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Enterprise

HPE IDOL Server

Software Version: 11.2.0

Release Notes

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Contents

New in this Release

The following sections describe the enhancements for the components of HPE IDOL Server version 11.2.0.

Content Component

New in this Release

- You can now add a custom term weight file to Content to specify a set of term weights to use in your queries. You can use this option to ensure that all Content components in a distributed system use the same weighting information. To add a term weight file, use the new `DREMODIFYTERMWEIGHT` index action. The custom term weight file is an XML file in the same format as the output from a `TermGetInfo` action.

  When you add a custom weight file, Content uses it for all queries by default. You can use the `CustomWeight` parameter to use the default index weights for an individual action. This parameter is available for the `Query`, `Suggest`, `SuggestOnText`, `GetQueryTagValues`, `Summarize`, `TermGetBest`, and `TermGetInfo` actions. For more information, refer to the *IDOL Server Reference*.
- The `GetQueryTagValues` action now accepts `NumericType` fields in the `FieldName` and `Ranges` parameters, without setting the `AllowNonParametricFields` parameter to **`True`**. The processing of these fields is optimized by using the existing numeric index.
- The `GetQueryTagValues` action now returns empty ranges in the response when you use a `Ranges` restriction.
- Custom mapped security has been improved. The `SecurityACLCheck` configuration parameter now supports new types of comparison between a user's security token and document ACLs. For example, you can allow users to view a document only when all of the user's group memberships match groups in the ACL. This allows custom mapped security to support additional security models.
- Processing of the `DREFUZZY` operator has been made more efficient.
- The matching of wildcard expressions has been improved for expressions that contain a leading wildcard, a trailing wildcard, or both (substring matching).
- The performance of sorting on `TitleType` fields has been improved.

  Note: HPE recommends using `SortType`, `MatchType`, or `NumericType` fields to optimize sorting where possible.
- The results for `QuerySummary` have been improved. `QuerySummary` elements that are composed of long fragments are now excluded.
- Logging has been improved when using a flush lock server and a lock cannot be obtained or released.

- The SSLMethod configuration parameter now supports TLSv1.2. For example:

  ```
  [SSLOption0]
  SSLMethod=TLSV1.2
  ```

- The OpenSSL version was upgraded from 1.0.2d to 1.0.2i.

Resolved Issues

- The TermGetInfo action never returned the startpos tag when the Boolean parameter was set to True.
- A request for TermPositions in the TermGetInfo action could result in an interruption of service for very commonly occurring terms.
- The robustness of disk operations when saving and loading the stemming file have been improved.
- When ParametricNumericMapping was set to **True**, the DREREGENERATE index action failed to update the index to allow a MATCH FieldText operator for a field that was indexed with no properties and that was reconfigured in the configuration file to be ParametricType.
- If the sortfield file had zero length, the DREREGENERATE index action could not successfully regenerate sort fields.
- Index data from BitFieldType fields could be lost during a DRECOMPACT index action.
- In a DREREPLACE index action, using a DRESTATEID operator could incorrectly copy the state token to root of the drive if the ArchivePath was not configured.
- A Query that used the NOTWILD operator for FieldText could fail to match any documents when used on a ParametricType or MatchType field if the value in the operator did not match any values of the field. For example, if the COLOR field had available values red, blue, and green, the operator NOTWILD{*pink*}:COLOR did not return any documents that had a COLOR value.
- Query timeouts were sometimes not respected when IDOL was evaluating wildcards that matched a large number of terms.
- Content could highlight terms as a single match when matching terms in the text touched but did not overlap. This issue affects languages where terms are not necessarily separated by whitespace, such as Chinese and Japanese.
- The 11.1.0 Chinese sentence breaking library could cause the configuration file to be read incorrectly after a DREINITIAL.

  Note: This change requires a new Chinese sentence breaking library, which is provided in the installer package.

- The Query action with ShowReasons set to True did not return information for Wildcard matches.
- When performing a Combine operation with multiple reference fields, the query response could give a numhits value that was greater than the totalhits.
- When the configuration file contained options to include parameters or sections from an external configuration file, index actions that rewrote the configuration file (such as DRECREATEDBASE) could replace the included options with the corresponding portions of the external configuration file.

- In some cases, when a query contained invalid `FieldText`, Content could generate an error log message once per evaluated document. It now generates the error message a maximum of once per query.
- When `StopWordIndex` was configured, a query for a term that stemmed to a stop word would highlight all instances of the stop word as well.
- Expired term cache entries could be kept in memory, causing memory usage by the term cache to increase indefinitely over time.
- The server would not correctly retrieve a license from a License Server with SSL enabled.
- The `GetLicenseInfo` action did not return the correct value for the `<autn:expirydays>` tag.

