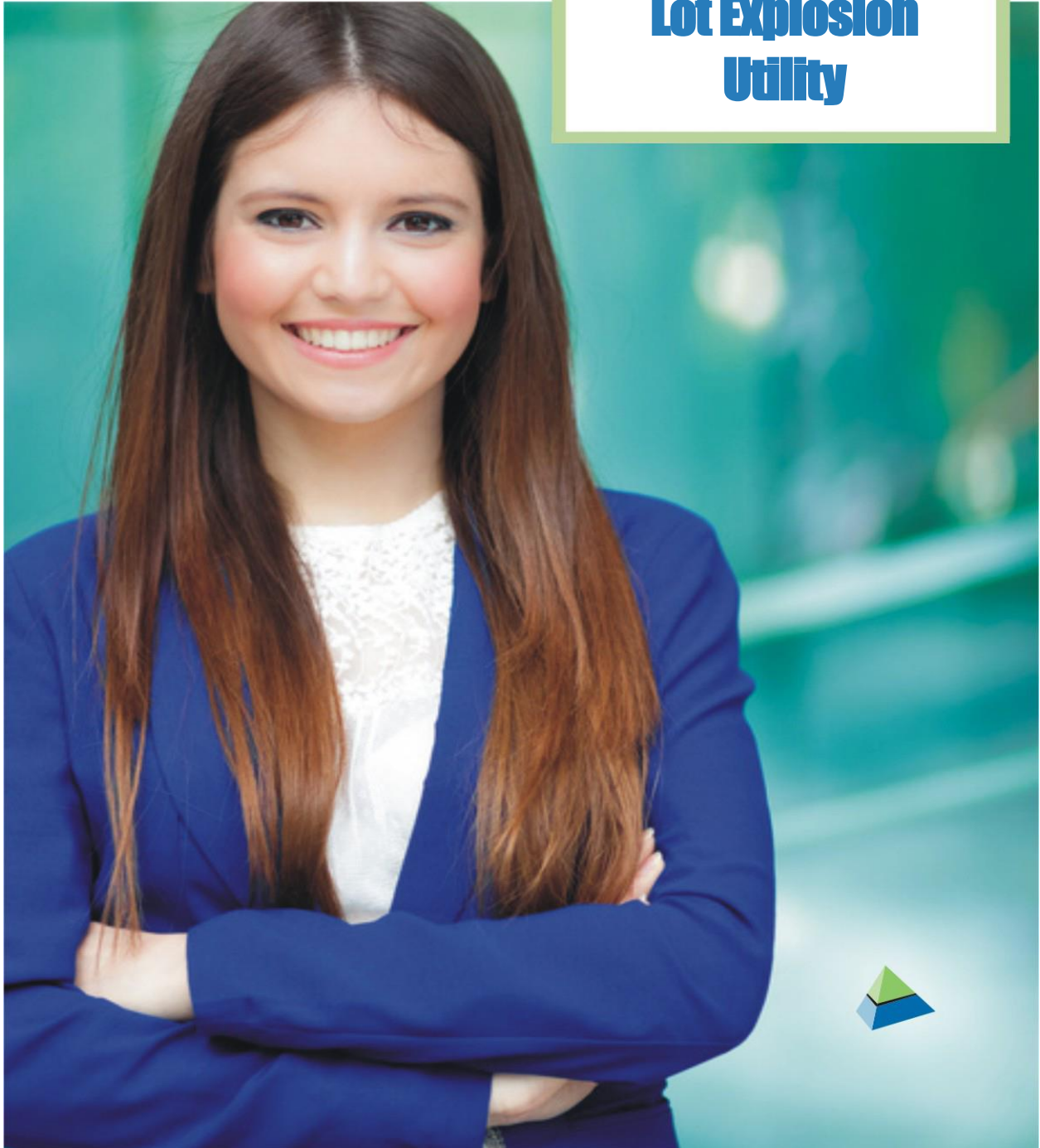


BATCHMASTER® ERP 18.2

User Guide

BatchMaster ERP with SAP Business One
BatchMaster Solutions
for Process Manufacturers

Lot Explosion Utility





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About the Manual

Symbols & Conventions

Symbol	Description
	Note
	Mandatory setting



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1 How to Install and Configure Lot Explosion Utility on Web

This is a comprehensive and extensive guide that will help you to set up Lot Explosion utility to work quickly.

1.1 Prerequisites

- .NET Framework 4.0 Runtime
- The utility can be used for SQL 2012 version onwards and HANA 2.0 version
- IIS 4.0 or higher is required for configuring this utility
- Latest Hana Client Version (In case of Hana database)
- Crystal report for version - 13.0.22.2286

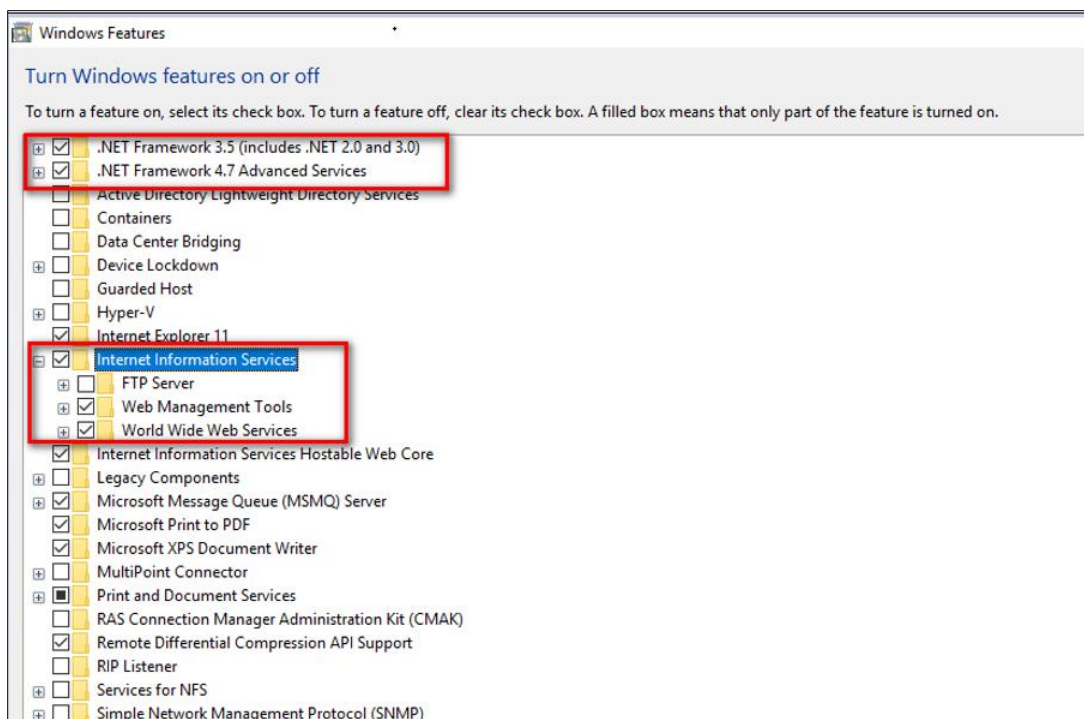
1.2 Limitations

- Serial number items are not supported
- Compatible with web browser Chrome (Internet Explorer is not supported)

1.3 Installing IIS Components

1.3.1 Configuring IIS on a Windows 10 system

1. Open the *Program and Features* option of Control Panel.
2. Under *Programs and Features*, click *Turn Windows features on or off*.
3. The *Windows features* screen pops up.
4. Select all the features of *.Net Framework 3.5* and *.Net Framework 4.7*.
5. Click on the *Internet Information Services* check box, expand it and check all its *Features, Components and Sub-Components*.

