



4Sight2

Calibration Management Software
User Manual 123M3138 Revision C

Preface

Safety



- THE 4SIGHT2 SOFTWARE FEATURES REAL-TIME CALIBRATION CAPABILITIES, AND CAN BE USED TO CONTROL PRESSURE INSTRUMENTATION. WORK WITH PRESSURIZED INSTRUMENTATION AND EQUIPMENT IS POTENTIALLY HAZARDOUS.
- Before you use the 4Sight2 Software, make sure that you read and understand all relevant safety guidelines and procedures. This includes all applicable local safety procedures, the instructions for the equipment you are using with this software, and this publication.
- Before you start an operation or procedure in this publication, make sure that you have the necessary skills required by your organisation (if necessary, with qualifications from an approved training establishment).
- Before you start an operation or procedure ensure that you have read and understood any safety instructions for connected equipment
- Where pressure is being applied, ensure all fittings and pipework are correctly rated and serviceable, wear appropriate PPE and comply with all local procedures and regulations. Examine all fittings and equipment for damage before use. Replace all damaged fittings and equipment. Do not use any damaged fittings and equipment.
- Automated calibrations should be performed only after manually confirming the state of the pressure controller and the correct connection of any sensor
- Loss of communication or other erroneous termination of procedure may result in residual pressure being trapped in system. This must be vented manually before recommencing.
- Turn off the source pressure(s) and carefully vent the pressure lines before disconnecting or connecting the pressure lines. Do not rely on 4Sight2 software for indication of system pressure, use local indication. Proceed with care.
- Only use equipment with the correct pressure rating.
- **FAILURE TO FOLLOW ALL APPLICABLE SAFETY PROCEDURES AND GUIDELINES MAY RESULT IN DAMAGE TO PROPERTY OR SERIOUS PERSONAL INJURY (INCLUDING DEATH).**

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Software Purpose

The 4Sight2 Calibration software is a web based calibration management tool that helps you maintain and control your calibration environment to the highest standards of metrology. You can use the software for these tasks:

- Manage the calibration of all the measurement devices for a specified business location
- Setup a schedule of calibration work for technicians
- Upload and download data to and from the BH GE Druck (DPI620, DPI620 Genii, DPI611 and DPI612) portable calibrators that have a USB communication function
- Manage the calibration records for devices that are not supported by a portable calibrator (Manual Data Entry)
- Inspect your calibration history records. You can also make a permanent record of each calibration certificate. For example: For ISO 9000 quality control procedures.
- Control automated calibrations using Druck PACE 1000, 5000 & 6000, DPI611, DP612, DPI620G and DPI620G-IS

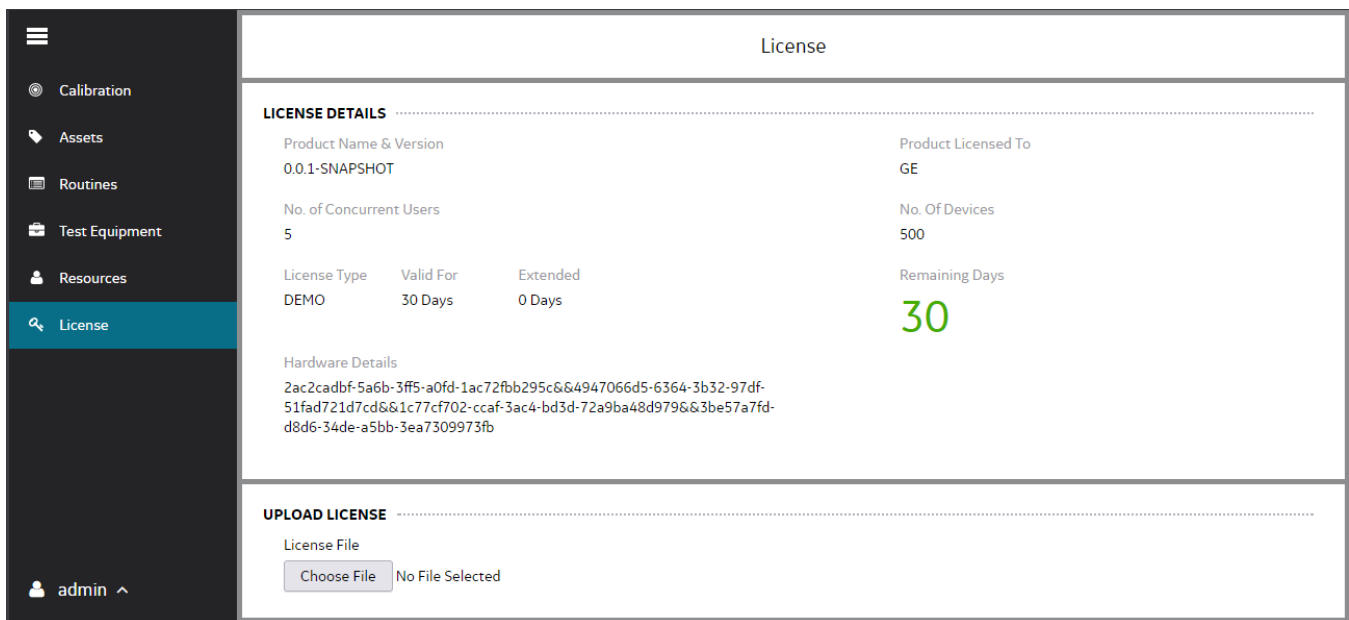
The 4Sight2 Calibration software has been developed and tested with Google Chrome V73.0.3683.86.

