Microsoft Dynamics AX 2012 R2

Installation guide: India GST Update 2 for Microsoft Dynamics AX 2012 R2

This document walks you through the process of installing the India GST Update 2 hotfix for Microsoft Dynamics AX 2012 R2 and setting up your data for Goods and Services Tax (GST).

White paper

February 2018

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Contents

Installation guide: India GST Update 2 for Microsoft Dynamics AX 2012 R2

This document walks you through the process of installing the India GST Update 2 release for Microsoft Dynamics AX 2012 R2 and setting up your data for Goods and Services Tax (GST). This document covers the following scenarios:

- An India GST release isn't yet installed on your system.
- The India GST General Availability (GA) release is already installed and set up on your system.
- The India GST Update 1 release is already installed and set up on your system.

Installing the hotfix

Follow these general steps to install the hotfix. For hotfix installation instructions, see How to install a Microsoft Dynamics AX hotfix.

During installation, make sure that you complete the following tasks:

- Fix over-layering issues.
- Do a full compilation.
- Do a full generation of the intermediate language (IL) before you use it. Otherwise, you might encounter an issue where you can calculate tax in General ledger, but you can't calculate tax for purchase orders and sales orders.

Install the hotfix

1 Install both the kernel fix and the application fix for **KB4057298** for India GST.

Note: You can download the KB from the following link:

http://download.microsoft.com/download/E/F/D/EFDBCF03-27FF-45F1-8D50-BD782F2DBAC0/KB4057298-6.2.3000.5059.zip

2 Verify that the installation worked. Under C:\Program Files\Microsoft Dynamics AX\60\Server\MicrosoftDynamicsAX\bin, verify that there are 12 dynamic-link libraries (DLLs):
- Microsoft.Dynamics365.ElectronicReportingMapping.dll
- Microsoft.Dynamics365.LocalizationFramework.dll
- Microsoft.Dynamics365.LocalizationFrameworkCore.dll
- Microsoft.Dynamics365.Tax.Core.dll
- Microsoft.Dynamics365.Tax.DataAccessFramework.dll
- Microsoft.Dynamics365.Tax.DataAccessor.dll
- Microsoft.Dynamics365.Tax.DataModel.dll
- Microsoft.Dynamics365.Tax.MetadataGenerator.dll
- Microsoft.Dynamics365.Tax.Reports.dll
- Microsoft.Dynamics365.XppSupportLayer.dll

- Microsoft.Z3.dll
- libz3.dll

3 Verify that the build number (file or product version) of Microsoft.Dynamics365.Tax.Core.dll is **1.0.21.0**.
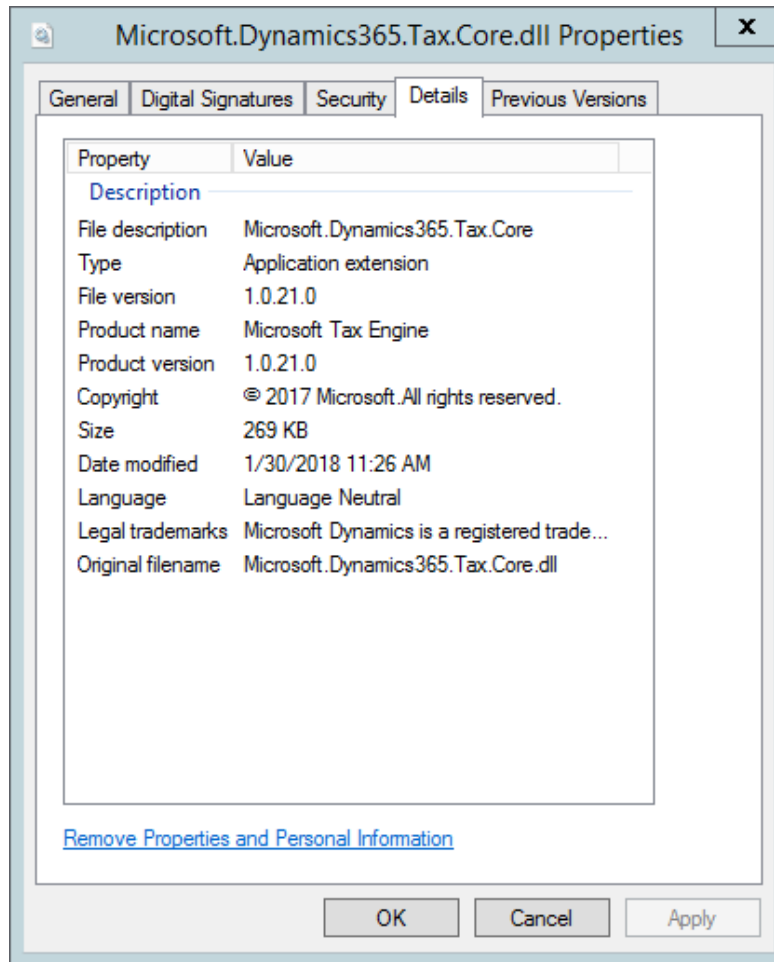
Install the hotfix for Retail

If you use Microsoft Dynamics AX for Retail, you must also follow these steps.

1 Install the kernel fix for **KB4057298** for India GST, and select the required Retail components.

2 For the binary fix, follow the guidance in [Deploy updates in a retail environment [AX 2012]](#).

If you must change the Retail C# code, you must install the Retail software development kit (SDK).

For information about centralized deployment of updates to the Retail components, see [Mass deploy retail updates and customizations by using System Center Configuration Manager [AX 2012]](#).

