ENOVIA Buyer Analytics

Admin Guide

3DEXPERIENCE R2017x

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Overview

Welcome to the *ENOVIA Buyer Analytics Administrator's Guide*. This guide is intended for users to know the installation of ENOVIA Buyer Analytics.

In this section:

- *About Using this Guide*

About Using this Guide

This Administrator's guide describes information the System Administrator needs to know about the installation of ENOVIA Buyer Analytics on various Operating System i.e. Sun Solaris, Red Hat Linux, AIX, SUSE, Linux and Windows. Business administrators who are building their own schema might also find the guide useful for getting examples and ideas. This guide enlists the enhancement made in the existing ENOVIA RFQ Management Foundation schema and Data model for ENOVIA Buyer Analytics.

This guide also describes information the System Administrator for the host company needs to know about the setting up and configuring 'ENOVIA Buyer Analytics'. Most information that Administrators need is common to all suites in the ENOVIA applications and is described in the Application Exchange Framework Guide

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Pre-requisites for ENOVIA Buyer Analytics Installation

This section describes the pre-requisites for the installation of ENOVIA Buyer Analytics.

In this section:

- *Installation Pre-requisites*

Installation Pre-requisites

Sr. No.	Application	Version
1.	ENOVIA Live Collaboration Business Process Services	3DEXPERIENCE R2017x
2.	ENOVIA RFQ Management Foundation	3DEXPERIENCE R2017x
3.	ENOVIA Supplier Quality Management Foundation	3DEXPERIENCE R2017x
4.	ENOVIA RFQ Response Foundation	3DEXPERIENCE R2017x
5.	ENOVIA Supplier Quality Response Foundation	3DEXPERIENCE R2017x

Stores Settings

Before installation of ENOVIA Buyer Analytics, it is mandatory to configure a file or ftp store.

UI Based Installation

Installation of ENOVIA Buyer Analytics requires JRE.

Installation Procedure

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This chapter includes the steps of installation for ENOVIA Buyer Analytics 3DEXPERIENCE R2017x on various platforms.

This section includes:

- *Installing an Application on UNIX*

- *Installing an Application on Windows*

Installing an Application on UNIX

To install an application on UNIX you must:

1. Log in as a user who has the privileges to install the application (copy files to the Web server root directory, install on the database, run MQL.sh, etc.).

2. If installing from a CD, mount the CD so the operating system software can access the files contained on the disk.

3. Make sure you know the path where mql application script is located.

Installing an Application on UNIX for RedHat Enterprise Linux 6.2, SuSE Enterprise Linux 11

To install the ENOVIA Buyer Analytics on UNIX

1. Copy the .tar file from the CD or the ENOVIA Download page to the distribution directory.

2. Unzip the tar file to the distribution directory. Change to the directory named "install" under the distribution directory and run the setup script as follows:

```
cd /DISTRIB_DIR/install

./setup.sh
```

3. Choose the directories for the installation to use.

```
Choose Scripts Directories

--------------------------------------------------------
--
Enter install directory path for ENOVIA Server Install
Platform[]? i.e. location of enovia.install
[/root/Builds_1049/byr]?
/root/Enovia_1050/Server
```

4. Tell the setup program the user name and password for a user that has Business and System Administrator privileges, such as creator. If the user has no password, accept the default.

```
Specify Administration Parameters

--------------------------------------------------------
--
Enter Administrator user for ENOVIA Studio Modeling
Platform? [creator]?
```

```
Enter Administrator password for ENOVIA Studio
Modeling Platform? [NONE]?
```

5. After this the installation starts. Once the installation gets completed check the files named **BuyerAnalyticsBuild.log**, **BuyerAnalyticsBuild.err, BuyerAnalyticsCheck.err** , **BuyerAnalyticsCheck.log** present in your installation script directory to get details about errors and to see exactly what items were added and/or modified.

Installing an Application on Windows

1. Log into Windows as a person with Administrator privileges.

2. Insert the ENOVIA application CD-ROM into the CD drive.

   From the Start menu, choose Run and browse to the CD drive. Run the program setup.exe.

   Or

   Unzip the .zip file, and run setup.exe.

