



Spok Go[®] - File Upload Specifications Location Info

Version 2.0

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Introduction

This document is intended to be a guide to help the reader understand the Spok Go Location Info File Upload.

Scope

This document describes the requirements and technical specifications for the proper use of the data file upload.

Intended Audience & Use

This document is intended for all personnel involved in the administration and support of the data file upload (specific to location data) as well as the users of the Spok Go system to which the uploaded location data will be inserted or updated. The document has the following intended uses:

- Validation of data to be loaded and understanding of the processes and requirements/business rules for the data file upload.
- Understanding by Spok's Professional Services Group (PSG) as well as the Spok Go customer regarding the technical specification and supported layout of the data file upload.
- A development specification and reference for the data file upload.

Requirements

The following sections will outline the various requirements for the success of the Spok Go Location Info File Upload.

System Requirements

The following are system requirements.

- A comma separated file called `locationinfodataload.[CCYYMMDDHHMMSS].csv` (where [CCYYMMDDHHMMSS] is the date/time of the file's creation by the source system) with fields in the order that is defined later in this document.
- An SFTP client (SFTP enables file transfers over SSH) that is capable of transferring files to Spok Go's on-premises Gateway.

Resource Requirements

The following resources will be required for implementation of the Spok Go Location Info File Upload:

- A Customer's Source System Data Administrator - this resource is responsible for the creation of the previously mentioned `locationinfodataload.[CCYYMMDDHHMMSS].csv` as well as for the data integrity of the file.
- Spok Professional Service Group (PSG) resource - this resource is responsible for enabling the Spok Go File Upload connector for the Customer's Spok Go system as well as for guiding the Customer through using these specifications for the creation and transfer of the location file.

Connection Requirements

The following are the connection parameters to the on-premise Gateway for the Spok Go Location Info File Upload:

GATEWAY	: [FQDN or IP address of the Gateway's Load Balancer]
USERNAME	: [Auto-generated during setup, provided by PSG resource]
PASSWORD	: [Auto-generated during setup, provided by PSG resource]
PORT	: 22

File Formatting Expectations

Each row in the CSV file represents one location record. The v2.0 version of the Spok Go Location Info File Upload specifications supports a maximum of 92 fields and therefore expects 91 “,” commas to delimit the first 91 fields.

Then, instead of a “,” comma, the 92nd or last field for each record should be terminated with a carriage return/line feed combo (CRLF) unless it is the last or only record in a file in which case the terminating CRLF is optional.

Field Formatting Expectations

The `locationinfodataload.[CCYYMMDDHHMMSS].csv` file will utilize a simple set of two characters to separate fields and sub-fields.

- A “,” comma is used to separate fields
- A “;” semi-colon is used to separate sub-fields within a single field
- A “|” pipe character is used to separate one-to-many repetitions of data in a single field

The use of any of these characters as actual data within any of the fields that are defined below is not supported.

Location Processing Methodology

Except for facility information (where an additional “Main Phone Number” field is supported), every level of location processing supports 3 common fields of information...

External ID
Abbreviation
Name

The inclusion of an enterprise-wide unique ID with an associated name is required for Spok Go’s Location Info File Upload processing of any level of location information. The inclusion of abbreviations at each level is optional.

The use of a consistent, enterprise-wide unique ID at each level of location information is what allows the Spok Go Location Info File Upload to not only insert new locations but also support future updates to existing location details (ex: name changes).

If additional locations (ex: new units, rooms or beds) are added to a customer’s physical enterprise after an initial use of the Spok Go Location Info File Upload (ex: in the event of acquisition, renovation or expansion) a properly formatted location file can be uploaded in a live environment to add additional locations to an existing Spok Go system.

Be sure to note that the Spok Go Location Info File Upload sets any received location information to an “Active” status that cannot be changed via subsequent location file uploads. The Active/Inactive status of a location in Spok Go can only be changed within Spok Go.

Operation Expectations

This file supports two types of operations. This can be specified in column 3 (C):

- 'FULL' = This operation will process all supported fields in the specification.
- 'STATUS' = This operation will only process the 'Status' field for an existing record. All other fields will be ignored. This operation looks at entities by unique ID first, if no unique ID is provided, data exchange will look up entity by name. If no record is found, an error is logged.
 - Refer to column Operation STATUS Required

Field Mapping

The following table shows which location-related details can be loaded into the Spok database in the field order that follows.

