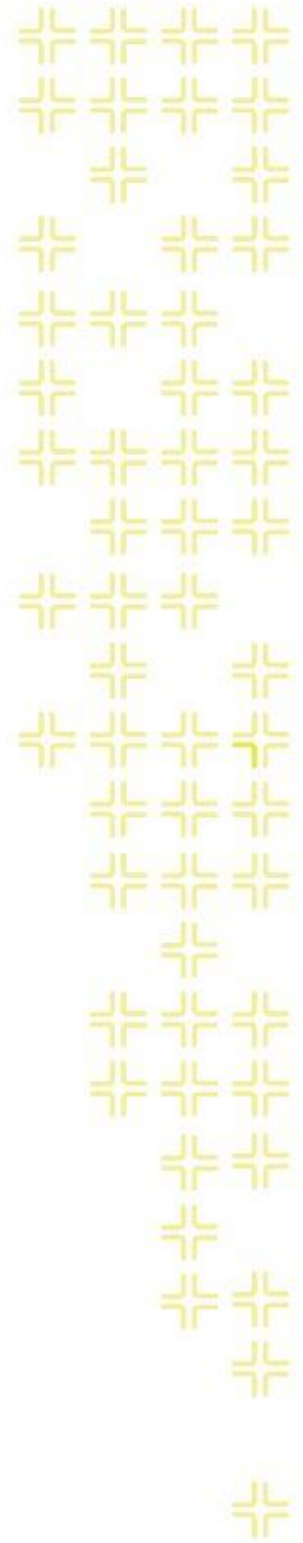




TRAINING GUIDE

Tablet Cradle to Mobile Dashboards & Views



Tablet Cradle to Mobile

User Interface - Dashboard and Views

There are 3 major components to mobile. These correlate to the 3 portions of the Lucity Web application. These 3 components are the dashboard, views and forms, and GIS.

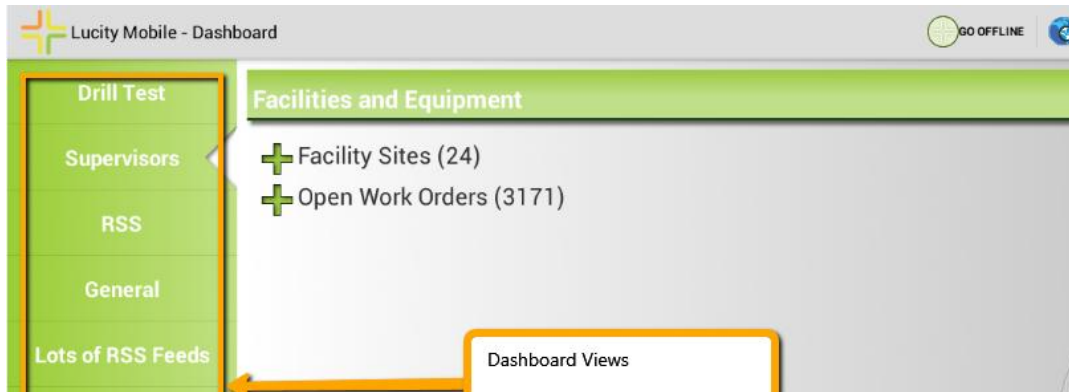
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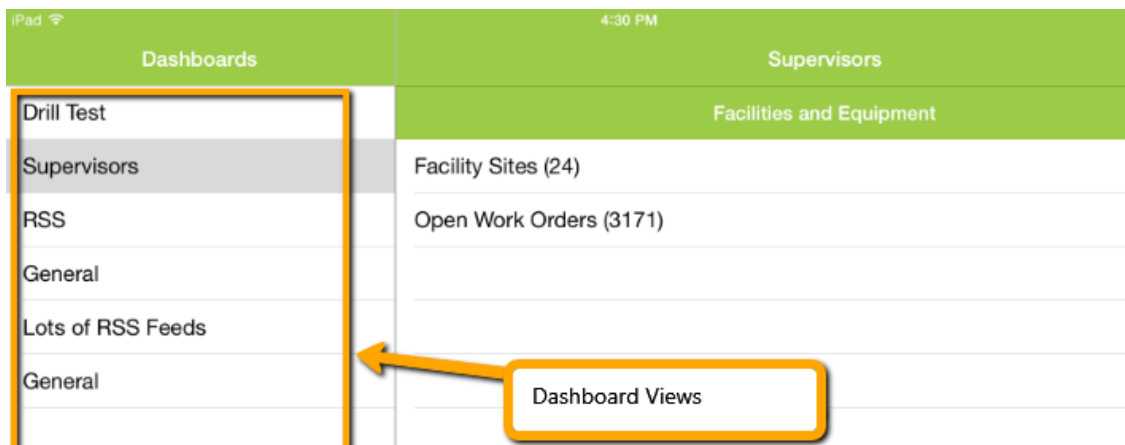
Dashboard

The dashboard is comprised of multiple dashboard views which appear on the left side of the page:

Android



iOS



Selecting a view from the left side will display the dashboard view.

Notes: _____

Android

Lucy Mobile - Dashboard

GO OFFLINE MAP MODULES

Drill Test

Supervisors

RSS

General

Lots of RSS Feeds

General

Open Work Orders and Requests

+ All Requests entered this month

+ Park Work Orders (30)

Blogroll

Looking Into Lucy >>> August's Issue

Here's what we shared this month: ACT 2014 >>> We're quickly inching closer and closer to Lucy's Annual Conference & Training (ACT). We're making final adjustments to the agenda and getting everything together to head to San Diego. We're looking forward to reconnecting with many of you who have attended in the past, and can't [...]

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Our second release for 2014, called Lucy 2014r2, is now available for download from our new and improved support center. Our summer release is always feature-packed, and this year is no different. This release includes: Workflow setup modules (Categories, Tasks, Employees, etc) available on the web Access to viewing and editing field properties on the [...]

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Lucy's Esri User Conference Wrap-Up Part 2

Last week we shared our COO, Jim Graham's, feedback after returning from the Esri User Conference. Here's something from Luke Savage, our Client Services Consultant, and one of our resident GIS experts: At the 2014 Esri User Conference, Esri showcased another impressive conference. With the changes ahead in 10.3 like ArcGIS Pro, we at Lucy [...]

Lucy's Esri User Conference Wrap-Up

iOS

iPad 4:30 PM 10%

Dashboards

General

Drill Test

Supervisors

RSS

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Lucy's Esri User Conference Wrap-Up

Dashboard views can contain Asset Trees, Data Drills, or RSS feeds. Reports and Links are not supported in the mobile dashboards. Report frames are automatically excluded from the display.

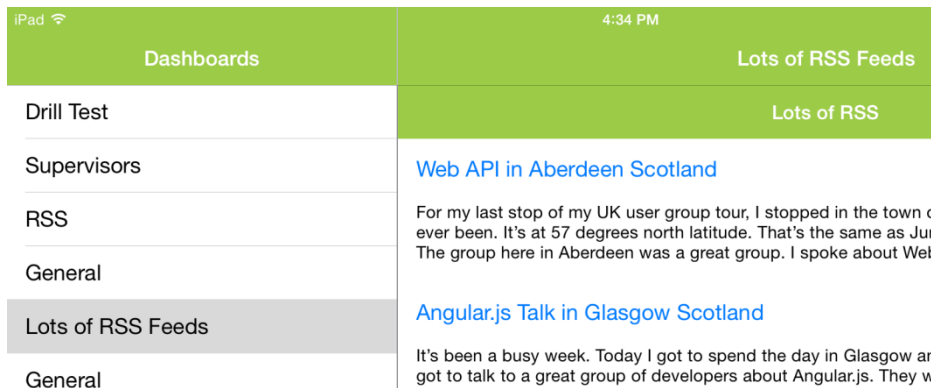
RSS Feeds

This is an example of an RSS feed:

Android



iOS



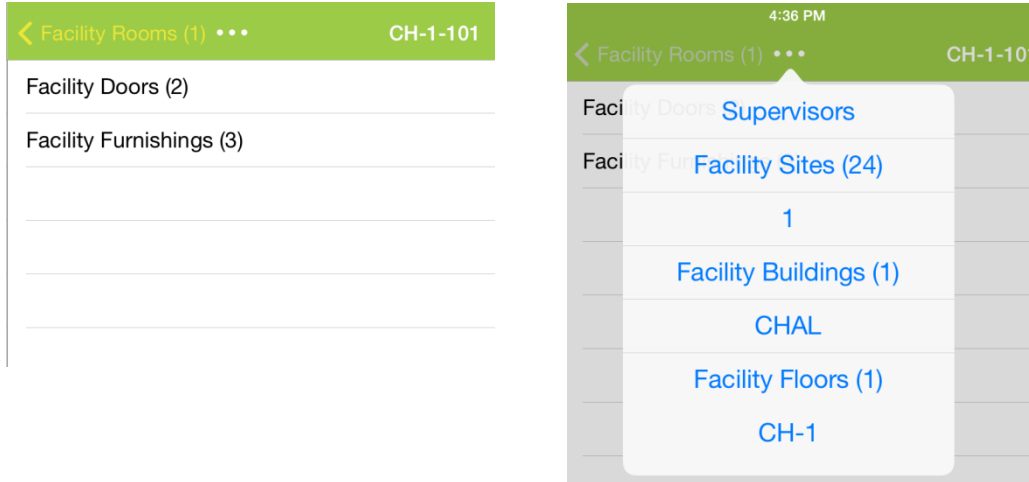
Hyperlinks will open the content in the default browser on the device (chrome or Safari).

Asset Trees and Data Drills

In the Lucity Mobile Android application, asset trees and data drills are displayed in a tree format.



In iOS tables and phones, asset trees and data drills are show in hierarchical views.



To drill into a data drill or asset tree item to see its children on Android, click the **+**. In Android it will expand into a tree format which can be collapsed and expanded by clicking on the Plus or Minus.

To drill into a data drill or asset tree item in iOS, click the **i**. This varies based on iOS version. Some older (6.x) iOS versions use a blue arrow. It is likely that future iOS versions (iOS 8+) may also vary.

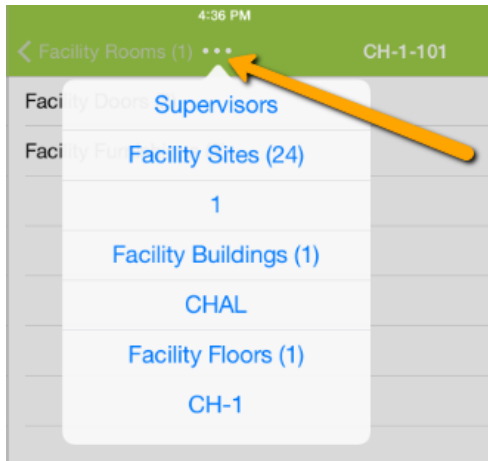


iOS only shows one level at a time. The parent level (Facility Rooms) is displayed here:



To navigate back up to the parent, click on this parent navigation item. In the above screen capture “Facility Rooms (1)”.

If you are nested several levels deep in the asset tree in iOS, a “...” will display. Clicking the “...” will display the entire parent hierarchy to make it easier to jump up to grand parent or great grandparent levels:

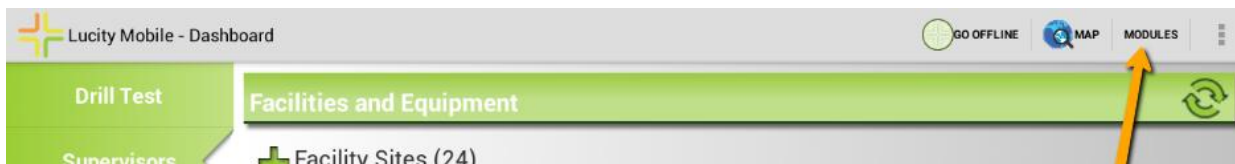


To launch a view from an asset tree or a data drill, click the item (anywhere but the + or i). This will open a view (grid) to show the relevant records.

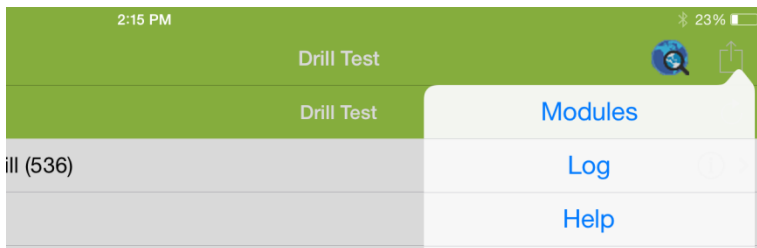
Modules Menu

It is a good idea to configure user’s dashboards to show the modules they typically will be accessing out in the field. It is a fast way to launch views to the pre-filtered relevant data for that user. To access views that are not in the dashboard or to access view data that is not in a dashboard frame, you can open the modules menu. This is accessed from the menu button on the dashboard.

Android

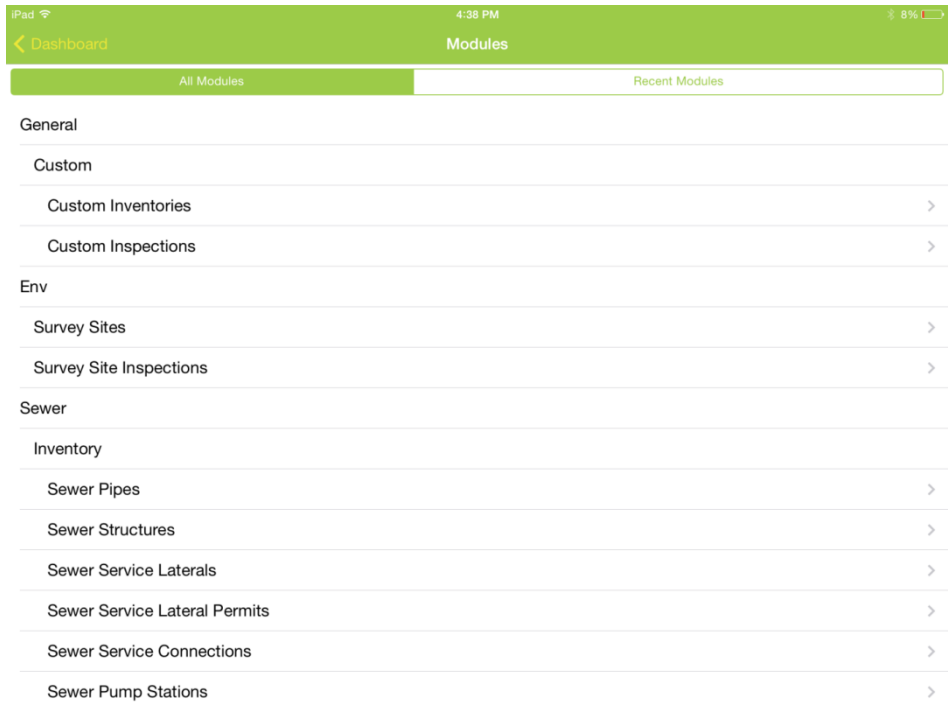


iOS



Notes: _____

The modules menu screen will show all modules which the user has available to them. If the user has Run permissions to the module and belongs to a group that has permissions to the default view for the module, it will be available in the menu.

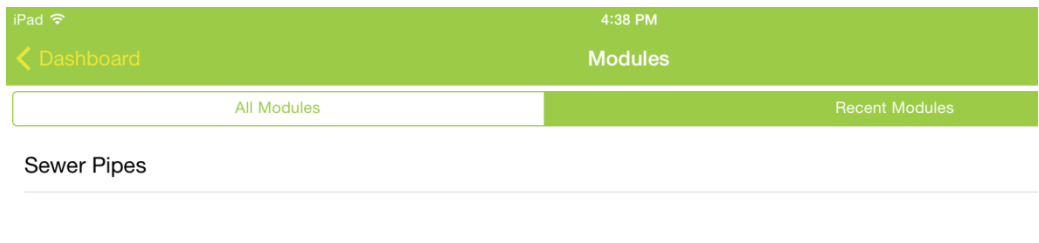


The user can also access the recent modules to quickly jump into modules that have recently been opened. On Android this shows recent modules opened from the modules menu or from the dashboard. On iOS this shows the recent modules opened from the modules menu.

Android



iOS



Configuring Dashboards for Mobile Use

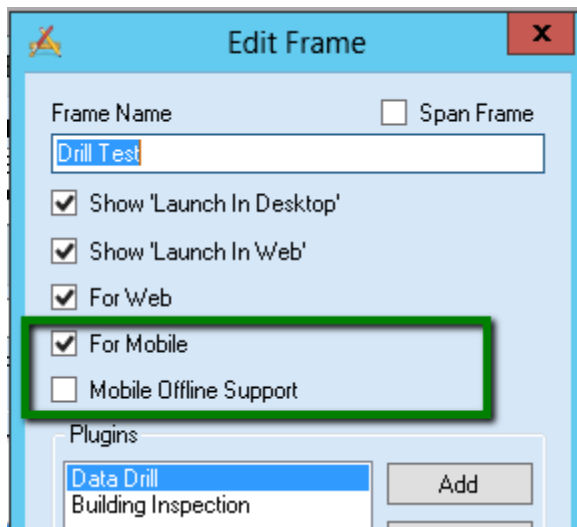
Configuring dashboards for use in the field is very similar to configuring them for use within Lucy Web. Configuring dashboards is beyond the scope of this session, but we will cover some topics specific to mobile (particularly offline mobile).

