

Magic xpi

RELEASE NOTES

4.13

EDI²XML

WHITE PAPER



LATEST
ROADMAP

EDI2XML
ADD-ONS

NEW FEATURES
MAGIC XPI 4.13

COMPATIBILITY
GUIDE

MAGIC XPI 4.13

CONTENTS

Magic xpi Roadmap Highlights	01
EDI2XML Add-ons	02
Magic xpi 4.13: New Features, Feature Enhancements and Behavior Changes	03
Magic xpi 4.12.2: New Features, Feature Enhancements and Behavior Changes	06
Magic xpi 4.12.1: New Features, Feature Enhancements and Behavior Changes	07
Magic xpi 4.12: New Features, Feature Enhancements and Behavior Changes	08
Magic xpi 4.9: New Features, Feature Enhancements and Behavior Changes	12
Magic xpi 4.7: New Features, Feature Enhancements and Behavior Changes	15
Magic xpi 4.6: New Features, Feature Enhancements and Behavior Changes	17
Magic xpi 4.5a: New Features, Feature Enhancements and Behavior Changes	18
Magic xpi 4.5: New Features, Feature Enhancements and Behavior Changes	19
Magic xpi 4.12.1: Compatibility Guide	20
About Magic Software Enterprises	23
About EDI2XML	23



OUTPERFORM THE FUTURE™



MAGIC XPI ROADMAP HIGHLIGHTS

API MANAGEMENT

API Management empowers our customers, among other things, to publish APIs and to have them consumed in a secure way.

Earlier last year, Magic partnered with a 3rd party API Management vendor to provide an integrated API management capability with the xpi. Magic xpi itself allows publishing HTTP and OData end-points into the API Gateway via the Magic xpi Studio.

LOCAL AGENT FUNCTIONALITY

Magic's newly released Local Agent functionality enables our customers to connect an xpi cloud installation to on-premise ecosystems such as SAP ERP. The process is done in a secure fashion and without the need for an on-premise xpi installation or a cumbersome IT access mechanism, such as a VPN or unique firewall port enabling. All communication is performed over secure HTTP. Additionally, the Magic xpi Connector Builder allows building SDK-based Local Agent-ready connectors right out of the box.

This new functionality is now available as part of the released Magic xpi 4.12 version and is already in customer production.

ANALYTICS DATA-HUB

Magic has partnered with a 3rd party vendor (Knowi). Our partnership expands the xpi offering to now provide ML (Machine Learning) capabilities as well as advanced visualization and hence enables our customers to generate accurate predictions. This results in enhanced real-time decision making and improved overall business performance.

64-BIT PLATFORM

64-bit is a common demand made by modern IT executives and many organizations are converting their IT organization to become a single 64-bit shop. The Magic xpi platform now supports 64-bit architecture and enables more efficient memory utilization. Technically speaking, this is especially important in cases where there is a process that requires a huge amount of memory e.g., processing various huge SAP IDOC messages.



EDI2XML ADD-ONS

EDI (ELECTRONIC DATA INTERCHANGE)

EDI2XML has extended the EDI capabilities of Magic xpi, by providing its EDI2XML REST API service to transform from X12/EDIFACT to XML and vice versa. Simple to use, easy to implement EDI solution for electronic exchange of business documents such as orders, delivery notes, invoices, and supply chain management, with support to over 60 business documents.

Using EDI, these documents are typically exchanged between business partners in the form of structured data and without manual intervention.

This new EDI capability will easily enable Magic xpi customers to generate and retrieve EDI-based information to/from other ecosystems - like their ERP - and will allow a one-stop EDI solution.



MAGIC XPI CLOUD HOSTED AND SUBSCRIPTION

EDI2XML has extended the Magic xpi deployment, by offering the integration platform with a fully managed service deployment in its private cloud. No more hassle no more installation worries. The team at EDI2XML will be in charge of offering a fully functional, cloud ready instances of Magic xpi for a development and production environment.



RELEASE NOTES

MAGIC XPI 4.13: NEW FEATURES, FEATURE ENHANCEMENTS AND BEHAVIOR CHANGES

In this release of Magic xpi, we are delighted to present you features such as new components, Magic SOAP Server and so on. Along with that the product offers greater enhancements on top of the existing features.

NEW FEATURES

DB TRIGGER COMPONENT

Magic xpi has introduced a new DB Trigger component. It lets the user to continuously monitor the database tables for Create, Update, or Delete events.

To work with this feature, the user has to:

- Create a new DB Trigger Service and provide the database details.
- Select the tables for which the Create, Update, or Delete events have to be monitored Modify and run the template SQL script created by the service, to create triggers in the database .
- Define the polling interval for these events on the trigger configuration.
- Define the cleanup age for processed records on the DB Trigger service.

OPC CONNECTOR

Magic xpi offers a new OPC connector that enables the secure data collection from PLCs and IoT devices as well as industrial, and measurement equipment.

The user can configure the OPC server and channels on the OPC resource. The Devices, their Addresses and Static Tags can be defined on the step.

MAGIC SOAP SERVER

Magic xpi has now introduced the new Magic SOAP server replacing the Systinet Server for Java and library dependencies. It is lightweight with a simplified Web interface. The migration efforts from the old Systinet Server are negligible. It supports Basic and Digest Authentication.

CALENDARS

Magic xpi now has provision to create Calendars which let the users add a list of dates. Users can create one or more Calendars entries.

This will be useful for the user in the following scenarios:

- When a Calendar is configured on the Scheduler service, it will prevent the scheduler from running on the dates defined by the selected Calendar.
- When a Calendar is configured on the Flow Enablement service, it will deactivate the flow from running on the dates defined by the selected Calendar.

LOGS COLLECTOR TOOL

Magic xpi has now introduced a new tool called Logs Collector that collects log files, dump files, configuration files, scripts, and other files useful for troubleshooting. This provides collection of diagnostic information in a single archive file. The users can provide this archive file to the support for the root cause analysis of the problem.