License

The license for 4Sight2 is issued based on the hardware where the application has been installed. The default demo license is valid for 60 days for three concurrent users and 2000 tags. To upgrade contact BHGE for more hardware based license.

To view the license information:

From 4Sight2 menu click **License** to display the **License** screen.



To purchase the license:

Submit the hardware details to tech support team along with PO details.

To upload the license file:

- 1) From the 4Sight2 menu click on **License** to display the **License** page.
- 2) Under Upload License, click **Choose File** and browse the license file and click **Activate** button. If any mis-match contact tech support and get license re-generated

License part numbers:

Part Numbers	Description
4SIGHT2-STD	Standard license CALIBRATION SOFTWARE (3 Concurrent users and 2000 TAGS)
4SIGHT2-MAINT-STD	Standard license ANNUAL MAINTENANCE
4SIGHT2-ADDT	Standard license additional 2000 ADDITIONAL TAGS
4SIGHT2-ADDU	Standard license ADDITIONAL USER LICENCE
4SIGHT2-UNLIM-TAGS	Standard license UNLIMITED TAGS
4SIGHT2-RTC	Automated Calibration Option
4SIGHT2-RTC-ADDU	Automated Calibration Option Additional User
4SIGHT2-MAIN-ADHOC	Standard license ADHOC HOURLY MAINTENANCE
4SIGHT2-MAINT-ADDU	Standard license ANNUAL MAINTENANCE ADD'L USER
4SIGHT2-TRAIN-STD	Standard license TRAINING
4SIGHT2-TL-EXTRA	TRAVEL & LIVING EXPENSES

The 4Sight2 Calibration software is recommended for use with the following DPI firmware, PACE and its minimum versions:

Genii

Application: 3.11.20

Operating System:2.05.00

Genii IS

Application: 3.11.20

Operating System: 1.04.00

DPI611/DPI612

Application:V2.02.02

Operating System: V2.02.03

DPI620 Genii

Application: V3.11.35

Operating System: V2.05.00

DPI620 Genii-IS

Application:V3.11.35

Operating System:V1.04.00

DPI620

Application:V5.14.02

Operating System:V1.05

DPI620-IS

Application: V5.14.02

Operating System: V1.08

PACE 6000

Application: V02.02.05

PACE 5000

Application: V03.02.11

PACE 1000

Application: V1.10.12

Glossary

Calibration	The comparison of an instrument's performance to a standard of known accuracy. The objective of calibration is to ensure that an instrument's output properly corresponds to its applied input.
Calibration History	The historical record of which instruments range you calibrated using the portable calibrators or manual
Calibration Point or Test Point	The specific calibration requirement for each asset. For example, a three-point check at 20%, 50%, and 75% calibrations points of an input range.
Data Sheet	A data sheet provides a template to specify the input and output values and to enter As Found and As Left values.
Direction	The referential direction (that is, increasing or decreasing) of the specified calibration point in the calibration process.
DUT	Device Under Test. The asset being calibrated.
Desired Output	The output you want to attain for a given input (for example, 0 psi input = 4 mA output).
Hysteresis	The difference between a switch's set and reset points.
Input	The process variable applied to the DUT.
Input Range	The upper and lower input values between which you calibrate an asset. Input Lower Range value is the minimum specified input value. Input Upper Range value is the maximum specified input value.
Instruments	Devices used to monitor and control plant processes (for example, gauges, transmitters, and switches).
Location	The Locations lets you track locations for assets and organize these locations into logical hierarchical systems or network systems. Using hierarchies or systems of locations and specifying the location for assets on the asset record provides the groundwork for gathering and tracking valuable information on the history of an asset, including its performance at specific sites, as it is moved from location to location. With locations organized into systems, you can quickly find a location using search option, and identify the asset at that location.
No Adjustment Made	No Adjustment Made means if all As Found values are within the acceptable user specified tolerance, the technician can select the No Adjustment Made in the portable or manual calibration.
Nominal Input	The user specified input value for each calibration point

