

# Defects Module

The screenshot displays the HFBS Defects Module interface on a tablet. The top bar shows 'Defect Demo Project' and 'Milestone: Default'. The main screen is divided into three sections: a list of defects, a form to add a new defect, and a reports section.

**List of defects by inspection**

Inspection	Location	Category	QR Code
11.11.2015 New			
26.02.2015 Inspection Before Handover			
26.02.2015 Emergency Department Inspection			
29.01.2015 Administration Unit Reinspection			
27.11.2014 Admin Unit Inspection			

**Form to add a new defect:**

Title:  Category:  Location:

Date/Time:  Inspection:

Status:

Severity:

Description:  Action Required:  Action Taken:

Attachments:

Buttons:

# Table of Contents

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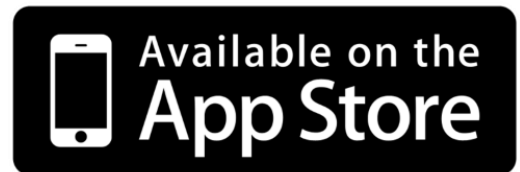
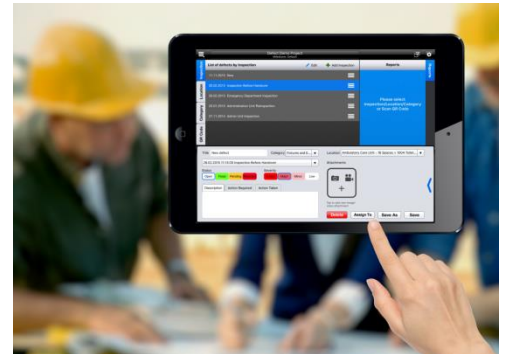
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# Overview

The Health Facility Briefing System (HFBS) Defects Management Module is mobile solution for on-site inspection management. The HFBS Defects Module enables you to take pictures, record videos, and enter other relevant details of the defect using mobile technology. You can also manage and track progress of all defects on-site, manage contactors and assign defects.

There are series of defect report templates available to be generated and sent from mobile device immediately after inspection completed. The defects module can also be used to perform site inspections as well as defect inspections, it has reports and interfaces for both these functions. The defects module is designed to work with & without an internet connection.

The HFBS Defects Management module is available for purchase on the [Apple App store](#).



## System Requirements

<b>Hardware</b>	iPad 2 or later (Wi-Fi + Cellular)
<b>Operating System</b>	iOS 7 or later
<b>System Accounts</b>	A HFBS project admin account is required to update project information and access right. A HFBS normal user account is required to access defect data.

# Get Started

## Download and Installation

Search “HFBS Defects Management for iPad” on the Apple AppStore or use following link to download app: <https://itunes.apple.com/us/app/hfbs-defect-management-for/id973748841>.

After the download has finished, click the “Defect Mgmt” icon on your iPad to run the application.



## Registration

If you don't have HFBS account, click the “Register” button to register with HFBS.

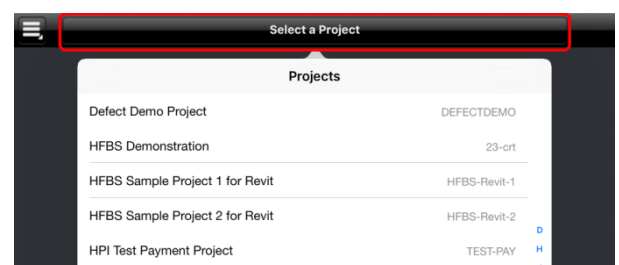
If you are contractor, please confirm the domain of project that you want to access with your project administrator, the domain is required information in the registration process.

After you successfully registered your account, please notify project administrator with your username, and ask for the access to project defects, administrators can grant this access using the defect app itself.



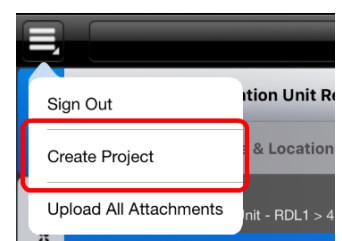
## Login and Select Project

Use HFBS login details to access Defects Management module. After successfully logging in, click on “Select a Project” button on top bar and select a project from the list.



## Create a Project

If you don't have project, click on menu button and select “Create Project”.



# Inspections

An inspection is a group of defects or site checks, creating an inspection occurs when visiting a site to record this information.

## Create an Inspection

To create inspection, click “Add Inspection” button.



Type inspection title, date then click OK button, new inspection would be created.

A screenshot of the 'Create Inspection' dialog box. It has a title bar with 'Create Inspection' and a 'Close' button. The main area contains two input fields: 'Title' with the text 'Emergency department inspection' and 'Date' with the text '26.02.2015 11:03:00'. At the bottom right is an 'OK' button.

## Update an Inspection

Click on the icon of each inspection in list to show inspection update screen.



## Delete an Inspection

### Delete Single Inspection

Swipe left inspection item in list to enable delete function.



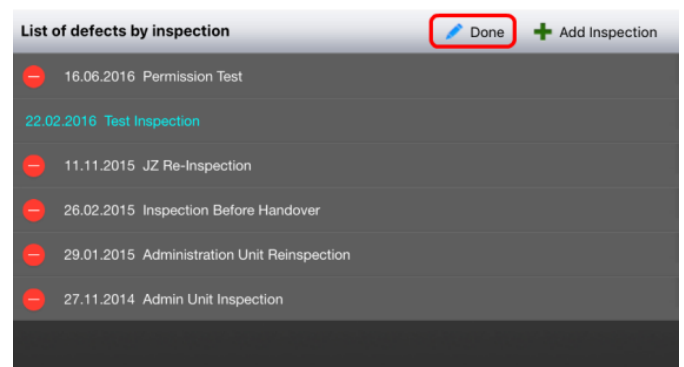
### Delete Multiple Inspections

Click on “Edit” button on top bar of inspection list to enable multi-delete mode.



After you have finished deleting inspections, click on the “Done” button.

- When you delete an inspection, all defects in this inspection will be deleted.
- Inspections that you don't have permission to delete will be highlighted in a different colour.