Category Component

New in this Release

- The `SSLMethod` configuration parameter now supports `TLSv1.2`. For example:

```
[SSLOption0]
SSLMethod=TLSV1.2
```

- The OpenSSL version was upgraded from 1.0.2d to 1.0.2i.

Resolved Issues

- The server would not correctly retrieve a license from a License Server with SSL enabled.
- The `GetLicenseInfo` action did not return the correct value for the `<autn:expirydays>` tag.

Community Component

New in this Release

- The `SSLMethod` configuration parameter now supports `TLSv1.2`. For example:

```
[SSLOption0]
SSLMethod=TLSV1.2
```

- The OpenSSL version was upgraded from 1.0.2d to 1.0.2i.

Resolved Issues

- The server would not correctly retrieve a license from a License Server with SSL enabled.
- The `GetLicenseInfo` action did not return the correct value for the `<autn:expirydays>` tag.

Connector Framework Server

CFS includes KeyView filters and can run Eduction. For new features and resolved issues related to these components, refer to the *KeyView Release Notes* and *Eduction Release Notes*.

New in this Release

- During indexing, CFS can instruct IDOL to create databases that are specified in a `DREDBNAME` document field but do not exist. The configuration parameter `CreateDatabase` has been added, with a default value of `False`. To instruct IDOL to automatically create databases, set this parameter to `True`.
- CFS can index documents into another CFS, so that you can perform further processing on them.
- CFS supports the following Lua functions:
  - `extract_text_from_binary_file`, which extracts potential strings of text from binary files. This function does not use KeyView, it searches the file for strings which look like readable text in a specified encoding.
- Indexing into Haven OnDemand is now more efficient, because CFS no longer resends an entire batch of documents when only some of the documents fail to complete the indexing process.

  A single batch of documents can result in multiple indexing jobs in Haven OnDemand. CFS can now resend the subset of a batch that corresponds to one of these jobs. This can improve indexing performance because documents that were indexed successfully are no longer added or deleted multiple times. Also, the directory specified by the `FailedDirectory` configuration parameter will only contain documents that actually failed the indexing process.
- CFS can send documents to a Haven OnDemand combination endpoint.
- Asynchronous action queues can be stored in memory. This can increase performance but queued actions can be lost unless the server is stopped cleanly.
- The `SSLMethod` configuration parameter now supports `TLSv1.2`. For example:

  ```
  [SSLOption0]
  SSLMethod=TLSV1.2
  ```
- The OpenSSL version was upgraded from 1.0.2d to 1.0.2i.

Resolved Issues

- CFS could terminate unexpectedly when running the `HtmlExtraction` task on a document that contained a significant amount of invalid HTML.
- CFS failed to remove temporary files when the file names ended with a period (`.`).
- CFS escaped valid UTF-8 characters, so hexadecimal character codes could be present in indexed documents.

- The server would not correctly retrieve a license from a License Server with SSL enabled.
- The `GetLicenseInfo` action did not return the correct value for the `<autn:expirydays>` tag.

Controller

New in this Release

This section lists the enhancements to HPE IDOL Server version 11.2.0.

- Controller now supports all common Lua functions. In addition, you can use the Controller-specific `service:getPortNumber` and `service:addServiceStatus` functions to return the ACI port number of the current service, or to generate a status event that the Controller records.
- The `SSLMethod` configuration parameter now supports `TLSv1.2`. For example:

```
[SSLOption0]
SSLMethod=TLSV1.2
```

- The OpenSSL version was upgraded from 1.0.2d to 1.0.2i.

Resolved Issues

- The server would not correctly retrieve a license from a License Server with SSL enabled.
- The `GetLicenseInfo` action did not return the correct value for the `<autn:expirydays>` tag.

Coordinator

New in this Release

- The `SSLMethod` configuration parameter now supports `TLSv1.2`. For example:

```
[SSLOption0]
SSLMethod=TLSV1.2
```

- The OpenSSL version was upgraded from 1.0.2d to 1.0.2i.

Resolved Issues

- The server would not correctly retrieve a license from a License Server with SSL enabled.
- The `GetLicenseInfo` action did not return the correct value for the `<autn:expirydays>` tag.

Distributed Action Handler

New in this Release

- The DAH now returns the `case`, `length`, and `startposition` attributes for the `TermGetInfo` action when `Type` is set to **`None`**.
- The `SSLMethod` configuration parameter now supports `TLSv1.2`. For example:

  ```
  [SSLOption0]
  SSLMethod=TLSV1.2
  ```

- The OpenSSL version was upgraded from 1.0.2d to 1.0.2i.

