

IBM Rational System Architect DoDAF 2.0 Migration Toolkit

Migrating your DoDAF 1.5 models to DoDAF 2.0

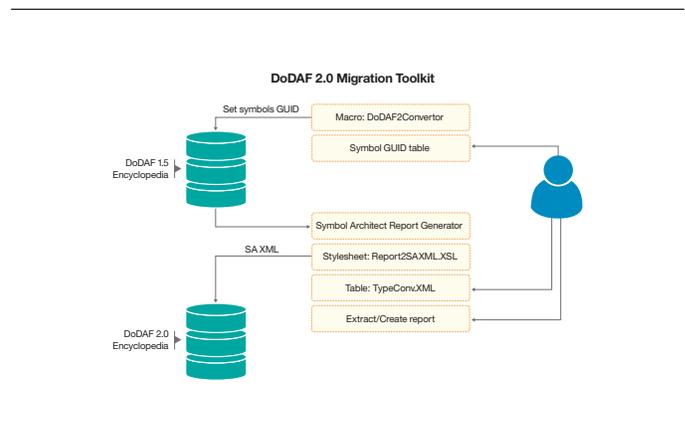


Highlights

- Supports your use of existing Rational System Architect DoDAF model assets in DoDAF 2.0
- Offers the flexibility needed to support different migration patterns based on varied customer use of DoDAF and other model assets
- Provides “baseline” migration reports that can be customized to accommodate customer-specific migration needs
- Constructs the objects and heterogeneous references needed in DoDAF 2.0 from existing DoDAF 1.5 and other models
- Contains enablement workshop material which can be used for self study or as part of a Rational Consulting engagement

Many IBM® Rational® System Architect users have an inventory of model assets in US Department of Defense Architecture Framework (DoDAF) version 1.5 and other sources. These model assets can be in DoDAF Classic, DoDAF ABM, in other models or in all these forms. Users in the DoD, the aerospace and defense industries have created and reused these model assets over an extended period of time for various projects. The DoD has issued a directive calling for the use of DoDAF version 2.0, making migration or rebuilding of these existing assets necessary. Recreating these modeling assets in DoDAF 2.0 can be a costly and time-consuming exercise and also may lead to loss of data during the transition. The System Architect Migration Toolkit is designed to reduce the cost and time needed for the migration.

DoDAF 2.0 is conceptually different from previous DoDAF versions, and its implementation relies on Rational System Architect features, that were not used in prior versions, such as sub-typing and heterogeneous references. In addition, use of prior versions of DoDAF varies, and the mapping to DoDAF 2.0 differs for each user and, in some cases, requires conditional mapping. This migration supports not only the differences between DoDAF 1.5 and DoDAF 2.0 but also different mappings, based on usage.



IBM Rational System Architect DoDAF 2.0 Migration Toolkit can help companies migrate IBM Rational System Architect DoDAF 1.5 models into DoDAF 2.0

The usual hard-coded conversion would not be flexible enough to support varied use of DoDAF objects and the conceptual differences between DoDAF 1.5 and DoDAF 2.0. System Architect Migration Toolkit is designed to provide the needed flexible and automated support to import and integrate the data from previous versions into the DoDAF 2.0 architecture.

In addition to the conversion mechanism, the Toolkit provides supporting items that include:

- Baseline migrations from DoDAF 1.5 to DoDAF 2.0 and supporting documentation.
- An enablement presentation and examples that can be used as self-study or with a Rational Consultant providing instructions.
- Best practices for migrating and creating or modifying the migration mappings.

The System Architect Migration Toolkit, which was first supported in the System Architect V11.4.1 released on October 28, 2011, is being successfully used for migrating the modeling assets to DoDAF 2.0.

