



KDGH
Medical Equipment
Management System (MEMS)
(Release version 1.2.0)

User Guide
(As of 1st September 2022)

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1 Introduction

KDGH Medical Equipment Management System (KDGH MEMS) is a web-based medical equipment maintenance system designed to simplify the maintenance and service calls for installed medical equipment under the manufacturer's warranty and service level agreements (SLA).

KDGH MEMS generates QR codes for each piece of installed equipment, making it easy to manage multiple pieces of equipment installed in various hospitals and departments. KDGH MEMS comes in handy for dealers and companies in the business of medical supplies to record their activities, equipment details and maintenance services.

2 General Information

KDGH MEMS is a web-based application that enables service engineers to manage and plan equipment maintenance using industry maintenance workflows, including Breakdown Maintenance (BM), Planned Calibrations, Preventive Maintenance (PM), and to save the results to generate performance reports and equipment tracking.

2.1 System Overview

KDGH MEMS web application has the following functionalities:

- ✓ **Hospital & Department Module**
 - Add/Update/Delete the Hospitals and Departments
- ✓ **Equipment Management**
 - Keep Records Of Your Equipment
 - Purchase, Installation And Order Details
 - Generate Unique Code For Equipment
 - QR Code Generator and Stickers For Equipment
 - Equipment History and Timeline Page
- ✓ **Breakdown & Preventive Maintenance Calls**
 - Handle Breakdown, and Preventive Maintenance Calls For Installed Equipment, Assign Them To Service Engineers And Track The Handling
- ✓ **Calibration Report and Stickers**
 - Calibrations Reports and Sticker For Equipment
- ✓ **AMC and CMC Management**
 - AMC And CMC Contracts With Hospitals Covering Equipment Details
- ✓ **Time Indicator and Equipment Reports**
 - Time Indicator Reports To Efficiently Improving The Workflows
- ✓ **Automated Reminders**
 - Reminders For Preventive Maintenance Calls And Calibrations
- ✓ **User and Permission Management**
 - User Roles With Selectable Permissions

2.2 Contact

Requests for access to inquiries on the use of the software and components on the design and functionalities of the application should be sent to support@cocoware.co.uk.

3 Getting Started

The application users are members of the Biomedical Engineering and Marketing departments involved in providing equipment maintenance to customers, and each user is assigned a role.

The table below explains the different levels of access rights and the corresponding explanation for each role. It is important to note that the roles are not necessarily identical to a person's title (e.g. Engineer) and that a person can take on several functions.

Type Of Access Rights For Specific Roles	Process To Gain Access Rights
Manager: Will be responsible for identifying team members and is the only one who can access all privileged functionalities. Managers can create, update, and delete all models (e.g. Hospitals, Departments, Contacts, Equipment).	Parties that have not already requested and received access rights can obtain them by contacting the System Administrator.
Engineer: Will have the privilege of managing equipment and related models such as (Departments, Maintenance Calls, and Calibrations). Marketing: The managers will have the right to view marketing-related models.	Parties that have not already requested and received access rights can obtain them by contacting the System Administrator. However, the System Administrator will grant extra access rights upon request.

The System Administrator will manage all user accounts and can be contacted via email at admin@kdglobalhealthcare.com.


3.1 How to Login, Logout and Reset Password

3.1.1 Access and Log in to the KDG MEMS Application

1. Open any internet browser (i.e. Chrome, Firefox, etc.) and type the following URL <https://ems.kdglobalhealthcare.com> in the browser's address bar, as shown below:



2. Press the 'Enter key', and the KDG MEMS login page is fetched, as shown below:



E-mail Address

Password

☐ Remember Me Login

[Reset My Password](#)

3. Enter your email address and password and click the “Login” button to log in.

3.1.2 Change Your Password

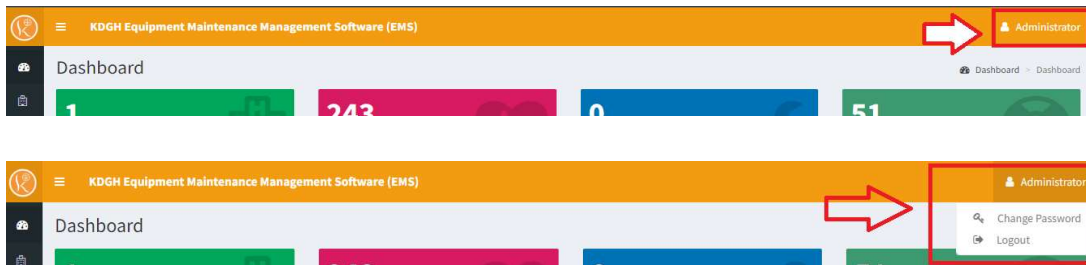
1. Located in the navigation bar, click the dropdown button which contains your name and click the Change Password button when the dropdown menu appears, as shown below:



2. Fill the form as shown below with the following fields and click the “Save” button, as shown below:
 - Current Password (Old Password)
 - New Password
 - Confirm Password (Same as New Password)

3.1.3 Log Out of The KDGH MEMS Application

1. Located in the navigation bar, click the dropdown button which contains your name and click the Logout button when the dropdown menu appears, as shown below:



3.1.4 Forgot/Reset Your Password

1. Navigate to the Login page and click “Reset Password” which will redirect to the Reset Password page, as shown below:

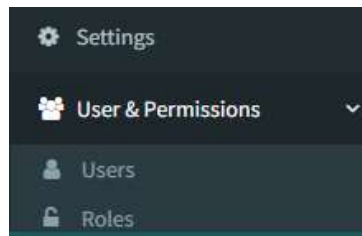
2. Enter your email address and click on “Send Reset Password Link”. This will trigger the application to send a notification to your email address with further instructions.

3.2 User Management

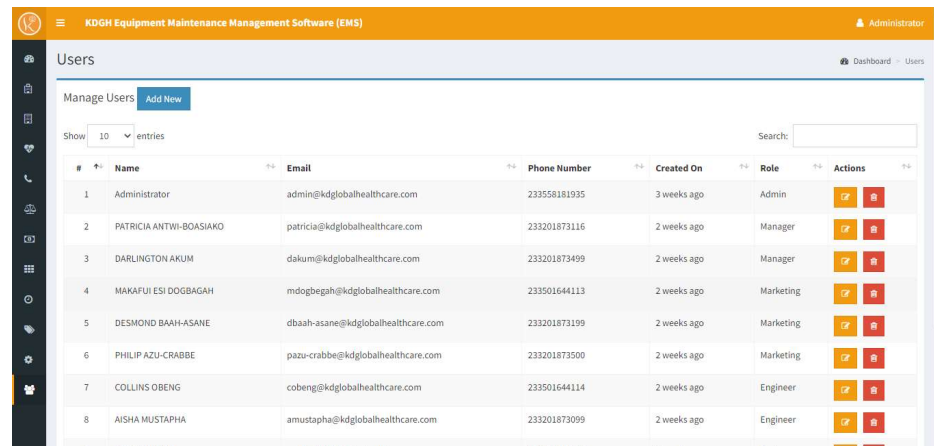
Log in to the KDGH MEMS application as an Administrator

3.2.1 View or Add Users

1. Hover over the sidebar and click “Users and Permissions” then click on “Users”.



2. The Users page will be loaded into the browser, as show below:




3. Click on the “Add New” button and the Create User form will be loaded in the browser as shown below:

A screenshot of the 'Create User' form in the KDGH Equipment Maintenance Management Software (EMS). The form has a header with the software name and a user profile. A sidebar on the left contains various icons. The main content area shows a 'Create User' section with a 'Save' button. The form contains several input fields: 'Name', 'Email', 'Phone Number', 'Role' (a dropdown menu), 'Password', and 'Confirm Password'. The 'Save' button is located at the bottom left of the form.


All the * fields are required.