Resolved Issues

- When processing a `GetQueryTagValues` action with a `FieldDependence` request, DAH returned an incorrect response, and the response fields from the child servers were not homogenous.
- The DAH could incorrectly merge `querysummary` elements that have positive cluster values with elements that have negative cluster values. Negative cluster values from child servers are now ignored during the merge.
- In abridged mode, if the Content component did not respond with all the documents requested in the `GetContent` part of the abridged query, DAH would set the `autn:numhits` tag to be higher than the number of results returned.
- In abridged mode, and when VDBs were configured, DAH did not use the correct `SecurityInfo` string when making the `GetContent` request part of the abridged query.
- A memory issue was resolved for the `EngineManagement` action when primary engines were specified.
- A memory issue was resolved for the `LanguageSettings` action.
- A memory issue was resolved for when DAH resolved VDBs.
- In some circumstances, DAH could become unresponsive when querying in parallel.
- When a child server was unavailable, DAH could exit unexpectedly while processing the `LanguageSettings` action.
- The server would not correctly retrieve a license from a License Server with SSL enabled.
- The `GetLicenseInfo` action did not return the correct value for the `<autn:expirydays>` tag.

Distributed Index Handler

New in this Release

- The `SSLMethod` configuration parameter now supports `TLSv1.2`. For example:

  ```
  [SSLOption0]
  SSLMethod=TLSV1.2
  ```

- The OpenSSL version was upgraded from 1.0.2d to 1.0.2i.

Resolved Issues

- The server would not correctly retrieve a license from a License Server with SSL enabled.
- The `GetLicenseInfo` action did not return the correct value for the `<autn:expirydays>` tag.

File System Connector CFS

New in this Release

- The response to `action=queueInfo&queueName=fetch&queueAction=getStatus` indicates whether a fetch task has been paused by performance monitoring.
- To increase performance, you can configure the connector to store the queues for asynchronous actions in memory rather than on disk.
- The connector supports the configuration parameter `IngestSourceConnectorFields`. If you set this to `TRUE` the connector adds fields to each document that identify the connector and fetch action that retrieved the document.
- The `SSLMethod` configuration parameter now supports `TLSv1.2`.
- The OpenSSL version was upgraded from 1.0.2d to 1.0.2i.

Resolved Issues

- The connector did not read the value of the `ScheduleStartTime` parameter from the configuration file.
- The connector would not retrieve a license from a License Server with SSL enabled.
- The `GetLicenseInfo` action did not return the correct value for the `<autn:expirydays>` tag.

HTTP Connector CFS (Solaris only)

New in this Release

- The response to `action=queueInfo&queueName=fetch&queueAction=getStatus` indicates whether a fetch task has been paused by performance monitoring.
- To increase performance, you can configure the connector to store the queues for asynchronous actions in memory rather than on disk.
- The connector supports the configuration parameter `IngestSourceConnectorFields`. If you set this to `TRUE` the connector adds fields to each document that identify the connector and fetch action that retrieved the document.
- The `SSLMethod` configuration parameter now supports `TLSv1.2`.
- The OpenSSL version was upgraded from 1.0.2d to 1.0.2i.

Resolved Issues

- The connector did not read the value of the `ScheduleStartTime` parameter from the configuration file.
- The connector would not retrieve a license from a License Server with SSL enabled.
- The `GetLicenseInfo` action did not return the correct value for the `<autn:expirydays>` tag.

IDOL Admin

New in this Release

There were no new enhancements to HPE IDOL Server version 11.2.0.

Resolved Issues

- This release resolves an issue whereby users could run arbitrary or potentially unsafe code by using the Test Action feature.
- This release resolves an issue with support for Media Server async queues.
- This release resolves an issue whereby pressing ENTER when searching in the terms pane produced an error.

IDOL Proxy Component

New in this Release

- The `SSLMethod` configuration parameter now supports `TLSv1.2`. For example:

  ```
  [SSLOption0]
  SSLMethod=TLSV1.2
  ```

- The OpenSSL version was upgraded from 1.0.2d to 1.0.2i.

Resolved Issues

- In the `MemoryReport` action, IDOL Proxy could return negative values for the memory reports from its child components.
- The server would not correctly retrieve a license from a License Server with SSL enabled.
- The `GetLicenseInfo` action did not return the correct value for the `<autn:expirydays>` tag.

IDOL Speech Server

New in this Release

- The server now supports normalization of Turkish (`TRTR`) and Hindi (`HIIN`).
- Audio preprocessing now uses improved Deep Neural Network (DNN) technology which requires less tailoring of thresholds to specific audio types.

  You can use the new `appDnnBase` parameter to specify the location of the DNN and normalization files necessary to perform audio frame categorisation. The new `frameDupl` parameter enables you to balance performance against speed for audio preprocessing DNN classification.

  In addition, the algorithm now discriminates between music and noise, rather than recognizing `<music/noise>` as a joint category.