The Toolkit is designed to provide the flexibility needed to support diverse customer needs by exposing the source model to DoDAF 2.0 mapping through the System Architect Report Generator. The Report Generator helps the Toolkit to provide the ability to perform the complex and conditional data migration needed for successful migration to DoDAF 2.0. In addition to exposing the mapping, the toolkit supports the migration from the homogeneous reference properties used in DoDAF 1.5 and other models to the heterogeneous reference properties necessitated by the extensive sub-typing in DoDAF 2.0.

The baseline reports that are included in the Toolkit support various migration patterns and contain examples of both simple and complex migration mappings, including:

- Migrating a source definition and its relationships to a DoDAF 2.0 definition with relationships.
- Migrating parent/child relationships from source diagram symbols to DoDAF 2.0 definitions in compliance with the DoDAF 2.0 data-centricity requirement.
- Extracting the diverse information from ICOM arrows and migrating that information to create DoDAF 2 Performers, Rules, Activity Resource Overlaps and Activity Performed by Performers.
- Migrating relationships that existed in source models to appropriate DoDAF 2.0 data-centric relationships contained in definitions.

The Toolkit contains an XSL stylesheet that can enable the System Architect Report Generator (used to externalize the mappings) to create a System Architect XML. Running each migration report creates XML which contains the DoDAF 2.0 definitions and relationships. This XML is imported into a System Architect DoDAF 2.0 encyclopedia for use in creating standard and fit for purpose views, matrices and reports.

IBM can help solve the DoDAF 1.5 to DoDAF 2.0 migration issue in a way that supports the needed constructs in DoDAF 2.0, while providing the flexibility to accommodate our customers varied uses of DoDAF.

“We could not have done the conversion from DoDAF 1.5 to 2.0 as quick as we did without IBM’s conversion toolkit and their onsite help. These were invaluable!”

—Mark Frazier, AFMC Chief Architect

IBM has experienced consultants and developers that have supported DoDAF since its inception. As the DoDAF standard progressed over the years, from C4ISR to DoDAF 2.0, our knowledge, experience and support for our customers has grown accordingly. We have contributed to the standard by supporting our customers’ use of DoDAF and by implementing the latest DoDAF standard in IBM Rational System Architect.

Optionally, Rational consultants can assist you in using the Toolkit to migrate your models to DoDAF 2.

The US Air Force Materials Command (AFMC) uses IBM Rational System Architect and SA/XT extensively in the creation and use of DoDAF models. The models are used in decision making throughout AFMC, including at the four-star-general level. Loss of data as a direct result of the migration or because of the time to do the migration was not acceptable. The migration had to be done quickly and accurately in order for AFMC to continue making decisions based on up-to-date information.

AFMC’s Chief Architect, Mark Frazier, worked part-time with the Workshop enablement material, becoming familiar with the Rational System Architect Migration Toolkit, prior to a three-day Rational engagement. This allowed Mark to fully participate in the engagement, in which Mark and IBM Rational representative Chuck Faris worked with the Toolkit to successfully complete the AFMC migration. The migration allowed AFMC to seamlessly continue its work in DoDAF 2 without interruption.

Compliance with added advantage

The Department of Defense and the US Government Accountability Office (GAO) have mandated the use of DoDAF 2.0. DoDAF 2.0 is conceptually different from previous DoDAF versions, and the mapping to DoDAF 2.0 differs for each user, based on their specific use. Hence, many organizations find it challenging and risky to migrate or recreate definitions from source models to DoDAF 2.0. Without the proper specialized resources, tools and processes, migration of data to DoDAF 2.0 can lead to potential time and cost overruns.

IBM can provide best practices, methodologies and tools that can help organizations to comply with the DoDAF 2.0 mandate without the need to recreate the data. By using IBM System Architect DoDAF 2.0 Migration Toolkit, organizations can reduce the complexity and risk of data loss and support a more effective migration.

For more information

To learn more about how the IBM Rational System Architect Migration ToolKit can help your DoDAF migration, please contact your IBM marketing representative or IBM Business Partner, or visit the following website to download the System Architect Migration Toolkit: <http://ibm.co/dodafmigrationtoolkit>

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