3. The Welcome frame is displayed; click "**Next**" to continue.
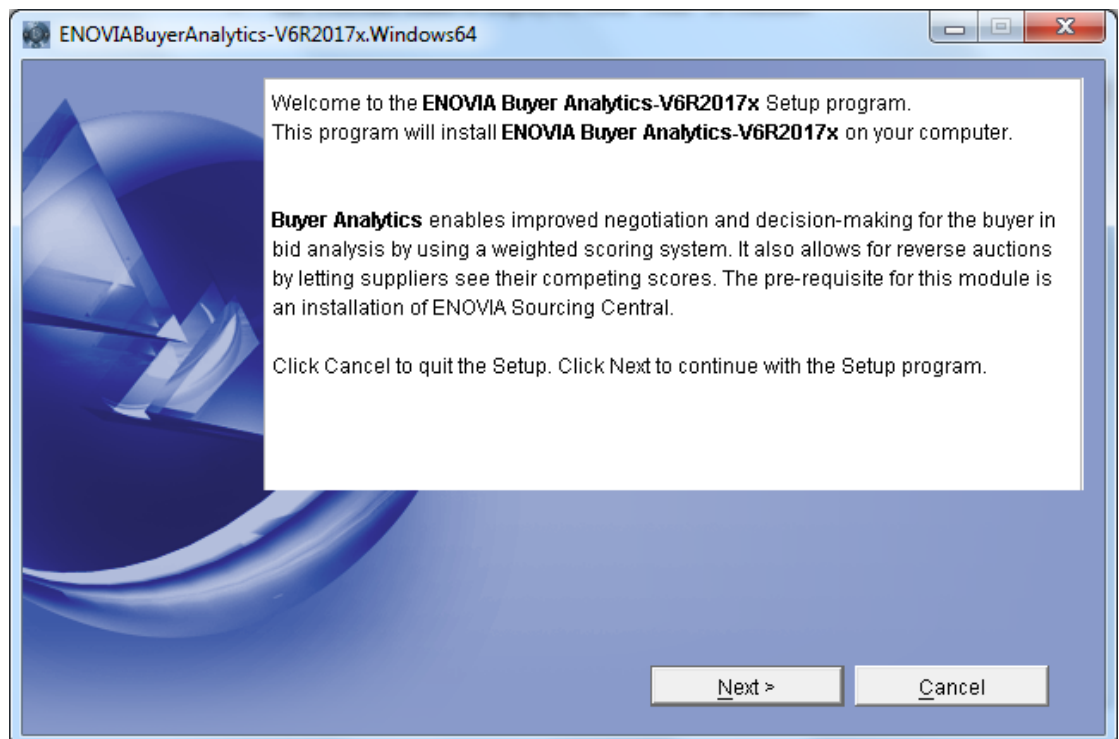
4. The next step allows you to choose the Installation Type
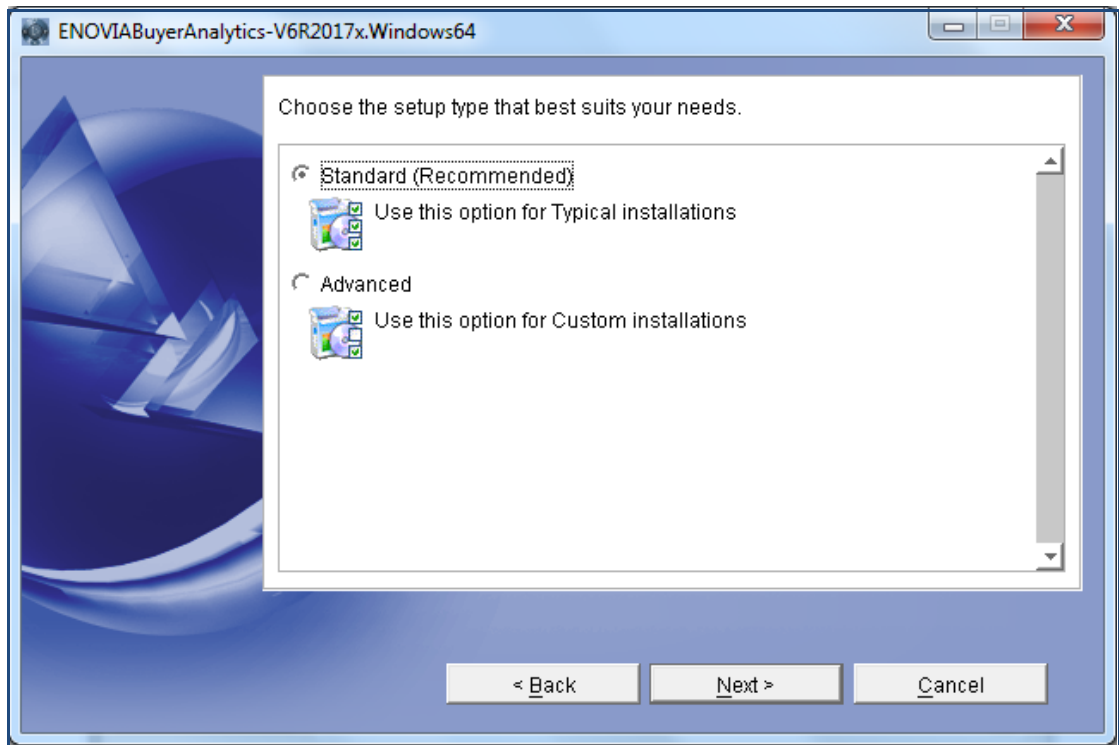
5. You will be prompted for this step, provided 'Advanced Option' is selected in step 4. Here features of ENOVIA Buyer Analytics (version V6R2017x), along with its sub-components are listed. You can choose the components you want to install.
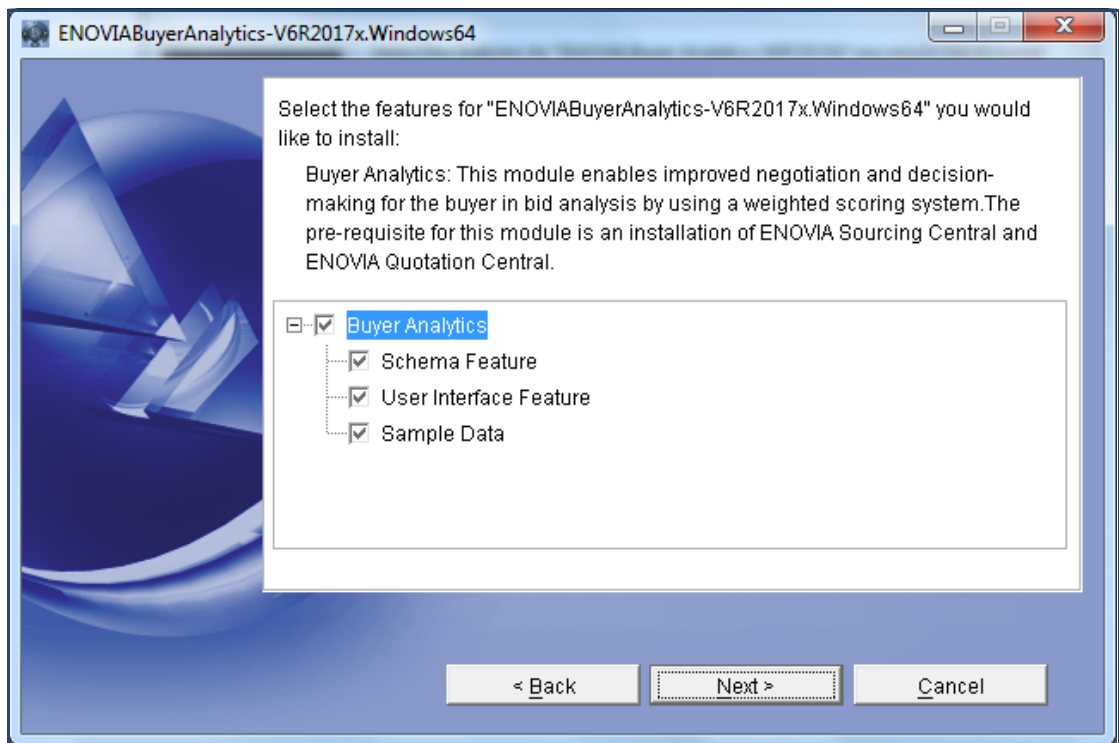
6. Enter the RMI/EJB installation directory containing the Matrix Collaboration Server installation.
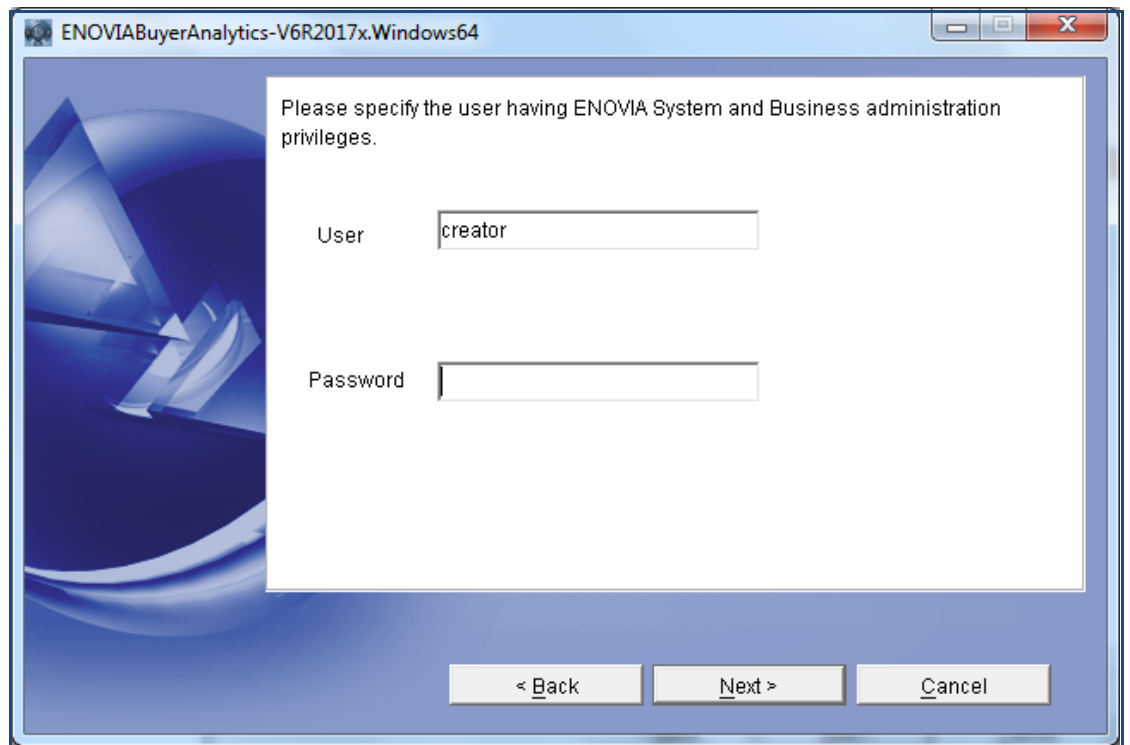
7. In this step you have to specify the user name and password for a user that has Business and System Administrator privileges, such as creator. If the user has no password, accept the default.