  All tasks in the `speechserver-tasks.cfg` file use the new DNN-based algorithm, but the old algorithm still exists for backward compatibility and can be used exactly as before.
- The `FrameDupl` parameter has been added to the `LidFeature` module, and to the `LangIdSegWav`, `LangIdCumWav`, `LangIdSegStream`, `LangIdCumStream`, and `LangIdFeature` tasks. The default value for the module parameter is `0`, but in all the standard tasks the default is `2`. This means that processing speed in this release is significantly improved out-of-the-box. In addition, you can tune the `FrameDupl` parameter settings to balance accuracy aginst processing speed. For more information, refer to the *HPE IDOL Speech Server Reference*.

- The `SSLMethod` configuration parameter now supports `TLSv1.2`. For example:

```
[SSLOption0]
SSLMethod=TLSV1.2
```

- The OpenSSL version was upgraded from 1.0.2d to 1.0.2i.

Resolved Issues

- This release resolves an issue with the transcript alignment functionality. This issue sometimes led to the alignment failing, and an error message that suggested there was an issue with the beam setting.
- An issue has been resolved whereby the audio classification results produced by the `audiopreproc` processing module could occasionally be truncated.
- The code that manages class word files and pronunciation files is now more robust, and features enhanced error checking.
- Previously, the `SampleFrequency` parameter in the `audioTemplateTrain` module had an invalid default parameter. As a result, you had to set the parameter explicitly. If this parameter was not set, the server returned an error. In this release, the parameter now has a default value. This means that you need to set it only if you need to use a different sample frequency (for example, 8 kHz for telephony data).
- Previously, attempting to load a resource pack that had been repaired (for example, to add missing dictionaries and so on) failed, with the same error that occurred correctly when attempting to load the unrepaired resource pack. This issue has now been resolved.
- The server would not correctly retrieve a license from a License Server with SSL enabled.
- The `GetLicenseInfo` action did not return the correct value for the `<autn:expirydays>` tag.

Knowledge Graph Component

New in this Release

- The `SSLMethod` configuration parameter now supports `TLSv1.2`. For example:

```
[SSLOption0]
SSLMethod=TLSV1.2
```

- The OpenSSL version was upgraded from 1.0.2d to 1.0.2i.

Resolved Issues

- The server would not correctly retrieve a license from a License Server with SSL enabled.
- The `GetLicenseInfo` action did not return the correct value for the `<autn:expirydays>` tag.

License Server

New in this Release

- The `SSLMethod` configuration parameter now supports `TLSv1.2`. For example:

  ```
  [SSLOption0]
  SSLMethod=TLSV1.2
  ```

- The OpenSSL version was upgraded from 1.0.2d to 1.0.2i.

Resolved Issues

- The server would not correctly retrieve a license from a License Server with SSL enabled.
- The `GetLicenseInfo` action did not return the correct value for the `<autn:expirydays>` tag.

Media Server (Windows and Linux only)

New in this Release

Media Server Core

- HPE Media Server can use a graphics card (GPU) to accelerate some processing tasks. Using a GPU in addition to a CPU can significantly increase the speed of training and analysis tasks that use Convolutional Neural Networks. For information about the requirements that must be met before Media Server can use a GPU, refer to the *Media Server Administration Guide*. This feature is available only for the Linux x86-64 platform.
- The sampling of video frames for analysis has been improved. During analysis with `IngestRate=1`, Media Server automatically adjusts the sample interval based on the time required to analyze frames. This ensures that the frames selected for analysis are more evenly distributed, especially when the time taken to analyze different frames varies significantly. In most cases the new behavior uses more memory but provides better results. The `SampleInterval` parameter now specifies the minimum amount of time between any two analyzed frames. If `IngestRate=1` and Media Server can not analyze frames as fast as they are ingested, it automatically increases the sample interval and processes fewer frames. The behavior of Media Server 11.2.0 with `IngestRate=0` is the same as Media Server 11.1.0.
- The `process` action supports progress reporting when you process files (but not video streams). To see how much of a file Media Server has processed, and the estimated amount of time required to complete processing, use:

  ```
  action=QueueInfo&QueueName=Process&QueueAction=Progress&Token=...
  ```

- The `BuildFace`, `BuildObject`, `TrainFace`, and `TrainObject` actions support progress reporting.
- Media Server supports a new configuration parameter, `ScheduledSync`, which specifies when to synchronize with the training database. You can choose to load the latest training data at regular intervals, when Media Server starts, or disable scheduled synchronization completely.
- The latest activity page, available through `action=activity`, supports connecting to Media Server over HTTPS.
- The latest activity page, available through `action=activity`, displays time information in 24-hour format.
- Media Server writes a message to the engine log stream when a `Process` action is stopped with the `QueueInfo` action (`action=QueueInfo&QueueAction=Stop`).
- Asynchronous action queues can be stored in memory. This can increase performance but queued actions can be lost unless the server is stopped cleanly.
- The `SSLMethod` configuration parameter now supports `TLSv1.2`. For example:

  ```
  [SSLOption0]
  SSLMethod=TLSV1.2
  ```

- The OpenSSL version was upgraded from 1.0.2d to 1.0.2i.