3 Verify that the installation worked:

    a For the application part, click **Retail** > **Periodic** > **Data distribution** > **Distribution scheduler**, and verify that the **Generic tax engine** job (1180) exists.

    b For the binary part, verify that the following files exist under C:\Program Files\Microsoft Dynamics AX\60\Retail POS:

- Services\Microsoft.Dynamics365.ElectronicReportingMapping.dll
- Services\Microsoft.Dynamics365.LocalizationFramework.dll
- Services\Microsoft.Dynamics365.LocalizationFrameworkCore.dll
- Services\Microsoft.Dynamics365.Tax.Core.dll
- Services\Microsoft.Dynamics365.Tax.DataAccessFramework.dll
- Services\Microsoft.Dynamics365.Tax.DataAccessor.dll
- Services\Microsoft.Dynamics365.Tax.DataModel.dll
- Services\Microsoft.Dynamics365.XppSupportLayer.dll
- Services\x86\Microsoft.Z3.dll
- Services\x86\libz3.dll

    c Verify that the build number (file or product version) of Microsoft.Dynamics365.Tax.Core.dll is **1.0.21.0**.

Setting up data after the hotfix installation

Use the information in one of the following sections, depending on the scenario that applies to you.

Scenario: First-time data setup for India GST

If you've never installed the India GST GA release on your system, and you just completed the installation of the India GST Update 2 hotfix, use the following information to learn how to set up your system's data.

1 Follow the steps in Tax Engine (AX 2012) demo script to set up GST-related data.

2 Follow the steps in the "Set up the new functionality that is available in India GST Update 1" section of Installation guide: India GST Update 1 for Microsoft Dynamics AX 2012 R2 to set up a number sequence for the GST reference.

3 Follow the steps in the Download and import the India GST Update 2 GSTR report configurations section of this document.

Scenario: Upgrade setup data (Upgrade from a GA system)

1 Follow the steps in the "Set up the new functionality that is available in India GST Update 1" section of Installation guide: India GST Update 1 for Microsoft Dynamics AX 2012 R2 to set up a number sequence for the GST reference.

2 Follow the steps in the Download and import the India GST Update 2 GSTR report configurations section of this document.

3 Follow the steps in the Upgrade setup data section of this document to do the data upgrade.

Scenario: Upgrade setup data (Upgrade from an Update 1 system)

1 Follow the steps in the [Download and import the India GST Update 2 GSTR report configurations](#) section of this document.

2 Follow the steps in the [Upgrade setup data](#) section of this document to do the data upgrade.

Upgrade Setup data

If you've installed the India GST GA or GST Update 1 release on your system, and you want to use the GSTR report for transactions that were posted before you installed GST Update 2, you must use one of the following scripts to upgrade those transactions:

- **Upgrade data by steps** – This script has five steps. If you've already done some steps by using the Ax2012R2_UpgradeScript script that was previously released, you should use this script.
- **Upgrade data by merged steps** – In this script, the five steps from the **Upgrade data by steps** script are merged into two steps, to make the upgrade process more efficient. This script works only for databases where a GST upgrade script has never been run.
- **Upgrade data by merged batch steps** – This script resembles the **Upgrade data by merged steps** script, and the prerequisites are also the same. The difference is that you can schedule the upgrade through a batch by dividing the transactions into several pieces.

Note: After you install GST Update 2, you don't have to finish the data upgrade before you post new transactions.

Upgrade data by steps

Download and unzip the upgrade script

The upgrade script is available on the Microsoft Download Center, at

http://download.microsoft.com/download/A/E/3/AE3BBCA2-6DFF-4A6F-8848-2C13B06BC5A6/GSTUpdate2UpgradeScript_AX2012R2.zip

You must download the zip file and unzip it before you can complete the remaining procedures.

Initialize Tax engine metadata

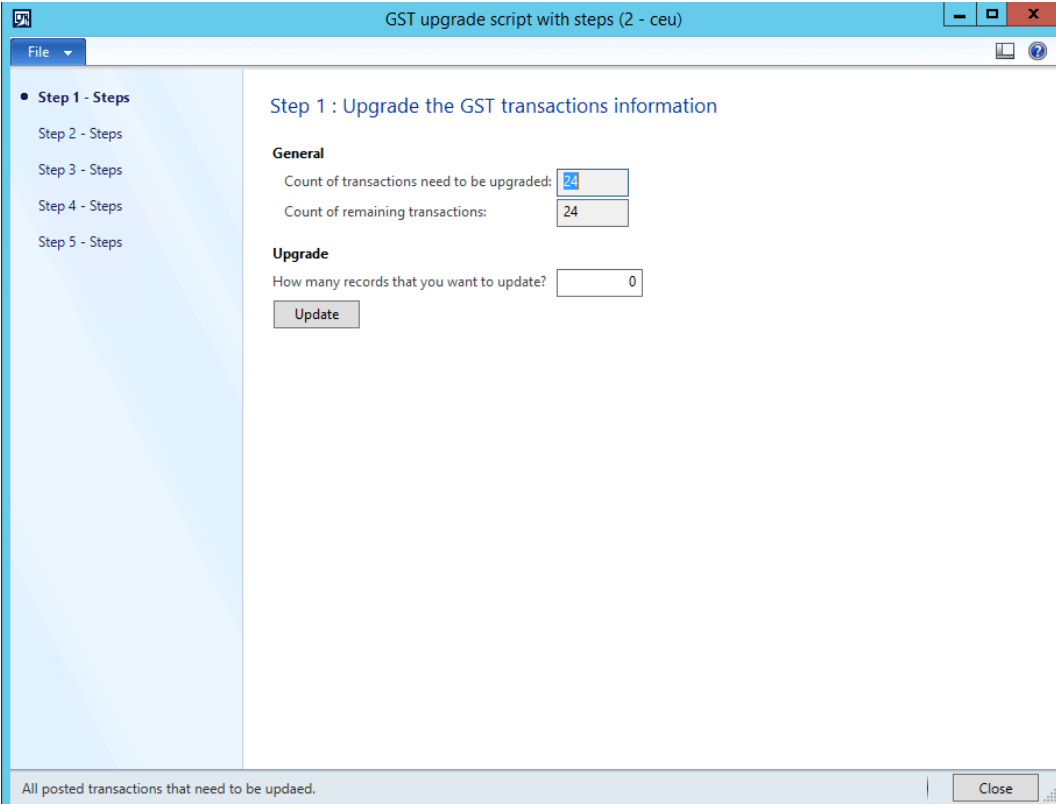This procedure is required after you install **KB4057298** and before you can post transactions.