4. Click the “Save” button when the form is completed.

3.2.2 Updating or Deleting Users

1. Access the Users page and click on the Edit button  to load the Edit User page as shown below:

The screenshot displays the 'Users' management interface in the KDGH EMS software. The top navigation bar is orange and includes the software title and a user profile icon labeled 'Administrator'. A dark sidebar on the left contains various icons for navigation. The main content area is titled 'Users' and includes a breadcrumb trail: 'Dashboard > Users > Edit'. Below this, the 'Edit User' form is presented with the following fields: 'Name' (text input with 'Administrator'), 'Email' (text input with 'admin@kdglobalhealthcare.com'), 'Phone Number' (text input with '233558181935'), and 'Password' (text input, currently blank). A 'Role' dropdown menu is set to 'Admin'. A blue 'Save' button is located at the bottom left of the form.

2. Update the information in the fields and click the “Save” button when the form is completed.
Note: Please keep the “Password” field blank if the user’s password should remain unchanged. Otherwise, enter the new password.
3. To delete a user, click the “Delete” button  and a prompt will follow in the browser. Confirm the prompt by click “Ok” and the user will be deleted permanently.

4 Using the System

4.1 Dashboard

4.1.1 Statistics

The dashboard is the welcome page after successful authentication. It includes counters for the total number of hospitals, departments, maintenance calls, calibrations and reminders.



4.1.2 Maintenance/Calibration Event Calendar

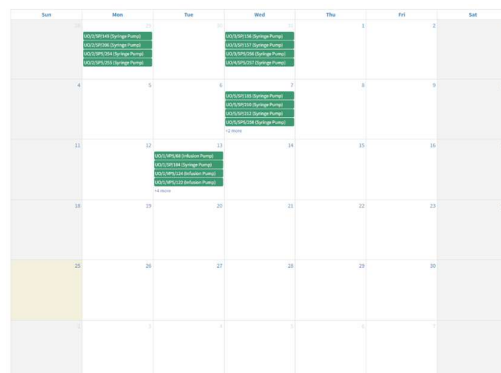
Below the statistics is a calendar which contains events based of the items in the “Event Types”.

Event Types: **Preventive Maintenance (PM) Due Dates** **Calibration Due Dates** **Breakdown Maintenance (BM) Dates** **Warranty Due Dates**

The calendar default view is in the current month. However, using the buttons on the right, the user can navigate between the previous year, previous month, next month, and next year respectively.



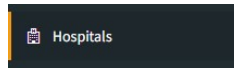
Also, the calendar shows coloured events in their corresponding dates in the month view. The possibilities are clickable, which offers more details about the event.



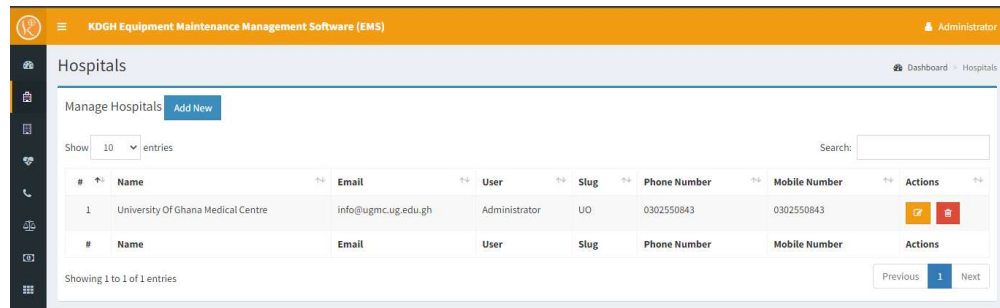
4.2 Manage Hospitals

4.2.1 View or Add Hospitals

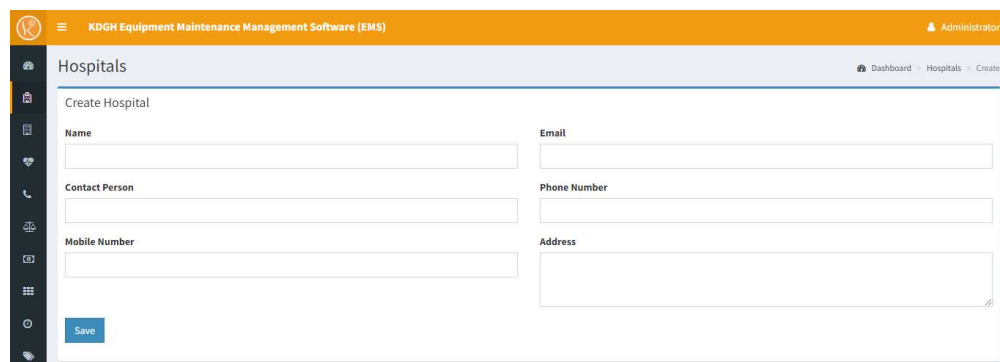
1. Hover over the sidebar and click “Hospitals”.



2. The Hospitals page will be loaded into the browser, as show below:




3. Click on the “Add New” button and the Create Hospital form will be loaded in the browser as shown below:

A screenshot of the 'Create Hospital' form in the KDGH EMS software. The form is titled 'Create Hospital' and has a 'Save' button at the bottom left. It contains several input fields: 'Name', 'Email', 'Contact Person', 'Phone Number', 'Mobile Number', and 'Address'. The 'Address' field is a larger text area. The form is displayed on the same interface as the previous screenshot, with the orange header and dark sidebar.

All the * fields are required.

4. Click the “Save” button when the form is completed.

4.2.2 Update or Delete Hospitals

1. Access the Hospitals page and click on the Edit button  to load the Edit Hospital page as shown below:

KDGH Equipment Maintenance Management Software (EMS) Administrator

Hospitals Dashboard - Hospitals - Edit

Edit Hospital

Name
University Of Ghana Medical Centre

Email
info@ugmc.ug.edu.gh

Contact Person
John Doe


Phone Number
0302550843

Mobile Number
0302550843

Address
UG Medical Centre
Post Office Box LG 25 Accra
Ghana West Africa

Save

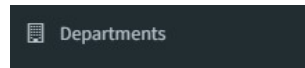
All the * fields are required.

- Update the information in the fields and click the “Save” button when the form is completed.
- To delete a hospital, click the “Delete” button  and a prompt will follow in the browser. Confirm the prompt by click “Ok” and the user will be deleted permanently.

4.3 Manage Departments

4.3.1 View or Add Departments

- Hover over the sidebar and click “Departments”.











- The Departments page will be loaded into the browser, as show below:

KDGH Equipment Maintenance Management Software (EMS) Administrator

Departments Dashboard - Departments

Manage Departments **Add New**

Show 10 entries Search:

#	Name	Short Name	Created On	Actions
1	General	GEN	2 weeks ago	 
2	Emergency	EME	2 weeks ago	 
3	Recovery (B1)	RB1	2 weeks ago	 
4	Operation Theatres (B1)	OTB1	2 weeks ago	 

- Click on the “Add New” button and the Create Department form will be loaded in the browser as shown below:

KDGH Equipment Maintenance Management Software (EMS) Administrator

Departments Dashboard - Departments - Create Department

Create Department

Name


Short Name (e.g. ICU)

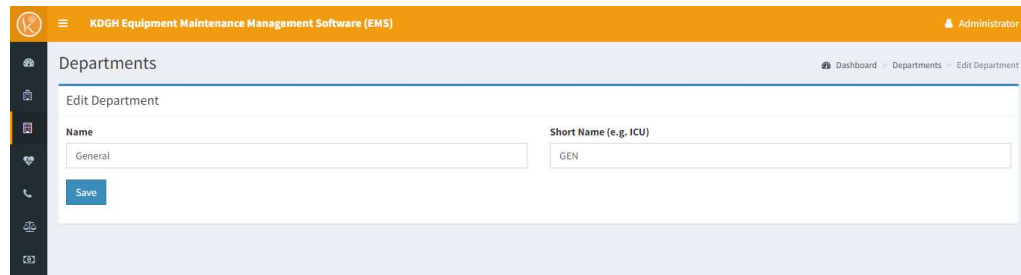
Save

All the * fields are required.


- Click the “Save” button when the form is completed.