Users will use the same dashboard for Lucy Web that they use for Lucy Mobile, but you can configure individual frames to be accessible in the web or be accessible in mobile (or both). By default new frames are used by both mobile and web.

To edit whether a frame is available in mobile, go to the user's dashboard (or to a Shared Tab in the templates option on Dashboard/Preferences). Select the tab and click Edit, or selected the Shared Tab and click Edit Tab.

Select the frame you want to edit from the list on the Edit Dashboard Tab List and click Edit.

The first 2 settings (show Launch...) are not relevant for mobile. The last 2 settings are important for mobile.



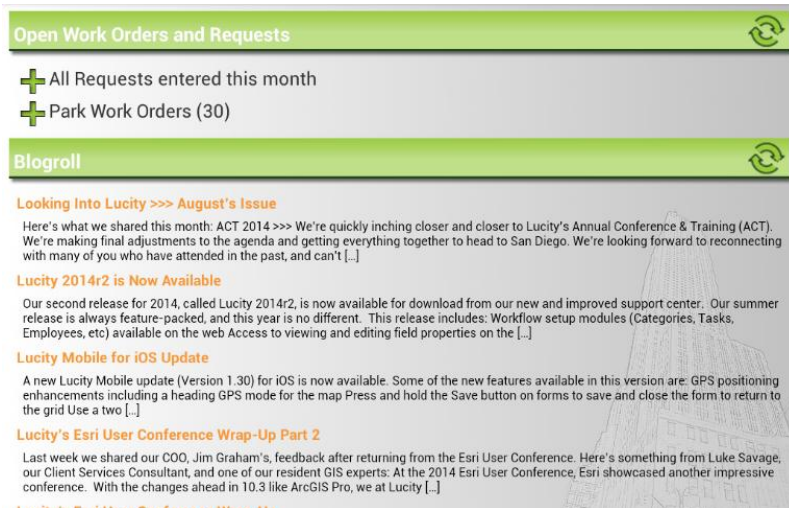
If “For Mobile” is checked the frame will exist on the user’s mobile dashboard. If “Mobile Offline Support” is checked, it will appear on the user’s offline mobile dashboard (Android only).

These settings are effective immediately and do not require any server cache resets. The next time the user logs out and back into the mobile application, they will see the updates on their dashboard.

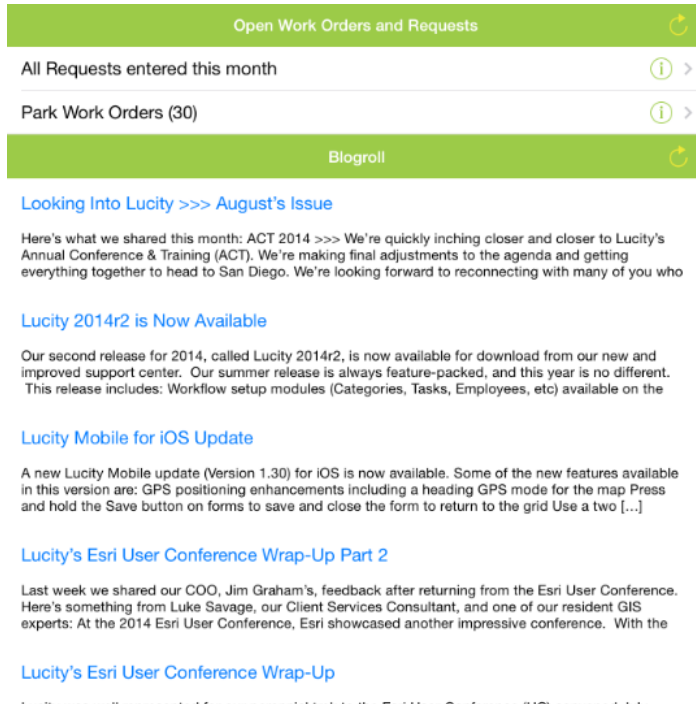
Notes: _____

Dashboards will lay out differently on mobile than they will on the web application. Span Frame, for example, is not relevant on the dashboard. All dashboard frames will appear stacked in a single column for each dashboard view.

Android

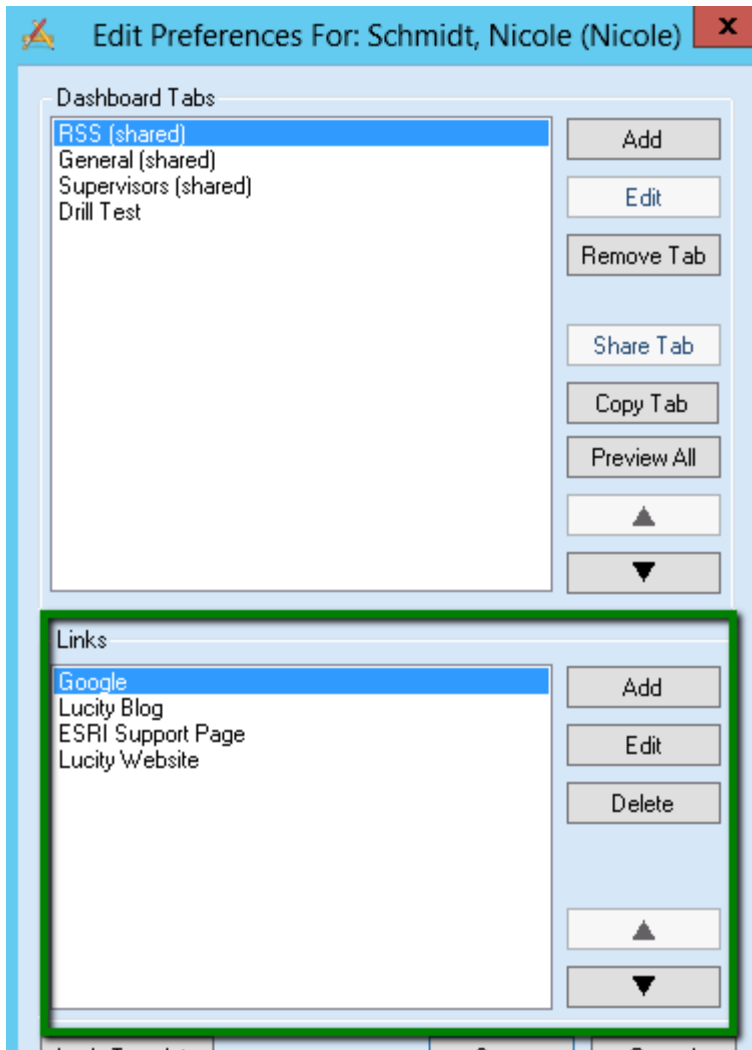


iOS



Notes: _____

Reports and Links are not supported in the mobile dashboards. Report frames are automatically excluded from the display. The mobile dashboard also does not show Links that are configured in Lucy.



Notes: _____

Mobile Views

Views in the iOS and Android application contain the same data as views defined in the web application. The Android application shows the data in a single page list view that requires no scrolling:

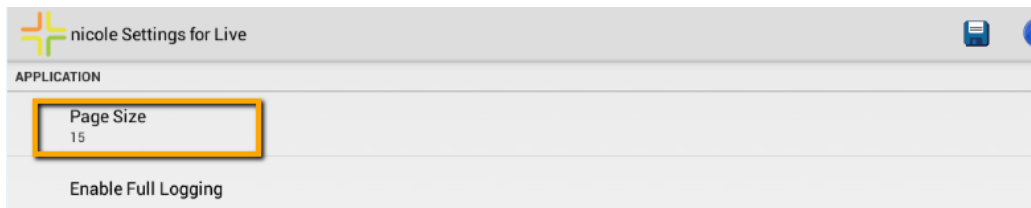
Work Order #	Category Text	Main Task Text	Problem Text
2014-00879	Call Center		Matt Problem
2014-00878	Sewer Manhole		
2014-00877	Admin		
2014-00876	Sewer Manhole		Info - Wastewater
2014-00875	Storm Pumps		UTILITY LOCATIONS

The iOS app is a grid that scrolls up and down/left and right:

Work Order #	Category Text	Main Task Text
2007-00485	Facility Building	
2007-00382	Facilities	
2007-00331	Facilities	
2012-00745	Backflow Preventors	AMR Install / Repair
2007-00987	Potable Services	Information Research
2007-00461	Water Department	Information Research
2007-00007	Potable Services	Information Research
2006-03318	Potable Services	Information Research
2006-02681	Potable Services	Information Research
2006-02552	Potable Services	Information Research
2006-02525	Water Department	Information Research
2006-02463	Potable Services	Information Research
2006-02433	Potable Services	Information Research
2006-02440	Potable Services	Meter Changeout

Both applications use paging and will only show a certain number of records at a time. The number of records shown can be modified in the settings:

Android

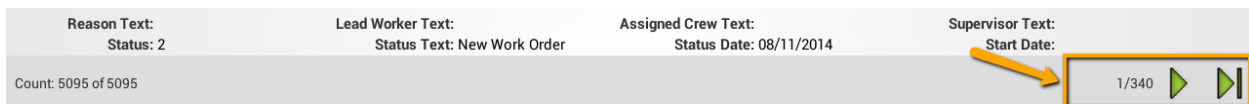


iOS

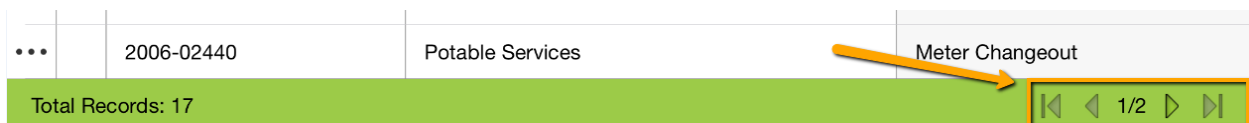


To page through records, use the paging navigation on the lower right hand side. The iOS client also supports paging using a two-finger swipe.


Android



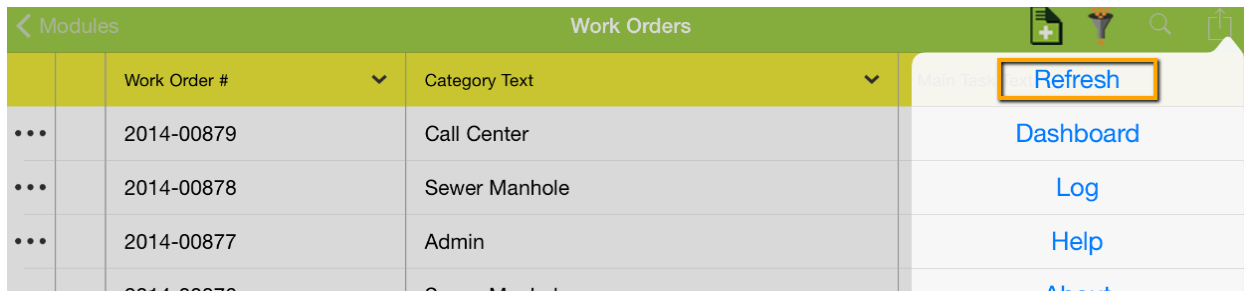
iOS



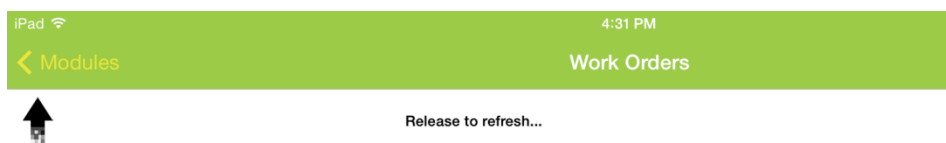
To refresh the current data and get any new records that may have been added on the server since the view was opened, click the refresh button.

In Android this is a refresh button on the toolbar 

In iOS, the refresh is in the view menu.



iOS also supports a pull down refresh.



	Work Order #	Category Text	Main
...	2014-00879	Call Center	
...	2014-00878	Sewer Manhole	

To quickly search for information, each view supports a search function. The search searches all visible columns in the view for all records in current context. This context may be records returned from a dashboard data drill or asset tree, or may be from a filter, or may be all records.

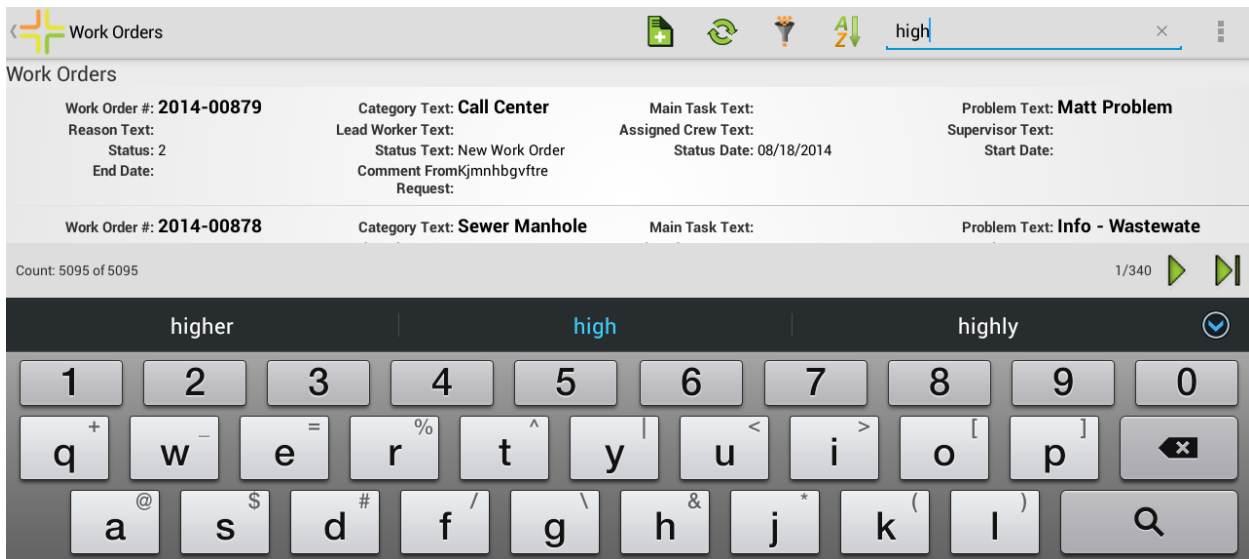
The search button is a magnifying glass in both applications



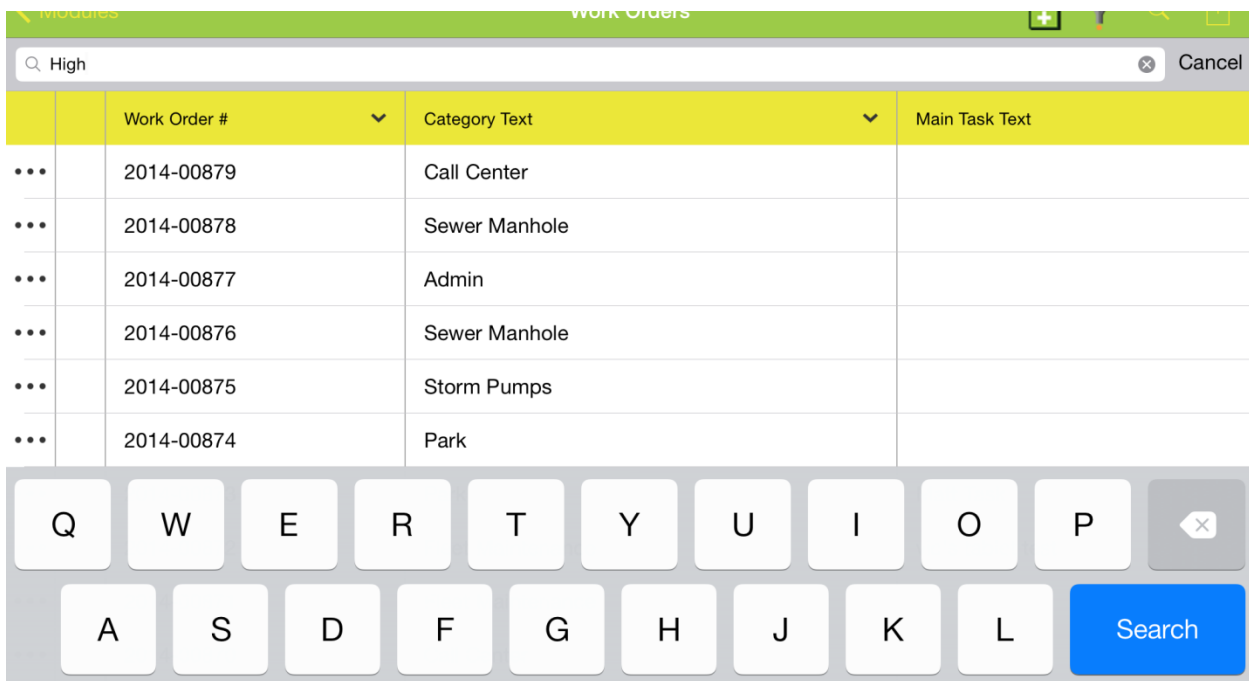
Notes: _____

Once the desired search text is entered, click the Search button or the magnifying glass on the keyboard to initiate the search.