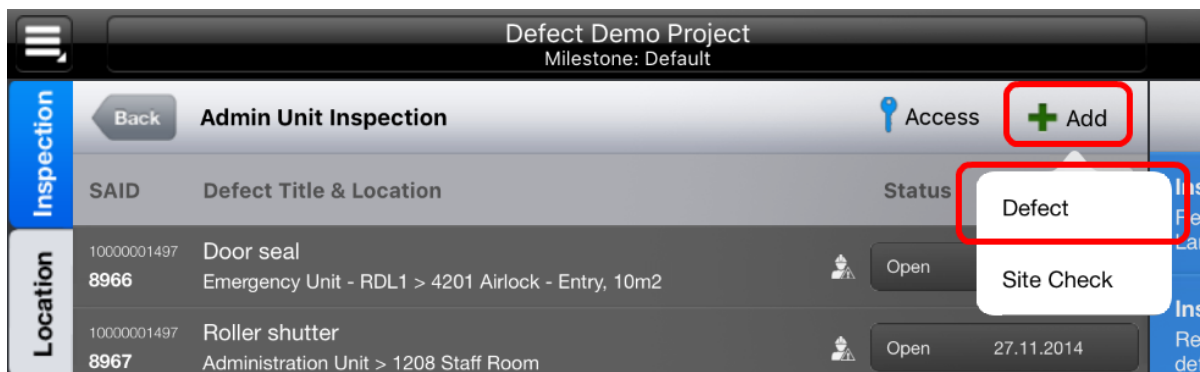


# Defects

A defect is an issue or non-conformance with the agreed design for a particular item on a construction site. The Defects module can record these issues in detail & manage the process of fixing defects.

## Record a Defect

On defect list, click on “Add” button on top bar and choose “Defect” to create new defect form.



Fill defect form and click “Save” button to create new defect.

The screenshot shows the defect form. It has fields for Title, Category, Location, and a date/time field. Below these are buttons for Status (Open, Fixed, Pending, Rejected) and Severity (Critical, Major, Minor, Low). There are also buttons for Description and Action Required. A large text area is provided for the description. To the right, there's an Attachments section with a camera icon and a plus sign, and a 'Save' button at the bottom right.

**Primary Fields:** Title, Category, Location, Inspection, Status and Severity.

Title is short description of defect. (For details information of defect, please use description field.)

Select Location of defect. If location of current defect does not exist in list, you can scroll to bottom and select “Other” to create new location.

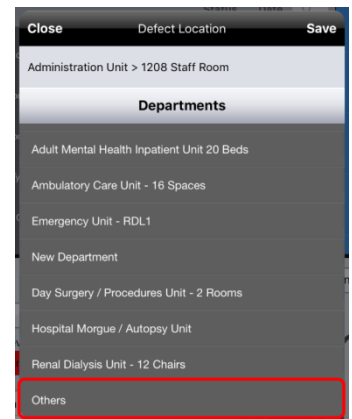
Status “Open” and Severity “Major” are selected by default.

**Optional Field:** Description, Action Required, Attachment and all other fields.

## Create a Defect Location

The Defects module loads location from Briefing module, however, if you can't find the location for a defect, such as roof, corridor you can create new location. Scroll to bottom of location list, and select "Others".

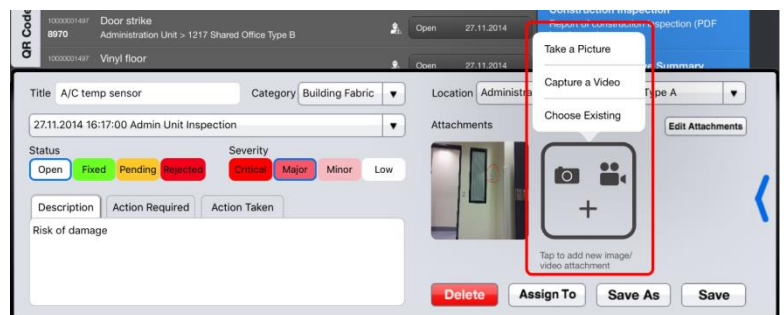
Type Department and / or Room information, and then click "Save" button:



## Attach Media to a Defect

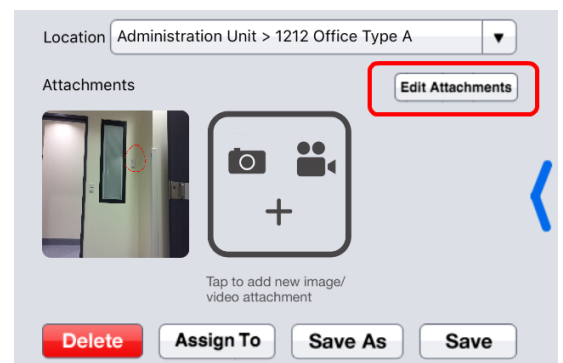
You can take photos, record videos, or choose existing photos from albums to attach to defects.

**Note:** Each defect allows maximum 10 attachments.



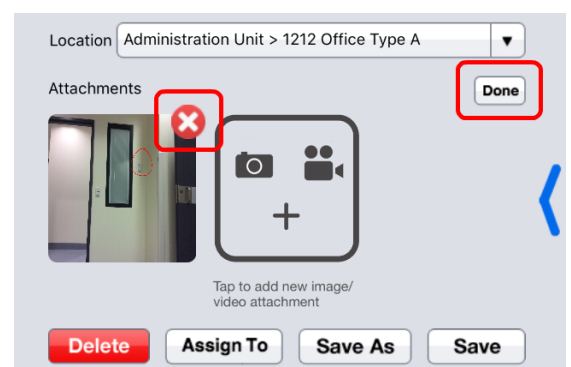
You can edit images before attaching to a defect. Different colours and pen sizes are available, and a "Caption" field is optional for a short description of media file.

Click on "Edit Attachment" button to enable attachment deletion mode.



To delete attachment, click on  button of each attachment.

Click "Done" button to cancel attachment deletion mode.



## Add Extra Information to a Defect

Click on the large blue arrow button at the left of defect form (or swipe left on defect information panel) to show extra fields including alert, cost, assigned to and etc.

The screenshot shows a defect form for 'Door strike' under the category 'Building Fabric' and location 'Administration Unit > 1217 Shared Office Type B'. The status is 'Open' and severity is 'Major'. The description is 'Strike too long'. The 'Extra Information' panel is expanded, showing fields for 'Fix Date' (Required, Estimated, Actual), 'Cost' (Estimated, Approved), and 'Assigned to' ('Aladin Niazmand', 'Jianing Zhang'). There is also an 'Alert' field and a 'Delete' button.

