

IMS Product Release Summary

Product Version: 4.1

Release Date: 31 October 2019

Changes in this Release

Enhancements

40873 Removal of vulnerable website dependencies

IMS utilizes a number of third party libraries in its website. As part of our security process we have removed known vulnerable versions of these libraries wherever possible.

46950 Performance improvements for BU import

Performance has been improved when importing certain categories of business units. This is especially noticeable when a business unit contains a large number of different users.

48486 Filtering by record type in the Linked Records diagram

Two new filters have been added to the Linked Records diagram. The record types filter allows you to limit the record types that are displayed on the diagram, e.g. only display Incidents. This allows you to remove 'noise' from a visualization focused on a particular record type. This is a multi-select filter, allowing you to select multiple record types across multiple business units. There are also quick selectors to select/deselect all records types within a particular business unit. The Permissions filter allows you to filter out links to records that you don't have permission to view.

49686 Side panel for navigation

A new side panel has been introduced for product navigation. The side panel replaces the previous pull-down panel in the product header. The side panel provides numerous user experience benefits, including: clearer navigation that corresponds to the hierarchy of screens within the product, reduced number of clicks to navigate to many screens and use of a common UI pattern that users are generally familiar with.

49687 Display of Business Unit name in application header

The Business Unit name is now displayed as the primary text in the application header rather than 'Inventory'. This provides a more contextual experience for users rather than using fixed IMS terminology. In addition, when viewing an Administration screen, the current section will be reflected in the application header to provide clear context. Both act as quick links. The space taken by the product logo in the header bar has also been minimized by moving the full 'Powered by ClusterSeven' branding to the side panel.

49690 New Business Unit administration home screen

A new Business Unit administration home screen has been added which displays a list of available administration sections/screens. This provides a more consistent and intuitive navigation pattern in combination with the new navigation side panel.

49696 New global home screen

A new global home screen has been added that lists available business units for a user and allows navigation to a business unit. This screen replaces the previous Change Business Unit popup that was accessible from the pull-down navigation menu in the product header. The new screen addresses a number of user experience issues, including: having to expand entries on the popup before navigating, minimizing the number of clicks to change business unit and providing more space to display business unit information such as description and contained record types. The screen also provides a Quick Links panel for global administrators to view common screens.

49706 Enhanced Breadcrumbs

The breadcrumbs providing additional navigation options have been enhanced. They are now combined with the existing view selector, which has also been flattened to eliminate a cumbersome cascading drop-down menu for view groups and views. As a result, the views selector is now available when viewing record specific screens, enabling a quick link to navigate to a different view, in addition to returning to the Views screen. The breadcrumbs have also been moved from the content area of the application to the right-hand side of the application header, which provides more vertical space for content and a clear, consistent location for breadcrumbs.

50126 IMS - ADM Integration

Support for integration between IMS and ADM has been added. You can now link a record in IMS with a database (existing or new registration) in ADM for content management. You can define a set of attributes in IMS to be synchronized to ADM on linking and whenever a linked record is updated in IMS. You can also specify an IMS attribute to be used as a file path hint when registering a new linked database in ADM.

50180 Inactive and deleted records

Records in IMS can now be marked as Inactive. When a record is marked as Inactive, it will become read-only and no longer available for general use. Inactive records can only be viewed from the new Inactive Records screen in the Administration section. A new business unit level role 'Inactive Record Admin' controls access to this screen and the ability to return a record to Active status. Users with this role can also permanently delete an Inactive record.

50289 Scheduler logs

Scheduler activity from scheduled workflows or regular database maintenance will now be logged to the IMS text logs to aid in diagnostics. The verbosity of these logs is controlled by the LogLevel configuration variable.

50416 Content Security Policy security standard

The IMS Web Client and API now implement the Content Security Policy security standard to mitigate attack patterns such as cross-site scripting, click-jacking and code injection. Due to the standard being only partially implemented in Internet Explorer, it is not possible to enable the X-Content-Security-Policy header for Internet Explorer in IMS. ClusterSeven recommends use of a browser that does fully implement the standard, e.g. Chrome, Firefox or Edge.

50417 Website security headers

A number of website security headers have been added to the IMS API, including: X-XSS-Protection, X-Content-Type-Options and Referrer-Policy. These help mitigate cross site scripting, information leakage and MIME type sniffing attacks.

50418 Cross-site Request Forgery protection

The IMS API now uses cross-site request forgery (CSRF) tokens to validate requests that add, modify or delete data in the system. This provides protection against request forgery attacks where a user viewing a third party website or email could unwittingly allow their credentials to be used in order to submit unwanted changes to IMS.

50457 Display ADM/ESM integration configuration information

Integration configuration details (client name, environment name, API URL, web client URL, product name) are now displayed when modifying the target API URL. This makes it a lot easier to diagnose and remediate configuration issues.