Android



iOS



Notes: _____

The total count of records is shown in the lower left. In Android both the filtered (from the find) record count is shown as well as the full record count:

End Date: 01/26/2007 Com

Work Order #: **2007-00726** Cate

Reason Text: Lead W

 Status: 999 Sl

 End Date: 01/18/2007 Com

Count: 17 of 5095

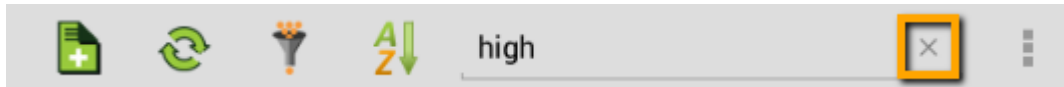
In the iOS app just the filtered record count is shown.

...	2007-00007	Pot:
...	2006-03318	Pot:
...	2006-03288	Pot:
...	2006-02758	Serv
...	2006-02681	Pot:
...	2006-02552	Pot:
...	2006-02525	Wat


Total Records: 17

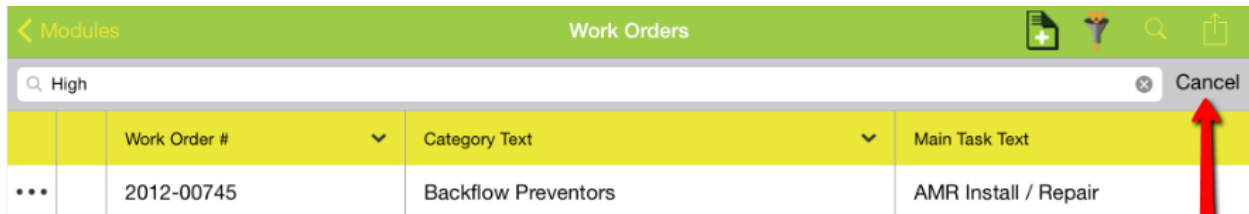
The paging works the same for both filtered and unfiltered data. To page through the filtered records use the record navigation at the lower right hand side of the form.

To clear a sort in Android, click the “X”




Clicking the “X” again will close the search prompt and display the search button again.

To clear the search in iOS, click the search button again . This will re-open the search prompt:



Click Cancel. This will clear the search and will close the search prompt.

Sorting

To sort data in the grid in Android, click the . Select the desired sort column:

Sort	
Choose a field:	
Assigned Crew Text	<input type="radio"/>
Category Text	<input type="radio"/>
End Date	<input type="radio"/>
Lead Worker Text	<input type="radio"/>
Main Task Text	<input checked="" type="radio"/>
Problem Text	<input type="radio"/>
Reason Text	<input type="radio"/>
Start Date	<input type="radio"/>
Status	<input type="radio"/>
Status Date	<input type="radio"/>
Status Text	<input type="radio"/>
Sort Z-A	Sort A-Z

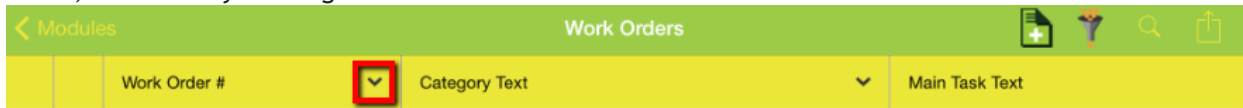
And click the Sort Z-A or Sort A-Z button depending on whether you want the data sorted ascending or descending.

To view the current sort column, click the sort button. It will display the current sort column. Sorts are only supported for only column at a time. Selecting a new sort will clear the existing sort.

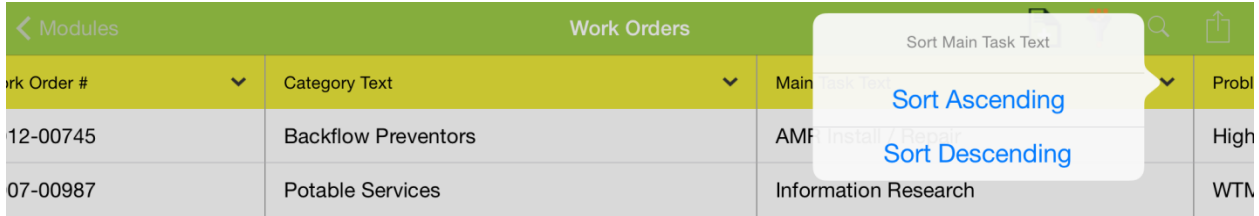
Main Task Text	<input checked="" type="radio"/>	
Problem Text	<input type="radio"/>	
Reason Text	<input type="radio"/>	
Start Date	<input type="radio"/>	
Status	<input type="radio"/>	
Status Date	<input type="radio"/>	
Status Text	<input type="radio"/>	
Clear Sort	Sort Z-A	Sort A-Z

To clear the sort, click the Clear Sort button.

In iOS, sort data by clicking the column arrow



and select Sort Ascending or Sort Descending




When a column is sorted, the column header text appears bolded and the column has a slightly darker color than the rest of the display

The screenshot shows the 'Work Orders' app with a data table. The 'Main Task Text' column is sorted, and its header is bolded. The table data is as follows:

Work Order #	Category Text	Main Task Text	Problem
	Facility Building		
	Facilities		
	Facilities		
	Backflow Preventors	AMR Install / Repair	High
	Potable Services	Information Research	WTM
	Water Department	Information Research	
	Potable Services	Information Research	
	Potable Services	Information Research	

Notes: _____

Filters

Both the Android and iOS application support loading existing filters created in the web app. To load an existing filter, click the filter  button. By default the filters displayed will be the currently logged in user's own filters.

Android

My Filters	
cip	Nicole
DemoACT1	Nicole
Mobile Sewer Work	Nicole
Nicole as Supervisor	Nicole
Nicole test1	Nicole
Nicoles Work Loc Test	Nicole
Sunday ACT	Nicole
test route abc	Nicole
<input type="checkbox"/> Show All	Clear Filter

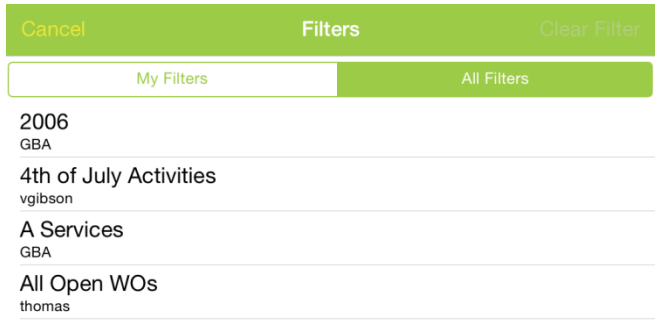
iOS

Cancel	Filters	Clear Filter
	My Filters	All Filters
cip	Nicole	
DemoACT1	Nicole	
Mobile Sewer Work	Nicole	
Nicole as Supervisor	Nicole	
Nicole test1	Nicole	
Nicoles Work Loc Test	Nicole	
Sunday ACT	Nicole	
test route abc	Nicole	

In Android you can see all filters by clicking the Show All button.

CUREY OPEN WO	GBA
DemoACT1	Nicole
donnac test	GBA
Emergency Response - Open Work Orders	GBA
Eugene Open WOs	GBA
Fire Department - Hydrant Reflector	GBA
<input checked="" type="checkbox"/> Show All	

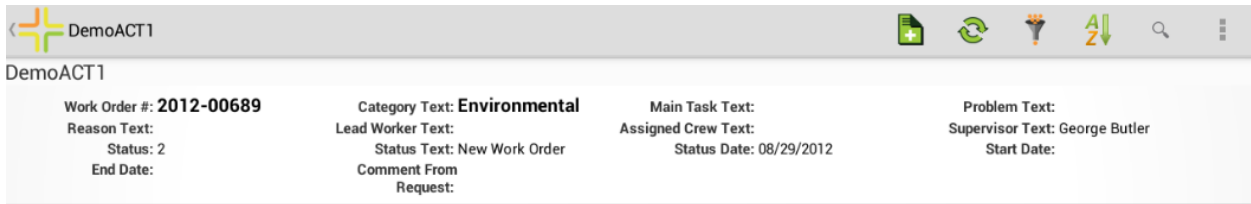
In iOS you can see all filters by clicking the “All filters” tab



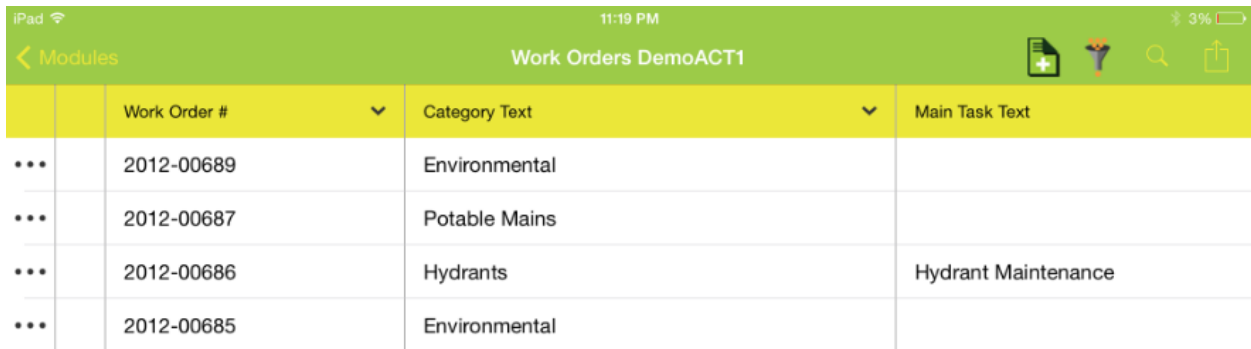
Selecting the filter closes the prompt and loads the filter. Paging and record counts work the same as they do for the find functionality.

The name of the filter selected will appear in the title bar of the view when there is a filter loaded.

Android



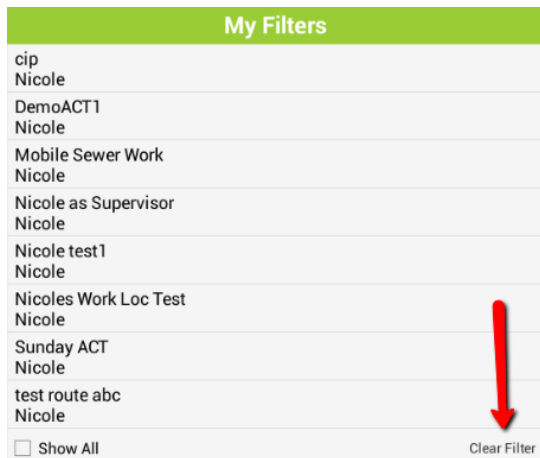
iOS



Notes: _____

To clear a filter, click the filter  button again and click Clear Filter:

Android



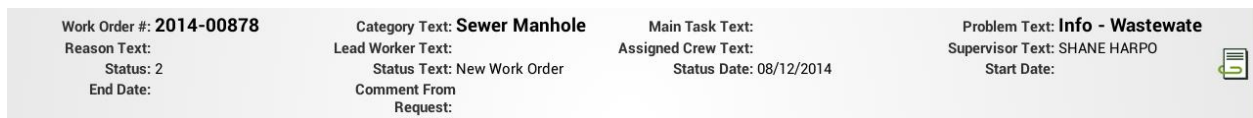
iOS



Viewing attached documents

Records with documents attached will include a documents button. Click this button to view any documents attached to a record.

Android



iOS

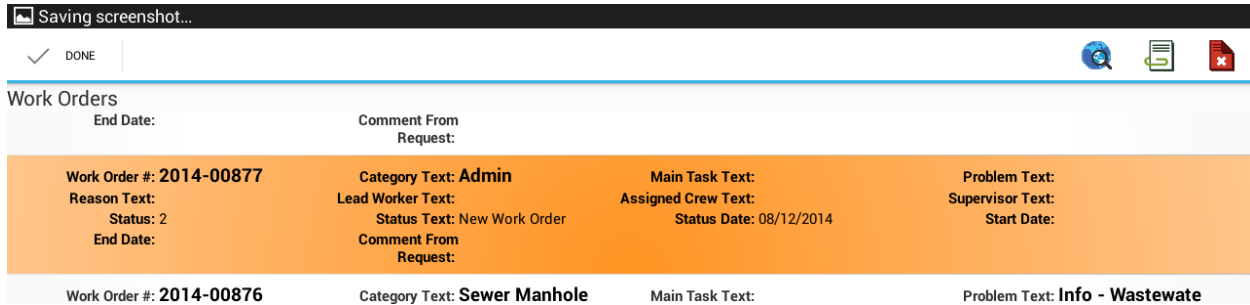


Documents are discussed further later in the session.

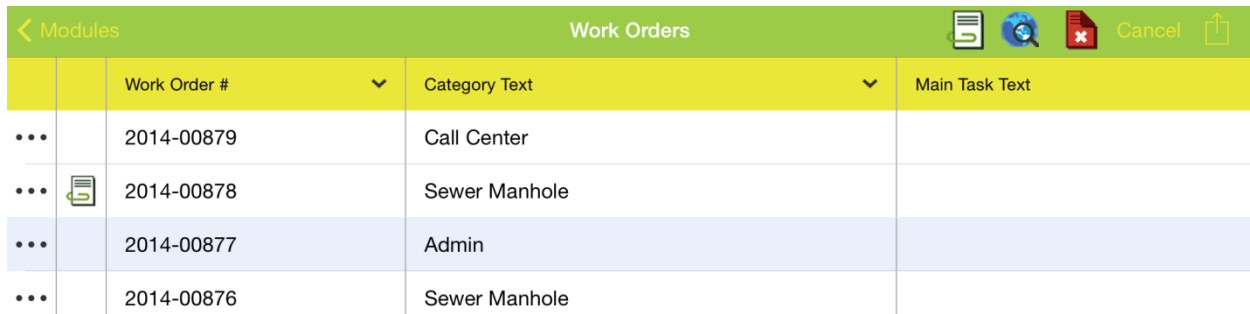
Selection Mode

There are several tools and functions that are only available or may function differently when records are selected in the grid. In both Android and iOS, records are selected by pressing and holding the record (or one of the records) you are interested in. When you press and hold a record for a moment, you will notice the toolbar changing and the record color changes. In Android it changes to orange, in iOS it changes to a light blue or grey color.

Android

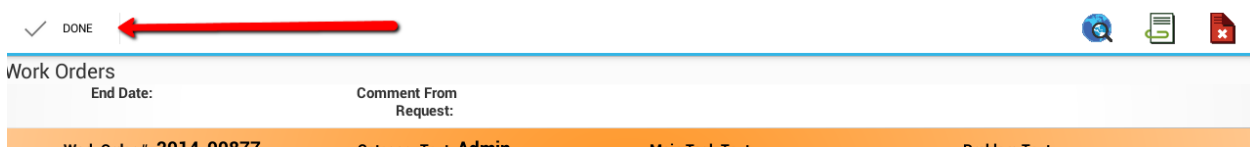


iOS

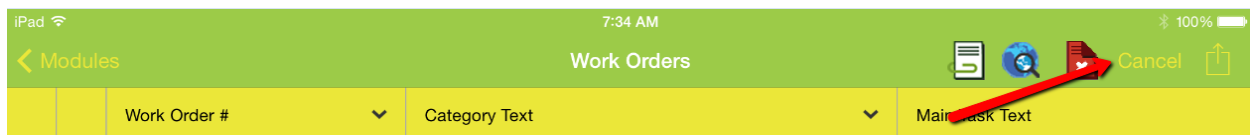


To leave selection mode, click the Done in Android or the Cancel in iOS in the title bar of the application.

Android



iOS



Once one record is selected and the application is in selection mode, additional records can be selected by tapping the record. It is not necessary to press and hold to select additional items.

Android

✓ DONE   

Work Orders

End Date:	Comment From Request:		
Work Order #: 2014-00877 Reason Text: Status: 2 End Date:	Category Text: Admin Lead Worker Text: Status Text: New Work Order Comment From Request:	Main Task Text: Assigned Crew Text: Status Date: 08/12/2014	Problem Text: Supervisor Text: Start Date:
Work Order #: 2014-00876 Reason Text: Status: 2 End Date:	Category Text: Sewer Manhole Lead Worker Text: Status Text: New Work Order Comment From Request:	Main Task Text: Assigned Crew Text: Status Date: 08/11/2014	Problem Text: Info - Wastewater Supervisor Text: SHANE HARPO Start Date:
Work Order #: 2014-00875 Reason Text: Status: 2 End Date:	Category Text: Storm Pumps Lead Worker Text: Status Text: New Work Order Comment From Request:	Main Task Text: Assigned Crew Text: Status Date: 08/11/2014	Problem Text: UTILITY LOCATIONS Supervisor Text: Start Date:
Work Order #: 2014-00874 Reason Text:	Category Text: Park Lead Worker Text:	Main Task Text: Assigned Crew Text:	Problem Text: Supervisor Text:


iOS

< Modules Work Orders    Cancel 

	Work Order #	Category Text	Main Task Text
...	2014-00879	Call Center	
...	2014-00878	Sewer Manhole	
...	2014-00877	Admin	
...	2014-00876	Sewer Manhole	
...	2014-00875	Storm Pumps	
...	2014-00874	Park	
...	2014-00873	Park	Matt Task

Note: Not all tools work on multiple selected items. Tools which only support a single selected item will prompt the user that the tool cannot be used on multiple items.