1 Click **General ledger** > **Setup** > **Sales tax** > **India** > **Tax setup**.

2 Click **Initialize** to reinitialize Tax engine metadata.

3 Import the **Ax2012R2_UpgradeScript_BySteps.xpo** script file.

4 In the script, find the **createAttrMappingAndClearCache** job, and run it.

5 In the script, find the **updateBusinessVerticalsTable** job, and run it.

Upgrade existing posted tax document transactions

If there are existing transactions in the system, you must complete this procedure to upgrade those transitions before you can run the **GSTR1, GSTR, and GSTR1 offline tool** reports. If you don't update all existing transactions, these reports will have incorrect information. If you have many existing transactions, it might take a long time to upgrade all the transactions together. Therefore, you can upgrade the transactions in smaller batches instead. While you upgrade existing transactions, users can continue to post new transactions.

Note: If you've already finished some of the steps, just continue with the remaining steps.

1   Import the **Ax2012R2_UpgradeScript_BySteps** script.
2   In the script, open the form at **Form\UpgradePostedTaxDocumentTransactions**.
3   On the **Step 1 - Steps** tab, review the following fields:
    ● **Count of transactions need to be upgraded** – This field shows the total number of existing transactions that should be upgraded.
    ● **Count of remaining transactions** – This field shows the number of remaining transactions that should be updated.
4   In the **How many records that you want to update?** field, enter the number of transactions to upgrade, and then click **Update**.

5 After all the records have been updated on the **Step 1 - Steps** tab, notice that the value of the **Count of remaining transactions** field is **0** (zero).