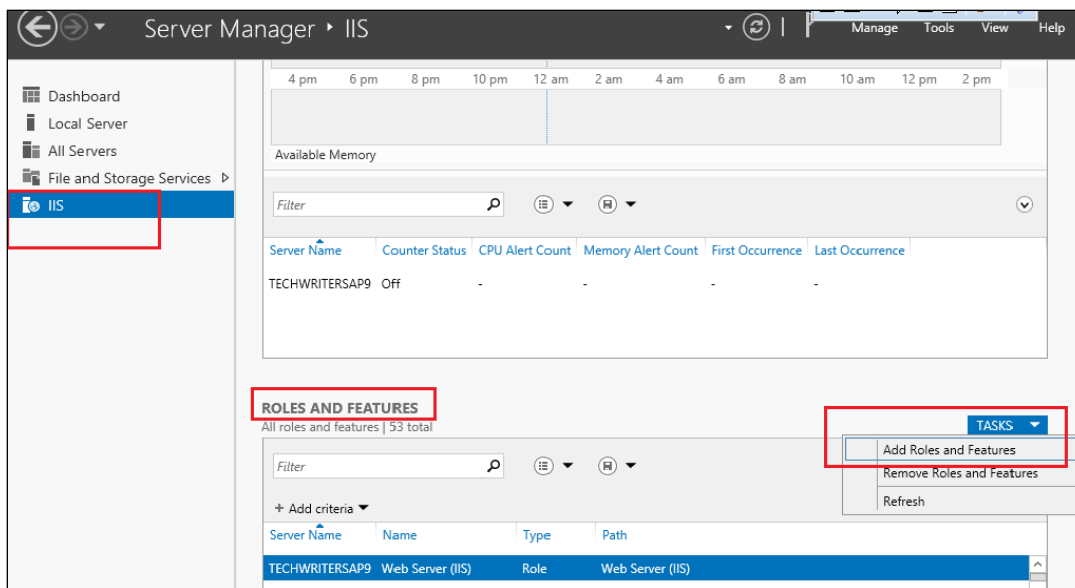


6. Click *OK* to complete the installation of the new features.

1.3.2 Configuring IIS on Windows Server

Go To: Start → All Programs → Administrative Tools → Server Manager.

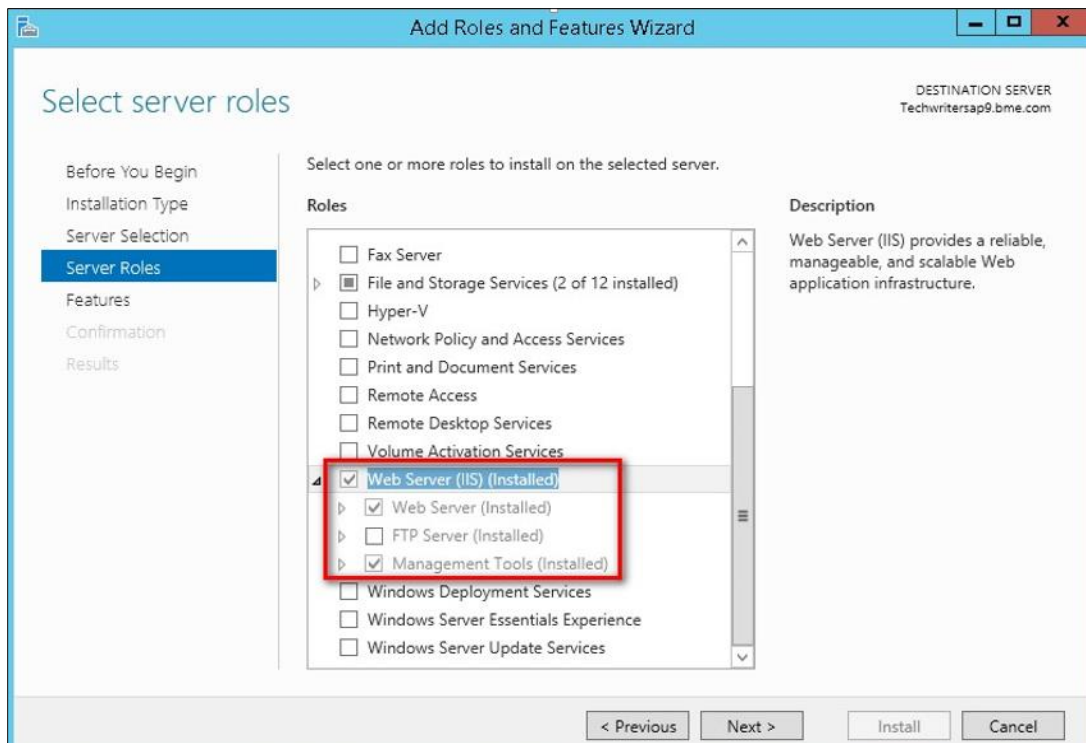
1. In the *Server Manager* window, click on *IIS*.
2. Scroll down to *Roles and Features*.
3. Open the *Tasks* drop down and click *Add Roles and Features* option.



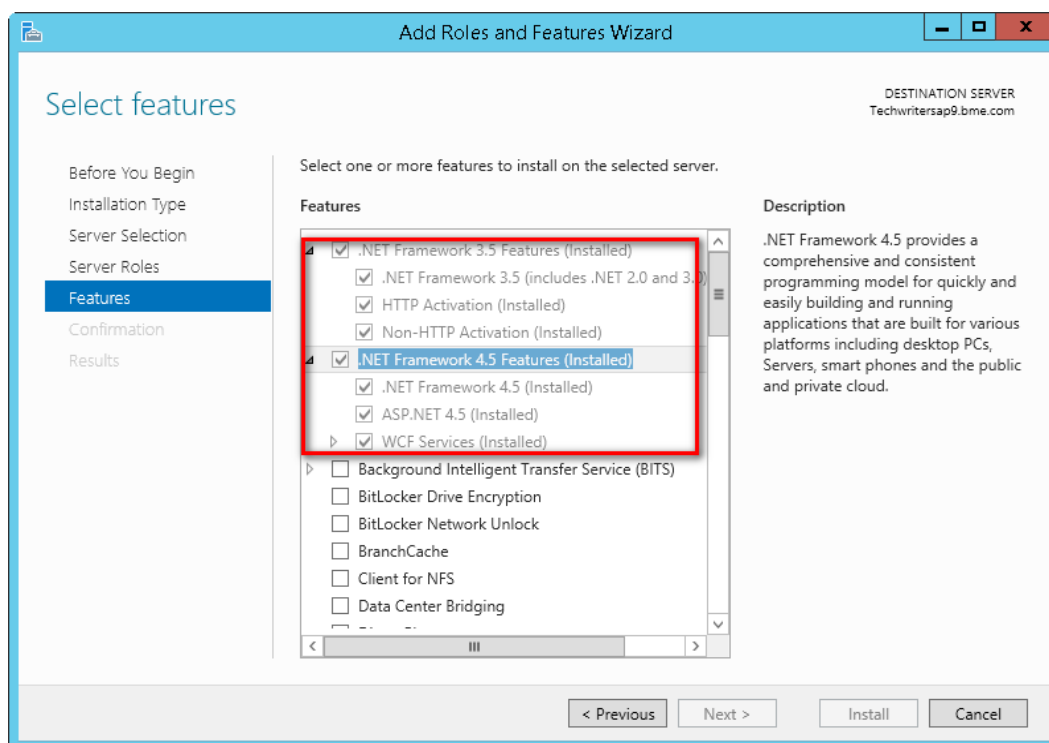
4. On the *Select server roles* page, select all the components of the Web Server (IIS). In detail, select the checkbox that corresponds to the Web Server (IIS) Tools. Expand the tree structure and select all the underlying checkboxes that correspond to the active options. Additionally, expand the *Application Development* option, and select all the checkboxes that correspond to the active options. These options help run BatchMaster WMS and will be enabled once installed. Click the *Install* button to install the Web Server (IIS) and Application Development features on your computer. See the following screenshot for reference.



None of the checkboxes are selected under the default setting. If BatchMaster WMS is installed without selecting the checkboxes, the application may not work properly.



