A DBPv5 Database Concept

From: Gary Griswold, gary@shortsands.com, 513-508-6127
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As a result of writing the DBP v4 load, I have an understanding of the current DBP database, and some understanding of LPTS. It is generally understood that the current design of DBP is very inconsistent with the design of LPTS, and was possibly a designed based on other work done at DBS. There is wide agreement that the design of DBP should become highly consistent with LPTS, or they should share the same design or even share the same physical database.

In this document, I propose a logical database design that is both consistent with LPTS and would satisfy DBP requirements. In proposing this I have not considered the full requirements of LPTS, which I do not understand, but have simply studied the parts of LPTS that are extracted into DBP. Also, I have no insight into the what new requirements might be desirable for future releases of the Bible.IS app. Others will need to add these details if they find this a useful starting point.

A minor note: this document uses different terminology for bibleId, filesetId and damId than the reader might be accustomed to. I am sure what I have written can be improved upon. But trying to design a correct system, and also keep the current terminology probably won't work.

Bibles Table - This table is similar to the current LPTS stock number record, but I call it the Bibles table, because it has a function similar to the current DBP bibles table in that it ties together multiple filesets that have common copyright and permission data. Notice that this solution eliminates extensive duplication of data, because some of this is stored for each fileset in the current DBP.

Reg_StockNumber - PRIMARY KEY
ISO
LangName
Version
LicensorOrgId
CoLicensorOrgId

copyrightTextOrgId
copyrightAudioOrgId
copyrightVideoOrgId
Copyrightc
Copyrightp
Copyright_Video
Other fields that could be in this table if DBP can use them are as follows: AltName, Country, CountryAdditional, DBL_Load_Notes, DBL_Load_Status, EthName, HeartName, ND_DBL_Load_Notes, NTOrder, Numerals, OTOrder, Portion, PostedToServer, ND_StockNumber, NTAudioDamLoad, NDRecordingStatus, Region, Reg_RecordingStatus, Selection, Streaming, Version, Volumne_Name.

BiblesVariants Table - Each Bible can have variants as described in LPTS by the index 1, 2, 3. The most notable of these is orthography. This 1, 2, or 3 can be found at the end of damId field name or in other field names. Notice, that the current bibleId is included here as a data column, and is not part of the key. Also note that this formalizes a loose and informal linkage that is in LPTS and makes it part of a design that can be enforced by foreign keys.

Reg_StockNumber
variantIndex i.e. 1, 2, or 3
PRIMARY KEY (Reg_StockNumber, variantIndex)
Orthography (_x0031_Orthography, _x0032_Orthography, _x0033_Orthography)
DBP_Equivalent (1, 2, or 3) - this is required to access current buckets
Other fields that belong in this table if DBP can use them are as follows: DBPDate, DBPFont, ElectronicPublisher, ElectronicPublisherWebsite, HubLink, USX_Date,

BibleAccessGroups Table - This table is nearly identical to the current access_group_filesets table, except that it links to the Bibles table, and not the bible_filesets table. Each Bible has various permissions set, or not set. Notice, that this eliminates extensive duplication since the current DBP database repeats this data for each fileset.

Reg_StockNumber FOREIGN KEY Bibles (Reg_StockNumber)
AccessGroupId
PRIMARY KEY (Reg_StockNumber, AccessGroupId)

The access groups that are referred to by the AccessGroupId are as follows:

APIDevAudio
APIDevText
APIDevVideo
DBPAudio

DBPMobile
DBPText
DBPTextOT
DBPWebHub
Download
HubText
MobileText
WebHubVideo
Other fields that belong is this table if DBP can use them are as follows: CreativeCommonsAudio, CreativeCommonsAudioWavier, CreativeCommonsText, FairUseLimit, FairUseLimitValue, itunesPodcast, Restrictions

BibleFilesets Table - This table has one record for each damId in the LPTS database. This table is very similar to the current bible_filesets table, except that bitrate variants, such as 16, and stream variants, such as SA are not found in this table.

DamId PRIMARY KEY
Media: text, audio, or video
Drama: Reg or ND
Scope: NT, OT, etc
variantIndex: 1, 2, 3
Status: Live, etc.
StockNumber FOREIGN KEY Bibles (Reg_StockNumber)

BibleFilesetVariants Table - This table contains one record for each actual fileset as stored in the s3 bucket or the DBP database.

PRIMARY KEY variantId - an autogenerated number used by BibleFiles
DamId FOREIGN KEY BibleFilesets (DamId)
Variant - SA for streaming audio, DA for regular audio, TF for text format, TP for text plain, VA for regular video and blank otherwise
Bitrate - bitrate for audio or video and blank for text
UNIQUE KEY (DamId, Variant, Bitrate)
Bucket - same as asset_id
FilenamePrefix - this is the prefix used to store the related data in S3.

BibleFiles Table - This table would very similar to the current bible_files table, except that it has a foreign key back to BibleFilesetVariants, not BibleFilesets.

variantId FOREIGN KEY BibleFilesetVariants (variantId)
book_id
chapter_start

chapter_end
verse_start
verse_end
file_name
file_size
duration

BibleVerses Table - This table would be very similar to the current bible_verses table, except that it has a foreign key back to BibleFilesetVariants, not BibleFilesets.

variantId FOREIGN KEY BibleFilesetVariants (variantId)
book_id
chapter
verse_start
verse_end
verse_text