as "What were the peak kW and total kWh for each site for the most recent month?" and "What was the total kWh consumption at a site for the most recent calendar year?" Summary analysis calculates a single value for each monitored trace for the time period selected;
- **Time of Day** - What is a site's typical pattern of energy usage over the course of a day? How does the typical usage at 2:00 AM for a given set of days compare to the typical usage at 2:00 PM for the same set of days? Time of day analysis calculates a typical 24 hour load profile in 15-minute increments for each monitored trace for the days selected;
- **Day of Week** - Do the energy usage characteristics vary



between days of the week? Does a site use more CCF of gas on Mondays than Sundays?

- **Custom-Graph** -- Want to "play" with the data? The custom tool allows the user maximum flexibility to slice and dice data in any manner desired.

**Data Download Tools** - Retrieve data



from Datapult Central directly into a file format suitable for use with other applications such as an Excel spreadsheet.

**Data Smoothing** - DataManager provides the ability to smooth 15- minute time interval data into box car or rolling intervals of longer duration. This allows users to mimic differing utility rate billing methodologies.

**Aggregation Capability** - Energy data gathered from different sites or facilities can easily be viewed as an aggregated load profile adjusted for differing time zones. This information is invaluable in negotiating lower energy prices associated with deregulation or conjunctive rate opportunities.

## Value Added Services

To round out a client's energy information needs, the standard Data Mining offers Datapult's Monitoring Solutions services, Data Analysis and Reporting Tools, Data Notification Tools and consultation from Datapult's Energy Experts.

**Monitoring Solutions**-This service provides metering and monitoring for cost-effective solutions to customer needs. Monitoring Solutions also provide turnkey equipment sales and installation. The Datapult Information Sensor Specifications sheet contains more details on Datapult Monitoring Solutions.

**Critical Event Tools**-Identify critical events that may have a negative impact on your bottom line.

*Threshold* Equipment running all night? room temperature going above or below a tolerable range? Is coincident equipment operation creating a new peak? Without the Threshold tool, you may never know.

Datapult is continuously identifying these, and others problems that impact our customer's bottom line. The Threshold tool quickly sorts through vast amounts of data to find anomalies and operational problems. Simply setup Threshold boundaries and DataManager returns the potential saving opportunities that fall within the parameters.

*Needles.* Unusual demand requirements, cycling compressors, and hard start-ups are typically problems that go unnoticed. Unfortunately, they also typically contribute to your utility bill. The Needles tool finds spikes caused by these and other problems, helping customer's identify the root cause and eliminate the costly problem.

*Cumulative Threshold* Which of my Western division facilities are exceeding their monthly budget? In which months were two chillers required more than 20%



of the time? How much energy are my sub-metered tenants utilizing after-hours? Obtain answers to these questions and others with the Cumulative Threshold tool. The Cumulative Threshold tool allows customers to manage and watch data channels that accumulate over time.Cumulative-

**Critical Event Notification**-Once DataManager determines that a critical event has occurred, a user can be notified via e-mail or e-mail to pager so that the problem can be dealt with as quickly as possible.

**Datapult's Energy Experts**-Datapult's Energy Experts are available to perform in-depth analysis of data and provide clients with consulting reports that detail such things as operational savings opportunities, "what-if" equipment change out scenarios and potential maintenance savings.

**Observation Analysis**-Knowledge of how facilities operate, where money can be saved, identification of efficiencies, and

discovery of potential maintenance problems are important issues to Datapult customers. Datapult's Observation Analysis services employ the talents of Datapult's Energy Experts to process and deliver quality reports on customer data. They use their expertise along with Datapult's own unique analysis tools to mine through customer data. The result is high value reporting and identification of such things as irregularities in facility operations, energy supply problems and identification of potential maintenance issues.

**Problem Resolution**-Datapult Energy Experts will provide resolution of utility billing disputes, metering problems or other events that are difficult and time consuming for customer's to resolve.

**Consulting**-At the customer's request, Datapult's Energy Experts will provide special project consulting on an hourly basis. Special projects may include such things as situational scenarios, or equipment change out analysis.

**Data Entry**-Datapult will manually input customer data, such as historical utility records or site-specific information, into Datapult Central for use with Data Mining tools and other Datapult products.

**All specifications are subject to change.**

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