5. On the *Select Features* page, select all the features of *.Net Framework 3.5* and *.Net Framework 4.7*.

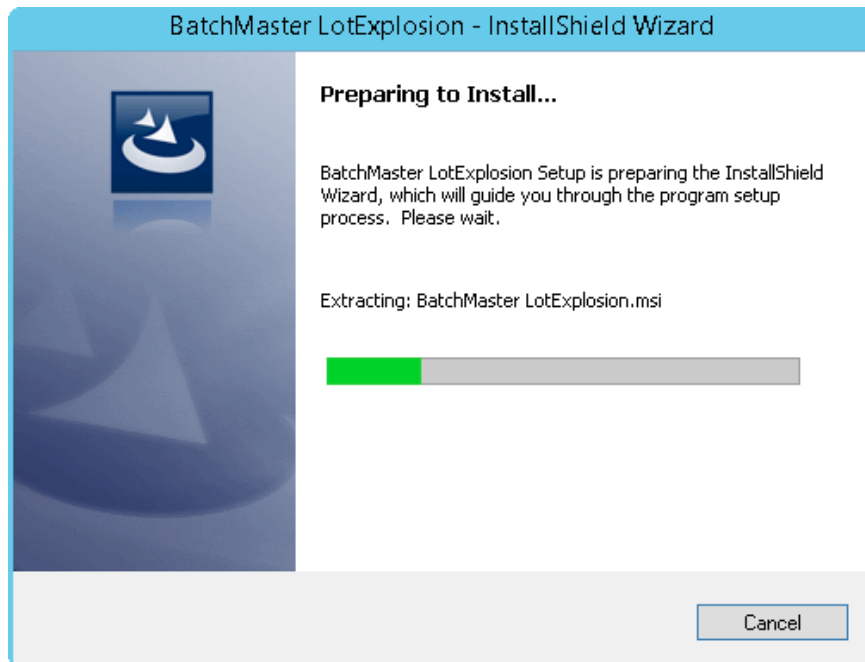


6. Click the *Install* button to install the selected *Roles and Features*.

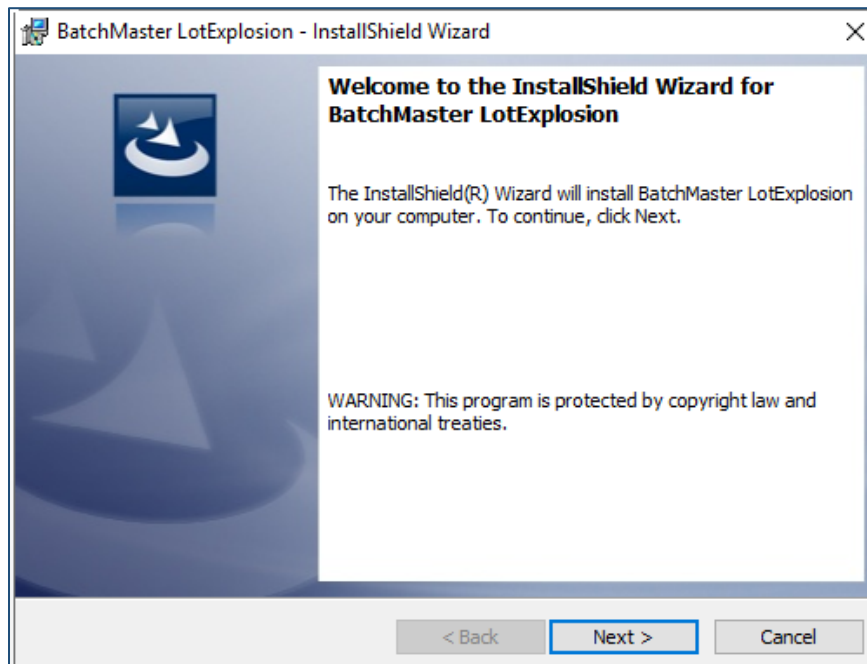


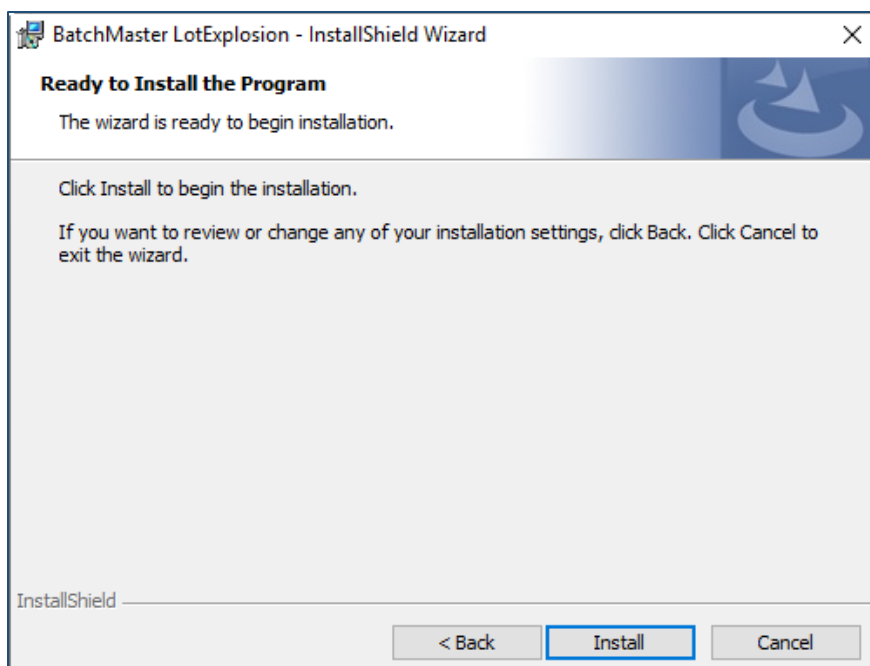
1.4 Installing Lot Explosion

1. Launch the *BatchMaster Lot Explosion Setup* executable.
2. The installation wizard prepares.

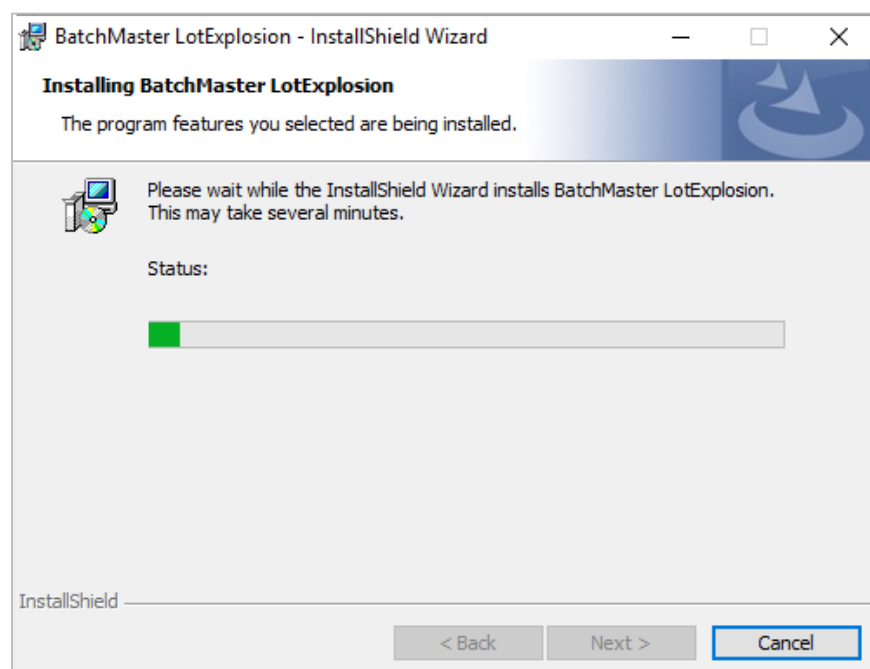


3. Click *Next* to start the installation of BatchMaster Lot Explosion.





4. The installation advances. The color bar displays the progress.



5. During the installation sequence, the installer requires the Lot Explosion configuration & database update scripts.
6. On the *BatchMaster Lot Explosion Configuration* screen, enter the information about the database server type, SAP B1Server, SQL database user, and password. Providing configuration settings is mandatory for setting up BatchMaster Lot Explosion.



- a. For SQL - Select the Server Type as SQL – Server, the SAPB1 Server machine, the BatchMaster Database Username, and its associated password in the respective fields.

BMM Lot Explosion Configuration

DataBase

Server Type: SQL-Server 2017

SAPB1 Server: Techwritersap9

DB User: BatchMaster

DB Password: XXXXXXXXXXXX

SAVE CLOSE

- b. For HANA - Select the Server Type as HANA Server, the SAPB1 Server machine, the Database Username with which the HANA Client is installed and its associated password in the respective fields.

BMM Lot Explosion Configuration

DataBase

Server Type: HANA Server

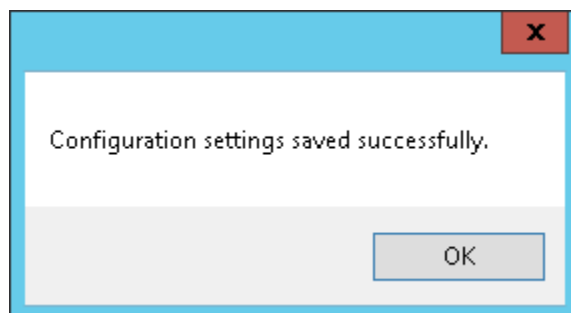
SAPB1 Server: 172.16.10.52:30015

DB User: SYSTEM

DB Password: XXXXXXXXXXXX

SAVE CLOSE

- 7. Once all the details are entered, click *Save*, and then *OK* to accept the confirmation message.