50678 Custom Support Package

The Diagnostics screen now has the ability to upload a custom support package. Once uploaded, the system will execute diagnostic queries contained in a package and output a package containing compressed results. This provides the ability to execute targeted diagnostic queries for support incidents without requiring direct access to the ClusterSeven IMS database. All packages are encrypted such that only the ClusterSeven support team are able to construct them or read the returned support data. Access to the custom script export is controlled via the 'Global Run Custom Support Package' permission which is assigned to the Global BU Admin role.

50942 System environment name in email

Emails sent from an IMS instance now include the IMS configuration variables "Environment Name" and "Organisation Name" in the footer of the email. This is to facilitate understanding and troubleshooting when it's not clear which system (e.g. Test vs Prod) an email originated from.

51151 Configurable product welcome message text

The product welcome text is now configurable via the configuration setting 'Home Page Welcome Message'. This text is displayed on the global home screen and has a default welcome message. This replaces the behaviour in previous IMS versions, where identical global welcome text was displayed on the home screen

of each business unit.

51462 Re-use Task Manager in a Manual Workflow activity

You can now assign the same role as a Task Manager for more than one task in a Manual Workflow activity. This provides more flexibility when configuring workflows. Previously validation checks prevented this from being configured in a workflow.

51477 Active Directory Synchronization

You can now manage synchronization of user information between IMS and Active Directory on the User Configuration screen in the System Administration section. You can initiate an immediate synchronization or configure a schedule for periodic synchronization. This capability was previously only available via the IMS API. These features replace the PowerShell script that was provided with previous versions of IMS to initiate Active Directory synchronization.

51588 Improved security performance in website

Security performance has been improved and permission checks in the IMS website now result in less network traffic. This means that browsing within the website should be faster. The focus of these improvements has been around system, business unit and record scoped permissions.

Behaviour changes

48312 Preserve selected user on the security screen

In previous releases, when you switched to Edit mode on a Security screen, the selection would always be set to the first user in the list. This was confusing if you had already selected a different user. This has now been fixed so that the selected user is preserved when you switch from View to Edit mode.

48434 Enhanced add link to an existing record

The Add Linked Record action has been moved from the Linked Records screen to the record header. This has the benefit of making the action more prominent and always available from any record screen. For example, this could be useful if you were to find a new linked record necessary when viewing the attributes data for a record.

49695 Create Record Button moved

The Create Record button on the Business Unit home screen has been moved from the bottom of the views listing to the website header bar. This provides a consistent location for the Create Record button which is accessible across each Business Unit and also eliminates the need to scroll the home page to access the button.

50105 Message filtering in the exception log

Previously, the message filter in the exception log would look for an exact match to the text provided. This filter will now search for any exception message containing the filter text. You may still use the wildcard "*" within the text to match any text.

50714 Windows schedules for AD sync no longer work

Due to security improvements for CSRF protection, direct calls to start AD sync via the API will no longer work. If you set up Windows Schedules to do this, as per the Active Directory Integration guide, please migrate these to use the new in-product synchronization schedules from the User Configuration section of System Administration.

50860 Bulk import and Active Directory associated attributes

This change applies to any attribute calculation rule with an input parameter that is an Active Directory associated attribute (e.g. email, manager). Previously the Active Directory associated attribute value would be treated as empty when performing a bulk record import operation. This has been changed so that the value of the Active Directory associated attribute is used (provided the primary Active Directory attribute is populated and the associated attribute has a value).

51055 Removal of unique constraint on record name

The requirement for the record name field to be unique within a folder has been removed. The record ID should be used as a unique identifier for a record. A driver for this behaviour change is the addition of the inactive/deleted records capability. However, the constraint was functionally unnecessary and in many cases caused unnecessary friction when adding records.

51152 Rename of administration sections

The 'Global Administration' section has been renamed to 'System Administration'. The Business Unit level 'Administration' section has been renamed to 'Business Unit Settings'. The 'Settings' screen at both global and business unit level has been renamed to 'Options'. These changes are designed to make the product more intuitive and to distinguish between the different settings screens and scope, particularly in combination with the new side panel and other navigation enhancements.

51153 Folder administration screens relocation

The folder administration screens (structure and security) are now located under the Business Unit Settings section and no longer accessible from the non-administration section. The settings links will only be displayed if a user has permission to manage folders.

51488 Theming approach changes

Support for product theming has changed. When viewing a screen in a Business Unit context, the logo size has been reduced and the text next to the logo in the application header is now configurable via the Business Unit name. The process for customizing logo images has changed and all images now need to be inline due to security constraints. Support for changing the color of the application header has been dropped. Please see the theming guidance document for more details.

51551 Valid rule syntax change

Non-calculation rules (visibility, editability, validation) must be written as a single JavaScript expression. A simple way to check this is that you should be able to surround the rule with round brackets and it should still be valid JavaScript. Previously this restriction was weakly enforced, and some non-expressions would work too. Most commonly this included rules that ended with a semicolon. Due to recent security enhancements we can no longer allow these non-expressions, so they will need to be updated and corrected.

51672 End of support for IMS integration with ESM 9

IMS no longer supports integration with ESM 9 since ESM 9 has reached end of life.