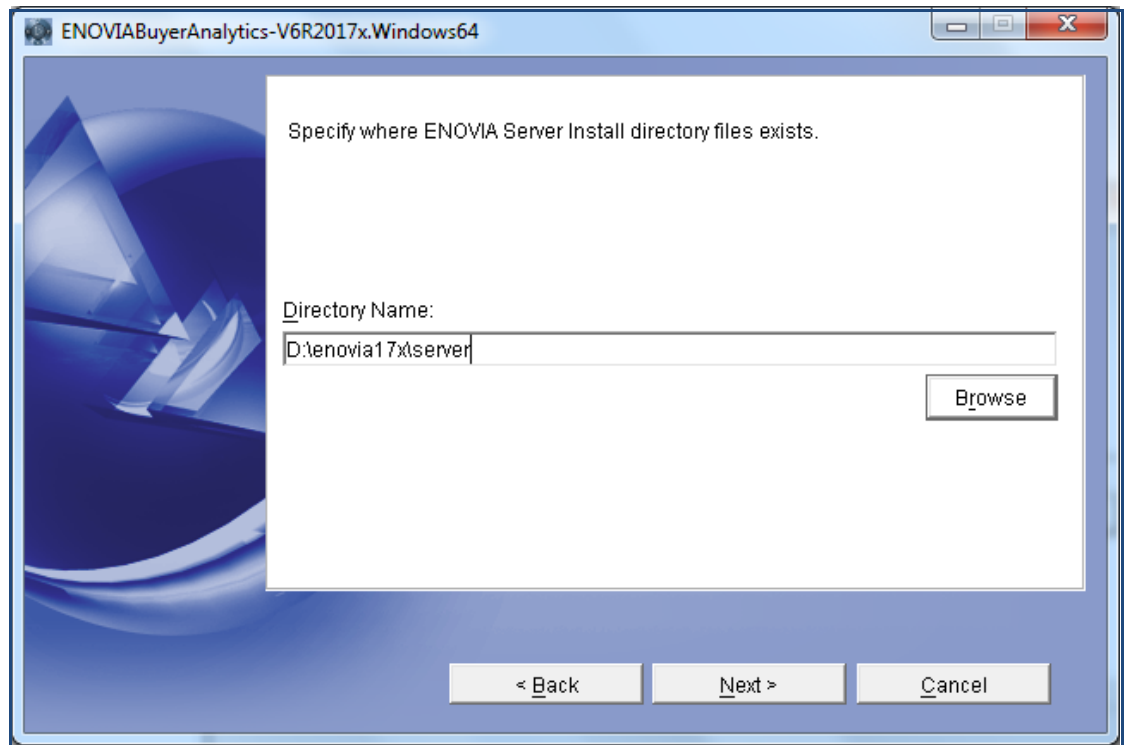
8. On completion, a summary is displayed notifying you if the setup encountered errors or completed successfully. Check the files named **BuyerAnalyticsBuild.log , BuyerAnalyticsBuild.err, BuyerAnalyticsCheck.err , BuyerAnalyticsCheck.log** for ENOVIA Buyer Analytics in your installation script directory to get details about errors and to see exactly what components were added and/or modified. If error exists in these log files, review the mxtrace.log for additional details.
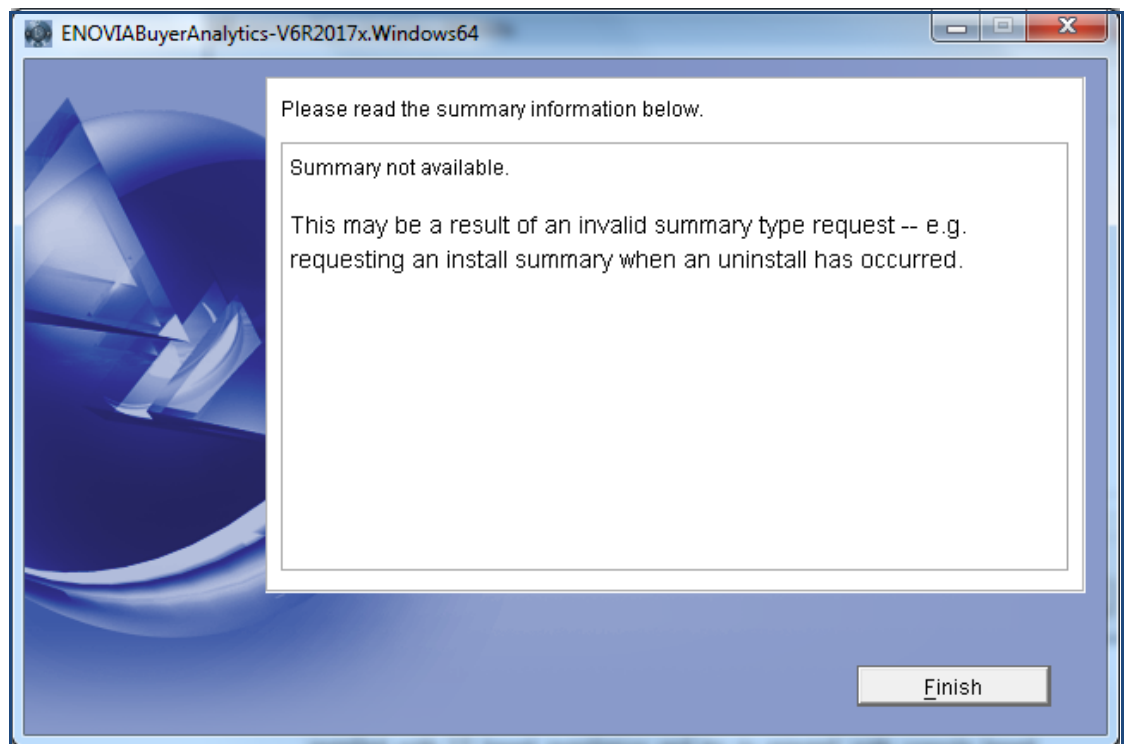
Note: For installation, please note that if ENOVIA Buyer Analytics is installed with UI based installation and try to reinstall with console based installation next time, and then the uninstaller program should be run.

