

# MooD 15 Release Notes – Build 116

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# Installing MooD 15

MooD 15 is compatible with Microsoft® Windows® installations only. Additionally you will need to connect to a SQL Server database to read or create MooD Repositories. Previously, MooD included Microsoft SQL Server® Express 2008 R2 SP1 in the installation. As most organizations have centralized control over IT infrastructures and restrict which versions of SQL Server databases are to be used, this is no longer included. Subsequently the MooD install is faster and leaner. See <u>Requirements</u> for information on platform and database requirements.

We recommend all Windows Updates are applied before installing MooD. Failure to do so could cause the installation to fail, or take hours to process. Please see the minimum client specifications below for more information.

To install MooD 15, locate Setup.exe on the MooD 15 distribution media and open it.

• The installation will guide you through the process of installing prerequisites and will let you choose the installation location if you do not want to accept the default of C:\Program Files (x86)\MooD\15\.

Once installed, a MooD 15 icon will appear on your desktop. Double-click this icon to open Repository Manager. If you need to install a licence, run Repository Manager as an Administrator to enable MooD for all logged in users. This is particularly important if you also intend to install MooD Active Publisher and MooD Business Integration Engine, which use different service accounts.

The *Repository Manager User Guide* is available from the Windows **Start** menu and from Repository Manager's **File** tab. It is an Adobe Acrobat (PDF) document. You will need a PDF viewer installed, associated as the default application to process .PDF files.

# Known Installation Issues

# MooD takes a long time to install, or complains of a failure to register a component.

If recent Windows Updates have not been applied, the Visual C++ 2015 Redistributable (x86) prerequisite may experience the following issues:

- A quick install, followed by a message of failure to register moodmodelpublisher.dll.
  - To resolve this error, cancel the install then go to Control Panel and in the installed programs list, click **Repair** on the Microsoft Visual C++ 2015 Redistributable (x86) and try to install MooD again.
- A very slow install, possibly hours, we believe that Microsoft's Redistributable is comparing your Windows Updates and downloading required Windows Updates. We recommend waiting until it has completed. To avoid this situation, install MooD whilst disconnected from the network.

# You cannot upgrade a MooD 2008se repository

Repositories prior to MooD 2010 are no longer upgraded by MooD 15 Build 100 or above. Please use the latest build of MooD 15 (less than 100) to upgrade the repository.

# Some files are left behind when I uninstall MooD

Uninstalling Business Architect will purposely leave some files on your system:

- RepositoriesManager.sdf the connection details for your repositories.
- custom.cdf the default custom dictionary file.

Uninstallation will remove all the other files, including the default Web Publisher template. If you have modified the template we recommend copying it to a different location beforehand.

# MooD Installer launched from the .msi file

If you accidently click on the MSI file instead of **Setup.exe** you may see **Licence client failed to initialize** or other errors when MooD Repository Manager is launched in **Run as administrator** mode. If you experience these symptoms, uninstall MooD, and then install MooD again using **Setup.exe**.

# Uninstalling MooD may stop other MooD Technology Software from working

If you have other installations (in Add/Remove Programs) that use MooD technology, you may experience issues after uninstalling the MooD Toolset. If this occurs, you may have to reinstall the other programs.

# Repository Manager unable to find Microsoft.SqlServer.ConnectionInfo

Given an operating system with the most recent Windows Updates applied and SQL Server 2016 installed, MooD's installer incorrectly determines it can skip installation of a vital SQL Server communication component. When running MooD Repository Manager you may encounter this issue:

System.IO.FileNotFoundException: Could not load file or assembly 'Microsoft.SqlServer.ConnectionInfo, Version=10.0.0.0, Culture=neutral, PublicKeyToken=89845dcd8080cc91' or one of its dependencies. The system cannot find the file specified.

To solve this, simply close Repository Manager, and run the package located in the MooDSMO2008R2 folder in the original installation media, and try again.

# Upgrading MooD 15 Repositories - Schemas

The *schema* is fundamental to each repository and its upgrade process. A schema defines the structure of the database within which MooD Repository data is stored. When this structure changes, through functional evolution, your repository data and structure may need to be transformed. MooD Repository Manager can manage this process for you.

The MooD schema will change much less frequently than the MooD build number. Builds introduce features and bug fixes on top of a schema. Hence, a schema can support several future builds. Once you have upgraded to a schema, you cannot revert back to an older schema, hence why taking a backup is important.

In Repository Manager, repositories that do not match the schema of your current build appear in shades of brown (sepia). For example:



Such repositories cannot be opened in your version of MooD unless upgraded to the same schema.

**IMPORTANT:** Before upgrading any repository, first ensure the repository is not being used by other users and then take a backup. If failures occur during the upgrade process, you **must not** attempt to use the resulting repository - you should revert to the backup and try again, or contact the Support team.

To upgrade to a newer schema, in Repository Manager, select the repository and then select **Upgrade** (it is one of the few commands available to you). However, note the following:

Once a repository has been upgraded to a new schema, you cannot open it in a version of MooD with an earlier schema.

# Command line interface

Repository Manager has a command-line interface which enables you to list, test upgrade, upgrade and mandate *multiple* repositories at a time. You can even schedule this via Task Scheduler. For more information at the command prompt where MooD is installed type

```
RepositoryManager /?
```

# Upgrading MooD 2010 Repositories

On starting, if Repository Manager detects older repositories, it will ask you if you want to import them. If you import the detected repositories, they will appear in an **Imported Repositories** group on the **Repositories** tab. You can then upgrade imported repositories as required. If you choose not to import repositories, you can import them later from within Repository Manager.