Create Work Order

An additional tool available on requests and some inventory and inspection modules is Create Work Order. This tool is available when one or more records are selected. 








Clicking on the work order button generates the work order and opens a work order view to display the newly created work order

To create a work order from multiple requests, select all of the desired requests in the list (you can only choose requests from a single page) and click the Create Work Order button. This will create one work order and associate all requests to that work order.

✓ DONE    


Request #	Status	Status Text	Status Date
Request #: 2014-00245 Category: 70000 Priority: Loc Street Name: Request to Work Order:	Priority Text: Loc Street Type: No of Requests: 1	Loc Address: Supervisor:	Loc Street Direction: Supervisor Text:
Request #: 2014-00244 Category: 60000 Priority: 5 Loc Street Name: 87 HWY Request to Work Order:	Status: 1 Category Text: Equipment Priority Text: To Fit Schedule Loc Street Type: HWY No of Requests: 1	Status Text: New Request Problem: VMFUEL003 Loc Address: 45 Supervisor: 168	Status Date: 07/28/2014 Problem Text: ANNUAL PERMITTING Loc Street Direction: Supervisor Text: ROBERT ROTO
Request #: 2014-00243 Category: 02000 Priority: Loc Street Name: E DEVON CT Request to Work Order:	Status: 1 Category Text: Call Center Priority Text: Loc Street Type: CT No of Requests: 0	Status Text: New Request Problem: Loc Address: 2834 Supervisor:	Status Date: 07/24/2014 Problem Text: Loc Street Direction: E Supervisor Text:
Request #: 2014-00242 Category: Priority: Loc Street Name: Request to Work Order: Try again test	Status: 1 Category Text: Priority Text: Loc Street Type: No of Requests: 0	Status Text: New Request Problem: Loc Address: Supervisor:	Status Date: 07/07/2014 Problem Text: Loc Street Direction: Supervisor Text:

To create a work order from multiple inventory items or inspections, select all of the items and click Create Work Order. This will create a work order and include all of the selected assets on the work order.

✓ DONE     

Hydrant Rec #	Hydrant Number	Inspection Date	Inspected By
Hydrant Rec #: 100 Inspection By: Operating Cond: 2 Paint Condition: 2 Oper Nut Cond: 2	Hydrant Number: 1956 Inspection By Text: Operating Cond Text: Good Paint Condition Text: Good Oper Nut Cond Text: Good	Inspection Date: 06/18/2007 Overall Cond: 2 Damage Type: 0 Drain Condition: 2 Cap Chain Cond: 2	Inspected By: Steven Glover Overall Cond Text: Good Damage Type Text: N/A Drain Condition Text: Good Cap Chain Cond Text: Good
Hydrant Rec #: 98 Inspection By: Operating Cond: 3 Paint Condition: 3 Oper Nut Cond: 2	Hydrant Number: 1954 Inspection By Text: Operating Cond Text: Fair Paint Condition Text: Fair Oper Nut Cond Text: Good	Inspection Date: 04/01/2007 Overall Cond: 2 Damage Type: 0 Drain Condition: 3 Cap Chain Cond: 3	Inspected By: Randy Waterhouse Overall Cond Text: Good Damage Type Text: N/A Drain Condition Text: Fair Cap Chain Cond Text: Fair
Hydrant Rec #: 96 Inspection By: Operating Cond: 3 Paint Condition: 2 Oper Nut Cond: 1	Hydrant Number: 1952 Inspection By Text: Operating Cond Text: Fair Paint Condition Text: Good Oper Nut Cond Text: Excellent	Inspection Date: 08/30/2007 Overall Cond: 2 Damage Type: 0 Drain Condition: 2 Cap Chain Cond: 2	Inspected By: Nick Oliver Overall Cond Text: Good Damage Type Text: N/A Drain Condition Text: Good Cap Chain Cond Text: Good
Hydrant Rec #: 95 Inspection By: Operating Cond: 2	Hydrant Number: 1951 Inspection By Text: Operating Cond Text: Good	Inspection Date: 07/15/2007 Overall Cond: 2 Damage Type: 2	Inspected By: David Tanner Overall Cond Text: Good Damage Type Text: Vandalism

Create Request

Creating a request can be done from inventory and inspection modules. Creating a request only works with a single selected item. 

The iOS application works identically to the Android application for creating work orders. Select one or more requests or inventory items or inspections and click the Work Order button:

When the work order is created, a work order view is opened showing the created work order.

Creating Requests in iOS also behaves the same as the Android application. Select the record you want to create a request for and click the Create Request button. This tool only works on one selected record.

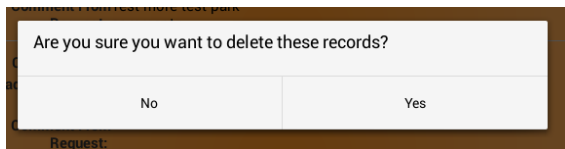
When the request is created a view will be opened displaying the created request.

Deleting records on the tablet

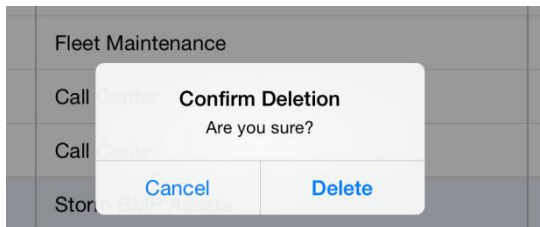
Deleting records on the iOS and Android tables can be done from selection mode as well. One or more records can be deleted. Press and hold a record to enter selection mode (if not already in selection mode)

Tap additional records you want to delete and click the delete button. 

Android

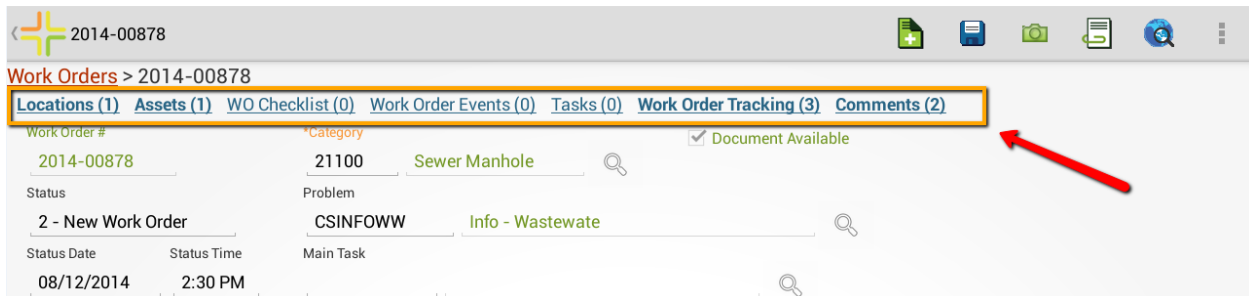


iOS



Navigating child records

In Android, child records are accessed by clicking on the row to open the form. The available child views appear across the top of the form with the child view record counts.



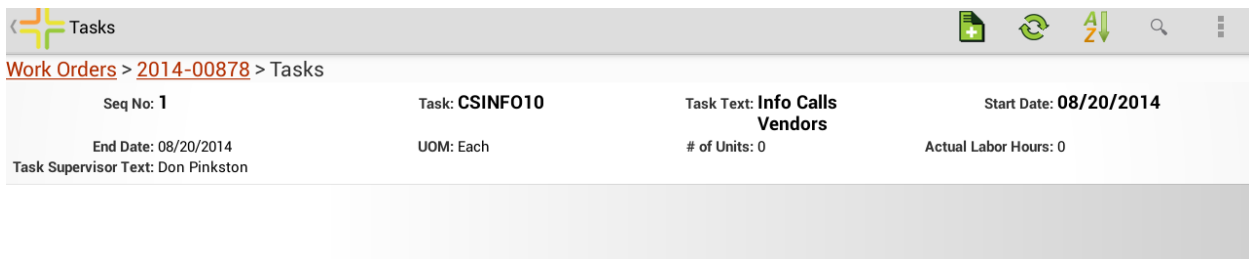
In iOS, child records are accessed with the ... which will display a list of available child views.



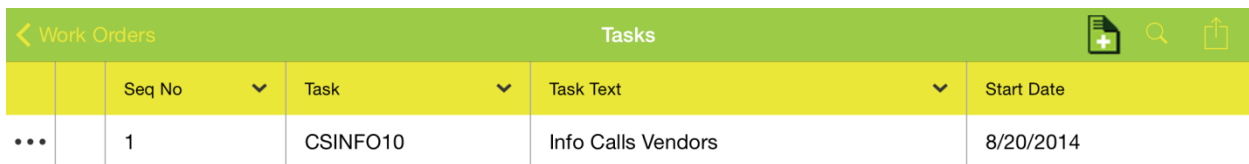
Child views behave very similar to root level views but do not support filter and in some cases may not support adding or deleting depending on the child and the user's permissions.

This is the task child grid of work orders:

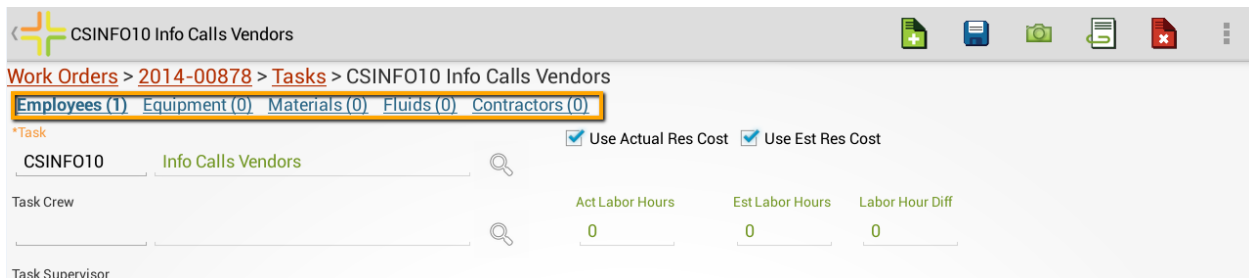
Android



iOS



Child views of tasks can be accessed the same way. In Android this is done by selecting the record to open the form and selecting the desired child view.



In iOS, child views are accessed with the ... button inline in the row.

Configuring Views for mobile

Views configured for the Lucy Web application will automatically be used by the tablet application. The system will automatically use the same views configured for the users in the mobile application that are used for the user in the web application.

For most modules, the view that is opened from the modules menu is the global default view for the module. For work orders, views can be defined per rules group so that some user groups can use an alternate work order view.

The screenshot shows the 'View/Form Manager' window with the following configuration:

- STEP 1: Select Program: Park
- STEP 2: Select Module: Park Courts
- STEP 3: Select Module Component: Park Courts
- Show forms in preview mode:
- Forms:
- Views:

2 Views/Forms

Name	Type	Enabled	Is Default View	Assigned To Gr...	Assigned To Me...	Public FormID
Court Inventory	View	True	Yes	In Group	NOT ASSIGNED	
Court Inventory Form	Form	True		NOT ASSIGNED	NOT ASSIGNED	

It is important to ensure that the tablet users are in a security group that has been granted access to the view if you want them to be able to access it in the field.

The screenshot shows the 'View/Form Manager' window with the following configuration:

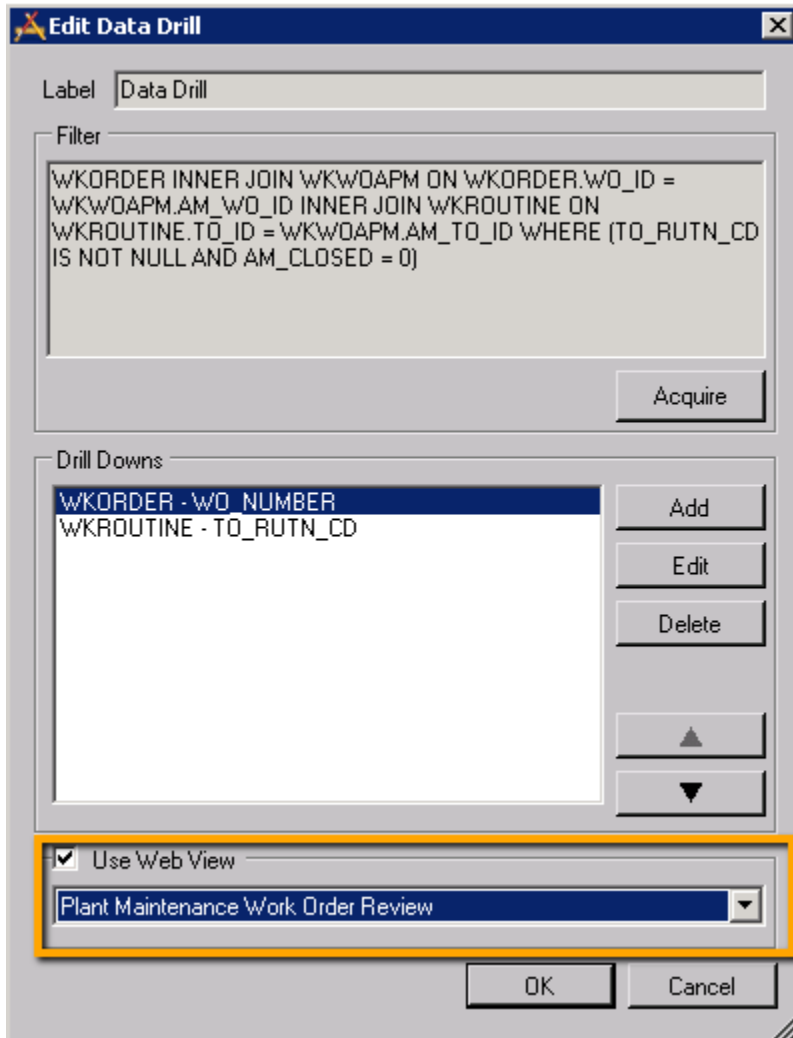
- STEP 1: Select Program: Park
- STEP 2: Select Module: Park Courts
- STEP 3: Select Module Component: Park Courts
- Show forms in preview mode:
- Forms:
- Views:

3 Views/Forms

Name	Type	Enabled	Is Default View	Assigned To Gr...	Assigned To Me...	Public FormID
Court 2	View	True		NOT ASSIGNED	NOT ASSIGNED	
Court Inventory	View	True	Yes	In Group	NOT ASSIGNED	
Court Inventory Form	Form	True		NOT ASSIGNED	NOT ASSIGNED	

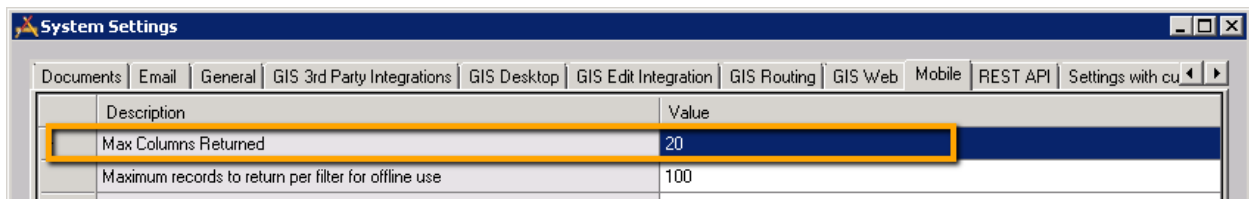
The 'Assign Group...' button is highlighted with an orange arrow.

The dashboard can be configured to use non-default views when configuring asset trees and data drills.



Refer to documentation from a Lucity Administration session for how to customize views and configure views for users.

In system settings you can configure the maximum number of columns shown in mobile for a view.



Views with more than 20 or 30 columns do not work well in the mobile application. They take too much display memory to render and take up too much space. This limit allows views to be defined for desktop usage with many columns, but still work well in mobile by only showing the first X columns.

Changes made to views are not effective until the next application restart which happens nightly. As of Lucity 2014r2 there is not currently a way to clear view caches through the Lucity Administration tool. This is planned for a future release.