MAGIC XPI 4.13: FEATURE ENHANCEMENTS

DATA MAPPER - EASE OF USE

The new Data Mapper filter facilitates the users to navigate through complex schemas quickly, search a particular node by name or data type, and map it from the Source side to the Destination side. This feature also allows the users to filter the nodes by their data types. Search by Regular Expressions is also supported. The Connect All feature is now enhanced to support multiple connection logic as described below:

- **Simple:** This connection logic is same as the previous versions with the addition of supporting case insensitive matching.
- **Fuzzy:** This connection logic will follow the rules of the Simple matching with the addition of matching the Source node name to the Destination node name using the logic in the given order; begins with, ends with, and contains.
- **1:1:** This connection method will not follow any special logic other than trying to connect each Source node to its adjacent node.

The new Data Mapper design allows the users to multi-select nodes from the Source to the Destination to perform any of the above options.

In the Save and Load Connections feature, the Save function enables the user to save the schema types and their connection lines as templates to be loaded into any Mapper step with similar schemas in the feature.

Note: This feature should be seen as an extension of the Connect All feature and does not relate to the existing Export and Import features of the Mapper.

ODATA PAGINATION SUPPORT

The OData component now supports the pagination feature of the OData API. The maximum number of pages per request and the next page link required for pagination can be configured on the OData step configuration.

The Next page link value can be used instead of Endpoint URL, by selecting the Use NextLink as Endpoint check-box on the OData step configuration.

ODATA ANNOTATIONS SUPPORT

The OData resource now supports the configuration of entity level, and row level annotations. Once configured, these annotations will be available on the Data Mapper schema for the OData step. The entity level annotations will be shown at the root level under the annotations element and the row level annotation will be under the rowAnnotations element for each row.

SIDE-BY-SIDE INSTALLATION SUPPORT

Two parallel installations of Magic xpi on the same system are now allowed. If the system has a version older than xpi 4.13 installed, the user will be given a choice to either upgrade the existing installation or create a new one without removing the old installation.

DATABASE PARTITIONING SUPPORT

Database partitioning is now supported for MSSQL and Oracle databases. It can be enabled by selecting the DB Partition check-box in the Database Support screen of the installation wizard.

LOGGING IMPROVEMENT

The logging system is now changed from older log4j infrastructure to newer SLF4J and Logback for the Magic xpi components. Logging can also be flexibly configured using a separate file for each component. The support to the older log4j system is deprecated and is not recommended as it has lower performance.

MAGIC XPI 4.13: FEATURE ENHANCEMENTS

GIGASPACE UPGRADE

The GigaSpaces version in Magic xpi is upgraded to 15.2. This version also adds support for running the GigaSpaces Management Console in Local mode.

LOCAL AGENT SILENT INSTALLATION

Local Agent now supports the silent installation. The installer comes with the config.ini file with default configuration values. The user can change the default values as per requirement. The installer will read these values while starting the installation.

AUTO INSTALLATION OF CONNECTORS IN LOCAL AGENT

The user can install add-on connectors as a part of the Local Agent setup. The required connectors should be present in the LAN\steupLA\addons folder of the installer. By default, the installer will not overwrite the existing connectors with the same name. To change this behavior, set the value of the [Connectors]Overwrite flag to true in the config.ini file.

SUPPORT FOR MULTIPLE MANAGEMENT IDS

Magic xpi Local Agent now supports multiple Management IDs which are managed as part of the management-ids.xml file. The Management Console can now show the Agents, Agent Connectors, and Connectors associated with all the Management IDs or associated with a selected Management ID. This can be done from the All Management IDs drop-down menu on the Local Agent Management Console.

ADDITIONAL CRITICAL STATE ALERTS

Two additional critical state email notifications related to the GigaSpaces are added to Magic Monitor. The password for sending the email is stored in an encrypted format.

STALL PROCESSING ON CRITICAL CONDITION

The Magic xpi server can now be paused, if the server reaches a critical state. The server will wait based upon an exponentially increasing delay algorithm and will resume once the system is healed.

This behavior can be enabled by setting the flag PauseOnCriticalConditions in the [MAGICXPI_GS] section of the Magic.ini file. The default value for this variable is N.

FTP SERVER

Command FTP Component now allows the user to run server command on the FTP server.

APACHE TOMCAT UPGRADE

Apache Tomcat® installation is upgraded to version 9.0.35 to address the security vulnerabilities.

API SUPPORT

The Salesforce and ServiceMax connectors are now upgraded to support the API version 48.0.

ATTACH TO PROJECT

Attach to Project support is added in Magic xpi. It can be used to connect the Studio debugger to a deployed instance of a project.

BEHAVIOR CHANGES

- The logging for Salesforce and ServiceMax components is now controlled using Logback.xml infrastructure and the Debugging Flag “DebugSFDCComponent” is no longer applicable for the component.
- The Data Mapper destination does not create an XML node when there is no value in the source XML and the XML schema property Always create node is set to N.

PAST RELEASE NOTES

MAGIC XPI 4.12.2: NEW FEATURES, FEATURE ENHANCEMENTS AND BEHAVIOR CHANGES

LOCAL AGENT SILENT INSTALLATION

Local Agent now supports the silent installation. The installer comes with the config.ini file with default configuration values. The user can change the default values as per requirement. The installer will read these values while starting the installation.

AUTO INSTALLATION OF CONNECTORS IN LOCAL AGENT

The user can install addon connectors as a part of the Local Agent setup. The required connectors should be present in the LAN\steupLA\addons folder of the installer. By default, the installer will not overwrite the existing connectors with the same name. To change this behavior, set the value of the [Connectors]Overwrite flag to true in the config.ini file.

ACTIVITY LOG OPTIMIZATION

The Activity Log mechanism is now optimized for better performance and handling of large volume of activity logs.

