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Enterprise

HPE IDOL Speech Server

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Release Notes

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Contents

New in this Release 5

Resolved Issues 7

Notes 8

Documentation 10

New in this Release

This section lists the enhancements to HPE IDOL Speech Server version 11.4.0.

- Open set language identification has been added, to allow for unknown languages in the data. In this case, if the confidence that a section of audio matches a particular language is lower than the threshold, Speech Server returns that the language is **unknown**.

This change also includes the following changes:

- The language identification classifier packs have been updated to support open set mode.
- Single language classifier identification is now supported. You can use this option with open set classification if you want to confirm whether a segment of audio contains a particular language, and do not need to know what other languages it might contain.
- Score thresholds for language classifiers are now automatically estimated during the optimization process.
- The optimization log output has been improved and extended.
- Language ID scores are now given as raw values, rather than normalized between zero and one. The raw scores are compared directly to the score thresholds.
- You can now use your IDOL Content component data index as a source of text when you build language models. To use this, you can configure the host and port of the Content component in the `lmbuild` module, and the `LanguageModelBuild` standard task. The following table describes the new configuration parameters that you can specify for the `lmbuild` module. For more detail, refer to the *IDOL Speech Server Reference*.

`ContentHost`

`ContentPort`

`ContentDatabase`

`ContentTextTag`

- You can now optionally produce diagnostic information for language model building by using the `DiagLevel` and `DiagFile` parameters in the `lmbuild` module, and the `LanguageModelBuild` standard task.
- You can now add a build label to a custom language model to make it easier to track language models. The `BuildLabel` parameter has been added to the `lmbuild` module, and the `LanguageModelBuild` standard task.
- The new `BuildLabel` parameter has been added to the `ListCustomLM` action. You can use this parameter to filter the response to a particular language model build label. You can also use the new `LatestOnly` parameter to filter to the latest version of the language model.
- The `GetStatus` action now returns additional information about loaded language models. The new `<lm>` sections provide details about the name, file name, weight, and build label, and specifies whether it is a custom language model.
- The `id` parameter has been added to the `UnloadLanguage` action, to allow you to unload a language resource by its ID. You can retrieve the ID from the `GetStatus` action response.

- You can now run scheduled tasks in Speech Server. For example, you might want to use a regular `LanguageModelBuild` task to update the language model with new data.
You can set up schedules by configuring the `[Schedule]` section in the Speech Server configuration file. You can also use the new `ScheduleTask` action to set up a new schedule. The new `ListSchedules` and `UnscheduleTask` actions allow you to list and cancel schedules, respectively.
For more information, see the *IDOL Speech Server Reference* and *IDOL Speech Server Administration Guide*.
- You can now set the maximum length of a segment of speech or non-speech in a speaker identification task, by using the new `MaxSpeech` and `MaxNonSpeech` parameters in the `speakerid` module, or in the `IvSpkIdEvalStream` and `IvSpkIdEvalWav` standard tasks.
Shorter maximum segment sizes can reduce the latency of result generation, because Speech Server must wait for the speech segment to finish before it runs speaker segmentation and identification. However, reducing the maximum size by too much can affect the accuracy of results.
- The `StartTime` and `EndTime` parameters have been added to the `LangIDBndWav`, `LangIDCumWav`, `LangIDFeature`, and `LangIDSegWav` standard tasks, to allow you to specify the start and end time of the section that you want to process in the audio file.
- You can now configure action authorization more flexibly. The `[AuthorizationRoles]` configuration section has been added. You can add subsections to create roles, which can use a combination of existing roles (equivalent to the existing `AdminClients`, `QueryClients`, and so on), or a specific set of actions. For each role, you can specify the client IPs and hosts, SSL identities, and GSS principals to use to identify users that have particular permissions to run actions.
If you want to use only SSL and GSS authorization, you can disable the client settings by setting the appropriate client configuration parameters to `""`. For example, `AdminClients=""` disables client authorization for administrative actions, and ensures that users must meet the SSL or GSS requirements.
- You can now set `SSLCertificate` to be a chain certificate in PEM format (consisting of the end-entity certificate, any intermediate certificates, and ending with the root CA certificate). This option allows a complete certificate to be returned to the connected peer.
- You can now set `SSLCheckCertificate` to `False` even when `SSLCACertificate` or `SSLCACertificatePath` are set. This allows the component to fill in any chain required for the `SSLCertificate` by using the certificates that you specify in `SSLCACertificate` and `SSLCACertificatePath`, without requiring a certificate from the connected peer.
- The `GSSAPILibrary` configuration parameter has been added to the `[Paths]` section. You can set this parameter to the path to the GSSAPI shared library or DLL that the application uses. Depending on your system configuration, HPE IDOL Speech Server attempts to detect the appropriate library to use. However, if you use Kerberos or GSSAPI security in your setup, HPE recommends that you set an explicit value for this parameter.