## Setup Local Device Notification

In the extra information panel, you can setup a device alert for individual defect. Click on alert field and set a time to enable it.

The screenshot shows the same defect form, but now the 'Alert' field is enabled with a green toggle switch. The alert time is set to '28.07.2016 11:55:00'. The 'Assigned to' field now includes 'Jianing Zhang' and 'Aladin Niazmand'. There are also 'Add' and 'Edit' buttons for the description.

Device notification is shown as below.

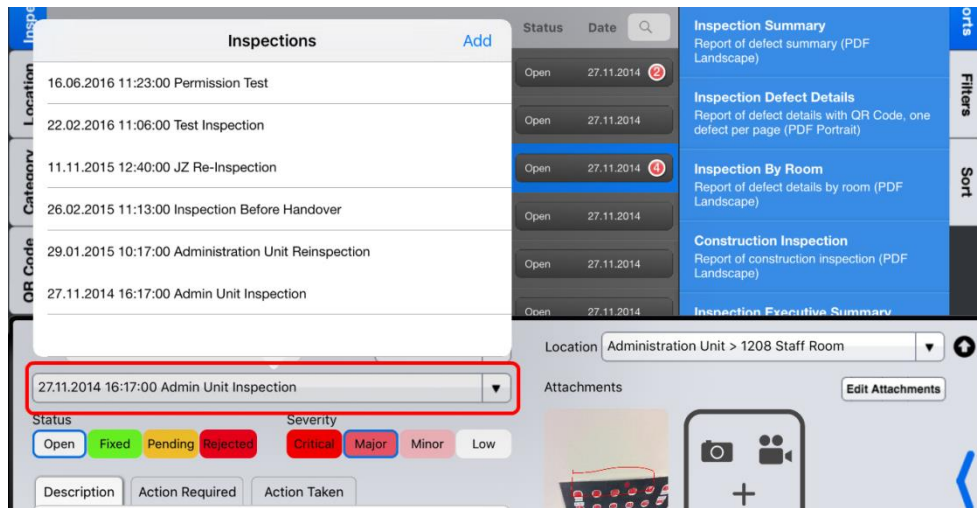




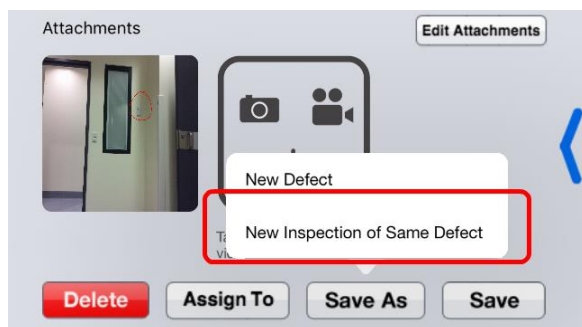
# View Defect History and Progress

A Defect can be saved into multiple copies for different defect inspections in order to track and compare progress.

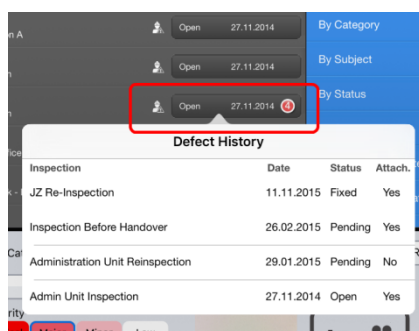
Open an existing defect, make necessary changes and select new inspection from inspection dropdown list.



Click “Save As” button and choose “New Inspection of Same Defect”, a new copy of defect inspection will be saved.



You can view all defect inspection by clicking status and date button at right of defect item:



E.g. As you can see from above screenshot, there are three defect inspections for single defect, and each of them has different status with different inspection date, you can easily compare and track the progress.

Swipe up on selected defect (or click arrow icon on top right) to show the previous inspections for this defect, this is the way of comparing and tracking defect progress with more detail information.

The screenshot shows the top section of the application interface. At the top, there is a list of previous inspections for the selected defect:

- 26.02.2015 11:13:00 Inspection Before Handover
- 29.01.2015 10:17:00 Administration Unit Reinspection
- 27.11.2014 16:17:00 Admin Unit Inspection

Below this list, the main form for the selected defect is visible. The defect title is "Light switch cover plate", the category is "Building Fabric", and the location is "Administration Unit > 1208 Staff Room". The status is "Fixed", and the severity is "Major". The description is "Gap between plate and wall. Plate bowed. Something fixed". The "Attachments" section shows a photo of the defect. The "Edit Attachments" button is visible. The "Save" button is highlighted with a red box.

You can swipe up (or select inspection from dropdown) to compare a selected defect with different stages, you can click "Edit" button to modify inspection of defect.

The screenshot shows the main form for the selected defect. The defect title is "Light switch cover plate", the category is "Building Fabric", and the location is "Administration Unit > 1208 Staff Room". The status is "Fixed", and the severity is "Major". The description is "Gap between plate and wall. Plate bowed. Something fixed". The "Attachments" section shows a photo of the defect. The "Edit Attachments" button is visible. The "Save" button is highlighted with a red box. A red arrow points to the "Edit" button (pencil icon) in the top right corner. A hand is shown tapping the "Save" button.

## Update a Defect

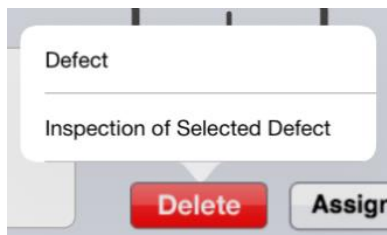
Select an existing defect, make changes and click "Save" button to update selected defect.

### Save As

If location of defect has changed, you can only save defect as new one. If inspection of defect is changed, you can either save as new defect or new defect inspection.