4.3.2 Update or Delete Departments

- Access the Departments page and click on the Edit button  to load the Edit Department page as shown below:



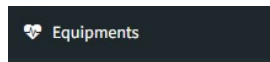
All the * fields are required.

- Update the information in the fields and click the “Save” button when the form is completed.
- To delete a Department, click the “Delete” button  and a prompt will follow in the browser. Confirm the prompt by click “Ok” and the user will be deleted permanently.

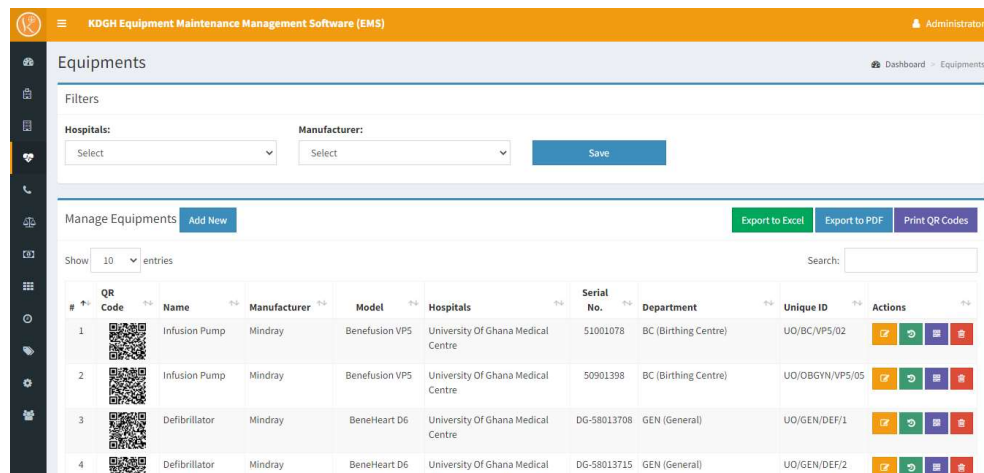
4.4 Manage Equipments





















4.4.1 View or Add Equipments

- Hover over the sidebar and click “Equipments”.



- The Equipments page will be loaded into the browser, as show below:



#	QR Code	Name	Manufacturer	Model	Hospitals	Serial No.	Department	Unique ID	Actions
1		Infusion Pump	Mindray	Benefusion VP5	University Of Ghana Medical Centre	51001078	BC (Birthing Centre)	UO/BC/VP5/02	   
2		Infusion Pump	Mindray	Benefusion VP5	University Of Ghana Medical Centre	50901398	BC (Birthing Centre)	UO/OBGYN/VP5/05	   
3		Defibrillator	Mindray	BeneHeart D6	University Of Ghana Medical Centre	DG-58013708	GEN (General)	UO/GEN/DEF/1	   
4		Defibrillator	Mindray	BeneHeart D6	University Of Ghana Medical Centre	DG-58013715	GEN (General)	UO/GEN/DEF/2	   

- Click on the “Add New” button and the Create Equipments form will be loaded in the browser as shown below:


The screenshot shows the 'Create Equipments' form in the KDGH EMS. The form is titled 'Equipments' and 'Create Equipments'. It has a sidebar with icons for various functions. The form fields are arranged in two columns. The left column contains: Name, Manufacturer, Serial Number, Department (dropdown), Order Date, and Warranty Due Date. The right column contains: Short Name (e.g. Electrocardiogram -> ECG), Model, Hospitals (dropdown), Purchase Date, Installation Date, and Service Engineer Number (Mobile no). There is a 'Critical' section with radio buttons for 'Yes' and 'No'. A 'Save' button is located at the bottom left of the form.

All the * fields are required.

The QR code will be generated automatically.

- Click the “Save” button when the form is completed.

4.4.2 Update or Delete Equipments


- Access the Equipments page and click on the Edit button  to load the Edit Equipments page as shown below:

The screenshot shows the 'Edit Equipments' form in the KDGH EMS. The form is titled 'Equipments' and 'Edit Equipments'. It has a sidebar with icons for various functions. The form fields are arranged in two columns. The left column contains: Name (Infusion Pump), Manufacturer (Mindray), Serial Number (S1001078), Department (BC (Birthing Centre)), Order Date, and Warranty Due Date. The right column contains: Short Name (e.g. Electrocardiogram -> ECG) (VP5), Model (Benefusion VP5), Hospitals (University Of Ghana Medical Centre), Purchase Date, Installation Date, and Service Engineer Number (Mobile no) (0201373099). There is a 'Critical' section with radio buttons for 'Yes' and 'No'. A 'Save' button is located at the bottom left of the form.

All the * fields are required.


The QR code will be updated automatically.

- Update the information in the fields and click the “Save” button when the form is completed.

- To delete a hospital, click the “Delete” button  and a prompt will follow in the browser. Confirm the prompt by click “Ok” and the user will be deleted permanently.

4.4.3 View Equipment History and Timelines

The Equipment History page shows information about the equipment and all the previous maintenance calls and calibrations sorted by the most recent call. This page is encoded in the QR codes generated for each device. When the QR code is scanned, it will navigate your device browser to the Equipment History page.

- To access an equipment history and timeline click on the History button  to load the Equipment History page as shown below:



Equipment History

Name: Infusion Pump

Equipment ID: 261	Unique ID: UO/BC/VP5/02	Short Name: VPS	User: Administrator
Manufacturer: Mindray	Model: Benefusion VPS	Hospitals: University Of Ghana Medical Centre	Serial No.: 53001078
Purchase Date: :-	Order Date: :-	Installation Date: :-	Department: BC (Birthing Centre)
			Warranty Date: :-

[Edit](#)

2022-09-13


Call - Preventive

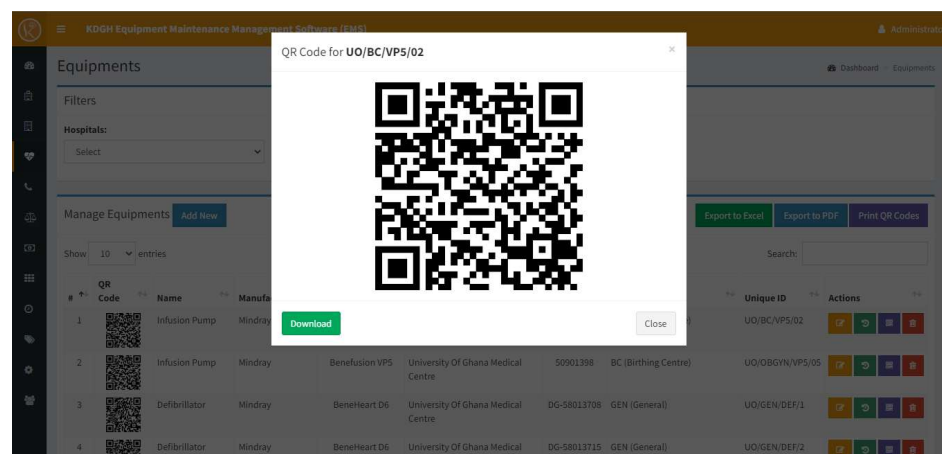
User: AISHA MUSTAPHA	Call Handle: Internal	Working Status: Working
Report Number: 151	Next Due Date: 2023-09-13	Call Registration Date & Time: 2022-09-13 04:43 PM
Attended By: AISHA MUSTAPHA	Attended On: 1970-01-01 12:00 AM	Completed On: :-

[Edit](#)

Note: Click on the Edit button  for each section to edit the details displayed.

