



## DATAWATCH HEALTHCARE BI SOLUTIONS

Unlocking Healthcare Data



# Business Intelligence

## Unlocking Healthcare Information Systems (HIS): A Financial, Clinical, Operational and IT Perspective

Datawatch BI Solutions help healthcare providers quickly and easily access, transform and analyze critical data that exists in reports generated from their Health Information System (HIS) and convert that information into usable formats, including Excel and dashboards—without programming.

Healthcare providers face mounting pressures to improve clinical outcomes and quality of care, reduce variations in order sets and practice patterns, while reducing the overall cost of patient care. Consequently, the business of healthcare requires providers—both large and small—to conform to an abundance of reporting guidelines, metrics and compliance programs, including Meaningful Use, Core Measures, P4P and more—making it more critical than ever to be able to quickly and easily extract, analyze, interpret and distribute information from your Health Information System (HIS).

### HIS Reporting and Data Extraction Challenges

HIS platforms are the pivotal link between your clinical and business needs. Yet, most organizations struggle with the challenge of how to extract, aggregate, consolidate and/or distribute usable data from the system. Existing reports typically contain all of the information needed. Unfortunately, the information in these reports is completely static. Until now, the only way the report data could be made accessible for data analysis, manipulation, aggregation or export was through the time consuming process of rekeying the data into Excel or requesting a custom extract from IT. Another big challenge presented to users is the difficulty of integrating disparate data sources with information from any HIS platform. Again, expensive and labor intensive techniques have been the norm.

As the demand for easy access to and rapid analysis of healthcare data continues to increase, analysts, researchers, clinicians, and more have a critical need for an easy, cost-effective way to leverage the vast amount of critical data buried in reports, documents and other data sources.

### Datawatch Self-Service BI Solutions: Providing Unparalleled Value to Healthcare Providers

Purposely built with the non-technical user in mind, the Monarch family of Datawatch BI solutions make it easy for end-users to navigate, implement and manage the data extraction and analysis process—no IT skills or changes to existing systems required! Users in Finance, Quality, Performance Improvement, Clinical and Operational departments can quickly and easily leverage the power of Datawatch BI solutions and reap the benefit of converting their reports into live data for analysis and dissemination across the organization.

Datawatch's family of Monarch BI solutions can be implemented in a matter of minutes and within a few hours, users are capable of unlocking, accessing, analyzing, exporting and sharing data from all sizes of reports.

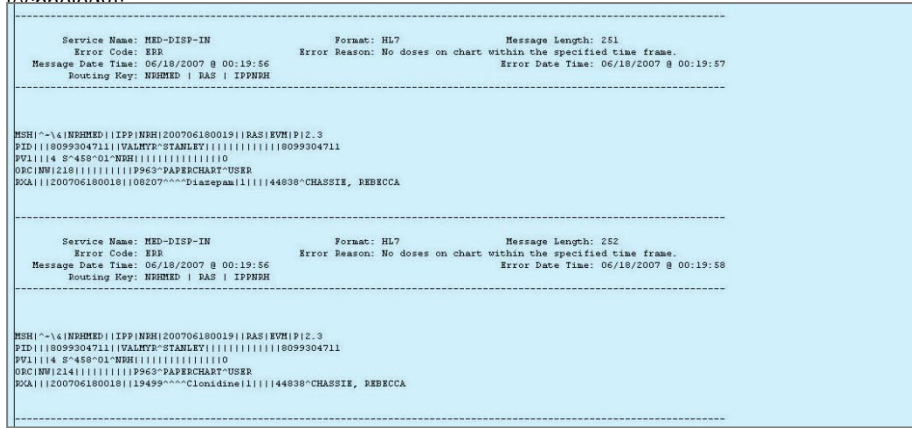
### THE DATAWATCH DIFFERENCE

**Datawatch's proven Business Intelligence (BI) technology** and comprehensive healthcare experience gives providers the ability to extract valuable data from existing reports and other sources, which allows end-users to leverage the data for ad hoc reporting and analysis of key clinical, quality and financial trends, and much more!

**Unlike traditional BI solutions,** Datawatch BI solutions are unique in that they can be implemented in days versus months, and can help you to rapidly achieve a positive ROI, a lower total cost of ownership, and provide immediate, actionable insight into your critical business data—without programming or any changes to your existing systems. Hundreds of Healthcare providers ranging from small to large hospitals, integrated delivery networks, nursing homes, and more use Datawatch BI solutions to gain valuable and timely insight into their financial, clinical and quality metrics.