Ingest

- The image ingest engine supports the parameters `StartPage` and `MaximumPages`, so that you can ingest selected pages from a multi-page image or document.
- The image ingest engine extracts metadata from image and document files and includes this in the `Proxy` track.

Analysis

- Media Server uses significantly less memory to store recognition data for faces. In each gigabyte of RAM, Media Server can load the data required to search across approximately four million faces. As a result of this the database schema has changed and an upgrade is necessary (see the notes section for more information).
- Vehicle make and model recognition have been improved.
  - Media Server has been pre-trained to recognize the make of some of the most common vehicles. This means that when Media Server identifies the make of a vehicle it can perform model recognition against a much smaller number of models.
  - There is a new API for training vehicle model recognition.
- Face detection accuracy has improved.
- Face recognition accuracy has improved.
- A new pre-trained object detector for detecting people has been released and is available from the Big Data Download Center.
- A new pre-trained image classifier for classifying road scenes has been released and is available from the Big Data Download Center.
- The face recognition, face demographics, facial expression, clothing analysis, object detection, and vehicle recognition tasks support the parameter `NumParallel`. The image classification task

supports the parameter `NumParallel` regardless of the type of classifier that you use. The `NumParallel` parameter specifies the number of frames to analyze concurrently when processing video.

- Face detection can detect faces that are partially outside an image or video frame. Records in the `Data` or `Result` track produced by a face detection task include a new field, `percentageInImage`, which specifies how much of the face is visible in the image.
- Face detection returns eye locations and a bounding ellipse for all faces where `outOfPlaneAngleX` is less than `90` (all faces except those that are viewed in profile).
- The `BuildAllObjects` action has been added, so that you can train Media Server to recognize many objects with a single action.
- The text segmentation analysis task has a new configuration parameter, `MaximumDuration`, which specifies the maximum duration to allow for a single segment.
- Optical character recognition has a new configuration parameter, `Spacing`. This specifies whether to allow multiple spaces between words in the output from OCR, or reduce all gaps between words to a single space.
- The output from optical character recognition preserves information about the structure of text when the text is extracted from an image of a table.
- Number plate recognition can read number plates from:
  - Belarus.
  - Bosnia and Herzegovina.
  - Bulgaria.
  - China.
  - Croatia.
  - Estonia.
  - Hungary.
  - Latvia.
  - Lebanon.
  - Lithuania.
  - Macedonia.
  - Moldova.
  - Montenegro.
  - Romania.
  - Slovakia.
  - Tunisia.
- Number plate recognition supports additional plate types and has improved accuracy for number plates in the United States and United Arab Emirates.
- Number plate recognition supports a new configuration parameter, `MaxPlatesPerFrame`. This limits the number of results that HPE Media Server can produce for a single image or video frame. For example, if you know that there will only be one number plate in the scene at a time, set `MaxPlatesPerFrame=1`.
- The color clustering analysis task can be configured to cluster colors around colors that are defined in a dictionary. If you configure a dictionary, Media Server also returns a name (such as "light blue" or "red") for each color cluster.
- The color clustering analysis task produces a new track named `ClusteredImage`. This contains the source image, containing only colors that match the center of a color cluster, and cropped to the analyzed region. If the analyzed region is not rectangular any pixels outside the region are transparent (or black if you use an image format that does not support transparency).

Encoding

- MP4 files produced by the MPEG encoder and the `CreateClip` action have header information at the beginning of the file, so that applications can start playing a file before it has finished downloading.
- When you configure an MPEG or Rolling Buffer encoding task and set the `VideoSize` parameter, you can specify the width or height for the encoded video and Media Server will automatically calculate the other dimension, maintaining the original aspect ratio.
- The image encoder has a new configuration parameter, `CompressionQuality`, so that you can specify the amount of compression to use for JPEG images.
- The image encoder saves images in the format associated with the input records. You can change the format of image records using an `ImageFormat` transformation task.

Event Stream Processing

- Media Server includes a new ESP engine (`Type=AndAny`). This compares two tracks and produces an output track that contains records from the first track for which there is at least one record in the second track within a specified time interval (before or after the record in the first track). This provides a simpler alternative to the `And` engine when you do not need to include information from the second track in the output.
- Media Server includes a new ESP engine (`Type=AndThenAny`). This compares two tracks and produces an output track that contains records from the first track which are followed within a specified time interval by at least one record in the second track. This provides a simpler alternative to the `AndThen` engine when you do not need to include information from the second track in the output.