6 On the **Step 2 - Steps** tab, in the **How many records that you want to update?** field, enter the number of transactions to upgrade, and then click **Update**.
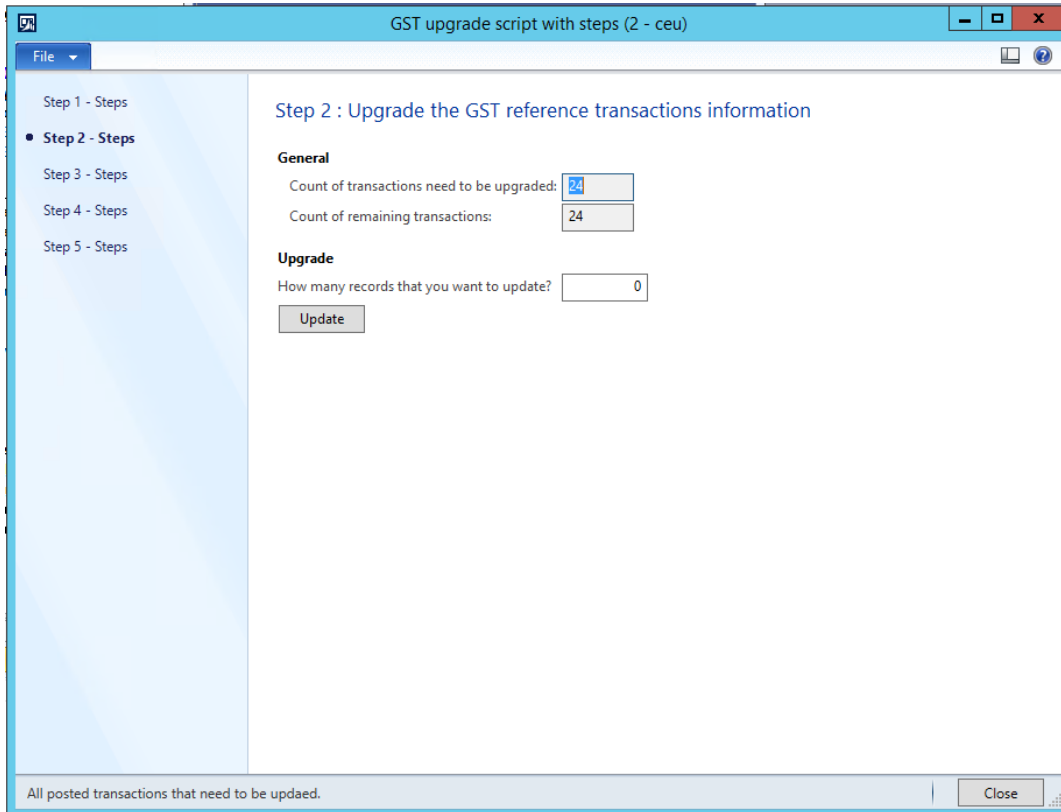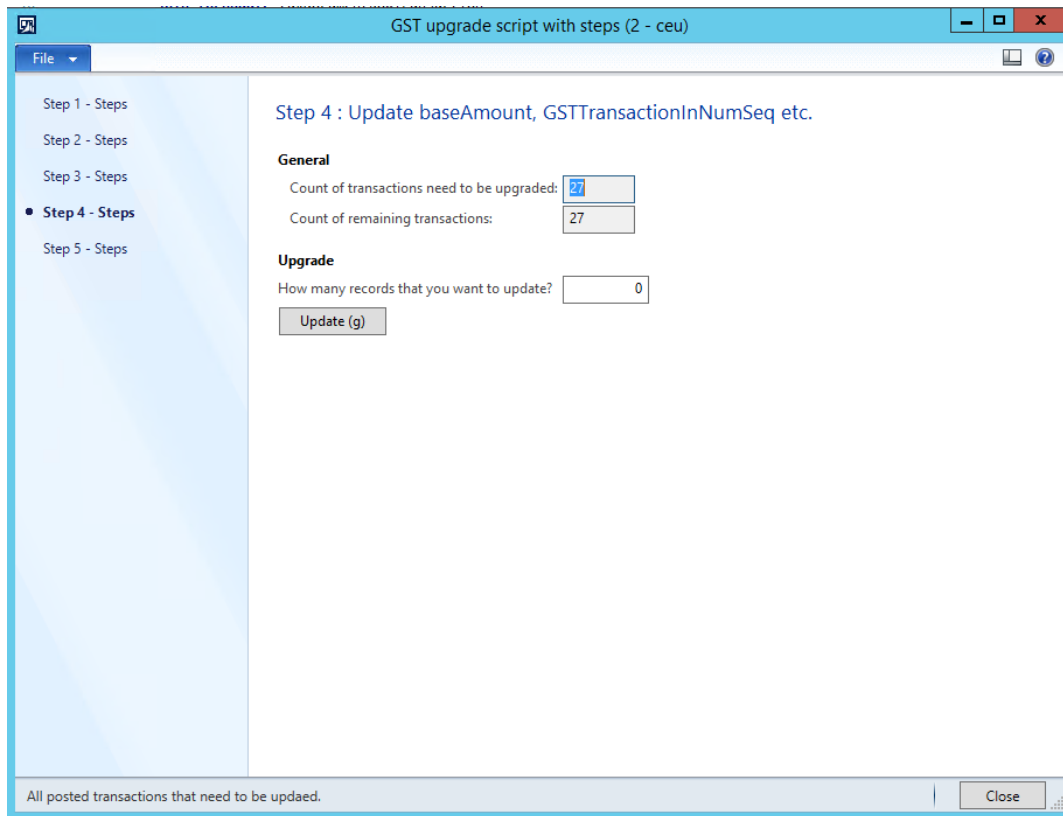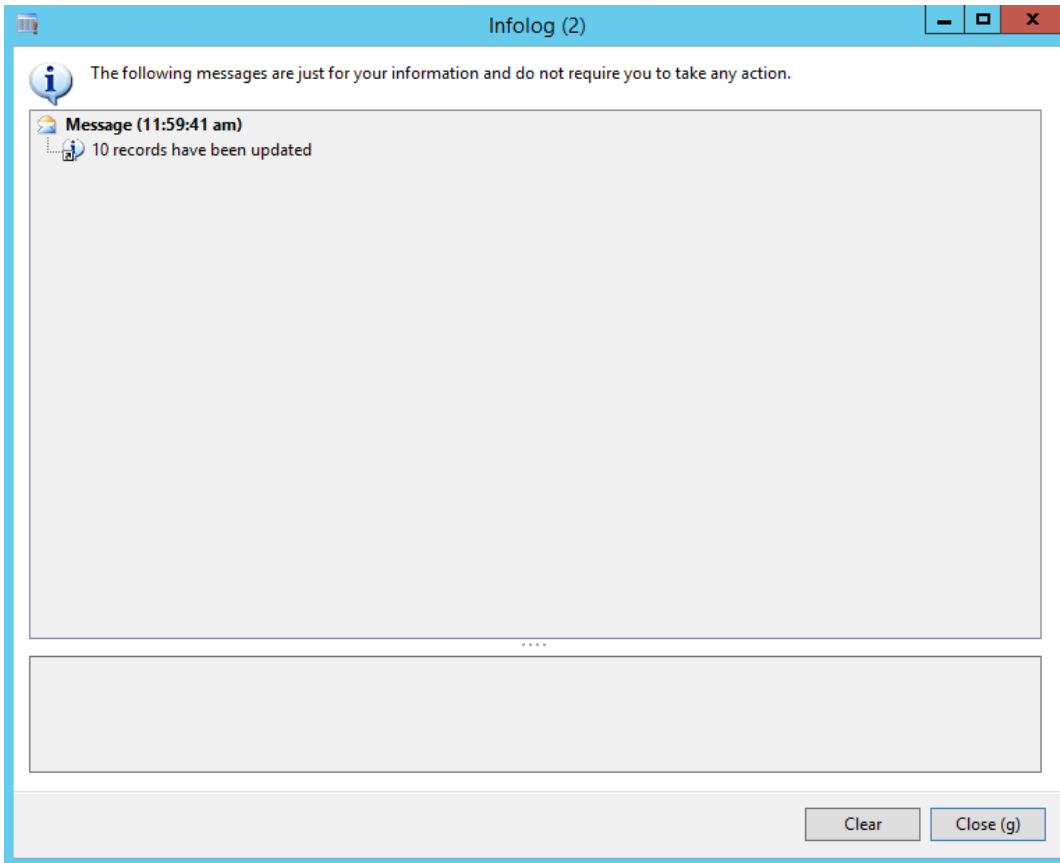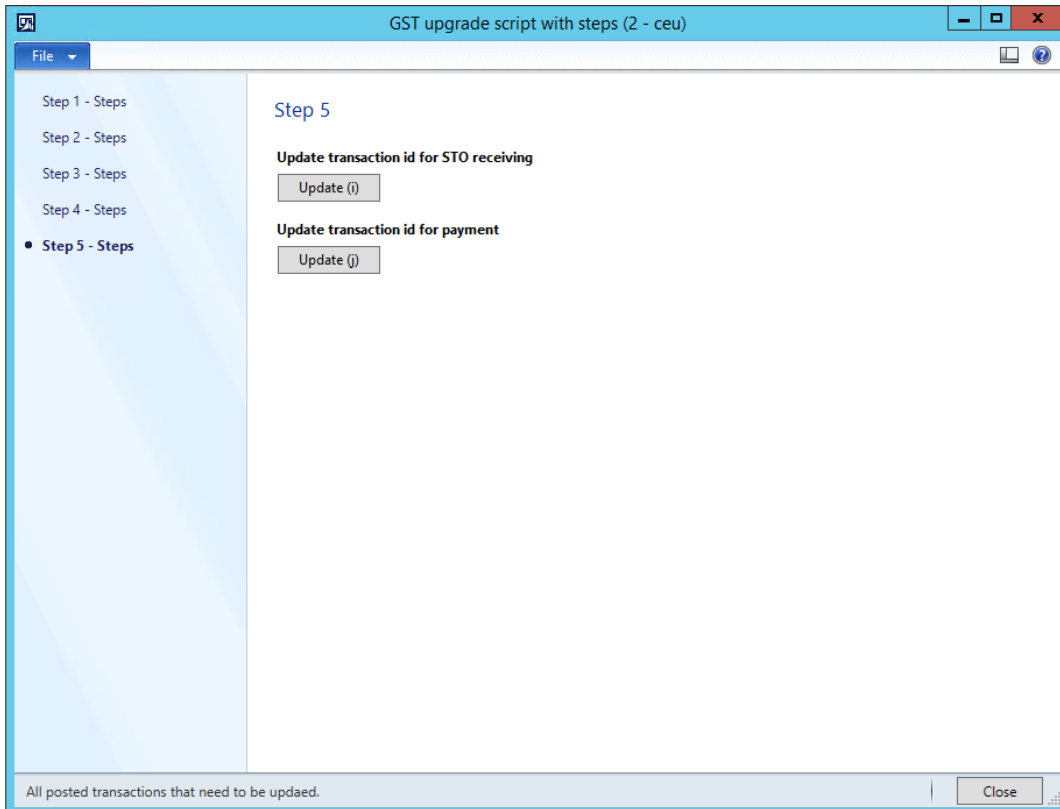