**No matter the size or scope** of your analytic or information delivery needs, Datawatch BI solutions can help you quickly access and analyze your data, smarter and more cost effectively than you ever thought possible!

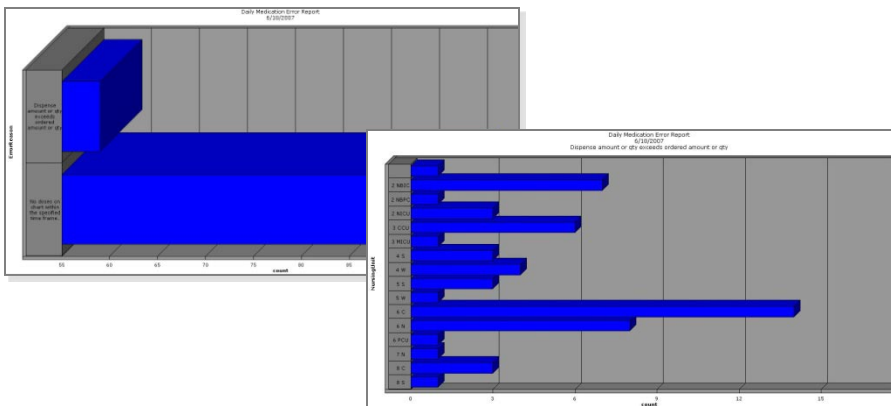
To illustrate the benefits of leveraging report data contained within Health Information Systems with Datawatch BI solutions, a sample Medication Error Report from a large hospital is located below and includes four snapshots (the final three created with Monarch technology):



**Step 1: "Original" Report.** A text-based report consisting of HL7 transactions, which cannot be sorted, filtered, aggregated, or disseminated to end-users based on business rules.

	EMP_NAME	ClinicianID	NursingUnit	MessageDate	MessageTime	MedicationName	Medication OrderNum	Medication Qty	MedicationID	ErrorReason
1	Leonard, Jen	88218	6 C	6/18/2007	11:23:17 AM	Abuterol 0.5%	19	2	15615	Dispense amount or qty exceeds ordered amount
2	Leonard, Jen	88218	6 C	6/18/2007	11:23:17 AM	Abuterol 0.5%	169	2	15615	Dispense amount or qty exceeds ordered amount
3	Leonard, Jen	88218	6 C	6/18/2007	11:23:17 AM	Ipratropium Bromide	170	2	99998	Dispense amount or qty exceeds ordered amount
4	Leonard, Jen	88218	6 C	6/18/2007	11:25:33 AM	Ipratropium Bromide	100	2	99998	Dispense amount or qty exceeds ordered amount
5	Leonard, Jen	88218	6 C	6/18/2007	11:25:34 AM	Abuterol 0.5%	43	2	15615	Dispense amount or qty exceeds ordered amount
6	Leonard, Jen	88218	6 C	6/18/2007	11:25:34 AM	Abuterol 0.5%	1035	2	15615	Dispense amount or qty exceeds ordered amount
7	Leonard, Jen	88218	6 C	6/18/2007	11:25:34 AM	Ipratropium Bromide	1036	2	99998	Dispense amount or qty exceeds ordered amount
8	Leonard, Jen	88218	6 C	6/18/2007	11:26:52 AM	Ipratropium Bromide	218	2	99998	Dispense amount or qty exceeds ordered amount
9	Leonard, Jen	88218	6 C	6/18/2007	11:26:52 AM	Abuterol 0.5%	5	2	15615	Dispense amount or qty exceeds ordered amount
10	Leonard, Jen	88218	6 C	6/18/2007	11:26:52 AM	Ipratropium Bromide	6	2	99998	Dispense amount or qty exceeds ordered amount
11	Leonard, Jen	88218	6 C	6/18/2007	11:26:53 AM	Abuterol 0.5%	68	2	15615	Dispense amount or qty exceeds ordered amount
12	Leonard, Jen	88218	6 C	6/18/2007	11:27:55 AM	Ipratropium Bromide	70	2	99998	Dispense amount or qty exceeds ordered amount
13	Leonard, Jen	88218	6 C	6/18/2007	11:27:55 AM	Ipratropium Bromide	13	2	99998	Dispense amount or qty exceeds ordered amount
14	Aspen, Paul	11866	6 C	6/18/2007	8:20:03 PM	Carvedilol	249	2	23273	Dispense amount or qty exceeds ordered amount
15	Pemney, Kate	11089	6 C	6/18/2007	8:14:55 AM	Furosemide	97	1	41183	No doses on chart within the specified time frame
16	Becker, Amanda	22600	6 C	6/18/2007	8:43:23 AM	Lisinpril	33	2	75210	No doses on chart within the specified time frame
17	Roberts, Chris	22532	6 C	6/18/2007	2:17:04 PM	Saline Flush	29	1	190019	No doses on chart within the specified time frame
18	Harrison, Dawn	001510	6 C	6/18/2007	10:22:01 PM	Simvastatin	32	1	121285	No doses on chart within the specified time frame