8. Next, In case of SQL the installer takes you to the database update utility.
9. In case of SQL, while installing, modifying, or repairing BatchMaster Lot Explosion, the *BatchMaster Lot Explosion Database Update Utility* screen appears. On this screen, enter the SAP B1 Database server, SQL DB user, and its password in the respective fields. The systems list the company databases after establishing a connectivity based on mentioned details. Select the company database you want to update from the displayed list of the *Company Databases*. Click *Update*.

BMM Lot Explosion Database Update Utility

SQL HANA

SAP B1 Database Server
TECHWRITERSAP9

DB User
BatchMaster

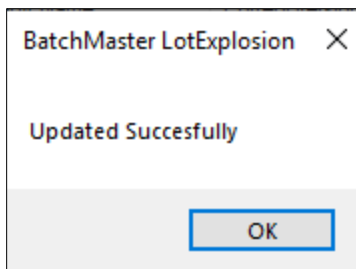
DB Password
XXXXXXXXXX

Company Databases

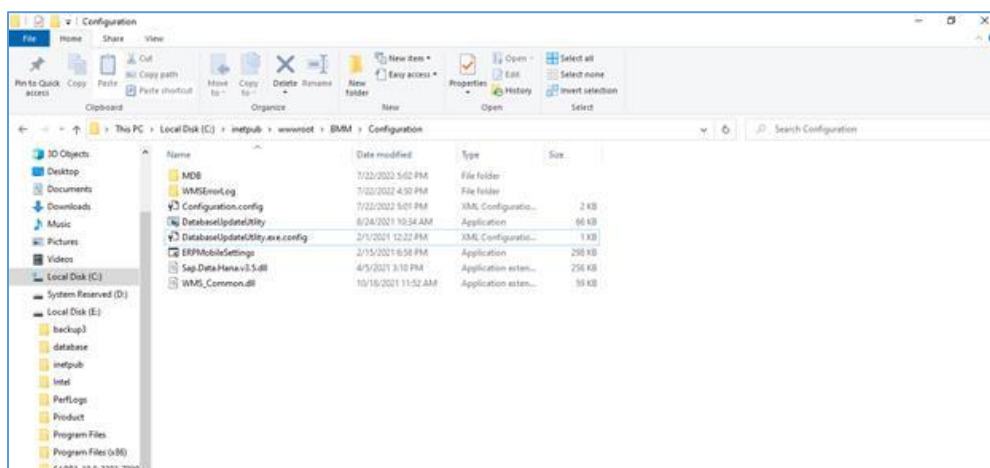
Select	Company ID	Company Name	CurrentVersion	LatestVersion	Result
<input type="checkbox"/>	BAKERY_SP14_SETUP	QAERP164_SP24_SETU...		1.5.2.0	Not Updated
<input type="checkbox"/>	BHPL_TEST	BHPL_TEST		1.5.2.0	Not Updated
<input type="checkbox"/>	BMEB1Demo	BMEB1Demo		1.5.2.0	Not Updated
<input type="checkbox"/>	BMM_GSTIND	BHPL_TEST		1.5.2.0	Not Updated
<input type="checkbox"/>	CWght	WMSLotstr		1.5.2.0	Not Updated
<input type="checkbox"/>	DemoBM	DEMOBM		1.5.2.0	Not Updated
<input checked="" type="checkbox"/>	NDB_Bakery	NDB_Bakery		1.5.2.0	Not Updated
<input type="checkbox"/>	Routdb	RoutingFinal		1.5.2.0	Not Updated
<input type="checkbox"/>	Routing_db	Routing_db		1.5.2.0	Not Updated
<input type="checkbox"/>	RoutingFinal	RoutingFinal		1.5.2.0	Not Updated
<input type="checkbox"/>	WMSLotstr	WMSLotstr		1.5.2.0	Not Updated

Update Exit

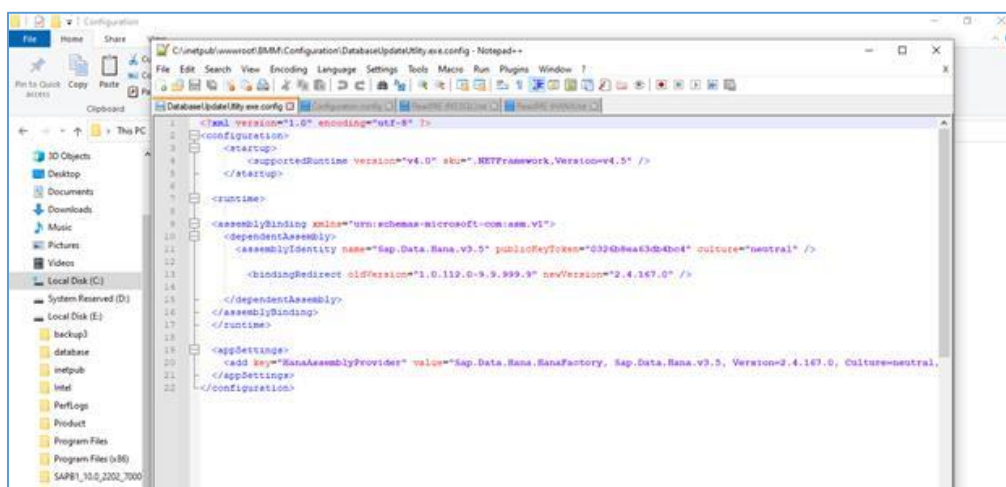
10. On successful operation, the system prompts an *Updated Successfully* message as displayed below. Click *OK*.



11. In case of HANA if the installer does not redirect to the Database Update Utility, then locate the DatabaseUpdateUtility.exe.config file from the C:/inetpub/wwwroot/BMM/Configuration.



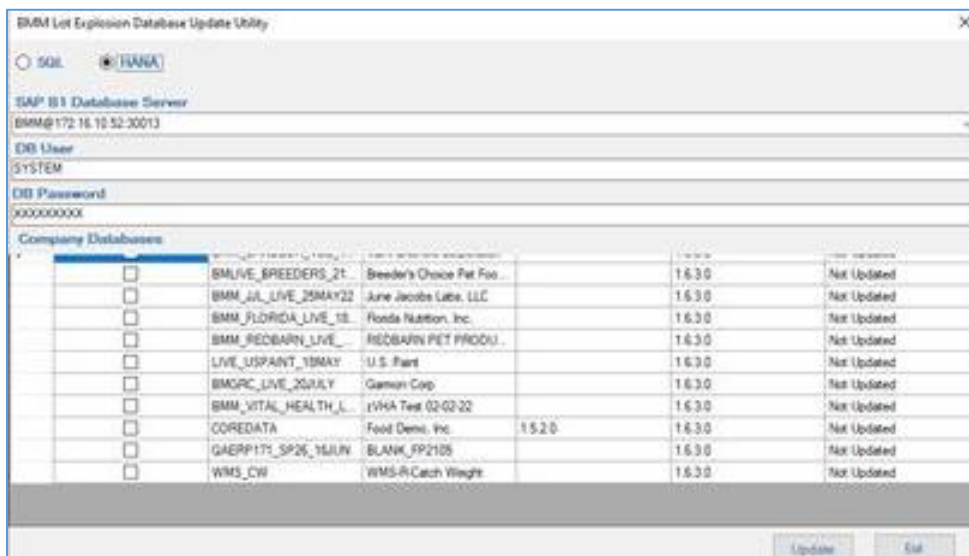
12. Open the file and manually update the installed HANA Client Version and save the record.



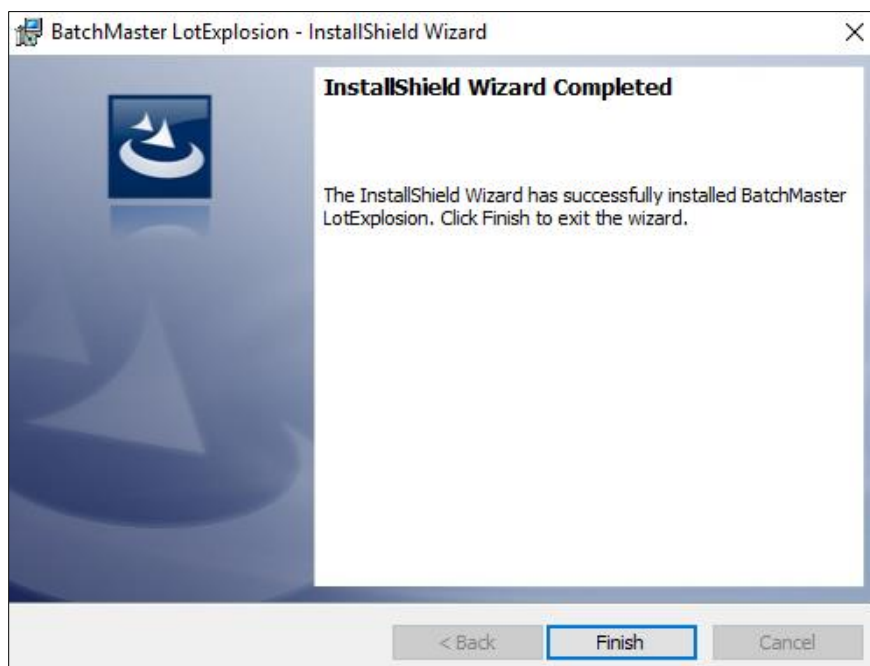
13. The *BatchMaster Lot Explosion Database Update Utility* screen appears. On the screen, select the HANA option, enter the SAP B1 Database server, DB username with which you have installed the HANA Client, and its password in the respective fields. The systems list the company databases after establishing a connectivity based on mentioned details. Select the company



database you want to update from the displayed list of the *Company Databases*. Click *Update*. On successful operation, the system displays an *Updated Successfully* message.



