Release Notes UMRA

Updated 2-7-2024

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VERSION 11.44 BUILD 1777, FEB 27, 2024

CumLaude: Updated the authentication method in the connection to CumLaude, needed because changes in "Maintenance Release 13" of CumLaude. (ticket id 23447/23448)

VERSION 11.43 BUILD 1776, JUN 22, 2023

Itslearning: Added the expiration date (in the action property ExpireAt) as additional optional property for the create and edit person actions. (ticket id 21069)

AFAS: Added an option to use UTF-8 encoding for the generated output file of the "Afas Export data" Action. This is useful for example if user names contain characters that cannot be represented in the windows-1252 codepage. (ticket id 20969)

VERSION 11.40 BUILD 1773, SEP 29, 2022

Enhancements
1. **SomToday:** (enhancement). Added the option to specify the property "Remote Identifier Domain" for the actions that use a remote identifier (ticket id 18423)
2. **Action: Setup Exchange session (Exchange 2010)** (Enhancement). Extended the authorization options so that "Modern Authorization" can be used for Exchange online. If one of the the Modern Authorization fields are specified and the URL field is left blank, instead of a direct remote powershell connection to the URL, the connection is made through the ExchangeOnlineManagement powershell module of Microsoft. Run "Install-Module ExchangeOnlineManagement" from an elevated Powershell command prompt on the server to install this module. (ticket id 18729)

VERSION 11.39 BUILD 1772, AUG 12, 2022

Enhancements
1. **Action: Convert Table to JSON** (new). Added a new action to convert a table variable to a JSON string. Result is a simple text variable containing the table in JSON format. (ticket id 7434)
2. **Action: Export variables Advanced** (new). Added a new action to export a variable to file. It supports more text encodings (such as UTF-7 and UTF-8) than the existing one. (ticket id 18185)
3. **Aura connector.** Added fields UserPrincipalName and password to the create and edit user actions, added field UserPrincipalName to the output of the get user actions. (ticket id 18076)
4. **Google GSuite.** Updated the shipped version of the connector to version 1.3.9

VERSION 11.37 BUILD 1770, JULY 9, 2021

Enhancements
1. **Itslearning:** Added Customstring0 (referred to as CustomField6) as possible property for the create person action. (ticket id 12665)

Fixes
1. **Action: Setup security.** When using the option "Use backup and restore privileges" the intended return value could in some situations be overwritten as a side effect by successful subsequent actions, thus reporting success inadvertently. (ticket id 1501)
2. **Google GSuite / Cumlaude:** Objects in an array where not always returned by Powershell. Adjusted in an utility library. (ticket id 12311)

VERSION 11.35 BUILD 1768, NOV 13, 2020

Enhancements

1. **SomToday:** Added EckID Column to the students and employees table (as extra column at the end). (ticked id 9521)
2. **SomToday:** Added the possibility to retrieve students starting in future school years. (ticket id 9830)
3. **AFAS:** Extra dynamic action added "UmraPsAfasUpdateConnectorExecute" This allows the execution of update connectors by specifying the xml of the data to update directly. (ticket id 8979 and 9457)

Fixes

1. **CumLaude:** The Edit User action failed when an EckID was specified. This is fixed. (ticket id 10033)
2. **CumLaude:** The Create User action now correctly creates a user with a disabled personal work space if such is specified. (ticket id 10332)

VERSION 11.34 BUILD 1767, APRIL 23, 2020

Enhancements

1. **SomToday:** Added support for setting the RemoteID attribute for students, employees, and caretakers. Note that retrieving existing Remote ID is not supported by the used API, and therefore it is only implemented on the 'Authorization' update actions. (ticket id 9137)

2. **AFAS:** Extra dynamic action "update object with flag" to be able to provide inserts with the updateobject action. (ticket id 8803)

Fixes

1. **Itslearning.** Itslearning get persons incorrectly converted the DateOfBirth from local time to gmt, which might result in an incorrect value. This is now fixed. (ticket id 7202)

2. **SomToday** removed support for the openID attribute, as that was not correctly supported by the API .

VERSION 11.33 BUILD 1766, JULY 22, 2019

Changes
1. Updated the year in about dialog to 2019.
2. Dynamic action updates:
    a. itslearning: Added support for setting the ECK-iD for a person.
    b. Somtoday (@VO): Added support to set the RemoteIdentifier for students, employees and caregivers.
    c. Somtoday (@VO): Added support for the openID for employees, studentes and caregivers.
    d. Somtoday (@VO): Added support for externID for medewerkers.
    e. Cumlaude Learning (NA@Tschool!): Added support for setting the ECK-iD in Cumlaude.

Fixes
- None.

VERSION 11.32 BUILD 1762, MAY 25, 2018

Enhancements

1. **Action: Send mail message (PS).** The license requirement for this action has been changed, it is now part of the "Base" function module instead of the "Powershell" function module. This enables the option to send mail messages using SSL. Note that the action requires the "Tools4ever Powershell service" to be installed.

2. **Aura connector**. Support for the CcMailAddress property of the user has been added to the relevant actions.

3. **Cumlaude (Natschool).** It is now possible to specify whether or not an associated personal folder should be created when creating a group.

Fixes

1. **Action: Generate table.** The option to prevent writing the database connection string to the log was disabled by default, it is now enabled by default.

2. **Export project.** The options added in version 1758 for "Search LDAP", "Generate table", and "Update database" were not exported when exporting a project to XML format. This resulted in default settings for those options when importing the scripts from backup.

3. **Atvo3 (SOM):** It is enforced that the BSN value is not provided to UMRA.

4. **Itslearning:** When adding an Itslearning person to a role group (e.g. 'teacher'), the validity of the role name was explicitly checked before submitting the membership request to Itslearning . This check has been removed because it was too restrictive. Checking the validity of role names will now be done by Itslearning upon submit.

VERSION 11.28 BUILD 1758, JAN 18, 2018

Fixes and enhancements

1. **Action: Delete Directory** (fix). The error status of the action was not correctly set for some errors, such as sharing violations.

2. **Action: If-Then-Else** (enhancement). The implementation of the condition "Has no value or does not exist" does not trigger on empty text values. An new selectable condition has been added called "Is empty string or has no value or does not exists" that will trigger on empty text values.

3. **Powershell Service installation** (Enhancement). On first startup, the PowerShell service will no longer unconditionally install the PowerShell libraries contained in the PowershellAgentlib.xmllib file that is shipped with the UMRA version. Instead it now verifies the versions of the individual libraries, and does not replace existing libraries that have a higher version number. This prevents issues when upgrading, if the existing libraries where updated manually to a later version than shipped with the UMRA version.

4. **Atvo3 (SOM)** (fix). Included Powershell library updated to version 23. Because of a change in the interface in SomToday, an extra argument must be specified when retrieving students.

5. **ITSL** (fix): Included Powershell library update to version 53. Fix for out-of-range birthday values, and group membership issues.

6. **Action: Powershell Custom Setup Remote Connection** (fix). Powershell library updated to version 6. Specification of some options could cause syntax errors in command.

7. **Action: Search LDAP** (enhancement). An option is added to make the output format more in line with the output of the generic table actions. This allows for better comparison between tables.

8. **Action: Search LDAP** (enhancement). An option is added to allow a paged search.

9. **Action: Generate table** (enhancement). An option is added to prevent writing the database connection details to the log file. This option is enabled by default.

10. **Action: Update database** (enhancement). An option is added to prevent writing the database connection details to the log file. This option is enabled by default.

11. **GUI**: (fix). When pressing the <delete> key in the script comment pane of the script editor, it will now delete the selected highlighted text in the comment, and no longer try to delete the currently selected action in the main action pane.

VERSION 11.22 BUILD 1752 , OCT 6, 2017

Fixes and enhancements

1. AFAS (fix). The Photo directory is no longer the root, but instead the specified directory. (30/Sept/2016)

2. AFAS (enhancement). Support is added for token based login. (30/Sept/2016)

3. SAP (fix). When installing the 64 bit UMRA service, the 32 bit Jvrlog.dll file is now copied to the service directory, as it is still required when interfacing with SAP. (11/Jul/2017)

4. Action: Office 365 List all users licenses (fix). The ServiceStatus field in the list is now filled with the provisioning status of the user for each individual service.(18/Jul/2017)

5. Action: Hash text (new). A new action is provided to generate a hash value from a text variable. The resulting hash is stored as a base64 encoded string. Supported hash algorithms are MD5, SHA1, SHA265, and SHA512. (5/Oct/2017)

BETA VERSION 11.20 BUILD 1747, APRIL 11, 2016

Fixes and enhancements

1. **Action: Office 365 Edit users** (fix)**.** The "Office365BlockCredential" will now unblock the user if set to "No" (10/Mar/2016).
2. **Action: Powershell Custom Setup Remote Connection** (fix). The configuration parameters "Skip certificate check" and "ProxyAccessType" did not work correctly.(11/Mar/2016)
3. **Action: Edit Mailbox(Exchange2010)** (fix). In the previous version setting some optional boolean parameters to false had no effect. (4/Apr/2016)
4. **Action: Get Calendar Processing (Exchange2010)**(new). New action to retrieve the calendar processing settings of a mailbox. (4/Apr/2016)
5. **Action: Edit Calendar Processing (Exchange2010)** (new). New action to edit the calendar processing settings of a mailbox. (4/Apr/2016)
6. **Action: Get Calendar Notification (Exchange 2010)** (new). New action to retrieve the calendar notification settings of a mailbox. Note that there is no accompanying edit action, as exchange does not allow administrative access to the Set-CalendarProcessing commandlet. (4/Apr/2016)
7. **Action: Edit remote mailbox (Exchange2010)** (fix). The ImmutableId parameter is no longer ignored. (1/Apr/2016)
8. **Service configuration option: License expiration mail** (enhancement). Added an option to specify the relative threshold of free user licenses below which a warning email is sent. (11/Apr/2016)
9. **Installation Package** (fix). Some new installation components for the console, were registered with the incorrect feature (Forms Client). This could cause issues (for example missing files) when installing the console without installing the forms client. (11/Apr/2016)

VERSION 11.19 BUILD 1746 MARCH 2016

Major changes

1. **UMRA Service.** A 64 bit version of the UMRA service is now available as an option when performing a fresh install of the UMRA service. Main purpose is to allow the service to exceed the 2GB virtual memory limit for 32 bit systems. (8/Dec/2015)

Build environment changes

1. **General build environment**. Data compression library "Zlib" is updated to version 1.2.8. This library is mainly used for showing large log files in the console. The update is required for 64 bit service support. Also updated in standard 32 bit service and console. (30/Oct/2015)
2. **General build environment.** Lotes Notes cpp Library (lcppn.dll) is updated to version 8.02 (was 8.0). The update is needed for 64 bit service support. Also updated in standard 32 bit service and console. (12/Nov/2015)
3. **General build environment**. OpenSSL library is updated to version 1.0.2d. This library is mainly used for license checks. The update is needed for 64 bit service support. Also updated in standard 32 service and console. (12/Nov/2015)

Fixes and enhancements
1. **Google** (discontinuation legacy interface). The methods used by the legacy google actions, located at the "Google" node in the action tree, have now been retired by Google. Therefore these actions have now been removed from the action tree. Use the actions located at the "Google apps" node in the tree instead. (16/Nov/2015)
2. **Action: Convert value of variable** (fix). The conversion operation "Convert base 16 string containing Sid to Sid String" contained an error that resulted in incorrect conversion results. This has been fixed. (17/Nov/2015)
3. **GUI: Manage service projects window** (fix). The "Rename" operation's initial suggestion for the new name was the name as displayed in the tree (including the date), instead of only the actual name itself. Now it suggests only the original name. (17/Nov/2015)
4. **Action: Update database** (fix). When the SQL script contained multiple SQL statements, the error/success status of the UMRA project only reflected the result of the last statement. Failure of any but the last statement was only logged. Now the UMRA project error status will be raised on a failure in any of the configured statements. (19/Nov/2015)
5. **Action: Convert Table to HTML** (new). Added a new action to convert the table to HTML. Result is a simple text variable containing the table in HTML. Formatting options can be specified explicitly, or a preformatted template can be chosen. (26/Nov/2015)
6. **GUI: Dialog "Manage server Projects"** (enhancement). Added possibility to sort projects based on the modification or creation time. (4/Dec/2015)
7. **GUI: Dialog "Manage server Projects"** (fix). When importing projects, and not choosing for overwriting, the name of the new project in the tree was not correctly modified in the previous release. (4/Dec/2015)

8. **Action: Join table data** (enhancement). The name of the columns on which to join, can now be specified as a variable. (4/Dec/2015)

9. **Action: List printer documents** (fix). The number of columns of the result table was not correctly set when the table was empty. (4/Dec/2015)

10. **Action: Edit Mailbox(Exchange2010)** (enhancement). Added an option to suppress error messages when the mailbox does not exist. (11/Dec/2015)

11. **Powershell Service** (Enhancement/modification). When returning a result table, and a specific data member (column) is specified to be returned, but this member is not available in the actual data ("Member not found" message), this no longer results in an failure of the action. Instead the action returns successfully, and the missing values are replaced by a text indicating the error. (14/Dec/2015).

