APX
BUILDING + ONSITE DATA SOLUTIONS

CITYSCAPE
SMART CITY APPLICATION SUITE

DATASHEET

SMARTCAPTURE

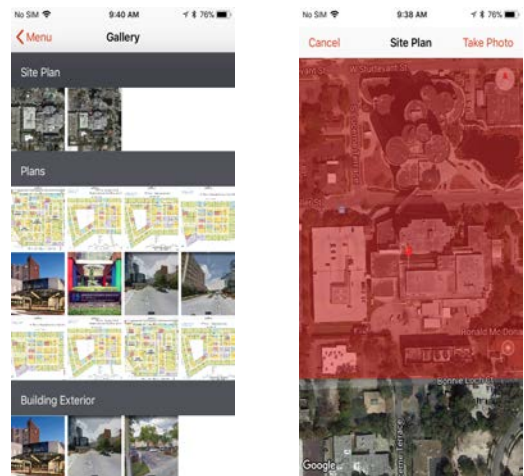+1.888.240.0521 I APXDATA.COM

CityScape SmartCapture

APX built its Smart City Building and Onsite Data Solutions Platform—CityScape—on the premise that all cities now require comprehensive, actionable data to manage the magnitude of scale represented by evolving technology. It is this data that is used to effectively and intelligently manage everything—from building infrastructure to guiding emergency services through extreme incidents.

The CityScape Platform enables collecting and sharing data through a highly versatile and customizable platform—data that becomes the epicenter for all those involved. APX's unique approach to data accessibility enables multiple parties within a Smart City environment to share and access data based on their secure rules and requirements.

APX's revolutionary CityScape SmartCapture™ Application combines highly intuitive mobile device software and cloud services to enable easy, efficient, secure, and robust capture and management of building and onsite data.

The SmartCapture™ Application enables the user to easily plot locations of highly detailed internal views and building records on the SmartCapture map that can then be accessed by a single tap or via search. Furthermore, customizable forms enable the collection of highly diverse data. It can also automatically manage the more technical aspects of data capture including data compression, device orientation, network connectivity, and more.

SmartCapture™ even works in poor network conditions, seamlessly syncing data to the cloud when conditions permit. And a web administration console provides a dashboard that reports capture/update activities. It also delivers robust security through user account authentication combined with roles-based access controls, data encryption, and access audit trails.

FEATURES

Building Record Search Bar . Built-in Map . Building Record Editor . Customizable Forms and Fields . Local Building Record Storage . Conflict Resolution . Image Annotation . Record Preview . Sync Status .

- **Building Record Search Bar:** Users can search for existing building records using civic addressing, or create a new record at a chosen address by selecting the pinpoint that appears on the SmartCapture Map for the selected address.

- **Built-in Map:** This is the default screen of SmartCapture and uses Google Maps as a base. From the SmartCapture Map, you can view and select created building records. Existing records are displayed as Red Pins. The user's current location is displayed as a Green Pin. A searched or tapped location is displayed as a Purple Pin.

  - Current Location: The current location button can be tapped at any point to pan the map to the user's current location.

  - Tap-to-Create: A location for a new record can be selected by long-pressing on a desired location on the map. A pop-up will display the selected civic address for this selected location.

  - Re-positioning Buildings: Searched locations (Purple Pin) and existing records (Red Pin) can be re-positioned within the application map.

    - Re-positioning a Searched Location (Purple Pin): To re-position a searched location, long-press on the pin, and then drag the pin to the desired location. Release the pin to set it at this new location.

    - Repositioning an Existing Record (Red Pin): To re-position an existing location, open the record and then tap the GPS Coordinates to open the map. Long-press on the pin, and then drag the pin to the desired location, releasing it on the desired position.

- **Building Record Editor:** Input the information for a new building, update an existing building's information, or delete outdated information.

  - Building Records: By default, are broken down into NFPA-1620 compliant sections.

  - Capturing Text information: Text-based information can be input using the device keyboard, using customizable drop-down choice-lists, or using multi-item tables. Depending on the field, the keyboard type can be specified as either alphabetic or numeric. Multi-item tables contain one or more subfields, and let a user input more than one type of the same object or information such as hydrants.

- Capturing Images: Images—satellite views, photos from the device library or captured using the device camera—can be captured in a building record. Captured images can also be re-used in other SmartCapture fields. All form fields can be customized to allow the addition of photos. Photos can be added/viewed from within record sections and/or the photo section of a record.

  - All captured images are auto-compressed, for example 5MB JPEG might be compressed to 300KB.