14. After the successful update of the database, the *Installation Complete* screen is displayed. Click the *Finish* button to complete the installation.

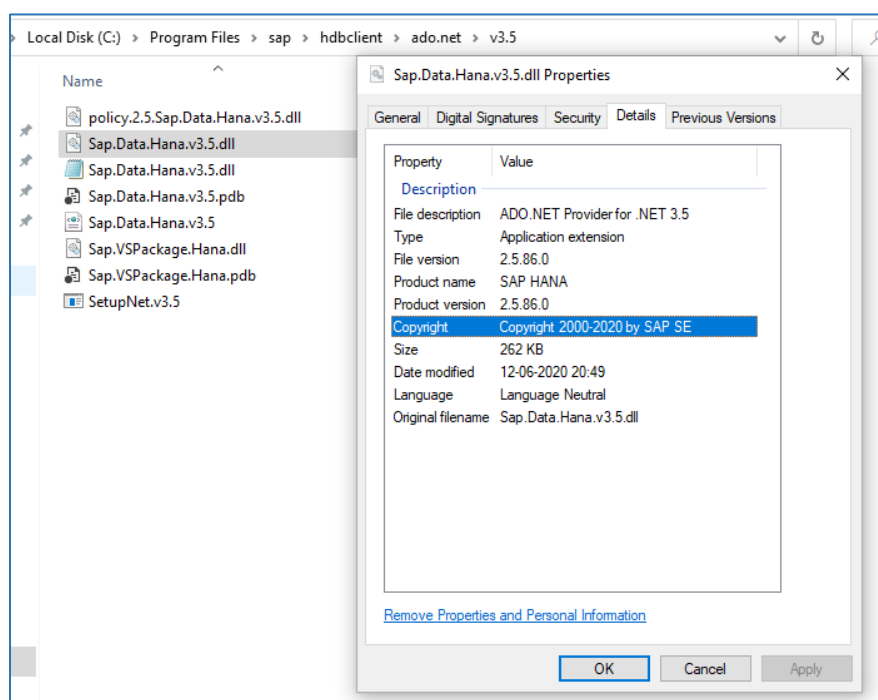




1.5 HANA 2.0

- The logged in user must have Read and Write permission on the target directory (Ex: C:\inetpub\wwwroot\BMM)
- The SAP Data Hana Product Version on the specified path should be same on the Web and Configuration folder.
 - Locate the SAP Data Hana Product Version from the following path:

C: → Program Files → SAP → hdclient → ado.net → v3.5 → Sap.Data.Hana.V3.5.dll



- Copy the same SAP Data Hana Product Version and specify it in the Web File available at the following path:

C: → inetpub → wwwroot → BMM → Web



```
<bindingRedirect oldVersion="13.0.2000.0" newVersion="13.0.3500.0"/>
</dependentAssembly>
<dependentAssembly>
  <assemblyIdentity name="CrystalDecisions.ReportAppServer.ReportDefModel" publicKeyToken="
  <bindingRedirect oldVersion="13.0.2000.0" newVersion="13.0.3500.0"/>
</dependentAssembly>
<dependentAssembly>
  <assemblyIdentity name="CrystalDecisions.ReportAppServer.XmlSerialize" publicKeyToken="
  <bindingRedirect oldVersion="13.0.2000.0" newVersion="13.0.3500.0"/>
</dependentAssembly>
<assemblyBinding xmlns="urn:schemas-microsoft-com:asm.v1">
  <dependentAssembly>
    <assemblyIdentity name="Sap.Data.Hana.v3.5" publicKeyToken="0326b8ea63db4bc4" culture="
    <bindingRedirect oldVersion="1.0.120.0-9.9.999.9" newVersion="1.0.120.0"/>
  </dependentAssembly-->
<!--</assemblyBinding-->
</assemblyBinding>
</runtime>
```

- Copy the same SAP Data Hana Product Version and specify it in the DatabaseUpdateUtility available at the following path:

C: → inetpub → wwwroot → BMM → Configuration → DatabaseUpdateUtility.exe

```
<?xml version="1.0" encoding="utf-8" ?>
<configuration>
  <startup>
    <supportedRuntime version="v4.0" sku=".NETFramework,Version=v4.5" />
  </startup>

  <runtime>

  <assemblyBinding xmlns="urn:schemas-microsoft-com:asm.v1">
    <dependentAssembly>
      <assemblyIdentity name="Sap.Data.Hana.v3.5" publicKeyToken="0326b8ea63db4bc4" cu
      <bindingRedirect oldVersion="1.0.112.0-9.9.999.9" newVersion="2.4.167.0" />
    </dependentAssembly>
  </assemblyBinding>
</runtime>
```

- Execute the [Database Update Utility](#).

1.6 Login URL

You can access the installed BatchMaster Lot Explosion application by using the following URL on the Internet browser.

<http://<server IP address>/BMM/LotExplosion/index.html>

To create and maintain the password for the login user, a user defined field BMM_WEBPASSWORD is provided on the *User Master* screen. On the screen you are required to maintain the user password which can be of max length 20 alpha numeric character.



Note: If the BME B1 Installed version is 364.133.78 or below it then you are required to manually create this user defined field from Tools >> Customization Tools >> User Defined Fields menu.

You can login to the Lot Explosion Utility using the BMM_PASSWORDS credentials provided for the user.

2 Overview

Use this web-based tool to find complete trace of lots both from finished goods to raw material and raw material back to final finished good. You can select a lot node and drill down to any level you want.



Item Lot Detail		manager
Item Code	Orange Juice Bottle	
Item Name	Orange Juice Bottle	
Lot	Orange Juice Bottle-001	
Vendor Lot		
Single Level	<input type="checkbox"/>	

✓ Lot Explosion ✓ Where Used

2.1 Item Lot Detail Screen

Item Code: Choose finished good or raw material code whose structure needs to be displayed. You can type in both item code and item name to find a desired item.

Item Name: Displays the description of the above selected item code, as mentioned on the *Item Master Data* screen.

Lot: Select the lot number of the lot whose details need to be viewed. Type in lot# or vendor lot# to get desired lot.

Vendor Lot #: Displays the vendor lot number if specified for the lot.

Single Level: Select this option to display lot details of the item to its immediate level. While if you leave this checkbox unchecked then system will explode the lot hierarchy to last level.

Lot Explosion: Use this button to view the lot map from given finished good/intermediate to lower-level ingredients.

Where Used: Use this button to view lot map for given raw material and find its usage in upper-level intermediates or finished goods.

2.1.1 Working with Lot Explosion feature

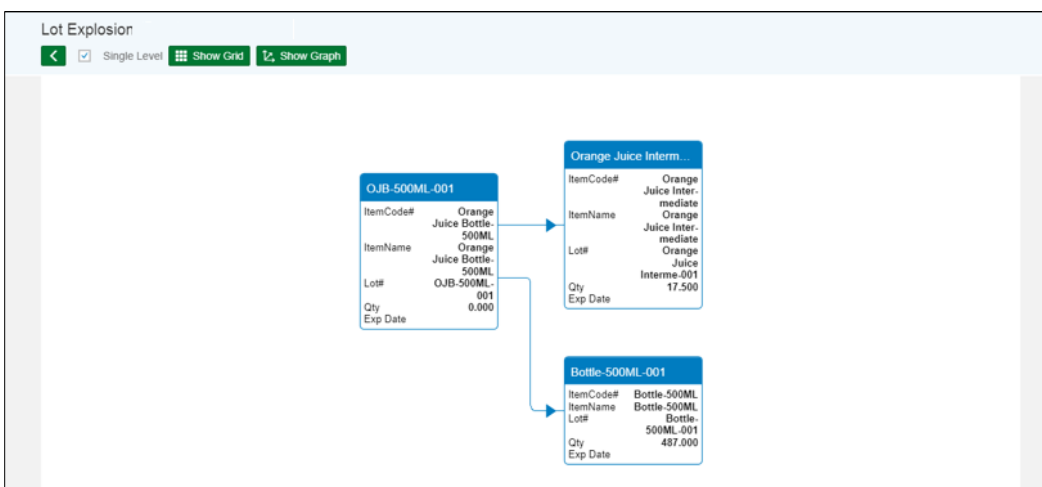


The Lot Explosion feature is helpful to see the composition of a finished good lot. If you run the Lot Explosion with **Single Level** Indicator, then following the *Top-down approach* system will display the finished good lot to its immediate level. It helps you to easily identify details of the first level lots used to prepare the finished good.