12. **Action: Create (enable) mailbox(Exchange 2010)** (enhancement). Added support for equipment, room and shared mailboxes. (15/Dec/2015)

13. **Action: Enable remote mailbox (Exchange2010)** (new). New action that calls the Enable-RemoteMailbox cmdlet to create a mailbox in the cloud-based service for an existing user in the on-premises Active Directory. (28/dec/2015)

14. **Action: Disable remote mailbox (Exchange2010)** (new). New action that calls the Disable-RemoteMailbox cmdlet to remove mailboxes from the cloud-based service but keep the associated user objects in the on-premises Active Directory. (28/dec/2015)

15. **Action: List remote mailboxes (Exchange2010)** (new). New action that calls the Get-RemoteMailbox cmdlet to retrieve the mail-related attributes of users in the on-premises organization that have associated mailboxes in the cloud-based service. (28/dec/2015)

16. **Action: Edit remote mailbox (Exchange2010)** (new). New action that calls the Set-RemoteMailbox cmdlet to modify the mail-related attributes of an existing user in Active Directory that's associated with a mailbox in the cloud-based service.(28/dec/2015)

17. **Exchange 2010/2013/2016** (enhancement). Verified compatibility of Exchange 2010 actions with exchange 2016. (28/dec/2015)

18. **Google Apps** (Enhancement). Updated the shipped version of the google apps connector to version 1.0.3.8. In total 40 new actions have been added, mainly regarding the management of classroom courses, mobile devices and managing the Google schema. (28/dec/2015)

19. **Action: Edit user (AD)** (fix). The "User must change password at next logon " setting was not set when a new password was also specified in the same Edit action. Note, that the "Edit user logon" action did not have this issue. (29/dec/2015)

20. **Action: Protect object (AD)** (new). An new action is added to set or clear the "Protect object from accidental deletion" flag for any object in the AD. (5/Jan/2016)

21. **Action: Generate table** (enhancement). The connection string builder dialog in the GUI, will now check if the console is connected to a 64 bit UMRA service. If so, it will display the 64 bit version of the standard windows dialog. As this is not possible in a 32 bit application, a small 64 bit application is started that implements the dialog. (14/Jan/2016)

22. **Logging** (enhancement). The logging will now also show in each log message the ID (generally a 4 digit number) of the associated execution thread in UMRA. This is especially useful in scenarios where several identical projects are running concurrently. (15/Jan/2016)

23. **Action: Encrypt/Decrypt text.** (new/enhanced). The existing "encrypt text" action is extended with new functionality that allows encryption and decryption of data with a self supplied password. (16/Jan/2016)

24. **Service configuration option: License expiration mail (**new**).** A service configuration option is added to enable an automated mail being sent when a license is close to its limits. (29/Jan/2016)

25. **GUI: Dialog about** (fix). Fixed some broken links to the web pages. (2/Feb/2016)

26. **Action: Send HTML mail message** (fix). SMTP sockets are now correctly closed after sending the message. (9/Feb/2016).

27. **GUI:Password Synchronization Manager service settings dialog** (enhancement). Added option to automatically open specified project for edit on exit of dialog. (9/Feb/2016)

28. **Action: Manage Table** (enhancement). In the operation "export to .csv", in the case of UTF_7 or UTF_8 encodings, the "Byte Order Mark" is now optional. (11/Feb/2016)

29. **Action: Manage Table** (enhancement). The operation "export to .csv", can be configured to save the output to a set of cyclic files. (11/Feb/2016)

30. **Action: List UMRA Licenses** (fix). When the listing contained site or demo licenses, this could cause an assertion failure. (18/Feb/2016)

VERSION 11.05 BUILD 1733 OCTOBER 22 2015

Fixes and enhancements

1. **Action: Convert value of variable** (fix). The operation to convert a GUID as returned by an AD query to a GUID in string format with separators, did not correctly account for the non-consecutive byte order in the original raw GUID. This has been fixed. The action is also renamed to "Convert raw GUID to base16 string GUID with separators". (28/Sep/2015)

2. **Action: Send a task start request to the task scheduler** (new). Added a script action to send an asynchronous start request ("run now") to a scheduled project. Previously this was only possibly manually by means of the management console. (9/Oct/2015)

3. **Task scheduling dependencies** (fix). When a project was specified to be dependent on a specific other project, the runtime check would always ensure that the other project was not running, irrespective of whether the governing checkbox was ticked. Now it behaves according to the checkbox. (09/Oct/2015).

4. **GUI: Dialog "Manage server Projects"**(enhancement)**.** Projects will now record their creation and modification dates. The dialog will show the creation and modification date of the project. For existing projects the creation and modification date will be initialized with the create and modify time of the project file. (09/Oct/2015)

5. **GUI: Dialog "Open Umra Project"**(enhancement)**.** This dialog shows after "File/open project**".** Server based projects will now show their creation and modification dates. (19/Oct/2015)

6. **Action**: **Manage Table** (fix). The operation "export table data to csv file" did not correctly release all its temporary memory. This could eventually lead to a lack of available memory in the UMRA service. This has been fixed (12/Oct/2015)

7. **Service Installation and Upgrade** (change). Upgrading an UMRA service is a major operation that can potentially have a significant impact on the current UMRA performance and behavior. To prevent unsolicited upgrades, a password protection is introduced: when upgrading an existing service from the GUI, a special "upgrade password" must be entered in order to proceed. (13/Oct/2015)

8. **Service Logging:** (enhancement). The main service log will, before each project execution, log the amount of free virtual memory available for the UMRA service. It will log a warning if it is below around 200MB. (15/Oct/2015)

9. **Action: Get global memory status** (new). Added a script action to retrieve the memory available to the process that runs the script. Can be used to send notification mails if the process gets low on memory. (19/Oct/2010)

10. **PSM** (fix). A minor memory leak and a handle leak have been fixed in the PSM dll. (20/Oct/2015)

11. **N@TSchool** (fix). Fixed a compatibility issue of the N@TSchool actions with version 4 of Powershell. Actions failed with the notification "Cannot overwrite variable tmpPersons because the variable has been optimized". This error will not occur anymore. (6/Oct/2015)

12. **Action: Powershell Custom Setup Remote Connection** (fix). Sessions based explicitly on a computer name instead of an URL failed because the "AllowRedirection" option was specified for the session, which is not allowed for such connections. Now this option is not longer set for such sessions (6/Oct/2015);

13. **PSM** (change). When upgrading the version of the PSM dll on a domain controller, the previous version will continue to operate until the required reboot of the domain controller, instead of being put in idle mode at the begin of the upgrade process. (22/Oct/2015)

BETA VERSION 11.03 BUILD 1731 SEPTEMBER 25 2015

Fixes and enhancements
1. **Action: Update date-time variable** (fix). The operation "Update display options" could, in case of an unsupported time formatting specification, cause the UMRA service to exit. This is fixed, and now it will treat the error as a normal script error. (25/Sep/2015);

2. **Action: Format Column**. (change). When a format is performed on a column in a table, and the field that must be formatted contains a table itself, (instead of a normal text value), the entire inner table is converted to a single text value before the formatting operation starts. In case of a 1 by 1 inner table, it is the contents of the only data field that is converted to text. Behavior is undefined for inner tables of other sizes.

3. **Aura connector** (enhancement). Support for branches has been added to the user 'create' and 'edit' and 'get' actions. (25/Sep/2015).

VERSION 11.02 BUILD 1730 AUGUST 20 2015

Major changes
Action: Go to label (change/enhancement). Action behavior has been modified for the case that the destination label is specified by a variable, but at runtime this variable does not contain a valid destination label. Options have been added to specify how such an event should be handled. For new "Go to" actions the default behavior is to raise an error and follow the options specified in the standard "onerror" tab, instead of jumping to the end of the script. Existing actions in scripts will keep the original behaviour, by automatically selecting the "legacy" option on upgrade. (07/Aug/2015)

Fixes and enhancements

1. **UMRA installation package (fix)**. Updated the version number of several file resources to automatically match the version and build number of the console . This fixes the issue that on upgrades some files where not replaced with newer ones. (03/Aug/2015);

2. **UMRA installation package (fix)**. The installation procedure will now recognize the installation location of installations done with the previous installation package creation software, and unregister them. (18/Aug/2015)

3. **Action: Manage Table (enhancement)**. The operation "Log table data" will, in addition to the name of each column, display the name of the underlying data type of each column when known. (04/Aug/2015)

4. **Action: Format Column (enhancement)**. The action logs a warning message when trying to modify columns that do not contain textual data, and an error message if conversion from formatted text back to the original type actually fails. (04/Aug/2015)

5. **Action:Manage Table (enhancement)**. The operation "export table data to csv file" supports output to UTF-8 and other character encodings. (13/08/2015);

6. **Action: Send mail message (PS) (Enhancement)**. Added support to specify the port number of the SMTP service. (13/08/2015);

7. **PSM (fix)**. Fixed an issue with updating the "PendingFileRenameOperations" registry setting in version 1725, required for the installation procedure for the notification dll. (14/Aug/2015)

8. **Action: Manage Table (enhancement)**. The operation "Get the data at the specified row and column of the table" now supports variables in the specification of the name of the output variable. (18/aug/2015).

9. **Action: Set Variable (fix)**. The option "Set only if variable does not yet exists" now also works for dynamic variables. (18/Aug/2015)

10. **Action: If then else (enhancement)**. The "left" variable in conditions statements can now be a dynamic variable. (18/Aug/2015)

11. **Action: If then else (enhancement)**. Added the condition "does not exist", in addition to the existing "has no value or does not exist", to be able to distinguish between a non-existent table variable, and an empty table. (18/Aug/2015).

12. **Action: Generate generic Table** (fix). Database queries reading "uniqueidentifier" columns now properly display leading 0 chars in the result. (20/Aug/2015);

13. **Action: Generate generic Table (fix)**. Database queries with empty result sets could potentially cause stability issues. (20/Aug/2015);

14. **Action: @VO (fix)**. The first connection attempt after a start of the Powershell service might fail. (27/Aug/2015)

VERSION 11.00 BUILD 1725 JULY 20 2015

Major changes

1. **The build environment is updated to Visual studio 2013.** All major UMRA applications are now built with Visual studio 2013. (23/June/2015)
2. **New Installation package.** The software installation package (…Setup.exe) is created with different package creation software. (23/June/2015)
3. **Feature: disabling script actions** (new). Individual script actions in a script can be disabled ("commented out"). Select the actions to disable and select "Disable" from the context menu (or press Ctrl-D). (21/April/2015)
4. **Console: Undo changes** (new)**.** Modifications made to the script in an open project can be undone by choosing "Undo" from the context menu or by pressing ctrl-z. Redo is also implemented (29/May/2015)
5. **Sharepoint online connecto**r (new). A new basic connector to Sharepoint online is added. (30/June/2015).
6. **Exchange 2003** (discontinuation). Operations that target Exchange 2003 are no longer supported. (23/June/2015)

Fixes and enhancements

1. **Action: Manage Table** (enhancement). Added the operation "Combine columns". The contents of several columns are combined(merged) in a new column. (9/April/2015)
2. **Powershell Service** (fix). When implicitly converting time values from the format used by the Powershell service to the format used in the UMRA service, an exception could be thrown if the source value was out of bounds. This happened if the time represented a date before Jan 1, 1601. Now it will set any invalid date to exactly 1 jan 1601, without generating an error. (10/April/2015)
3. **UMRA service** (enhancement). Added the option to change the location of the log directory. In the "Advanced" tab of the service properties, it is now possible to specify a new location for the service log files. Restart the service in order to effectuate the changes. (28/April/2015)
4. **Action: Generate generic Table** (fix). Fixed an error in reading sql database data of the special type "uniqueidentifier", resulting in incorrect values. (30/Apr/2015).
5. **UMRA service installation** (change). On a fresh install of the UMRA service, the suggested target location of the service files will be in the directory …\Tools4ever\UmraService, instead of in …\UmraService. (01/May/2015)
6. **PowerShell Service Installation** (enhancement). There will now be a default exe.config file added with .net options, for compatibility with exchange2007. (11/May/2015)
7. **Export Project** (fix). Projects that contained dependency items in the scheduler could not be exported to .xml format (29/May/2015)
8. **Action: Set client access attributes(Exchange2010)** (fix). When unspecified or set to No/false, the parameter IgnoreDefaultScope is no longer propagated to the exchange commandlet. This caused problems in configurations like Exchange online that did not recognize this option. (2/jun.2015)

9. **Action: Exchange Setup connection.** (fix). The connection to the exchange server has an implicit feature to reconnect a timed-out or broken connection. This feature did not function properly due to changes introduced in version 1710 to support the ProxyAccessType parameter. This now repaired.(2/June/2015).

10. **Action: Powershell Custom Setup Remote Connection** (enhancement). Added the configuration parameters "Skip certificate check" and "ProxyAccessType". (2/June/2015)

11. **Action: Office 365 List users** (enhancement). Option added to retrieve deleted users. (6/June/2015).

12. **Action: Office 365 List all users licenses** (new). New action to retrieve the license information of all users in a single table. (6/June/2015).

13. **Action: Office 365 Restore user** (new). New action to restore users that are currently in the recycle bin. (6/June/2015).

14. **It's Learning** (fix). Prevents the error 'Cannot add a member with the name "EndPoint" because a member with that name already exists.' (6/June/2015).