Fields in this table are both numbered and lettered (ex: 5(E)) to aid in counting and referring to specific fields as well as for providing an easy cross-reference to alpha column headers if the file is viewed in a spreadsheet application.

Field	Description	Required for FULL Operation	Supports Repeats for FULL Operation	Required for STATUS Operation	Comments	Spok attribute
1(A) Targeted Spec Version	Version of the specs that the provided file is targeting	R		✓	Expected value: 1.1	
2(B) File Type	Specifies the file's purpose for subsequent processing within Spok Go	R		✓	Expected value: LOCATION	
3(C) Operation	Indicates whether the import will be a full metadata import or status only	R		✓	Expected value: "FULL" or "STATUS"	
4(D) Region Unique ID	A unique ID for a region from the file's source system			✓ If not available, the name will suffice in 6(F)	ExternalID	External reference ID(s) and Attribute(s)
5(E) <u>Region Abbreviation</u>	An abbreviation that is specific to the location and which may be useful for user reference.				Unique values expected	Region Abbr
6(F) <u>Region Name</u>	A name that uniquely refers to the location and which is useful for user reference.	R ²			Unique values expected	Region Name
7(G) <u>Region User Alias(es)</u>	Other names by which users may know or search for this location.		✓		Unique values expected	Region User Alias(es)
8(H) <u>Region Integration Alias(es)</u>	Other names by which integrated systems may refer to this location.		✓		Unique values expected	Region Integration Alias(es)
9(I) <u>Region Record Status</u>	Sets the record's active v. inactive status	R ²		✓	"ACTIVE" or "INACTIVE"	The active/inactive status of each record
10(J) <u>↑ Campus External ID⁵</u>	A location identifier that is unique across the enterprise	ID, Name and Status are required			ExternalID	Campus External ID

Field	Description	Required for FULL Operation	Supports Repeats for FULL Operation	Required for STATUS Operation	Comments	Spok attribute
11(K) Campus Abbreviation	An abbreviation that is specific to the location and which may be useful for user reference.	in order to associate a Campus to a Region.			Unique values expected	Campus Abbr
12(L) Campus Name	A name that uniquely refers to the location and which is useful for user reference.				Unique values expected	Campus Name
13(M) Campus User Alias(es)	Other names by which users may know or search for this location.		✓		Unique values expected	Campus User Alias(es)
14(N) Campus Integration Alias(es)	Other names by which integrated systems may refer to this location.		✓		Unique values expected	Campus Integration Alias(es)
15(O) Campus Record Status	Sets the record's active v. inactive status				"ACTIVE" or "INACTIVE"	The active/inactive status of each record

Field	Description	Required for FULL Operation	Supports Repeats for FULL Operation	Required for STATUS Operation	Comments	Spok attribute
16(P) <u>Facility External ID</u> ⁶	A location identifier that is unique across the enterprise			✓ If not available, the name will suffice in 18(R)	ExternalID	Facility External ID
17(Q) <u>Facility Abbreviation</u>	An abbreviation that is specific to the location and which may be useful for user reference.				Unique values expected	Facility Abbr
18(R) <u>Facility Name</u>	A name that uniquely refers to the location and which is useful for user reference.	C ²			Unique values expected	Facility Name
19(S) <u>Facility Address Line 1</u>	The facility's first address line					Facility Address Line 1
20(T) <u>Facility Address Line 2</u>	The facility's second address line					Facility Address Line 2
21(U) <u>Facility City</u>	The facility's city					Facility City
22(V) <u>Facility State or Providence</u>	The abbreviation for the facility's state or providence.				Free form text between 1 and 256 characters.	Facility State or Providence
23(W) <u>Facility Postal Code</u>	The facility's postal code					Facility Postal Code
24(X) <u>Facility Country</u>	The facility's home country				Free form text between 1 and 256 characters	Facility Country
25(Y) <u>Facility Time Zone</u>	The time zone in which the facility is located				Must match the IANA name for a time zone (ex: "America/Chicago")	Facility Time Zone
26(Z) <u>Facility Main Phone Number</u>	The primary phone number for the facility.				15 numeric digits (other chars ignored)	Main Phone Number
27(AA) <u>Facility User Alias(es)</u>	Other names by which users may know or search for this location.		✓		Unique values expected	Facility User Alias(es)
28(AB) <u>Facility Integration Alias(es)</u>	Other names by which integrated systems may refer to this location.		✓		Unique values expected	Facility Integration Alias(es)
29(AC) <u>Facility Record Status</u>	Sets the record's active v. inactive status	C ²		✓	"ACTIVE" or "INACTIVE"	The active/inactive status of each record