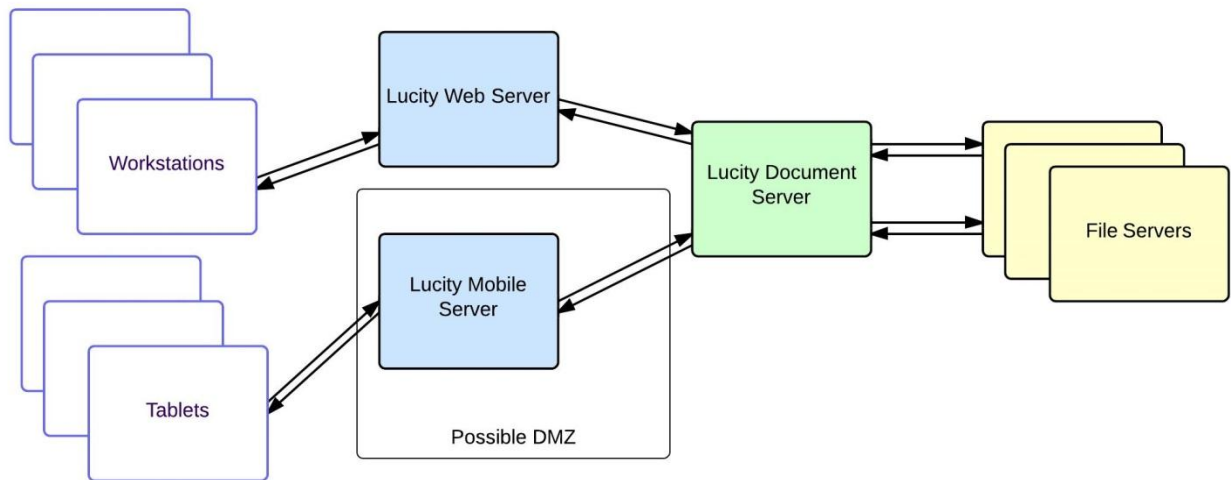
In a pinch, the Lucy Mobile Server application pool can be recycled on the web server to clear the cache. This is not recommended, however, if there are active mobile offline users because this may kill sync processes.

How user permissions affect views

The user used for this training has full permissions to all modules. Users without delete permissions will not have a delete button. Users without permissions to add and edit documents may also see slightly altered screens in the documents dialogs.

Documents


Lucy has developed a method of streaming documents from file shares on the network down to mobile devices even when the mobile device does not have direct access to the file server. Lucy Mobile client applications (iOS and Android) do not directly access any documents on the file server. All files are streamed through the Lucy Mobile Server product. The below diagram shows how document interactions work with Lucy Mobile:



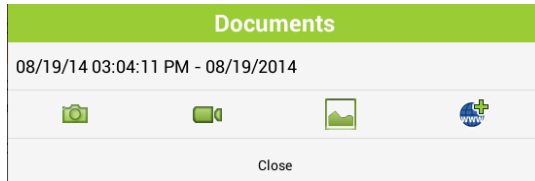
If the document server is not properly configured, uploads and downloads from the tablet will fail. It is easier to troubleshoot document upload/download issues with Lucy Web than with the tablet.

Notes: _____

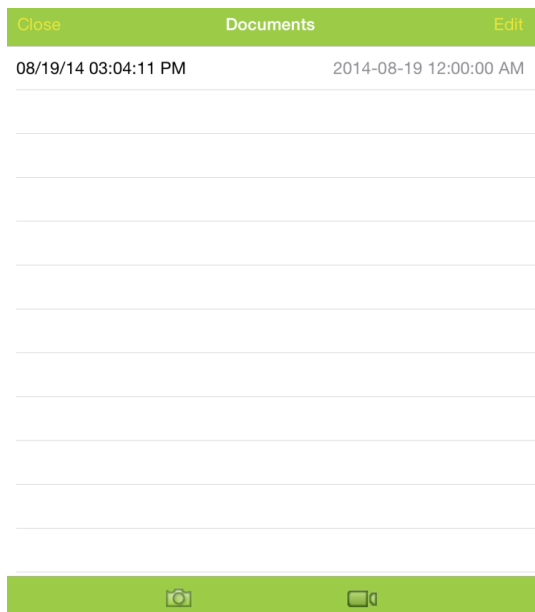
Working with Documents in Views

Documents can be viewed or added while in selection mode. Select a record and click the Documents  button in the toolbar. This will open up a dialog displaying all existing documents attached to the record.

Android



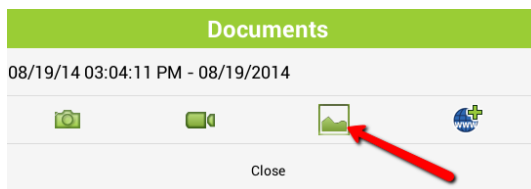
iOS



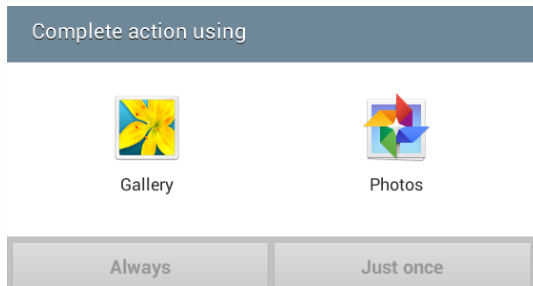
Documents and web links can be opened by tapping on the item in the document list.

Android supports adding images, videos, or web url attachments. The iOS application supports adding images and videos. Both mobile applications support taking a new picture/video or selecting an existing image/video from the gallery.

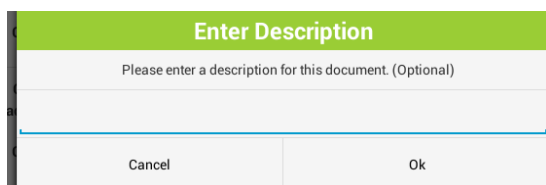
In Android, to attach an image or video from the gallery, click the gallery button on the documents dialog:



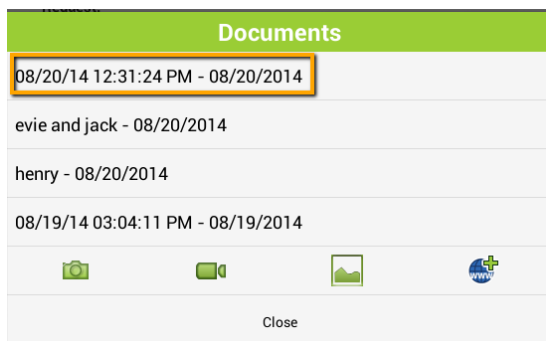
Depending on what apps are installed on the device, you may get prompted for which application to use for the gallery. In the case of this device, there are 2 possible image sources (gallery and photos). Gallery is available on every android device that has a camera installed. Many installations include the photos app as well and depending on what other apps are installed, there may be even more choices in this dialog:



Once you select a photo from the gallery or photos, you will be prompted for a description.




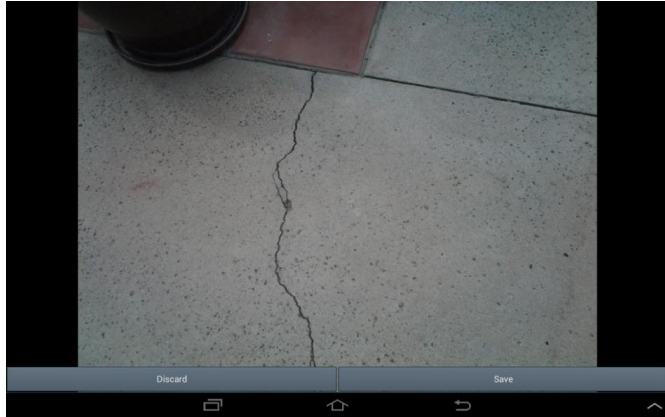
If you do not enter a description, the upload will have a description of the current date and time.




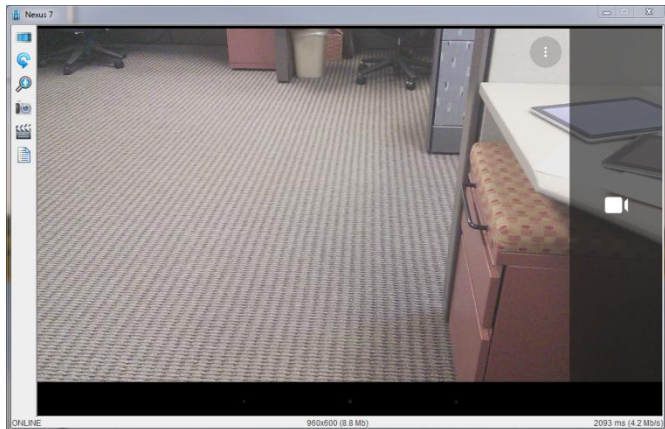
The document is uploaded to the server and is now available to all Lucity systems (web, mobile, desktop).

Notes: _____

To take a new image to attach to the record, click the  button. This will open the camera. Once the picture is taken, you will be prompted whether to discard or save the image. Clicking save will prompt for the optional description.



Click Ok on the description to upload it to the server. Images captured directly are not saved to the device; they are uploaded directly to the server. To attach a video, click the  video button which will open the video recorder.



Tap the video button to record and when done, click the stop button:



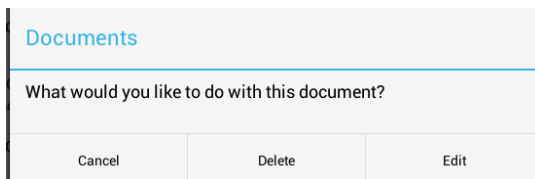
If you are satisfied with the video, tap the checkmark:




The system will prompt for an optional description.

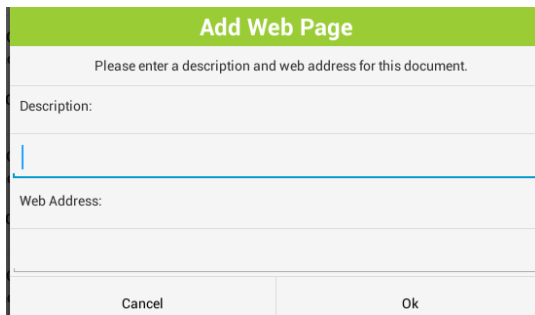
Editing and Deleting Documents

To edit or delete a document, press and hold the document in the document list. This will prompt:



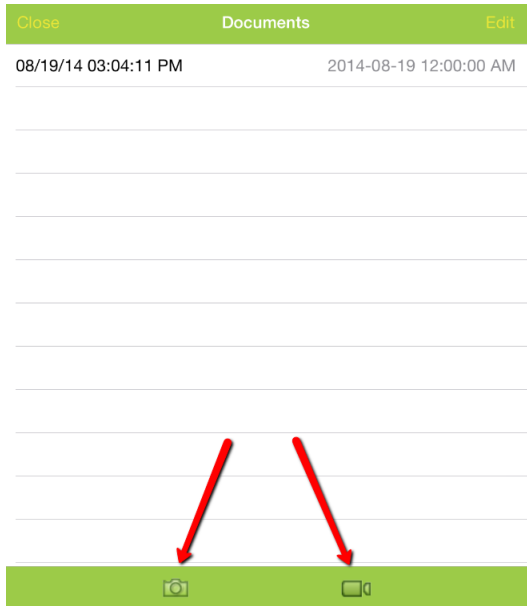
Editing allows you to edit the document description.

In Android you can also attach web urls to documents. Click the  button to open a dialog to add a url to a document.

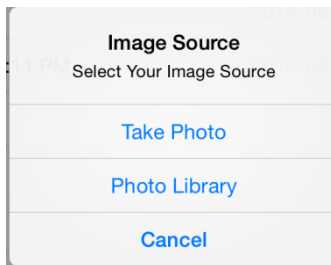


Notes: _____

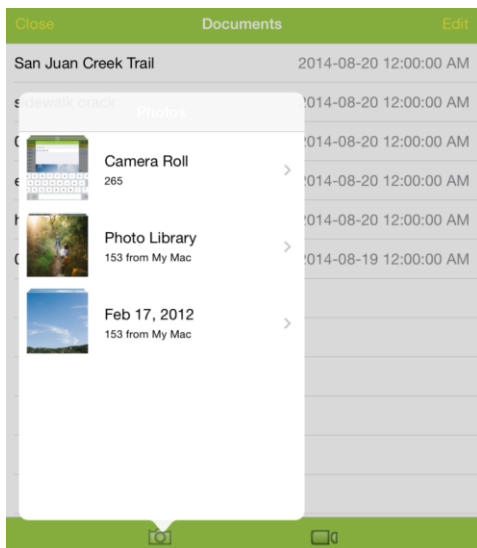
Documents can also be viewed and attached from forms as well. This is covered later in this session. In iOS, to attach an existing image or movie, click on the movie or camera button.



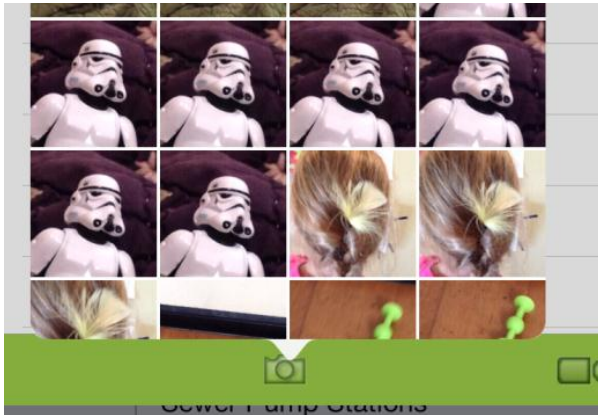
The application will prompt for whether you want to take new media or use existing from the Photo Library or Video Library.



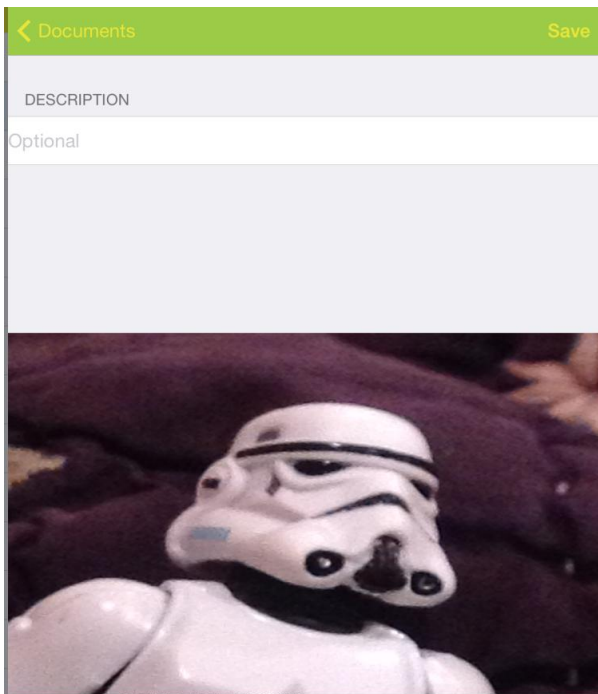
If there are multiple galleries defined, you will choose the gallery, and then choose the photo



Selecting the photo will display it and prompt for description (the photo may appear distorted in the preview; it is not uploaded like this).



The description is optional. If a description is not entered, the system will automatically add a description that shows the current date and time of the upload.



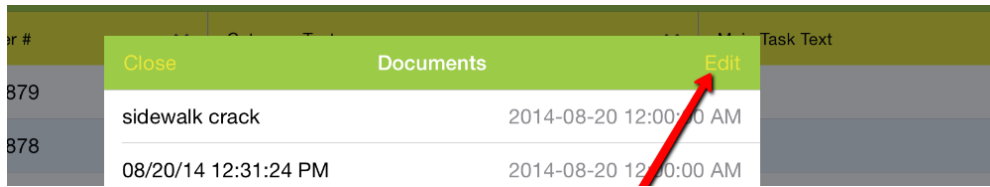
Click Save to upload the photo.

To attach a new photo or video, click the Photo or the Video button and select "Take Video" or "Take Photo"

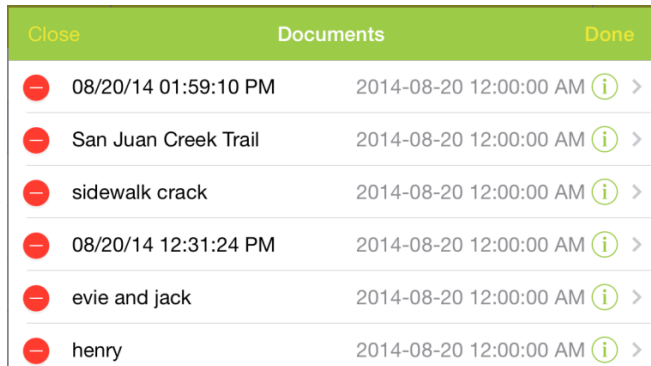
When the photo or the video has been taken, the display will allow you to preview the photo/video, retake the photo or video, or use the photo or video. These options are at the bottom of the screen.



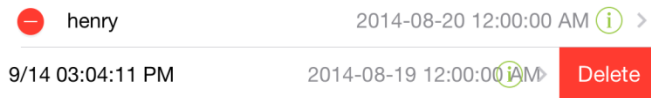
Optionally enter a description and click Save to upload the photo or video to the server. To edit or delete attachments, click the Edit button



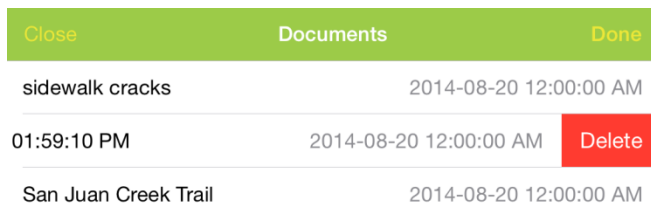
This will change the mode of the documents dialog into edit mode.