Resolved Issues

This section lists the resolved issues in HPE IDOL Speech Server version 11.4.0.

- The duration of NonSpeech segments in Speaker ID was often reported as shorter than actually computed.
- Incorrect parsing of temporary files could occasionally lead to a loss of service while language models were building.
- Running the `LanguageModelBuild` task with an invalid output language model name (invalid file extension) could result in an interruption of service.
- A `ListManager` error could sometimes prevent Speech Server from starting.
- Setting the speaker template threshold by using the `ivSpkIDTmpEditThresh` task could result in an interruption of service.
- When running language identification in boundary mode, the task progress times given in `GetStatus` did not update correctly when there was no change in language detected.
- The `GetVersion` action could incorrectly report their operating system on Microsoft Windows 10 and Microsoft Windows Server 2016 platforms.

Notes

These notes provide extra information about installing and using HPE IDOL Speech Server.

- Installation on Linux requires the following software:
 - GLIBC_2.3.2
 - GLIBCXX_3.4.20
 - GCC_4.8.0
- If you install IDOL Speech Server 11.4.0 using the IDOL 11.4.0 installer program, you must ensure that you have a Speech Server license key in addition to the standard IDOL Server license key. The IDOL Server license key does not contain licensing information for Speech Server, and Speech Server cannot run using it.
- The Solaris operating system does not support the audio fingerprinting feature in Speech Server.
- The following standard tasks have been deprecated:
 - SpkIdDevel
 - SpkIdDevelFinal
 - SpkIdDevelStream
 - SpkIdDevelWav
 - SpkIdEvalStream
 - SpkIdEvalWav
 - SpkIdFeature
 - SpkIdSetAdd
 - SpkIdSetDelete
 - SpkIdSetEditThresh
 - SpkIdSetInfo
 - SpkIdTmpEditThresh
 - SpkIdTmpInfo
 - SpkIdTrain
 - SpkIdTrainStream
 - SpkIdTrainWav

Use the equivalent iVector tasks instead (for example IvSpkIdDevel). These tasks are still available for existing implementations, but they might be incompatible with new functionality. The tasks might be deleted in future.

- The following standard tasks were deprecated in earlier versions of Speech Server. The documentation for these tasks has now been removed:
 - SidPackage
 - SidTrain
 - SidTrainFinal

- StreamSidOptimize
- StreamSidTrain
- StreamSpeakerId
- WavSidOptimize
- WavSidTrain
- WavSpeakerId

In addition, the documentation for the following associated modules, which were also deprecated, has been removed:

- sidfeature
- sidtrain
- sidoptimizer
- sidpackager
- The following action parameters were deprecated in earlier versions of Speech Server. The documentation for these parameters has now been removed:
 - ClassPrefix
 - Norm
- The following configuration parameters were deprecated in earlier versions of Speech Server. The documentation for these parameters has now been removed:
 - [sidout] module FullInfo
 - [Paths] TasksConfig
 - [Server] CustomLMDir
 - [Server] NestedStatus
 - [Server] TempDir
 - [Server] TrainedAmDir

Documentation

The following documentation was updated for this release.

- *IDOL Speech Server Administration Guide*
- *IDOL Speech Server Reference*