

market data definition language

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# MDDL:

## *The Liberator of Market Data*

By William Laurent



**Y**OU MAY HAVE HEARD THE BUZZ about an XML-based information interchange format called Market Data Definition

Language (MDDL), which was primarily developed by the Financial Information Services Division (FISD) of the Software & Information Industry Association (SIIA). MDDL is a new and publicly available industry classification that standardizes schemas for financial market data exchange. MDDL provides a generic XML-based interchange format on the elements that describe various dynamic (streaming/current) and snapshot (historical) values of financial instruments and corporate events that affect an instrument's status, tradability and valuation at a specific moment in its lifetime. Market-related particulars (including various economic and industrial indicators) are also included in the MDDL specification.

exemplars, the full MDDL paradigm includes the MDDL XML schema, MDDL XML DTD, MDDL glossary/data dictionary and a sample style sheet for the glossary. An MDDL document can be customized to encapsulate a broad range and classification of market data content, helping enable interested parties to better account for, analyze and trade financial instruments in the world markets.

MDDL will capture everything embedded in a financial data feed product (Dow Jones, Telekurs, Bloomberg, etc.) and "regulate" every market data element against a well-formed XML-based interchange format that covers global equities, indices and collective investment vehicles. As data vendors start to push and publish their products according to MDDL guidelines, businesses will be able to spend less time and resources integrating various proprietary external formats into internal data stores and applications. This will result in less points of failure for data consolidation, translation and cleansing processes in diverse data warehouse environments. With a common framework

time/data dimensions.

Deploying global financial systems with XML-driven MDDL as the delivery format offers the opportunity for improvement in automating and consolidating all sorts of trading mechanisms and processes. MDDL establishes a regimented financial lexicon to a platform-neutral communications protocol (XML) that integrates easily with today's most important application development frameworks – J2EE and .NET – and can support the most demanding of publish and subscribe or service oriented architectural (SOA) information models. Enterprise-wide Web service calls, ETL routines and queries that translate and dig for financial information become less proprietary and heterogeneous. Critical system processes that operate against disparate input and feed structures can now translate their market data to one XML-based specification. Developers and system engineers can write highly reusable MDDL compliant application code and extraction jobs under a common banner of standardized market data. Interfaces for market data

## Companies now have a language that "institutionalizes" the formats and definitions of financial data elements.

The vocabulary of MDDL is comprised of a standardized set of semantics, enabled by a common data dictionary that clearly defines and describes market data elements – financial (debt and equity) instruments, market and enterprise events, and industrial indicators framed by contextual time series events (i.e., changing in opening and close price) – and their dynamic relationship to one another. MDDL is open and easily extendable so that it can accommodate additions and expansions of corporate or vendor-specific models of information exchange. Tightly coupled and based on proven XML

that embraces and encapsulates the most important vital market information for data consumers, difficult maintenance tasks and change management issues are also minimized. With MDDL, companies now have a language that "institutionalizes" the formats and definitions of financial data elements, enabling more effective and seamless sharing and exchanging of financial market intelligence. By owning, receiving and capturing market information in a common and codified format with normalized relationships of data elements, financial systems processing improves exponentially throughout the organization. Multisource data integration points that serve as gateways to strategic transactional or decision support systems can be streamlined through a common understanding and consensus of market data content. MDDL will provide the foundation for this common ground across a multitude of asset classes and

query and delivery can leverage a common a request format. Data quality and stewardship is enhanced, with tangible cost savings attained at all levels of the corporate data stream, shortening trade life cycles and making it possible to realize robust portal approaches to data collection and dissemination.

With normalized MDDL semantics, we have an accepted taxonomy of precise meanings and controlled vocabularies. Without effective and centralized management of semantics and hierarchies for reference market data, extending organizational data models to accommodate new classes of financial instruments can be extremely painful and chaotic: Data modelers and programmers that have become "subject matter experts" in whatever proprietary conventions are employed by the enterprise and spend significant amounts of time transposing market data formats and mining autonomous islands of refer-

ence data. Now, multiple and redundant *security master* files that proliferate around the business (one of my clients had more than 25 security master files/information stores) can be better consolidated and maintained both logically and physically for easier federation and unification into internal data systems or more readily organized for ultimate distribution to outside customers.

MDDL is here to stay in the IT world, gaining momentum as it matures in its features and scope. MDDL continues to evolve (the last major full release being 2.0), steadfastly adhering to standards that make market data easier to generate and understand for both producers and consumers. It increasingly solves more business needs by progressively developing robust issuer and market hierarchies; bet-

ter industry, regional and corporate action classifications; and improved characterization and representation of less orthodox assets such as futures and options. Version 1.0 of MDDL defined properties of common equities, mutual funds and exchange indices; version 2.0 adds additional lexical information to cover bonds. Due to its ever increasingly capacious nature in effectively modeling the financial world and its firm roots in universally embraced XML, the risks of implementing MDDL-driven projects are negligible. The tide will not turn back: MDDL is already *the* standard for the representation of financial market entities, helping define the *modus operandi* by which firms administer and manipulate financial market data. Market data vendors quickest to adopt and commit to MDDL fundamen-

tals in their product offerings will gain continued market share as their clients start to experience robust returns on MDDL-related projects and infrastructure.

For more information on MDDL, please visit the MDDL home page at [www.mddl.com](http://www.mddl.com). 

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