API SUPPORT

The Salesforce and ServiceMax connectors are upgraded to support the API version 48.0.

NON-SUPPORTED FEATURE

The installation of the Magic xpi Monitoring App from the Salesforce AppExchange is not required anymore for the Salesforce and ServiceMax connectors to work.



MAGIC XPI 4.12.1: NEW FEATURES, FEATURE ENHANCEMENTS AND BEHAVIOR CHANGES

RUNNING THE DATABASE SCRIPTS MANUALLY

The database definition has been optimized for better performance in Magic xpi 4.12.1. The implementation for the same requires the user to manually run the scripts after installing Magic xpi.

The installer will only install the database related scripts, but it will not run them automatically at the end of the maintenance installation.

Refer the Readme_Maintenance.txt file located inside the <Magic xpi INSTALLATION_PATH>\DB\ folder, to know the instructions on how to run the database related scripts.

The folder <INSTALLATION_PATH>\DB\<DBType>\ contains the SQL scripts for Installation, Data Migration and Uninstallation/Rollback for the maintenance release. For MS-SQL and Oracle database type the scripts will be present under the Enterprise and Standard folders based on the edition used. For the other databases like MySQL, DB2, DB2/400 the scripts will be present directly under the database type folder.

The migration scripts, if needed, should be executed immediately, before running any projects. Running them later might cause issues with data consistency.

Please verify the execution of the scripts post-installation. If there is a failure in the execution of the scripts, the GigaSpaces service will fail to start or it will start incorrectly with errors.



If the database name is different than the default "MGXPI4_1" name, then the database scripts need to be modified manually with the appropriate name of the database. For more information, refer the Known Issues section given below.

MAGIC MONITOR SESSION TIMEOUT

The Magic Monitor login screen now provides the user an ability to stay logged in and keep the Magic Monitor session active. To enable this behavior, the Magic Monitor screen provides a checkbox named Keep me logged in. If the checkbox is left unchecked, the default timeout value is 15 minutes.

MAGIC XPI PLATFORM CERTIFICATIONS

Magic xpi 4.12 now provides additional certification for compatibility with the following:

- Platforms and Operating Systems: Windows® 2019
- Databases: Microsoft® SQL Server 2019



MAGIC XPI 4.12: NEW FEATURES, FEATURE ENHANCEMENTS AND BEHAVIOR CHANGES

MAGIC XPI SERVER IS NOW 64-BIT

The Magic xpi server will now natively run as a 64-bit process providing better performance and larger memory capacity.

LOCAL AGENT SUPPORT

- Magic xpi has now introduced Local Agent feature to facilitate communication between the projects deployed in the multiple systems in the local network. With this feature a project on one system can make calls to a remote host to execute a project step in an on-premise environment and get the response back.
- The user can manage and monitor the Local Agent infrastructure through the Local Agent Management Console. The user can install Connectors to the Agents and manage their configuration and lifecycle.
- The Updater feature allows the user to update the Agent Service from the Management Console, without reinstalling it on the host machine.
- The Connector Builder is now enhanced to build the connectors to be compatible with Local Agent.
- The new SAP ERP connector can now be configured with the Local Agent support.

NEW SAP ERP COMPONENT

The new SAP ERP connector can now be configured with the Local Agent support.

SAP ERP COMPONENT NAME UPDATE

The SAP R/3 and SAP SDK components are now renamed as SAP ERP. Henceforth, any references found in the name of SAP R/3 or SAP SDK should be treated as SAP ERP.

CRITICAL STATE ALERT MECHANISM IN MAGIC XPI DASHBOARD

The Magic xpi Dashboard is now enhanced to show the status of critical alerts on the Magic Monitor Dashboard. A new alert mechanism is also provided to send email notifications to the administrators whenever there are critical alerts.

EXTERNAL JDK SELECTION

Magic xpi now allows the user to pick a compatible Java Development Kit (JDK) during the installation. The compatible JDK can be selected on the Select JDK Locations of the Magic xpi installer.

OPEN JDK SUPPORT

Magic xpi now supports different implementations of OpenJDK.

.Net Based Connector Builder

Connector Builder is now .NET based and it supports all the existing functionality.

LICENSE KEY REQUEST FOR CONNECTOR BUILDER

The License key for the new connector in the Connector Builder will now be fetched from the Endpoint URL pointing to the License Server from where the license will be generated and will be emailed to the user.

The Endpoint URL should be defined in the Magic.ini file with a property named SDKLicenseURL under the MAGIC_IBOLT section.

SUPPORT FOR PUBLISHING HTTP AND ODATA ENDPOINTS WITH API MANAGEMENT SERVER

Magic xpi now supports publishing HTTP and OData endpoints into an API Management Server.

The user can now add an API Management Server, Publish, un-publish or re-publish using the API Management interface from within the HTTP or OData Services configuration window from the Magic xpi Studio.

WEB SERVICES CLIENT IMPLEMENTATION

The Web Service Client implementation in Magic xpi is now re-architected using SDK connector with XML interface. Due to this change the Web service utility will now be divided into two categories. One is the Web service trigger, which is still Systinet based to implement Web service and the other is Web Service Client which is added under the component section.

For each operation IN, OUT and FAULT (if provided by WSDL) XSD gets generated.

MIGRATING PROJECTS WITH FLOWS HAVING WEB SERVICE STEPS

- The migration process requires the WSDL file to be available, otherwise the Web Service Client step will fail to migrate correctly. The user will then have to reconfigure the step manually in the Studio.
- After migration, the user will have to set the 'Attachment Type' in the resource settings to 'Blank', if no attachments are required to be sent as part of a Web Service call.
- After migration, the user will have to change the 'Operation Out' property in the Web Service Client configuration dialog box, from Alpha to Blob.
- The migration process will fail, if the project is in Read-only mode, so before migrating, make sure that the project is not in Read-only mode.