Transformation

- The image format transformation engine has a new configuration parameter, `CompressionQuality`, so that you can specify the amount of compression to use for JPEG images.

Scene Analysis Training Utility

- You can disable one or more categories in a scene analysis configuration, so that they do not produce alarms and you can focus on training other categories.
- When you set a scene mask, the scene analysis training utility shows regions of interest from all categories.

Resolved Issues

- An issue with licensing meant that the Combine ESP engine could not be used.
- Media Server could stop processing or terminate unexpectedly when running number plate recognition.
- Number plate recognition failed to read certain types of UAE number plates.
- When ingesting single-channel audio, Media Server sent audio to Speech Server at a reduced volume.

- Scene analysis could fail to detect some objects, because the minimum and maximum object size were not always set correctly by the training utility when a scene analysis configuration included more than one category.
- An issue in the scene analysis training utility could prevent configurations from being optimized correctly.
- The server would not correctly retrieve a license from a License Server with SSL enabled.
- The `GetLicenseInfo` action did not return the correct value for the `<autn:expirydays>` tag.

Query Manipulation Server Component

New in this Release

- QMS now supports SSL for outgoing connections. You can configure SSL by setting the `SSLConfig` parameter in the `[IDOL]`, `[PromotionAgentstore]`, `[StatisticsServer]`, and `[Community]` configuration sections. You set `SSLConfig` to the name of a configuration section that contains the SSL configuration options. For more information, refer to the *QMS Reference*.
- The `SSLMethod` configuration parameter now supports `TLSv1.2`. For example:

```
[SSLOption0]
SSLMethod=TLSV1.2
```

- The OpenSSL version was upgraded from 1.0.2d to 1.0.2i.

Resolved Issues

- QMS could terminate unexpectedly when a malformed query response (with a higher `autn:numhits` value than the number of hits returned) was received from a child server.
- QMS performed sentence breaking on the value of the `KEYWORDS` field of synonym rules before it split the comma-separated list, so that synonyms would sometimes not work as expected.
- QMS unescaped the value of the `KEYWORDS` field in a synonym rule before it split the comma-separated list into individual values.
- QMS did not correctly add parentheses to multiword values in the `KEYWORDS` field in a synonym rule if the value started with punctuation.
- A promotions query with `QuerySummary` set to `True`, with a data index Content server that had `QuerySummaryAdvanced` configured could result in QMS exiting unexpectedly.
- The server would not correctly retrieve a license from a License Server with SSL enabled.
- The `GetLicenseInfo` action did not return the correct value for the `<autn:expirydays>` tag.

Statistics Server Component

New in this Release

- The `SSLMethod` configuration parameter now supports `TLSv1.2`. For example:

  ```
  [SSLOption0]
  SSLMethod=TLSV1.2
  ```

- The OpenSSL version was upgraded from 1.0.2d to 1.0.2i.

Resolved Issues

- The server would not correctly retrieve a license from a License Server with SSL enabled.
- The `GetLicenseInfo` action did not return the correct value for the `<autn:expirydays>` tag.

View Server Component

New in this Release

- The `SSLMethod` configuration parameter now supports `TLSv1.2`. For example:

  ```
  [SSLOption0]
  SSLMethod=TLSV1.2
  ```

- The OpenSSL version was upgraded from 1.0.2d to 1.0.2i.

Resolved Issues

- The `DeleteOriginal` parameter for the `View` and `ViewGetDocInfo` actions did not delete the viewed file correctly after it was successfully viewed.
- The `View` action could return an error when the `MultiHighlight` and `Boolean` parameters were both set to `True`, and the `Links` parameter contained a leading `NOT` operator (for example `NOT apple pear`).
- The server would not correctly retrieve a license from a License Server with SSL enabled.
- The `GetLicenseInfo` action did not return the correct value for the `<autn:expirydays>` tag.

Web Connector (Windows and Linux only)

