Spok Go® - File Upload Specifications
Location Info

Version 3.0

Table of Contents

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

The v3.0 version of the Spok Go Location Info File Upload specifications supports a maximum of 5 fields and therefore expects 4 "," commas to delimit the first 4 fields.

Then, instead of a "," comma, the 5th 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
- A "~" tilde is used to separate sub-fields within a single **sub** field
- A ":" colon character is used to separate one-to-many repetitions of data in a single **sub** field

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

Operation Field

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	Format	Spok attribute
1(A)	Targeted Spec Version	Version of the specs that the provided file is targeting	R		✓	Expected value: 3.0	
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)	LocationData	Repeating occurrences of LocationData	R			locationType;locationExternalID;locationName;locationTimeZone;locationDescription;locationStatus;locationAddressLine1;locationAddressLine2;locationAddressCity;locationAddressState;locationAddressPostalCode;locationAddressCountry;locationAlias (*repeating with : delimiter*);locationPhoneNumber~locationPhoneType (*repeating with : delimiter*) *Each location can be repeated with a | delimiter.*	A single location w/all the appropriate attributes. See below for detailed information and example.
5(E)	Timestamp	Date and time the new/updated location record(s) were written to the file	R			Expected format: CCYYMMDDHHMMSS	

Each Location Data record will have the following structure:

- **LocationType** – Name of the location type as configured in the Location hierarchy
- **ExternalId** – A unique ID for a location from the source system
- **Name** – Name of the location
- **Time Zone** – This is an **optional** attribute for a location. Can be set to "Inherit" or a specific time zone. Will be set to "Inherit" if not set. (Must match the IANA name for a time zone (ex: "America/Chicago"))
- **Description** – Description of the location
- **Active Status** – "Active" or "Inactive" status for a location. Will be set to "Inactive" if not set.
- **Address Line 1** – This is an **optional** attribute for a location but can be configured to be required. Import will fail if required and not included.
- **Address Line 2** – This is an **optional** attribute for a location but can be configured to be required. Import will fail if required and not included.
- **Address City** – This is an **optional** attribute for a location but can be configured to be required. Import will fail if required and not included.
- **Address State** – This is an **optional** attribute for a location but can be configured to be required. Import will fail if required and not included.
- **Address Postal Code** – This is an **optional** attribute for a location but can be configured to be required. Import will fail if required and not included.
- **Address Country** – This is an **optional** attribute for a location but can be configured to be required. Import will fail if required and not included.
- **Aliases** – Aliases that could also be used to identify a particular location; Each alias should be separated by a colon :
- **Phones** – This is an **optional** attribute for a location but can be configured to be required. Import will fail if required and not included. Multiple phones can be specified in this format; phoneNumber~phoneType:phoneNumber~phoneType. Supported phone types are: Work, Home, Mobile, Pager, Emergency
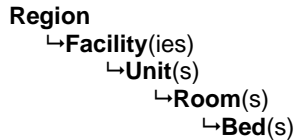
Example record:

`3.0,LOCATION,FULL,Region;RegionExternalId;USA;RegionTimeZone;RegionDescription;Active;RegionAddressLine1;RegionAddressLine2; RegionAddressCity;RegionAddressState;RegionAddressPostalCode;RegionAddressCountry;RegionAlias1:RegionAlias2;566666~Home:89999~Mobile,timestamp|Facility;FacilityExternalId;Eden PrairieOffice;FacilityTimeZone;FacilityDescription;inactive;FacilityAddressLine1;FacilityAddressLine2;FacilityAddressCity;FacilityAddressState;FacilityAddressPostalCode;FacilityAddressCountry;FacilityAlias1:FacilityAlias2;F566666~Pager:F89999~Emergency, timestamp`

- Blue text is data for the first location

- Purple text is data for the second location

- Each location is specified in a single record w/repetitions separated by a pipe |

- Repetitions within a single location sub field are separated by a colon : (Example: *RegionAlias1:RegionAlias2*)

- Sub fields within a sub field are separated by a tilde ~ (Example: *6127624974~Home*)

- Repetitions of sub fields with sub fields is allowed (Example: *9524707455~Home:6129379854~Mobile*)

- Location data must match the hierarchy configured in Spok Go or the import will fail

- Address, Phone and Time Zone attributes for a location should be specified only if the corresponding Location Type is configured with that attribute.

- If an attribute is defined as required in the Location Type hierarchy then it must be specified in the csv file
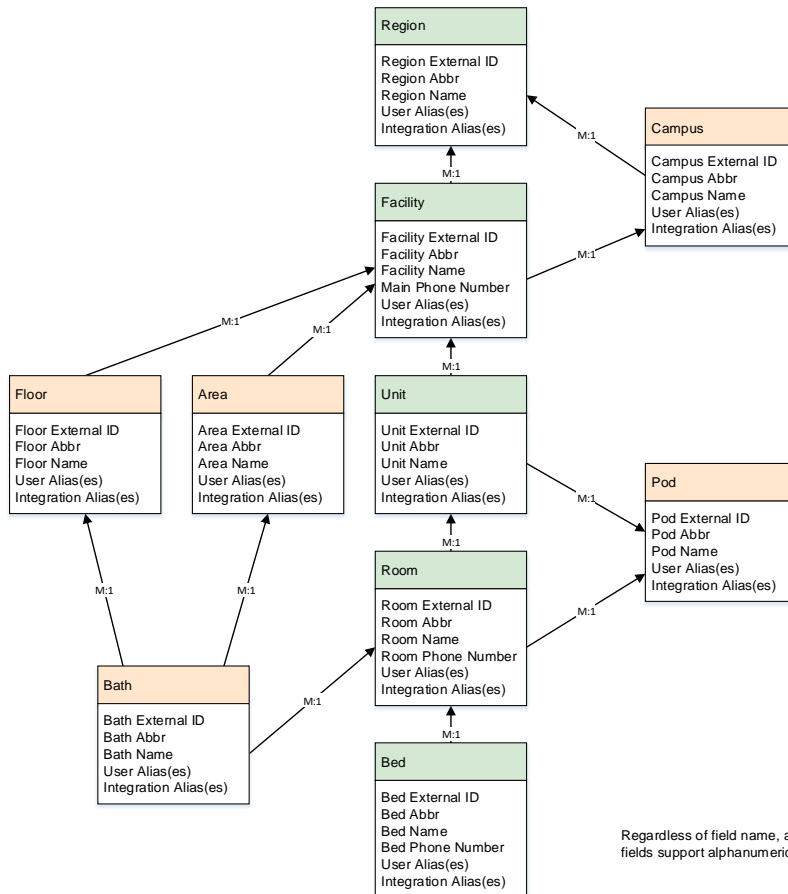
Data Upload Details

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

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 location types are not hard-coded and can be customized for every tenant. These locations help drive workflows, assignments, and targeted messages in the system. An example of a hierarchy *could* be:

> **Region**
> ↳**Facility**(ies)
> ↳**Unit**(s)
> ↳**Room**(s)
> ↳**Bed**(s)

Each row should specify the entire ancestry of a particular location starting with the root. In the above example, if trying to insert a Room, the parent Region, Facility, and Unit would also need to be specified.

It is important to note that hierarchies can be configured in Spok Go to be flexible in terms of what location types can be a parent/child of each another. For example, as shown in the diagram below, a Pod could be configured to have children with a Room location type OR a Unit location type.

Regardless of field name, all "...Name" and "...Number" fields support alphanumeric characters.

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.

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
2021.9.13	Updated verbiage in the Data Upload detail section to align with the flexibility location hierarchy. 3.0 version	Zach Hanson, Paola Gonzalez