SUPPORT FOR MICROSOFT® SQL SERVER WITH TLS 1.2

Magic xpi can now connect to SQL Servers with TLS 1.2; using the latest Microsoft® OLE DB Driver 18 for SQL Server®.

The Microsoft® OLE DB Driver 18 for SQL Server® is available for download at:

<https://www.microsoft.com/en-us/download/details.aspx?id=56730>

SHAREPOINT CONNECTOR ADVANCED CAPABILITIES

- The Add operation now allows the user to create folders and sub-folders and helps in managing the folders in Lists and Libraries.
- The Query operation now allows the user to query documents from a specific folder and its sub-folders and search within a date range.
- The Query operation now returns the complete Folder structure along with the documents. (Applicable only to SharePoint on-demand.)

SHAREPOINT QUERY INCLUDE SUB-FOLDERS

The Include Sub-folder field for the SharePoint Connector Query operation now gives the users an additional option to include or exclude the sub-folders while running the query to fetch the data.

(Applicable only to SharePoint on-demand.)

USING CUSTOM FILTER WITH SHAREPOINT CONNECTOR

The SharePoint Connector now supports custom filter using the Calculated Value node property for Created or Modified nodes in the Data Mapper tree for applying a filter on the date range using the Between method.

For example, the calculated value of the Created node, when set to the string 'Between(2019-03-01,2019-03-10)', will return all objects created during the specified dates.

(Applicable only to SharePoint on-demand.)

SHAREPOINT CONNECTOR UPGRADE

Magic xpi SharePoint component now supports SharePoint 2019 (On-premise).

DYNAMICS CRM CONTINUE REQUEST ON ERROR

The Dynamics CRM connector can now continue processing the data even after any row within the data caused an error. To enable this behavior, the flag **DCRMContinueRequestOnError** needs to be set with value as **Y** in the **[MAGIC_IBOLT]** section of the **Magic.ini** or by adding **[MAGIC_IBOLT]DCRMContinueRequestOnError** to **ifs.ini** file and then setting the value as **Y**.

MAXIMUM RECORDS FOR SUGARCRM TRIGGER

For the SugarCRM connector as a trigger, the maximum number of records to be fetched from the server can now be configured by adding the flag **SUGARCRM_Max_Number** to the **[MAGIC_IBOLT]** section of the **Magic.ini** file or by adding **[MAGIC_IBOLT]SUGARCRM_Max_Number** to the **ifs.ini** file.

For example, in ifs.ini file add it as:

```
[MAGIC_IBOLT]SUGARCRM_Max_Number=300
```

Default Value: 1000

That is, by default the flag does not exist and thus in absence of the flag, Max_number will be set to 1000.

Maximum Value: 1000

That is, if any value larger than 1000 is specified, the connector will fall back to 1000, as that is a SugarCRM server limit.

MAXIMUM NUMBER OF RECORDS FOR SUGAR QUERY

The Sugar connector now supports defining the maximum number of records to be fetched while performing the Query operation using the **Max Number of Records** field which can be specified on the Step.

The value can also be dynamically controlled using the Data Mapper Filter node with value **xpi_max_num**.

ODS NAME LENGTH RESTRICTION

When the name of a Dynamic ODS for Update and Insert operation evaluates to a string longer than 30 characters, the Magic Monitor shows an error "The ODS name exceeds the limit of 30 characters".

FLOW TIMEOUT BEHAVIOR

Once the flow times out, the timeout being the total of Flow timeout and Flow Grace timeout values, the worker status changes to value as **STUCK** and the License status gets displayed as **CHECKED_IN**. The Flow will get aborted when the current step execution completes.

When a worker gets stuck, a new thread is called and the further requests are processed.

IBM DOMINO SERVER SUPPORT

Magic xpi now supports IBM Domino server v9.x and v10.x.

INCREASED SIZE OF URL DYNAMIC ADDITION PARAMETER

The length of the URL Dynamic Addition string parameter for the REST method of an HTTP component is now increased to 20000 characters.

PICTURE FORMAT SUPPORT IN DATA MAPPER

- The Data Mapper now supports the custom picture formats of type N12.4ZC and N12.4CZ or any partial combination of these supported directives.
- The Checker will give a validation error for any other combination(s).
- For Schema types other than Flat file, these directives are only valid when the Always use custom picture property is set to Yes.
- For the Flat File schema, the directives should be defined inside the line definitions. These directives will be reflected at the node properties.

XML POSITION FORWARDING

On passing a compound complex node to a call flow for XML Position Forwarding, user is now able to access all the direct and non-direct child elements inside the called flow for a given iteration as is. The limitation of passing the direct non-complex child elements through variables, to a called flow is now removed.

ALPHA FIELDS IN JD EDWARDS ENTERPRISE ONE

The trailing spaces in the alpha fields in the Output XML of the JD Edwards connector will not be trimmed.

HTTP REQUEST BODY ENCODING

For the Post operation in the HTTP component, the default encoding for the request body will always be URL-encoded, unless a header for Content-Type is specified. If the Content-Type is specified, the format of the body remains the user's responsibility.

In case the request body contains part of the request Query arguments to an xpi server, variable name "MG_POST_BODY" also needs to be added to the **HttpVars** section in `[xpi_runtime]\scripts\config\MGREQ.INI`. This is only applicable for IIS server.

DATABASE CLIENTS INSTALLATION

Magic xpi Runtime requires 64-bit clients or drivers for successful deployment of Database operations. The user has to make sure that 64-bit Oracle Client is installed and for ODBC, 64-bit ODBC driver is installed on the machine.

To validate Database resource in the Studio, 32-bit driver is required for all Databases.

