CORE™

CORE 8 to 9 Data Migration Guide

Vitech

Vitech Corporation
2270 Kraft Drive, Suite 1600
Blacksburg, Virginia 24060
540.951.3322 FAX: 540.951.8222
Customer Support: support@vitechcorp.com
www.vitechcorp.com

CORE™ is a trademark of Vitech Corporation and refers to all products in the CORE software product family.

Other product names mentioned herein are used for identification purposes only, and may be trademarks of their respective companies.

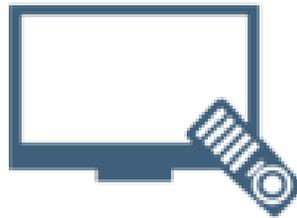Publication Date: June 2015

TABLE OF CONTENTS

CUSTOMER RESOURCE OPTIONS

Supporting users throughout their entire journey of learning MBSE is central to Vitech's mission. For users looking for additional resources outside of this document, please refer to the links below. Alternatively, all links may be found at www.vitechcorp.com/resources.

Webinars
Webinar archive with over 40 hours of premium industry and tool-specific content.

Screencasts
Short videos to guide users through installation and usage of Vitech software.

A Primer for Model-Based Systems Engineering
Our free eBook and our most popular resource for new and experienced practitioners alike.

Help Files
Searchable online access to Vitech software help files.

Technical Papers
Library of technical and white papers for download, authored by Vitech systems engineers.

MySupport
Knowledge Base, Exclusive Webinars and Screencasts, Chat Support, Documents, Download Archive, etc.

Our team has also created resources libraries customized for your experience level:

All Resources	Advanced
Beginner	**IT / Sys Admin**
Intermediate	**Student**

This guide describes the new schemas provided with CORE 9 and details how to migrate projects using previous schema versions using a migration script. Before conducting the migration process on your data it is important that this guide be read in its entirety. The data migration steps will change class names, relationship names, and attribute options.

After reviewing this guide, contact Vitech Customer Support if you need additional assistance. Our Support Team is available Monday-Friday 9am-6pm Eastern with extended hours available by appointment.

Email: support@vitechcorp.com
Phone: 540-951-3999

OVERVIEW OF SCHEMA CHANGES IN CORE 9

CORE 9 will support schemas from CORE 8. However, only CORE 9 schemas will provide full support of new views, diagrams, and features.

Users should assess their project needs, their project lifecycle, and the changes present in the v90 schemas to determine if, and when, to migrate their schemas. Projects nearing a major milestone or approaching conclusion should strongly consider remaining with their current schema. Vitech recommends that others consider moving to the v90 schemas to take advantage of the latest improvements in the MBSE language.

Pages 3-7 of this document contain a complete list of all schema changes. For the most part, these changes reflect revisions, rather than deletions. Below is a chart that highlights where information is removed or changed in significant ways.

Changes in both the Base and DoDAF schemas

Class	Detail of Change	Impact to Data
State/Mode	Entities with type Mode transformed to Mode class.	These entities will be moved to the Mode class.
	Entities with type State or nil transformed to State class.	These entities will be moved to the State class.
	Type attribute is removed.	The attribute is used to designate if entities become States or Modes in the migration and is obsolete after migration. No notice is made in conflict file.
Mode	If defined by relationship has a target, it is removed.	Relation is removed. Notice is made in conflict file.
	If includes relationship has a target, it is removed.	Relation is removed. Notice is made in conflict file.
	If included in relationship has a target, it is removed.	Relation is removed. Notice is made in conflict file.
State	If includes relationship has a target, it is removed.	Relation is removed. Notice is made in conflict file.
Function	For all targets of the defines relationship, if the type is Mode, then the relation is dropped.	Relation is removed. No notice is made in conflict file.
Risk	RiskFactor attribute is renamed to riskRating. Existing values for this attribute are removed.	Attribute information is removed. No notice is made in conflict file.

Changes in the DoDAF schema only

Class	Detail of Change	Impact to Data
OperationalNode	If joined to relationship has a target, it is removed.	Relation is removed. Notice is made in conflict file.
OperationalActivity	For all targets of the defines relationship, if the type is Mode, then the relation is dropped.	Relation is removed. No notice is made in conflict file.

USERS AND GROUPS

Vitech recommends that you transfer your users and groups separately from your data, and that you do so prior to data migration. To transfer your Users and Groups:

1. Log into CORE 8 (or any prior version.)
2. Click *File > Export*.
3. In the Export Options dialog, in the Export drop-down, select *Users & Groups*.
4. Click *OK*.
5. Name the file and designated the location to which you would like to save the file.
6. Click *Save*.
7. Close CORE 8.
8. Log in to CORE 9. (You will need to log in using the default Administrator account. The password is admin.)
9. Click *File > Import > CORE Data File*.
10. Navigate to the location where you saved the file in step 5. Select that file and click *Open*.
11. In the import wizard, click *Next* two times.
12. Then click *Import*.
13. CORE will alert you when the import is complete.

