April 12, 2022

From: Bernie Adams, Systems Integration Specialist

To: Paul Hays - TIBA Parking Systems

Subject: Estimate for SP+ CARS to TIBA SmartPark Import Program – Version 2 Enhancements

The purpose of this document is to define enhancements for the integration between SP+ CARS and TIBA SmartPark. SP+ CARS is a billing and invoicing system utilized at SP+ managed properties. TIBA desires to add functionality to the existing interface whereby the properties utilizing SP+ CARS can utilize their credentials to access the TIBA SmartPark PARCS system. SP+ CARS will be the “master” in maintaining the users and credentials.

Enhancements

The desired enhancement to the existing SP+ CARS to TIBA import program entails adding the ability to specify TIBA facility or site IDs to the individual CARS/RM location codes. This will allow the flexibility by SP+ to utilize the multi-lot capability of SmartPark to manage independent facilities.

The enhancements will require multiple changes to setup and processing flow within the existing product. The resulting product will remain a component of the comprehensive import program.

All CARS/RM locations, regardless of the assigned TIBA SmartPark, will utilize the same SP+ URL and API key.

The multi-lot implementation may require separate external vendor (provider settings) setup items and a TIBA SmartPark URL per SmartPark site/facility.

All TIBA SmartPark URLs will use a common Authorization User name and password (defaults are tiba/tiba1986) and Certificate Issuer.

**Setup Items**

The current product requires a singular set of TIBA parameters (site code, user name, password, terminal ID and provider ID) to a singular web API (URL, Authorization user name and password, certificate issuer) for multiple SP+ location IDs (CARS/RM). To implement the ability to map different CARS locations to different SmartPark sites, a more comprehensive setup will be required for maximum flexibility. Additionally, it is assumed that data returned from any specified SP+ location will be solely for a singular TIBA SmartPark site ID.

NOTE: Any existing sites utilizing version 1 of the SP+ CARS Import program that is upgraded to the new version will have to be re-setup.

For each TIBA SmartPark site/facility, the user will define/map the following items:

* TIBA SmartPark Base URL
* SmartPark Site/facility ID
* User name
* Password
* Terminal ID
* Provider ID
* Default Company ID (for specified site)
* Default Access Profile Number (for specified site)
* List of SP+ CARS location ID(s) for SmartPark site
* List of SP+ RM location ID(s) for SmartPark site

The list of SP+ CARS locations IDs cannot be validated and will NOT be checked for duplicate values. It will be the responsibility of the person setting up a site to properly assign the SP+ location ID’s.

For definition of each of the SmartPark sites, once the TIBA SmartPark URL, site/facility ID and provider settings are defined, the setup program will verify the connectivity to the SmartPark server and retrieve the companies and access profiles. The returned lists will be used to populate a dropdown list to be used to specify or verify the default company and access profile to be used for that SmartPark site.

**Processing Changes**

CARS Changes Processing logic will be the same within each defined TIBA SmartPark site/facility. Process will query SP+ CARS for user records for each SP+ CARS location/source for a site/property. The location ID, source type and the API key are used to retrieve the active parkers.

I.E., https://monthlyparker.spplus.com/locations/12345/parkers?source=RM

Data returned will be processed to add or update Monthly data in a SmartPark site. At the end of processing, the list of valid users from SP+ CARS for a location will be compared to the monthlies list from SmartPark site where the ID Num equals the CARS location code. Any monthlies found in SmartPark site but not in SP+ CARS will be deleted in SmartPark site.

All processes will log their actions. If any critical issues occur related to data received from SP+ CARS (I.E. Company ID not found or Access Profile ID not found) will be recorded in a separate file. This allows the errors to be reviewed and corrections made to either SmartPark or to SP+ CARS. Each program or process will be responsible for purging older log and error files (older than 60 days).

The required change to the current product will have to recognize that there may be multiple SmartPark Sites to process during execution. Product will perform the above defined steps for each SmartPark site defined. The defined default Company ID and Access Profile number for a SmartPark site will be used as needed.

Estimated Revision cost: $5,250.00

**ESTIMATE IS GOOD FOR 60 DAYS FROM DOCUMENT DATE**

Accepted By – TIBA Parking Systems

Name/Title: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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