Field	Description	Required for FULL Operation	Supports Repeats for FULL Operation	Required for STATUS Operation	Comments	Spok attribute
30(AD) 7	↑ Floor External ID A location identifier that is unique across the enterprise	ID, Name and Status are required in order to associate a Floor to a Facility.			ExternalID	Floor External ID
31(AE)	Floor Abbreviation An abbreviation that is specific to the location and which may be useful for user reference.				Unique values expected	Floor Abbr
32(AF)	Floor Name A name that uniquely refers to the location and which is useful for user reference.				Unique values expected	Floor Number
33(AG)	Floor User Alias(es) Other names by which users may know or search for this location.		✓		Unique values expected	Floor User Alias(es)
34(AH)	Floor Integration Alias(es) Other names by which integrated systems may refer to this location.		✓		Unique values expected	Floor Integration Alias(es)
35(AI)	Floor Record Status Sets the record's active v. inactive status				"ACTIVE" or "INACTIVE"	The active/inactive status of each record
36(AJ) 8	↑ Bath External ID A location identifier that is unique across the enterprise	ID, Name and Status are required in order to associate a Bath to a Floor.			ExternalID	Bath External ID
37(AK)	Bath Abbreviation An abbreviation that is specific to the location and which may be useful for user reference.				Unique values expected	Bath Abbr
38(AL)	Bath Name A name that uniquely refers to the location and which is useful for user reference.				Unique values expected	Bath Name
39(AM)	Bath User Alias(es) Other names by which users may know or search for this location.		✓		Unique values expected	Bath User Alias(es)
40(AN)	Bath Integration Alias(es) Other names by which integrated systems may refer to this location.		✓		Unique values expected	Bath Integration Alias(es)
41(AO)	Bath Record Status Sets the record's active v. inactive status				"ACTIVE" or "INACTIVE"	The active/inactive status of each record
42(AP) 9	↑ Area External ID A location identifier that is unique across the enterprise	ID, Name and Status are required in order to associate an Area to a Floor.			ExternalID	Area External ID
43(AQ)	Area Abbreviation An abbreviation that is specific to the location and which may be useful for user reference.				Unique values expected	Area Abbr
44(AR)	Area Name A name that uniquely refers to the location and which is useful for user reference.				Unique values expected	Area Name
45(AS)	Area User Alias(es) Other names by which users may know or search for this location.		✓		Unique values expected	Area User Alias(es)

Field	Description	Required for FULL Operation	Supports Repeats for FULL Operation	Required for STATUS Operation	Comments	Spok attribute
46(AT) Area Integration Alias(es)	Other names by which integrated systems may refer to this location.		✓		Unique values expected	Area Integration Alias(es)
47(AU) Area Record Status	Sets the record's active v. inactive status				"ACTIVE" or "INACTIVE"	The active/inactive status of each record

Field	Description	Required for FULL Operation	Supports Repeats for FULL Operation	Required for STATUS Operation	Comments	Spok attribute
48(AV) Bath External ID ¹⁰	A location identifier that is unique across the enterprise	ID, Name and Status are required in order to associate a Bath to an Area.			ExternalID	Bath External ID
49(AW) Bath Abbreviation	An abbreviation that is specific to the location and which may be useful for user reference.				Unique values expected	Batch Abbr
50(AX) Bath Name	A name that uniquely refers to the location and which is useful for user reference.				Unique values expected	Bath Name
51(AY) Bath User Alias(es)	Other names by which users may know or search for this location.		✓		Unique values expected	Bath User Alias(es)
52(AZ) Bath Integration Alias(es)	Other names by which integrated systems may refer to this location.		✓		Unique values expected	Bath Integration Alias(es)
53(BA) Bath Record Status	Sets the record's active v. inactive status				"ACTIVE" or "INACTIVE"	The active/inactive status of each record
54(BB) Pod External ID ¹¹	A location identifier that is unique across the enterprise	ID, Name and Status are required in order to associate a Unit to a Pod.			ExternalID	Pod External ID
55(BC) Pod Abbreviation	An abbreviation that is specific to the location and which may be useful for user reference.				Unique values expected	Pod Abbr
56(BD) Pod Name	A name that uniquely refers to the location and which is useful for user reference.				Unique values expected	Pod Name
57(BE) Pod User Alias(es)	Other names by which users may know or search for this location.		✓		Unique values expected	Pod User Alias(es)
58(BF) Pod Integration Alias(es)	Other names by which integrated systems may refer to this location.		✓		Unique values expected	Pod Integration Alias(es)
59(BG) Pod Record Status	Sets the record's active v. inactive status				"ACTIVE" or "INACTIVE"	The active/inactive status of each record
60(BH) <u>Unit External ID</u> ¹²	A location identifier that is unique across the enterprise			✓ If not available, the name will suffice in 62(BJ)	ExternalID	Unit External ID
61(BI) <u>Unit Abbreviation</u>	An abbreviation that is specific to the location and which may be useful for user reference.				Unique values expected	Unit Abbr