Output	The DUT's translation of the input. For example, A pressure transmitter translates or converts pressure (in Bar, mBar, psi etc.,) to electrical signal (in mA, Volts, mV etc.,)
Output Range	The upper and lower output values between which you calibrate an asset. Output Lower Range value is the minimum specified output value. Output Upper Range value is the maximum output value.
Process Units	Define the engineering units used for calibration
Nominal value	The application calculated value based on input values for each calibration or test point. The range on nominal value might be limited to the input lower range value and input upper range value in certain cases.
Vent Rate	Vent rate is defined as the rate at which controller releases the Pressure.
Settling time	Settling time is defined as, when the controller reaches the input test point, software will wait for the settling time to expire before collecting the results from output unit.
In Limits time	In Limits time is defined as, when the controller reaches the input test point, software will wait until a set point reached event is received from the controller before collecting results.
Slew rate	Slew rate is the rate at which controller increases the input pressure to reach the set test points. It is expressed in bar/sec.
Generate 0	Generate 0 is the method you use to return the controller to its zero level.

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Installation

4Sight2 requires the following minimum hardware and software specifications:

Minimum System Requirements

Application Server

Operating System	Windows 7 SP1+ / Windows 10 Anniversary Update (version 1607) or later versions / Windows Server 2008 R2 SP1 / Windows Server 2012 SP1 & R2
Updates	All Windows Updates fully installed
Processor	Quad Core
RAM	8GB (32GB Recommended)
Disk space	1TB

Client Work Station

Operating System	Windows 7 SP1+ / Windows 10 Anniversary Update (version 1607) or later versions / Windows Server 2008 R2 SP1 / Windows Server 2012 SP1 & R2
Browser	Google Chrome
Adobe Reader	8.0+
RAM	4GB or greater (8GB recommended)

Local Installation

Operating System	Windows 7 SP1+ / Windows 10 Anniversary Update (version 1607) or later versions / Windows Server 2008 R2 SP1 / Windows Server 2012 SP1 & R2
Updates	All Windows Updates fully installed
Processor	Dual Core
RAM	16GB (32GB recommended)
Disk space	500GB or greater disk space
Browser	Google Chrome

Installation

Installation procedures are explained in Installation manual.

After Installation

On completion of installation you can access the application from your client machines through created host names (Refer to GettingStarted chapter).

Getting Started

System Access

After successful installation of the 4Sight2 application, you can navigate to the login page, from your Chrome browser, using the URL provided to you:

For Example: `http://Computer Name or IPAddress:Port Number/4sight2`



English(US)

Druck

4Sight2
Version 1.4.0

User Id

Password

SIGN IN

[Forgot Password](#)

Best viewed using Chrome browser

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Add the given URL to your favourites list for quicker future access.

Use the User Id and Password that was specified during installation process for the initial login.

An SSL certificate may be added to the 4Sight2 application to enable HTTPS access. Please see the Deployment Guide for further details.

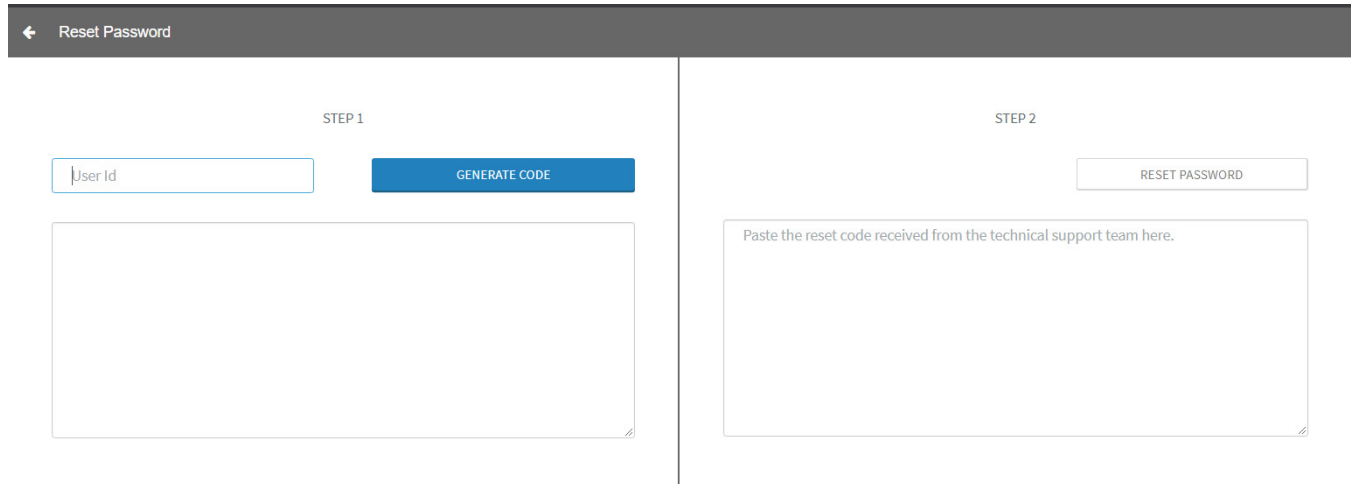
If the User Id or Password entered is wrong or the administrator has not set user to an active status, the below warning message will be displayed:

⚠ Access Denied. Possibly Invalid credentials. Contact your 4Sight™ 2 Application Administrator.