The *Repository Manager User Guide* includes details on upgrading older repositories. This PDF document is available from the Windows **Start** menu and from Repository Manager's **File** tab.

A number of Blueprint Repositories are provided by the MooD Install. Upgrade these repositories if you need to use them.

# Known Issues by Product Area

This section lists known issues by the product areas listed below.

- <u>Active Enterprise</u>
- Business Architect
- <u>Repository Manager</u>
- Knowledge Activation
- <u>Microsoft Visio® Business Integration Activator</u>
- <u>Microsoft® Project Synchronization Activator</u>
- <u>Synchronization Activator Technologies</u>
- Web Publisher
- XMI® Business Integration Activator
- Business Integration Engine

# **Active Enterprise**

# **Active Enterprise Requirements**

Active Enterprise requires that both MooD and Business Integration Engine are installed previously. For further information and detail on how to smoothly install Active Enterprise and its prerequisites see the Active Enterprise Server 15 Setup document (Available from MooD International Support on request).

# Action panel rendering issues

- In Build 58, the default styling of Drop Down Tick Box List button labels has changed. The label on the button is now configurable and has a default font-style of normal (no longer italic) and will be left-aligned on the button. This makes the appearance consistent with the Drop Down button label.
- Action panel content is always drawn on top of the panel label and border (in Business Architect the label and border are drawn on top).
- When published either actively or statically, action panel content is always drawn on top of the model image. If any model content (shapes or lines) overlaps an action panel, it will be drawn in a square block on top of the action panel. Any transparent parts of this block cannot therefore be clicked through to the action panel beneath. Performance indicators, when turned on, advise the user which items they may need to move, or change the z-order of, to ensure that this overlapping does not adversely affect the action panels.
- Action panel content is not clipped if it overlaps the edge of the model.
- Shape styling is not supported.
- Only a subset of bar, milestone and plot shapes in Time Line and Bar chart matrices are supported.

# Opening Knowledge Activations in a new window

Windows may not open due to the web browser's pop-up blocker. This can occur when clicking on a button or link action panel or with the navigate action panel. The browser will

report that the window has been blocked and provide the option to allow pop-ups. This should be enabled for the published site.

# "A potentially dangerous Request.Form value was detected from the client" exception when saving data

ASP.NET validates all information sent to the server for potential cross-site scripting attacks. If you try to save data containing certain text patterns (such as **<script>**), ASP.NET will detect this as a cross-site script attack and display the exception.

### Workaround

Edit controller.aspx and add a validateRequest="false" attribute to the Page directive, for example:

```
<%@ Page language="c#" AutoEventWireup="true"
Inherits="Salamander.ActivePublisher.Controller"
EnableViewState="False" Codebehind="Controller.aspx.cs"
aspcompat="true" ValidateRequest="false"%>
```

Note: This disables cross-site scripting detection.

### Performance counters

When enabling performance counters ensure that the Active Enterprise application pool is running under an administrative security context. MooD will create the performance counters if they are not already present on the Active Enterprise server (which requires administrative privileges).

# **Business Architect**

# Drawing artefacts with ultra-high resolution screens

When users view MooD Business Architect with an ultra high resolution display, for example 3840x2160 pixels, the user interface may look cramped, icons are too small, controls overlap and some buttons may be awkward to press. Many of these issues are a direct result from increasing text scaling in the Display Settings. MooD has addressed a large number of such issues to enable users to use the product, but it may not be visually appealing. We will continue to resolve these issues over time. For the best experience we recommend using MooD at 100% magnification on a lesser resolution.

# Using Citrix with multiple monitors and different text scaling

When using Citrix with multiple monitors where each monitor has mixed text scaling factors, mouse clicks can appear to be 100 pixels away from your intended location. Business Architect can also render as a completely black box, making the product is unusable. When both displays are set to 100% scaling, this issue does not occur. As of writing, this is not a scenario supported by Citrix XenDesktop or XenApp environments, <u>see here</u> for more details.

# Helpfiles do not launch

Helpfiles for MooD products are shipped in Adobe Acrobat format (.PDF). When you press F1 or navigate to them via the menu systems, you may receive messages asking how you would like to open the file. If you have installed Adobe Acrobat Reader DC, and have associated the product with PDF files yet are *still* being prompted, please use Acrobat Reader to open the files yourself, located in the MooD Installation folders.

The alternative is to turn off security features in Adobe Acrobat Reader, which we **do not recommend**.