This uninstaller program is present at:

<CORE_FOLDER>/_uninst/BuyerAnalytics/BuyerAnalytics.jar

The command to run the uninstaller in console based mode:

 java -cp BuyerAnalytics.jar run -console

OR

The command to run the uninstaller in UI based mode:

enovia2017x\Server\Apps\BuyerAnalytics_uninst\uninstaller.exe

Migration Patch

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This patch is to be applied only if Sourcing Analytics Module 10.8 is upgraded to ENOVIA Buyer Analytics Module V6R2009 or onwards.

This section includes:

- *Applying Ranking Migration Patch*
- *Applying Category Migration Patch*

Applying Ranking Migration Patch

To apply this migration patch following procedure must be followed:

To Execute a Java Program through MQL:

1. Connect to MQL and Run these commands
2. Set the context to the user having Administrative privileges.

    set context user [USER WITH ADMINISTRATIVE PRIVILEGES];
3. Compile the JPO.

    compile prog AARankingMigrationBase;
4. Execute the Migration Procedure

    exec prog AARankingMigrationBase;
5. Check the Return Code on MQL Prompt, Return code 0 means the Ranking

    Migration was successful.
6. Exit the MQL.

Applying Category Migration Patch

To apply this migration patch following procedure must be followed:

To Execute a Java Program through MQL:

1. Connect to MQL and Run these commands
2. Set the context to the user having Administrative privileges.

    set context user [USER WITH ADMINISTRATIVE PRIVILEGES];
3. Compile the JPO;

    compile prog AACategoryMigrationBase;
4. Execute the Migration Procedure

    exec prog AACategoryMigrationBase;
5. Check the Return Code on MQL Prompt, Return code 0 means the Category

    Migration was successful.
6. Exit the MQL.