4.4.4 Equipment QR Codes

- To view or download equipment QR codes click on the QR Code button  to load the QR Code image as shown below:



QR Code for UO/BC/VP5/02

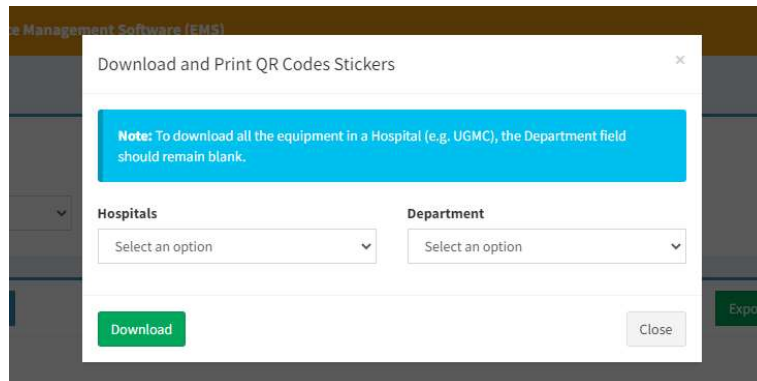
[Download](#) [Close](#)


#	QR Code	Name	Manufa					
1		Infusion Pump	Mindray					
2		Infusion Pump	Mindray	Benefusion VPS	University Of Ghana Medical Centre	5001398	BC (Birthing Centre)	UO/BC/VP5/02
3		Defibrillator	Mindray	Benenheart D6	University Of Ghana Medical Centre	DG-580L3708	GEN (General)	UO/GEN/DEF/1
4		Defibrillator	Mindray	Benenheart D6	University Of Ghana Medical Centre	DG-580L3715	GEN (General)	UO/GEN/DEF/2

2. Click the Download  button to save the QR code on your device.

4.4.5 Generate QR Code Stickers

1. To generate equipment QR code stickers click on the “Print QR Codes” button to load the form as shown below:



2. To generate stickers for all equipment in a hospital (e.g. Universal Hospital Ltd), leave the department field blank. However, select the department to create stickers for equipment in a particular department (e.g. Emergency Department) in the hospital (e.g. Universal Hospital Ltd).
3. Click the Download  button to generate and download the PDF document to print the QR Code stickers.

4.4.6 Export Equipments in Excel or PDF

1. To export the equipment in Excel or PDF formats, click on the “Export to Excel” or “Export to PDF” buttons, respectively, to download the documents, as shown below:

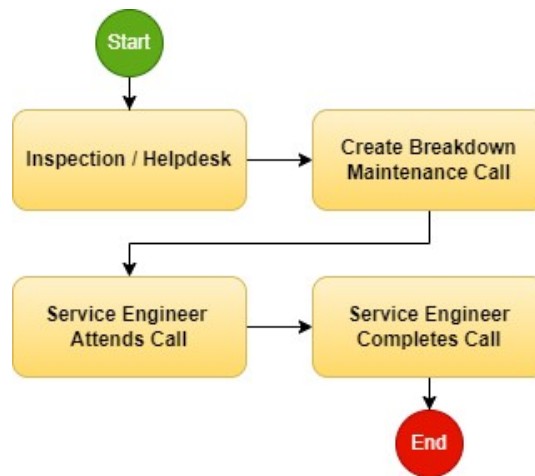


4.5 Manage Breakdown Maintenance Calls

4.5.1 What is a Breakdown Maintenance Call?

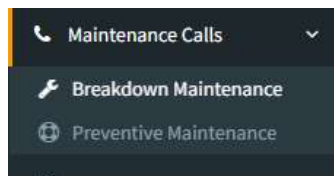
Breakdown maintenance is maintenance performed on equipment that has broken down and is unusable. It is based on a breakdown maintenance trigger. It may be either planned or unplanned.

4.5.2 System Workflow of the Breakdown Maintenance Calls

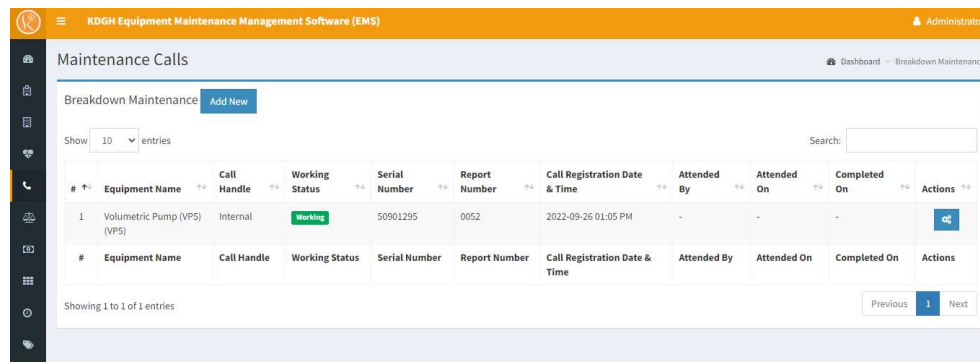


4.5.3 View or Add Breakdown Maintenance Calls

1. Hover over the sidebar and click “Breakdown Maintenance”, as show below:



2. The Breakdown Maintenance view page will be loaded into the browser, as show below:



3. Click on the “Add New” button and the Create Breakdown Maintenance form will be loaded in the browser, as shown below:

Maintenance Calls Dashboard Breakdown Maintenance Create

Create Breakdown Maintenance

Hospitals: Select an option

Department: Select an option

Serial Number: Select an option

Equipment Name:

Unique ID:

Manufacturer:

Model:

Short Name (e.g. Electrocardiogram -> ECG):

Call Handle: ☐ Internal ☐ External

Call Registration Date & Time:

Working Status: --select--

Nature of problem:



☐ Is Contaminated?

Save

All the * fields are required.

- Click the “Save” button when the form is completed.

4.5.4 Update or Delete Breakdown Maintenance Calls

- Access the Breakdown Maintenance page and click on the Actions button , click on the Edit button  Edit and the Edit Breakdown Maintenance page will load, as shown below:

Maintenance Calls Dashboard Breakdown Maintenance Edit

Edit Breakdown Maintenance

Hospitals: University Of Ghana Medical Centre

Department: EME(Emergency)

Serial Number: 50901295

Equipment Name: Volumetric Pump

Unique ID: UO/EME/VP5/25

Manufacturer: Mindray

Model: Mindray

Call Handle: ☒ Internal ☐ External

Call Registration Date & Time: 2022-09-26 01:05 PM



Working Status: Working

Nature of problem:



☐ Is Contaminated?

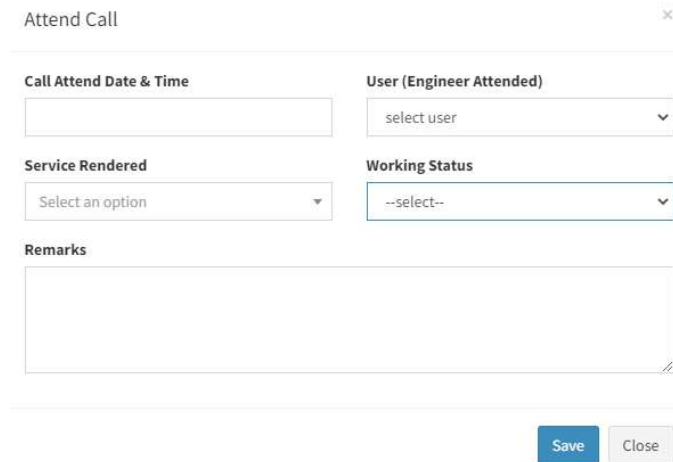
Save

All the * fields are required.

- Update the information in the fields and click the “Save” button when the form is completed.
- To delete a Breakdown Maintenance Call, click the Action button  and click the “Delete” button  Delete and a prompt will follow in the browser. Confirm the prompt by click “Ok” and the Breakdown Maintenance Call will be deleted permanently.

