

# CDM for repo and bonds Factsheet for Implementation

## What is the CDM?

The Common Domain Model (CDM) is a standardised, machine-readable and machine-executable blueprint for how financial products are traded and managed across the transaction lifecycle. The initial phase of ICMA's [CDM](#) project for repo and bonds, concluded in July 2021, provides an unambiguous, digital representation of repo and bond transactions in the form of code. In addition, the product scope of the CDM includes OTC derivatives and securities lending.

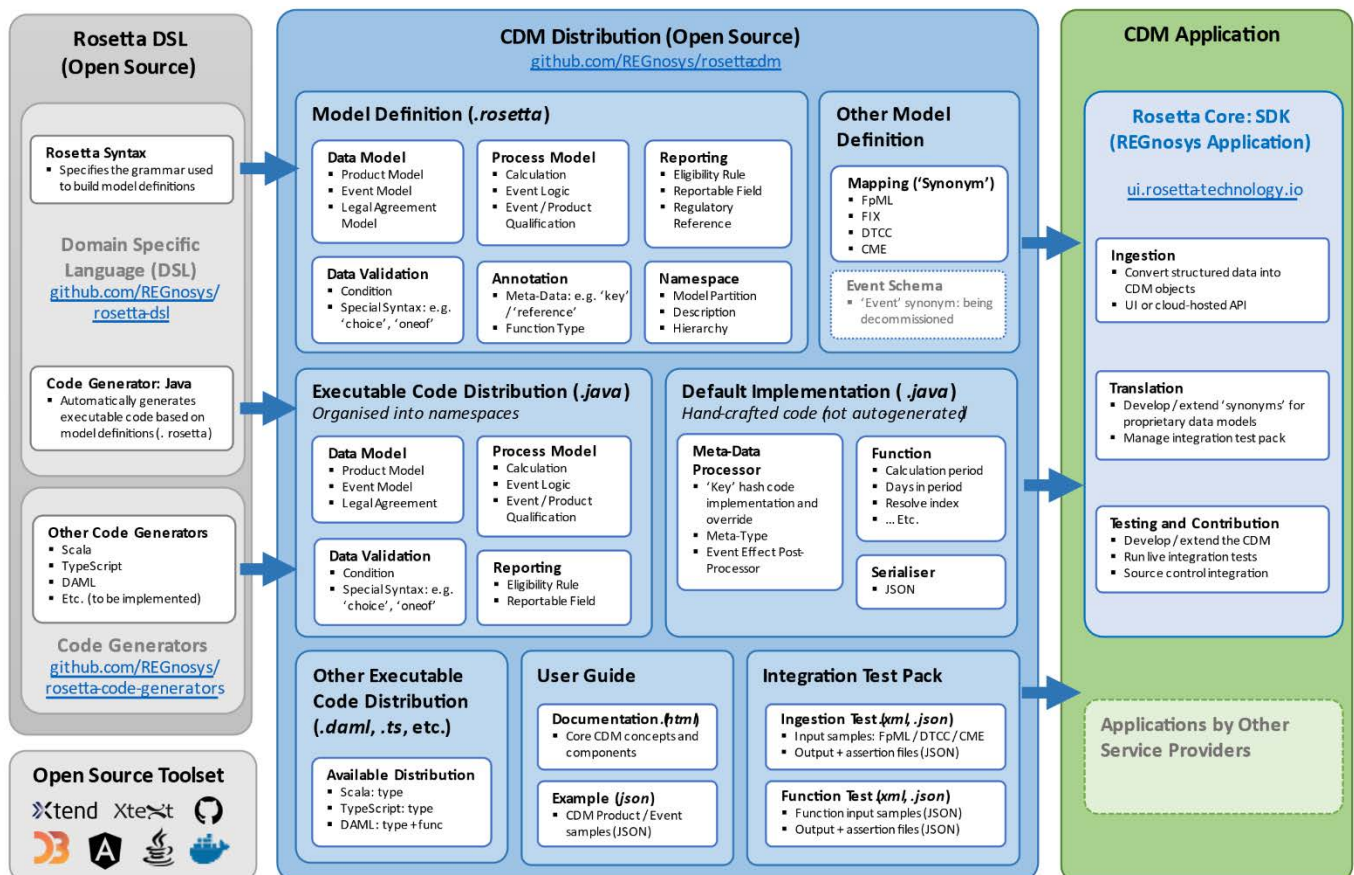
A single, digital processing standard for trade events and actions enhances financial markets' operational efficiency in several ways.

## The CDM components

There are three sets of CDM components, as laid-out in the CDM components diagram below:

- The Rosetta DSL
- The ISDA CDM Distribution
- CDM Application

## CDM Components Diagram



---

## The Rosetta DSL

The Rosetta DSL is the infrastructure component of the CDM. The CDM is a domain model written in a Domain-Specific Language (DSL) called **Rosetta**, comprising a syntax (or **grammar**) and code generators.

To enable adoption and implementation of the CDM by the community of industry participants, the Rosetta DSL and its default code generator (Java) are open source under an Apache 2.0 [license](#). Further code generators are also open source under an Apache 2.0 [license](#), allowing industry participants to write and share code generators for any other language.

The [Rosetta DSL documentation](#) explains the Rosetta DSL, describes the mechanism to write and use code generators, and details all the modelling components available in the Rosetta syntax and their purpose, with examples drawn from the CDM.

## CDM adoption

The CDM for repo and bonds logical model is used to [generate](#) a Java implementation containing the types and enumerations expressed in Rosetta, so that IT systems can natively take advantage of the collective understanding of the product model. The functions defined in Rosetta are also available as executable code so that common processes (e.g. repo execution, clearing, settlement etc.) are ready to use without implementing any business logic.

The CDM contains translation dictionaries that provide a model-to-model mapping between FIX 4.4 and the CDM. The Rosetta Translate execution engine uses these mappings to convert a data document from FIX format to CDM JSON format, and is freely available as a [user interface](#) and as a programmatic [API](#).

## Who can use the CDM for repo and bonds?

- The CDM for repo and bonds is available to ICMA member firms via the [Rosetta portal](#). New users are required to register first, and [contact ICMA](#) to be granted access.

**Note:** ICMA intends to merge in due course the CDM for repo and bonds with the open source CDM for derivatives and securities lending developed by ISDA and ISLA respectively.

- The CDM is distributed subject to the CDM open source licence and can be [downloaded](#) using Rosetta.
- Information on how to access the CDM Java distribution can be found here: [CDM Java Distribution Guidelines](#)

## Resources

ICMA's [CDM webpage](#) includes a [recording](#) of the virtual event of CDM for repo and bonds held on 21 July 2021. Individual demonstrations are available here:

- [An introduction to Rosetta by REGnosys](#) (5 mins)
- Watch [CDM in action – execution, clearing and settlement of a repo transaction by FINXIS LLC](#) (8 mins)
- Presentations by [ICMA](#) and [REGnosys](#).

## ICMA contacts

**Gabriel Callsen**, Director  
[gabriel.callsen@icmagroup.org](mailto:gabriel.callsen@icmagroup.org)

**Rowan Varrall**, Associate  
[rowan.varrall@icmagroup.org](mailto:rowan.varrall@icmagroup.org)

October 2021