**Step 2: Monarch converts text files to tables with rows and columns complete with all metadata intact.** A view of the extracted data in tabular format, allows for data integration with disparate data sources.



**Step 3: BI View #1:** Monarch creates a Summary of Medication Errors by Type.

**Step 4: BI View #2:** Monarch creates a Summary of Medication Errors by Error Type and Location.

### KEY BENEFITS

- Easily transforms data from existing HIS reports into useable formats such as Excel; without programming
- Reduces need for custom database queries and report writing—a true self-service data access and analysis solution
- Provides ability to quickly and easily combine data from multiple sources without programming
- Ends the need to re-key data from printed reports
- Utilizes trusted report data to feed Business Intelligence Dashboard or Data Warehouse
- Provides audit capabilities to identify report source data used in key metrics
- Supports multiple data output sources (SQL, Oracle, DB2, MS-Excel, XMS, RSS, etc.)

### Datawatch Family of BI Solutions Include:

**Monarch™** is the world's leading report mining and data analysis desktop tool. Monarch Standard can easily extract, analyze and export data from existing reports, without programming. It then facilitates easy data analysis, graphing and data exporting to other applications including Excel. Monarch Pro supplies all of the functionality of Monarch, plus allows users to combine and import data from additional data sources, such as databases or spreadsheets, as well as extract data from HTML and PDF files.

**Monarch Data Pump™** is a server-based data distribution, ETL (Extraction, Transformation, Loading) and application integration solution that automatically accesses and transforms unstructured data sources, such as report files, into live, customized data in various formats, including Excel and delivers it via email, OLE DB/ODBC, network folders, RSS, FTP, SharePoint libraries and more. Monarch Data Pump also easily accesses and combines data from enterprise databases such as SQL Server, Oracle™ and DB2™; Excel, Access, as well as PDF, XPS and CSV files, and much more

**Monarch BI Enterprise Server™** transforms existing reports and other business documents into a web-enabled, enterprise business intelligence (BI) solution. It provides enterprise report management, online data analysis, Excel integration and more at a fraction of the cost of other solutions. Monarch BI Enterprise Server requires no programming, so it's up and running in no time. Unlike other BI solutions, Monarch BI Enterprise Server leverages existing report output by creating a web-enabled archive for easy storage and distribution. It also automatically transforms reports, statements, invoices, log files, PDF files and more into live online data in the formats users want, such as Excel.

**Datawatch Dashboards™** is a fully interactive dashboard solution that gives all levels of users the ability to more quickly grasp what is going on in their organization, and to monitor specific business processes and events. Utilizing information from existing databases (in real time if so desired) and other sources of data including reports generated via Monarch, Datawatch Dashboards allows users to visualize data in over 60 different eye-catching graphical chart types. Anyone from senior level executives to operational staff can now easily assess results, identify trends, reveal issues and rapidly initiate appropriate actions with Datawatch Dashboards.

### Datawatch Corporation

Datawatch Corporation, a leader in Business Intelligence (BI) helps companies make better decisions and solve business problems by simplifying access to and analysis of information. Unique among BI vendors, Datawatch transforms the massive amounts of data and documents generated inside or outside a company into actionable insight, without any changes needed to existing systems. Datawatch customers benefit from the right information, in the right context, at the right time. More than 1,000 healthcare organizations rely on Datawatch products including its market-leading Monarch report and data mining solutions. For more information, visit [www.datawatch.com](http://www.datawatch.com).



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