Field	Description	Required for FULL Operation	Supports Repeats for FULL Operation	Required for STATUS Operation	Comments	Spok attribute
62(BJ) <u>Unit Name</u>	A name that uniquely refers to the location and which is useful for user reference.	C ²			Unique values expected	Unit Name
63(BK) <u>Unit User Alias(es)</u>	Other names by which users may know or search for this location.		✓		Unique values expected	Unit User Alias(es)
64(BL) <u>Unit Integration Alias(es)</u>	Other names by which integrated systems may refer to this location.		✓		Unique values expected	Unit Integration Alias(es)
65(BM) <u>Unit Record Status</u>	Sets the record's active v. inactive status	C ²		✓	"ACTIVE" or "INACTIVE"	The active/inactive status of each record

Field	Description	Required for FULL Operation	Supports Repeats for FULL Operation	Required for STATUS Operation	Comments	Spok attribute
66(BN) ↓ Pod External ID ¹³	A location identifier that is unique across the enterprise	ID, Name and Status are required in order to associate a Unit to a Pod.			ExternalID	Pod External ID
67(BO) Pod Abbreviation	An abbreviation that is specific to the location and which may be useful for user reference.				Unique values expected	Pod Abbr
68(BP) Pod Name	A name that uniquely refers to the location and which is useful for user reference.				Unique values expected	Pod Name
69(BQ) Pod User Alias(es)	Other names by which users may know or search for this location.		✓		Unique values expected	Pod User Alias(es)
70(BR) Pod Integration Alias(es)	Other names by which integrated systems may refer to this location.		✓		Unique values expected	Pod Integration Alias(es)
71(BS) Pod Record Status	Sets the record's active v. inactive status				"ACTIVE" or "INACTIVE"	The active/inactive status of each record
72(BT) <u>Room External ID</u> ¹⁴	A location identifier that is unique across the enterprise			✓ If not available, the name will suffice in 74(BV)	ExternalID	Room External ID
73(BU) <u>Room Abbreviation</u>	An abbreviation that is specific to the location and which may be useful for user reference.				Unique values expected	Room Abbr
74(BV) <u>Room Name/Number</u>	A name that uniquely refers to the location and which is useful for user reference.	C ²			Unique values expected	Room Number
75(BW) <u>Room Phone Number</u>	A phone number that is unique to the room.				15 numeric digits (other chars ignored)	Room Phone Number
76(BX) <u>Room User Alias(es)</u>	Other names by which users may know or search for this location.		✓		Unique values expected	Room User Alias(es)
77(BY) <u>Room Integration Alias(es)</u>	Other names by which integrated systems may refer to this location.		✓		Unique values expected	Room Integration Alias(es)
78(BZ) <u>Room Record Status</u>	Sets the record's active v. inactive status	C ²		✓	"ACTIVE" or "INACTIVE"	The active/inactive status of each record
79(CA) ↑ Bath External ID ¹⁵	A location identifier that is unique across the enterprise	ID, Name and Status are required			ExternalID	Bath External ID

Field	Description	Required for FULL Operation	Supports Repeats for FULL Operation	Required for STATUS Operation	Comments	Spok attribute
80(CB) Bath Abbreviation	An abbreviation that is specific to the location and which may be useful for user reference.	in order to associate a Bath to a Room.			Unique values expected	Bath Abbr
81(CC) Bath Name	A name that uniquely refers to the location and which is useful for user reference.				Unique values expected	Bath Name
82(CD) Bath User Alias(es)	Other names by which users may know or search for this location.		✓		Unique values expected	Bath User Alias(es)
83(CE) Bath Integration Alias(es)	Other names by which integrated systems may refer to this location.		✓		Unique values expected	Bath Integration Alias(es)
84(CF) Bath Record Status	Sets the record's active v. inactive status				"ACTIVE" or "INACTIVE"	The active/inactive status of each record