15. **Action: Generate generic table** (enhancement). When reading the table from a text (CSV) file, added a option to explicitly specify the character encoding of the source file. This allows reading files encoded in UTF-8 and UTF-7, or any of the installed Windows encodings. (8/June/2015)

16. **Action: Generate table** (change). For database queries, when the data is of type "float" or "real", the value will be only converted to the exponential format when the number is very small or very large. Note that floating point values are converted to text, and not to the "numeric" UMRA data type. (23/June/2015)

17. **Action: Generate generic Table** (fix). For LDAP queries: When the ODN of the object that is used as binding root contained a forward slash, the binding would fail. This is because a forward slash is an reserved character in a binding string. Now the forward slash will be automatically escaped, and the bind will succeed. (26/June/2015)

18. **Powershell Service** (fix). The data structure that is actually returned by the Powershell "where" statement in case of an empty result set has changed in recent versions of Powershell. This resulted in a "Member not found" error in the service, when the service tried to interpret the results, and convert those in a UMRA table. Now when no relevant data is found, it is assumed to be a valid empty result set, and only a warning will be logged. (3/July/2015)

19. **Project Import** (fix). When importing projects from XML format, reading very large unsigned numbers could fail. This could result in incorrect options for the project dependency configuration. (3/July/2015)

20. **Name Generation** (fix). When in the advanced setting of a specific name generation method the option "limit total length name prior to final formatting" was specified, the length was limited, but the mentioned subsequent formatting was not performed. (3/July/2015)

21. **Action: Generate generic table** (enhancement). When reading a file with a UTF8 or UTF7 encoding and the file contains Byte Order Markers, the encoding is recognized automatically, overruling the configuration in the action. (6/July/2015)

22. **Action: Set Error** (new). An action to set the error status of a script. This causes the "OnError" handler of a parent script to be called on finish. (6/july/2015)

23. **Action: Clear Error** (new). An action to clear the error status of a script.
(6/july/2015)

VERSION 10.32 BUILD 1710 MARCH 27 2015

Major changes

1. **Task scheduling** (enhancement). Added options to make a project's execution dependent on the status of other scheduled projects. (20/Feb/2015)
2. **Action: Get UMRA task schedule** (new). This new action creates a UMRA table variable with the same information as available in the task scheduling overview in the console. (20/Mar/2015)
3. **Lync Connector** (new). Added a new basic connector to Microsoft Lync server 2013 to manage users in Lync server 2013: list, edit, enable/disable, and granting policies. (13/Mar/2015)

Fixes and enhancements

1. **Powershell Service** (fix). Fixed the location of the VC2010 CRT files, so the manual installation of the VC2010 redistributable package is no longer required. (9 jan 2015)
2. **Action: Convert value of variable** (enhancement). Added the two conversion options "Convert base16 GUID to base32 GUID", and "Convert base32 GUID to base16 GUID". Typically used to convert the base16 GUID string as returned by the "Get user (ad)" action, to a base32 GUID string required by the office 365 "Immutable ID" parameter. (23/Jan/2015)
3. **Action: Convert value of variable** (enhancement). Added the two conversion options "Convert base16 string containing Sid to a Sid string", used to convert a hex SID to a SID in the SDDL format and "Convert base16 string containing raw GUID to base16 string containing GUID with separator". (19/Mar/2015)
4. **Action: Move - rename (AD)** (enhancement). Added the resulting Object Distinguished Name as an optional output parameter. (23/Jan/2015)
5. **Action: Generate Table (AD)** (fix). Added a check (retry mechanism) so that different instances of the action will not concurrently access the same file, as this could cause service instability. This could especially occur when several project instances were started concurrently, for example by start notifications received from the PSM module. (27/Jan/2015)
6. **Action: Manage table** (fix). Fixed the issue that when the operation "Export to .csv" failed, an error was logged, but the error was not properly propagated to the script status. (20/Mar/2015)
7. **Action: Edit mailbox (Exchange 2010)** (Enhancement). Added the option to set the "DefaultPublicFolderMailbox" property. Applies to Exchange 2013. (16/Mar/2015)
8. **Action: Setup Exchange session (Exchange 2010)** (Enhancement). Added the option to specify the "ProxyAccessType" of the connection. (17/Mar/2015)
9. **Action: Manage Active Directory permission (Exchange 2010)** (fix). Fixed the issue that In some rare cases an extra "server" parameter was inadvertently provided to the used commandlet. (19/Mar/2015).
10. **GUI: Open project/workspace** (enhancement). When the first workspace is shown in the GUI, it will open in the maximized view. When a project is opened from the task scheduling overview window, it will open in an existing open workspace

instead of creating a new workspace. If the view is maximized, the project will open as maximized. (2/Mar/2015).

11. **GUI: Manage server projects** (enhancement). De open button is now the default button, so the enter key will now open the selected project(s) instead of canceling the dialog. (30/Jan/2015).

12. **GUI: Powershell service installation** (fix). When upgrading the Powershell service, the upgrade procedure will wait 10 seconds after the OS reports the service as stopped, before starting the actual installation. This is in order to prevent sharing violations on the executable files. (30/Jan/2015).

13. **Import xml projects** (fix). Fixed the issue that importing XML projects that contained the action "SAP multi generic function modules" failed. This has been fixed. (2/Feb/2015)

14. **PSM** (fix). Fixed an issue with determining the computer role that could prevent execution of PSM projects. (5/Feb/2015)

15. **Name Generation** (enhancement). Added an option to limit the total length of the generated string, including the generated iterator, to a fixed number. Characters in front of the iterator are removed until the limit is reached. (9/Feb/2015)

16. **AFAS** (enhancement). Added support for photos. (20/Feb/2015)

17. **AFAS** (fix). Fixed the issue that in some windows environments, the AFAS connector stopped while connecting with the following error in the log: "Specified key is not a valid size for this algorithm". (16/Mar/2015)

18. **Action: Setup Security** (fix). Fixed the issue that when continue on error was set to no, the action stopped as specified on the first encountered error, but the error status of the action was not set, so the on-error actions were not performed. This has been fixed (24/Feb/2015).

19. **Google Apps** (fix). Connector actions can now be run concurrently in different projects ; scripts can run at the same time without interfering each other. (17/Mar/2015).

20. **Google Apps** (fix). Each dynamic action resets general variables like "RetVal". (17/Mar/2015).

21. **Google Apps** (enhancement). "Google User Create" and "Google Group Create" return the ID of the created entity. (17/Mar/2015).

22. **Action: Powershell custom setup remote connection** (fix). Specifying the Username/Password combination is now optional for authentication mechanisms that do not require them. For instance, when using kerberos, without a username and password the connection will automatically use the security context of the calling process, i.e. the account with which the Powershell Agent Service is logged on. (23/Mar/2015)

VERSION 10.29 BUILD 1705 DECEMBER 29 2014

Major changes

1. **Powershell Service** (enhancement). The Powershell service is ported to a new development environment and now supports .NET 4.0 functionality. Note that .NET 4.0 or higher must be installed on the server that runs the powershell service. (27/nov/2014)
2. **Google** (New). An entirely new set of Google Actions is added that makes use of the new powershell service. The new actions are located in the action tree at "Google Apps". It is recommended for new and existing implementations to use these new actions instead of the previous actions (located at "Google"), which are expected to become unsupported due to changes at Google. (19/Dec/ 2014)

Fixes and enhancements

1. **It's Learning** (fix). Because of a update of It's learning, some parameters used in the connection changed from enum types to a string type. These are now supported. This means for example that creating users with roles works again. (20/aug/2014)
2. **Action: Remove duplicate Rows** (fix). When reading the action from disk, if the output variable specification is the same as the input variable specification, the output variable specification is cleared to prevent overwriting the input table. (28/Nov/2014)
3. **Action: Format variable** (enhancement). The option "Conversion: remove diacritical marks" now also converts the characters 0x04AA to C , 0x04AB to c, 0x04E6 to O and 0x04E7 to o. (28/Nov/2014)
4. **Project Scheduling** (modification). After a service (re)start, projects that would have their next scheduled time of execution in the past are no longer started immediately, but are rescheduled. (1/Dec/2014)
5. **Form action: Set variable** (fix). When configuring the form action "Set variable value", it showed some options that are specific to script actions, but not applicable in the context of a form action. Now these options are not shown when editing the configuration. (2/Dec/2014)
6. **Action: Manage Table** (enhancement). The operation "Search table" has an extra output variable that contains the number of matches. (2/Dec/2014)
7. **Action: Convert text to date-time** (fix). The year is now also correctly converted for dates before 1900. (4/Dec/2014)
8. **Office 365** (fix). Updated the Office 356 actions to work with the new .NET 4.0 powershell service. (11/Dec/2014)
9. **Logging** (enhancement). Log messages now contain project name and line number in the message. (22/Dec/2014)
10. **Admin console GUI, Logbar** (enhancement). Double-clicking on log messages in the logging bar of the console will activate the specific project window on the specified line when applicable. (22/Dec/2014).
11. **Admin console GUI, Search and replace** (enhancement). The search and replace dialog now has the option to search through all projects on the server instead of

only the projects in the open workspace. Note that text replacement will not be performed when this option is selected. (22/Dec/2014)

12. **Admin console GUI, project Script tab** (enhancement). The project script tab has an extra column containing the line number. (22/Dec/2014)

VERSION 10.22 BUILD 1693 AUGUST 19 2014

Fixes and enhancements

1. **Action: It's Learning Add member to course** (fix). When the home organization is not specified, the home organization is not modified. (13/Aug/2014)
2. **Action: Manage mailbox email addresses (Exchange2007)** (fix). When a domain controller is specified, the domain controller is now used for both the Get-mailbox and get Set-mailbox commands that are implicitly issued by the action. (14/Aug/2014)
3. **Action: Update date-time variable** (enhancement). Added a new option "Convert from Coordinated Universal Time (UTC) to historic local". This option will attempt to adjust for DST (Daylight Saving Time) at the indicated time rather than using the DST at the time of calculation. Note that it uses the current start and end times for DST, and not the historical ones to calculate this adjustment. (15/Aug/2014)
4. **Admin console GUI** (fix). On occasion when opening a project that was small enough not to show the vertical scroll bar, the headers of the list of script actions overlapped with the first item in the list, making it invisible, until a scroll bar was shown by resizing. This has been fixed. (19/Aug/2014)

VERSION 10.20 BUILD 1691 AUGUST 8 2014

Fixes and enhancements

1. **Action: Edit distributionGroup (Exchange 2010)** (enhancement). Added support for the following parameters "BypassModerationFromSendersOrMembers", "BypassNestedModerationEnabled" and "BypassSecurityGroupManagerCheck". (28/Mar/2014)
2. **Action: Send mail message (PS)** (new). This action is an alternative for the existing actions that send a text or HTML e-mail message. This action uses the standard Microsoft Powershell Send-MailMessage commandlet as available in Powershell (version 2.0). Specific to this action is the possibility to use a SSL (TLC) connection to the SMTP server, specify the priority of the mail message and specify delivery notification options. It also allows the specification of credentials for the connection to the SMTP server. It can however only connect to the standard SMTP port (25) due to restrictions in the Send-MailMessage commandlet in Powershell 2.0. (17/Apr/2014)
3. **Action: List UMRA Licenses** (new). This action collects a detailed list of currently installed UMRA licenses in a table variable. (25/Apr/2014)
4. **Action: Manage table data** (enhancement). The list of operations is extended with the "Get the data at the specified row of the table" action. This will retrieve the value of each column of the specified row, and store it in a dynamically created variable based on the column name.(28/Apr/2014)
5. **Dynamic Actions** (enhancement). When creating a custom dynamic Powershell action that returns a table variable as output, the dimension can be specified as "dynamictable", instead of "table". 06/May/2014)
6. **General**: (Enhancement). All actions related to the AD or the Windows OS, and all dynamic actions (powershell) will update the special UMRA variable %UmraAction_LastError%. If an UMRA action returns an error, this variable will contain a number representing the underlying system error if available. (15/May/2014).
7. **Action: It's Learning Setup Connection** (enhancement). Added the option to fix the 'member already deleted' bug when deleting a member from a group. (30/May/2014)
8. **Action: It's Learning Get hierarchy objects for persons** (enhancement). Added the option to retrieve courses in the same output table. (30/May/2014)
9. **Action: It's Learning Remove member from course** (enhancement). Added the result of the action, so UMRA can determine if a warning has been raised because the user is already removed from the group. (30/may/2014)
10. **Action: Attach ID file to DataBase (Lotus Notes)** (new): This action attaches the given ID file to the given database profile note. (20/May/2014)
11. **Action: It's Learning Get Persons and It's Learning Get Person Info** (fix). The birth date is now correctly returned. (04/Jun/2014)
12. **Action: Compare table data** (new). Compares two tables of identical design and reports the rows that are added, deleted, or changed. (17/Jun/2014)

13. **Action: Generate table** (fix). When importing data from a non-UNICODE text file, it now correctly uses the standard configured windows system code page instead of ISO-8859-1. (23/June/2014)
14. **Action: Set variable** (enhancement). When creating a new date time value, it is possible to specify in detail the display format (text representation) of the value. (01/July/2014)
15. **Action: Update date-time variable** (enhancement). The action is extended with the option "Update the display options", to change the display format of a date-time variable. (01/July/2014)
16. **Office 365 Edit user**: An error mentioning failure to comply to password policies is no longer displayed when editing user and nothing about the password is changed (23/jun/2014)
17. **Action: PowerShell Custom Action Execute** (new). Executes a custom powershell script. (01/july/2014)
18. **Action: PowerShell Custom Remote Command Execute** (new). Executes a custom powershell command on a powershell remote session. (01/July/2014)
19. **Action: PowerShell Custom Get Table** (new). Get a variable in the powershell session as table. (01/July/2014)
20. **Action: PowerShell Custom Get Text** (new). Get a variable in the powershell session as text. (01/July/2014)
21. **Action: PowerShell Custom Remote Set Array Parameter** (new). Initialize a parameter of the next remote command with an array. (01/July/2014)
22. **Action: PowerShell Custom Remote Set Parameter** (new). Initialize a parameter of the next remote command. (01/July/2014)
23. **Action: PowerShell Custom Setup Remote Connection** (new). Setup a remote PowerShell Session. (01/July/2014)
24. **Action: PowerShell Custom Close Remote Connection** (new). Close a remote PowerShell Session. (15/July/2014)
25. **Action: @VO Add caregiver authorization** (fix). Fixes again the error "Missing expression after unary operator '-'." (11/Jul/2014)
26. **Action: It's Learning Get course members** (update). Updated the version. No other changes. (11/Jul/2014)
27. **Action: It's Learning Get hierarchy info** (update). Updated the version. No other changes. (11/Jul/2014)
28. **Action: It's Learning Get courses for person** (update). Updated the version. No other changes. (11/Jul/2014)
29. **Action: It's Learning Close Connection** (update). Updated the version. No other changes. (11/Jul/2014)
30. **Action: It's Learning Get course exists** (update). Updated the version. No other changes. (11/Jul/2014)
31. **Action: It's Learning Add member to course** (update). Added the option to set the home organization. (15/Jul/2014)
32. **Action: Generate table** (enhancement) The number of supported database data types when using a select query has been extended with the types "decimal", "numeric", "real", "float" and "uniqueIdentifier" (GUID). In UMRA these are converted to their textual representation. (15/July/2014).