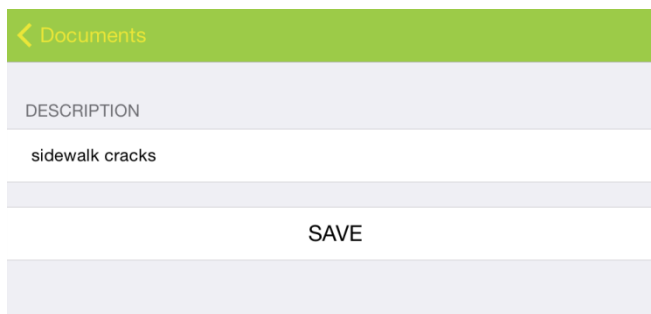
To delete a photo or video, click the red minus. Then click delete. This removes the photo from the record and deletes the source document from the server.



It is also possible to delete a document by swiping a document item from right to left. This will slide the text to the left and will display a delete button:



To edit a description on a document click the (i)



Change the description and click save.

When done editing in the documents dialog, click the “Done” button which will return to standard view mode on the list of available documents. You can then close the dialog by clicking “Close”.

Forms Introduction

Views and child views and grandchild views (etc) may have forms tied to the views. These forms are accessible in the tablet application by tapping on a record in a view. Tapping on a record will open the form in both iOS and Android to allow for editing and viewing information on the form. Additionally, new records can be added in the tablet with the Add button which opens up a blank form (pre-populated with defaults).

Prior to going into detail on forms, it is helpful to review methods of navigating in the tablet application between views, forms, the dashboard, etc.

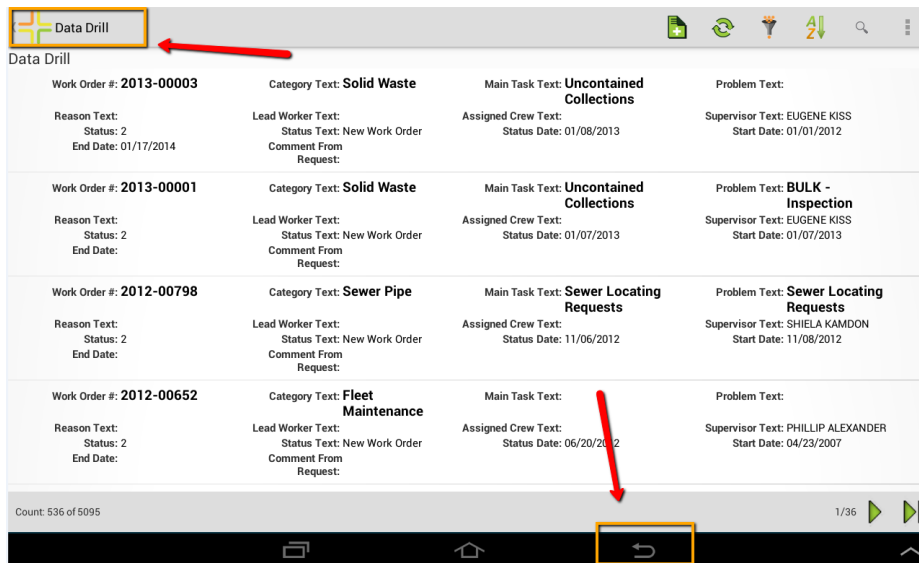
Navigation

Navigation in Android

In Android, navigation options are available in the menus, as well as in cookie trails, and by using the Android system back button (on the device or on the display).

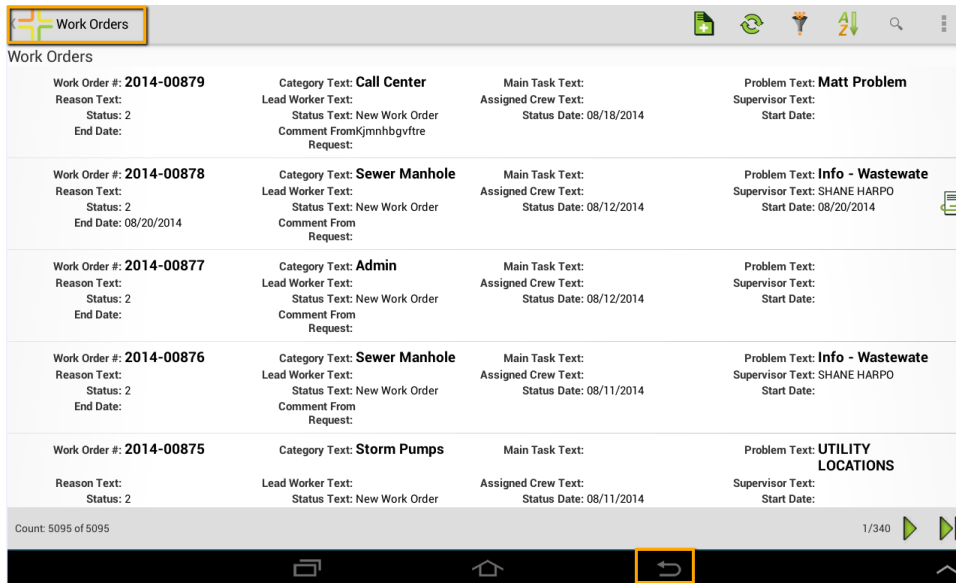
From the dashboard, there are buttons to get to GIS, a menu option to open the modules menu, and many links within the dashboard frames themselves to open up an alternate area in the Lucity Mobile application.

Once in a view from the dashboard frame link, navigate back to the dashboard by clicking the Lucity dashboard navigation button on the upper left. This will take the user back to the dashboard to the frame the user was on when launching the view. Alternately the system back button will also return the application to the dashboard. The location of the system back button can vary slightly between devices.



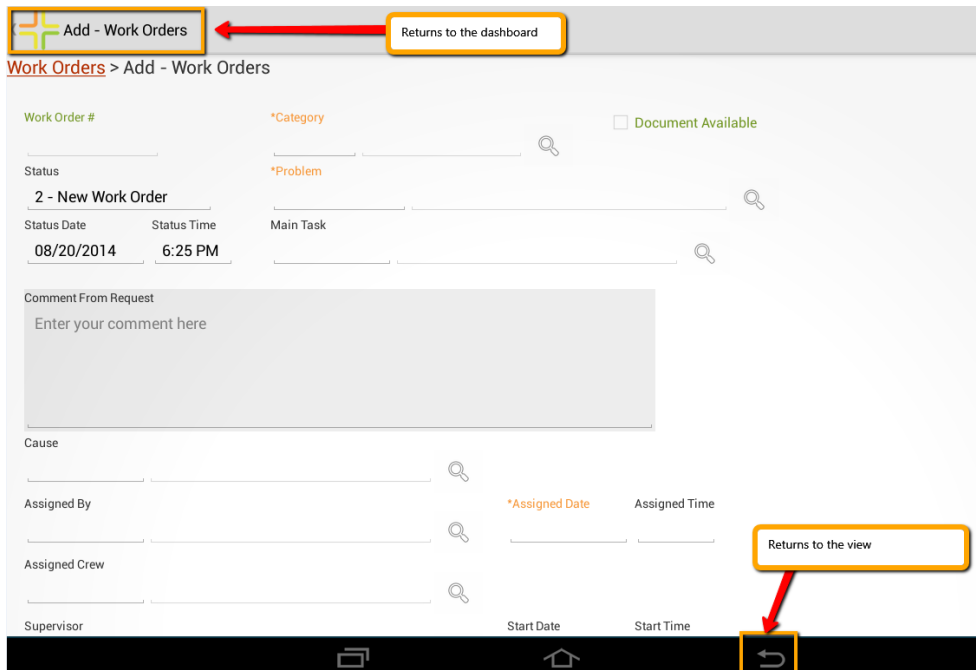
Notes: _____

Views opened from the modules menu also support navigating back to the dashboard in the same way.

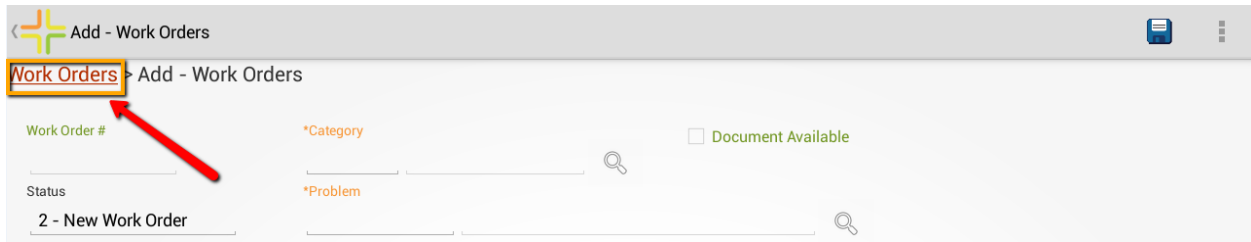


In most cases, the system back button will also close and cancel any open prompts like the documents list, or the filter list and is an alternative to clicking cancel or close.

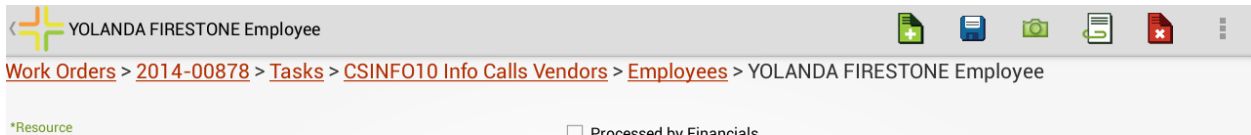
When adding a new record from a view, the system will display a defaulted empty form. From the add form, the upper left navigation button will cancel the add and take the user back to the dashboard. The system back button will cancel the add and return to the view. Both of these will prompt if there are unsaved changes.



Additionally, a cookie trail is provided on forms to facilitate faster or more direct navigation. The case of a new work order it provides a link to go back to the work order view.



In more nested or complex navigation scenarios, it provides access all the way up the object tree for rapid access to parent or grandparent data. From this employee record, links are provided to look at the employees child view, the CSINFO10 task form, the work order task view, the work order form, or the work orders view.

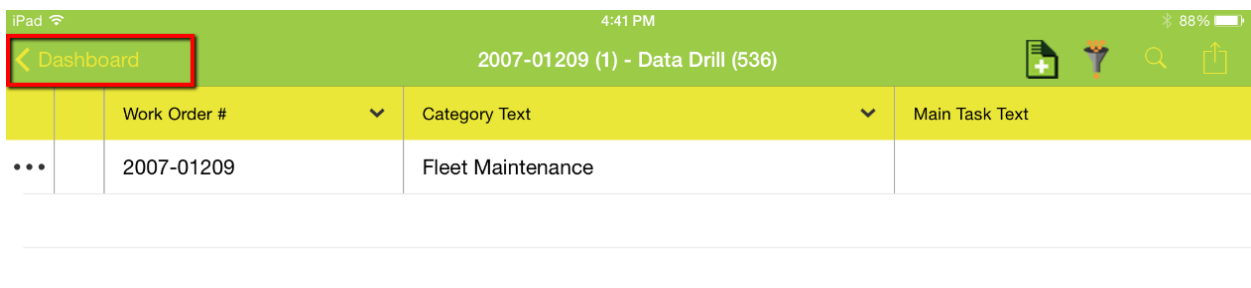


In the above highly nested object, the Lucity navigation button in the upper left corner still returns the application to the dashboard.

Navigation in iOS

The navigation in iOS is similar, but there is no system back button. Additionally, there is not a go to dashboard Lucity icon in the upper left hand corner. However, most screens in the iOS application provide a menu option to allow a user to easily jump back to the dashboard.

From the dashboard, views can be launched from dashboard items such as asset trees or data drills. When launched from an asset tree or data drill, the upper left navigation returns to the dashboard.

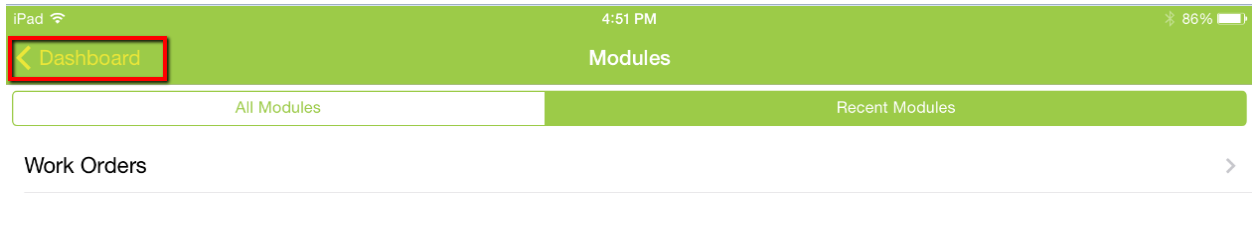
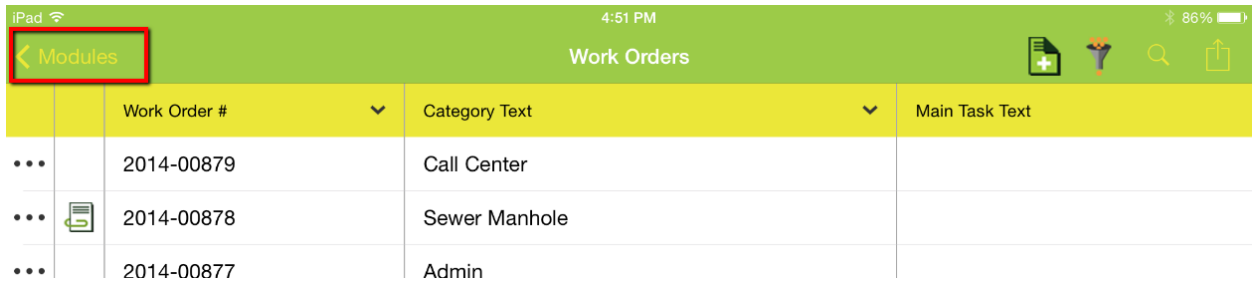


Notes: _____

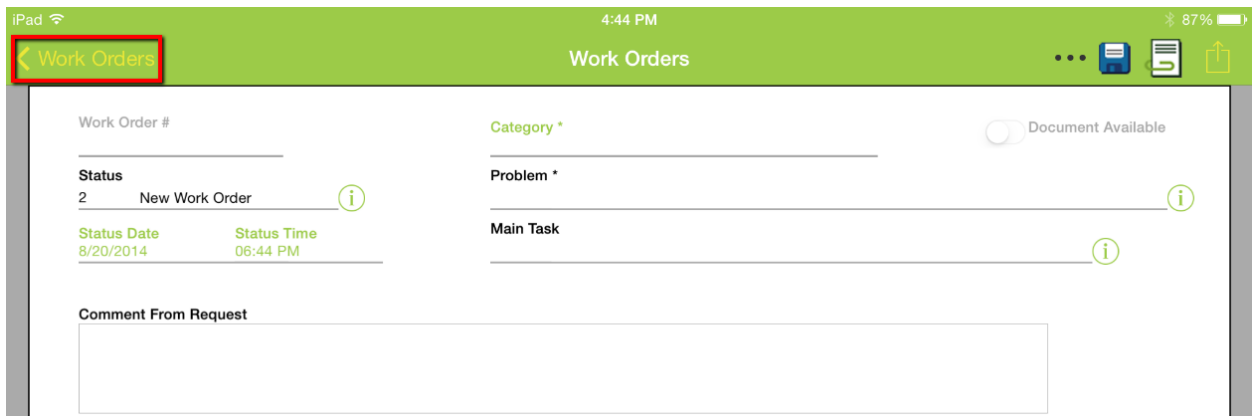
Additionally, all views have a “Dashboard” option in the menu.



When a view is opened from the modules menu, the upper left navigation returns to the modules menu. Then from the modules menu, the upper left navigation returns to the dashboard

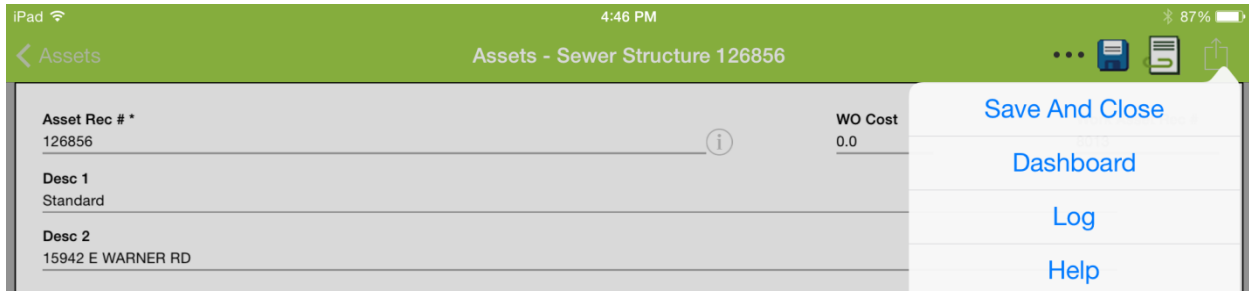


When in a form, the upper left navigation returns to the parent view.