Bug Fixes

41091 Empty space at the bottom of large grids

Previously in cases where grids contained a lot of non-paged data, there could be a large amount of empty space at the bottom of the grid, making it hard to scroll correctly and difficult to use. In addition, this blank space could cause performance issues when viewing very large grids. This would be noticeable in places such as the workflow instances tab for a record, but did not affect views since they're paged. This has now been fixed.

50198 Bulk import incorrectly creates a business unit

A bug existed in IMS 4.0 with the record bulk import capability, such that a new Business Unit could be created on import if the Parent Folder field was set to a value that was the same as an existing Business Unit name, but with an additional suffix. This has now been fixed to prevent creation of business units from bulk import.

50280 Deadlocks in AD sync

In certain cases, Active Directory synchronization could deadlock and potentially fail to execute. These deadlocks have now been fixed, so synchronization should run more consistently.

50301 Missing C++ redistributables

After moving to 64 bit processes in version 4.0, IMS now needs the Microsoft Visual C++ 2013 redistributables in order to execute rules and conditions. If these were not present then IMS would fail when performing a variety of actions and could even fail to start up at all. Fortunately these redistributables are installed as part of a lot of other software so they're already present on most machines, however we now install them explicitly in the IMS installation process.

50510 Incorrectly escaped folder names

Some special characters in folder names were previously interpreted incorrectly, and could result in visual corruption when viewing the folder tree in record edit pages. This has now been fixed.

50538 Incorrect content management sync status

Previously, the sync status for a record with content management enabled could incorrectly display a status of Sync Pending if a link or a record-level document had been added to the record (neither of which require a sync action). This has now been resolved, so that the sync status is correctly displayed under these conditions.

50542 Visibility rules for dependent attribute sets

Previously, visibility rules that targeted dependent attribute sets were not applied. This has now been fixed.

50564 Link display issue

Linking across Business Units with different record types did not correctly show the record type in the links grid on the Linked Records screen. This has now been fixed.

50967 Auditing of user roles changes

Previously, any change to user or group roles from the Business Unit Security screen (Administration Section) were attributed to the ClusterSeven System user in the audit log. This has been changed so that the audit log reflects the user who made the role changes.

51485 Scheduling a workflow to start on a Sunday

Previously it was possible to select a workflow schedule that would run on a Sunday, but it was not possible to save the schedule to the workflow definition. This has now been fixed so scheduled workflow initiation can occur on any day of the week.

51547 Audit of user configuration

Previously any changes to user configuration from the System Administration section were attributed to ClusterSeven System in the audit logs. This has now been changed so future audit logs will reflect the user who made the change.

51558 Loading screen persists after a page has loaded

While IMS data for a page is being loaded, a loading spinner is displayed across the screen which restricts access to the actual page. In some cases, especially when navigating back and forth quickly, this spinner could persist after the page is loaded and give the impression that the page was loading indefinitely. This has now been fixed.

51601 Audit of record links

Previously any changes to record links from the record edit page were attributed to ClusterSeven System in the audit logs. This has now been changed so future audit logs will reflect the user who made the change.

51614 Bulk Import warnings for hidden attributes

When bulk importing records, warnings are shown where a rule makes an attribute hidden but the import still contains data for that attribute. Previously the warning appeared for all hidden attributes whether or not they had data. This has now been fixed.

51626 Show errors when rules fail to run

Previously if a rule failed to run while editing a record then the system would choose a default value for it and in some circumstances could prevent other rules from running. Now if a rule cannot be run, an error is shown next to the rule target (or dependencies for validation rules) and no other rules will be affected by the failure.

51727 Text logging improvements

In addition to error logging in the database, the IMS website generates text-based logs to assist in diagnostics. These logs have now been moved from the IIS installation directory to the IMS installation directory, alongside the configuration wizard logs. They also now adjust their verbosity according to the LogLevel configuration variable.

51937 Wrong timezone for new workflow schedules

When an initiation schedule is added for an existing workflow definition, it will run in the application server's timezone. Previously if the schedule was added when the workflow was created it would run in the UTC timezone instead, until the first workflow definition update is saved. This would result in workflows being triggered at unexpected times. This is now fixed.

51944 ESM and IMS fail to connect after config variable changes

When you change the environment name, client name or web client URL for IMS, any integrated ESM instances should be automatically notified. Previously this wasn't happening and would result in a connection failure between the two systems. This is now fixed.

52000 Wrong audit user for attribute changes

Since IMS 4.0, the wrong user could be recorded as the author when making changes to attribute values (including changes as part of workflows). This is now fixed.

52008 International characters in view filters

Previously, you may get an empty set of results when searching for non-English text in the IMS view filters or queries. This has now been fixed so you should be able to search for text in any language.

52019 Duplicate attribute names in different groups

Attributes are identified uniquely by the combination of their name and attribute group so it is valid to create two attributes with the same name but in different groups. In IMS 4.0 some more robust validation was added around Business Unit configuration which inadvertently blocked this scenario. This is now fixed so attributes can share a name if they are in different attribute groups.