ENHANCED XML APPEND RULES

The XML Append functionality is now enhanced and is based on the following rules:

- The mapped multi-instance compound nearest to the root will be considered for the append operation.
- The element and its value will be added only if does not already exist in the destination XML.
- The append operation will be done to the last instance of the immediate parent.
- The append operation will be done to the parent compound and its direct non-compound children only if the parent compound has a mapping.

MICROSOFT SQL DATE DATA TYPE

For Microsoft SQL Server, the column with data type as Date in the Data Mapper will be of Type Date instead of Unicode String. Due to this change, the Data Mapper step connections with Microsoft SQL server Date data type will be lost and will need to be remapped on opening the Data Mapper step.

MAGIC XPI 4.9: NEW FEATURES, FEATURE ENHANCEMENTS AND BEHAVIOR CHANGES

REST CLIENT

- The REST Client component is now available in Magic xpi. It enables the user to consume REST APIs.
- The REST Client component allows the user to add or remove the REST Path parameters and define the Query parameters, Header Parameters, and Request and Response Form parameters.
- It supports HTTP-Basic, HTTP-Digest, and OAuth2 authentication.
- The user can configure different Content Types and send and receive attachments as well.
- It also provides the ability to invoke the Get, Post, Put, Patch, Head and Delete operations on a given REST service.

Custom (EBCDIC) Encoding Support for Data Mapper Utility

The Source and Destination sides of the Data Mapper utility now have a provision for setting the Custom (EBCDIC) Encoding for the Flat File schemas. The Code page value has to be selected when the encoding is set to Custom.

CUSTOM (EBCDIC) ENCODING SUPPORT FOR FILE MANAGEMENT

The File Management component now supports Custom (EBCDIC) Encoding for Append Blob to File, Create File, and Write File methods. The Code page value has to be selected when the encoding is set to Custom.

EBCDIC CONVERSION FUNCTIONS

`UnicodeToCustomCodePage` and `UnicodeFromCustomCodePage` functions are now added to the list of supported functions.

AUTHENTICATION SUPPORT FOR ODATA CONNECTOR

The OData connector now supports the Basic, Digest, and Windows (NTLM) authentication.

DEEP INSERT SUPPORT FOR ODATA CONNECTOR

The OData connector supports generating payload for creating an entity with its related entities. This enables the deep insert call to the OData service.

DEEP INSERT PAYLOAD SUPPORT IN ODATA PROVIDER

The OData provider now supports handling of deep insert payload contained in the request.

ODATA PROVIDER SUPPORT FOR IMPORTING METADATA

Now the OData provider can load an existing service metadata (OData V4) from a file and expose a similar OData interface as the one defined with the loaded metadata.

XML POSITION FORWARDING

XML Position Forwarding should not be used to access the direct non-compound children of the Parent in the called flow. Instead, direct non-compound children should be made available in the called flow using the flow variable. The caller flow should map direct non-compound children to flow variable(s) of the called flow. Refer the **XML Position Forwarding** topic in the *Magic xpi Help* for specific instructions.

PLATFORM SUPPORT IN SUGAR RESOURCE

The Sugar resource now allows the user to specify a Sugar approved platform value.

SUGARCRM V11.X REST API SUPPORT

Magic xpi was tested and is compatible to work with SugarCRM V11.x REST API.

SEPARATE TRIGGER'S DATABASE SUPPORT FOR SAP B1 CONNECTOR

The SAP B1 connector now supports hosting of the SAP B1 trigger table on a different database than the company database. If the database holding the trigger table is hosted on a different server than the company database, then that server should be a Linked Server.

IMPLEMENTATION CHANGES FOR THE STORED PROCEDURE IN COMPANY DATABASE

The `ibolt_notification` stored procedure and the `ibolt_trigger` table are not used in the SAP B1 company database anymore. If they already exist, the users are required to delete them.

TIMESHEET SERVICE SUPPORT IN SAP B1

A TimeSheet service is now added to the list of available services in the Service Object List for the SAP B1 connector.

PROFITCENTER SERVICE SUPPORT IN SAP B1

A ProfitCenter service is now added to the list of available services in the Service Object List for the SAP B1 connector.

CUSTOM WEB SERVER LOCATION FOR MAGIC MONITOR

The Web Server location for the Magic Monitor Display Server can now be changed by using the `WEB_SERVER_LOCATION` system property.

LOG4NET SUPPORT FOR LOGGING IN THE DYNAMIC CRM CONNECTOR

The Dynamic CRM connector now offers a dedicated logging support at the design time as well as at the runtime.

RETRY SUPPORT IN ENGINE TO LOAD THE SERVERDATA OBJECT

Now the Magic xpi engine has configurable retry support to load the ServerData object from the Magic Space. The retry count can be configured in the `[MAGICXPI_GS]` section of the Magic.ini file with the flag `CheckServerEntryInspaceRetrytimes`.

PROXY SUPPORT FOR MAGIC XPI DEBUGGER

The Magic xpi Debugger can now be configured to connect through a Proxy Server. Both System proxy server (configured in the Internet Explorer) and Custom proxy server (configured in the Studio specifically for the Debugger) are supported.

PROXY SUPPORT IN SHAREPOINT CONNECTOR

Now the SharePoint connector supports integration with On-premise or On-demand SharePoint application through the proxy server.

PROXY SUPPORT IN EXCHANGE CONNECTOR

Now the Exchange connector supports integration with application through the proxy server.

CUSTOM FAULT SCHEMA PER OPERATION FOR WCF CLIENT

The WCF Client step now generates a Custom Fault schema for each operation if the fault schema is defined for the operation.

CUSTOM SOAP HEADERS SUPPORT

The WCF connector now supports defining and extracting the user defined custom SOAP Headers.

OPTIMIZATION IN MGMIRROR PROCESSING UNIT

The MGMirror processing unit service is optimized to replicate the data from Magic_INFO Space to Activity Log Table.