Adobe Acrobat Reader DC File Edit View Window He		×
	'' ferences	×
File Lists Recent Sent Storage My Computer Document Cloud Add Account	ategories:       Sandbox Protections:         □ Comments       □ Finable Protected Mode at startup       □ Create Protected Mode log file       View log         Protected View ● Off       □ Files from potentially unsafe locations       □ All files         30 & Multimedia       □ Files from potentially unsafe locations       □ All files         Solutions       □ Files from potentially unsafe locations       □ All files         D & Multimedia       □ Files from potentially unsafe locations       □ All files         D & Multimedia       □ Files from potentially unsafe locations       □ All files         D & Multimedia       □ Files from potentially unsafe locations       □ Or Files from potentially unsafe locations         Internet       IsaSocipt       □ Files from show owthows are negatively impacted by security settings, use Privileged Locations to selectively truty workflows are negatively impacted by security setting restrictions.       □ Privileged Locations allows you to work securely while granting trut to items in your workflow.         Measuring (3D)       □ Automatically trust sites from my Win OS security zones       View Windows Trusted Sites         Security (Enhanced)       □ Automatically trust sites from my Win OS security zones       View Windows Trusted Sites         □ Automatically trust sites from my Win OS security zones       View Windows Trusted Sites       □ Automatically trust sites from potentially         □ Automatically trust s	
	What is Protected View?         What is Enhanced Security?         What are Privileged Locations?           OK         Cancel	

# **Microsoft Office Automation - Requires Visual Basic for Applications**

For MooD to successfully integrate with Microsoft Office applications, Visual Basic for Applications must be installed as part of your Microsoft Office installation. It is installed with a typical Microsoft Office installation, but can be omitted during a custom installation. If not installed, features such as the ability to save a Spotlight presentation as a Microsoft PowerPoint presentation will not be available.

# **Repository Manager**

# Repository Manager does not allow Licence Server configuration in Windows Vista

When configuring Repository Manager to use a MooD Licence Server, you are unable to alter the details of the Licence Server location even when logged in as a local Administrator of the computer.

## Solution

Close Repository Manager, right click the MooD icon on the desktop, and then select **Run as** administrator.

# **Knowledge Activation**

# Error messages are displayed when viewing a published Activated element

When following an Activated link in a Statically Published Model, error messages are displayed and the Activation file is not shown. Clicking on the link in the Activation web page allows the download of the file.

This issue only occurs for an Activated file stored on an IIS web server.

## Workaround

IIS must not be set to expire its content cache immediately. Any other setting will alleviate this issue. This setting is altered in the HTTP Headers dialog in the IIS Management console.

# Cannot connect to a document stored within a public folder on a Microsoft® Exchange server

When following an Activated link to a document stored in a public folder (also known as a **freedoc**) on an Exchange server, a **HTTP 403 (Forbidden)** response is served.

## Workaround

Microsoft® recommends that you use controlled access folders when access to **freedocs** is required. See Microsoft Knowledge Base article <u>KB834743</u>.

# Errors when copying files and folders onto Microsoft® SharePoint® portal server

When copying folders into a Microsoft® SharePoint® server (by dragging a folder over the explorer view) files that have illegal characters will cause an error message of the form **An error occurred copying some or all of the selected files.** The files will not have been placed onto the SharePoint server.

A folder with illegal characters will trigger a similar, but more detailed message:

## Unable to create a folder named <*Name of folder*>. Please enter a different name.

This is likely to happen when a published site contains Knowledge Centres within its structure (probably via the **Copy into Publication** option).

## Workaround

Ensure that all files and folders to be copied do not have illegal characters in their names, including:

/\:\*?"<>| # <TAB>{}%~&

# An Activated link to a file that is stored in the published site is not relative

If a Knowledge Centre is published to the same path as the MooD® web publication, Knowledge Activation should recognize this and create associated Activation links with relative addresses (of the general form ../../kc/file.ext).

This detection fails when illegal characters are used in the Knowledge Centre's publishing path. These illegal characters prevent the comparison of paths working. This is because the illegal characters in the path will be replaced with hexadecimal numbers.

## Workaround

Ensure no illegal characters are used in Knowledge Centre publishing paths when it is important that the Activated file is accessed by a relative link. Illegal characters include:

#### % / # ? \* ! <SPACE>

In general, all punctuation and whitespace, except minus and underscore, should be avoided in Knowledge Centre paths.

# Remotely stored Statically Published Models are unable to access locally stored Activations

When a Statically Published Model is stored at a UNC or HTTP path and it attempts to load a Knowledge Resource that would be on the local file system, the Knowledge Activator wrapper does nothing and clicking on the link in the wrapper page also does nothing.

This occurs because browsing files in the My Computer zone is restricted from a non-My Computer zone (usually Local Intranet Zone or Internet Zone).

Unfortunately, Internet Explorer silently fails to navigate to the link so it appears that the link is "broken" rather than it being a security issue.

#### Workaround

Resources associated with a Statically Published Model should be stored remotely via UNC or HTTP paths, though not necessarily at the same path as the Statically Published Model.

# Changing Activator appears to lose properties from current Activation

If the Activator for a current Activation is changed, for example from a Word Document Activator to a Text File Activator, the properties that were used in the original Activation are not carried through to the new Activator. Clicking **OK** at this point, with no properties set, will then remove the Activation. Clicking **Cancel**, however, will reset the Activator and properties to their values prior to changing Activator.

#### Workaround

None. This is expected behaviour. Activators are not guaranteed to have compatible properties from one to another, so previous properties cannot be safely reused after changing Activator.

# Administrator can't open read-only repository (or repository using read-only driver)

If the Administrator repository user opens a repository, Knowledge Activation will attempt to add a version stamp to the repository. This will fail, as the repository cannot be written to, and the following error will appear:

The database has reported a problem. If the problem re-occurs try re-starting MooD. Otherwise, contact the Administrator of this repository.

Non-administrator users will not encounter this error.

This only affects repositories which are set to read-only (or the driver used to access them is set to read-only using Repository Manager), and which have never been opened by the Administrator user with a previous version of Knowledge Activation installed.

