

## Satisfies the Full Range of Users

- **Powerful, functional query development** for I.T. professionals and power users (*IQ Server™*)
- **Windows drag-drop, point-and-click query and Web report design** (*IQ Client™*)
- **“WebRunner” run-time Web browser interface** for extending data access to authorized mobile and remote users anywhere, anytime
- **Windows multidimensional, online analytical processing (OLAP)** for business analysts (*SmartView™*)
- **Microsoft Office and Windows data access** (*Qport® Access*)
- **Extensive security** (*IQ SeQure™*) to secure queries, e-mail, FTP, downloads, records, fields, and more
- **Data warehouse/mart development** for the database administrator

## Web and Host Access

- **Provide secure access to build and run reports** across Internet connections
- **Email query output to email addresses** – query output is attached to message and may be delivered as PDF, HTML, XML, ASCII .TXT, or .CSV file
- **Email spool files** as .TXT
- **Output queries as Excel, HTML, and PDF files from a Web browser or Web-enabled smartphone**; hyperlink to summary fields to enable point-and-click, drill-down report navigation; and include banners, cascading style sheets, and backgrounds to create graphically appealing, presentation-quality Web reports
- **Output queries as XML files** with user-defined field tags with or without an HTML table to support Web presentation
- **Output queries to FTP sites** – output format may be PDF, HTML, XML, ASCII .TXT, or .CSV
- **Allow authorized users to run Qport Access remotely** over TCP/IP connections

## IQ Client | Point-Click, Drag-Drop Query and Web Report Design

- **Develop queries on your desktop, online or offline**, in a modern, productive Windows environment with all the functionality of *IQ Server*, NGS’ native IBM i query development interface.
- **Utilize complete HTML design features to modernize your reports for Web browser output**

## SmartView | Windows OLAP Analysis Tool

- **Display data multidimensionally across any number of business dimensions**
- **Drill up and drill down** through multiple data layers
- **Pivot for multiple views** of your data

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- **Calculate** values like gross margin, average order quantities, totals, and percentages of totals
- **Highlight critical values** in your report
- **Export to HTML and Excel** in one click
- **Graph, chart, and print** your presentations
- **Work offline** to minimize IBM i workload
- **Filter data** to create custom views

### **Qport® Access | Windows Query Execution and File Transfer**

- **Run recurring reports from Windows icons** – for easy report selection
- **Direct output to popular desktop applications** – e.g., Microsoft Excel, Access, Word, and *SmartView*
- **Create Microsoft Excel Workbooks** – create and update Excel workbooks, sheets, pivot tables, and named ranges; create live links between Excel and other Windows applications (e.g., PowerPoint); and use multiple queries to refresh one or more sheets in the workbook
- **Use Windows interface** – enable Windows users to enter run-time criteria for calculations, selections, and query output
- **Preserve leading zeros** in values when transferring data to Excel
- **Direct query output to Windows display** – output to *Qport Access* display and cut/paste into other applications
- **Output to PC and host printers** – print where desired for speed or quality

### **“Reverse Qport” (Qport Access) | Data Collector for Uploads and Transfers**

- **Transfer data from Windows** to your IBM i in one step – authorized *Qport Access* users can populate DB2 on i with data from any ODBC-compatible source that can be read by Microsoft Access
- **Handle data conversion automatically** – your database is immediately ready to use
- **Load externally collected data** – budgets, bids, pricing, market intelligence, credit data, and other important data can be safely and cleanly loaded into DB2 on i by authorized users

### **IQ Connexion™ | Enterprise-Wide Database Access from the IBM i**

- **Real-time access to MySQL, Microsoft SQL Server, Oracle, DB2, and PostgreSQL** with optional *IQ Connexion* module
- Integration via *IQ Server* exit program
- Standard SQL statements to access remote data
- Ability to work within your enterprise security rules
- Queries include both local and distributed database files when IBM Distributed Database Management (DDM) is in use. (*IQ Connexion* not required for DDM support.)