Item Lot Detail

Item Code: Orange Juice Bottle-500ML
Item Name: Orange Juice Bottle-500ML
Lot: OJB-500ML-001
Vendor Lot:
Single Level:

Lot Explosion Where Used

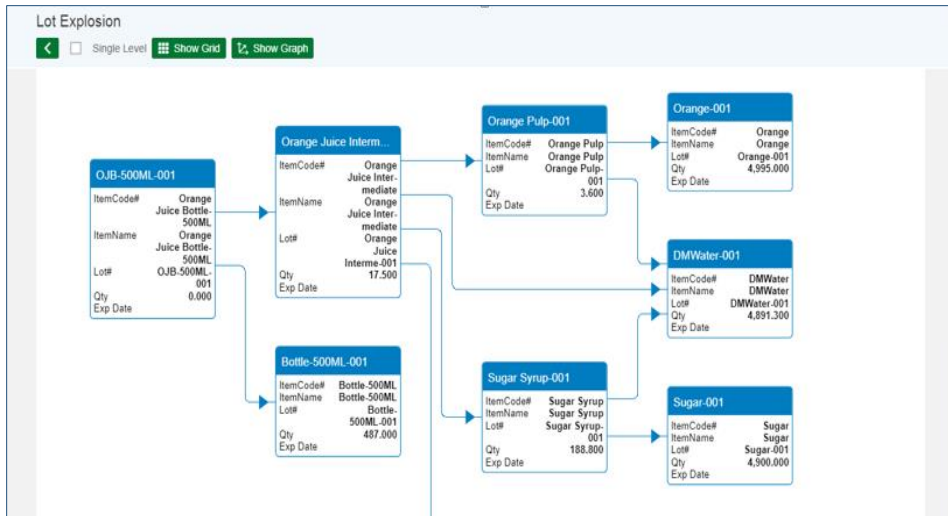


Multi-Level



Do not select the Single Level option to run Lot Explosion for Multi-Level.

Performing the lot explosion in Multi-level explode the complete hierarchy of the finished good lot and displays the composition of the FG from immediate intermediates to the last level item lots used.



Show Grid View: You can use the *Show Grid* button to view and analyze the lot details in a tabular form.

Lot Explosion

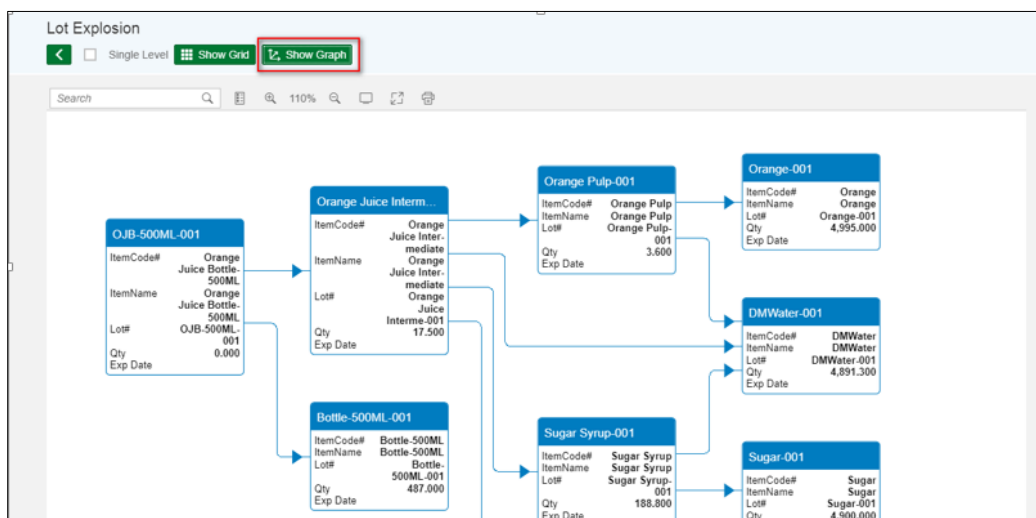
Single Level Show Grid Show Graph

Filter

Collapsible all Expand all

Lot#	ItemCode	ItemName	Qty	Exp Date	Action
▼ OJB-500ML-001	Orange Juice Bottle-500ML	Orange Juice Bottle-500ML	0.000		
Bottle-500ML-001	Bottle-500ML	Bottle-500ML	487.000		
> Orange Juice Interme...	Orange Juice Intermediate	Orange Juice Intermediate	17.500		

Show Graph



Expand All: Use this button to expand all the lots till the last level.



Lot Explosion

Single Level Show Grid Show Graph

Filter

Lot#	ItemCode	ItemName	Qty	Exp Date	Action
▼ OJB-500ML-001	Orange Juice Bottle-500ML	Orange Juice Bottle-500ML	0.000		<input type="button" value="List"/> <input type="button" value="Grid"/> <input type="button" value="Graph"/>
Bottle-500ML-001	Bottle-500ML	Bottle-500ML	487.000		<input type="button" value="List"/> <input type="button" value="Grid"/> <input type="button" value="Graph"/>
▼ Orange Juice Interme...	Orange Juice Intermediate	Orange Juice Intermediate	17.500		<input type="button" value="List"/> <input type="button" value="Grid"/> <input type="button" value="Graph"/>
DMWater-001	DMWater	DMWater	4,891.300		<input type="button" value="List"/> <input type="button" value="Grid"/> <input type="button" value="Graph"/>
▼ Orange Pulp-001	Orange Pulp	Orange Pulp	3.600		<input type="button" value="List"/> <input type="button" value="Grid"/> <input type="button" value="Graph"/>
DMWater-001	DMWater	DMWater	4,891.300		<input type="button" value="List"/> <input type="button" value="Grid"/> <input type="button" value="Graph"/>
Orange-001	Orange	Orange	4,995.000		<input type="button" value="List"/> <input type="button" value="Grid"/> <input type="button" value="Graph"/>
▼ Orange Pulp-002	Orange Pulp	Orange Pulp	5.200		<input type="button" value="List"/> <input type="button" value="Grid"/> <input type="button" value="Graph"/>
DMWater-002	DMWater	DMWater	4,994.600		<input type="button" value="List"/> <input type="button" value="Grid"/> <input type="button" value="Graph"/>
Orange-002	Orange	Orange	4,995.000		<input type="button" value="List"/> <input type="button" value="Grid"/> <input type="button" value="Graph"/>
▼ Sugar Syrup-001	Sugar Syrup	Sugar Syrup	188.800		<input type="button" value="List"/> <input type="button" value="Grid"/> <input type="button" value="Graph"/>
DMWater-001	DMWater	DMWater	4,891.300		<input type="button" value="List"/> <input type="button" value="Grid"/> <input type="button" value="Graph"/>
Sugar-001	Sugar	Sugar	4,900.000		<input type="button" value="List"/> <input type="button" value="Grid"/> <input type="button" value="Graph"/>

Collapse All: Use this button to contract the expanded view of the lot.

2.1.2 Working with Where Used feature

This feature helps you to easily identify where a particular lot of raw material is used. If you use this feature with **Single Level**, then details of the selected material lot will be displayed to its immediate level.