#### Workaround

Before opening a repository for the first time ensure that the repository is not read-only, open the repository, close it again, then reset its read-only attributes.

## First open of upgraded repositories may take a long time

After upgrading, it may take a long time to open the repository. Knowledge Activation needs to update Activations in the repository to the latest format.

The time this operation takes is linked to the repository size, the number of activations, the speed of the computer, and the speed of the network connection (if any).

## Workaround

None. This is expected behaviour.

## Activated links are broken after partial merge

After partial merge, imported Activation links are broken because the Knowledge Centre the resources link to is not present.

This will only happen if the receiving repository does not already contain the same Knowledge Centre definition (with identical identifier).

#### Workaround

Ensure the receiving repository has the Knowledge Centre definition. This is best achieved through the working practice of partially merging satellite repositories into a master repository where the Knowledge Centre is initially defined. Satellite repositories should initially be created from the master using full integration once all Knowledge Centre definitions have been created.

## Multiple select in the explorer bar

Several elements can be selected together in the MooD Business Architect explorer bar. If the pop-up menu is displayed while several elements are selected, then there is an activation option. Clicking this option will only activate the element that was selected last.

## Workaround

Do not use multiple select to activate several elements at once.

# Microsoft Visio® Business Integration Activator

# Table, Matrix and Measure properties not supported

Table, Matrix and Measure properties are not included in the output as there is no place in Visio to represent these properties. Memo, Role, Reference, Inputs and Outputs and Simple type properties are included as custom properties of the Visio shape.

## Incorrect shape size

Some Visio shapes may not be the correct size. Models from some repositories upgraded from older versions may not display the shapes in the document output at the right size.

## Workaround

This can be worked around by resizing the elements in Business Architect.

# Incorrect shape orientation

Some Visio shapes may not be oriented correctly. Any element that has been rotated in Business Architect will not be shown rotated in the output document.

# Workaround

There is no known work around for this apart from not rotating elements.

# Shape style

The style of the element in Business Architect may not match the style of the Visio shape, including the type of shape, and the line, text or fill style. This is the main reason for the three different types of export, each export tries to set the style of the Visio shape using a different method. It is then up to the user to select how they want the output shape to be formatted, by selecting the appropriate export activator.

On import, if the Visio shape was based on a stencil, then a style is created or matched to in the style gallery based on this stencil. This style can then be edited so all elements representing Visio shapes from the same stencil can have the same properties. The style may then be used to match back to the original stencil to recreate the shape in an export using a style master document.

# Microsoft® Project Synchronization Activator

# The export activator is not intended for creating new MPP files from existing project data

It is designed to create MPP files for data that is original to MooD.

If you do export data brought in from Project, some information will be missing from the new file. For example, the project start date in the original project is not copied into your new file. Similarly, calendar and shift information will be missing, which may affect the duration and start dates of tasks.

# Synchronization Activator Technologies

# Using SAT with Microsoft Access 2010 .accdb format files

If you do not have Microsoft Access 2010 installed, SAT will not recognize the **.accdb** file format. To correct this, you should install the Microsoft Access Database Engine 2010 32 bit Redistributable from this location:

http://www.microsoft.com/en-gb/download/details.aspx?id=13255

# Saving Synchronization Activations creates temporary assemblies in the TEMP folder

Synchronization activators use Microsoft .NET Framework® XmlSerialization to save serialization activations. The use of XmlSerialization creates and executes assemblies in the **TEMP** folder. If a policy has been set which prevents execution of assemblies in the **TEMP** folder, saving synchronization activations will fail and the following error will be shown:

	he info lick thr e prot	ormatic rough t plem. 7	he dialog tal These additi	<b>irred</b> . es general deta bs to reveal mo onal details may istomer Suppor	re inform y be use	ation about
Ge	eneral	More	Stack Trace	Exception Trace	Contact	
C				ted serialization ass		
er ge	enerate .ddition:	ed seriali	zer. Please see	ctionality is restricte inner exception for		

## Workaround

To change this location modify **MooD.exe.config** in your MooD installation folder and add the **system.xml.serialization** section as below (note the double \\ when specifying folder paths):

```
<?xml version="1.0" encoding="utf-8"?>
```

<configuration>

<system.xml.serialization>

#### <xmlSerializer tempFilesLocation="c:\\tempfolder"/>

</system.xml.serialization>

</configuration>

# Excel imports may unexpectedly clear fields or create empty measures

Excel formats that include either hierarchies or metric grids may clear fields or create empty measures unexpectedly. This occurs when either a hierarchy has been compressed (Fig a) or a metric grid has missing entries (Fig b).

	А	В	С	D
1	Continent	Country	City	Value
2	Europe	England	London	10,000
5				

## Fig a Compressed Hierarchy

	А	В	С	D
1	Name		2006	2007
2	London	Sales	15	20
3		Return	20	30
4	York	Sales	9	12
-				

## Fig b Missing Metric Values

It is not always obvious that fields on the record description may not actually be specified within the source data. Those which are undefined will be cleared within MooD. In the above examples (Fig a) the Value field for Europe and England will be cleared, in (Fig b) the Return 2006 & Return 2007 fields for York will be cleared.

## Workaround (Hierarchy)

Specify all the data explicitly, where each row represents a single hierarchical element with a defined value. Alternatively run 2 separate imports, the 1st importing a hierarchy, the 2nd importing values for elements, skipping elements if necessary by excluding them from the source data.