7 After all the records have been updated on the **Step 2 - Steps** tab, notice that the value of the **Count of remaining transactions** field is **0** (zero).

8 On the **Step 3 - Steps** tab, in the **How many records that you want to update?** field, enter the number of transactions to upgrade, and then click **Update**.
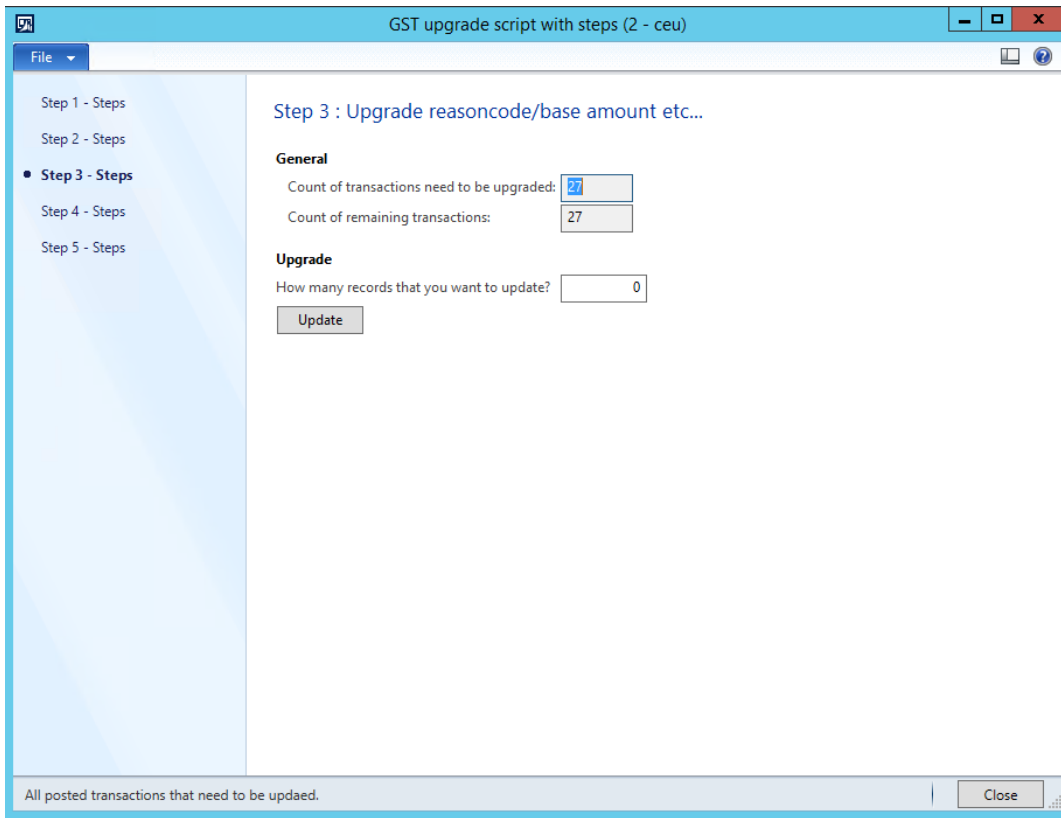
9 After all the records have been updated on the **Step 3 - Steps** tab, notice that the value of the **Count of remaining transactions** field is **0** (zero).

10 On the **Step 4 - Steps** tab, in the **How many records that you want to update?** field, enter the number of transactions to upgrade, and then click **Update**.

11 After all the records have been updated on the **Step 4 - Steps** tab, notice that the value of the **Count of remaining transactions** field is **0** (zero).

12 On the **Step 5 - Steps** tab, click first **Update** if you need to **update transaction id for STO receiving** and click second **update** if you need to **update transaction id for payment**. If you want to update both, you need to wait the first one to complete and then click the second one.