Field	Description	Required for FULL Operation	Supports Repeats for FULL Operation	Required for STATUS Operation	Comments	Spok attribute
85(CG) <u>Bed External ID</u>	A location identifier that is unique across the enterprise			✓ If not available, the name will suffice in 87(CI)	ExternalID	Bed External ID
86(CH) <u>Bed Abbreviation</u>	An abbreviation that is specific to the location and which may be useful for user reference.				Unique values expected	Bed Abbr
87(CI) <u>Bed Name/Number</u>	A name that uniquely refers to the location and which is useful for user reference.	C ²			Unique values expected	Bed Number
88(CJ) <u>Bed Phone Number</u>	A phone number that is unique to the bed.				15 numeric digits (other chars ignored)	Bed Phone Number
89(CK) <u>Bed User Alias(es)</u>	Other names by which users may know or search for this location.		✓		Unique values expected	Bed User Alias(es)
90(CL) <u>Bed Integration Alias(es)</u>	Other names by which integrated systems may refer to this location.		✓		Unique values expected	Bed Integration Alias(es)
91(CM) <u>Bed Record Status</u>	Sets the record's active v. inactive status	C ²		✓	"ACTIVE" or "INACTIVE"	The active/inactive status of each record
92(CN) Timestamp	Date and time the new/updated location record(s) were written to the file	R			Expected format: CCYYMMDDHHMMSS	

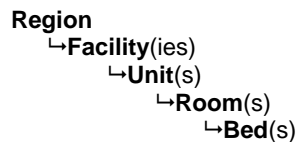
- Fields that are underlined are the primary location fields within Spok Go that can be used for specific workflows, staff assignments and message routing.
- Fields that are preceded with a "L" are additional locations that can be associated to either the preceding primary or additional location.
- Fields that are preceded with a "F" are additional locations to which primary locations can be associated.

Data Upload Details

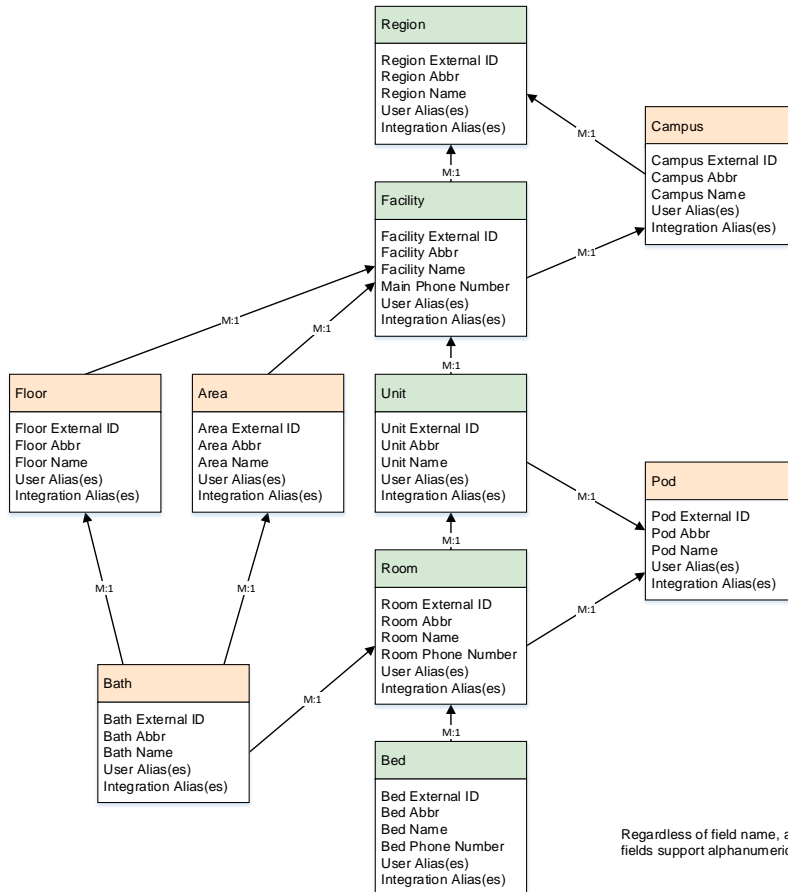
The following section explains field-level specifics that should help ensure the successful implementation of the Spok Go Location Info File Upload.