Setting up Environment for ENOVIA Buyer Analytics

This chapter includes the post installation steps to be followed after installation of Buyer Analytics 3DEXPERIENCE R2017x is completed successfully.

In this section:

- *Setting up Custom JSP Filter in web.xml*

- *Setting up Environment for ENOVIA Buyer Analytics*

Setting up Custom JSP Filter in web.xml

After Installation of ENOVIA Buyer Analytics, modify the web.xml file as shown below.

In the custom filter section, change the prefix string to cam_ as shown below

```
<filter>
<filter-name>CustomFilter</filter-name>
<filter-class>com.matrixone.servlet.CustomFilter</filter-class>
<init-param>
        <param-name>ematrix.customFilePrefix</param-name>
        <param-value>cam_</param-value>
    </init-param>
</filter>
```

Uncomment the <filter-mapping> tags from 'Custom filter mappings' section ENOVIA RFQ Management Foundation (for ENOVIA Buyer Analytics).

Redeploy the application and start the Application Server.

Setting up Environment for ENOVIA Buyer Analytics

Adding System Mandatory Attributes

To add 'Ranking Indicators' and 'Ranking Method' attributes as System Mandatory attributes

1. Open emxSourcing.properties file.
2. Append the following values for the key 'emxSourcing.type_RequestToSupplier.MandatoryAttributes' attribute_RankingIndicators attribute_RankingMethod
3. Save and close the file.

Settings for Websphere Application Server

Note: These settings are applicable for OS's other than AIX.

1. Find the castor-1.3 jar from directory where stack is installed\server\distrib\enovia\WEB-INF\lib.

2. Open the jar using winzip and find castor.xml.properties in folder "org\castor\xml".

3. Open the file.

4. Find the setting "org.exolab.castor.xml.serializer.factory=org.exolab.castor.xml.XercesJDK5XMLSerializerFactory" and comment it.

5. Find the setting "org.exolab.castor.xml.serializer.factory=org.exolab.castor.xml.XercesXMLSerializerFactory " and uncomment it.

6. Save the castor.xml.properties of the jar and copy this modified jar to all the locations where it was copied earlier.

7. Restart the server.

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Data Model

The Application Exchange Framework contains hundreds of administrative objects, some of which are used by many ENOVIA applications and some of which are used by just one application. Use this section as a guide for finding the objects that belong to a particular application.

These sections show data models for ENOVIA RFQ Management Foundation along with ENOVIA Buyer Analytics changes. A data model shows the most basic information needed to understand an application's schema: the business object types and the relationships that connect the types.

In this section:

- *ENOVIA RFQ Management Foundation Main Data Model: RFQ, Quotations, and Line Items*
- *ENOVIA RFQ Management Foundation Data Model Continued: Line Item Extensions*
- *Schema Definitions*
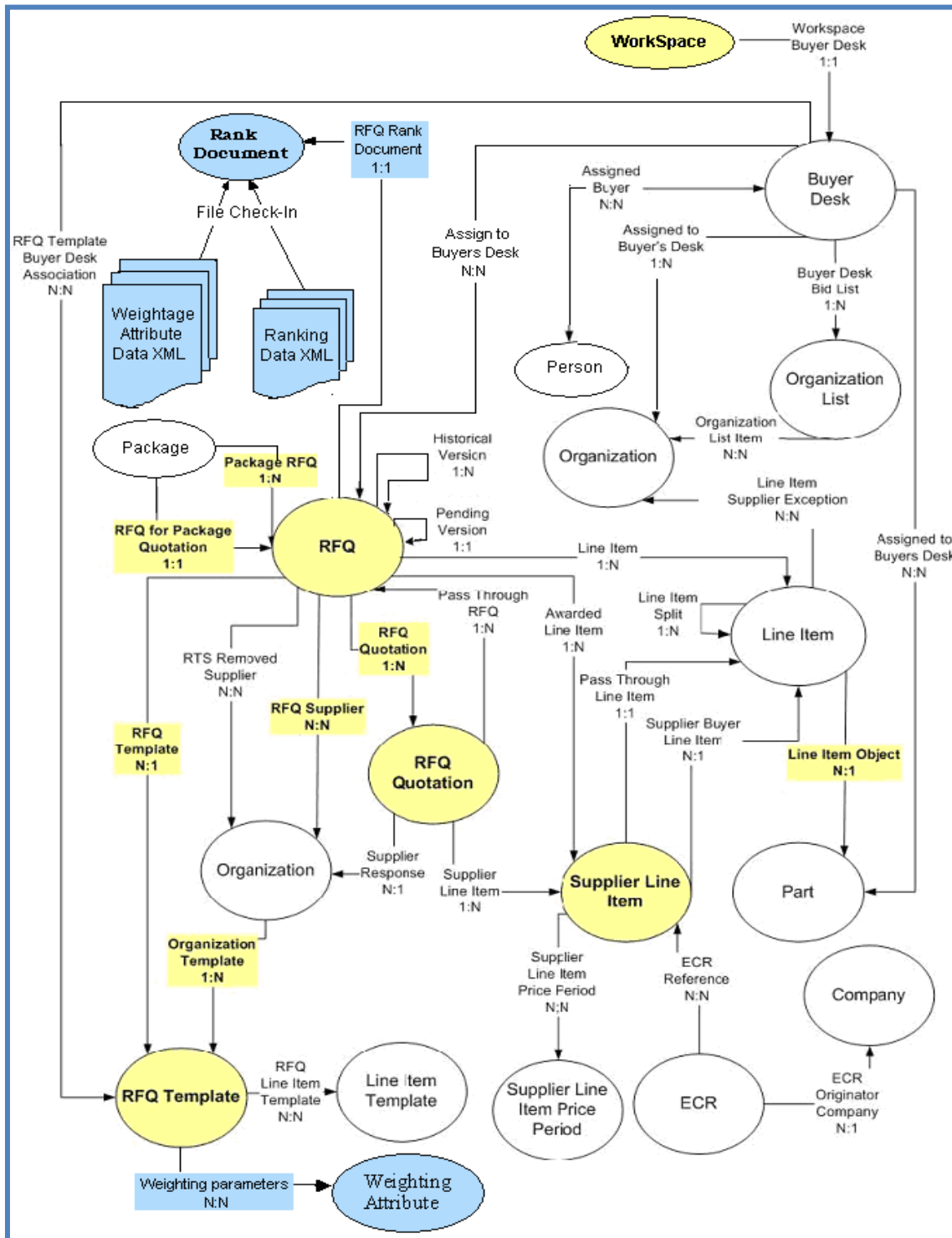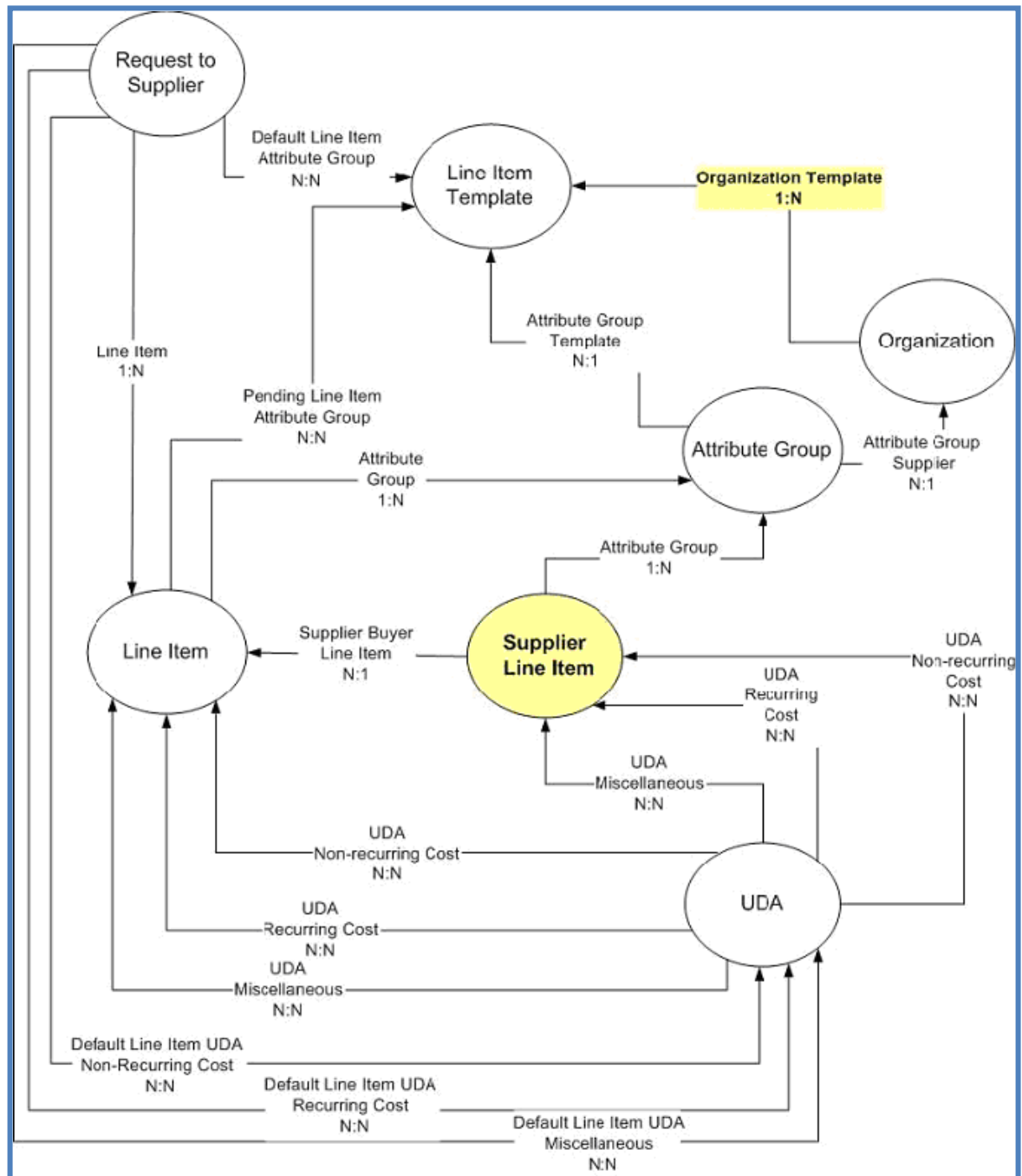
Schema Definitions

- **Attributes**

Attribute Name	Description/Possible Values
Ranking Method	String Ranking Method • No Ranking • Quote Ranking • Weighted Ranking Default = Weighted Ranking
Ranking Indicators	String Ranking Indicator • Win-Lose • 1, 2, 3… • none Default = 1, 2, 3…
Rank	Integer Store Rank of Supplier Line Item Default = 0
Attribute Type	String Type of the Attribute to which weighing criteria is being assigned. (Line Item/Quotation or Name of Attribute Group).
Attribute Name	String Name of the Attribute to which weighing criteria is being assigned.
Report Generated Date	Timestamp Hidden attribute to store the date when Ranking Report was generated
AttributeScope	String Describes the Scope of the Attribute. • "Public" • "Private" Default = "Public"
Category	String Describes the Category of the Selected Attribute. • "Unit of Measure" • "Currency"
Weightage Assigned	Boolean Hidden flag mentioning the background process completion.

- **Relationships**

  The revision and clone rules for both sides of a relationship are none unless specified otherwise in the Description column.