13 After all the records have been updated on the **Step 5 - Steps** tab, you can close the form.

Upgrade data by merged steps

Download and unzip the upgrade script

The upgrade script is available on the Microsoft Download Center, at the following link:

http://download.microsoft.com/download/A/E/3/AE3BBCA2-6DFF-4A6F-8848-2C13B06BC5A6/GSTUpdate2UpgradeScript_AX2012R2.zip

You must download the zip file and unzip it before you can complete the remaining procedures.

Initialize Tax engine metadata

This procedure is required after you install **KB4057298** and before you can post transactions.

1 Click **General ledger** > **Setup** > **Sales tax** > **India** > **Tax setup**.
2 Click **Initialize** to reinitialize Tax engine metadata.
3 Import the **Ax2012R2_UpgradeScript_Merged.xpo** script file.
4 In the script, find the **createAttrMappingAndClearCache_merged** job, and run it.
5 In the script, find the **updateBusinessVerticalsTable_merged** job, and run it.

Upgrade existing posted tax document transactions

If there are existing transactions in the system, you must complete this procedure to upgrade those transitions before you can run the **GSTR1, GSTR2 and GSTR1 offline tool** reports. If you don't update all existing transactions, these reports will have incorrect information. If you have many existing transactions, it might take a long time to upgrade all the transactions together. Therefore, you can upgrade the transactions in smaller batches instead. While you upgrade existing transactions, users can continue to post new transactions.

Note: If you've already finished some of the steps, just continue with the remaining steps.

1 Import the **Ax2012R2_UpgradeScript_Merged** script.
2 In the script, open the form at **Form\UpgradePostedTaxDocumentTransactions_merged**.
3 On the **Step 1 - Merged** tab, review the following fields:
   ● **Count of transactions need to be upgraded** – This field shows the total number of existing transactions that should be upgraded.
   ● **Count of remaining transactions** – This field shows the number of remaining transactions that should be updated.

4 In the **How many records that you want to update?** field, enter the number of transactions to upgrade, and then click **Update**.

5 After all the records have been updated on the **Step 1 - Merged** tab, notice that the value of the **Count of remaining transactions** field is **0** (zero).

6   On the **Step 2 - Merged** tab, in the **How many records that you want to update?** field, enter the number of transactions to upgrade, and then click **Update**.

7   After all the records have been updated on the **Step 2 - Merged** tab, notice that the value of the **Count of remaining transactions** field is **0** (zero).

8   You can now close the form.

Upgrade data by merged batch steps

Download and unzip the upgrade script

The upgrade script is available on the Microsoft Download Center, at the following link:

http://download.microsoft.com/download/A/E/3/AE3BBCA2-6DFF-4A6F-8848-2C13B06BC5A6/GSTUpdate2UpgradeScript_AX2012R2.zip

You must download the zip file and unzip it before you can complete the remaining procedures.

Initialize Tax engine metadata

This procedure is required after you install **KB4057298** and before you can post transactions.

1   Click **General ledger** > **Setup** > **Sales tax** > **India** > **Tax setup**.

2   Click **Initialize** to reinitialize Tax engine metadata.

3   Import the **Ax2012R2_GSTUpgrade_Batch.xpo** script file.

4 In the script, find the **createAttrMappingAndClearCache_Batch** job, and run it.

5 In the script, find the **updateBusinessVerticalsTable_Batch** job, and run it.

Upgrade existing posted tax document transactions

If there are existing transactions in the system, you must complete this procedure to upgrade those transitions before you can run the **GSTR1, GSTR2 and GSTR1 offline tool** reports. If you don't update all existing transactions, these reports will have incorrect information. If you have many existing transactions, it might take a long time to upgrade all the transactions together. Therefore, you can upgrade the transactions in smaller batches instead. While you upgrade existing transactions, users can continue to post new transactions.

Note: If you've already finished some of the steps, just continue with the remaining steps.

1 Import the **Ax2012R2_UpgradeScript_Batch** script.

2 In the script, open the form at **Form\UpgradePostedTaxDocumentTransactions_Batch**.

3 On the **Step 1 - Batch** tab, review the following fields:

- **Total records that need to be updated** – This field shows the total number of existing transactions that should be upgraded.
- **Records that have been updated or added into batch job for step 1** – This field shows the total number of transactions that have already been updated or added to the batch job.
- **The remaining records that have not been updated or added into batch job for step 1** – This field shows the total number of transactions that haven't been updated or added to the batch job.
- **The records that already updated successfully in step 1** – This field shows the total number of transactions that have already been successfully updated.

4 In the **The records that you want to update** field, enter the number of transactions to upgrade, and then click **Update**.

5 Click **Recurrence** to set the start time for the batch, and then click **OK**.

6 In the **UpgradePostedTaxDocumentTransactions_Batch** form, click **History** to view the status of the batch job.

7 In the **UpgradePostedTaxDocumentTransactions_Batch** form, you can click **Refresh** to see how many records have already been successfully updated. After all the transactions in step 1 have been updated, you can continue to step 2.

8 On the **Step 2 - Batch** tab, repeat step 4 through 7 until all the transactions have been updated. You can then close the form.

# Download and import the India GST Update 2 GSTR report configurations

1 Download the Update 2 GSTR report configurations.

2 Follow steps 1 through 4 in the "Import the configuration and deploy it to a specific company" section in Tax Engine (AX 2012) demo script to load the new configurations into the system.

Enable the enhanced log feature

If you experience issues with GST and the Tax engine (GTE), and you want more information so that you can troubleshoot the issues, you can now use the Log feature. This feature is used mainly by developers and engineers.