## Deleting a Defect

Select defect from list, and click “Delete” button:

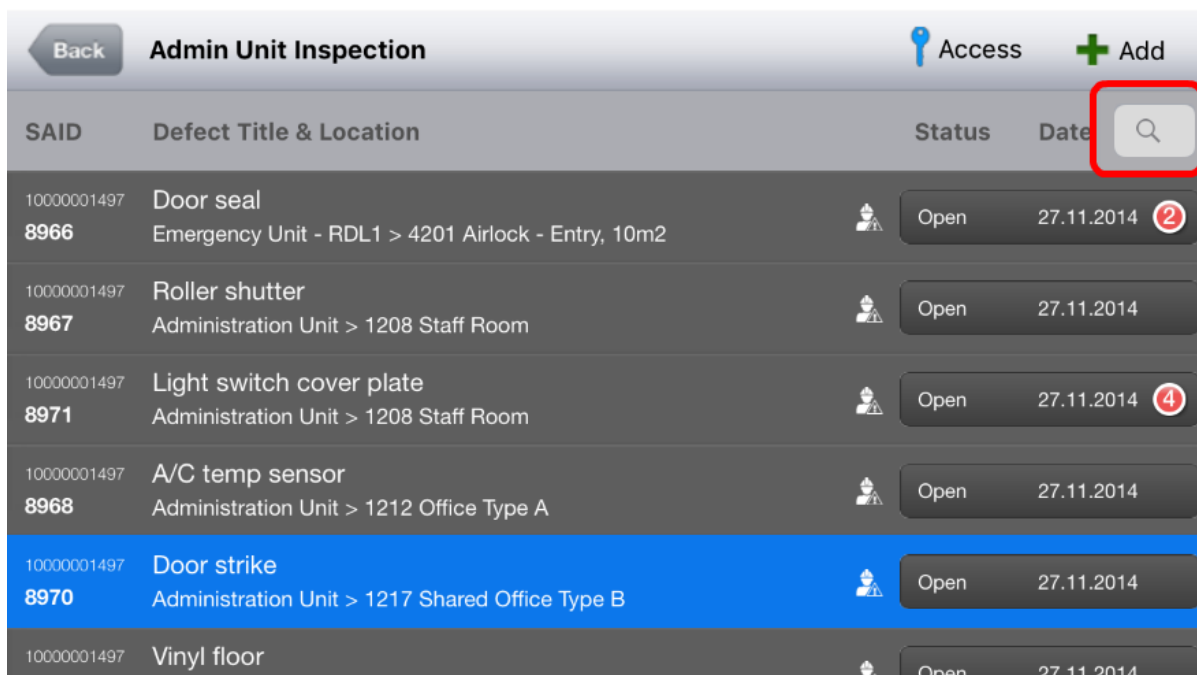


Selecting “**Defect**” will delete all defect inspection records for this defect.

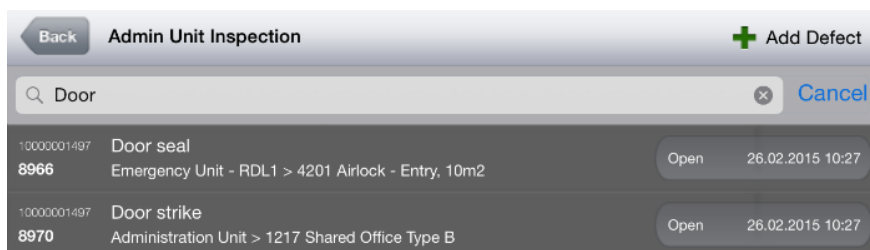
Selecting “**Inspection of Selected Defect**” will only delete selected defect inspection record.

## Searching Defects

To search defects, click on search area on top bar, search bar will be expanded.



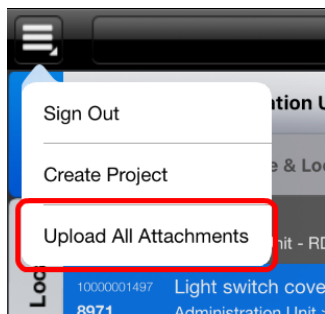
Enter a keyword in the text field then click search on keyboard, result will be filtered by keyword.



To cancel the search, click on “Cancel” button.

# Upload all Attachments

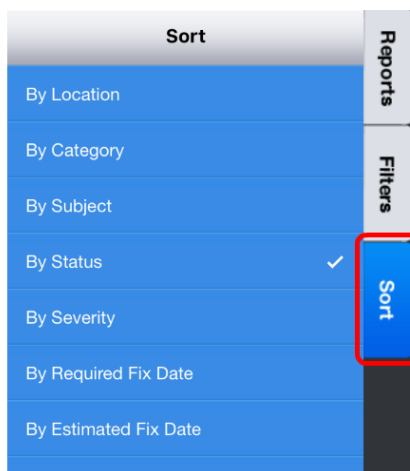
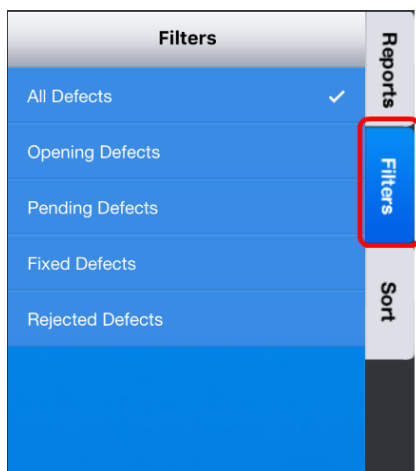
A quick way to upload attachments:



Use this function to upload all attachments including photo / video / audio from this device to server.

## Filter and Sort Defects

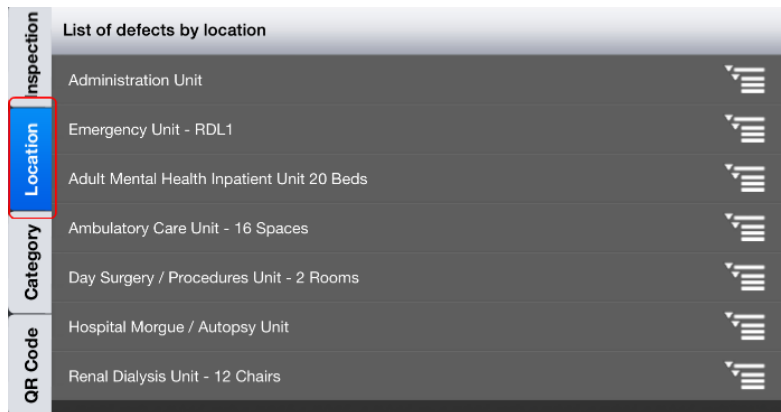
You can filter defects shown in the list by “Defect Status” and sort by “Location”, “Category”, “Status”, “Severity” and etc.