4.5.5 Attend a Breakdown Maintenance Call

1. To attend a maintenance call click on the Actions button , click on the Attend Call button  Attend Call and the Attend Call form will be loaded, as shown below:





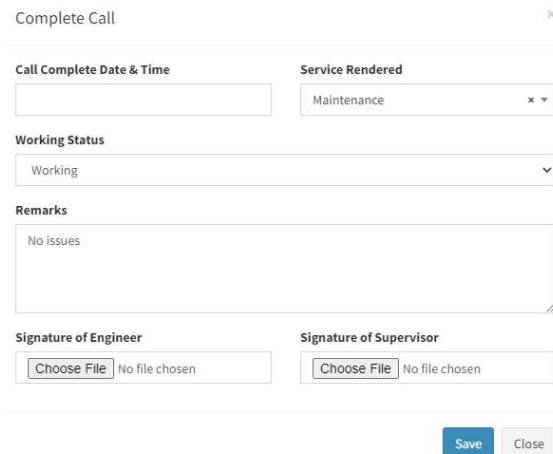
The 'Attend Call' form is a modal window with a title bar and a close button. It contains several input fields: 'Call Attend Date & Time' (a text box), 'User (Engineer Attended)' (a dropdown menu with 'select user' as the selected option), 'Service Rendered' (a dropdown menu with 'Select an option' as the selected option), and 'Working Status' (a dropdown menu with '--select--' as the selected option). Below these fields is a large text area for 'Remarks'. At the bottom right of the form are two buttons: 'Save' (in blue) and 'Close' (in grey).

All the * fields are required.

2. Click the "Save" button when the form is completed.

4.5.6 Complete a Breakdown Maintenance Call

1. To complete a maintenance call click on the Actions button , click on the Complete Call button  Call Complete and the Complete Call form will be loaded, as shown below:



The 'Complete Call' form is a modal window with a title bar and a close button. It contains several input fields: 'Call Complete Date & Time' (a text box), 'Service Rendered' (a dropdown menu with 'Maintenance' as the selected option), and 'Working Status' (a dropdown menu with 'Working' as the selected option). Below these fields is a large text area for 'Remarks' containing the text 'No Issues'. At the bottom of the form are two sections for signatures: 'Signature of Engineer' and 'Signature of Supervisor'. Each section has a 'Choose File' button and the text 'No file chosen'. At the bottom right of the form are two buttons: 'Save' (in blue) and 'Close' (in grey).

All the * fields are required.

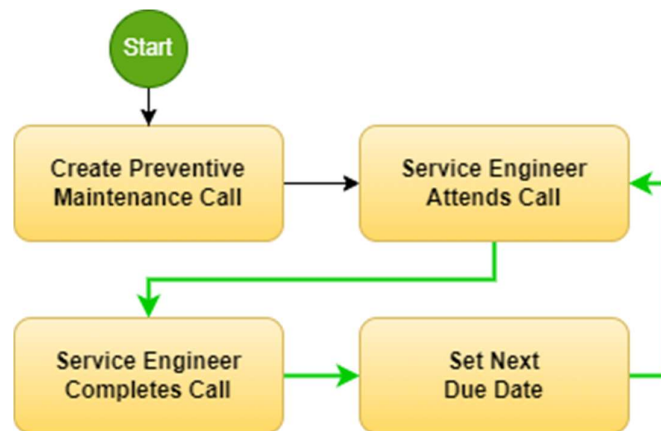
2. Click the "Save" button when the form is completed.

4.6 Manage Preventive Maintenance Calls

4.6.1 What is a Preventive Maintenance Call?

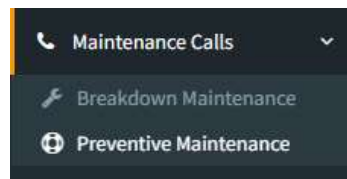
Preventive maintenance (PM) is the regular and routine maintenance of equipment and assets in order to keep them running and prevent any costly unplanned downtime from unexpected equipment failure.

4.6.2 System Workflow of the Preventive Maintenance Calls



4.6.3 View or Add Preventive Maintenance Calls

1. Hover over the sidebar and click “Preventive Maintenance”, as show below:



2. The Preventive Maintenance view page will be loaded into the browser, as show below:

The screenshot shows the 'Preventive Maintenance' view page in the KDGH Equipment Maintenance Management Software (EMS). The page displays a table of maintenance calls with columns for #, Equipment Name, Call Handle, Working Status, Serial Number, Call Registration Date & Time, Next Due Date, Attended By, Attended On, Completed On, and Actions. There are 5 entries listed, all with a 'Working' status and a 'Next Due Date' of 2023-09-13.

#	Equipment Name	Call Handle	Working Status	Serial Number	Call Registration Date & Time	Next Due Date	Attended By	Attended On	Completed On	Actions
1	Infusion Pump (VP5) (Benefusion VP5)	Internal	Working	51001078	2022-09-13 04:43 PM	2023-09-13	AISHA MUSTAPHA	1970-01-01 00:00 AM	-	Edit
2	Infusion Pump (VP5) (Benefusion VP5)	Internal	Working	50901398	2022-09-13 04:43 PM	2023-09-13	AISHA MUSTAPHA	1970-01-01 00:00 AM	-	Edit
3	Infusion Pump (VP5) (Benefusion VP5)	Internal	Working	50901191	2022-09-13 04:42 PM	2023-09-13	AISHA MUSTAPHA	1970-01-01 00:00 AM	-	Edit
4	Infusion Pump (VP5) (Benefusion VP5)	Internal	Working	50901376	2022-09-13 04:41 PM	2023-09-13	AISHA MUSTAPHA	1970-01-01 00:00 AM	-	Edit
5	Infusion Pump (VP5) (Benefusion VP5)	Internal	Working	50901168	2022-09-13 04:40 PM	2023-09-13	AISHA MUSTAPHA	1970-01-01 00:00 AM	-	Edit

3. Click on the “Add New” button and the Create Preventive Maintenance form will be loaded in the browser, as shown below:

Create Preventive Maintenance

Hospitals: Select an option

Department: Select an option

Serial Number: Select an option

Equipment Name:

Unique ID:

Manufacturer:

Model:

Short Name (e.g. Electrocardiogram -> ECG):

Call Handle: ☐ Internal ☐ External

Call Registration Date & Time:

Next Due Date:

Working Status: --select--

Nature of problem:



☐ Is Contaminated?

Save

All the * fields are required.

- Click the “Save” button when the form is completed.

4.6.4 Update or Delete Preventive Maintenance Calls

- Access the Preventive Maintenance page and click on the Actions button , click on the Edit button  **Edit** and the Edit Preventive Maintenance page will load, as shown below:

Edit Preventive Maintenance

Hospitals: University Of Ghana Medical Centre

Department: BC(Birthing Centre)

Serial Number: 51001078

Equipment Name: Infusion Pump

Unique ID: UQ/BC/VP5/02

Manufacturer: Mindray

Model: Benefusion VPS

Short Name (e.g. Electrocardiogram -> ECG): VP5

Call Handle: ☒ Internal ☐ External

Call Registration Date & Time: 2022-09-13 04:43 PM

Next Due Date: 2023-09-13



Working Status: Working

Nature of problem: none



☐ Is Contaminated?

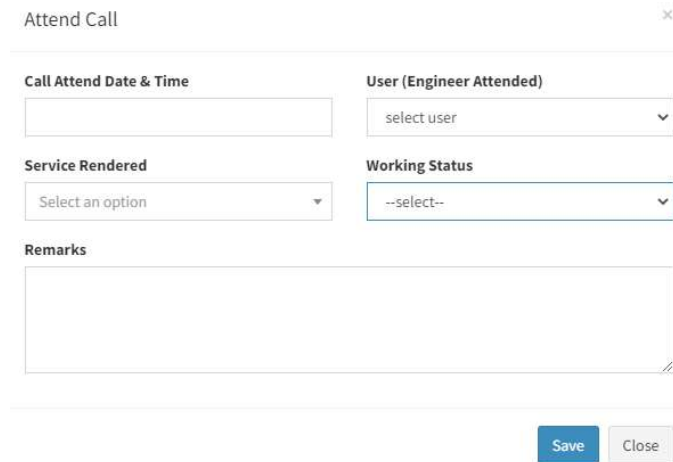
Save

All the * fields are required.

- Update the information in the fields and click the “Save” button when the form is completed.
- To delete a Preventive Maintenance Call, click the Actions button  and click the “Delete” button  **Delete** and a prompt will follow in the browser. Confirm the prompt by click “Ok” and the Preventive Maintenance Call will be deleted permanently.