33. **Action: Generate generic table** (enhancement). For the database queries , the option to automatically escape single quotes found in referenced variables used by the query string, will only replace the variables in the second and higher level of reference, if the entire query is contained in a single variable. (17/July/2014)
34. **Action: Manage Table** (enhancement). The list of operations is extended with "Sort on multiple columns". (18/July2014)
35. **Action: Format variable** (enhancement). To complement the existing actions, the list of format actions is extended with the following 6 actions "Shorten name: Remove before first matching character", "Shorten name: Remove before last matching character", "Shorten name: Remove before matching text" (case sensitive)", "Shorten name: Remove before matching text (case insensitive)", "Delete: Substring (case sensitive)", "Replace: substring (case sensitive)". (21/July/2014)
36. **Project window** (enhancement). Added an extra pane in which script comments can be entered. (24/July/2014)
37. **Action: It's Learning Add member to course** (fix). The option to set the home organization is not remembered for the next action after setting it to true once. (05/Aug/2014)

VERSION 10.17 BUILD 1683 FEBRUARY 21 2014

Fixes and enhancements

1. **Import xml projects** (fix). Importing xml projects created by older versions failed if the project contained a join table action. This has been fixed. (12/Feb/2014)
2. **Variable names enforcement** (fix). By definition variables need to start and end with a % sign. Added a fail-safe to enforce this at runtime. This prevents text fragments from being incorrectly recognized as variables in case the incorrect specification was not caught by the GUI. (12/Feb/2014)
3. S**etup package** (enhancement). The setup package, and many of its contents are now digitally signed.(18/Feb/2014)
4. **Action: Generate** generic table (fix). For LDAP queries, the test button reported an error if the binding string contained variables and the test was performed on the server. (18/Feb/2014)

VERSION 10.16 BUILD 1681 FEBRUARY 5 2014

Major changes

1. **UMRA Com** (new). A new multi-threaded version of the UMRA com object is available. It is implemented in the UMRAcomMT.dll file. See the appropriate section of the help UMRA COM MT objects for more detailed information. (07/jan/2014)
2. **Action: Generate generic table** (enhancement). For database queries, added support for SQL queries that return more than one result set. Specify a comma-separated list of output variables, one for each set (i.e. table) returned from the query. If more than one output variable is specified, UMRA will automatically switch to the new mode supporting multiple output sets. This feature can for instance be used to report the return values of stored procedures to UMRA. (2/Jan/2014)
3. **Action: List shares** (new). New action to retrieve a list of shares on a particular computer. (26/Aug/2013)

Fixes and enhancements

1. **Action: Office 365 Get user info** (new). This action will return the license info of a single user. (20/Aug/2013)
2. **Action: Office 365 Create license options** (new). Generates an license options object for the create user action. (20/Aug/2013)
3. **Action: Office 365 Create user** (enhancement). Added support for the license option field. (21/Oct/2013)
4. **@VO** (fix). Prevent caching of location data, fixes some caching issues. (20/Aug/2013)
5. **Action: @VO Get students** (enhancement). Supports the ExternExportId field in the Somtoday after upgrading to somtoday 4.0 and newer (20/Aug/2013)
6. **Action: @VO Add caregiver authorization** (fix). Fixes the error "Missing expression after unary operator '-'." (20/Aug/2013)
7. **Teletop** (fix). Changed the login method, to be able to login, after the hosting moved to it's learning. (21/Aug/2013)
8. **Avetica Moodle** (fix). All the time related fields now use the 24 hour format. (28/Aug/2013)
9. **Action: Avetica Moodle Edit homework** (fix). The Start Date/Time is correctly set.
10. **Action: Manage table** (enhancement). The list of table operations is extended with the "Copy column" operation. This will create a copy of a column within a table. (28/Aug/2013)
11. **Action: Manage table** (enhancement). The list of table operations is extended with the "Split column" operation. This will split a column in two new columns. (29/Aug/2013)
12. **Edictis** (fix): Support two ways of calling edictis and automatically detect which one should be used. (02/Sep/2013)
13. **Action: Manage table** (enhancement). The list of table operations is extended with the "Move column" operation. This will move a column within a table to a specified position. (15/Oct/2013)

14. **Action: Format column** (new). Formats all rows of a specified column of a table. This is like the "Format variable" action, but now for an entire column of a table. (18/Oct/2013)
15. **Action:Join table** (enhancement). The output can optionally be split into three tables, based on the result of the join. (12/Nov/2013)
16. **Action: Manage table** (modification). The commands "Search table" and "Sort on column index" do not report an error anymore when the input table contains no rows. (14/Nov/2013)
17. **Action: Get file/directory info** (fix). The last access time could in some circumstances be incorrectly reported as the write time. (14/Nov/2013)
18. **Action: Format variable value** (enhancement). The command "Conversion: Remove diacritical marks", now also works for the characters 0x008A, 0x008E and 0x009E (15/Nov/2013)
19. **Action: Delete user (AD)** (enhancement). New option "delete subtree" added to allow for implicit deletion of all child objects of an account. Without this option specified the deletion will fail if there are any child objects.(18/Nov/2013)
20. **Action: Generate generic table** (enhancement). For the database queries, added an option to automatically escape single quotes found in referenced variables used by the query string. (19/Nov/2013)
21. **Action: Update database** (enhancement). Added an option to automatically escape single quotes found in referenced variables. (21/nov/2013)
22. **Action: Set variable** (enhancement). Added an option to only set the variable if it does not yet exists. (22/Nov/2013)
23. **N@TSchool** (fix): When retrieving group members of a group where the membercount of users from a specific container was between 500 and 1000 only the first 501 users where retrieved. (07/sep/2013)
24. **Action: Get Terminal Services user settings** (enhancement). Added an option to ignore a particular type of error. (13/Dec/2013)
25. **Action: Generate generic table** (enhancement). For LDAP queries, the binding string is now allowed to be a multi-value variable. For each specified binding string a query is done, and results added to the output table. (16/Dec/2013)
26. **Action: Manage table** (enhancement). The list of table operations is extended with the "Count duplicate rows" and "Count duplicate rows (case sensitive)" operations. This will count the number of times a particular value occurs in a specified key column, if the values occurs at least once. Results are in a table with two columns "Key" and "Count". (17/Dec/2013)
27. **Action: Manage table** (enhancement). The operation "Remove duplicate rows" optionally produces an extra table that contains all rows that have been removed from the main table. (19/Dec/2013)
28. **Action: Delete variable** (enhancement). It is now possible to specify the name of the variable to delete dynamically by means of a reference. Use "%%namevar%%", where %namevar% is a variable that holds the name of the actual variable to delete. This is to complement the already existing support for dynamic variables in de "Set variable" and "Format variable" actions. (20/Dec/ 2013)
29. **Action: Create dynamic distribution group (Exchange2010)** (fix). The 'RecipientContainer' parameter is no longer ignored. (27/jan/2014)

30. **Action: Edit dynamic distribution group (Exchange2010)** (fix & enhancement). Fixed the 'RecipientContainer' parameter and added support for several other optional parameters. (27/jan/2014)

VERSION 10.15 BUILD 1676 JULY 5 2013

Fixes and enhancements

1. **TopDesk** (fix): The URL construction mechanism could sometimes generate an exception when particular fields where specified in some Powershell versions. This has been fixed. (24/Apr/2013)
2. **Office365** (fix): The Office365 connector will not cause a crash anymore when loading a dll in the Powershell agent after an Office365 session has been initiated. Such a situation could occur when some other Powershell-based connector was used in combination with the Office365 connector.(13/Jun/2013)
3. **Office365** (fix): The Office365 connector will pass all parameters for the first request after a session time-out has occurred. (01/Jul/2013)
4. **ITSL** (fix): Fixed the updating and retrieval of custom fields (especially the "nationalidentitynumber" in custom field 1). (01/Jul/2013)
5. **Action: It's Learning setup connection** (enhancement): Added the possibility to change the connection URL. (03/Jul/2013)

VERSION 10.14 BUILD 1673 APRIL 2 2013

General fixes and enhancements

1. **Action: Send html mail message** (fix): Changed the underlying charset from bare ASCII to Windows-1252. The new charset supports a larger selection of special characters especially in the subject line because the subject itself is plain text. (19/Mar/2013)
2. **Action: Edit Mailbox (Exchange2010)** (enhancement): Added support for specifying a Managed Folder Mailbox policy. (28/Mar/2013)
3. **Action: Edit DistributionGroup (Exchange2010)** (enhancement): Added support for multi-valued "ManagedBy" parameter. (28/Mar/2013)
4. **Exchange 2010 Dynamic DistributionGroup actions** (new): Added 4 new actions to support management of dynamic distribution groups in exchange 2010 (and 2013). (28/Mar/2013)

Exchange2013 compatibility enhancements

To support Exchange 2013, the Exchange 2010 actions have been verified on compatibility with both exchange server 2010 and exchange server 2013 environments, and modified where required.

1. **Action: List mail public folders (Exchange2010)** (enhancement): There are now different output tables (different columns) for exchange 2010 environments and Exchange 2013 environments. (25/Feb/2013)
2. **Action: List public folders (Exchange2010)** (enhancement): Uses separate output tables for exchange 2010 and exchange 2013 environments. (25/Feb/2013)
3. **Action: List MaiboxExportRequests (Exchange2010)** (enhancement): Uses separate output tables for exchange 2010 and exchange 2013 environments.(25/Feb/2013)
4. **Action: List Public folder permissions (Exchange2010)** (enhancement): Uses separate output tables for exchange 2010 and exchange 2013 environments. Also, collecting administrative rights is made optional as this is not supported by exchange 2013. (25/Feb/2013)
5. **Action: Manage Public folder Client permission (Exchange2010)** (enhancement): No error is generated when trying to remove all existing permissions of a user, when that user has no explicit permissions. (11/Mar/2013)

BETA VERSION 10.13 BUILD 1671 FEBRUARY 12 2013

1. **Google** (fix): The contacts and advanced user data is now retrieved by means of the https connection as introduced by Google. (12/Feb/2013)

BETA VERSION 10.12 BUILD 1670 FEBRUARY 6 2013

Fixes and enhancements

1. **ITSL** (enhancement): Extended the handling of errors in ITSL when it is under heavy load. Also fixed a bug for the second address line. (17/Oct/2012)
2. **Action: AFAS Update object** (added): A new action to specify the fields of an object to update. (17/Oct/2012)
3. **AFAS** (fix): The correct get_employee AFAS module is now shipped. (17/Oct/2012)
4. **AFAS Connector: UMRA_Employees_Employers.gcn.** (removed) This file is removed.(26/Nov/2012)
5. **AFAS Connector: 1.1 OLD_AFAS UMRA_Employees_Employers.gcn.** (added) This file is the old Employees_Employers.gcn file with an updated costcenter field. Because of version limitations in AFAS the costcenter description and costcenter contain the same information. The costcenter field has changed from 'Actuele gegevens per dienstverband' to 'Actuele gegevens per formatieverdeling'. The connector must be re-imported to reflect the changes. (Make sure the file is not read-only when importing) (26/Nov/2012)
6. **AFAS Connector: 1.1 NEW_AFAS UMRA_Employees_Employers.gcn.** (added) This file is the old Employees_Employers.gcn file with an updated costcenter field. This connector works only in newer AFAS versions. The costcenter field has changed from 'Actuele gegevens per dienstverband' to 'Actuele gegevens per formatieverdeling'. The connector must be re-imported to reflect the changes. (Make sure the file is not read-only when importing) (26/Nov/2012)
7. **Action: Lotus Notes Store ID file to Vault** (added): Use this new action to upload an ID file to the lotus notes Vault. (30/Jan/2013)
8. **SAP** (enhancement): Better support for Date in the generic action. (22/Jan/2013)

VERSION 10.11 BUILD 1668 OCTOBER 3 2012

Fixes and enhancements

1. **Aura** (enhancement): Added support for the extra hash for aura online (01/aug/2012)
2. **Office365** (fix): The office365 connector will now correctly support multiple connections to the same or different environments at the same time. However, to make this support the connection is not automatic released. Therefor an extra action has introduced which must be called before releasing the Powershell Agent session. (30/aug/2012)
3. **Action: @VO Get employees courses/classes** (fixed) A bug was introduced in 1667 which caused this action to return 0 records. This bug is fixed. (27/aug/2012)
4. **Action: @VO Get students** (enhancement): Added support for 7 extra fields including access card number and e-mail address (THIS MEANS THE RESULTING TABLE HAS MORE FIELDS, SO ANY FOR-EACH ACTIONS NEED TO BE MODIFIED). (30/aug/2012)
5. **Action: @VO Get employees** (enhancement): Added support for 4 extra fields including access card number (THIS MEANS THE RESULTING TABLE HAS MORE FIELDS, SO ANY FOR-EACH ACTIONS NEED TO BE MODIFIED). (17/sep/2012)
6. **Action: @VO Get caregivers** (enhancement): Added support for 2 extra fields for caregivers and 3 extra fields for caregiver relations, including e-mail address. (THIS MEANS THE RESULTING TABLE HAS MORE FIELDS, SO ANY FOR-EACH ACTIONS NEED TO BE MODIFIED). (20/sep/2012)
7. **Action: @VO Add caregiver authorization** (enhancement): Added separation of e-mail and username field, also added the OpenID field. (30/aug/2012)
8. **Action: @VO Add student authorization** (enhancement): Added separation of e-mail and username field, also added the OpenID field. (30/aug/2012)
9. **Action: @VO Add employee authorization** (enhancement): Added he OpenID field. (30/aug/2012)
10. **Action: @VO Get caregiver custom fields** (added): This action can be used to retrieve the custom fields of caregivers. (17/sep/2012)
11. **Action: Office 365 Release connection** (added): Use this action ALWAYS when a connection to office365 is created (even if that action was not successful). The usage of this action will prevent memory and file leakage. (30/aug/2012)
12. **Action: Edit Mailbox (Exchange2010)** (enhancement): Added support for the parameters "Archive Database", "Archive Domain", "Archive Name", and "Archive warning quota". (23/sept/2012)
13. **Action: Edit Maiilbox (exchange2010)** (enhancement): Added support for the "WindowsLiveID" parameter. (01/oct/2012)