New in this Release

- The connector shares cookies between all of the embedded browser instances that it uses to load pages.
- The connector can run custom JavaScript on web pages before it crawls and ingests them. This allows you to manipulate pages or interact with them before they are processed. For example, if a page has a button to load more content you can configure the connector to run a script that clicks the button. The ingested page will then include the additional content.
- The connector can retrieve the last modified date of a page from the HTTP headers that are returned with the page. The configuration parameter `PageDateHeader` has been added, and specifies the names of the header fields to check for the date.
- The connector can generate child documents from a subset of the pages that it processes. The configuration parameter `ChildDocumentUrlRegex` has been added so that you can select the pages with a regular expression.
- The configuration parameter `RegexCaseInsensitive` has been added. This specifies whether the regular expressions specified by *`CantHaveRegex`* and *`MustHaveRegex`* parameters are considered to be case-insensitive.
- The connector adds a new metadata field to documents (named `URL`) that contains a URL to the document on the Web.
- The connector is supplied with the HPE CSS Selector Builder tool, an extension for the Chrome web browser that can help you to find CSS selectors to use for clipping web pages. HPE does not support this tool, it is provided only as an example of a tool that you could build.
- The response to `action=queueInfo&queueName=fetch&queueAction=getStatus` indicates whether a fetch task has been paused by performance monitoring.
- To increase performance, you can configure the connector to store the queues for asynchronous actions in memory rather than on disk.
- The connector supports the configuration parameter `IngestSourceConnectorFields`. If you set this to `TRUE` the connector adds fields to each document that identify the connector and fetch action that retrieved the document.
- The `SSLMethod` configuration parameter now supports `TLSv1.2`.
- The OpenSSL version was upgraded from 1.0.2d to 1.0.2i.

Resolved Issues

- The connector could terminate unexpectedly when any of the parameters `MinPageDate`, `MaxPageDate`, `MinPageAge`, or `MaxPageAge` were set.
- If the starting URLs in the configuration file were changed, the connector could crawl pages that were no longer related to a task.

- The connector could use ingest-add commands, instead of ingest-replace, for ingesting modified documents. This could result in orphaned documents being left in IDOL.
- The connector could perform unnecessary DNS lookups when the proxy server was specified by a proxy automatic configuration (`.pac`) file. In some cases, evaluating PAC files is now much faster.
- The connector did not read the value of the `ScheduleStartTime` parameter from the configuration file.
- The connector would not retrieve a license from a License Server with SSL enabled.
- The `GetLicenseInfo` action did not return the correct value for the `<autn:expirydays>` tag.

Upgrade Information

This section describes how to upgrade IDOL Server and its components.

Upgrade to IDOL 11.x

The simplest way to upgrade is to index data into a fresh installation of IDOL 11.0, whilst also activating any further functionality that is appropriate for your use case. However, IDOL 11.0 is also fully compatible with existing installations and indexes, so you do not need to reindex, as long as you include certain configuration settings before you run the IDOL 11.0 executable.

You must add the following configuration setting for the Content component, unless a different value is already present. If you create a new IDOL index, you can ignore this step.

```
[Server]
ParametricMaxPairsPerDocument=104858
```

If you want to upgrade to IDOL 11.x from IDOL 7.x, there are some additional configuration updates. For more information, refer to the *IDOL 11 Upgrade Technical Note*.

Upgrade Document Tracking

In IDOL 10.9, the database schema for Document Tracking was updated. For information about upgrading your document tracking database backend from IDOL 10.8 or earlier to IDOL 10.9 or later, refer to the *Document Tracking 10.9 Upgrade Technical Note*.

The database schema for Document Tracking was updated for IDOL 10.3. For information about upgrading your document tracking database backend from IDOL 10.2 or earlier, refer to the *Document Tracking 10.3 Upgrade Technical Note*.

Requirements

This section describes the system requirements, supported platforms, and software dependencies for HPE IDOL Server 11.2.0.

Minimum System Requirements

The following are minimum system requirements for HPE IDOL Server 11.2.0 on any supported operating system platform:

- a dedicated SCSI disk
- 4 GB RAM
- 100 GB disk space
- a minimum of 2 dedicated CPU - Intel Xeon or AMD Opteron or above

To run HPE IDOL Server version 11.2.0, or its components, on UNIX platforms, the server must have the following minimum versions of libraries:

- GLIBC_2.3.2
- GLIBCXX_3.4.20
- GCC_4.8.0

Note: The HPE IDOL Server installer and component stand-alone zip packages provide these libraries in the `libgcc_s` and `libstdc++` shared libraries.

If you start components from the command line (rather than using the init script), you might need to set the `LD_LIBRARY_PATH` to include the *`InstallDir`*`/common` and *`InstallDir`*`/common/runtimes` directories, to ensure that the component can access the installed shared libraries.

You can also copy the shared libraries to the component working directory.

To run HPE IDOL Server version 11.2.0 on the Microsoft Windows operating system, you might need to update the Microsoft Visual C++ Redistributable packages. The IDOL Server installer includes the required redistributable files for Microsoft Visual C++ 2005, 2010, and 2013.

You can also update your packages by using the latest version at:

http://support.microsoft.com/kb/2019667

Software Dependencies

Some IDOL Server components depend on specific third-party or other HPE IDOL software. The following table details the IDOL Server software and feature dependencies.

Component	Dependencies
Java	Windows, Solaris, Linux: JRE 1.6 or later
Browsers	• Internet Explorer 9 and later • Mozilla Firefox 18 and later • Chrome 25 and later

Supported Operating System Platforms

The following operating system platforms are available for HPE IDOL Server 11.2.0.

