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SaaS and Risk Model Data

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Cloud Based Northfield Risk Model Data

Risk model data is just a set of records and a covariance matrix… right? What's the big deal? Why complicate something simple?

- To better serve the client & maximize asset coverage
- Asset ID Crossreference, supporting multiple asset IDs for every risk model
- Automatic proxying of missing assets
- Ability to download relevant set of records with relevant IDs
- "Daisychain" risk model datasets by product code (EE model)
- Create user specific dataset for alternative assets (EE model & EENIAC)
- Interface via Website, Java or Webservice

Asset ID Cross Referencing

- What's in a name?
- Assets have multiple IDs
- SEDOL, CUSIP, ISIN, TICKER, etc..
- SEDOLs and TICKERs are exchange specific
- Risk model users may reference different assets by different ID type…
- Risk model users may reference the same asset by different ID type in different portfolios…
- A sample of the variety of available IDs for multiple listings of one asset:

NAME	ISIN	CUSIP	SEDOL	TICKER	RIC	EXCHANGE	CURRENCY
ASM Pacific Technology Ord Shs	KYG0535Q1331	null	null	null	AY7Af.DAp	DBA	EUR
ASM Pacific Technology Ord Shs	KYG0535Q1331	null	null	null	AY7Af.TRE	LSE	EUR
ASM Pacific Technology Ord Shs	KYG0535Q1331	null	null	null	AY7Af.TWEA	TWA	EUR
ASM Pacific Technology Ord Shs	KYG0535Q1331	null	null	522n	522n.BCU	BCU	HKD
ASM Pacific Technology Ord Shs	KYG0535Q1331	null	null	ASMVF	ASMVF.PQ	OTC	USD
ASM Pacific Technology Ord Shs	KYG0535Q1331	null	null	522	0522stat.HK	HKG	HKD
ASM Pacific Technology Ord Shs	KYG0535Q1331	null	5855733	AY7A	0522.F	FRA	EUR
ASM Pacific Technology Ord Shs	KYG0535Q1331	null	6002453	522	0522.HK	HKG	HKD
ASM Pacific Technology Ord Shs	KYG0535Q1331	null	BD8NFD9	522	0522.HZ	HKG	HKD
ASM Pacific Technology Ord Shs	KYG0535Q1331	null	BP3RRD4	522	0522.HS	HKG	HKD
ASM Pacific Technology Ord Shs	KYG0535Q1331	null	BMF1V86	AY7A	0522.BN	BRN	CHF
ASM Pacific Technology Ord Shs	KYG0535Q1331	null	5855733	AY7A	0522.BE	BER	EUR
ASM Pacific Technology Ord Shs	KYG0535Q1331	null	5855733	AY7A	0522.SG	STU	EUR
ASM Pacific Technology Ord Shs	KYG0535Q1331	null	5855733	AY7A	0522.TG	TDG	EUR
ASM Pacific Technology Ord Shs	KYG0535Q1331	null	5855733	AY7A	0522.DEU	DEU	EUR
ASM Pacific Technology Ord Shs	KYG0535Q1331	null	5855733	AY7A	AY7A.QTX	QTX	EUR
ASM Pacific Technology Ord Shs	KYG0535Q1331	null	6002453	522n	522n.BCO	BCO	HKD
ASM Pacific Technology Ord Shs	KYG0535Q1331	null	B02V6Z7	ASMVF	ASMVF.PK	PNK	USD

Asset ID Crossreferencing

- Intra-Month Asset ID Xref table updates on SAAS
- Datascope Integration for realtime Xref lookups (in case of an exception)
- Risk model records are referenced by the same IDs as are used in the request.
- Risk model record set consists of just the assets in the request – useful as EE data consists of millions of records - more than excel or even most text editors can handle…

Dynamic Asset Proxying

If, after the cross-referencing process, no record is returned, SAAS attempts to automatically proxy the asset by:

- Dynamically looking up asset data for the ID
- Mapping it to a precomputed proxy record that suits the asset bucket
- Returning the precomputed proxy, referenced by the asset ID given by the user…
- Asset data required depends on the risk model and asset class… but generally
- Equities: industry classification, domicile, currency, market cap
- Bonds: industry classification, rating, coupon, maturity, country, currency

Daisy Chained Risk Model Datasets

With the EEmodel, came the concept of different data sets covering different asset classes: munis, MBS and funds.

Initially this was to break up the size of the model and enable us to control access by asset class. The MDL service allows queries to span multiple data sets so one can search for multiple asset classes & even access custom assets (private equity, real estate, OTC & Exchange Traded Derivatives) via a single query.

User Specific Risk Model Datasets

Clients can be issued risk model access codes that provide access to “daisy-chained” risk model data sets, including various assets specifically modeled at the clients request to maximize coverage.

This can vastly simplify the process of maximizing coverage - both for direct saas.northinfo.com users and users of partners using third party platforms.

Access

- Web user interface on saas.northinfo.com – access granted with encrypted key…
- Java API – complete javadoc on saas.northinfo.com
- Restful Webservice API with JSON payload – examples on saas.northinfo.com – makes integration to common scripting languages such as python straightforward…