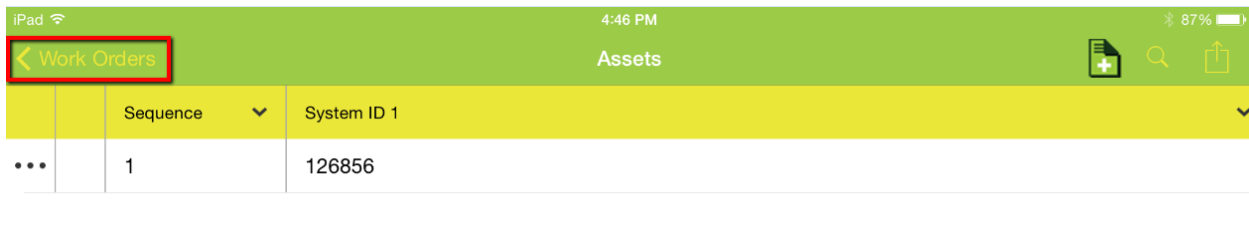


Additionally, in iOS you can page through individual records while on a form. Instead of navigating back to the parent view to select a new record, you can use a two finger swipe from right to left to move forward records (and a two finger swipe from left to right to move back).

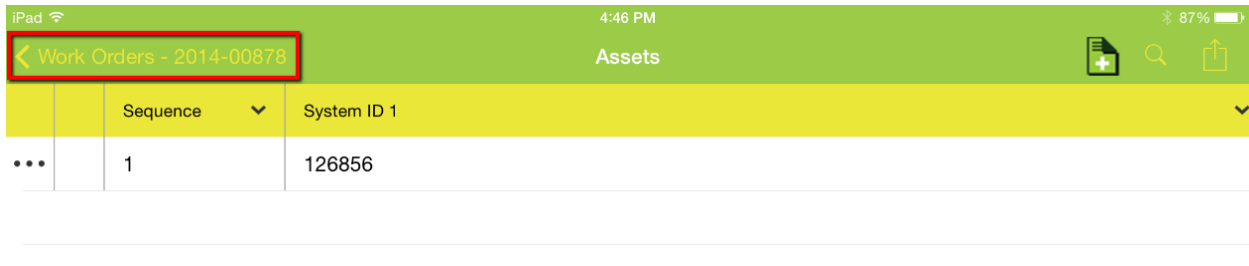
All forms also include the Dashboard link in the menu.



When in a child view, the navigation button returns to whatever the previous screen was. If the child view was opened from a parent view it will open the parent view.



If the child view was opened from a parent form, it will open the parent form.




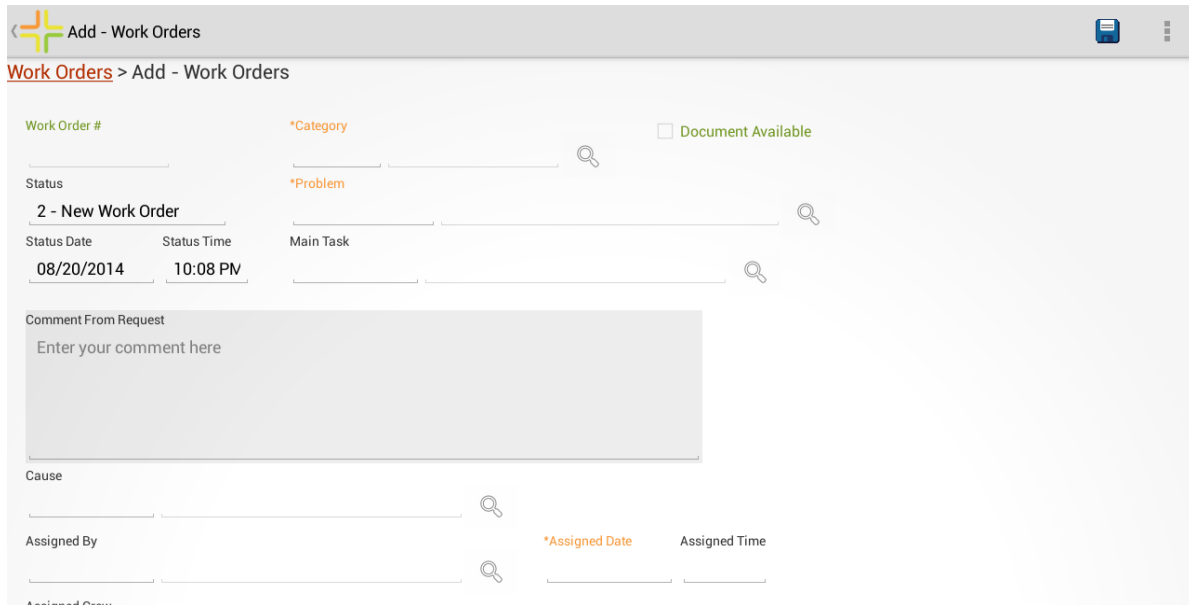
Forms in Detail

In the mobile applications forms are only accessed from views. There is no "menu" in mobile where forms can be launched directly.

Notes: _____

Adding Records

Views that support “Add” will include a  button on the view. This will launch a form with any default values already populated. For example, on work orders the status will be defaulted to 2 New Work Order. Any system defaults that are configured or form level defaults will also be populated on the form. Read only fields are labeled in green. Required fields are labeled in orange.



Add - Work Orders

Work Orders > Add - Work Orders

Work Order # ***Category** Document Available

Status **2 - New Work Order** ***Problem**

Status Date Status Time Main Task

08/20/2014 10:08 PM

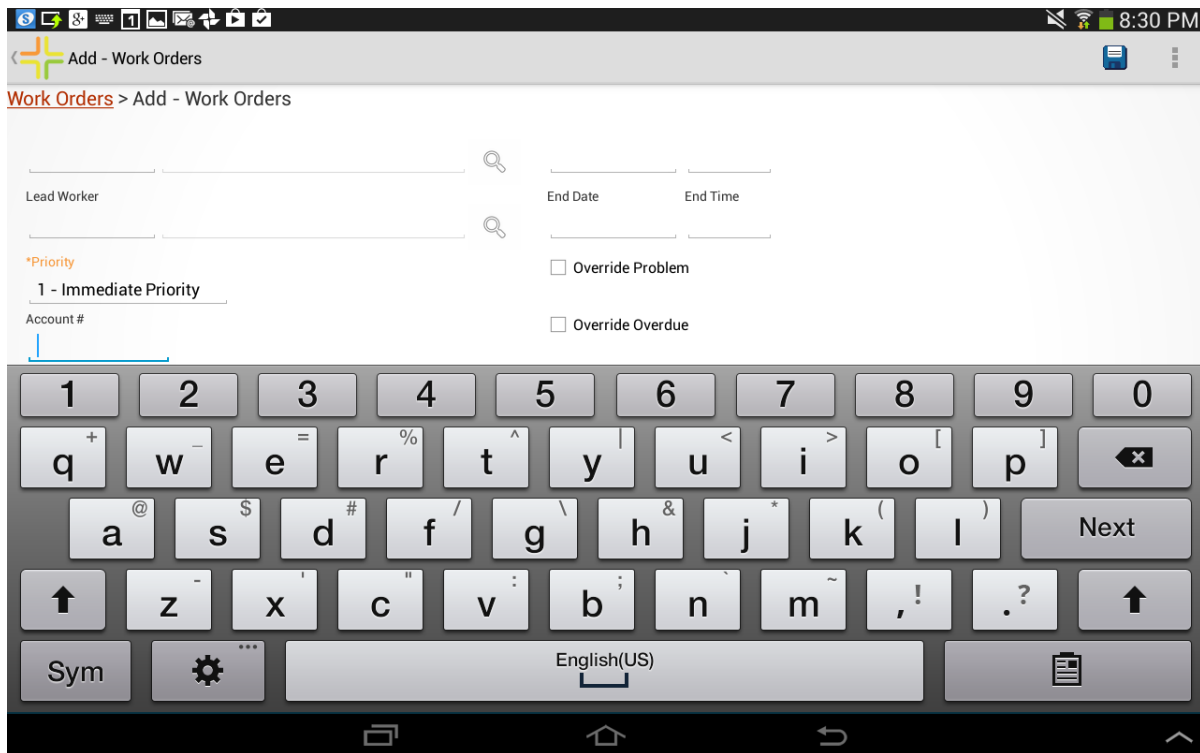
Comment From Request
Enter your comment here

Cause

Assigned By ***Assigned Date** Assigned Time

Account #

In Android, most fields support manually typing into the field if desired. Tap into the field area. This will bring up a keyboard to start typing.



Add - Work Orders

Work Orders > Add - Work Orders

Lead Worker End Date End Time

***Priority** Override Problem

1 - Immediate Priority Override Overdue



Account #

1 2 3 4 5 6 7 8 9 0

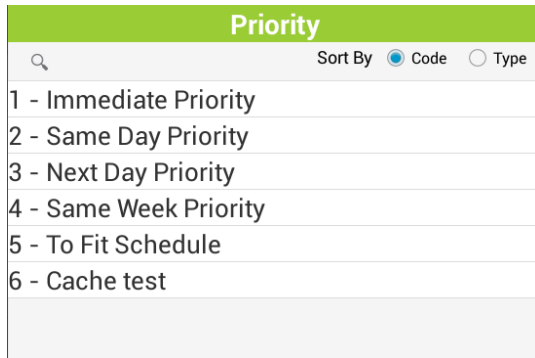
q w e r t y u i o p

a s d f g h j k l Next

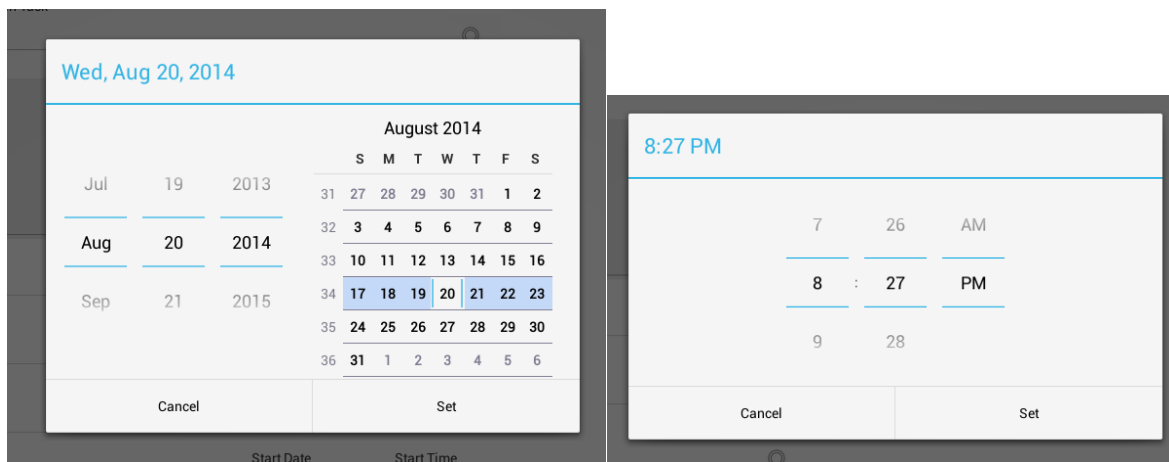
↑ z x c v b n m , ! . ? ↑


Sym  English(US) 

Fields which only support picking values from a picklist (like simple code/type fields) will pop up a picklist when the field is tapped.



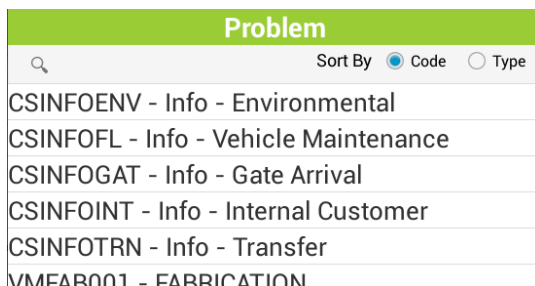
Date fields pull up a calendar to pick a date. Time fields pull up a time picker.



Some fields support picking values from a list and manually typing data into the field. These fields have a search button  .



Tap on this search button to pick a value from a list.



Work flow setup items are slightly different than other picklist values because they depend on category. The Android application does not support Show All for work flow setup items. Users must first select a category before selecting a problem, supervisor, etc. Administrators need to ensure that all needed work flow setup items are already associated to the categories necessary.

Category tree also allows both typing and picking a value. The category picklist is in tree format.

Select a Category	
Admin	
+ Call Center	
CIP	
+ Electric	
+ Environmental	
Equipment	
Facilities	
Facility Building	
Facility Door	

Some picklist fields have multiple fields, such as the work order asset child asset rec # picklist:

Asset Rec #		
1/14 	ID: 608 VIN: 1GCEC14W21Z259491	NUMBER: BGB0532 DESCRIPTION: 2001 CHEVROLET 1500
	ID: 609 VIN: 1GCEC14V92Z217361	NUMBER: BGB0600 DESCRIPTION: 2002 CHEVROLET 1500
	ID: 610 VIN: 1GCEC14W3WZ194996	NUMBER: BGS0382 DESCRIPTION: 1998 CHEVROLET 1500
	ID: 611 VIN: 1GCEC14W7WZ194905	NUMBER: BGS0383 DESCRIPTION: 1998 CHEVROLET 1500
	ID: 612	NUMBER: BGS0385 DESCRIPTION: 1998 CHEVROLET 1500

Another example of a picklist with multiple fields is the hydrant lookup on a hydrant inspection form. (Sometimes these are referred to as value lookups in Lucity)

Hydrant Number			
1/5 	Hydrant Number: 1203 Inlet Size: 6 Str Post Bldg No: Str Type: ST	Type: Dry-Barrel Hyd Valve Size: 26.64 Direction: S Suffix:	Status: Fair Building No: 2643 Street Name: ASH Hydrant Rec #: 30
	Hydrant Number: 1204 Inlet Size: 6 Str Post Bldg No: Str Type: DR	Type: Dry-Barrel Hyd Valve Size: 3 Direction: S Suffix:	Status: Good Building No: 2754 Street Name: BALBOA Hydrant Rec #: 31
	Hydrant Number: 1205 Inlet Size: 6	Type: Dry-Barrel Hyd Valve Size: 2.64	Status: Good Building No: 2634

Searching for data in these picklists can make it easier to find the record you are looking for.

Hydrant Number		
←	Hydrant Number: 1203 Inlet Size: 6 Str Post Bldg No: Str Type: ST	Type: Dry-Barrel Hyd Valve Size: 26.64 Direction: S Suffix:
	Hydrant Number: 1204 Inlet Size: 6 Str Post Bldg No: Str Type: DR	Type: Dry-Barrel Hyd Valve Size: 3 Direction: S Suffix:
	Hydrant Number: 1205 Inlet Size: 6	Type: Dry-Barrel Hyd Valve Size: 2.64

To search, click the search button and type a full or partial search term.

The screenshot shows a search bar with the text 'bal' and a search icon. Below the search bar, there are search results for 'Hydrant Number: 1204'. The results are organized into two columns. The left column contains: 'Inlet Size: 6', 'Str Post Bldg No:', and 'Str Type: DR'. The right column contains: 'Type: Dry-Barrel', 'Hyd Valve Size: 3', 'Direction: S', and 'Suffix:'.

The search will look for any columns which include that text. Searches in the work order asset picklist work on limited columns (they do not work on description). Searches in other picklists will search all visible fields that contain the text such as the hydrant picklist shown above.

Street list is another large street list where searching may be helpful to quickly find the desired street. For example, the Street Name field in the Work Order Location child

The screenshot shows a search bar with the text 'she' and a search icon. Below the search bar, there is a list of search results for 'Street Name': 'SHEFFIELD AVE', 'SHEFFIELD CT', 'SHEFFIELD RD', 'SHERRI CT', and 'SHERRI DR'.

On lose focus or when values are changed in certain fields on the form, the application gets intermittent updates from the server based on changes made. For example, when the problem is selected, main task will be filled in. This is done with continual communication with the server, but none of the edits made on the tablet are persisted until the Save button is clicked.

Click the Save button to save changes. This will persist the changes to the database and will update the form to show available child items which can be added

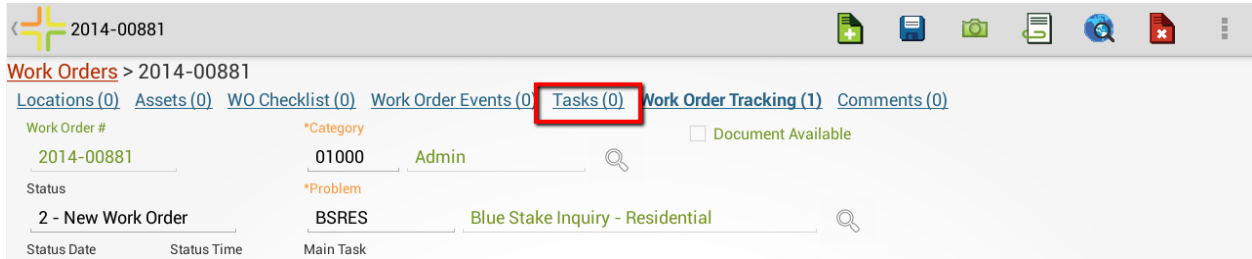
The screenshot shows a work order form for '2014-00881'. The form has several fields: 'Work Order #', 'Status', 'Status Date', 'Status Time', 'Category', 'Problem', and 'Main Task'. The 'Main Task' field is populated with 'Blue Stake Inquiry from a Resident'. There are two callout boxes with arrows pointing to the 'Document Available' checkbox and the 'Main Task' field. The first callout box says 'New tools available after save' and the second callout box says 'Child records can now be added'.