ADDITIONAL INDEX FOR LOG TABLE

An additional index is now added for the Activity Log table. This is added as a part of the SQL script file named `*_create_tables.sql`, which is shipped along with the product. This SQL script is available for the supported databases and will be installed under the database type folder.

The index will be added automatically during the product installation only if the user had selected the **DB Creation** option as 'now' during the main product installation. In case the **DB Creation** option is selected as 'later' then the user has to run the scripts manually after the installation. The automatic index creation only applies if the internal database is selected as MSSQL or Oracle.

DEBUGGER ON-PREMISE INSTALLATION

Magic xpi now provides an additional service named **Magic xpi 4.9 Debugger** for configuring the Debugger on-premise installation hosted on the Tomcat Server.

UPSERT SUPPORT IN DATA MAPPER

The UPSERT operation is now supported in the Data Mapper when Database is used as the Destination. The UPSERT statement can be enabled by setting the value for UPSERT as Yes in the Properties pane of the Database Schema properties. As of now, this functionality is supported for Oracle and MS-SQL Database type.

Undo and Redo Support in Data Mapper

Now the Data Mapper supports Undo and Redo actions for modifications to the schemas, connections, and properties (for both schemas and nodes), as well as colors.

RETURN CODE SUPPORT FOR COMMAND LINE

The Command Line method of the File Management component now provides the Return/Exit Code for the batch file execution. This functionality is only available for the Windows based platforms, and the Timeout parameter is set to 0.

SORTED FLOW LIST FOR INVOKE FLOW UTILITY

Now in Invoke Flow Utility, the Flow List displaying the list of flows to be invoked will be displayed in an ascending order.

FLOW TIMEOUT BEHAVIOR

Once the flow times out, the timeout being the total of Flow timeout and Flow Grace timeout values, the Worker Status changes to value as STUCK and the License status gets displayed as CHECKED_IN. Once the Flow delay step is completed, the flow will get aborted.

NON-SUPPORTED FUNCTION

The function **RqHTTPHeader** is no longer supported in Maigc xpi. To retrieve the Request Header parameters, use the function `getParam` function. While using the HTTP trigger, `setHTTPHeaders` function should be used with `FlowData` to set the Response HTTP Headers while returning the HTTP response.



MAGIC XPI 4.7: NEW FEATURES, FEATURE ENHANCEMENTS AND BEHAVIOR CHANGES

ODATA PROVIDER

The OData Provider is now available as a service in Magic xpi. The OData service also provides an Entity Helper for the user to define the OData Service structure.

ENCODING PARAMETER

The Encoding parameter is now added to the HTTP component. With this, it is now possible to control the encoding of the request body for the POST and REST methods of the HTTP step.

The Encoding parameter is also added to the File Management component. With this, it is now possible to control the encoding of the file written using the Append BLOB To File, Create File, and Write File methods.

UNDO AND REDO COMMANDS

Magic xpi now enables you to undo one or more operations in the Flow Editor and redo the undone changes.

REQUIRED LICENSING

The Required Licensing menu is now available under the Help menu of the Magic xpi Studio. It shows the license features required for the project which is open.

FLOW EDITOR ENHANCEMENT

The following features are now available in the studio:

- Copying and pasting multiple steps
- Inserting a step between a parent of a branch and the branch
- The Project path link (BP and Flow) in a Data Mapper which allows to navigate back to the Flow Editor pointing to the corresponding Data Mapper step

MAGIC XPA RUNTIME SUPPORT

The Connector Builder utility now supports Magic xpa as a runtime technology. This option is available for the step as well as the trigger in the Flow Editor.

INSTALLATION UPGRADE

It is now possible to upgrade the existing installation of Magic xpi 4.5 and higher to the Magic xpi 4.7 version.

SOLUTION EXPLORER ICON INDICATION

The Solution Explorer now displays new icons to indicate the state of the flow.

MONITOR ENHANCEMENTS

For the Activity Log table in Magic Monitor, a Step column was added.

For the Filtered Activity Log table, Step, FSID, Root FSID and Flow Request ID columns were added along with an Attached Blob button.

SAPB1 – SLD SERVER SUPPORT

Magic xpi now offers SAPB1 support for SLD Server. A new property added to the resource allows the user to select between the License Server and the SLD Server.

SHAREPOINT ADFS SUPPORT

The SharePoint Online connector now supports Active Directory Federation Services (ADFS).

DYNAMICS 365 SUPPORT

Magic xpi was tested and is now compatible to work with Dynamics 365.

SALESFORCE CONNECTOR UPGRADE

Magic xpi now works with Salesforce API 39.

WEBSHERE MQ RESOURCE

WebSphere MQ Resource now supports the User ID and Password based authentication.

INVENTORYTRANSFERREQUEST

The InventoryTransferRequest object is now available as a part of the Magic xpi Objects support.

SAPB1 9.3 SUPPORT

Magic xpi now supports SAP B1 9.3 with the MSSQL 2016 database.

NON-SUPPORTED FEATURE

The SNMP component is no longer supported in Magic xpi.

NON-SUPPORTED FUNCTION

The function **RqHTTPHeader** is no longer supported in Magic xpi. To retrieve the Request Header parameters, use the function **getParam** function. While using the HTTP trigger, **setHTTPHeaders** function should be used with **FlowData** to set the Response HTTP Headers while returning the HTTP response.



MAGIC XPI 4.6: NEW FEATURES, FEATURE ENHANCEMENTS AND BEHAVIOR CHANGES

ODATA CONNECTOR

The OData connector enables you to consume OData V4 services. The OData connector offers the following:

- Use of the OData service metadata to automatically generate structures for Magic xpi.
- Support of all CRUD operations including patch.
- A query builder to build complex queries while still allowing you to manually enter and modify queries.
- The ability to add any HTTP headers to the requests.

SERVICEMAX CONNECTOR

The ServiceMax connector provides you with connectivity to the ServiceMax field service application.