DATA MIGRATION OVERVIEW

Migration form CORE 8 to CORE 9 is a two-part process. The first part is to upgrade your CORE software from CORE 8 to 9. (Refer to the CORE 9 Installation Guide available on the downloads page of our website for detailed information regarding upgrading your software and your license.) The second part is to migrate project data to the v90 schema. While Vitech recommends that users update their software to CORE 9 as a soon as possible, there is no requirement to migrate project data immediately or at all. CORE 9 supports both the new v90 schema as well as the schemas in CORE 8. Note that if you choose not to upgrade your schema that you may not be able to take full advantage of the views, diagrams, and reports in CORE 9.

> If your data is in a schema version other than from CORE 8, please contact our Customer Support Team for assistance.

Step-by-Step Instructions for Data Migration

All steps of the database migration should be completed by a team member with administrator permissions.

DO NOT uninstall CORE 8 until you have completed your data move, and have reviewed and approved the data.

1. Export your project from CORE 8 using the *File > Export* command. Select *Project Backup* in XML format.
2. If your project includes custom schema extensions, export your schema extensions separately using the *File > Export* command. Select *Project Schema* in XML format.
3. Import your project into CORE 9 using the *File > Import > CORE Data File* command. In the Import Wizard, select to import it into a new project. (This will use the schema that was included with the export in step 1.)
4. Import the appropriate schema migration file into the project you created using the *File > Import > CORE Data File* command. (Both files referenced below are located in the \Program Files\Vitech\CORE 9\Data\Extensions folder.
   a. Select BaseSchemav80Migrator if you are using a Base schema.
   b. Select DoDAFv20Schemav80Migrator if you are using a DoDAF schema.
5. Run the v80 to v90 Project Migrator v1.0 script using the *Tools > Run Script* command.

6. At the conclusion of the migration script, CORE will alert you that the project has been migrated. Click **OK**.
7. Then CORE will ask if you want to open the migration log file. Click **Yes** and review the output. Save the file if desired.
8. Click **File > Import > CORE Data File**.
9. Select the **\Program Files\Vitech\CORE 9\Data\Extensions** folder.
10. Select the **Finalv80SchemaChanges.xml** file and click **Open**.
11. In the Import wizard, select to import it into your existing project.
12. Export the project data. Note that in order to avoid some of the artifacts of the migration, using the **File > Export > CORE Data File** command and select **Advanced Options**. Select the following checkboxes:
    a. Database and the Stored Views sub-option
    b. Folders
    c. Filter Definitions
    d. Hierarchy Definitions
    e. Sort Definitions
13. Create a new v90 project (using the Base or DoDAF v20 schema as appropriate) giving it a unique name.
14. New projects in CORE 9 are created with a few elements to help you get started. Because your project is already in progress, you'll want to delete those. Click **Project > Erase > Database**. Click **Yes** to confirm.
15. If you have custom schema extensions, import your schema file from step 2 into the new project. (Ensure that the schema extensions have imported correctly with the v90 schema by switching into database mode if not already there. If there are conflicts with the schema additions and v90 schema you need to correct these before you can continue.)
16. Import your database from Step 12 into the new project.
17. Copy the project properties from the original project to the new project. These include the description, guidance, base path, external graphics path, etc. from the project property sheet.
18. In the Administrative tools, ensure that the project settings are correct. These would include versioning, audit logs, project permissions, initial element permissions, and maintaining merge history.
19. In order to create a backup of your post-migration project, export your v90 project using the **File> Export > CORE Data File** command. Select Project Backup in XML format.
20. Enjoy CORE 9!

After migration, you will have two projects: your original version and the version with the new schema. Take some time to examine them, and to examine the Conflict output (if there is one). If you wish to revert to the original version, you can simply delete the new version through Administrative Tools. (Be careful when deleting projects! It is irreversible!)