- Windows x86 64
- Linux x86 64
- Solaris x86 64
- Solaris SPARC 64

The documented platforms are the recommended and most fully tested platforms for HPE IDOL Server. The following sections provide more information about the most fully tested versions of these platforms.

Windows

- Windows Server 2012 x86 64
- Windows 7 SP1 x86 64
- Windows Server 2008 R2 x86 64
- Windows Server 2008 SP2 x86 64

Linux

For Linux, the following lists the minimum recommended versions of particular distributions:

- Red Hat Enterprise Linux (RHEL) 5
- CentOS 5
- SuSE Linux Enterprise Server (SLES) 10
- Ubuntu 12.04
- Debian 7

Solaris

- Solaris 10
- Solaris 11

Notes

- If you are running IDOL server on the Solaris operating system, ensure you specify an installation path that is less than 30 characters. This prevents an issue with the stop script.

Connector Framework Server

- If you are upgrading from HPE CFS 10.9.0 or earlier, ensure that your CFS finishes indexing data into IDOL before you upgrade. There must be no data left in the `outgoing` folder.
- The default configuration file installed with HPE CFS now runs field standardization. Field standardization renames document fields so that documents created by different connectors use the same field names to store the same type of information. In some cases field standardization modifies field values so that the values are in standard formats.

  Note: You might need to make configuration changes to other IDOL components and front-end applications if you have configured them to rely on specific document fields.

  If you would prefer to disable field standardization, modify the configuration file as follows:

  - In the `[ImportService]` section, set the configuration parameter `EnableFieldNameStandardization` to **`FALSE`**.
  - In the `[ImportTasks]` section, remove the field standardization import task by deleting the line `Post0=Standardizer`.

Media Server

New Database Schema

- The Media Server database schema has changed. If you are using an internal database, the schema upgrade is performed automatically when you start the new version of Media Server. If you are using an external PostgreSQL or MySQL database you must run an upgrade script, which is included in the Media Server 11.2.0 installation. For more information about upgrading the database schema, refer to the *Media Server Administration Guide*.

API and Configuration Changes

- The default values for the following configuration parameters have been updated:

Feature	Configuration parameter	Default value Media Server 11.1	Default value Media Server 11.2
Number plate recognition	`MaxCharHeight`	Unlimited	96
	`Sensitivity`	6	10

- The `LibAv` log type (which could be specified by the configuration parameter `LogTypeCSVs`) has been renamed to `Ingest`, and now includes log messages related to ingestion of images and video.
- The configuration parameter `FrameRateMax`, for the image encoder, has been deprecated.
- The response for the actions `ListFaces` and `ListObjects` has changed. For information about the new response format, refer to the *HPE Media Server Reference*.
- Face detection can now detect faces that are partially outside the image or video frame. As a result, face detection can return `left` and `top` co-ordinates that are negative. In cases where a face fills the source image, the values for `width` and `height` might also exceed the image dimensions.
- The face state analysis task now outputs records even if HPE Media Server is not able to determine a person's facial expression, whether their eyes are open, or whether they are wearing spectacles.
- The output of number plate recognition has changed. The `platecentre` element has been removed. The `readregion` element, which describes the region that contains the main number plate text, has been added.
- If a Media Server output task is running in bounded event mode and receives a record in the event track that has a duration of zero, Media Server now outputs any records that have a matching start time and duration. In earlier versions of Media Server, the output would only contain the record from the event track.
- Media Server now fails to start if the `Enable` parameter, in the `[Modules]` section of the configuration file, has an invalid value.

Documentation

The following documentation was updated for this release.

- *IDOL Expert*
- *IDOL Getting Started Guide*
- *IDOL Server Reference* (online help)
- *IDOL Server Administration Guide*
- *Distributed Action Handler Reference* (online help)
- *Distributed Action Handler Administration Guide*
- *Distributed Index Handler Reference* (online help)
- *Distributed Index Handler Administration Guide*
- *License Server Reference* (online help)
- *License Server Administration Guide*
- *Connector Framework Server Reference* (online help)
- *Connector Framework Server Administration Guide*
- *File System Connector (CFS) Reference* (online help)
- *File System Connector (CFS) Administration Guide*
- *HTTP Connector (CFS) Reference* (online help)
- *HTTP Connector (CFS) Administration Guide*
- *Web Connector Reference* (online help)
- *Web Connector Administration Guide*
- *QMS Reference* (online help)
- *QMS Administration Guide*
- *Media Server Reference* (online help)
- *Media Server Administration Guide*
- *IDOL Speech Server Reference* (online help)
- *IDOL Speech Server Administration Guide*
- *Knowledge Graph Reference* (online help)
- *Knowledge Graph Technical Note*