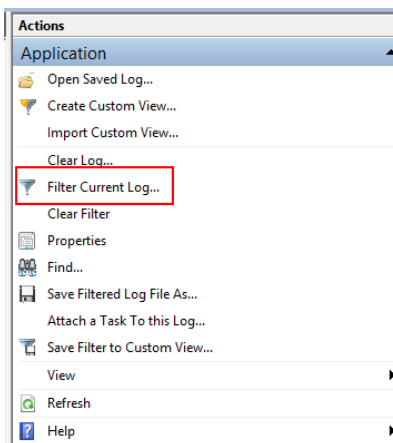Follow these steps to enable the Log feature.

1   On your **server computer**, from the **Start** menu, start Event Viewer.
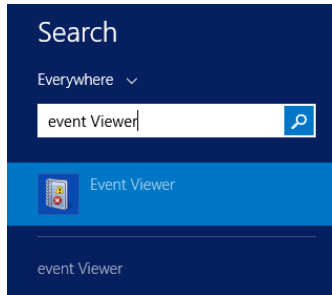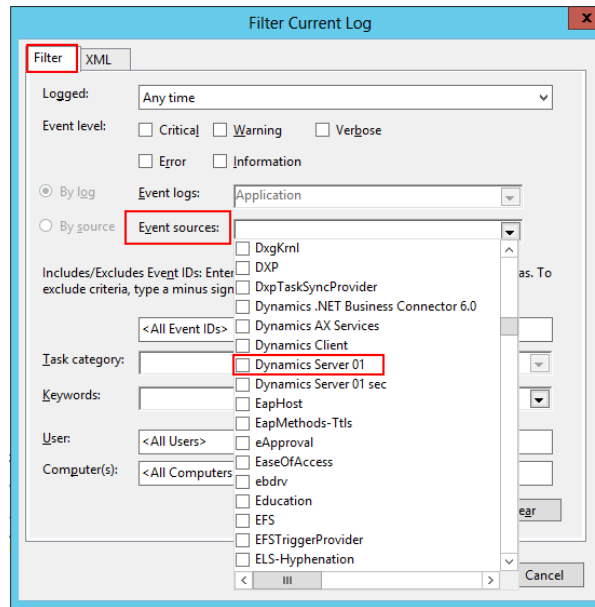

2   In the left pane, click **Event Viewer (Local)** > **Windows Logs** > **Application**.
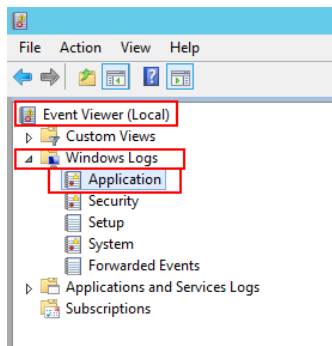
**3**   In the right pane, click **Filter Current Log**.

4 Select an existing event source to use for the trace log. In this example, we use the **Dynamics Server 01** event source.


5 On your **client computer**, start Microsoft Dynamics AX, and then click **General ledger** > **Setup** > **Sales tax** > **India** > **Tax setup**.

6 Click **Parameters**, select a value in the **Log level** field, and enter a value in the **Windows log source name of AOS server** field.

Note: The server that you specify in the **Windows log source name of AOS server** field should already exist. Otherwise, you receive an error message.
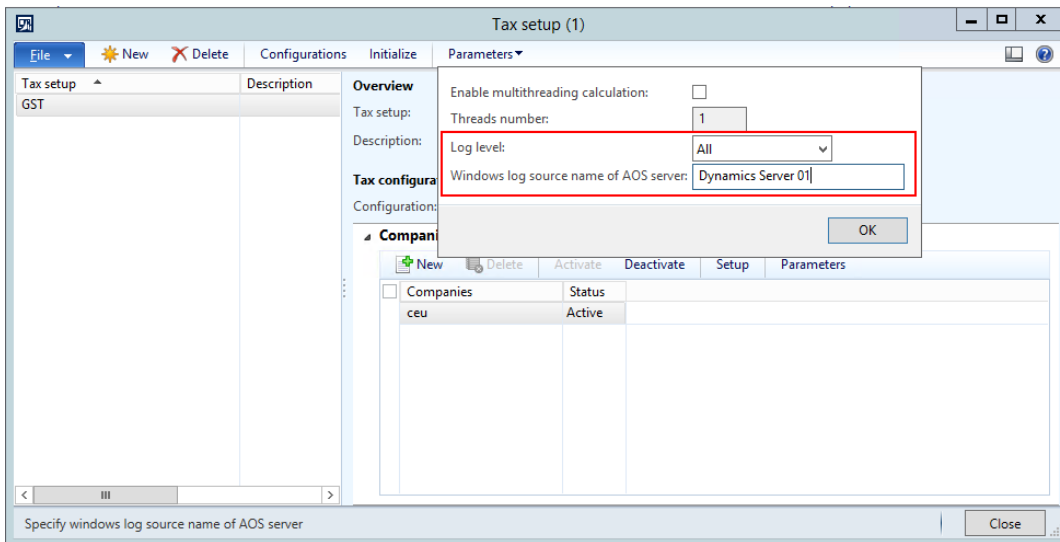
7   Perform your usual processing in Microsoft Dynamics AX (for example, tax calculation). The trace log will appear in Event Viewer on the **server computer**.
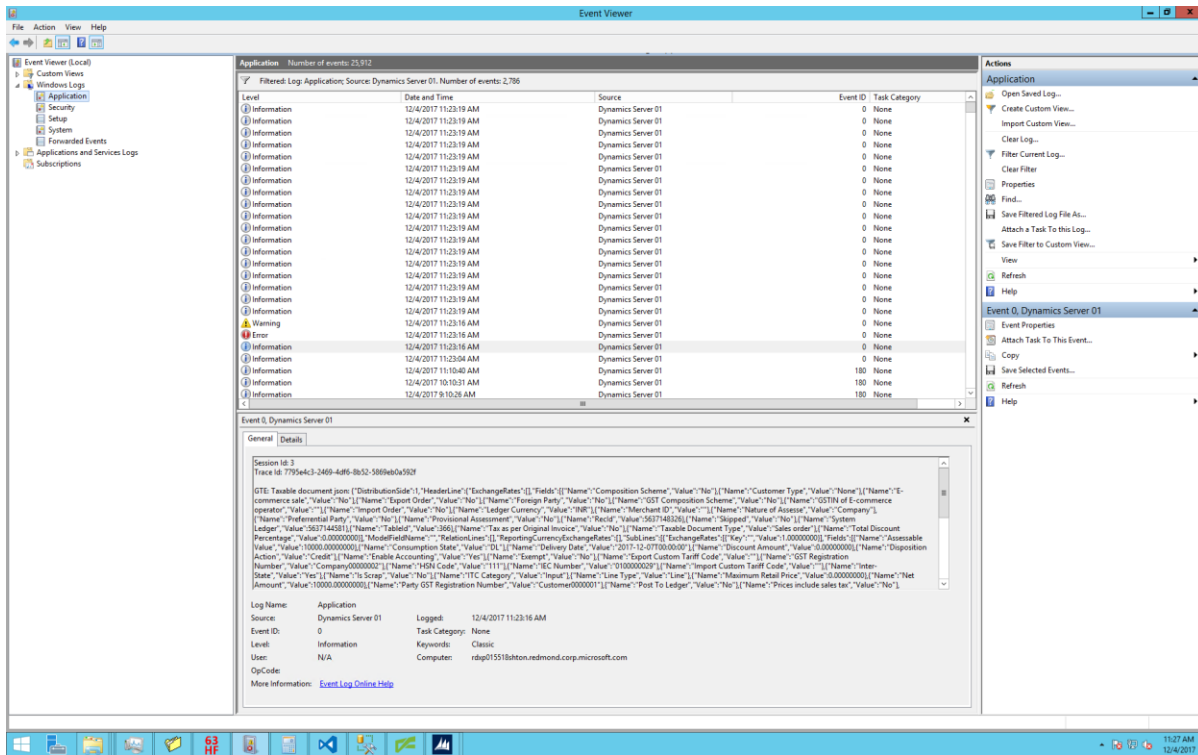
8   If Event Viewer includes many sources (as in the following screenshot), but you want to trace only issues that are related to the Microsoft Dynamics AX log, you can filter the sources.