Item Lot Detail manager

Item Code: Orange

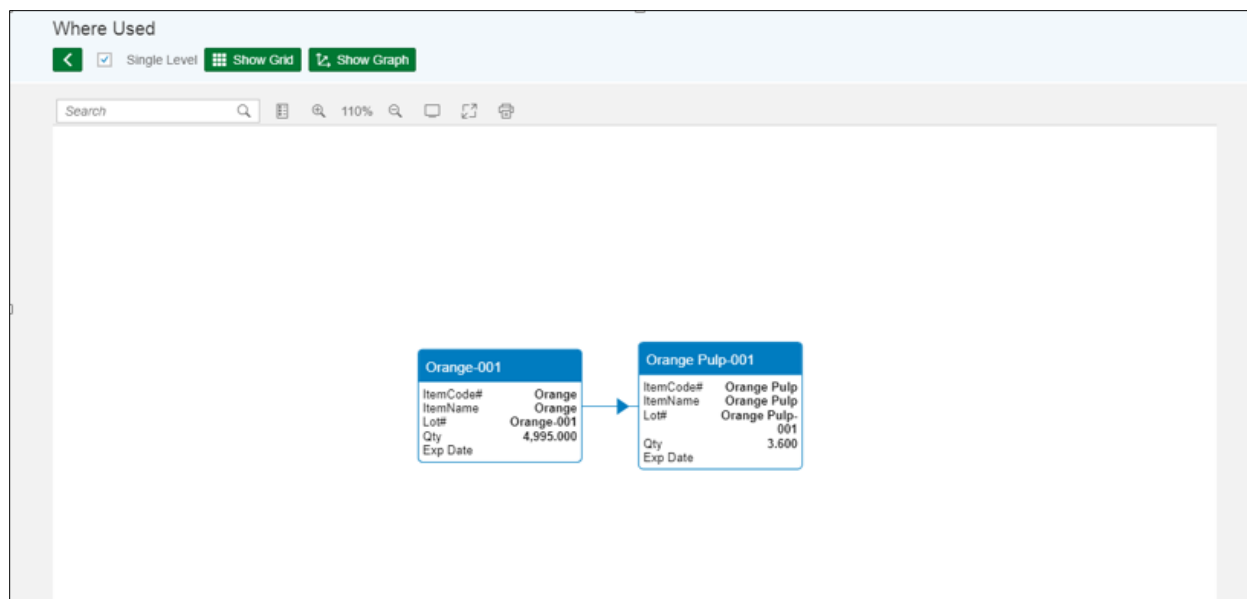
Item Name: Orange

Lot: Orange-001

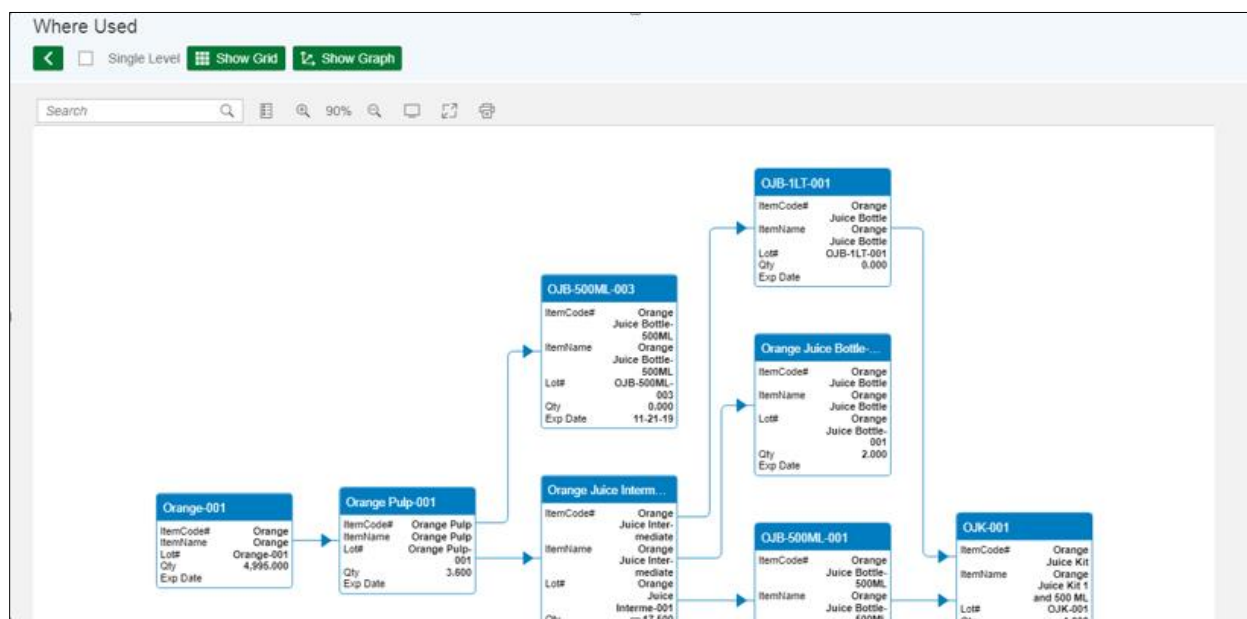
Vendor Lot:

Single Level:

Lot Explosion Where Used

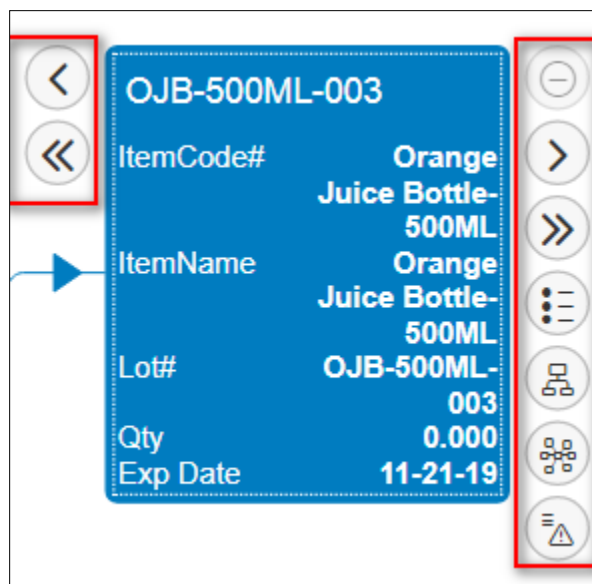


While, in the **Multi-Level**, system will show a complete hierarchy of the selected lot. This helps you to view and analyze where exactly the lot is contributed in finished good preparation.



2.1.3 Navigation Options

The features in the *Lot Explosion/Where Used* do not end here. Clicking on the specific nodes on the screen will show options, as outlined below:



Expand/Collapse: You can hide/show the related hierarchy of the node.



Collapse the expanded view



Shows the expanded view.

Expand Next Level



Select option to view lots of the next level.

Expand All

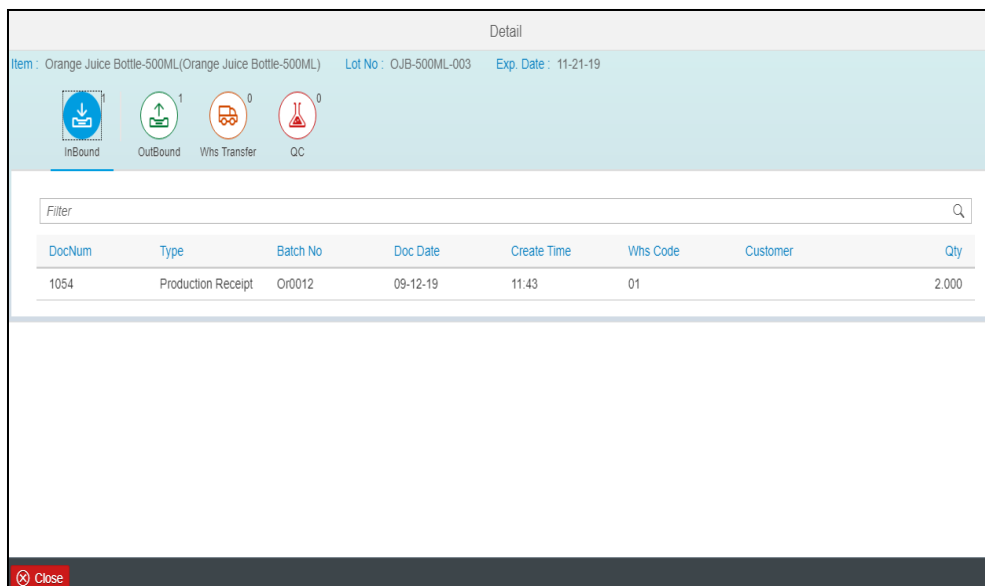


Select the option to expand all the lots till the last level.

Node Detail



Using this button, you can view the transaction details of the lot. It helps you to view following transactions details related to the lot.



Inbound: Displays all inbound transactions of the lot including prediction receipts.

Outbound: Displays all outbound transactions of lots including production issues.

Whs Transfer: Displays all warehouse transfer transaction of the lot.

QC: Shows the QC transactions of the lot.

Lot Explosion



Using the button, you can explode all the lots of that finished good or item.