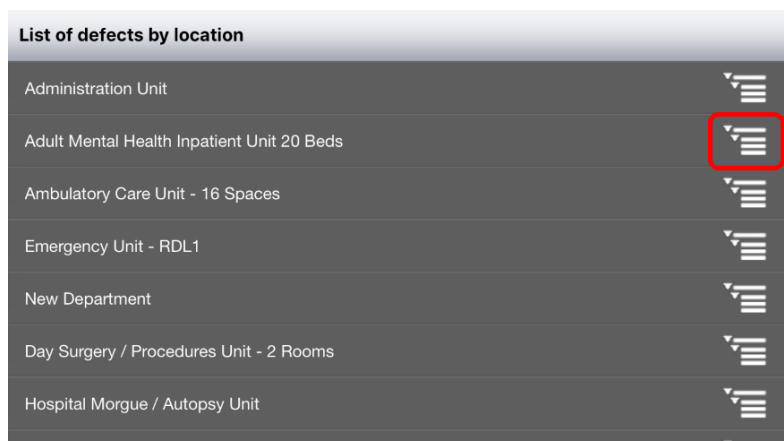
# Location

A location is a physical place inside the site you are inspecting; this could be a department, room or area.

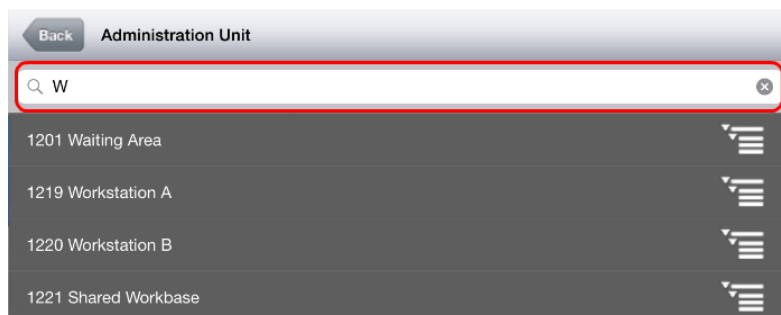
Click on the “Location” tab on left navigation to show the locations in the project, from here you can browse defects and site checks by department by department, or room by room.



The Department list will be shown as root level location. You can click on individual departments to view defects of selected department, or you can click on sub item icon to view rooms of selected department.



In the rooms view, you can search by room name and tag.

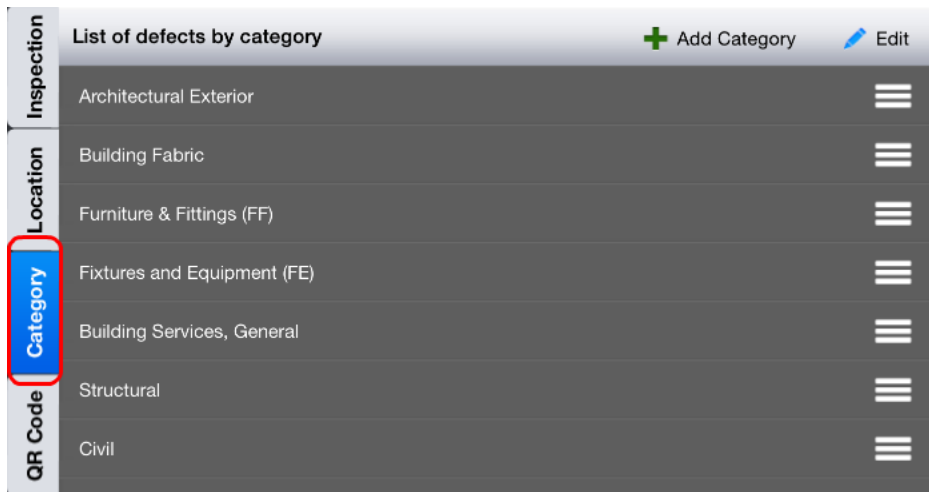


**Note:** The initial location list will be imported from HFBS Briefing module; you can add custom locations when you create new defects.

# Category

A category classifies site checks or defects into logical groups such as exterior, FF&E, Structure ect.

Click on “Category” tab on left navigation to show category information of project, from here you can browse defect category by category.



Click on individual item of list to show defects of selected category.

Click on “Add Category” to create new category.

Click on “Edit” to edit category list, you can enable multiple deletion of category items in list.

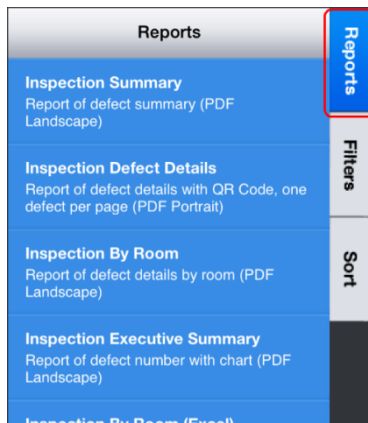
Swipe left individual item will show delete option of selected category.

Click on icon at end of item to view and update category name.






# Reports

There are multiple report templates available in the Defects module. They can be found on the right panel.



If you browse defects by inspection, the report panel will show all available report templates for selected inspection. If you browse defects by location, report panel will show all available report templates for selected location. If you browse defects by category, report panel will show all available report templates for selected category.

Here is sample of “Inspection by Room” report.

DEFECTDEMO : Defect Demo Project																	
INSPECTION:		Admin Unit Inspection															
INSPECTION DATE:		27-Nov-14															
INSPECTION BY:		Defect Demo															
SUMMARY:																	
# of Rooms:		5	# of Defects:		6	# FIXED:		0	# OPEN:		6	# PENDING:		0	# REJECTED:		0
Rm No	ID #	Rm Name	Defect	Description	Action	Remarks / Images		Status									
1208	10000001497 8967	Staff Room	Roller shutter	Shutter is finger trap. Door to heavy.	Add blocks either side to prevent finger trap, adjust spring for functionality.			OPEN									
1208	10000001497 8971	Staff Room	Light switch cover plate	Gap between plate and wall. Plate bowed.	Plate to be fixed flat and true. Adjust cables if necessary. Sealant not acceptable to seal gap.			OPEN									
Rm No	ID #	Rm Name	Defect	Description	Action	Remarks / Images		Status									
1212	10000001497 8968	Office Type A	A/C temp sensor	Risk of damage	Investigate moving out of reach or removing all together and patch wall or provide protective cover.			OPEN									
Print Date: 5-Mar-15										Issue No: 1 Issue Date: 05.03.2015		Page 1 of 2					

You can generate report on iPad, and click share icon  to share or print report.