a   In the right pane, click **Filter Current Log**.

b   Select the source to filter for, and then click **OK**.

Event Viewer now include only the specific logs that you require in order to trace your issue.

Set up data for Retail

If you're working with Retail, you must follow these steps after you've installed the India GST Update 1 hotfix and set up your system's data.

Reinitialize Retail

To update the Retail scheduler jobs that you use to communicate with channel databases, you must reinitialize Retail. Reinitialization helps guarantee that your system has the latest, improved, and updated seed data.

1   Click **Retail** > **Setup** > **Parameters** > **Retail parameters**.
2   On the **General** tab, click **Initialize**.

> **Note:** In general, reinitialization doesn't cause data loss. Your customized receipt formats, layouts, and so on, aren't affected when you reinitialize Retail. Similarly, custom fields that you've added to the out-of-box subjobs and your custom subjobs aren't modified. However, if you've customized the table distribution, that customization must be preserved.

3   Delete the following subjobs from the **Generic tax engine** job, if it exists:
   - TaxDocumentJson
   - TaxDocumentRowMeasureAdjustment
   - TaxDocumentRowTaxDeterminedInfo
   - TaxDocumentRowDeterminedComponent
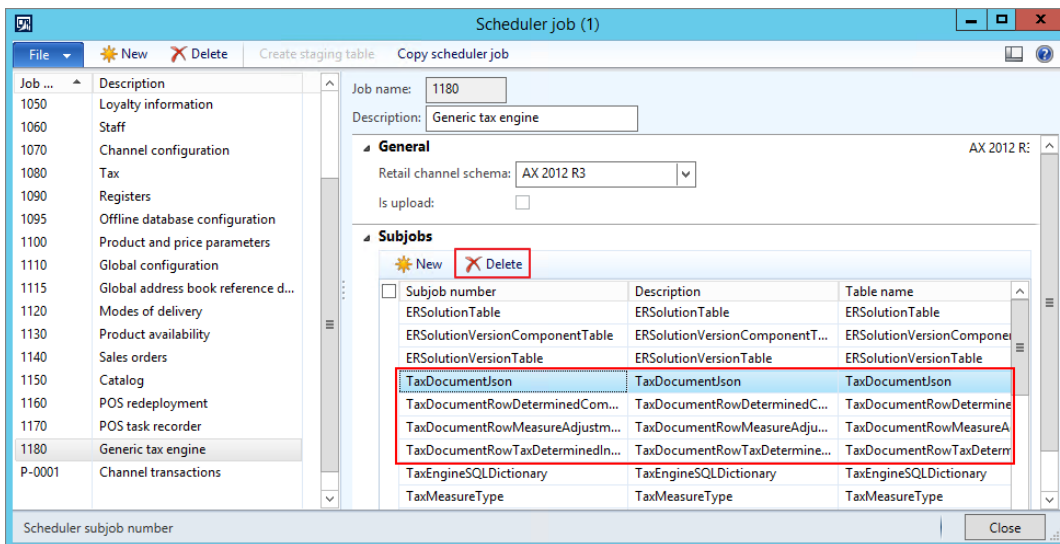
Schedule download distribution jobs

Use the following procedure to manually run an individual scheduler job. The job is run for all distribution location lists that are in the schedule.

1   Click **Retail** > **Periodic** > **Data distribution** > **Distribution schedule**.
2   Select the distribution schedule that contains the job to run.
3   On the **Scheduler jobs** FastTab, select job **9999**.
4   Click **Run now**.

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