

Arbutus Query



The Functionality Gap of Standard Tools

Although business intelligence tools, standard reports, spreadsheets and SQL query tools all have their important place within an organization, many users still face functionality gaps with these tools in three keys areas:

- Reporting and analysis needs involve legacy systems and other non-warehoused data
- Application does not support the desired analytics or data volumes
- Significant IT resources and preparation are required to support new data queries

A Complementary Technology for Increased Data Analysis Capabilities

Arbutus Query is specifically designed to easily analyze data from a wide variety of data sources and data types and to process commercial data volumes, with minimal involvement from IT personnel. This independence creates benefits for both IT and end users. End users do not need to wait to perform timely and important data analysis and reporting. IT staff can provide quick turn around to requests for new data sources.

Arbutus Query is an intuitive and comprehensive query tool with built in data analysis capabilities for all types of end users. Simpler than traditional query tools, Arbutus Query makes it easy for end users to issue ad hoc queries to a wide range of data sources without having to know the location or structure of the underlying data. End users can get the business answers they need quickly, without having to wait for IT assistance.

Key Benefits of Arbutus Query

For End Users

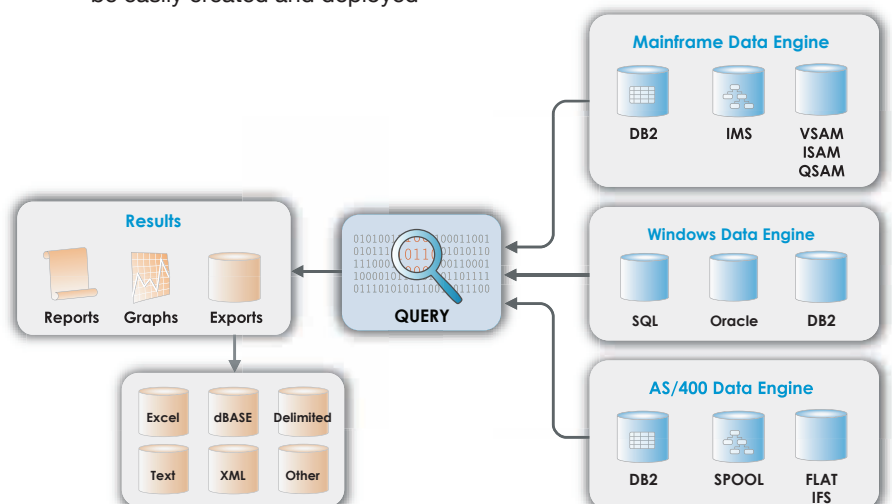
- End users are not restricted to data warehouses and data marts
- New customized queries and reports can be added without the typical set up time and costs
- The intuitive interface is specifically designed for analyzing data
- Log file of all queries and results creates permanent audit trail of work performed

For Data Sources

- No file size limitations
- Data sources can be added and integrated quickly
- Read-only insures data integrity

For Data Analysis

- Easily compare or join disparate data sources
- Built in data profiling, testing and verifying capabilities
- Data stores from different platforms and data types can be seamlessly queried
- Optional query language allows for customized and automated queries to be easily created and deployed



How It Works

Arbutus Query utilizes Arbutus Analyzer to provide direct, read-only queries into all of your data.

- › Because it's direct, you get the fastest possible performance. In addition, you see the data with zero latency, eliminating the need for operational data store or data mart technologies.
- › Because it's read-only, your data is secure. While your Windows applications have access to your mainframe data set, they have no ability to write back.
- › Because it's Windows based, it's straight forward to install and administer. The Windows interface ensures an ease of use that is uncommon for mainframe and AS/400 query utilities.

Analyzer communicates directly with the Arbutus Data Engine via TCP/IP. There are no additional hardware or software components required for connectivity. This direct connection to our Data Engines offers a number of benefits:

- › The low component count means low infrastructure. This translates directly into low costs, both to install and maintain.
- › Since no additional software interfaces are required, you are up and running quickly, with your existing equipment.
- › When used with the mainframe or AS/400 data engine you have maximum access to your legacy data, including DB2, IMS, VSAM and sequential (QSAM) flat files. You don't need any additional technologies to transform the data for access. Analyze mainframe data as easily as you would a spreadsheet.