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## ***IQ Server (IQ)***

### ***Ease of Use***

- **One-pass report writing** – eliminates the need to create multiple queries and work files to produce final reports
- **Pop-up windows** – enhances 5250 user interface and panel navigation
- **Integration of run-time option into Web applications, portals, and Web pages**
- **Timesaving copy option** when entering new fields, new field conditions, and record selections
- **Run-time prompting** with personalized help text for new fields and record selection criteria
- **Personalized list of most recently used queries** to help you pick up where you left off
- **Online tutorial** with sample database files and reports
- **Comprehensive online help** with clear, quick answers

### ***Easier File Joins***

- **“Join Wizard”** – remembers how you, or your selected database experts, join DB2 files as your *NGS-IQ* queries are built and maintained. As others build queries over the same files, *NGS-IQ* instantly fills in the matching fields as they were previously joined.
- **Meta files** – joins up to 32 DB2 files and then assigns the entire collection of joins a descriptive or “meta file” name. Your users no longer need to understand names of actual files and how to join them.
- **Streamlined file join changes** – primary file and join type can be reassigned after the query is built.
- **Easy file joins** – inner joins, partial outer joins, and exception joins are handled in simple English.
- **File joins that can be based on new or “derived” fields** – no need to create a temporary work file when the desired files cannot be joined on any of their existing fields.
- **“One-to-many” relationships** – when you have multiple records joined to a single record, you can simplify report design by defining comparisons between a field’s value in the current record and the same field’s value in the previous record.
- **DB2 file member support** – file members may be selected within the query and changed at run time.
- **File union** – consolidated view of data stored in up to 32 files or file members.

### ***New Field Calculations***

- Exponents
- Square roots
- Remainders
- Days elapsed (aging) – using numeric date fields
- System date in four different formats
- Extensive date arithmetic and time functions
- Absolute value
- Trimming – leading and trailing blanks

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## **Conditional Calculations (in Result Fields)**

- **Conditional calculations (if-then, else)**

*Examples:*

- Calculate late charge based on age of receivable
- Calculate commission based on sales volume
- Replace code values with meaningful descriptions for management reports
- **Zoned, date, time, timestamp fields**
- **Up to 32 conditions** allowed per new field
- **Ability to sort and select** on conditionally calculated fields
- **New fields with null values and test for null value**
- **Previous record support** – test a value in the previous record against a value in the current record and then condition the results
- **Resettable counter** based on sort field changes
- **“One-to-many” reports**
- **Unique occurrences counted**
- **Cumulative sums** or running balances
- **Record sampling** – use conditional new fields to instruct the query to skip records based on user-defined criteria, and generate reports showing “top five customers,” “last week’s orders,” and other useful ad-hoc information
- **Two additional operators** – \*TCAT and \*BCAT – that let you concatenate alphanumeric fields together, strip off trailing blanks, and place one blank space between fields

## **Run-Time Prompting**

- **Display personalized help instructions** at run time to assist users in making ad-hoc record selections
- **Override new field expressions** on an ad-hoc basis at run time without changing the query
- **Enter algebraic expressions** directly into record selection statements at run time to simplify date arithmetic and other variable selection criteria
- **Print variable information in report headings**

## **Web Links**

- **Design queries to support on-demand drill down** from summary to detail over the Web

## **Analytical Reporting**

- **Calculate running totals and running percentages of totals**
- **Rank and sort** by average and by sum of table class
- **Calculate individual percent** of total by table class
- **Calculate overall average** of all table classes
- **Use conditional new fields in tables**

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## ***Report Formatting***

From a report layout panel:

- Format output for preprinted forms
- Place literals on heading, detail, or total lines and place data next to field names
- Vary data/text within a heading
- Use up to 9 lines for column and report headings
- Include up to 112 lines of detail per record
- Use up to 12 lines per report break
- Include page headers and footers
- Modify subtotal and total labels
- Suppress blank lines within layout
- Use print conditioning for all new fields

Additional formatting:

- Print cover page, including record selection criteria (optional) to ensure correct data interpretation
- Define company-wide standard report heading

## ***Integrated Windows File Generation***

- In a one-step process, create ASCII text files that users can access from their favorite Windows applications
- Output results in ASCII comma-delimited text files in a shared folder for immediate access from users' favorite Windows applications

## ***Integrated Data Transfer from IBM i to IBM i (partitions or separate servers)***

- Outputs query results as detail or summary DB2 files on a separate IBM i
- Creates, appends to existing, or replaces output files
- Requires *IQ Server* installed on target IBM i
- Complies with IBM i security so that users cannot create, append, or replace unless they have authority to the function and object on the target IBM i

## ***Program Exits for Custom Processing and Data Cleansing***

- Calls and executes your custom program before, during, or after query processing and integrates the result of that program into the query result
- Provides unlimited custom program functions, for example:
  - Execute a custom data cleansing routine that you want performed as part of a query
  - Call a program that retrieves data from another system