# Offline Mode

Defects module has offline mode which provides temporary access to the modules functions whilst there is no internet connection. When you are back in a location with internet, you can sync the offline changes back to the central server. To start offline mode, click offline icon on top bar, you will be in offline mode.



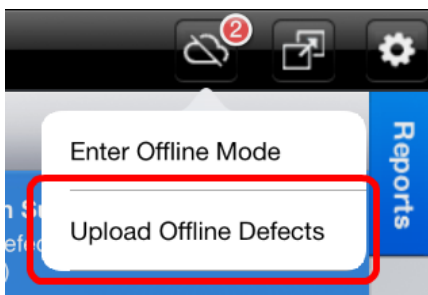
In offline mode, you can still create defects and capture images, however, “Add New Inspection” will be not available.

A screenshot of the application interface in offline mode. At the top, there's a status bar with 'Carrier', '11:27 AM', and '100%' battery. Below it, a header bar shows 'Close', 'Offline', '+ Add Defect', 'Edit', and 'Upload'. The main area displays a list of defects with columns for 'Defect Title & Location', 'Status', and 'Date'. Two defects are listed: 'Roller shutter' and 'Light switch cover plate'. The 'Light switch cover plate' defect is highlighted in blue. Below the list is a form to add a new defect. It includes fields for 'Title', 'Category', 'Location', and 'Attachments'. There are also buttons for 'Status' (Open, Fixed, Pending, Rejected) and 'Severity' (Critical, Major, Minor, Low). A 'Description' text area is at the bottom left. At the bottom right, there are 'Delete' and 'Save' buttons.

Upload Defects to the Server:

When you get live Internet connection, and want to upload offline defects to server. You can click “Upload” button in top bar of offline mode.

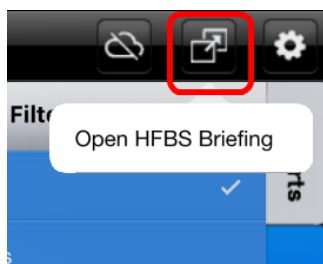
If you are not in offline mode, you can click offline icon on top bar and choose “Upload Offline Defects” option.





# Open HFBS Briefing Module

If you have it installed you can open HFBS Briefing module app from Defects module, the Briefing module will automatically load the information of the location of selected defect, including Fabric, FF, FE and etc.



The HFBS Briefing for iPad can be downloaded from the AppStore:

<https://itunes.apple.com/au/app/hfbs-briefing-for-ipad/id893042433?mt=8>

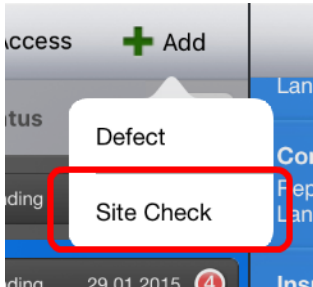
The HFBS Briefing module is an indispensable tool for specialist Healthcare Facility Design professionals. It allows user to rapidly create detailed project briefs using the Health Facility Guidelines as the base.



# Site Checks

A site check is a routine inspection of a construction site; it is not the same as a defect as it does not record issues. Site checks are used to record the progress of construction or audit of a process over time.



In the defects list view, click the “Add” button and choose “Site Check”, system would create “Site Check” record.



Compared to “Defect” Record, “Site Check” has less information which is used for a quick site inspection to record ongoing progress of construction.

A screenshot of a mobile application form for creating a 'Site Check' record. The form has a light blue background. At the top, there are fields for 'Title', 'Category' (with a dropdown arrow), and 'Location' (with a dropdown arrow). Below these is a date and time field showing '16.06.2016 11:23:00 Permission Test' with a dropdown arrow. On the left, there is a large white text area labeled 'Description'. On the right, there is an 'Attachments' section with a square icon containing a camera, a video camera, and a plus sign. Below this icon is the text 'Tap to add new image/video attachment'. At the bottom right, there is a 'Save' button.

A Site Check has different icon to a Defect.

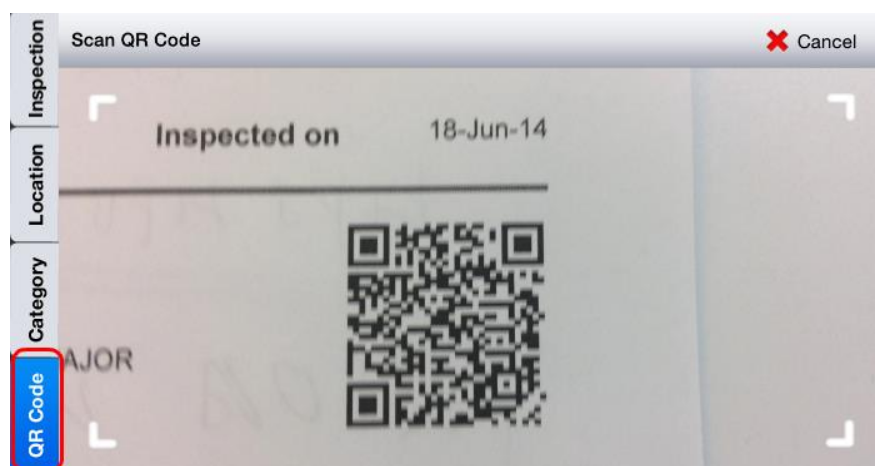
10000002170 2253	Site check Item Ambulatory Care Unit - 16 Spaces > 1002 Lobby/ Airlock		Open	16.06.2016
10000002170 2254	Defect Item Adult Mental Health Inpatient Unit 20 Beds > 1406 Toilet - Accessible		Open	16.06.2016

# Marking Defects with QR Codes

The defects module can print out QR codes in the reports section of the app covered above, these can be added to a construction site.

Users can then scan these with the application open to automatically locate and open a defect or site inspection in the application.

Click on “QR Code” on left navigation, you can scan QR Code using iPad camera.



QR Code can be found from “Inspection Defect Details”, “Location Defect Details” and “Category Defect Details” report.