IMPORT/EXPORT

Magic xpi now has Import/Export functionality, providing a convenient way to easily save or load project objects.

You can also import resources and services that you previously created and saved in other projects.

DYNAMICS CRM ENHANCEMENTS

The Dynamics CRM connector now supports the Upsert operation. The connector also has a new method interface that supports Querying by FetchXML.

Since 4.6, by default, both the on-premise and on-demand implementations are .NET-based. This means that any new functionality, such as the Upsert operation, which was added since 4.6, will only work during Runtime on Windows operating systems. Before 4.6, the on-premise implementation was .NET-based and the on-demand implementation was Java-based. If you want the previous behavior, where the online implementation was Java-based, change the value of the new **DCRMONlineSDK** flag to N.

SAP R/3 CONNECTOR ENHANCEMENT

The SAP R/3 connector now uses JCO 3.0.15.

SAPB1 HANA SUPPORT

Magic xpi now supports SAP B1 based on the SAP HANA database.

SAPB1 SERVICES SUPPORT

Magic xpi now supports selected the SAP Business One Messages service.

HTTP FRAMEWORK SETTING

The **Magic.ini** file's **[MAGIC_ENV]** section now contains the HTTP Framework global environment setting, which specifies the underlying HTTP library to be used for the HTTP component. This change was done to support TLS1.2 for the HTTP functionality.

CONNECTOR BUILDER ENHANCEMENT

The Connector Builder now has an Endpoint trigger invocation type, which runs outside of the Magic xpi engine.

PROJECT DOCUMENTATION

Magic xpi can now generate detailed printable reports of your projects.

IBM WEBSHERE® MQ 8.0 SUPPORT

Magic xpi was tested and is compatible to work with the IBM WebSphere® 8.0 client/server.

MICROSOFT® WINDOWS SERVER 2016 SUPPORT

Magic xpi was tested and is compatible to work with Microsoft® Windows Server 2016.

MAGIC XPI 4.5A: NEW FEATURES, FEATURE ENHANCEMENTS AND BEHAVIOR CHANGES

SALESFORCE LICENSING PREREQUISITES

To be able to use a Magic xpi license for Salesforce, you have to install the Magic xpi monitoring app that is on the Salesforce AppExchange. For information about how to do this, see the **How Do I Install the Magic xpi Salesforce App?** topic in the *Magic xpi Help*.

SALESFORCE MONITORING UTILITY

You can monitor your Magic xpi environments, view running projects, receive alerts, and get chatter notification about various events using the Magic xpi Force.com monitoring utility. For information about how to do this, see the **How Can I Monitor My Project Using Salesforce?** topic in the *Magic xpi Help*.

JAVA 8.0 SUPPORT

Magic xpi was tested and is compatible to work with JRE 8.0.

Note: JRE 8.0 is not supported for Systinet-based Web services (both consumer and provider). For the Windows operating system, to use a Web service consumer, you can use the WCF client.

SAP S/4 HANA SUPPORT

Magic xpi was tested and is compatible to work with the SAP S/4 HANA platform.

FIELD TYPE BEHAVIOR CHANGE

Magic xpi does not have a default picture to handle xs:union field types. If your schema contains an xs:union field type, you need to add this type to the Default Data Format repository.

During migration, if you had an xs:union field type and it was mapped, after the migration process you will get a Checker error letting you know that you need to define your xs:union field type.



MAGIC XPI 4.5: NEW FEATURES, FEATURE ENHANCEMENTS AND BEHAVIOR CHANGES

NEW AND IMPROVED STUDIO

The new Visual Studio-based Studio offers an intuitive and user-friendly experience. The new Studio offers a variety of enhancements, including:

- Docking capabilities.
- A MiniMap to enable you to navigate quickly within long or wide flows.
- A Toolbox pane that replaces the Components pane. All the Magic xpi components and utilities appear in this pane, grouped together under specific categories.
- A Solution Explorer that replaces the Navigation pane.
- A dedicated Properties pane that displays the properties of whichever part of the project that you are parked on.
- A Settings dialog box that includes the Resource Repository, Service Repository, and IFS Settings dialog box from Magic xpi 4.1. This also includes the Magic.ini file settings. This can also be accessed as a stand-alone editor, allowing you to configure your project without opening the Magic xpi Studio.
- A combined search functionality. The Find Name and Text Search of Magic xpi 4.1 were combined into the Find Text dialog box.
- The copy and paste mechanism has been enhanced, including the support of multiple pasting of steps and branches.
- Non-English characters can be used in the names of business processes, flows, and steps, as well as in descriptions. The names of projects, resources, services and variables can only be written in English characters or the language of your machine.

BEHAVIOR CHANGES

- In Magic xpi 4.1, since the Magic.ini file took precedence in the Studio and the ifs.ini file took precedence in Runtime, you had to maintain your environment variables in both files. Now, in Magic xpi 4.5, the ifs.ini file always takes precedence over the Magic.ini file, both in the Studio and in Runtime. The keyboard combination for opening an existing project is now Ctrl+SHIFT+O instead of Ctrl+O.
- The keyboard combination for creating a new project is now Ctrl+SHIFT+N instead of Ctrl+N.
- Inserting a flow or business process is now done using the Project > Add menu.
- The default project location is now under your My Documents directory, in the Magic folder.
- Setting how the Studio opens is done using the At Startup drop-down list. This is accessed by going to the Tools menu, clicking Options, and selecting Startup in the Environment section. This is similar to the Startup As property that was available in Magic xpi 4.1's Customize dialog box.
- The disabling, enabling, and deactivating of individual flows is now done through that flow's Properties pane.
- Flow IDs in Magic xpi 4.5 are unique to a specific project, whereas in Magic xpi 4.1 flow IDs were unique to a business process.
- The IFC Model is now available as an option in the XML Properties. It is available for components with a static XML interface.
- The Clear Mode property has been moved to the Project Properties window, and can now be used to clear ODS information only.
- Defining a flat file structure is done using the Lines property.
- The following functions were added to the Expression Editor:
 - ClientCertificateAdd
 - ClientCertificateDiscard
 - RqHTTPHeader
 - UTCDate
 - UTCmTime
 - UTCTime