## Workaround (Metric)

Ensure all the metric values are specified explicitly, or run individual imports for each measure, skipping elements if necessary by excluding them from the source data.

# Imported themes not visible

If an import is used to add new themes to a repository, the new themes are not visible in MooD Business Architect until it is restarted. This is because the list of themes is not refreshed in MooD Business Architect.

# Workaround

Close then reopen the repository. The newly created themes will then be visible.

# Administrator can't open read-only repository (or repository using read-only driver)

If the Administrator repository user opens a repository, an attempt will be made to add a version stamp to the repository. This will fail, as the repository cannot be written to, and the following error will appear:

# The database has reported a problem. If the problem re-occurs try re-starting MooD. Otherwise, contact the administrator of this repository.

Non-administrator users will not encounter this error.

This only affects repositories which are set to read-only (or the driver used to access them is set to read-only using Repository Manager), and which have never been opened by the Administrator user with a previous version of Business Integration Activators installed.

## Workaround

Before opening a repository for the first time, ensure that the repository is not read-only, open the repository, close it again, and then reset its read-only attributes.

# Certain exports may take a long time to complete

Using an Activator that exports data from the repository may take a long time to complete. The time the export operation takes is linked to the size of the repository, not the size of the tree being exported. Export Activators create an XML representation of the entire repository before transforming this into the desired format, so larger repositories will take longer to perform exports.

## Workaround

None, this is expected behaviour.

# Web Publisher

# Linked OLE objects in a diagram not published

If a diagram contains a linked OLE object, it will not be published.

# Workaround 1

Switch off the **Convert OLE links to Internet shortcuts** option in the Models section of the Web Publisher options.

## Workaround 2

In Business Architect, right click the OLE Object and select **Convert To Internet Shortcut...** This will convert the OLE Object to an Internet Shortcut which can then be published without problem.

# XMI® Business Integration Activator

# Rational Rose XMI not imported into MooD

If a UML Model in Rational Rose has been exported into XMI using version 1.3.4 or above of the Unisys XML Tools for Rational Rose, then the XMI will not be imported into MooD Business Developer. This is due to the fact that the targeted version of the Unisys XML Tools is 1.3.2.

## Workaround

Use version 1.3.2 of the Unisys XML Tools for Rational Rose to export UML models into XMI.

# **Business Integration Engine**

# **Business Integration Engine Requirements**

Business Integration Engine requires that MooD is installed beforehand and also requires a specific Server Licence. The Licence must be installed via Repository Manager as **Administrator** and then applied to **All Users**.

When installing the Business Integration Engine, the background service will automatically start before you have the opportunity to install a licence. Thus, after you have configured a valid licence you may need to restart the **Business Integration Engine 15** service in the Windows Control Panel.

# Business Integration Engine and Active Enterprise do not support licence server based licensing

Business Integration Engine and Active Enterprise do not support licence server based licensing. To correctly license these services you should request a node locked licence from MooD Support. This is by design.

# Scheduling certain synchronizations will fail on Windows Vista, Windows 7 and Windows Server 2008

Synchronizations affected: Microsoft PowerPoint export, Microsoft Project import and export, and Document builder export

Using the Business Integration Engine to schedule updates of an activator which uses any of the above synchronizers will fail when Business Integration Engine is hosted on Windows Vista, Windows 7 or Server 2008.

Windows EventViewer will show the following error in the Application log when the schedule executes:

## System.Runtime.InteropServices.COMException

# MooD Licence Server

# **MooD Licence Server Requirements**

Business Integration Engine requires that MooD is installed beforehand and also requires a specific Server Licence. The Licence must be installed via Repository Manager as **Administrator** and then applied to **All Users**.

When installing the Licence Server, the background service will automatically start before you have the opportunity to install a licence. Thus, after you have configured a valid licence you may need to restart the **MooD Licence Server** service in the Windows Control Panel.

# MooD SSIS Execution Synchronizer usage and guidance

The MooD (SQL Server) *SSIS Execution Synchronizer* can be used to execute SSIS packages on local or remote SQL Server Integration Services instances.

Some actions may be necessary when building the environment to enable SSIS synchronizers to access the SSIS packages. The nature of these actions differ according to the version of the SSIS instance and whether the target SSIS instance is on the same machine as MooD, or on a remote machine.

The steps necessary to enable the synchronizer to access the SSIS package will differ according to the version of the SSIS instance and whether the instance is installed on the local or a remote server.

# Execute SSIS packages on SSIS 2008 or 2008 R2 on local machine

Prerequisites on local machine:

- MooD 15 v103+
- SQL Server 2008 or 2008 R2 with "Integration Services" and "Client Tools Connectivity" In the SSIS Execution synchronizer, use the 'local' SSIS Connection.

# Execute SSIS packages on SSIS 2012 on local machine

Prerequisites on local machine:

- MooD 15 v104+
- SQL Server 2012 with "Integration Services" and "Client Tools Connectivity"
- Install the MooDSSISExecution service for SQLServer 2012 as detailed below.

In the MooD Repository, from the **Synchronizers** library, create a new SSIS Connection to the local machine (as though it were a remote machine). Provide the server details for the local machine and specify the port on which the MooDSSISExecution service is listening.

# Execute SSIS package on SSIS 2008 or SSIS 2008 R2 on remote machine

Prerequisites on local machine:

MooD 15 v103+

Prerequisites on remote machine:

- SQL Server 2008 or 2008 R2 with "Integration Services" and "Client Tools Connectivity"
- Install the MooDSSISExecution service for SQLServer 2008 as detailed below.