# User Access & Security

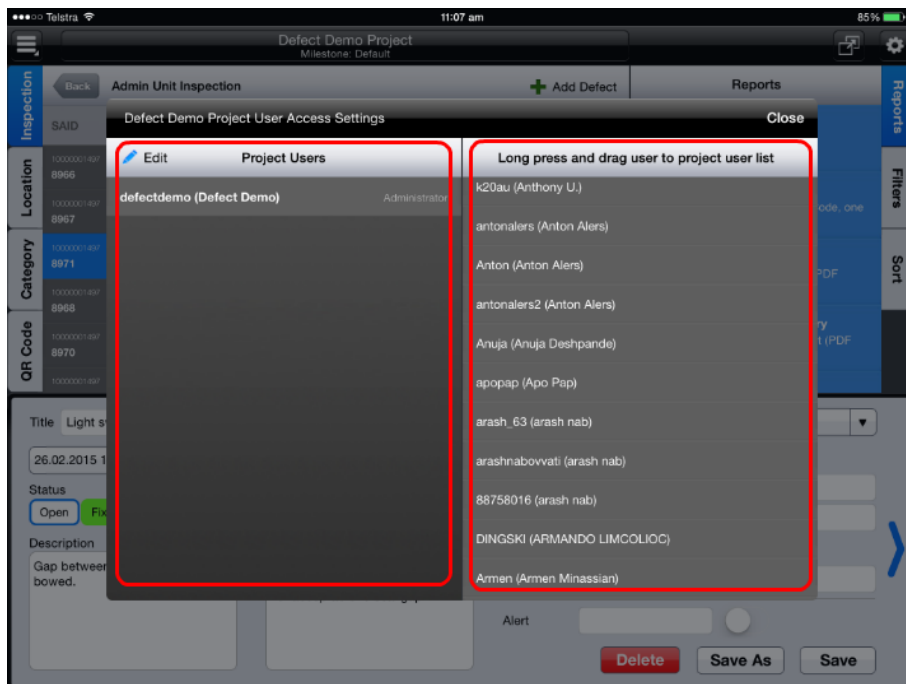
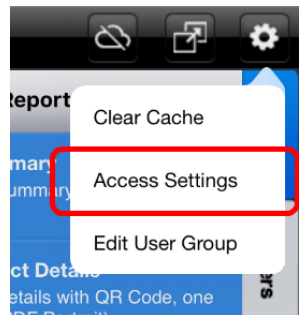
The Defects Module is multi-user system with different level of access control.

- **Contractor:** This user group can create / Update / Delete their inspection & defects, all the inspections and defects created by contractor are not accessible by other contractors unless you assign it to. If project administrator assigns defects to a contractor, this contractor can access defect with read only access level, and can only edit “Action Taken” field of defect.
- **Defects Inspector:** This user group can fully access and manage the defects in project.
- **Defects Administrator:** This user group have access to all features including permission control.

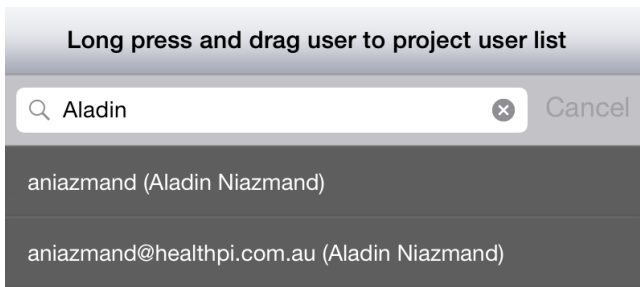
## Manage User Permission (Admin Function)

To manage user permissions, the logged in user account needs to be Project Administrator account, after select project & milestone; you can manage user permission by clicking Setting button on top bar, select “Access Settings”.

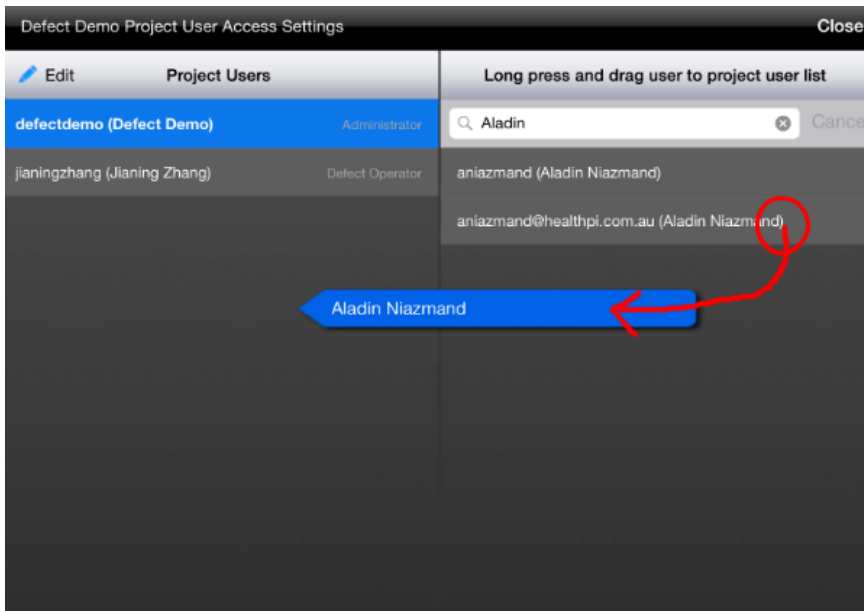
Users in list at left are “Project Users” who have access to project defects. Users in list at right are all HFBS users.



Project Administrator can search accounts by username, first name and last name in all HFBS user, and then add it to “Project User” list.



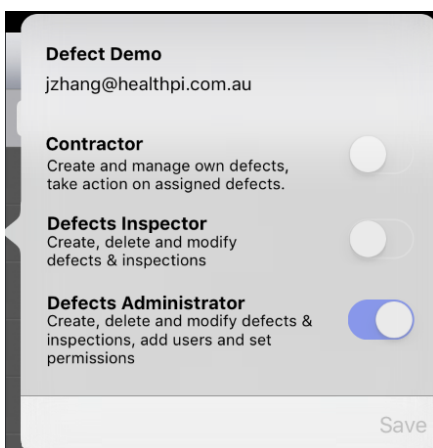
Long press and drag user from right and drop on left, user will be added to “Project Users” list.