Where Used



Using the button, you view the usage of the raw materials in different lots.

Lot Recall



Use this tool to generate product recalls for finished goods have been sold. Clicking on this button will prompt you a screen to give a range of lot numbers or lot creation dates if you do not know lot numbers. View the report for recalling lots if a lot is defective.

2.1.4 Lot Recall Letter

Use this tool to generate product recalls for defective finished goods being supplied. You can generate the Lot Recall letter by specifying a range of lot numbers or lot creation dates if you do not know lot numbers.



You can choose to generate lot recall letter for those item lots that are:

- Associated with a specific range of lots (Lot Range).
- Attached with a specific time period defined by the dates in which the lots were created (Lot Creation Date Range).

Lot Recall Report	
Item Code	Orange Juice Bottle-500ML
From Lot	OJB-500ML-003
To Lot	OJB-500ML-003
Lot Created From	Enter Date ...
Lot Created To	Enter Date ...

Print Cancel

Item Code: Specify the item for which the lot recall letter is to be generated.

From/To Lot: Specify lot range that needs to be recalled. By default, the node's lot# is populated.

Lot created from/to: Alternatively, you can also specify lot created date range for a recall.

Print: Click the *OK* button to generate the report.

Cancel: Click the *Cancel* button to close the screen, you can also use ESC button.

2.1.4.1 Generating a Lot Recall Letter

1. Use the lookup next to the *Item Code* field to select the item for which the lot recall letter is to be generated.
2. Use the lookups next to the *Lot From* and *Lot To* fields to specify the lower and upper limits of the range of lots to be included in the *Lot Recall Letter*.
3. Use the lookups next to the *Lot Created From* and *Lot Created To* fields to specify the lower and upper limits of the time period, defined by the lot creation date, to filter lots included in the *Lot Recall Letter*.
4. Click the *OK* button to generate the *Lot Recall Letter*.

An example of a generated *Lot Recall Letter* is provided below.



LOT RECALL LETTER		
9/12/2019		9861 Irvine Center Dr.Irvine
		CA 92618
		USA
		CA 92618
		US
To		
	Ferro Chem Co.	
	"2346 Dupont Drive	
	US	
	Dear Valued Customer:	
	Please be advised that Chemical Webinar ,Chemical Webinaris voluntarily recalling following lot numbers of Items, due to the lack of assurance of product quality.	
Item #	Item Desc	Lot #
Orange Juice Bottle-500ML	Orange Juice Bottle-500ML	OJB-500ML-003
Our records indicate that you may have received this product. Immediately examine your inventory and determine if this product is in your possession. If so, please discontinue the use of the product and return it in accordance with the information contained in this letter. If you have distributed any of the items from either of the above product lots, immediately contact your accounts, advise them of the recall situation and have them return unopened items of the recalled stock to you.		
Unopened Items should be shipped directly to:		
	Chemical Webinar	
	9861 Irvine Center Dr.Irvine	

The report displays name, address of each customer followed by lot number sold to the customer. The report is displayed for every customer to whom lot(s) were sold to.

2.2 Example - Trace a Lot

Let's say. *ABC Food Manufacturers* prepares and sells Orange Juice. Last week they received a complaint from one of their customers that a particular pack of the product was substandard. The customer mentioned the batch number in the complaint. Now, let us see how the *Lot Explosion Utility* helped the manufacturer to trace the defective lot.

As the marked lot was a finished good lot and to trace a particular lot of FG item the best way is to run the Lot Explosion, so let's run the Lot Explosion to identify the compositions of the defective finished good lot OJB-1LT-001.



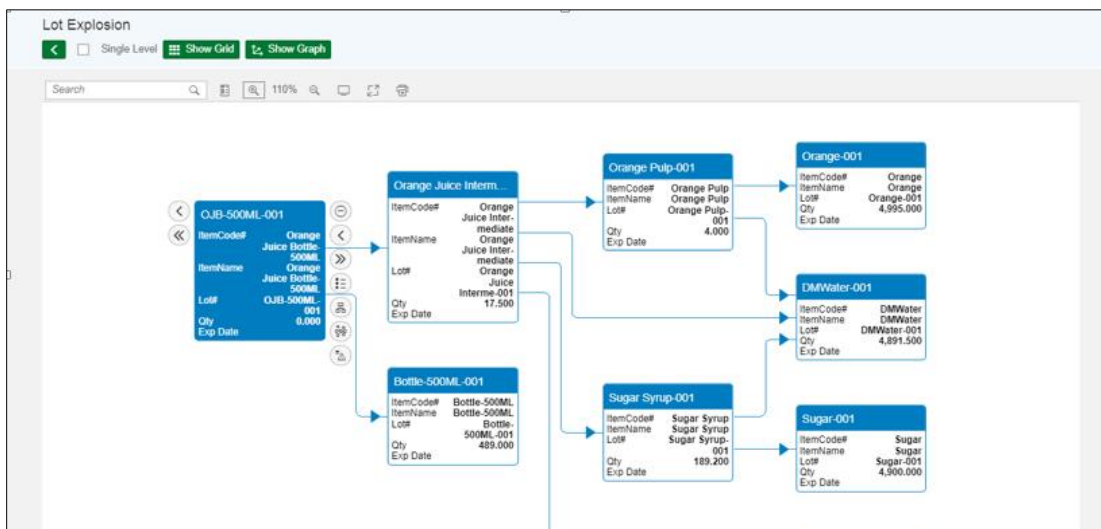
Item Lot Detail manager

Item Code	Orange Juice Bottle
Item Name	Orange Juice Bottle
Lot	OJB-1LT-001
Vendor Lot	

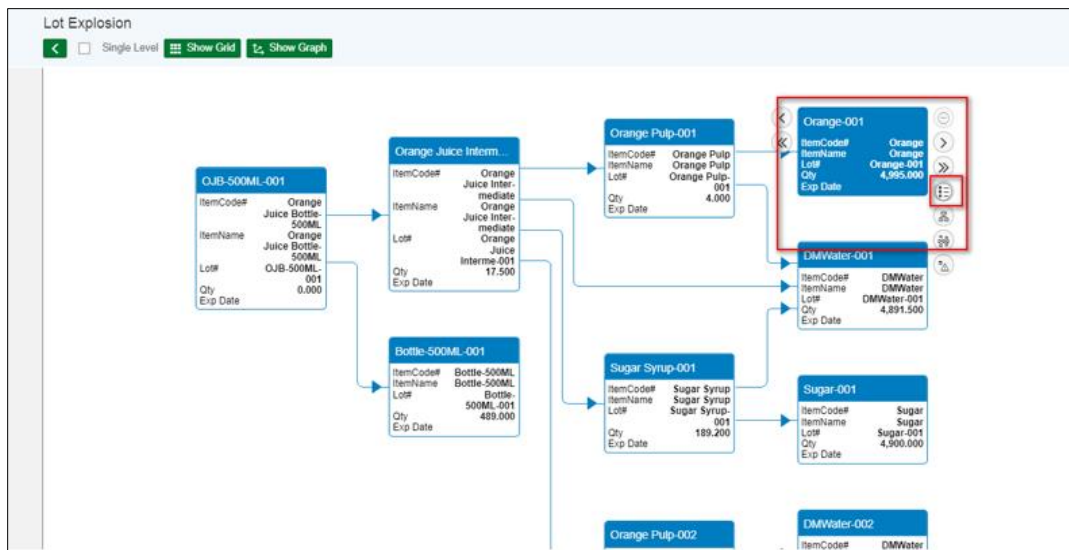
Single Level


✓ Lot Explosion ✓ Where Used

Since the item lot involves intermediates, the right choice here would be to perform lot explosion in *Multi-Level*.




During analysis it is found that a particular lot of Orange 'Orange-001' was sub-standard. Now to locate a lot of Orange and identify that how the material lot reached in production, we can use *Where Used* feature. You can directly navigate to the *Where Used* feature from the *Lot Explosion* screen.



Clicking on *Where Used* button  will directly navigate you from the *Lot Explosion* to the *Detail* screen.

Here you can see the transactions involved with the item lot *Orange-001*. It helps you to easily identify that the material lot was received through Purchase/Production/Warehouse Transfer. Also, you can find that on the lot either quality test is performed or not and if QC is done on the item lot, then you can see the result of the QC as well.

DocNum	Type	Batch No	Doc Date	Create Time	Whs Code	Customer	Qty
1031	Goods Receipt		01-11-19	13:53	01		10,000.000

Further, back from the *Lot Explosion* screen, using the *Lot Recall* button  you can generate the *Lot Recall letter* to effectively remove/correct the marketed product.