COMPLETE LIST OF SCHEMA CHANGES IN V90

General Changes Included in All Schemas (including Legacy Schemas)

- New classes
    - Event (supporting state transition)
    - Transition (supporting state transition)
- New relation pairs
    - contained by / contains
    - elicited by / elicits
    - encompassed by / encompasses
    - entered by / enters
    - exited by / exits
    - incorporated by / incorporates
    - reflected in / reflects
- Class changes
    - Change Request Package
        - Added attribute action
        - Added target class Document to generated by relationship
        - Added target class section to impacts relationship
    - Document
        - Added attribute revisionNumber
    - Function
        - Added incorporated by relationship with target class State
        - Added reflected in relationship with target class Function
        - Added reflects relationship with target class Function
        - Add service relationship with target class Transition
    - Requirement
        - Added elicited by relationship with target class UseCase
    - State/Mode
        - Added PUID attribute
        - Added entered by relationship with target class Transition
        - Added exhibited by relationship with ImplementationUnit
        - Added exited by relationship with target class Transition
        - Added incorporates relationship with target class Function
    - UseCase
        - Added PUID attribute
        - Added elicits relationship with target class Requirement
    - VerificationRequirement
        - Added PUID attribute

Systems Engineering Schema Changes (also reflected in the DoDAF 2.0 Schema)

- New classes
    - Mode (to separate the concepts of states and modes)
- Relationship changes
    - Changed wholeMultiplicity on the built from / built in relationship to an enumeration to support representation on block definition diagrams
- Class changes
    - Component
        - Moved joined to relation from parent to Component
    - ConnectingUnit
        - Added includes relationship
    - Function
        - Removed defines relation
    - ImplementationUnit
        - Removed values attribute (now addressed by parameters)
        - Removed connected thru relationship
        - Removed joined thru relationship
        - Removed joined to relationship (moved to a subclass)
        - Added contains relationship with target class Mode
        - Added exhibits relationship with target class State (moved from a subclass)
        - Added generates relationship with target class Nexus
    - Interface
        - Added includes relationship with target class Interface
        - Added included in relationship with target class Interface
        - Set Parent-Child relationship to includes
    - Link
        - Added includes relationship with target class Link
        - Added included in relationship with target class Link
        - Set Parent-Child relationship to includes
    - Risk
        - Renamed consequences attribute to significance
        - Changed impact attribute
            - Renamed to consequence
            - Changed "Low" to "1 – Minimal"
            - Changed "Medium" to "3 – Moderate"
            - Changed "High" to "4 – Severe"
            - Added "2 – Minor"
            - Added "4 – Significant"
        - Changed likelihood attribute possible values
            - Changed "Low" to "1 – Not Likely"
            - Changed "Medium" to "3 – Likely"
            - Changed "High" to "5 – Near Certainty"
            - Added "2 – Low Likelihood"
            - Added "4 – High Likelihood"
        - Added mitigationCost attribute
        - Changed riskFactor attribute
            - Renamed to riskRating
            - Changed type to an enumeration
            - Added possible values to type attribute
            - Logistics
            - Requirements
            - Test and Evaluation
    - State/Mode
        - Renamed to State
        - Changed abbreviation to ST
        - Removed type attribute
        - Removed defined by relationship
        - Remove includes relationship
        - Removed included in relationship
        - Added decomposed relationship with target class State

- Added decomposed by relationship with target class State
- Added encompassed by relationship with target class Mode
- Facility changes
  - Document Management
    - Added Event
    - Added Mode
    - Added Transition
  - Essentials
    - Added State
  - Systems Engineering
    - Added Event
    - Added Mode
    - Added Transition
  - Verification Facility
    - Added Event
    - Added Mode
    - Added Transition

DoDAF 2.0 Schema Changes
- New Classes
  - Classification
- New Relationship pairs
  - classified by / classifies
- Class changes
  - Capability
    - Added PUID attribute
  - ConnectingUnit
    - Added accessControl attribute
    - Added availability attribute
    - Added confidentiality attribute
    - Added integrity attribute
    - Added nonrepudiationConsumer attribute
    - Added nonrepudiationProducer attribute
    - Added includes relationship
    - Set Parent-Child relation to includes
  - Event
    - Added target class OperationalInformation to responsible for relationship
  - Needline
    - Added includes relationship with target class Needline
    - Added included in relationship with target class Needline
    - Set parent-child relation to includes
  - OperationalActivity
    - Removed defines relationship with target class State
    - Added incorporated by relationship with target class State
    - Added target class Transition to the services relationship
  - OperationalInformation
    - Added criticality attribute
    - Added target class Event to the assigned to relationship
  - Requirement
    - Added objective attribute
    - Added performanceParameterType attribute
  - State
    - Added target class OperationalActivity to the incorporates relationship
  - Transition
    - Added target class OperationalActivity to the serviced by relationship
- Facility Changes
  - Architecture Facility
    - Added Classification
    - Added Event
    - Added Mode
    - Added Transition

Vitech Corporation

2270 Kraft Drive, Suite 1600
Blacksburg, Virginia 24060
540.951.3322 FAX: 540.951.8222
Customer Support: support@vitechcorp.com
www.vitechcorp.com