Relationship	Description	Attribute
Weighting parameters	Indicates the attributes that are selected for weighing. This is used to connect from RFQ Template to Weighting Attribute. To the 'From' side of relationship revision rules are replicate.	Attribute Name Attribute Type Attribute Scope Category
Line Item Quotation	This relationship connects Line Item to a RFQ Quotation. This is modified relationship. Modification is done for adding Rank attribute on this relationship.	Rank
RFQ Rank Document	This relationship connects RFQ to a RFQ Rank Document	

- **Types**

Business Object Type	Description	Assigned Attribute
RFQ Type	A person in a buyer organization creates an RFQ to make suppliers aware of the opportunity to respond to the buyer organization about work on parts or the feasibility of their manufacture. The main purpose of an RFQ is to act as a package for other items and to record the status of the package as a whole. For ENOVIA Buyer Analytics two more attributes are added	Allow User Edit Annual Part Quantity Attribute Filter Comments Co-Owners Currency Default Responses Default Responsibility Expected Line Item Count Expected Supplier Count Expected Supplier Line Item Count Last Legacy Update Legacy System Identifier Legacy System Source

		Line Item Roll-up Calculation
		Line Item Roll-up Formulas
		Originator
		Primary Key
		Production Purpose
		Purchase Decision
		Quotation Attribute Filter
		Quotation Response Review
		Quote Requested by Date
		Secondary Keys
		Sourcing Product
		Sourcing Spares
		Unit Price Calculation Formula
		Unit Price Formula
		Ranking Method
		Ranking Indicators
		Report Generated Date
Weighting Attribute	Created when we select any attribute for weighting criteria.	
Rank Document	A Holder Object that will hold XML files for Weighing and Ranking. Derived from Document.	Weightage Assigned

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Policies

This section lists the modified accesses for each state in RFQ Quotation installed with the ENOVIA Buyer Analytics. This policy change is done to enable supplier to resubmit the Quote and perform ranking calculations.

In this section:

- *RFQ Quotation Policy*

- *RFQ Policy*

RFQ Quotation Policy

RFQ Quotation				
Revision				
Types	RFQ Quotation			
Hidden	False			
States	Open	Review	Returned	Closed
Revisionable	TRUE	TRUE	TRUE	TRUE
Versionable	TRUE	TRUE	TRUE	TRUE
Auto Promote	FALSE	FALSE	FALSE	FALSE
Checkout History	TRUE	TRUE	TRUE	TRUE
Public	None	None	None	None
Owner	modify, promote, grant, changeowner, fromconnect, toconnect, fromdisconnect, todisconnect, show	promote, demote, grant, changeowner, fromconnect, toconnect, fromdisconnect, todisconnect, show	changeowner, grant, show, demote	Show
System Transition Manager	All	All	All	All
System Conversion Manager	All	All	All	All
Shadow Agent	All	All	All	All
Supplier	read, modify, fromConnect, toConnect, fromDisconnect, toDisconnect, show filter: attribute[Primary Key] == '' ‖ context.user.property[Comp any Key].value == attribute[Primary Key]	read, modify, fromConnect, toConnect, fromDisconnect, toDisconnect, show, filter: attribute[Primary Key] == '' ‖ context.user.property[Comp any Key].value == attribute[Primary Key]	read, show filter: attribute[Primary Key] == '' ‖ context.user.property[Comp any Key].value == attribute[Primary Key]	read, show filter: attribute[Primary Key] == '' ‖ context.user.property[Comp any Key].value == attribute[Primary Key]

RFQ Policy

RFQ						
Revision						
Types	RFQ					
Hidden	False					
States	Started	Initial Review	Sent	Response Complete	Final Review	Complete
Revisionable	FALSE	FALSE	TRUE	TRUE	TRUE	FALSE
Versionable	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE
Auto Promote	FALSE	FALSE	FALSE	FALSE	FALSE	FALSE
Checkout History	TRUE	TRUE	TRUE	TRUE	TRUE	TRUE
Public	none	None	None	None	None	None
Owner	modify, delete, lock, unlock, promote, grant, changeowner, changePolicy, revoke, from connect, fromdisconnect, show	Lock, unlock, promote, demote, changeowner, changePolicy, fromconnect, fromdisconnect, show	read, modify, revise, promote, grant, changeowner, changePolicy, revoke, fromconnect, fromdisconnect, show	modify, changeowner, promote, revise, changePolicy, show	Lock, unlock, revise, promote, demote, changeowner, changePolicy, show	Lock, unlock, show

Programs & Triggers

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This section gives information about the various Event triggers used to customize ENOVIA application behavior through Program objects.

In this section:

- *Object Lifecycle and Process Automation*

Object Lifecycle and Process Automation

This section lists the triggers that have been added to policies and other administrative objects. Trigger programs are run using a Trigger Manager program called "emxTriggerManager". This Java program is specified as the Action for all triggers. The name of the eService

Trigger Program Parameters business object that represents the specific trigger program to run is specified as the "Input" to be passed to the Trigger Manager. The naming convention for the eService Trigger Program Parameters object indicates the schema object the trigger is associated with, trigger event, and the type of trigger.

Automation For RFQ Quotation	RFQ Quotation objects are normally governed by the RFQ Quotation policy. If the RFQ is revised or a supplier is removed from the RFQ, the system changes the policy to" Suspended". The "Configurable automation" for RFQ Quotations is described in the table that follows. For ENOVIA Buyer Analytics, RFQ Quotation Policy is changed to incorporate Reverse Auction and Ranking Calculation.
	Request for Quotes (RFQs) were called Request to Suppliers (RTS) in previous versions of the application and therefore some administrative objects and properties refer to RTSes instead of RFQs.