Choose Where the Query and Analysis Takes Place

When mainframe and AS/400 resource constraints make direct access and analysis solutions impractical, Arbutus Query also enables you to easily offload your critical processing to either the Windows or Linux data engine. Unlike typical open server implementations, Arbutus's Windows and Linux Data Engines are fully compatible with all data set structures and data types encountered on your mainframe. This means that the process of staging data is as simple as a file transfer, with no data transformation required. The result is you can implement a data mart style solution, with full access for any type of query, analysis or reporting needs, in a matter of days.

Why Arbutus Query?

Easy Analysis

- › Create queries on data without needing IT skills
- › Build intuitive "ad-hoc" queries using our simple spreadsheet-like tools
- › Apply familiar data formatting and reporting options in minutes

Advanced capabilities

- › Process unlimited file sizes, retrieving only the data you need
- › Save time on repetitive tasks with our powerful scripting language
- › Transform and combine data dynamically, with over 80 built in functions
- › Directly access even the most complex legacy data structures

Immediate results

- › Eliminate turnaround time by accessing your mainframe and AS/400 data directly
- › Remove the need to generate COBOL reports or extractions
- › Add and adjust data links quickly with our Windows based tool

Arbutus Consulting Services

Arbutus consultants have years of experience in using the Arbutus technology with all types of data, particularly mainframe based, and are available to assist at any stage of your project. When needed, our seasoned consultants typically work with your team and provide assistance in the use of 'best practices' with the Arbutus Query. When our consultants become involved, your project timelines become our project timelines in ensuring an on-time and successful implementation of Arbutus Query.



Licensing

Arbutus has a flexible licensing model that accommodates the various needs and circumstances of our clients:

- ◆ Perpetual use licensing for those who will have an on-going need for the technology
- ◆ Rental-based licensing starting at 12 month terms. Appropriate for project based requirements or to provide an alternative to accommodate budget circumstances.

Other Key Capabilities

Dynamic Data Transformation

Arbutus Query has the ability to dynamically transform data as it is accessed. Virtually any data transformation or business rule can be defined and implemented dynamically. This data transformation can be a simple expression, or it can be conditionally selected from an unlimited number of independent calculations. Expressions can utilize any of the over 80 functions built into Arbutus.

Process the Most Complex Data

Connect includes the capability to access virtually any complexity of data, while presenting it in a standard tabular format. It is not limited to fixed length files, but can also handle variable length, multiple record type and even segmented file structures. As well, every data format supported by your mainframe, even bit level fields, can be automatically read and converted for use.

Combine Disparate Data Sources

Query allows multiple source tables to be combined into a single view, using Data Relations. This creates a star schema model that directly accesses the source data sets. An important characteristic of this capability is there are few restrictions on the combination of even disparate data sources. You could easily have a consolidated table view that combines information from VSAM with information from IMS, DB2 and sequential data sets.

Virtual Columns

Query does far more than just provide access to your mainframe data sources. It also includes over 80 data manipulation functions, which can be used with virtual columns to implement any business rule, calculation or transformation. Virtual columns are processed dynamically, without altering the source data, and are presented totally transparently to the end user.

Procedures

The Arbutus technologies include procedures based on a fully capable 4GL scripting language. These can be used to automate any process. Processes can be initiated manually, through a regular schedule, or can even happen automatically whenever an associated result data set is accessed. This allows essentially unlimited control over the business logic implemented.

Secure Operation

All mainframe access with Query is through independently set up mainframe accounts. These accounts control the access rights of the individual user, to ensure that only the appropriate data is accessed.

Built for Mainframe and AS/400 Data

Arbutus Query isn't a Windows application that has been modified to read mainframe and AS/400 data. Instead, it was built from the ground up specifically for this task. It is designed to handle all the data types, and data volumes that you will encounter.

Proprietary Indexes

Query includes the ability to create indexes on sequential data sets. While these are in a proprietary format, they essentially allow the file to behave like a VSAM file. This means you can have direct indexed access, even to data that does not have a native index.

Where native indexes exist, these are automatically used to optimize query performance.

Customizable Data Interface

Query allows you full control over the data interface presented to users. The comprehensive semantic layer allows individualized customization for each set of users, controlling the content and naming of both tables and their columns.

Simplified Maintenance

All connectivity is maintained using Analyzer, so there is no need for a separate administrative tool. Creating new table linkages is guided by a wizard based expert system. As well, in most cases, our metadata conversion can be used to automatically create the initial definition directly from your copybooks. Modifying table definitions is a simple point and click.