In the MooD Repository, from the **Synchronizers** library, create a new SSIS Connection to the remote machine. Provide the server details for the remote machine and specify the port on which the MooDSSISExecution service is listening.

# Execute SSIS package on SSIS 2012 on remote machine

Prerequisites on local machine:

• MooD 15 v104+

Prerequisites on remote machine:

- SQL Server 2012 with "Integration Services" and "Client Tools Connectivity"
- Install the MooDSSISExecution service for SQLServer 2012 as detailed below.

In the MooD Repository, from the **Synchronizers** library, create a new SSIS Connection to the remote machine. Provide the server details for the remote machine and specify the port on which the MooDSSISExecution service is listening.

# Execute SSIS package on SSIS 2014

As of MooD 15 v104, SQL 2014 is supported, and instructions are as per SQL 2012.

# Execute SSIS package on SSIS 2016

Supported as of SQL 2016 v13.0.4199.0 (X64, SP1) and MooD 15 v114. Instructions are as per SQL 2012. There were no specific fixes made to the product in v114 to support SQL Server 2016. Thus, builds between 104-113 inclusive may also work but have not been through acceptance testing.

# Installing SQL Server "Integration Services" and "Client Tools Connectivity"

The "Integration Service" and "Client Tools Connectivity" features can be installed from SQL Server installation media.

<ul> <li>SQL Server 2012 Setup</li> <li>Feature Selection         <ul> <li>Select the Enterprise features to</li> </ul> </li> <li>Setup Support Rules         <ul> <li>Installation Type</li> <li>Feature Selection</li> </ul> </li> </ul>	o install. Features: Instance Features Database Engine Services	Feature description: The configuration and operation of each instance feature of a SQL Server instance is
Installation Rules Disk Space Requirements Error Reporting Installation Configuration Rules Ready to Install Installation Progress Complete	SQL Server Replication Full-Text and Semantic Extractions for Searc Data Quality Services Analysis Services Reporting Services - Native Shared Features Reporting Services - SharePoint Reporting Services - SharePoint Data Quality Client Data Quality Client Quality Client Qual	isolated from other SQL Server instances. SQL Server instances can operate side-by- side on the same computer. Prerequisites for selected features:
	Select All       Unselect All         Shared feature directory:       C:\Program Files\Microsometry         Shared feature directory (x86):       C:\Program Files (x86)\Microsometry	
	< Back	Next > Cancel Help

# Installing MooDSSIS Execution service

The MooD SSIS Execution service must have access to the Microsoft.SQLServer.ManagedDTS.dll assembly and any dependencies. By installing the SQL Server "Client Tools Connectivity" these assemblies will be installed to the Global Assembly Cache and hence be available to the service on the machine.

If the "Client Tools Connectivity" features have just been installed, the machine may need to be restarted to ensure these assemblies are available.

Delete the MooDSSISExecution.exe.config file (if previously installed)

If the MooDSSISExecution service has already been installed, uninstall the service, then delete the config file.

Locate the MooDSSISExecution.exe.config file in an installed version of MooD 15. On a default installation it can be found in the following location:

C:\Program Files (x86)\MooD\15\Business Activation\MooDSSISExecution.exe.config

Delete this file.

# Install MooDSSISExecution service

On the machine on which the SSIS packages will be run, open a command prompt as administrator.

In the command prompt navigate to the folder which contains the MooDSSISExecution.exe file

### cd "C:\Program Files (x86)\MooD\15\Business Activation"

And execute the MooDSSISExecution with appropriate flags

For SQLServer 2008

#### MooDSSISExecution install 2008

For SQL Server 2012

#### MooDSSISExecution install 2012

This will install the MooDSSISExecution service which will listen on port 50015 by default.

It will also create a new version of the MooDSSISExecution.exe.config file. This file is required for operation of the service. Note, you can also double click the executable, and it will automatically detect versions of SQL Server.

# Changing the MooDSSISExecution service port

The default port for the SSIS execution service is 50015, being the same as the default port for BIE.

If it is necessary to install the service on a machine which must also run an instance of BIE, it will be necessary to change the port on which the MooDSSISExecution service is listening.

This can be done by modifying the config file after the service has been imported.

Stop the MooDSSISExecution service (if running).

In the directory in which the MooDSSISExecution.exe was installed, a file named MooDSSISExecution.exe.config will have been created.

Open MooDSSISExecution.exe.config in an xml or text editor add or change the appSettings section as follows:

<configuration>

In the same directory create a copy of the MooDSSISExecution.exe.config file and rename it to be SSISExecution.exe.config

Restart the MooDSSISExecution service.

# Uninstalling the MooDSSISExecution service

To uninstall the MooDSSISExecution service, locate the MooDSSISExecution.exe file from which the service was installed. Run the executable and the service will be uninstalled.