eService Trigger Program Parameters	Object Trigger Program and JPO Method	Description of Action
N: PolicyRTSQuotationStateOpenPromoteCheck R: StateOpenPromoteCheck (installed with the AEF)	eServiceCheckRoutes_if.tcl	Prevents promotion if the quotation is in an unfinished route. This trigger is only used when the route creator specified the state as a "block promotion" state for the quotation
N: PolicyRTSQuotationStateReviewPromoteCheck R: StateReviewPromoteCheck (installed with the AEF)		
N: PolicyRTSQuotationStateReturnedPromoteCheck R: StateReturnedPromoteCheck (installed with the AEF)		
N: PolicyRTSQuotationStateOpenPromoteCheck R: RequestedQuantityErrorCheck	JPO: emxRFQQuotation Method: canPromote	Makes sure that the required quantity is greater or equal to the bid quantity.
N: PolicyRTSQuotationStateReviewPromoteCheck R: RequestedQuantityErrorCheck		
N: TypeRFQQuotationChangePolicyAction R: NotifyQuotationOwners	JPO: emxRFQQuotation Method: triggerChangePolicyAction	When a quotation is "suspended", this trigger notifies the quotation owners to stop the work. When a quotation is resumed, the supplier is notified to provide a quote.
N: PolicyRFQQuotationStateReviewPromoteAction-Advanced R: triggerPromoteActionReview	JPO: **AAQuotation** Method: triggerPromoteActionReview	When a quotation is promoted to "Returned" state, this trigger notifies the RFQ owners. Also, it promotes the connected RFQ object provided both the following conditions are fulfilled: • All other quotation objects connected from the RFQ are in "Returned" state. • The Ranking Method attribute of the RFQ object is not "Weighted Ranking".
N: PolicyRFQQuotationStateOpenPromoteAction-Advanced R: createXMLFileForRankingData	JPO: AAQuotation Method: createXMLFileForRankingData	When a quotation is promoted from "Open" to "Review" state, this trigger creates the RankingData.xml for the quotation. If there are no attributes selected for weighting, the Quotation is directly promoted to "Review" state.
N: PolicyRFQQuotationStateReviewPromoteAction-PerformRanking R: PerformQuotationRanking	JPO: **AARanking** Method: performQuotationRanking	When a quotation is promoted to "Returned" state, this trigger notifies the RFQ owners. Also promotes the connected RFQ object if all other quotation objects connected from the RFQ are returned. Ranking Calculations are performed and "Ranking Data object is created and connected to the Quotation.
N: PolicyRFQQuotationStateReturned	JPO: emxRFQQuotation Method:	When a quotation is promoted to "Closed" state, this trigger notifies the RFQ owners

PromoteAction R: NotifyRFQOwners	triggerPromoteActionReturned	and indicates the award status in the message.
N: PolicyRFQQuotationStateReturned DemoteCheck	JPO: **AAReverseAuction** Method: triggerCheckDemoteOnReturned State	When a Quotation is demoted from "Returned" State, this trigger checks if Quote Request Date is gone past. If the "Quote Requested Date" is gone past, the object is not demoted.
N: PolicyRequestToSupplierStateStart edPromoteCheck-Advanced R: CheckAllLineItemsWeightingCrite ria	JPO: **AARFQ** Method: checkAllLineItemsWeightingCri teria	When the RFQ is promoted to "Initial Review" state, this trigger checks that all Line Items have been assigned Weightage. • If there are no attributes selected for weighting, the RFQ is directly promoted to "Initial Review".

Configuring ENOVIA Buyer Analytics

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To perform administrative setup and configuration tasks, you need to understand some or all of the required procedures and processes.

In this section:

- *Configuration of ENOVIA Buyer Analytics*

- *Configuring ENOVIA Buyer Analytics using properties*

Configuration of ENOVIA Buyer Analytics

To perform administrative setup and configuration tasks, you need to understand some or all of the following:

- The concepts, terminology, processes, and procedures in ENOVIA RFQ Management Foundation, as described in the ENOVIA RFQ Management Foundation User Guide.

- The concepts, terminology, processes, and procedures in the Business Process Services.

- The concepts, terminology, and processes related to Matrix Navigator, Matrix Business Modeller, and/or Matrix Query Language (MQL).

Configuring ENOVIA Buyer Analytics using properties

The file called emxSourcing.properties contains properties that let you configure features. All properties files are located in the ematrix/properties directory. The ematrix directory is located in the STAGING directory under the EJB/RMI installation directory for J2EE implementations. After making changes to any properties file, you must restart the application server for the changes to take effect. For J2EE implementations, you must also run the warutil and deploy the archive file. You should also save backups of any properties file that you configure.

RFQ and Quotation Properties	**Define system mandatory attributes for RFQs**—The following property lets you define which attributes must be included as an RFQ attribute for every RFQ template.
	
	 System mandatory attributes are therefore included on every RFQ and must be filled in by the buyer.
	
	 # Define the System Mandatory Attributes for the RFQ type:
	 emxSourcing.type_RequestToSupplier.MandatoryAttributes=\
	 attribute_CoOwners,\
	 attribute_Comments,\
	 attribute_Currency,\
	 attribute_Originator,\
	 attribute_QuoteRequestedByDate,\
	 attribute_QuotationResponseReview,\
	 attribute_AllowUserEdit
	
	 In case of ENOVIA Buyer Analytics, attribute_RankingMethod, attribute_RankingIndicators are added in RFQ Type. The administrator can define these attributes as system mandatory attribute by using the above property.
	 Note: If the RFQ template is created without selecting Ranking method and Ranking Indicator attribute, the RFQs based on such Template will be created with the default values as Weighted Ranking and 1, 2, 3... for Ranking method and Ranking Indicator attribute respectively.

Background Process Limit for Assigning Common Weightage.	This property allows the Buyer to Assign Weightage to Multiple Line Items in Background. It is defined in 'emxSourcing.properties' as emxSourcing.AdvancedAnalytics.BackgroundProcessLimit = 1000 This property is set to 1000 by default. If the number of Selected Line Items selected for **Assign Common Weightage** exceeds the BackgroundProcessLimit, then the Assign Weightage Process will run in the Background.