COMPATIBILITY GUIDE

MAGIC XPI 4.12.1: PLATFORMS AND OPERATING SYSTEMS

MICROSOFT® WINDOWS®

On Intel processors:

- Windows® 7
- Windows® 8
- Windows® 10

MICROSOFT® 64-BIT WINDOWS® (SERVER ONLY)

On Intel processors:

- Windows® 2016 (Server Edition)
- Windows® 2019 (Server Edition)

UNIX (SERVER ENGINE) *TO BE RELEASED

- Linux™ Red Hat™ Advanced Server 3 on Intel processors*

*Requires Kernel 2.4.20-8 (and up) and GLIBC 2.3.2 – 11.9

DATABASES

MICROSOFT® WINDOWS®

- Oracle 11g (OCI 64-bit)
- Oracle 12c (OCI 64-bit)
- Oracle 18c (OCI 64-bit)
- Oracle 19c (OCI 64-bit)
- Microsoft® SQL Server 2008 (32-bit client only)
- Microsoft® SQL Server 2012 (32-bit client only)
- Microsoft® SQL Server 2014 (32-bit client only)
- Microsoft® SQL Server 2016 (32-bit client only)
- Microsoft® SQL Server 2017 (32-bit client only)
- Microsoft® SQL Server 2019 (64-bit client only)
- ODBC 3
- DB2 UDB 9.7 (32-bit client only)
- MySQL 5.x
- Pervasive 8 (not supported as an internal database)
- Pervasive 9 (not supported as an internal database)
- Pervasive 10 (not supported as an internal database)
- Pervasive 2000 (not supported as an internal database)
- DB2/400 OS/400 V5R4, V6R1, V7R1, and V7R3

Note: Magic xpi supports Microsoft® SQL Server Gateway enabled for TLS 1.2 OLE DB for which OLE DB driver should be pre-installed.

LINUX® SERVER *TO BE RELEASED

- Oracle 11g (OCI 32-bit only)
- Oracle 12c (OCI 32-bit only)
- DB2 UDB 9.7
- ODBC 2

WEB SERVERS

A Web server is required for Web application implementation.

MICROSOFT® 64-BIT WINDOWS

- Internet Information Server v6
- Internet Information Server v7

Note: Magic xpi requester for IIS has a 64-bit module.

- Apache Tomcat 7.x and above

Note: The minimum version of Java to run the Apache Tomcat server version 7.x is Java 8. The Java version 7 is not supported and the HTTP and OData components will fail to work with Java 7.

LINUX® SERVER *TO BE RELEASED

- Apache Tomcat 7.x and above

MIDDLEWARE, FRAMEWORKS, AND PROTOCOLS

MICROSOFT® WINDOWS®

- IBM WebSphere® MQ 7.5 and 8.0 client/server – for messaging capabilities MQ clustering supported
- Microsoft® MQ 2.x or 3.x – for MSMQ messaging capabilities
- JMS – requires JMS API 1.3 Client or higher
- JRE 7.0 and JRE 8.0 – for Java integration capabilities. The JRE from both, Oracle and OpenJDK are supported. The supported OpenJDK distributions are - RedHat, Zulu and Amazon corretto.

Note: JRE 8.0 is not supported for Systinet-based Web services (both consumer and provider). For the Windows operating system, to use a Web service consumer, you can use the WCF client.

- Microsoft® Active Directory
- LDAP V.2 and V.3 using simple bind
- SOAP 1.1
- SOAP 1.2

LINUX® SERVER *TO BE RELEASED

- IBM WebSphere® MQ 7.5 client/server – for messaging capabilities
- JMS – requires JMS API 1.3 Client
- JRE 7.0 and JRE 8.0 – for Java integration capabilities.

Note: JRE 8.0 is not supported for Systinet-based Web services (both consumer and provider).

- LDAP V.2 AND V.3 USING SIMPLE BIND

SOURCE CONTROL PROVIDERS

MICROSOFT® WINDOWS®

Magic xpi provides Source Control support for any third-party Source Control product that uses the SCC (Source Code Control) API V1.01, such as TFS and Visual SourceSafe.

ECOSYSTEMS

Magic xpi works with the following ecosystems:

- Dynamics AX 2012
- Dynamics CRM 2011, 2013, 2015, 2016 and Dynamics 365 version 9
- Exchange 2007 and above
- JD Edwards Enterprise One 8.12, 9.1 and 9.2
- JD Edwards World A 7.x, A 8.x, and A 9.x
- Salesforce API 48
- ServiceMax API 48
- SAPB1 8.8 and above including SAPB1 HANA
- All SAP products supporting JCO API, like SAP ERP from 4.6c to S/4 HANA
- SharePoint® Server 2007, 2010, 2013, 2019 On-premise, and SharePoint® Server 365/Online (MOSS)
- SugarCRM V10 and V11.x REST API and Legacy API (4.x)
- XSLT 1.0
- IBM Domino Server v9.x and v10.x



ABOUT MAGIC SOFTWARE ENTERPRISES



Magic Software Enterprises (NASDAQ: MGIC) empowers customers and partners around the globe with smarter technology that provides a multi-channel user experience of enterprise logic and data.

For more information, visit www.magicsoftware.com.

ABOUT EDI2XML



EDI2XML is a “B2B integration service provider” providing the latest software solutions and IT services to businesses of all sizes and from various industries.

For more information, visit <https://www.edi2xml.com/>



CONTACT US:

400 Blvd Curé-Labelle, Suite 304
Laval, QC H7V 2S7, Canada

+1 450 681 3009
support@edi2xml.com

www.edi2xml.com