Fields and/or sub-fields that are **grayed-out** are reserved for future use and will not be used when adding or updating a Spok Go location's info at this time. However, these fields and sub-fields can still be populated in preparation for their planned purpose without negatively impacting the processing of a location record.

- 1) Note that if this file is viewed in a spreadsheet application, these fields may not display as intended due to the application's default field formatting. Changing the displayed format of these fields' columns should allow a reviewer to see the column's contents as expected.
- 2) The **Region**, **Facility**, **Unit**, **Room** and **Bed** fields are all considered primary locations within Spok Go for which workflows, assignments and specific messaging can occur. The hierarchy of primary locations is as follows...



Of those primary location fields, only the **Region** field (1^A) is required in every row of a location file. Each of the other primary location fields are conditionally required for the creation of each of those levels as well as for the creation and association of primary locations at each of the location levels that follow.



Data Upload Details (continued)

- 3) Aliases are expected to be unique per location level within a tenant (i.e. the combination of the alias and the location level is what makes each alias unique). Non-unique aliases at a location level will be ignored.
- 4-15) Location-related details include...
 4. A **Region** is the highest supported level of location info in Spok Go
 5. **Campuses** can be associated to a **Region**
 6. **Facilities** can be associated to a **Region** as well as to a **Campus**
 7. **Floors** can be associated to a **Facility**
 8. **Baths** can be associated to a **Floor**
 9. **Areas** can be associated to a **Facility**
 10. **Baths** can be associated to an **Area**
 11. **Units** and can be associated to a **Pod**
 12. **Units** can be associated to a **Facility**
 13. **Rooms** can be associated to a **Pod**
 14. **Rooms** can be associated to a **Unit**.
 15. A **Bath** can be associated to a **Room**
- 16) Because both **Units** and **Rooms** can be associated to **Pods**, the same **Pod** could be referenced for both location levels.

Integration Risks

The following are possible risks that have been identified:

- Non-curated source data with duplicates or inaccurate data.
- Irregular or inconsistent output of files from source system.
- Poorly formatted CSV files
- Inclusion of incorrect data that cannot be corrected by subsequent location info file uploads (ex: incorrect locations or location names)

Integration Success Criteria

The integration will be considered successful if the following criteria are met:

- The Spok Go Location Info File Upload is implemented per the specifications in this document and a customer's location hierarchy has been added and/or updated as expected.

Revision History

The table that follows will provide a history of changes that are made to this document.

Date	Comment(s)	Author
2019.10.31	Initial v0.1 of these specs	Todd Thomas
2019.10.31	v0.2 of these specs – Many updates related to feedback, pods, and the inclusion of unique IDs and abbrs	Todd Thomas
2019.12.02	Added column for field numbers/Excel columns to the Field Mapping table.	Todd Thomas
2019.12.18	Improved some verbiage in the table as well as in footnotes 3-13	Todd Thomas
2019.12.23	Added user- and integration-related alias fields	Todd Thomas
2019.12.23	Added “DATA UPLOAD DETAIL” to explain fields and sub-fields that are included in the specs, but which are not supported at this time, and then grayed-out all fields for the time being.	Todd Thomas
2020.01.02	Added fields for the support of room and bed phone numbers.	Todd Thomas
2020.01.02	Updated the relational diagram of the location information in the Data Upload Details section.	Todd Thomas
2020.02.12	Update draft version to 1.0	Todd Thomas
2020.05.26	Minor changes to the formatting of title page, footer layout and file name.	Todd Thomas
2020.06.26	Updated to indicate supported levels/fields v. levels/fields that may be supported in the future.	Todd Thomas
2020.07.22	Added level descriptions to “Record Status” fields	Todd Thomas
2020.07.22	Added “Facility City” field	Todd Thomas
2020.07.23	Corrected supported status of “Facility Main Phone Number” field	Todd Thomas
2020.07.26	Added footnote related to alias handling	Todd Thomas
2020.11.10	Added field to represent external ID’s from Spok consoles or other third party systems	Zach Hanson
2020.11.16	Removed duplicative ExternalID rows	Zach Hanson
2020.11.24	Added “Operation” field to indicate a full update or a status update on the entity. Also changed version to 2.0 to be in synch with other import specifications.	Zach Hanson
2021.3.10	Fixed incorrect file formatting expectations	Zach Hanson