4.6.5 Attend a Preventive Maintenance Call

1. To attend a maintenance call click on the Actions button , click on the Attend Call button  Attend Call and the Attend Call form will be loaded, as shown below:





The Attend Call form is a modal window with a title bar "Attend Call" and a close button. It contains the following fields:

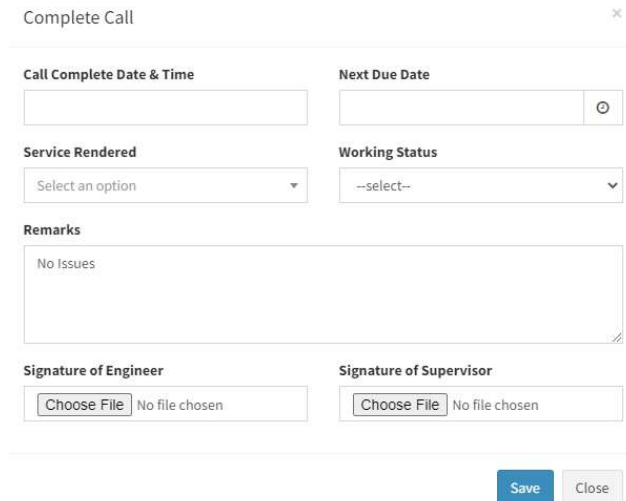
- Call Attend Date & Time**: A text input field.
- User (Engineer Attended)**: A dropdown menu with "select user" as the selected option.
- Service Rendered**: A dropdown menu with "Select an option" as the selected option.
- Working Status**: A dropdown menu with "--select--" as the selected option.
- Remarks**: A large text area.
- Buttons**: "Save" and "Close" buttons at the bottom right.

All the * fields are required.

2. Click the "Save" button when the form is completed.

4.6.6 Complete a Preventive Maintenance Call

1. To complete a maintenance call click on the Actions button , click on the Complete Call button  Call Complete and the Complete Call form will be loaded, as shown below:



The Complete Call form is a modal window with a title bar "Complete Call" and a close button. It contains the following fields:

- Call Complete Date & Time**: A text input field.
- Next Due Date**: A text input field with a calendar icon.
- Service Rendered**: A dropdown menu with "Select an option" as the selected option.
- Working Status**: A dropdown menu with "--select--" as the selected option.
- Remarks**: A large text area with "No Issues" as the default text.
- Signature of Engineer**: A file upload field with "Choose File" and "No file chosen" text.
- Signature of Supervisor**: A file upload field with "Choose File" and "No file chosen" text.
- Buttons**: "Save" and "Close" buttons at the bottom right.

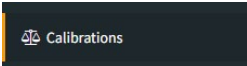
All the * fields are required.

2. Click the "Save" button when the form is completed.

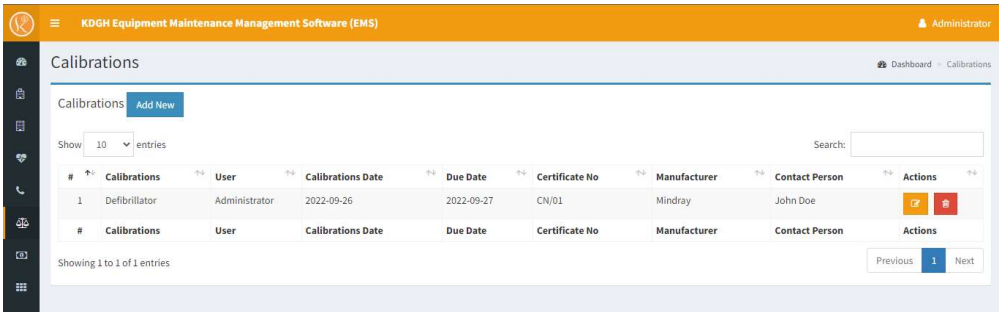
4.7 Manage Calibrations

4.7.1 View or Add Calibrations

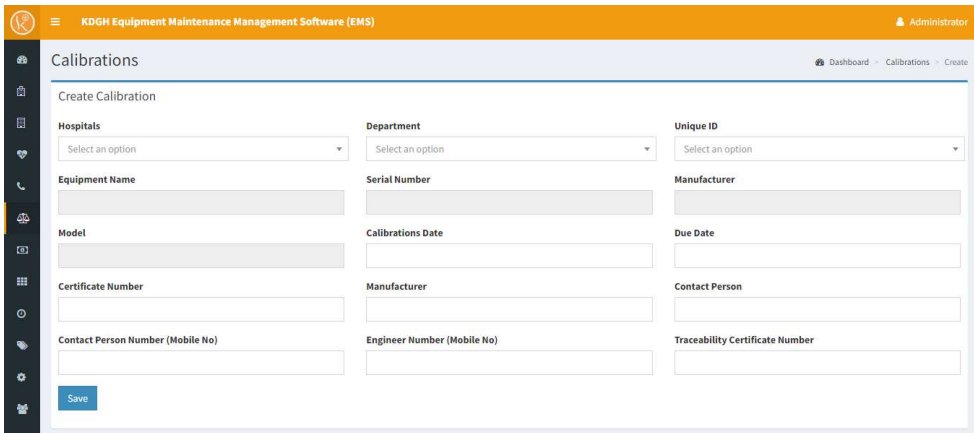
1. Hover over the sidebar and click “Calibrations”.



2. The Calibrations page will be loaded into the browser, as show below:



3. Click on the “Add New” button and the Create Calibrations form will be loaded in the browser as shown below:


A screenshot of the "Create Calibration" form in the KDGH Equipment Maintenance Management Software (EMS). The form is titled "Create Calibration" and is located under the "Calibrations" section. It contains several input fields: "Hospitals" (a dropdown menu), "Equipment Name" (a text field), "Model" (a text field), "Certificate Number" (a text field), "Contact Person Number (Mobile No)" (a text field), "Department" (a dropdown menu), "Serial Number" (a text field), "Calibrations Date" (a text field), "Manufacturer" (a text field), "Engineer Number (Mobile No)" (a text field), "Unique ID" (a dropdown menu), "Manufacturer" (a text field), "Due Date" (a text field), "Contact Person" (a text field), and "Traceability Certificate Number" (a text field). There is a "Save" button at the bottom left of the form.

All the * fields are required.

Calibration sticker is generated automatically.

4. Click the “Save” button when the form is completed.

4.7.2 Update or Delete Calibrations

1. Access the Calibrations page and click on the Edit button  to load the Edit Calibrations page as shown below:

Calibrations

Dashboard > Calibrations > Edit

Edit Calibration

Hospitals: University Of Ghana Medical Centre

Department: GEN(General)

Unique ID: UO/GEN/DEF/2

Equipment Name: Defibrillator

Serial Number: DG-58013715

Manufacturer: Mindray

Model: BeneHeart D6

Date of Calibration: 2022-09-26

Due Date: 2022-09-27

Certificate Number: CN/01

Manufacturer: Mindray

Contact Person: John Doe


Contact Person Number (Mobile No): 02451445841

Engineer Number (Mobile No): 5448715154

Traceability Certificate Number: tcn

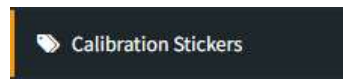
Save

All the * fields are required.

- Update the information in the fields and click the “Save” button when the form is completed.
- To delete a Calibrations, click the “Delete” button  and a prompt will follow in the browser. Confirm the prompt by click “Ok” and the user will be deleted permanently.

4.7.3 Calibration Stickers

- Hover over the sidebar and click “Calibration Stickers”.