When user added to “Project Users”, there are two access levels can be set to this user:

**Contractor** can create and manage their own defect and take actions on assigned defects.

**Defects Inspector** can create / delete / update project inspection & defect.



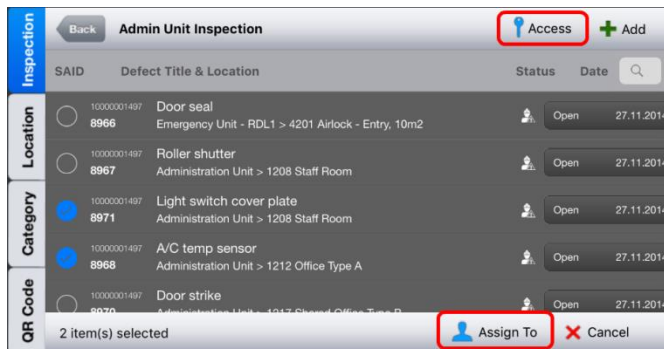
**Note:** User cannot be set to be Administrator within HFBS Defects Module.

# Assign a Defect to a Contractor

Once a defect has been created it is possible to assign it to a contractor for them to complete, this is a good way to oversee defects as well as an effective method to communicate issues to other Defects Module App users.

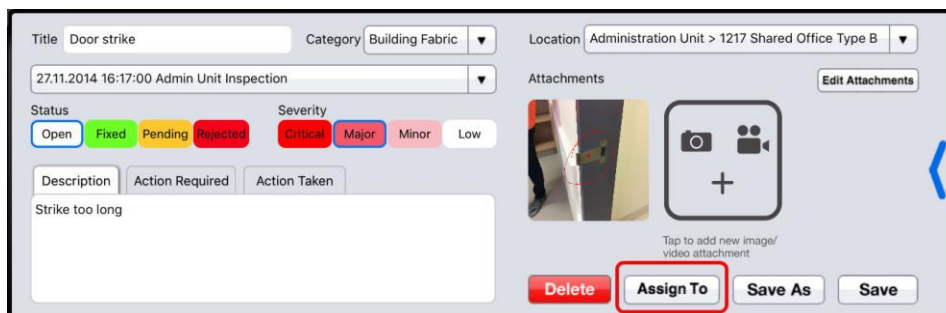
## Assign Group of Defects

Click on “Access” button on defect list view, and you can select multiple defects and click “Assign To” at bottom bar to give access to contractors.



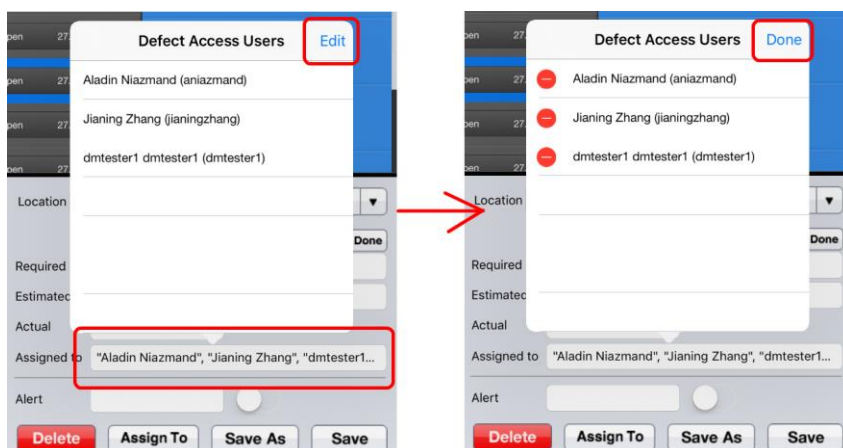
## Assign Single Defect

In defect information panel, you can click on “Assign to” button to give access of this defect to a contractor.



## Delete Contractor Access to a Defect

Click on large blue button at left of defect information panel, show extra information. Click on Assigned to field, list of user who can access to this defect will appear. Click on Edit button to remove user from list.



# Collaboration & messaging

Users of the defects module can communicate & collaborate inside the module using the “Action Taken” tab inside a defect. This tab serves as a running commentary on the defect or site check.

All users who can access a defect can post messages inside the defect, all other users with access can see this communication.

The screenshot displays the defect management interface. At the top, there are fields for Title (Light switch cover plate), Category (Building Fabric), Location (Administration Unit > 1208 Staff Room), and a date/time stamp (27.11.2014 16:17:00 Admin Unit Inspection). Below these are tabs for Status (Open, Fixed, Pending, Rejected, Critical, Major, Minor, Low) and Severity (Critical, Major, Minor, Low). The 'Action Taken' tab is selected and highlighted with a red box. It shows a list of messages: 'Jianing Zhang (jianingzhang) ok I got it' and 'Defect Demo (defectdemo) repaint it'. To the right of the messages are buttons for 'Add' and 'Edit'. Further right, there is an 'Attachments' section with a camera icon and a plus sign, and a 'Tap to add new image/video attachment' instruction. At the bottom right, there are buttons for 'Delete', 'Assign To', 'Save As', and 'Save'.

Click on “Add” button to post new message.

This is a close-up screenshot of the 'Add' button in the defect management interface. The button is located at the top of the message list, next to the 'Edit' button. It is highlighted with a red box. The message list below shows two entries: 'Jianing Zhang (jianingzhang) ok I got it' and 'Defect Demo (defectdemo) repaint it'.

Click on “Edit” button to delete your message posted.

# HFBS

Health Facility Briefing System

**Defect Demo Project**  
Milestone: Default

**Inspection** List of defects by inspection Edit + Add Inspection

Inspection	Location	Category	QR Code
11.11.2015 New			
26.02.2015 Inspection Before Handover			
26.02.2015 Emergency Department Inspection			
29.01.2015 Administration Unit Reinspection			
27.11.2014 Admin Unit Inspection			

**Reports**

Please select Inspection/Location/Category or Scan QR Code

**Title** New defect **Category** Fixtures and E... **Location** Ambulatory Care Unit - 16 Spaces > 1004 Toilet...

**26.02.2015 11:13:00 Inspection Before Handover**

**Status** Open Fixed Pending Rejected **Severity** Critical Major Minor Low

**Description** **Action Required** **Action Taken**

**Attachments**

Tap to add new image/video attachment

**Delete** **Assign To** **Save As** **Save**

More information: [hfbsinfo.com](http://hfbsinfo.com)