VERSION 10.10 BUILD 1667 JUNE 25 2012

Fixes and enhancements

1. **Atvo3 (SOM)** (enhancement): Added support for 3 new lightweight calls to retrieve only specified data instead of one big call to retrieve all data. (14/Jun/2012)
2. **UMRA COM** (fix). A new UMRA session was created only when creating a new instance of the com object. Now a new session is created for each separate connection. (14/Jun/2012)
Dynamic actions (fix) smart quotes in input parameters are now treated like normal quotes and escaped. (25/June/2012)
3. **Import project** (fix). Older Projects (from version 10.7 and before) containing the action "Load Ldap modification data" failed to import from xml. This has been fixed. It will however still log an error message about a missing 'LogStructureFlag', but that should be ignored.(25/June/2012)

VERSION 10.9 BUILD 1664 MAY 18 2012

Major changes

1. **Action: Get Active Directory permission (Exchange 2010)** (new). Added support for the "Get-ADPermissions" cmdlet in Exchange (1661, 25/April/2012)
2. **Action: Manage Active Directory Permissions (Exchange2010)** (new). Allows to set/remove access rights on AD objects in the exchange environment. Mainly Used to Implement the "Send as" rights on a mailbox, as this is not supported by the mailbox permissions actions.(1661, 26/April/2012)
3. **Action: Manage Recipient Permissions(Exchange2010)** (new). Allows to set/remove "SendAs" rights in a hosted exchange configuration (1661, 27/April/2012)
4. **PSM**: (enhancement). The Password Synchronization Manager software plug-in on the DC can now optionally automatically switch between two or more UMRA services in case of connection failures. In such a configuration, when the primary UMRA service is taken offline, synchronization notifications are automatically rerouted to an alternative UMRA service so no notifications are missed.

Fixes and enhancements

1. **Action: It's Learning Get person info** (enhancement). Added support to read the "Children" of a user. (1660, 02/Apr./2012)
2. **Action: It's Learning Add child to parent** (enhancement). Added. (1660, 02/Apr./2012)
3. **Action: It's Learning Create Person** (enhancement). Added support to create a parent. (1660, 02/Apr./2012)
4. **Action: It's Learning Get persons** (enhancement). Added a column Children, containing the children of the user. (1660, 02/Apr./2012)
5. **Atvo3 (SOM)** (enhancement): Added support for gzip compression. (02/Apr./2012)
6. **Action: SAP Set user detail** (new)**:** The parameter name is now always converted to uppercase. (1660, 02/April/2012)
7. **Action: Exchange2010 Create** (enable) mailbox. (fix) Parameter "ManagedFolderMailboxPolicyAllowed" is now only passed on when set to "true" (1660,10/April/2012)
8. **Action: Afas get employees** (fix): The parameter Active Reference Date works now as expected. (02/Apr./2012)
9. **Action: Create user and mailbox** (Exchange 2010) (enhancement). Added support for AddressListPolicy . (1661, 16 April 2012)
10. **Action: Edit Mailbox (Exchange2010)** (enhancement). Added support for AddressListPolicy. (1661,/16/April 2012)
11. **Action: Format variable value (enhancement)**: The function "Remove diacritical marks" will now also convert Unicode characters 0x1E60, 0x1E62, 0x1E64, 0x1E660, 0x1E68 to 'S' and 0x1E61, 0x1E63 0x1E65, 0x1E67,0x1E67, to 's' . (1661, 28/April/2012
12. **Action: Create user (AD)** (fix). Extended the support for creating accounts in Organizational Units, in case the name of the OU contains characters that are illegal

in a LDAP string. When the Organizational Unit is specified as a separate property, illegal characters are now automatically escaped correctly. Also implemented in the "Get user (AD)", "Create contact (AD), and "Create object (AD)" actions. (1661, 01/may/2012)

13. **Action: Generate Generic table** (fix). Fixed a small memory leak when using database queries. (1661, 02/may/2012)

14. **Action: Manage table data - Remove Duplicate rows (case insensitive)** (new): A new action option is added to support case insensitive compare when removing duplicate rows (1661, 02/may/2012).

VERSION 10.8 BUILD 1659 (BETA) FEBRUARY 14 2012

Fixes and enhancements

1. **UMRA COM** (fix/enhancement). When the IUmra method "ExecuteProjectScript". is called, it sends its list of client-side variables to the UMRA service, as part of the initialization of the script to be executed. After execution the modified list as generated by the project is returned to the client. Any next call to ExecuteProjectScript will use this modified list for initialization. When the data size of this list in the client exceeded the limit of 5MB, the call would fail, and result in an critical error. This limit has been lifted.

VERSION 10.8 BUILD 1658, DECEMBER 23 2011

Major changes

1. **Office 365 Connector** (new): The Office 365 environment is supported with a set of dedicated UMRA actions (1654, 06/December/2011)

Fixes and enhancements

1. **Action: New MoveRequest (Exchange 2010)** (enhancement). Added support for the "AcceptLargeDataLoss" parameter.(1656, 12/Dec./2011)
2. **Action: Edit Mailbox (Exchange 2010)** (enhancement). Added support for the "RoleAssignmentPolicy" parameter.(1656, 12/dec/2011)
3. **Action: List MoveRequests (Exchange 2010)** (fix). The 'RequestStyle' property is now returned in the table instead of the obsolete 'MoveType' property.(1656, 12/dec/2011)
4. **Action: Load Ldap modification data** (enhancement). The resulting LDAP structure is no longer unconditionally logged in the Umra log files. This logging is now optional, and is off by default (1654,30/nov/2011).
5. **RPC Communication Layer** (Fix): Fixed an issue in the use of the memory manager for the RPC layer, as for example used by the UMRA Com object. This could cause the calling application to crash if a UMRA com method "execute project" was executed concurrently with another RPC using the same memory manager .This has been fixed. It most notably solves an issue for the SSRPM service when executing UMRA projects on password resets. (1656, 12/dec/2011).
6. **Action: Copy directory** (fix): When the input for this action is invalid such that the specified destination directory itself is within the source scope, an endless recursion can occur. Basic validity checks to prevent this have been added. (1650,12/October/2011)
7. **Action: Send HTML mail message** (fix): 5nicode Characters in the mail body text that are not in the standard ASCII set, are now encoded as e.g. ´. This ensures that the mail client program can display them properly. (1650,10/October/2011)
8. **Action: Google Get users (advanced)** (fix): When retrieving the users, the column names from column 8 are incorrect. The name of column 9 was overwritten with the name of number 10. Number 10 with the name of 11 etc. Therefor only 63 column names where shown. The contents of the table where correct. Now the column names are correct. If a join is used on column name of one of the columns above number 8 make sure the join is working as intented. (1650,5/October/2011)
9. **Action: Manage table** (fix): When creating a new table, or adding a new column, now each column will automatically get a default column name. This is because some other operations may depend in specific circumstances on the availability of a column name. (1650,4/October/2011)
10. **Action: Format variable value** (enhancement): The function "Remove diacritical marks" will now also convert Unicode characters 0x1E20 en 0x1E21 to 'G' and 'g' respectively. (1650,28/September/2011)

11. **Service Installation** (Enhancement): Increased minimum delay threshold in any query for the servicesatatus. This should prevent initial connection issues after upgrade of UMRA service (1650, 29/September/2011)
12. **RPC Communication Layer** (Enhancement): Communication between different UMRA components has been modified to support ip6 networks.(1649,28/September/2011)
13. **Action: Convert to multi value variable** (fix): Some of the memory resources used in this action where not correctly released. This could cause a growth of the memory used by the Umra service when this action was used frequently. This has been fixed. (1648,22/September/2011)
14. **TeleTOP** (enhancement): Added a option to set the maximum number of worker threads.(1648,22/September/2011)
15. **N@TSchool** (fix): Groups can now successfully be retrieved recursively.(1648,22/September/2011)
16. **IT's Learning** (enhancement): An update to the IT's Learning Software has enabled us to implement significant performance enhancements.(1648,22/September/2011)
17. **IT's Learning** (fix): Solved a memory leak in the connector.(1648,22/September/2011)
18. **Action: SAP Generic function modules** (fix): : Fixed the output of single numeric and date fields and added support for single string fields.(1648,22/September/2011)

VERSION 10.7, BUILD 1643, JUNE 30 2011

Major changes

1. **Exchange 2010** (Enhancement). Added several actions in order to support the export of mailboxes to .pst files. (requires Exchange SP1) (1647,23/June/2011)
2. **Exchange 2010** (Enhancement). Extended the "Create user and mailbox" action to support the creation of linked mailboxes. (1647,23/June/2011)
3. **Exchange 2010**(Enhancement). Extended the "create user and mailbox" action to support the creation of room an equipment mailboxes. (1647,23/June/2011)

Fixes and enhancements

1. **PowerShell: Dynamic actions** (fix): When the powershell script building from the xml specification generates an exception in the UMRA service, further processing of the action is cancelled to prevent potential critical errors in the Umra service engine. (1640, 20/December/2010)
2. **Action: Get variable length** (new): New action added that calculates the number of characters in a text variable. (1640,27/December/2010)
3. **Action: Create user (AD)** (fix): When setting the "User cannot change password" flag in this action, there was an error that could lead to a crash when specific inheritable rights where pre-existing on the organizational unit in which the user was to be created. This has been fixed. The fix applies also to all other actions that set this flag. (1640,28/December/2010)
4. **Action: Set variable** (enhancement): The option "resolve variable names in value immediately." is now also implemented for text-list variables. (1641,29/December/2010)
5. **Action: Send Mail Message** (fix): The Send Mail Message action would truncate the mail message send if there where any genuine UNICODE characters in the text (character codes higher than 255). This is fixed. Note that the resulting text message is encoded with code page 1252. (1641,30/December/2010)
6. **General** (fix): General issue with string conversion to and from Unicode has been fixed, that could cause truncation of strings with non-standard characters. (1641, 30/January/2011)
7. **UMRA console** (fix): When opening multiple projects at once, all projects that are not already open in another workspace, will now open in the originally active workspace. Previously the default target workspace could change if a project was encountered that was already open in another workspace. (1641,30/march/2011)
8. **Action: Format variable** (enhancement). The variable to be formatted can be specified indirectly e.g. "%%name%%" where the variable %name% contains the name of the actual variable to be formatted, (1641,31/march/2011)
9. **Action: If then Else** (fix): The evaluation of the equations of the types like "older than # days" would cause an exception for the date 1/1/1601 (aka 'never') when used in countries with negative time zones. This is fixed. (1641, 5/April/2011)
10. **Action: If then Else** (enhancement): The evaluation of the type "older than # days" would not differentiate between dates before 1 Jan 1970. Now it differentiates between dates from 2.jan 1601 upwards. (1641, 5/April/2011)

11. **Action: Setup LDAP session** (fix): The "on error" handler was not always called if an error occurred. This has been fixed. (1641, 5/April/2011)
12. **Action: Google Apps connector** (fix): The "change password at next logon" option, that can be specified when creating or editing Google users, was not effective. This has been fixed (1641, 8/April/2011)
13. **Action: Lotus Notes Set item(s)** (fix): Setting an item of type "textlist" to an empty list could cause an critical exception. This has been fixed (1641, 13/April/2011)
14. **Action: Lotus Notes Set Item(s)** (fix): Items of type "textlist" where not completely stored when exporting the project to an xml file, resulting in an empty list upon import. This has been fixed. (1641, 13/April/2011)
15. **Action: Manage multi-text value variable** (fix): The option "sort values in descending order" would clear the values. This has been fixed. (14/April/2011)
16. **Action: List files and/or directories** (change): In more circumstances the data collection will continue after an error has been encountered. (18/april2011)
17. **Action: SAP Generic function modules** (new): (new): A new action is added to support multiple custom RFC/BAPI function modules to be executed within the same SAP server session. (1641, 18/April/2011)
18. **Action: Manage Table Data** (fix): When Using de Table Data Operation "Complete rows", the resulting column count is now updated to reflect the size of the largest row. (1641,22/April/2011)
19. **Action: Edit user (no AD)** (fix): The account expiration date can now successfully be specified by means of a variable. (1641,22/April/2011)
20. **Action: Create user (no AD)** (fix): The account expiration date can now successfully be specified by means of a variable. (1641,22/April/2011)
21. **UMRA COM** (fix): When the IUmra method "ExecuteProjectScript". was called without a prior successful call to the method "Connect", this could cause an exception. This has been fixed. (1642,06/may/2011)
22. **UMRA COM** (Enhancement): The UMRA com object has been extended with two methods in order to allow access to individual records of the resulting log of the ExecuteProjectScript method. (1642 10/may/2011)
23. **Action:UMRA COM** (Enhancement): The UMRA com object has been extended with a method "GetVariableInfo". to retrieve information of the type of data contained in a variable. Main purpose is to be able to determine whether or not the variable contains a table. (1643, 19/May/2011)