- The Calibration Stickers page will be loaded into the browser, as show below:

Stickers

Dashboard > Stickers > Calibration Stickers

Filters

Hospitals: Select an option


Equipment ID: Select an option


Save **Generate Stickers**

Calibration Sticker

#	Hospitals	Unique ID	Equipment	PM Date	PM Due Date	Calibrations Date	Calibration Due Date	Actions
1	Efertz, Jacobs and Bartell Clinic	BL/DLm/Swm/01	Swaniawski-Gottlieb	-	-	2022-08-31	2022-09-03	Generate Single Sticker
2	Efertz, Jacobs and Bartell Clinic	HI/MC/C/Nin/01	Nolan-Feeney	-	-	2022-08-31	2022-09-05	Generate Single Sticker
3	Efertz, Jacobs and Bartell Clinic	KR/Wf/HQ/01	Hegmann Group	-	-	2022-08-31	2022-09-01	Generate Single Sticker
4	Efertz, Jacobs and Bartell Clinic	KH/SHa/T7p/01	Torp-Heaney	-	-	2022-08-31	2022-09-02	Generate Single Sticker
5	Efertz, Jacobs and Bartell Clinic	WB/10/BWa/01	Bogisch, Will and Barton	-	-	2022-08-31	2022-09-03	Generate Single Sticker
6	Efertz, Jacobs and Bartell Clinic	ZI/RI/RHa/01	Runofsdottir, Hane and Shields	-	-	2022-08-31	2022-09-05	Generate Single Sticker
7	Efertz, Jacobs and Bartell Clinic	ZH/Wk/Ort/01	Ortiz-Graham	-	-	2022-08-31	2022-09-01	Generate Single Sticker

Generate Stickers

- Click on the “Generate Stickers” button  to generate stickers for the filtered equipment. However, to print all the calibration stickers, clear the filter and click the “Generate Stickers” button. The document will be download in PDF format.

- Click on the “Generate Single Sticker” button  to generate a single sticker for the equipment. The document will be download in PDF format.

4.8 Reports

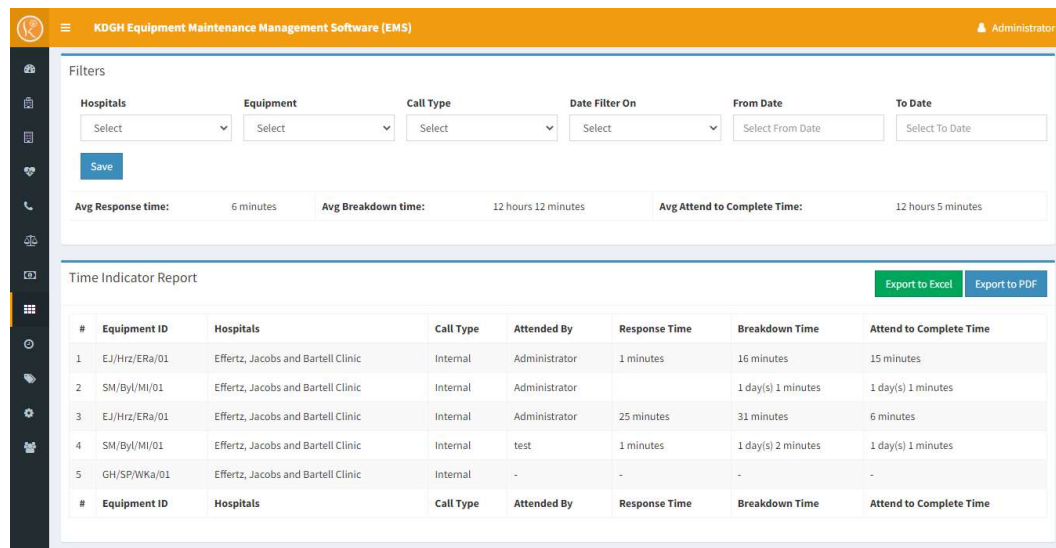
4.8.1 Time Indicator Report

The Time Indicator Report includes performance reports on maintenance calls' response, breakdown and completion times. This report also indicates the company's average response, breakdown, and completion times.

- Hover over the sidebar and click “Time Indicator”, as shown below:



- The Time Indicator view page will be loaded into the browser, as shown below:



The screenshot shows the 'Time Indicator Report' page in the KGDH EMS. It includes a sidebar with navigation icons, a top header with the software name and user role, and a main content area with filters and a data table.

Filters:

- Hospitals: Select
- Equipment: Select
- Call Type: Select
- Date Filter On: Select
- From Date: Select From Date
- To Date: Select To Date

Summary:



- Avg Response time: 6 minutes
- Avg Breakdown time: 12 hours 12 minutes
- Avg Attend to Complete Time: 12 hours 5 minutes

Time Indicator Report Table:

#	Equipment ID	Hospitals	Call Type	Attended By	Response Time	Breakdown Time	Attend to Complete Time
1	EJ/Hrz/ERa/01	Effertz, Jacobs and Bartell Clinic	Internal	Administrator	1 minutes	16 minutes	15 minutes
2	SM/Byl/Mi/01	Effertz, Jacobs and Bartell Clinic	Internal	Administrator	-	1 day(s) 1 minutes	1 day(s) 1 minutes
3	EJ/Hrz/ERa/01	Effertz, Jacobs and Bartell Clinic	Internal	Administrator	25 minutes	31 minutes	6 minutes
4	SM/Byl/Mi/01	Effertz, Jacobs and Bartell Clinic	Internal	test	1 minutes	1 day(s) 2 minutes	1 day(s) 1 minutes
5	GH/SP/WKa/01	Effertz, Jacobs and Bartell Clinic	Internal	-	-	-	-

Buttons: [Export to Excel](#) [Export to PDF](#)

4.8.2 Export Time Indicator Report in Excel or PDF

- To export the report in Excel or PDF formats, click on the “Export to Excel” or “Export to PDF” buttons   respectively to download the documents.

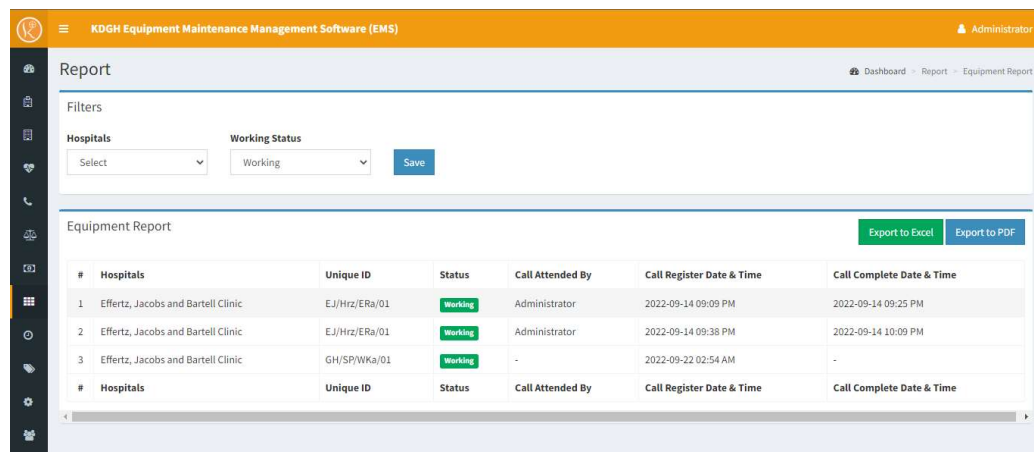
4.8.3 Equipment Report

The Equipment Report includes information about the current working status of the equipment along with the latest maintenance call registration and complete dates.

1. Hover over the sidebar and click “Equipment Report”, as shown below:



2. The Equipment Report view page will be loaded into the browser, as shown below:



4.8.4 Export Equipment Report in Excel or PDF

2. To export the report in Excel or PDF formats, click on the “Export to Excel” or “Export to PDF”

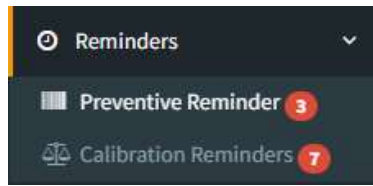
buttons   to download the documents.

4.9 Reminders

4.9.1 Preventive Reminders

The Preventive Reminders includes information about all the upcoming preventive maintenance calls.

