

# The Alveo Data Model

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Setting the standard in pricing and reference data modelling.

## **THE TROUBLE WITH STANDARDS, A FAMOUS SAYING GOES, IS THAT THERE ARE SO MANY TO CHOOSE FROM.**

Especially the financial services industry has had a tough time coping with a range of different data formats. This includes different product and company identifiers, industry and financial instrument classifications and a large number of terms and conditions of financial products. Not to mention the variety in content providers and the data formats and delivery methods to use to distribute their content.

Alveo's solution comes with out of the box integration to many content providers and is prepackaged with Alveo's industry standard data model. This provides Alveo's customers with the following benefits:

- Comprehensive industry standard data model describing financial instruments, legal entity and corporate actions as well as risk factors including curves and surfaces.
- Maintained interfaces to map to this standard data model to enable cross-referencing between different data vendor and public identifiers and classifications. This enables like for like comparison, multisource integration and data mastering and allows our clients to easily create their own blends and composites.
- The creation of links between issuers, issued instruments, listings, corporate actions and between derivatives and their underlying instruments to explore and expose relationships. Legal hierarchies of issuers are included.

- Over 2000 descriptive attributes grouped into different categories including location details, identifiers, ratings, income, redemption, underlying securities, MiFID II information and ESG.
- Regular updates to the model and mappings to reflect developments in standards, new product development, tax, ESG, compliance and regulatory reporting requirements. For example, the data model includes 168 ESG fields including the PAI indicators required for the Sustainable Finance Disclosure Regulation (SFDR).
- Incorporation of standards wherever possible including an instrument taxonomy aligned with CFI classification (ISO 10962) and a corporate actions data model aligned with SWIFT standards (ISO 20022).

## **THE ALVEO APPROACH**

Alveo takes a pragmatic approach to data modelling, blending a top down approach (looking at industry developments and what firms need to track) and a bottom up approach (looking at common elements between different data vendors).

Alveo's data model contains a range of different identifiers and instrument or industry taxonomies. This allows firms different ways to access or search for data elements. ISO standards are used including for identifiers, currency codes and country codes.

The data model is the funnel through which data is mapped and mastered.

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## VISUALIZATION AND FLEXIBILITY

In our Ops360 UI, Dynamic Object Views users can define their Business Domains. These Dynamic Object Views define objects, attributes and relationships, their naming and terminology, entitlements and attribute classifications. Each view can be configured with a different Business Process Model for data operations such as cleansing. This enables customers to control their data model, relationships and business rules from a single service and user experience.

Name	ID	Derivation Rule	Validation Rule	Consistency Che...
<b>CODIFICATION</b>				
ISAA INDICATOR	CO_0003	No rule	No rule	No rule
ANNOUNCEMENT DATE	CO_0026	No rule	Percentage Check	No rule
APPLIED CURRENCY MULTIPLIER	CO_0448	No rule	No rule	No rule
BEARER FLAG	CO_0143	No rule	No rule	No rule
BOOK ENTRY FLAG	CO_0024	No rule	No rule	No rule
CLEARING HOUSE NAME	CO_0055	No rule	No rule	No rule
CONSTITUENT LEVEL ATTRIBUTES	CO_0084	No rule	No rule	No rule
COUNTRY CALENDAR CODE FOR TRADING	CO_0037	No rule	No rule	No rule
COUNTRY OF MOST LIQUID MARKET	CO_0416	No rule	No rule	No rule
COUNTRY OF PRIMARY MARKET	CO_0022	No rule	No rule	No rule
COUNTRY PRIMARY EXCHANGE	CO_0435	No rule	No rule	No rule
DEPOSITORY CODE	CO_0048	No rule	No rule	No rule
DEPOSITORY ELIGIBILITY END DATE	CO_0051	No rule	No rule	No rule
DEPOSITORY ELIGIBILITY START DATE	CO_0050	No rule	No rule	No rule
DEPOSITORY ELIGIBILITY STATUS	CO_0052	No rule	No rule	No rule
DEPOSITORY NAME	CO_0049	No rule	No rule	No rule
DTCC REGISTERED FLAG	CO_0054	No rule	No rule	No rule

Alveo's Ops360 data modelling

Customers can easily extend the data model, for example to include internally used identifiers or other proprietary information. Upgrades to data models or interfaces leave those fields untouched.

## THE ALVEO DATA MASTERING PROCESS

Alveo's interfaces to content providers contain mappings to cross reference to the standard data model and represent different data sets in the same model.

Alveo customers can choose to combine different (normalized) sources and use vendor hierarchies to create composites. This allows them to prioritize certain data sources for different asset classes, different markets or different data attributes, or a combination of all three. A composite data set will often combine different identifiers and industry or instrument taxonomies.

During this process, Alveo adds links between related objects to more easily navigate between issuers, (ultimate parents), issued instruments, derivatives and their underlying instruments, listings and corporate actions.

- Bloomberg Data License and Bloomberg Back-Office
- Cusip Global Services
- Derivatives Service Bureau (DSB)
- FactSet advanced package including ESG, corporate actions and security package
- ICE Data Services APEX, Fundrun, IDS, IDSI\_320 Muniview, SIRS, Derivatives
- ISO 20022 MT564/ MT568
- LSE Sedol Masterfile
- IHS Markit
- Moody's RDS
- OCC Encore DDS
- Optionmetrics Ivy DB
- S&P BECRS, GICRS, GICS, Xpressfeed
- SIX Financial Information VDF, Flex and Orenda
- Swaps Monitor Holiday Calendar
- LSEG Refinitiv Datascope Equities, Datascope Plus, Datascope Select, Datastream, DataScope Onsite (GOVCORP, DataScope Onsite (MORT), DataScope Onsite (Municipal), DataScope Onsite (NEWCMO), TREP
- Ultimus (ETF and Indices)
- WM Datenfeed VF-1

Selection of data sources covered

## DATA MODEL SCOPE

The Alveo data model arose from working with financial services clients in buy-side and sell-side globally as well as with many different data providers. The Alveo data model covers all instruments including currencies, interest rate products, corporate bonds, asset backed securities, commodities, equities as well as derivatives including listed options and futures, swaps, swaptions and so on.

The 2000 fields describe instrument terms and conditions and provide detail on income and redemption, credit ratings and any linked corporate actions (e.g. dividends, mergers, stock splits). Tax information such as EU savings tax or FATCA status is also included. The Alveo data model includes issuer information including a large set of ESG data fields.

## CONCLUSION

The Alveo data model provides an effective way to source and compare content coming from different sources. Thanks to the cross-referencing and inclusion of different identifiers, it allows firms to look at instrument or issuer data in different ways. Clients can choose to use the Alveo terminology when distributing data out of the Alveo solution or cast it in a shape of their choosing to easily integrate it into business applications.

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