VERSION 10.6, BUILD 1640, DECEMBER 17 2010

Major changes

1. **AFAS Profit connector** (new): The HR-system AFAS is supported with a set of dedicated UMRA actions. (1638, 3/December/2010)

Fixes and enhancements

1. **Google** (fix): For all Google script actions, when an action returns result data as a table, and the action succeeds but the result set is empty, a table with 0 rows is generated. Previously no output was generated at all for the table variable when the result set was empty. Now table formatting functions will therefore work correctly on the result variable also if the result set is empty.(1635, 03/November/2010)
2. **Google** (fix): Extended the log information in case Google returns errors as text/plain instead of HTML or XML. (1637, 18/November/2010)
3. **Google** (fix):The UMRA service will stop all Google related activity when it receives a stop command (1637, 22/November/2010)
4. **Action: Google get group info** (fix): Fixed a crash when this action was used on a closed connection. (1637, 18/November/2010)
5. **Google get user info (advanced)** (fix): Fixed a rare situation causing a table row mismatch resulting in a empty table. (1637, 18/November/2010)
6. **Google get user info (advanced)** (fix): Advanced user information is now returned correctly (especially birth date and organizations). (1637,18/November/2010)
7. **Action: Google rename user** (fix): Fixed some problems when renaming and using the cache. (1635, 05/November/2010)
8. **Action:Google add nickname** (fix): Fixed the problem of adding a nickname to a user when the user name was not specified in lower case. (1635,05/November/2010)
9. **PSM: Installation** (fix): When the installation of the PSM notification package had been initiated from a UMRA console running on a Windows XP 32 bit OS, the PSM dll would fail to load on 64 bit domain controllers. This has been fixed. (1637, 05/November/2010)
10. **Action: Create User (AD)** (fix): If the action failed because of rejection of the password by windows, the error was logged, but the action returned a success code. Now it correctly raises an error.(1736, 23/November/2010)
11. **Action: Create user and mailbox(exchange 2007)** (fix): The specified "display name" property is no longer ignored by the action. (1637, 23/November/2010)
12. **License Check** (fix): The license check failed for licenses issued to an Organizational Unit that had special characters in its name (like "+students").This is fixed (1637,26 nov 2010)
13. **Action: Update Group Memberships (AD)** (fix): If the user to change was located in an Organizational Unit with a forward slash ('/') in the name, the action failed. This is fixed. (1637, 26 November 2010)

14. **Action: Format variable value** (enhancement): The restriction on the maximum supported variable size has been relaxed by a factor 1000. It will now only log a warning, except for extreme cases. (1637,30 November 2010)

15. **UMRA Forms table** (adjustment): When specifying the column layout of a forms table at design time, the column widths are not anymore automatically re sized to a total of 100% of the form width; instead, if the total width exceeds 100%, a horizontal scroll bar is shown in the resulting form. (1637,1 December 2010)

16. **UMRA Forms table** (adjustment): When specifying the column layout of a forms table, double clicking on an already configured column does not anymore remove the column from the list. (1638, 1 Dec. 2010)

17. **Action: Set attribute (AD)** (fix): When de AD object variable to modify was specified, but contained no valid object, an error was logged and the action was not executed, but the "on error" actions where not performed. Now they are. (1638, 2 Dec. 2010)

18. **Action: Send HTML mail message** (fix): Mail messages with text or .csv attachments did not display properly in some specific e-mail clients. This has been fixed.(1637, 05/November/2010)

19. **Action: Send HTML mail message** (fix): Sending an e-mail message could create and leave a temporary file a root directory of the computer. Now it does not.(1637, 05/November/2010)

VERSION 10.5, BUILD 1630, AUGUST 20 2010

Fixes and enhancements

1. **Action: Send HTML mail message** (new): A new action to send HTML E-mail message that can also contain one or more attachments. See Script Action: Send HTML mail message for more information. (1626,10/August/2010)
2. **Action: SAP Generic function module** (new): A new action is added to support any RFC/BAPI function module. See SAP - SAP Generic function module for more information. (1625, 9/August/2010)
3. **Action: Setup Exchange Session (Exchange 2010).** (fix) Modified optional prerequisite test to better reflect the current prerequisites. (1625, 27/July/2010)
4. **Action: Edit Distribution Group (Exchange 2010)** (fix) The "Room List" switch is now not specified at all (instead as false) when not explicitly set, to prevent errors in outlook live, that does not support this parameter. (1625,27/July/2010)
5. **Action: Add Distribution Group member (Exchange 2010)** (new): A new action is added to add an Exchange 2010 distribution group member to an existing distribution list. See Introduction to Exchange 2010 for generic information on using Exchange 2010 UMRA actions. (1625, 27/July/2010)
6. **Action: List Distribution Group members (Exchange 2010)** (new): A new action is added to list the members of an Exchange 2010 distribution list. (1625, 27/July/2010)
7. **Action: Remove Distribution Group member (Exchange 2010)** (new): A new action is added to remove a member from an Exchange 2010 distribution list .(1625, 27/July/2010)
8. **Action: Sap get users** (fix): When the search pattern is was used, it was ignored by the action. This issue is fixed (1623, 16/June/2010)
9. **Action: List mailboxes (Exchange 2010) (enhancement)**: Added MailboxPlan column to advanced table. so it can be listed if it is supported in the used Exchange 2010 environment, for instance in Outlook Live. (1623,17/June/2010)
10. **Action: Create user and Mailbox (Exchange 2010)** (enhancement): Added optional MailboxPlan specification for Outlook Live support (1623,17/june/2010)
11. **Action: Edit Mailbox (Exchange 2010)** (enhancement): Added option MailboxPlan specification for Outlook Live support. (1623,17/june/2010)
12. **Action: List mailboxes (Exchange 2010)** (enhancement): Added optional RecipientTypeDetails filter parameter. (1623,17/june/2010)
13. **Action: List Users (Exchange 2010)** (enhancement) Added optional RecipientTypeDetails filter parameter. (1623,17/june/2010)
14. **Action: List Contacts (Exchange 2010)** (enhancement) Added "Error when not found" option flag. (1623,17/june/2010)
15. **Action: Sap Set user detail** (fix): When the detail value is table with multiple rows, not only the last row is send to SAP multiple times, but all different rows are send to SAP. (1623,07/July/2010)
16. **Action: Manage mailbox e-mail addresses (Exchange2007)** (fix): The Remove address option worked incorrectly (1623, 15/july/2010)
17. **Action: Create Mail User (Exchange2010)** (fix): Removed the mandatory tag from some action properties to allow use for Outlook Live. (1627,13/august/2010)

18. **Action: Create Mail Contact (Exchange2010)** (fix): Removed the mandatory tag from some action properties to allow use for Outlook Live. (1627,13/august/2010)
19. **Action: Sap Remove user detail** (fix): Sometimes the detail was not cleared in rare conditions, this is fixed. (1626,12/August/2010)

VERSION 10.4, BUILD 1623, MAY 28 2010

Major changes

1. **SAP** (enhanced): The support of SAP systems is enhanced. See UMRA SAP module for more information. (1613, 15/!pril/2010)
2. **Exchange 2010** (new): Official support for Exchange 2010 has been added. Over 50 dedicated actions to support various exchange 2010 features to manage mailboxes, distribution lists, public folders and more (1619, 18/may/2010)
3. **@VO 3 connector** (new): The hosted student information system @VO is supported with a set of dedicated UMRA actions (1615, 22/!pril/2010)
4. **Avetica Moodle connector** (new): The hosted student information system Moodle is supported, when hosted by Avetica, with a set of dedicated UMRA actions (1615, 22/!pril/2010)
5. **Edictis connector** (new): The web services of Edidictis are supported with a set of dedicated UMRA actions (1615, 22/!pril/2010)
6. **Google Apps connector** (new): The action Google Rename user is added to the Google Apps connector (1615, 28/!pril/2010)

Fixes and enhancements

1. **Action: Set variable** (enhancement): The name of the variable to create now may contain names of earlier defined variables. This allows for the names of the variable to be dynamic. For instance %%NewVarName%%. or %Administrator of %CurDomain%%. T4E_ID 680 (1601, November 27, 2009)
2. **Action: Manage Table data** (enhancement): Table data operation "Get the number of table rows",now sets the found row count to 0 even if the specified table does not exists. Previously the row count variable was not generated at all in that situation. This could cause issues if the script did not explicitly check for errors. t4E_ID 777 (1601, November 26, 2009)
3. **Action: Delete Directory** (fix): When specifying a date-time value as a condition criteria, the value is updated when the interface dialogs are re-opened. The difference in time corresponds with the difference between local and GMT time zone settings. The issue is fixed (1615, 22/!pril/2010)
4. **Action: If-Then-Else** (fix): When specifying a date-time value as a condition criteria, the value is updated when the interface dialogs are re-opened. The difference in time corresponds with the difference between local and GMT time zone settings. The issue is fixed (1615, 22/!pril/2010))
5. **Update database** (enhancement): An option is added to prevent to contents of database statement being shown in the log files. This is useful if the statements

contain sensitive information, for instance a password. See Script Action: Update database - SQL Statements for more information. (1615, 28/!pril/2010)

6. **Execute command line** (enhancement): A property is added to prevent the command line being shown in log file. This is useful is the command line contains sensitive information, for instance a password (1615, 28/!pril/2010)

7. **Action: Format variable value** (fix): An option is added to prevent the input and output text values from being shown in the log files (1615, 28/!pril/2010)

8. **UMRA Forms** (fix): When a UMRA Forms project used an initial project and the initial project accessed the UMRA Powershell Agent service, memory errors could cause the UMRA Service not to respond correctly. This issue is fixed (1613, 19/!pril/2010)

9. **UMRA Forms** (fix): When the UMRA Forms client is started, the File, Exit menu option did not always work when the application was not connected to an UMRA Service. The issue has been resolved (1613, 19/!pril/2010)

10. **UMRA Forms** (fix): When an UMRA Forms table was configured with multiple selection disabled and the index of the selected item was stored in a variable, the index could be incorrect if the end-user resorted the UMRA Forms table. The issue has been resolved (1614, 27/!pril/2010)

11. **UMRA Forms** (fix): When a generic table, generated in a previously executed project, is sorted before it is shown in the UMRA Forms client, the indices of selected items could be incorrect. This issue has been resolved (1615, 28/!pril/2010)

12. **NTFS file system** (fix): When specifying the file and directory security settings an error can occur when specifying a deny permission entry. UMRA will deny the permissions as specified, but also the so called synchronize permission is denied. The issue has been resolved (1614, 20/!pril/2010)

13. **UMRA Automation** (fix): When scheduled projects run for over 24 hours, the UMRA Session could expire in previous versions. This might cause problems when UMRA Session variables are used. The problem has been resolved (1615, 22/!pril/2010)

14. **UMRA COM** (enhancement): The UMRA COM object is extended with method HideVariable to prevent the contents of the variable data from being shown in log files. (1619, 3/May/2010)

15. **Generic table** (fix): The octet string data type, used in Active Directory to represent for instance SID and GUID values is now supported in UMRA (1618, 29/!pril/2010)

16. **TeleTOP connector** (enhancement): Added support for the TeleTOP course code enhancements. Also improved connection stability in unstable network environments (1615, 22/!pril/2010))

17. **Google Apps connector** (fix): Fixed the retrieval of user memberships information when the cache is overridden (1615, 22/!pril/2010)

18. **Google Apps connector** (enhancement):Added support for renaming users (1615, 22/!pril/2010)

19. **It's Learning connector** (enhancement): Improved the performance and overall connection stability of the connector (1615, 22/!pril/2010)

VERSION 10.3 BUILD 1601, NOVEMBER 19 2009

Major changes

1. **TOPdesk connector** (new): The help desk information system TOPdesk (TOPdesk, http://www.) is supported with a set of dedicated UMRA actions (1587, 26/August/2009)
2. **Google Apps connector** (new): The information system Google Apps is supported with a set of dedicated UMRA actions (1587, 26/August/2009)
3. **TeleTOP connector** (new): The student information system TeleTOP is supported with a set of dedicated UMRA actions (1587, 26/August/2009)
4. **N@tSchool connector** (new): The student information system N@tSchool is supported with a set of dedicated UMRA actions (1575, 10/June/2009)
5. **It's Learning connector** (new): The student information system It's Learning is supported with a set of dedicated UMRA actions (1599, 4/November/2009)
6. **Aura connector** (new): The school library system Aura is supported with a set of dedicated UMRA actions (1575, 10/June/2009)
7. **Execute command line at UMRA Forms client** (new): When an UMRA form is submitted, as a response, a command line can be executed by the UMRA Forms client computer. See Form action - Execute command line at client workstation for more information (1560, 2/!pril/2009).
8. **Get Out-Of-Office info (Exchange 2007)** (new): The action collects the Out-Of-Office information of a particular account. See Script Action: Get Out-Of-Office info (Exchange 2007) for more information (1572, 2/June/2009)
9. **Set Out-Of-Office info (Exchange 2007)** (new): The action sets the Out-Of-Office information of a particular account. See Script Action: Set Out-Of-Office info (Exchange 2007) for more information (1572, 2/June/2009).