1. Hover over the sidebar and click “Preventive Reminders”, as shown below:



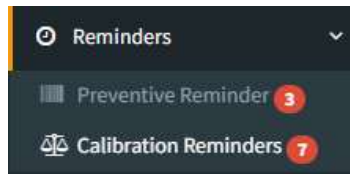
- The Preventive Reminders view page will be loaded into the browser, as shown below:

KDGH Equipment Maintenance Management Software (EMS)					
Administrator					
Reminders					
Dashboard - Preventive Maintenance Reminder					
Preventive Maintenance Reminder					
#	Equipment ID	Due Date (Days Remaining)	Working Status	Call Registration Date & Time	Added By
1	EJ/Hrz/ERa/01	2022-09-14 (-13 days)	Working	2022-09-14 09:09 PM	Administrator
2	SM/Byl/MI/01	2022-09-16 (-11 days)	Not working	2022-09-14 09:26 PM	Administrator
3	GH/SP/WKa/01	2022-09-22 (-5 days)	Working	2022-09-22 02:54 AM	-
#	Equipment ID	Due Date (Days Remaining)	Working Status	Call Registration Date & Time	Added By

4.9.2 Calibration Reminders

The Calibration Reminders includes information about all the upcoming calibrations.

- Hover over the sidebar and click “Calibration Reminders”, as shown below:



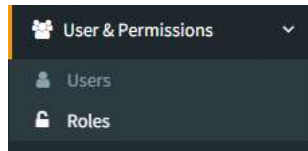
- The Calibration Reminders view page will be loaded into the browser, as shown below:

KDGH Equipment Maintenance Management Software (EMS)					
Administrator					
Reminders					
Dashboard - Calibration Reminders					
Calibration Reminders					
#	Equipment ID	Calibrations Date	Due Date (Days Remaining)	Added By	Contact Person
1	KR/Wff/HG/01	2022-08-31	2022-09-01 (-26 days)	Administrator	Dr. Derick Cremin IV
2	ZH/Wlk/Ort/01	2022-08-31	2022-09-01 (-26 days)	Administrator	Dr. Ethan Konopelski
3	KH/SHaT/Trp/01	2022-08-31	2022-09-02 (-25 days)	Administrator	Dr. Mitchel Daugherty
4	BL/DLaM/Swn/01	2022-08-31	2022-09-03 (-24 days)	Administrator	Mrs. Romaine Balistreri MD
5	WB/10/BWn/01	2022-08-31	2022-09-03 (-24 days)	Administrator	Mr. Selmer Funk Jr.
6	HI/HCaC/Nln/01	2022-08-31	2022-09-05 (-22 days)	Administrator	Amira Pfannerstill
7	ZI/Rl/RHa/01	2022-08-31	2022-09-05 (-22 days)	Administrator	Otis Kutch
#	Equipment ID	Calibrations Date	Due Date (Days Remaining)	Added By	Contact Person

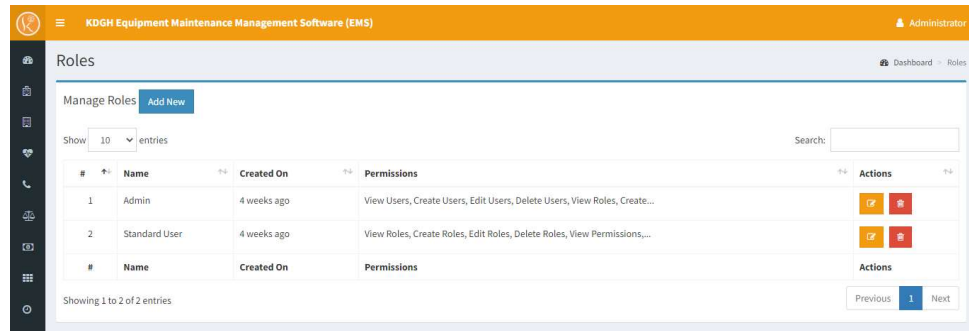
4.10 User Permissions and Roles

4.10.1 Add or View User Roles

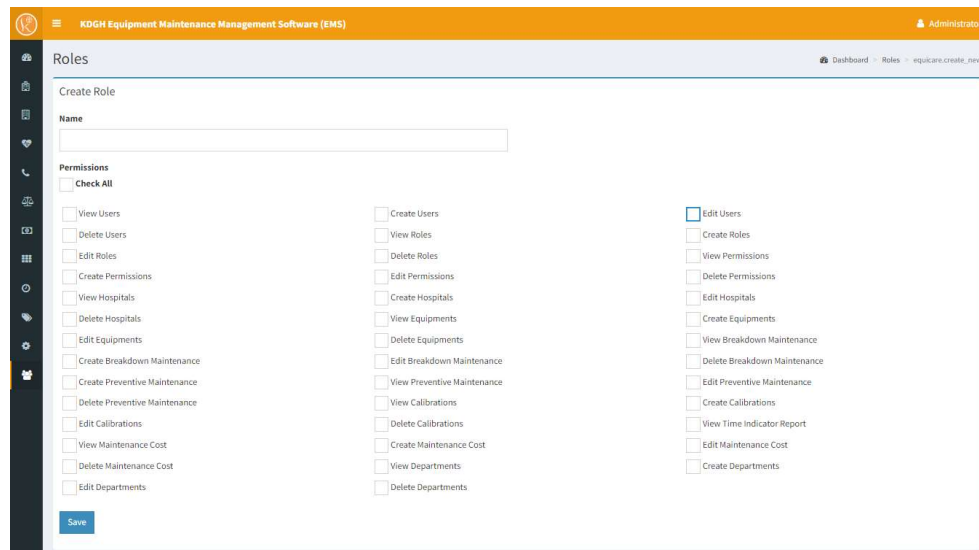
1. Hover over the sidebar and click “User & Permissions” and then click on “Roles”, as shown below:



2. The Roles page will be loaded into the browser, as show below:




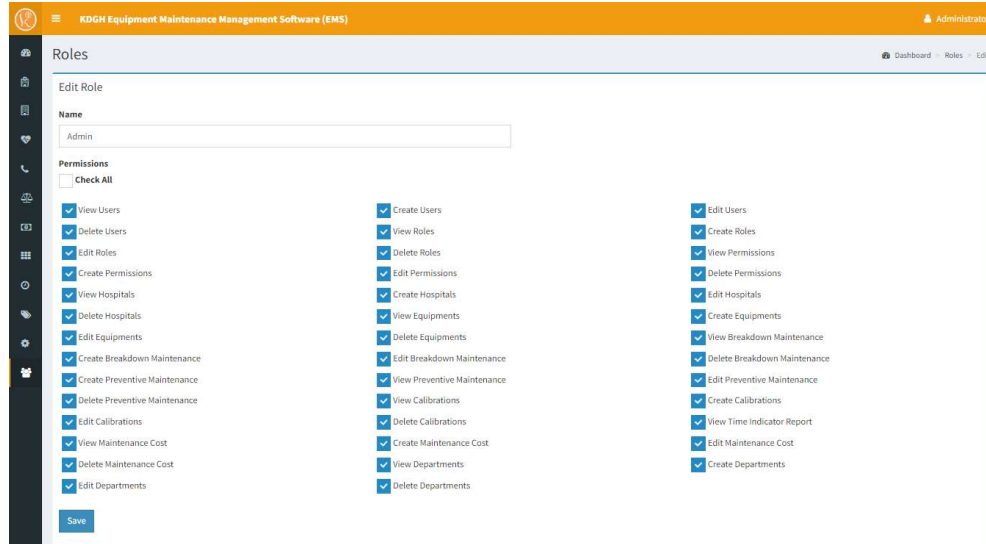
3. Click on the “Add New” button and the Create Roles form will be loaded in the browser as shown below:




4. Check the permissions to assign to the user role.
5. Click the “Save” button when the form is completed.

4.10.2 Update or Delete User Roles

1. Access the Roles page and click on the Edit button  to load the Edit Calibrations page as shown below:



2. Update the permissions and click the “Save” button when the form is completed.
3. To delete a Role, click the “Delete” button  and a prompt will follow in the browser. Confirm the prompt by click “Ok” and the user will be deleted permanently.