# Known issues with SSIS Package configuration on MooD

When the machine which is hosting MooD does not have SQL Server 2008 connectivity tools installed, the following behaviours can be encountered when configuring SSIS packages in the 'Manage SSIS Packages' dialog:

'No SQL Server instances found' message when using '...' button to help search for SSIS instances:

Manage SSIS Packages		23
Manage a library of SSIS pa	ckages	
New Package	Configuration Name: FileSystemExample From: File System  Package Store  SQL Server Instance: Used There were no SQL Server instances found  There were no SQL Server instances found  OK	ete
	OK Can	icel

Exception when trying to inspect instance for available packages:

Manage SSIS Packages			22
Manage a library of SSIS	S packages		
New Package	Version= PublicKey	FileSystemExample FileSystem  Package Store  SQL Server Cload file or assembly 'Microsoft.SqlServer.ManagedDTS, 10.0.0.0, Culture=neutral, Token=89845dcd8080cc91' or one of its dependencies. Example the file specified.	New Delete Save Used By
	Variable	DataType Default Value	Cancel

Both of these behaviours are due to MooD expecting to find the SQLServer 2008 connectivity tools which are not available on the server. The values for both fields may be entered manually.

# Screenshots from configuration of SSIS Connection and SSIS Package on MooD

The following screenshots are taken from a sample deployment against SQLServer 2012 on the local machine.

Manage SSIS Connections:

Note the non-default port setting.

Manage SSIS Connections				X
Manage a library of c	connections to SSIS s	servers		
local	Configuration			New
New Connection	Name:	2012_Local		Delete
	Server:	MK-WIN7X64-BASE		Save
	Port:	40014		
	Test results			Test
	Successfully	connected to the server.		Used By
				oscu oym
			ОК	Cancel

# Manage SSIS Packages:

Manage SSIS Packages					×
Manage a library of SSIS	backages				
New Package	Configuration -				New
	Name:	FileSystemExample			Delete
	From:	File System C	Package St	ore 🔘 SQL Server	Save
	Instance:				Used By
	Path:				
	Test using: 2012_Local				
	Test and Refresh Variables Test results Successfully connected to the package.				
	Variable		DataType	Default Value	
	User::ExecutionI	dVar	String	defaultExecutionId =	
	User::FilenameV	ar	String	C:\temp\TestSSISEx	
	User::IntVar		Int32	99 👻	
OK Cancel					

# Requirements

Below are the client requirements for Business Architect. See the <u>next page</u> for the server requirements for the presentation layer.

# **Client requirements for Business Architect**

Minimum hardware (not recommended):

Note: If the client installation requires a database server, the minimum specification of the database server should be added to the Business Architect requirements.

- Processor: 1 GHz 32-bit or 64-bit processor(s)
- Memory: 1GB free RAM
- Display: 1024x768 or greater, 16bit colour depth or greater
- Hard disk: 2GB free for installation

Operating systems supported:

- Microsoft Windows Vista® SP2 (Standard, Enterprise, Business, Ultimate)
- Microsoft Windows 7® SP1
- Windows 8.1<sup>®</sup> with S14 update(KB2919355)
- Windows 10 Version 1511 or above. For earlier versions please install <u>.NET4.6.1</u> first.

#### Browsers supported:

- Microsoft Internet Explorer® 8 to Edge
  - MooD 15 Build 70+ supports Microsoft Internet Explorer® 11 on Windows 7® and Windows 8.1
- Safari for Apple iPad
- Google Chrome

Additional components installed:

- Microsoft .Net 4.6
- Microsoft Core XML 6 Services SP2
- Microsoft SQL Server 2008 R2 Native Client Driver
- Microsoft SQL Server 2008 R2 CLR types
- Microsoft SQL Server 2008 R2 Shared Management Objects (SMO)
- Microsoft SQL Server compact edition 3.5
- Microsoft Visual C++ 14 Runtime Libraries (installs faster when all windows updates have been applied).

Databases supported:

- Microsoft® SQL Server 2008 R2, 2012, 2014, 2016 SP1(v13.0.4199.0+)
  - If the client machine is used to develop MooD repositories on-the-go, with a local installation of Microsoft SQL Server Express, then the SQL Server version should match the eventual deployment server version. For example, if your Solution will be deployed on SQL Server 2008 R2, install SQL Server Express 2008 R2.
  - We recommend adding full text indexing services to your server instance; even on Express versions (download the 'Advanced Services' version of the installer).

# Server requirements for the Presentation Layer (Active Enterprise, Business Integration Engine, IIS)

Typical hardware (dedicated):

- 2 x XEON X5675 6 Core 3.06GHz processors
- 12 GB RAM
- 2GB free hard disk space for installation
- 1 gigabit LAN card

Typical software:

- Microsoft Windows Server® 2012 R2 64bit
- Microsoft Office 2007, Microsoft Office 2010 or Microsoft Office 2013
- The appropriate MS SQL Native Client Driver

Operating systems supported:

- Microsoft Windows Server 2008 SP2
- Microsoft Windows Server 2008 R2 SP1 64bit (recommended)
- Microsoft Windows Server 2012 with S14 update(KB2919355)
- Microsoft Windows Server 2012 R2 with S14 update(KB2919355)

Databases supported:

- Non-express versions of Microsoft SQL Server 2008 R2, 2012, 2014, 2016 SP1(v13.0.4199.0+)
- Full Text Indexing must be installed
- For performance and security reasons, MooD recommends using the latest version of Microsoft SQL available from the list above.