Powershell

1. **Powershell Agent service - Session time to live** (enhancement): The time-to-live idle time of a Powershell Agent service session can be configured by setting a registry value. See Registry settings for more information. (1570, 12/May/2009).
2. **Script action: Check Powershell Agent service session** (new): The action can be used to check if an previously created Powershell Agent service action is still available and removed upon expiration. See Script Action: Check Powershell Agent service session for more information (1570, 13/May/2009).
3. **Keep-alive signalling** (enhancement): To prevent expiration of idle Powershell Agent sessions, the UMRA Forms client sends keep-alive signal to the UMRA Service. The UMRA Service forwards these signals to the Powershell Agent service, keeping the sessions initialized through the UMRA Forms client alive. In case the UMRA Forms client is open for a longer period, e.g. a day, the session information is not lost.(1570, 19/May/2009)
4. **Variable list** (enhancement): The available variables that can be used in script properties, generated from dynamic actions, is now limited to the properties section of the dynamic actions. In previous version, also variable names from the script section were copied to the variable list. Since these variable are not available

in the UMRA variable list, these variables should not be presented to the end-user. (1570, 22/May/2009)

5. **Powershell not installed** (fix): When Powershell is not installed on the machine that runs the Powershell Agent service, a correct error message is shown when executing the action Setup Powershell Agent service session. In previous versions, the Powershell Agent service and the call UMRA software could crash (1571, 25/May/2009)

6. **Powershell Agent service import library** (fix): When importing the Powershell Agent service library, some incorrect error message were shown. The issue has been resolved (1571, 25/May/2009)

7. **Project execution using UMRA COM** (fix): When using UMRA COM to execute projects that access the UMRA Powershell Agent service, a problem could occur causing projects not to terminate completely. The issue has been resolved. (1578, 17/June/2009)

8. **Powershell Agent service manual installation** (enhancement): A online help topic is added that described how to setup the Powershell Agent service manually. See Manual installation of the Powershell Agent service for more information. (1579, 30/June/2009)

Lotus notes

1. **Lotus Notes - action: Execute agent script** (new): The action creates, executes and deletes a Lotus script agent in an existing database. The action can be used for instance to automate the approval of administration process requests. See Script Action: Execute agent script and Lotus Notes example projects for more information (1558, 30/March/2009).

2. **Lotus Notes - action: Execute agent script** (enhanced): The action is extended with some new properties to better control the action. See Script Action: Execute agent script and Lotus Notes example projects for more information (1593, 28/September/2009).

3. **Lotus Notes - action: Get item size** (new): The action retrieves the size of a single specified Lotus Notes document item. See Get item size for more information. (1558, 30/March/2009).

4. **Lotus Notes - action: Set item(s)** (enhanced): The action now checks the total size of the item. If the action would exceed the Lotus Notes item size limit, the action is not executed. The action size limit is 32k bytes for summary items and 64k bytes for all other items. (1558, 30/March/2009)

5. **Lotus Notes - action: Set item(s)** (enhanced): The action now checks the total size of the item. If the action would exceed the Lotus Notes item size limit, the action is not executed. The action size limit is 32k bytes for summary items and 64k bytes for all other items. (1558, 30/March/2009)

6. **Lotus Notes - action: Update profile document** (enhanced): The action now supports different Lotus Notes type values and can also be used to delete fields and/or sign profile documents only. See Script Action: Update profile document for more information (1568, 24/!pril/2009).

7. **Lotus Notes - action: Update profile document** (enhanced): The action is further enhanced to add a profile document field that contains the date and time of the

profile document signature. See Script Action: Update profile document for more information (1569, 1/May/2009).

8. **Lotus Notes - action: Register person** (advanced)(fix): The action is extended with 2 new properties, 'Roaming - Replica servers' and 'Roaming - Create replica files in background' to support roaming profiles. See Script Action: Register person (advanced) for more information. (1585, 24/July/2009)

9. **Lotus Notes - example project 'Remove Roaming profile'** (new): An example project is added to show how to create an administration request to remove the roaming profile of a Lotus Notes user account. See Lotus Notes example projects for more information (1585, 24/July/2009).

10. **Lotus Notes - example project 'Lotus Notes ID Vault - Reset password** (new): An example project is added show how to use the Lotus Notes ID Vault to reset password of user accounts in Lotus Notes. See ID Vault and Lotus Notes example projects for more information (1593, 28/September/2009).

11. **Lotus Notes - action: Delete document'** (new): New properties are added to support another method to specify the note or document to be deleted. See Script Action: Delete document for more information (1593, 28/September/2009).

Actions

1. **Update numeric variable - Convert number to text** (format) (new): The action is extended with the option to convert a number to a text value according to a C-language 'printf' format specification. See Script Action: Update numeric variable for more information (1558, 30/March/2009).

2. **Execute command line** (enhanced): A property is added to specify the maximum output buffer size in case the output is to be stored in a variable. See Script Action: Execute Command Line for more information (1579, 26/June/2009).

Fixes and enhancements

1. **Action: Update date-time variable - subtract date-time value** (new): A new function is added to subtract a date-time value stored in a variable from another date-time value. See Script Action: Update date-time variable for more information (1566, 17/!pril/2009).

2. **Action: Set variable** (fix): For hidden variables, in log files, the value of the variable was not shown but when the action was executed, it was shown. The issue has been resolved (1577, June 12, 2009).

3. **Set attribute (AD)** (fix): The escape sequences, introduced in UMRA build 1558, are changed to [\r], [\n], [\r\n] and [\t] to allow attribute specifications containing for instance \t: \\SERVERNAME\Share\tsmith. See Script Action: Set attribute (AD) for more information. (1563, 9/!pril/2009).

4. **Add action to script - window update** (fix): When composing an UMRA script using menu option Add action to script, the script window is now updated correctly. In previous versions, the actions displayed were not always updated immediately. (1562, 7/!pril/2009)

5. **Script action: Set Terminal Services user settings** (fix): In special circumstances, UMRA could crash when the action was executed and failed with the following

error message: Cannot determine NETBIOS domain controller name of domain controller... The issue has been resolved (1562, 7/!pril/2009).

6. **Powershell Agent service** (fix): When received a stop signal, the Powershell Agent service is now stopped more gracefully (1562, 8/!pril/2009).

7. **Generic table - LDAP table column name** (fix): The name of a column of a LDAP generic table is set to the name of the attribute. This was changed in build 1558 to the display name but causes problems in existing implementations. (1565, 15/!pril/2009)

8. **Vista - Windows Server 2008 - UAC** (fix): The UMRA Console is started with elevated administrative access on the Vista and Windows Server 2008 platforms. In previous versions, this was not the case. Depending on the system configuration access denied errors could occurs for instance when the UMRA Service was installed. (1566, 17/!pril/2009)

9. **Action: Update database** (fix): When testing the statements of action Update database, the option to Run test on UMRA Service is no longer available. In previous version, the option could be selected but was not functional (1566, 17/!pril/2009).

10. **64-bit UMRA COM DLL** (fix): In UMRA 10.1, build 1577, the 64-bit UMRA Automation DLL UmraCom64.dll had an incorrect version number (1577, June 12, 2009).

11. **PSM, UMRA session** (fix): When accessing an UMRA project through UMRA PSM, the global UMRA session list is now correctly updated. In previous versions, the UMRA Service was not updated correctly. (1588, August 31, 2009).

VERSION 10.0 BUILD 1558, MARCH 27 2009

Major changes

1. **Session support of the Powershell Agent service** A Powershell Agent service session allows a more interactive usage of the Powershell runtime environment. For instance to store Powershell variables that can be used in subsequent Powershell scripts. For more information, see Powershell Agent service session. (1528, 10/November/2008)
2. **SAP support (new)** Over 30 actions are added to support SAP. The UMRA SAP actions can be used to create SAP accounts, reset passwords, add users roles and profiles and so on. See UMRA and SAP for more information. (1480, 5/September/2008)
3. **UMRA Console: Open referenced project (new)** When configuration a project with the UMRA Console application, the menu option Open referenced project opens the associated project for For-Each and Execute script actions. (1546, 29/January/2009)

Actions

1. **Get Out-Of-Office info (Exchange 2000/2003) (new)** The action collects the Out-Of-Office information of a particular account. See Script Action: Get Out-Of-Office info (Exchange 2000/2003) for more information (1539, 6/January/2009).
2. **Set Out-Of-Office info (Exchange 2000/2003) (new)** The action sets the Out-Of-Office information of a particular account. See Script Action: Set Out-Of-Office info (Exchange 2000/2003) for more information (1539, 6/January/2009).
3. **Set variable - hidden variable (enhancement)** With action Set variable it is possible to hide the value of the variable. In log files, the value is not shown. (1528, 6/November/2008)
4. **Edit share (enhancement)** The property 'Cache parameter' is added to support share caching options (1543, 28/January/2009).
5. **Set attribute (AD) (enhancement)** The action supports carriage return, line-feed insertion in the Active Directory attribute. See Script Action: Set attribute (AD) for more information. (1546, 30/January/2009).
6. **Delete multiple variables (new)** The action supports deletion of multiple variables from the project variable list with a single action. (1546, 6/February/2009)

Table management

1. **Manage table data - Get the number of table columns (new)** The new action is added. See Script Action: Manage table data for more information (1546, 5/February/2009).
2. **Manage table data - Copy row (new)** The new action is added. See Script Action: Manage table data for more information (1546, 5/February/2009).
3. **Manage table data - Copy multiple rows (new)** The new action is added. See Script Action: Manage table data for more information (1546, 5/February/2009).

4. **Manage table data - Copy table (new)** The new action is added. See Script Action: Manage table data for more information (1546, 5/February/2009).
5. **Manage table data - Remove multiple rows (new)** The new action is added. See Script Action: Manage table data for more information (1546, 5/February/2009).
6. **Manage table data - Remove a specified column (new)** The new action is added. See Script Action: Manage table data for more information (1546, 5/February/2009).
7. **Manage table data - Sort on column name (new)** The new action is added. See Script Action: Manage table data for more information (1546, 5/February/2009).
8. **Manage table data - Convert multi-value variable to table (new)** The action accepts single value variables. (1546, 11/February/2009).
9. **Manage table data - Replace column name (new)** The new action is added. See Script Action: Manage table data for more information (1546, 5/February/2009).
10. **Manage table data - Get column name (new)** The new action is added. See Script Action: Manage table data for more information (1546, 5/February/2009).
11. **Manage table data - Search table (new)** The action is extended with search features. See Script Action: Manage table data for more information (1546, 5/February/2009).

Powershell - dynamic actions

1. **Time Powershell Agent service (fix)** The time as shown in log messages generated by the Powershell Agent service is now correct (1520, 21/October/2008).
2. **Upgrade of dynamic actions (fix)** The upgrade procedure of dynamic actions is enhanced (1520, 17/October/2008)
3. **Directory of Powershell Agent service (enhancement)** It is now possible to specify the directory where the Powershell Agent service is installed (1542, 13/January/2009).
4. **Powershell Agent service - UMRA Service (fix)** When multiple (> 10) scheduled tasks access the Powershell Agent service simultaneously from within the UMRA Service, the RPC service can become to busy, causing errors and Powershell scripts not being executed. The error is now handled correctly and the RPC call is retried until it succeeds or the expiration period is passed (1506, 7/October/2008).
5. **Powershell Agent service - UMRA Service (fix)** In rare circumstances, the UMRA Service could crash when multiple scheduled tasks access the Powershell Agent service simultaneously. This is caused by some XML libraries not being thread-safe. The issue has been resolved (1506, 7/October/2008).

Umra com object

1. **New** table contents and column names using the UmraDataTable interface. See UMRA COM object reference for more information (1543, 27/January/2009).

Lotus notes

1. **Lotus Notes - Update profile document (enhancement)** The action is extended: item flags can be specified for the updated profile document and the profile document can be signed when changes are applied (1536, 12/December/2008).

2. **Lotus Notes - Copy document (new)** Copy a Lotus Notes document from one database to another Lotus Notes database. See Script Action: Copy document for more information (1536, 23/December/2008).
3. **Lotus Notes - Get quota (new)** Retrieve the quota and size of a Lotus Notes database. See Script Action: Get quota for more information.
4. **Lotus Notes - Update profile document, 'Log archiving' (new)** Online help is updated to show how the action is used to set log archiving for a Lotus Notes database (1543, 28/January/2009).

Fixes and enhancements

1. **Password Synchronization Manager (fix)** Some memory issues are resolved in the Password Synchronization Memory DLL (1480, 10/September/2008)
2. **Password Synchronization Manager (fix)** An issue is fixed for domain controllers with a name of 15 characters. In previous versions, error 111 could occur, generated by the Password Synchronization DLL, running on the domain controller. (1506, 7/October/2008)
3. **XML (fix)** The handling of special characters (white-space, carriage return, line feed, tab) in XML export and import procedures is now correct (1480, 5/September/2008).
4. **XML (fix)** For some UMRA objects, the XML export was not complete, e.g. the result file did not contain all of the UMRA object data. This could lead to incomplete backups. (1480, 5/September/2008)
5. **XML (fix)** The indentation of exported projects to XML files is now correct. (1527, 30/October/2009)
6. **XML (fix)** When importing a project from an XML-file that contains a generic table with an imported file, the separator character settings are now correct. In previous version, the comma (,) separator was always selected (1546, 5 February/2009).
7. **Recent projects (fix)** In rare circumstances, the UMRA Console application lost the list with recent projects. The issue has been resolved (1515, 16/October/2008)
8. **Logging of service projects cache parameters (enhancement)** The projects cache parameters are now logged in the UMRA Service log in startup. The log message has the following format: Service projects cache initialized with parameters 'Enabled=1', 'Delay=300' (1522, 22/October/2008)
9. **Manage service projects (fix)** When the buttons of the 'Manage service projects' are clicked in a certain order, the UMRA Console application could crash. The issue has been resolved. (1528, 7/November/2009).
10. **Thread mechanism (enhancement)** To prevent delays in large networks, specific tasks are performed in separate threads. (1543, 14/January/2009).
11. **Form security - group selection (enhancement)** When setting the accounts for form project security, available groups are now by default shown in the dialog to select User and/or Groups (1542, 12/January/2009).
12. **Importing project files with period (.) in file name (fix)** It is now possible to import a project file with multiple periods (.) in the file name. Example: form.with.period.ufp (1543, 13/January/2009).