  - All captured images have orientation that is normalized—portrait or landscape orientations are standardized to ensure uniform presentation.

  - The Other Photo section contains all images added to the record.

  - Images are given descriptions and are classified by image type.

  - If a field can have both a site plan and a photo, the user will be prompted to select what type of image they want to capture.

  - Capturing Photos – Photos can be captured using the device camera or using the camera library. If the camera is selected, the user will be asked to confirm the image once it is captured. Users are prompted to provide a name for all selected images.

  - Capturing Satellite Images – Satellite images can be captured for use as a site plan. When the Satellite option is selected, the user will be presented with a satellite view of the selected location. Users can swipe to pan the map to the desired position. When the image is captured, a scan animation will be presented and then the user will be prompted to name the captured satellite view. All satellite views show north by default.

  - Image Re-ordering – Images can be re-ordered within the SmartCapture field in which they are added. The "Image Re-order" button can be tapped, opening a window from which images can be dragged to change position.

- Users are prompted to save or discard information if they do not tap the Save button.

APX
BUILDING + ONSITE DATA SOLUTIONS

CITYSCAPE
SMART CITY APPLICATION SUITE
D A T A S H E E T
+1.888.240.0521 | APXDATA.COM

- **Customizable Forms and Fields:** Building record form sections, and the fields within in each section, are customizable using a form definition that is unique to the organization.

  - A field can be a text field, choice list, numeral, phone number, email address, street address, or table.

  - The form definition is stored in that organization's index database.

- **Local Building Record Storage:** A set number of building records are stored within a local database. As a result, a data connection is not required for SmartCapture—while buildings must be synced down while in network coverage, the application can then be used offline to modify the building information. These changes can then be synced with the CityScape Application Server when network connection is re-established.

- **Conflict Resolution:** When Mobile Applications sync updated records with the CloudDB Database Environment, changes are made to reflect the updated record. When syncing, the Mobile Application pulls the latest revision ID of the record stored on the cloud, and then compares it to the "generate Change List" (which details the user, and both new and old values for all changes). Change Lists are submitted to the local database each time a change is made and saved.

  - Only when the same field is modified with different values by multiple users is it elevated for user conflict resolution. If the device finds that the value for a field in the Change List is different from the synced document, and the value for that field in the synced document is the same as the local document, the device will make the change. However, if the value for a field in the Change List is different from the synced document, and that the value in the synced document is different from the value for that field in the local document, then the device will surface this data conflict for user-based resolution.

- **Image Annotation:** Images added to a record (either using the device camera, capturing a satellite image, or by uploading an image from the device camera roll) can be annotated with icons. Default icons are NFPA standardized, and can be customized for customers.

  - Tap-to-Place: Icons can be selected from a drop-down list, and are placed on the image by dragging the icon to the desired location. To enhance usability, a tapped icon hovers above a user's finger so that the user can see where the icon is being placed.

- Select to Move, Add or Delete: Icons can be selected when within the Annotation Canvas. A selected icon is identified with a yellow box around the icon. A selected icon can be moved by tapping and dragging. Icons can be added by tapping the Add icon button and selecting it from the drop-down list. Icons can be deleted by tapping the icon, and then tapping the red delete badge that appears in the icon's left top corner.

- Link to Additional Information: Icons can be edited to link to additional information. The icons act as navigational links when pushed in an incident package. The information linked differs depending on the type of icon; for example, the Hydrant icon will link to information about a hydrant(s), and can be customized—by APX—to include as little as a specific field, or as much information as one or more sections.

- **Record Preview:** The Record Preview feature instantly generates a representation of how the collected information would look if pushed through the CityScape SmartView application. The feature can be accessed by tapping the Preview button that appears in the top right of the application menu. All textual information, images and annotations appear as they would if accessed in an emergency. The Preview menu appears along the left side of the screen. The annotation linking capabilities in the interactive site plan can also be tested when previewing a record. By default, the Record Preview will open up in full screen, mirroring how it would appear during a dispatch. If the Record menu is opened while previewing a record, the preview scales to accommodate the Record menu.

- **Sync Status:** The sync-down status for the building index document (building names, addresses, and GPS coordinates) and any synced-down building information plans. It is displayed in the top left of the application, above the SmartCapture map.

  - A green status icon indicates that the building index document and any synced-down buildings have been synced-down successfully.

  - A yellow status icon indicates that a sync is in progress or not yet completed.

  - A red status icon indicates that a sync operation failed to complete due to an error or timeout.