Additional records can be added directly from the form if multiple records need to be created. This is faster than navigating back to the view to add a new record.

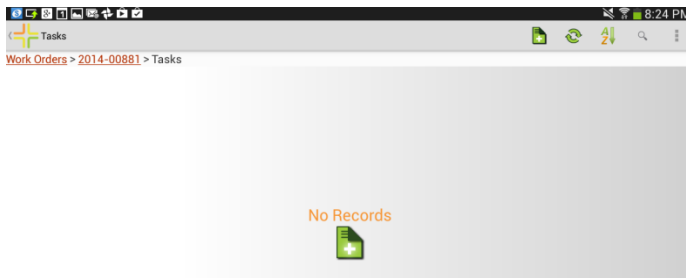
The screenshot shows a toolbar with several icons: a plus sign, a document, a camera, a list, a magnifying glass, and a red X. Below the toolbar, there are two buttons: 'Tracking (1)' and 'Comments (0)'. An arrow points to the plus icon in the toolbar.



Adding Child Records

To add a child record, click on the desired child in the cookie trail:



This will open a view with 0 or more records. If there are 0 records, it will look like this:





Records can be added by clicking on the  in the middle of the form or the  on the toolbar:


Tools available on forms

Once a record is saved, additional tools are available on a form:



Documents can be viewed and edited (the workflow for the forms document control and views document control is the same, see details earlier in this guide). 

The document tool works the same, but an additional button for capturing a new image is available to allow users to rapidly attach a new photo to a record. Click the  and proceed with photo capture.

Records can also be deleted directly from a form 

Notes: _____

Using Forms in iOS

Forms in iOS provide the same basic functionality as Android forms. Adding a record will automatically default values based on Lucity business rules, defined global defaults, as well as form level defaults. For example, the work order status is automatically defaulted.




Fields on the form which are readonly are greyed out. Fields on the form that are required are marked with an asterisk. Fields which support manually entering text are black, and fields which may only be populated by picking a value are green.


The screenshot shows an iPad interface for a 'Work Orders' form. The header bar is green and contains the text 'Work Orders' on the left and 'Work Orders - 2014-00883' in the center. The status bar at the top shows 'iPad', signal strength, '10:18 PM', and '78%' battery. The form itself is white with a light green border. It contains several sections of fields: 'Work Order #' (2014-00883), 'Status' (2 - New Work Order), 'Category *' (13600 - Traffic Signs), 'Problem *' (STRDGF Graffiti Removal - Streets), 'Status Date' (8/20/2014), 'Status Time' (11:57 PM), 'Main Task', 'Comment From Request' (a large text area), 'Cause', 'Assigned By', 'Assigned Crew', 'Supervisor' (129 JASON WRIGHT), 'Lead Worker', 'Priority *' (3 - Next Day Priority), 'Account #', 'Proj No - Acct', 'Project Text', 'Reason', 'Assigned Date *' (8/20/2014), 'Assigned Time', 'Start Date', 'Start Time', 'End Date', 'End Time', and a list of override toggles: 'Override Problem', 'Override Overdue', 'Override Leadworker', 'Override Task', and 'Override Supervisor'. Information icons (i) are present next to several fields.


These forms support a pinch zoom feature allowing a user to zoom in and out of a form in iOS. This is particularly helpful when dealing with forms on an iPhone.


Notes: _____

The category field in iOS can only be picked from the tree. It does not support manual typing:


Category *		Cancel
Admin		
Call Center	 >	
CIP		
Electric	 >	
Environmental	 >	
Equipment		

To drill into category child items in the category tree click the  button. This varies based on iOS version. Earlier versions of iOS use a blue arrow. Later versions (iOS8+ may be slightly different).

Category items with child items will have the  button.

< Public Works Department Traffic Division		Cancel
Street Light Controllers		
Street Lights		
Traffic Components	 >	
Traffic Posts		
Traffic Signals	 >	
Traffic Signs		

To navigate back up the tree use the navigation in the upper left corner of the category picklist dialog.

Work flow setup picklist items other than Category support manually entering data or picking the value from a list. To select a value from a list, click the  . This list will only show values that are associated to the category already selected.

Problem *		Cancel
<input type="text" value=""/>		
Code	Type	
CSINFOWIN	Info - Walk In	
ENGTR002	STUDIES SIGNS	
ENGTR010	TRAFFIC MISCELLANEOUS	
INV01	SIGN INVENTORY	
PW001	UTILITY LOCATIONS	

These picklists support searching which can be helpful in very long lists such as material lists. Searches use contains and will find all items which have the text entered anywhere in the code or text portion of the code/type combination.

Problem * Cancel

Gr

Code	Type
------	------

STRDGF - Graffiti Removal - Streets

STSNGF - Sign - Remove Graffiti

Date fields display a date select prompt. This opens when the field is tapped.

Start Date Start Time

Start Date Cancel Clear Done

May	17	2011
June	18	2012
July	19	2013
August	20	2014
September	21	2015
October	22	2016
November	23	2017

Start Time Cancel Clear Done

7	10
8	11
9	12 AM
10	13 PM
11	14
12	15
1	16

Assigned Time

Start Time

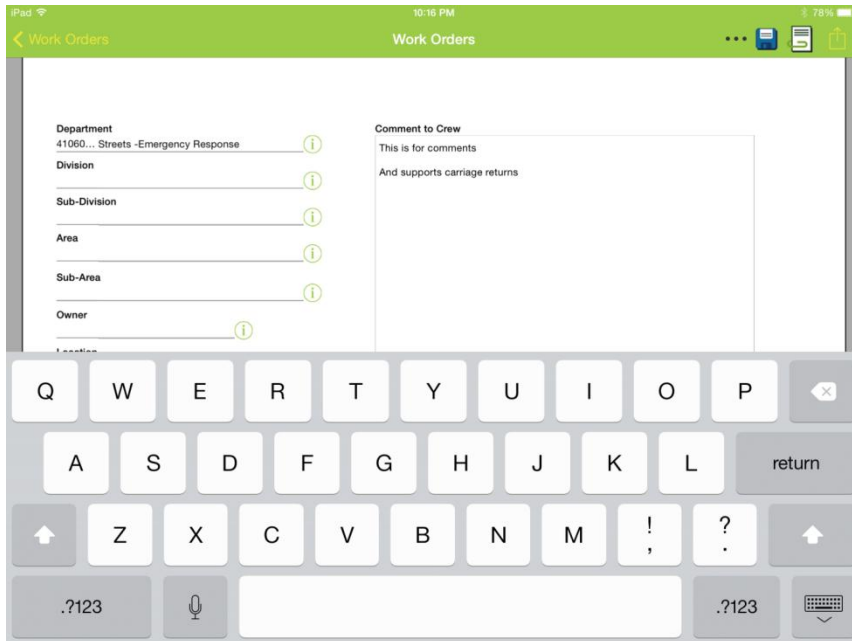
End Time

Override Problem

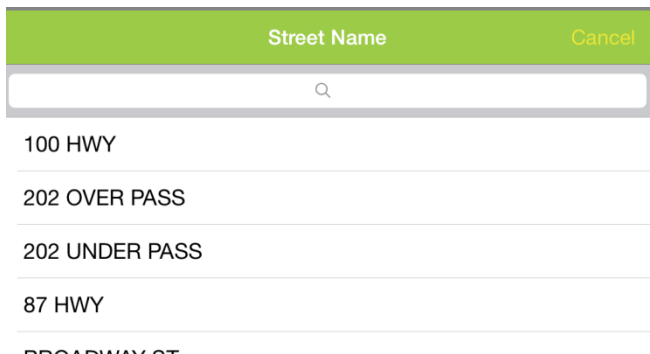
Override Overdue

Notes: _____

Comment fields support multiple lines and carriage returns. The standard keyboard includes a “return” key for inserting carriage returns.

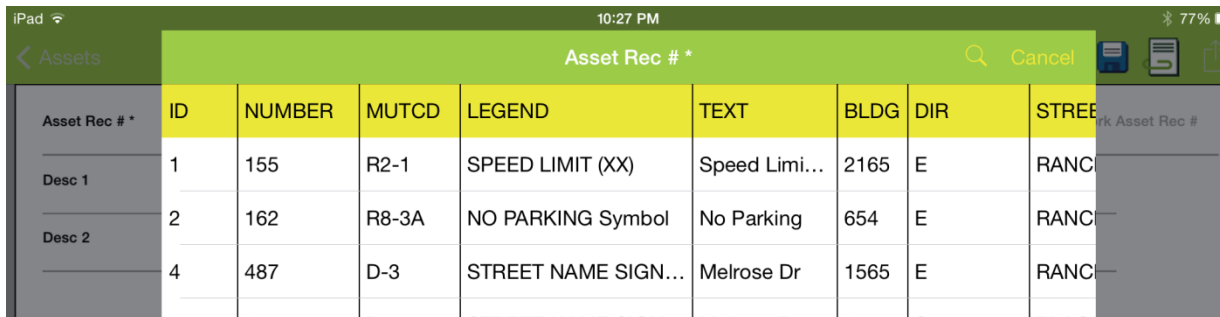


The street list control supports both manually typing a street as well as choosing one.



To search in the street list, enter a partial text. The control will search while typing.

The Asset Rec # in work order asset also supports manually typing or choosing from a picklist.

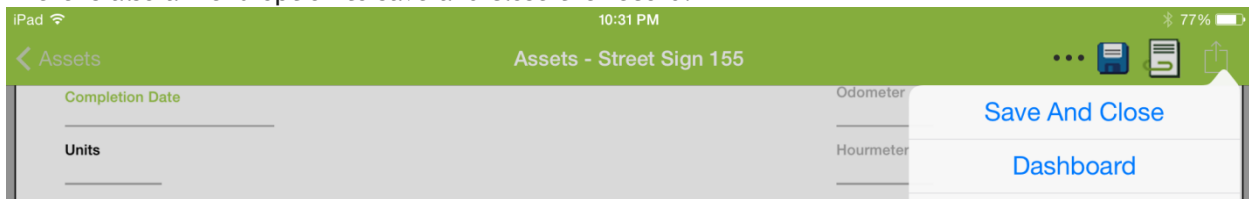


This picklist scrolls left/right and up/down and supports paging. To search in the work order asset list, click the search button and type in the search prompt and click the Search button on the keyboard.



Other lookups such as the hydrant lookup on the hydrant inspections form behaves the same way.

Once all of the data is filled in, click the save button to persist the data to the server. To save and close a form and return to the parent view, press and hold the save button to save and close the form. There is also a menu option to save and close the record.



Adding Child Records and Available Tools in iOS

Once the data is saved, the Child Views and Documents buttons on the toolbar may be used.



Note: Delete is not supported from forms in iOS; delete is only supported in the views.

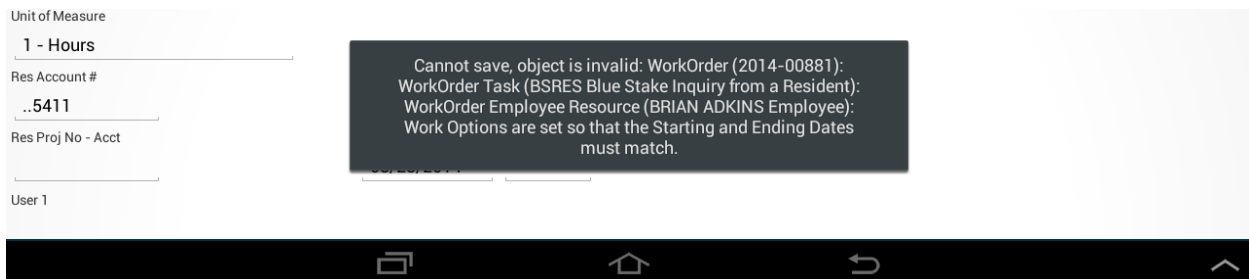
To continue adding child information, after saving the record, click the Child Views tool and select a child from the list. Continue adding information until all desired information is entered. Data is saved to the server immediately upon hitting save on each form. It is not possible to leave a form without either canceling and discarding changes or saving them.

This varies from Android slightly. Android will, in some cases (such as edits to existing records) allow navigating away from a record (to add child records for example) without saving the parent. Before leaving the object tree Android will prompt about unsaved changes.

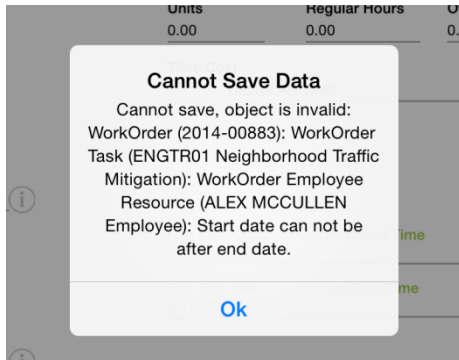
Errors displayed on save

Both Android and iOS will display messages when a user tries to save a record with invalid data.

In Android these appear as toast messages:



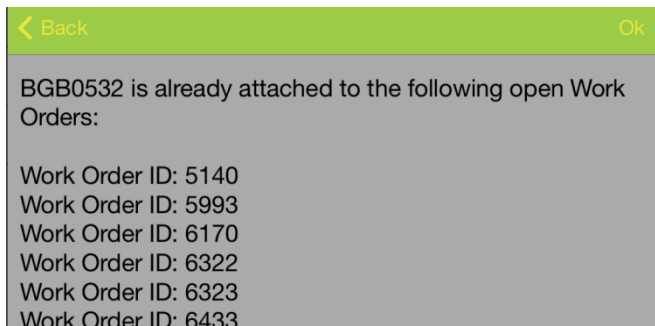
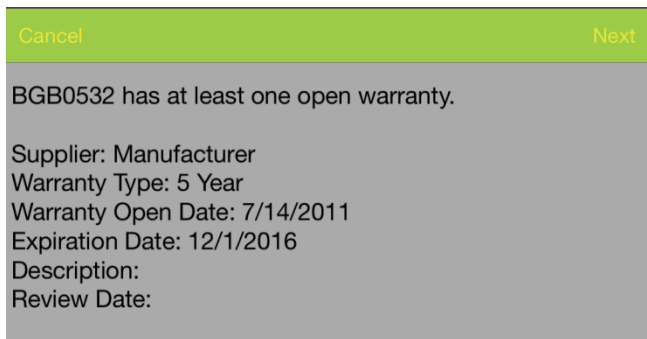
In iOS they are prompts



In both cases the record is not saved. The user must correct the problem and try the save again.

Warning Prompts

In addition to errors, the iOS application supports warning prompts. Warning prompts will display after clicking the save button. If there is more than one warning, they will be displayed one at a time with a Next button.



Once the full series of warnings is reviewed, an Ok button will be available. Clicking Ok will finish the save. Clicking cancel (or back and Cancel) will cancel the save.

The Android application will ignore warnings and allow saves to occur without the warning prompts.

Parts Inventory Prompts

Both Android and iOS support parts inventory prompting when required. The parts prompt is displayed when a record is saved.

For this example, part 16775 Container, Front end Load, 6 yard is in parts inventory. Entering 10 units and clicking save prompts for which location to take the parts from:

Cancel	
Please select which location to take the 10 Container, Front-end Load, 6 yard parts from	
yard swncsc Qty Avail: 188	
1-11A1 fltnasc Qty Avail: -145	
B1 GWH1 Qty Avail: 0	

The mobile application does not support designating multiple part locations for a single save. Tapping on a location will select it.

Cancel	Done
Please select which location to take the 10 Container, Front-end Load, 6 yard parts from	
yard swncsc Qty Avail: 178	✓
1-11A1 fltnasc Qty Avail: -145	
B1 GWH1 Qty Avail: 0	

Clicking done will continue with the save and return to the form with the data saved.

Android works in an almost identical manner except that selecting a location from the parts prompt will immediately save and return to the saved data form. It is not necessary to click done.

Information Needed
Please select which location to take the 10 Container, Front-end Load, 6 yard parts from
yard swncsc Qty Avail: 178
1-11A1 fltnasc Qty Avail: -145
B1 GWH1 Qty Avail: 0
Cancel

Clicking cancel will cancel the save and return to the unsaved form.

Configuring Forms

Most forms configured for use in the web will be effective in the mobile without modification. The mobile applications adhere to the same settings that web adheres to on the form design including but not limited to:

- Limit lists
- Required Fields
- Default Values
- Hidden Fields

It may be a good idea to review the number of fields on forms that will be used heavily in the field. If fields are not used and are only on the form because they were imported with a template, consider removing these. It requires time and memory to render forms. Forms with upwards of 200 fields will draw slower on the device and panning around a form will be slower and may not be smooth if there are too many fields present.

In some cases, certain fields may scrunch up and overlap slightly on the mobile device. An algorithm is used by the mobile applications to convert form position defined in the web into form position in iOS and Android. In some cases the width differences of labels and special fields like date/time and Boolean fields may cause fields to not line up nicely on the form. In this case the solution is to adjust the form design in Lucity Administration Tools in the form designer.

Notes: _____