## ***Multi-Up Mailing Label Formats***

- Design and print "multi-up" label formats

## ***Summary Calculations***

- Calculate at report breaks based on summaries  
For example:
  - Summary Field A + Summary Field B
  - Summary Field B / Summary Field A
  - Summary Field C \* Summary Field A

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- Additional summary functions:
  - Exponents
  - Standard deviation
  - Square root

### ***Structured Query Language (SQL)***

- Alternative, easy-to-use SQL interface that complements *IQ Server's* menu-driven, procedural user interface
- Ability to prompt on every command for easy query definition
- From, Join by, Select, Where, Group by, Having, and Order by prompt lines
- Ability to toggle between SQL and menu-driven interface

### ***Expanded Record Selection and Exclusion Features***

- Define complex record selections in one step using parentheses to establish the relationship and processing sequence for the selections
- Take advantage of greatly expanded potential for selecting records based on date arithmetic: enter algebraic expressions directly into record selection values, with no need to create a new field in order to base the record selection on the result of a calculation
- Use full Boolean selection logic plus NOT IN RANGE test to exclude records as in exception reports
- Copy record selection criteria to save keystrokes when you need to restate nearly all the same tests following an OR relationship between selections

### ***Meta-Data Feature***

- Assign long alias file names, field names, and descriptions to DB2 files and fields
- Reduce end user training by simplifying database comprehension
- Customize directory of names to support different business perspectives

### ***Query Performance Management***

- Security Officer control of the execution environment:
  - Declare IQ run environment (Batch/Interactive/Both)
  - Set job time slice
  - Set job priority

### ***Ability to Change Fields: Character to Character and Numeric to Numeric***

- Simplifies substrings and concatenating
- Simplifies calculations and date arithmetic

### ***Nested Reports***

- Link the execution of up to 99 queries, so completion of one triggers the execution of the next
- Use one query to create an output file required by the next query, and submit both in one step

### ***Unique Key Processing***

- Retrieve only the last record having the unique key value, for example:
  - Retrieve most recent order for customer
  - Generate one mailing label per customer



### ***Keyed File Output***

- Simplifies integrating output files into other applications
- Improves query performance if keyed file is used to perform subsequent queries

### ***Integrated Report Distribution***

- Use the integrated email and FTP features to distribute query output
- Generate email alert messages with or without query output attached when important conditions occur in your data, like inventory shortages or other business events
- Email TO, CC, BCC, Subject, and Message can be determined at run time
- Route copies of reports to users using RUNIQ command
- Pass routing information from CL programs

### ***Display and Tailor Default Input/Output Values***

- **Report defaults:** print file, width, length, overflow, characters per inch, lines per inch, output queue, job description
- **Graphics defaults:** print file, width, length, lines per inch, characters per inch, format name, output queue
- **Output defaults:** file size, disk library, device, type
- **Option defaults:** format, printer, run environment, query description
- **Cover page, file, library, query library, spacing**
- **Custom global report heading**
- **Optional/changeable summary function labels** for min max, avg, sum, standard deviation

### ***Management Audit Reports***

- **Query Statistics Report**  
Answer questions such as these: Who created the query and when? Who ran or updated it last? When was it last run or updated? How many times has the query been run or updated?
- **Query File Access Report**  
Answer questions such as these: What files does the query access? What queries must be updated if we change this file?
- **Query Definition Template**  
Display report definitions or query structure
- **Output query status information to a database file that can be queried to identify:**
  - Seldom or no longer used queries
  - The creator of each query
  - Date of last update
  - Number of times the query was executed

## ***IQ SeQure | Security Management System***

- In addition to IBM i security, you can establish table (file), column (field), row (record), output, and query security by user profile
- The inventory function of IQ SeQure lets you thoroughly document your queries with a description, extended description, and keywords which are placed in an inventory database that you can search through quickly by entering text strings to locate queries that might meet a current need. This function encourages consistency by promoting the re-use of previously tested queries to meet new development requests.

## ***Superior User and Technical Documentation***

- *IQ Server User Guide*
- *IQ Server Tutorial*
- *IQ Server Technical Support Guide*
- *IQ SeQure User Guide*
- *IQ Client User Guide*
- *Qport Access User Guide*
- *SmartView User Guide*
- *IQ Connexion User Guide*

## ***Toll-Free Support from Product Experts***

- NGS Support Representatives specialize in understanding the complete IBM i environment – DB2, Apache Web Server, connectivity, performance, security, and more
- *NGS-IQ* is the only application these experts support
- Toll-free U.S. and Canadian Support: (800) 257-2442