# Further Information and Contact Details

MooD 15 has a UK based technical support team. The contact details are:

Email: support@moodinternational.com

Telephone: +44 (0) 1904 717 316

Web: <a href="http://www.moodinternational.com/">http://www.moodinternational.com/</a>

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- 9.1 Either party may terminate this Licence at any time on written notice to the other if:
- 9.1.1 the other is in material or persistent breach of any of the terms of this Licence and either that breach is incapable of remedy, or the other party fails to remedy that breach within 30 days after receiving written notice requiring it to remedy that breach;
- 9.1.2 the other is unable to pay its debts (within the meaning of section 123 of the Insolvency Act 1986), or becomes insolvent, or is subject to an order or a resolution for its liquidation, administration, winding-up or dissolution (otherwise than for the purposes of a solvent amalgamation or reconstruction), or has an administrative or other receiver, manager, trustee, liquidator, administrator or similar officer appointed over all or any substantial part of its assets, or enters into or proposes any composition or arrangement with its creditors generally, or is subject to any analogous event or proceeding in any applicable jurisdiction; or
- 9.1.3 if an Event of Force Majeure continues for 60 days.
- 9.2 MooD International may terminate this Licence:
- 9.2.1 at any time upon written notice to the User in the event that the User initiates formal legal proceedings that challenges the validity of MooD Enterprises' Intellectual Property in the MooD\* Technology;
- 9.2.2 if an applicable Licence Fee is not paid within 60 days of receipt of MooD International's invoice in relation to the same; or
- 9.2.3 if the User fails to pay fees due under the Support and Maintenance Agreement within 60 days of receipt of MooD International's invoice in relation to the same.
- 9.3 Termination by either party in accordance with the rights contained in clause 9 shall be without prejudice to any other rights or remedies of that party accrued prior to termination.
- 9.4 On termination for any reason:
- 9.4.1 all rights granted to the User under this Licence shall cease;
- 9.4.2 the User shall cease all activities authorised by this Licence;
- 9.4.3 the User shall immediately pay to MooD International any sums due to the MooD International under this Licence; and
- 9.4.4 the User shall immediately destroy or return to MooD International (at MooD International's option) all copies of the MooD\* Technology then in its possession, custody or control and, in the case of destruction, certify to MooD International that it has done so.
- 9.5 Clauses 3, 4, 5, 7, 8, 9, 10, 11, 12, 13 and 14 shall survive such termination.

#### 10. Prices and Payment

- 10.1 The User shall pay to MooD International the applicable Licence Fee in relation to each component of MooD\* Technology.
- 10.2 Subject to clause 5.1.3, the Licence Fee shall be non-refundable.
- 10.3 Where payment is not made by electronic means prior to download, the Licence Fee shall be payable by the User to the account specified on MooD International's invoice and no later than 30 days following receipt of MooD International's invoice (electronic or otherwise).
- 10.4 MooD International shall be entitled to charge interest on late payments at a rate of [3] % above the Bank of England base rate.
- 10.5 Title to licences and all other rights associated with those licences, are retained by MooD International until payment in full is received.

#### 11. Confidential Information

- 11.1 Neither party may disclose to any commercial third parties any commercial in confidence information received from the other in the course of implementing this Licence unless otherwise agreed in writing by the other party.
- 11.2 Clause 10.1 shall not apply to information which has entered the public domain or which has been obtained from a third party legitimately without restriction.
- 12. Force majeure

12.1 No party shall be liable to the other for any delay or non-performance of its obligations under this Licence arising from any cause beyond its control including, without limitation, any of the following: act of God, governmental act, war, fire, flood, explosion or civil commotion (an "**Event of Force Majeure**"). For the avoidance of doubt, nothing in clause 12 shall excuse the User from any payment obligations under this Licence.

#### 13. Waiver

13.1 No forbearance or delay by either party in enforcing its rights shall prejudice or restrict the rights of that party, and no waiver of any such rights or of any breach of any contractual terms shall be deemed to be a waiver of any other right or of any later breach.

#### 14. Severability

14.1 If any provision of this Licence is judged to be illegal or unenforceable, the continuation in full force and effect of the remainder of the provisions shall not be prejudiced.

#### 15. Amendments

15.1 Any amendment, waiver or variation of this Licence shall not be binding on the parties unless set out in writing, expressed to amend this Licence and signed by or on behalf of each of the parties.

#### 16. Third party rights

16.1 No term of this Licence is intended to confer a benefit on, or to be enforceable by, any person who is not a party to this Licence.

#### 17. Notices

17.1 Any notice required to be given pursuant to this agreement shall be in writing, and shall be sent to the other party by first-class mail or fax, provided that faxes are confirmed within 24 hours by first-class mailed confirmation of a copy. Correctly addressed notices sent by first-class mail shall be deemed to have been delivered 72 hours after posting and correctly directed faxes shall be deemed to have been received instantaneously on transmission, provided that they are confirmed.

#### 18. Entire agreement

18.1 This Licence, together with the Support and Maintenance Agreement, where applicable, contains the whole agreement between the parties relating to the subject matter hereof and supersedes all prior agreements, arrangements and understandings between the parties relating to that subject matter.

#### 19. General

- 19.1 The terms and conditions of this Licence shall apply to all software and services supplied by MooD International or its agent to the User, unless subject to a subsequent agreement between the parties.
- 19.2 This Licence may not be assigned by the User without the prior written consent of MooD International.
- 19.3 This Licence may be assigned by MooD International without the prior written consent of the User.
- 19.4 This Licence shall be governed by English Law and subject to the non-exclusive jurisdiction of the English courts.
- 19.5 The MooD<sup>\*</sup> Technology is protected by copyright and intellectual property laws both nationally and internationally.

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