13. **Name generation - output variable (enhancement)** The names of output variables can now be renamed when configuration name generation algorithms. (1546, 29/January/2009).

VERSION 9.2 BUILD 1486, SEPTEMBER 12, 2008

Major changes

1. **SAP support** (new): Over 30 actions are added to support SAP. The UMRA SAP actions can be used to create SAP accounts, reset passwords, add users roles and profiles and so on. See UMRA and SAP for more information. (1480, 5/September/2008)
2. **XML** (fix): For some UMRA objects, the XML export was not complete, e.g. the result file did not contain all of the UMRA object data. This could lead to incomplete backups. (1480, 5/September/2008)

Enhancements

1. **Password Synchronization Manager** (fix): Some memory issues are resolved in the Password Synchronization Memory DLL. (1480, 10/September/2008)

VERSION 9.1 BUILD 1478, AUGUST 1 2008

Major changes

1. **XML project file format** (new): UMRA supports the XML standard to import and export UMRA projects and scripts. See UMRA XML project and script files for more information (1458, 3/June/2008).
2. **Password Synchronization Manager (PSM)** (new): The new PSM module will catch every password change in a Windows Active Directory domain and start an UMRA project. The UMRA project will forward the password change to other systems and applications. Refer to the section on PSM for more information (1474, 8/July/2008).

Groups

1. **Update group memberships (AD)** (new action):The new action allows the addition, removal and synchronization of group memberships for an account. Lists can be specified for each operation. For example, when synchronizing, the user account (or other type of account) will only be a member of the specified groups when the action is completed. See [Script Action: Update group memberships (AD)] for more information (1437, 2/!pril/2008).
2. **Create group (AD)** (fix): The Common Name of a new group can now start with a #-character (1462, 12/June/2008).

Tables

1. **Manage table data, Set column name** (enhancement): The action Manage table data now supports the function to set the name of a column (1433).
2. **Manage table data, Search cells with matching contents**(enhancement): In a table, search through all rows and the specified or all columns to find tables cells with matching text contents (1441, 14/!pril/2008).
3. **Manage table data, Complete rows** (enhancement): Search through all rows of a table and add empty text values to each row so that the total number of columns is equal for all rows. If all rows already have an equal number of cells, no changes are made (1441, 14/!pril/2008).
4. **Get user (AD)** (enhancement): The action is extended with property Globally Unique Identifier (GUID). When the user object is successfully retrieved, the GUID of the user account can be stored in a variable (1458, 2/June/2008).
5. **Get users table (locked out/Disabled/Password) (AD)** (fix): When the domain Account lockout duration is specified as 0 (account is locked out until administrator unlocks it), the action functions correctly (1462, 12/June/2008).
6. **Store indices of selected rows in table variable** (new): The indices of the selected rows of UMRA form tables, can be stored in a table variable (11/June/2008, 1462).

Actions

1. **For Each** (enhanced):The dialog window to configure the For-Each action is extended with more options to configure the column variables passed to child project (1435, 21/March/2008).
2. **Execute command line** (enhanced):A property is added to allow the removal of carriage-return line-feed characters at the end of the output variable value (1438, 3/!pril/2008).
3. **Generate random number** (enhanced):For the minimum and maximum values, variable names can now be specified. (1441, 14/!pril/2008).
4. **Delete directory** (enhanced): The logic to calculate the correct directory name is improved to support directory names with multiple dots (.) in the full path (1441, 14/!pril/2008).
5. **Execute script** (enhanced): The action description as shown in the script window of an UMRA project now shows the name of the script to execute (1442, 18/!pril/2008).
6. **Get user (AD)** (fix): When an output variable is specified for the display name, and no display name is found for the user account, no UMRA error is generate. (1456, 29/May/2008).
7. **Format variable value** (new):The functions of the action 'Format variable value' can now be specified using variables. Also, when formatting functions are used in name generation algorithms, variables are supported (1437, 28/March/2008).
8. **Format variable value** (enhanced): The case conversion functions of the action now supports the special characters ä, Ä, ö, Ö, ü and Ü. (1471, 2/July/2008).
9. **Get attribute (AD)** (fix): When an attribute is not found, and property 'Convert to text flag' is set to 'No' and no errors must be generated if not found, the action now no longer generates an error (1462, 16/June/2008).
10. **Create local group** (fix): When the group cannot be created since it already exists, no error is generated if 'Error if group already exists' is set to 'No'. (1473, 9/July/2008).

Exchange

1. **Manage mailbox e-mail addresses (Exchange 2007)** (enhancement): The action now contains an additional property Domain controller to allow specific server binding and avoid replication issues (1462, 16/June/2008).
2. **Enable distribution group (Exchange 2007)** (new): A new action to mail-enable distribution groups (1462, 16/June/2008).
3. **Set client access attributes (Exchange 2007)** (new): A new action to set client access attributes including Outlook Web Access (OWA), MAP, IMAP and POP (1462, 16/June/2008).

Powershell

1. **Powershell agent service** (enhancement): The service now supports more data types used to return output tables. For example the data of file system ACL's. (1425, 11/Feb/2008).

2. **Powershell agent service** (fix): A memory issue with encrypted data has been resolved. When using encrypted script phrases, the agent service could consume little memory resources that were not released properly. Eventually (after months or years without a reboot), this might cause problems for the computer running the Powershell Agent service (1425, 18/Feb/2008).

3. **Powershell return data** (new): Simple string and data values can be returned to UMRA with a more simple method. See Single value output data for more information (1467, 26/June/2008).

4. **Powershell encrypted variable input** (new): For input text properties, the value can be encrypted. In this case, the actual contents of the property is not shown in log files, UMRA script files and so on. See Encrypted properties for more information (1467, 27/June/2008).

5. **Powershell - Active Directory permissions management** (new): New UMRA actions are added to manage Active Directory permissions: Script Action: Get AD permissions, Script Action: Add AD permission, Script Action: Remove AD permission, Script Action: Set AD permissions (advanced), Script Action: Get owner, Script Action: Set owner (1473, 8/July/2008).

6. **Powershell - Group management** (new): New UMRA actions are added to manage Active Directory groups: Script Action: Set Managed By, Script Action: Get (nested) group memberships (1473, 8/July/2008).

7. **Powershell - File system** (new): A new action is added to get disk space information: Script Action: Get disk space (1473, 8/July/2008).

8. **Powershell - Active Directory utility** (new): A new action is added to determine the role of the primary domain controller: Script Action: Get PDC (AD) (1473, 8/July/2008).

Lotus notes

1. **Lotus Notes - Generate recovery password** (new): Support new action to reset the password of an Lotus Notes ID file. See Lotus Notes action: Generate recovery password for more information (1433).

2. **Lotus Notes - Out-Of-Office** (new): Support new action to configure Out-Of-Office. See Lotus Notes action: Out-Of-Office for more information (1433).

3. **Lotus Notes - Move person (advanced)** (new) The existing action Move person cannot be used to move a person if the person is currently located in an organizational unit. To support this operation, the action Move person (advanced) is added. See [Script Action: Move person (advanced)] for more information (1438, 3/!pril/2008).

4. **Lotus Notes - Update profile document** (new). The action can be used to specify the value of a specific field of a database' profile document. See Script Action: Update profile document for more information (1473, 8/July/2008).

5. **Lotus Notes - Sign/Unsign document** (fix). In previous versions, the action could apparently execute with no error, but the resulting document (adminp request) was not accepted. The error occurred when creating administration requests for Domino version 7 servers. (For version 6.X Domino servers, the problem was not found). The issue has been resolved (1440, 9/!pril/2008).

6. **Lotus Notes - Update ACL** (fix). The ACE name that is specified as part of the Access Control Entry specification can now hold variables. In previous versions, variables were not replace at run-time by their actual values. (1142, 21/!pril/2008).

7. **Lotus Notes - UMRA Service** (fix). When using an initial project with UMRA Forms projects, the UMRA Service did not properly release the resources used for Lotus Notes databases that were initialized in the initial project. Eventually, this could prevent the UMRA Service and other applications being able to access Lotus Notes databases (1435, 19/March/2008).

8. **Lotus Notes - Create document** (enhancement). The action now exports the document or notes ID of the created document.

9. **Lotus Notes - Register person (advanced)** (enhancement). The action now supports the creation of mail file replicas using property Mail – Mail file replicas (1447, 29/!pril/2008).

10. **Lotus Notes - Set items** (fix). The order of text item values of text list items as specified with action Set items is now preserved. (1462, 12/June/2008).

11. **Lotus Notes - Example projects** (new). Several UMRA Lotus Notes example projects are added. Almost all of these project show how to setup Lotus Notes administration requests in order to manage Lotus Notes accounts and mailboxes.

Forms

1. **Variable generic table column names** (new): The names of columns in a variable generic table can be specified as variables (%NameColumnA%, %NamceColumnB%, etc) (1458, 2/June/2008).

2. **Name of client computer** (new): When a form is submitted by clicking a button, a variable, %UmraClientComputerName%, is generated. The variable holds the name of the client computer and can be used by the UMRA Service. See Built-in variables for more information (1462, 11/June/2008)

Database

1. **Database connection lost when database reset** (fix): With UMRA Forms, an error could occur when databases were reset or restarted. In these situation, the UMRA Service was not able to reconnect to the database unless the UMRA Service was restarted. The problem was caused by an incorrect update of the database connection cache maintained by the UMRA Service (1433).

2. **UMRA Console log with test query** (new): When executing a test query of a table from the UMRA Console application (Setup generic table, Run test, Test...) the query is now written to the UMRA Console log (1458, 2/June/2008).

Automation

1. **UMRA Automation 64-bit support** (new): The UMRA Automation software is now available for both 32-bit and 64-bit platforms. As a result, web-pages that are part of IIS web-site can run on 32-bit and 64-bit IIS platforms. See UMRA COM on 64-bit platforms for more information (1445, 23/!pril/2008).

2. **Name of automation project** (fix): When creating a new automation project, the new project must now have an unique name. (27/May/2008, 1455).

3. **Automation log files** (fix): The specific automation log file settings, e.g. maximum log files size and maximum number of log files per project are now preserved when the UMRA Service is restarted (1462, 12/June/2008).

General

1. **UMRA on Vista and Windows Server 2008** (fix): All UMRA applications now run on Windows Vista and Windows Server 2008 with no problems (1462, 12/June/2008).

2. **Error 20403**(fix): When transferring large amounts of data (> 1 MB) from either UMRA Forms or the UMRA Console application, an error could occur with error code 20403. This specially happened when variables storing big tables were used. (1433)

3. **Project name variable** (new): When a project is executed, the name of the project is now stored in a variable. Two variables are used for this purpose: %UmraProjectName% and %UmraProjectNameStack%. Variable %UmraProjectName% contains the name of the (deepest) project that is currently executed. %UmraProjectNameStack% contains the name of all projects: the deepest child project and all parent projects. See Built-in variables for more information (1435, 20/March/2008).

4. **New Build-in variables** (new): When a project is executed, the following new UMRA variables are generated: %CurrentSystemDate%, %TimeStamp%, %UmraFormSubmitDomain%, %UmraFormSubmitUsername%, %UmraPath%, %SystemRoot%. See Built-in variables for more information (1455, 28/May/2008).

5. **Error importing large amount of projects** (fix): An error could occur when importing large amounts (> 250) of projects in a single operation. The operation has been changed to support more projects (1433).

6. **Distinguished names with slash** (fix): The following actions – properties are updated to support distinguished names containing one or more forward slashes: action Set attribute (AD), property Active Directory object LDAP name, action Create object (AD), property LDAP Container, action Set group memberships (AD), property Active Directory name, action Create user (AD), property LDAP Container, action Remove specific group memberships (AD), properties Group name (LDAP) and Account name, action Move cross domain, properties Source object and Target container, action Create contact (AD), property LDAP Container, action Get user table (…), property LDAP path, action Create group (AD), property LDAP Container, action Move – rename (AD), property OU-Container LDAP name, action Get object (AD), property LDAP name (1438, 8/!pril/2008).

7. **Script error handling** (fix): When the error handling settings of a script action are updated, the project is now marked as dirty (e.g. needs to be saved due to changes in the project) (1458, 2/June/2008).

8. **Log variables - Display of Carriage Return Line Feed** (fix): When a variable value contains carriage-return and/or line-feed characters, the action Log variables will show these characters ([cr],[lf],[crlf]).

9. **Log variables - Scheduler tab shown** (fix): When an automation project is scheduled to run once, and the run time is passed, the project window now shows

the scheduler tab. In previous versions, the scheduler tab was only shown if the project schedule time was in the future (1462, 11/June/2008).

10. **Drop down lists, edit field** (fix): In a number of dialogs and tabbed windows, the the edit field of drop down lists now automatically scrolls in a horizontal direction when text is entered. In previous versions, the length of the entered text was limited (1462, 13/June/2008).

VERSION .0 BUILD 1425, FEBRUARY 1 2008

New features

1. **Major new area of functionality:** Support of PowerShell. The UMRA software is extended with the PowerShell Agent service. The service supports the integration of UMRA and Powershell. New actions that can use any PowerShell cmdlet can be added to UMRA in a dynamic manner to extend the functionality of UMRA. For more information, see the PowerShell Agent Service topics in the online help.
2. **Major new area of functionality:** Support of Exchange 2007. Based on the new Powershell Agent service, over 25 new actions are added to UMRA to support the management of Exchange 2007 mailboxes and other resources. For more information, see the Exchange 2007 topics in the online help.

This new functionality is licensed as a separate module. Existing users should contact Tools4ever for an upgrade of their licence keys when required.

Tools4ever BV