Forgot Password

Only Admin users have the abilities to reset the passwords using this feature. If a user needs to reset their password, they should raise a request to their administrator. Refer to [Resetting Password](#)

- 1) Click **Forgot Password** to reset the password. Reset password page appears.



The screenshot shows a two-step process for resetting a password. The page title is "Reset Password".

STEP 1: A text input field labeled "User Id" is followed by a blue button labeled "GENERATE CODE". Below this is a large empty text area.

STEP 2: A text area with the instruction "Paste the reset code received from the technical support team here." is followed by a button labeled "RESET PASSWORD".

- 2) Enter the User Id and click **Generate Code**. Now the code will be sent to the associated email id by the support team.
NOTE: Validity of the code is 24 hours only.
- 3) Enter the code in the right panel of the screen and click **Reset password**. A page appears to enter the new password.

Successful Login

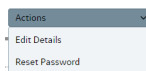
On successful login as an administrator, you have access to all the functionalities of 4Sight2. You can create Groups, Permission Sets and Users to the groups.

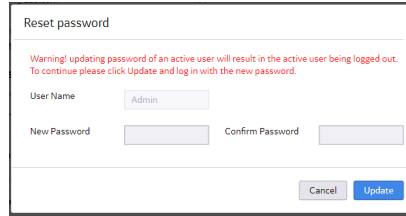
There can be more than one user with admin privileges. We recommend an additional user with administrator privileges is created at this point. This is to ensure that there are a minimum of two active users with administrator privileges in the system.

Resetting Password

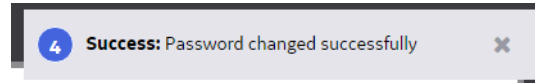
Only Admin users have the abilities to reset other user's passwords. If a user needs to reset their password, they should raise a request to their administrator.

- 1) From the 4Sight2 menu, select **Resources > Users** to display the **Users** screen.
- 2) Click on the Name of the User to display the user information screen. This screen displays information about the selected user.
- 3) From the **Actions** drop-down menu, select **Reset Password** to display the **Reset Password** page.



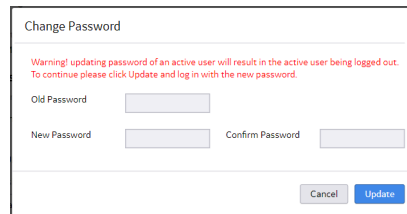
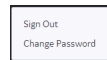


- 4) After changing the password, click **Update**. The successful password reset message will be displayed.



Changing Password

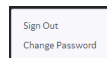
- 1) From the 4Sight2 menu click the User Id in the bottom left corner and select **Change Password** to display the **Change Password** page.



- 2) Enter the **Old Password**, **New Password**, and then re-enter the new password into **Confirm Password** box.
- 3) Click **Update** to change the existing password.

Sign Out

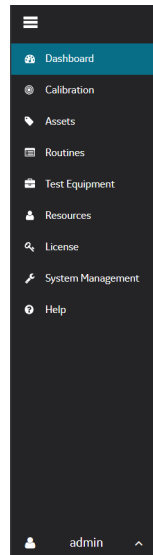
From the 4Sight2 menu click on the User Id in the bottom left corner and select **Sign Out** to log out from the 4Sight2 application.







Understanding User Interface







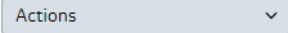

This section helps you to understand the 4Sight2 menu items, screen structure and navigation.

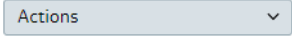
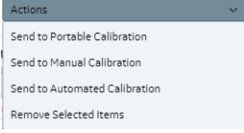




Application Navigation Menu



The menu located on the left of the 4Sight2 is used for navigating between major sections of the application.

Menu/Symbols	Menu Item	Sub-Menu Items	Description
	Minimize		Minimizes the menu.
	Dashboard		Option to access the KPI Dashboard which graphically displays the status of the items within the Enterprise.
	Calibration	<ul style="list-style-type: none"> Portable Calibration Manual Calibration Automated Calibration 	Option to access to Portable, Manual and Automated Calibration.
	Assets		Option to access to Assets including Plants, Location, Sub-Location, Tags and Device.

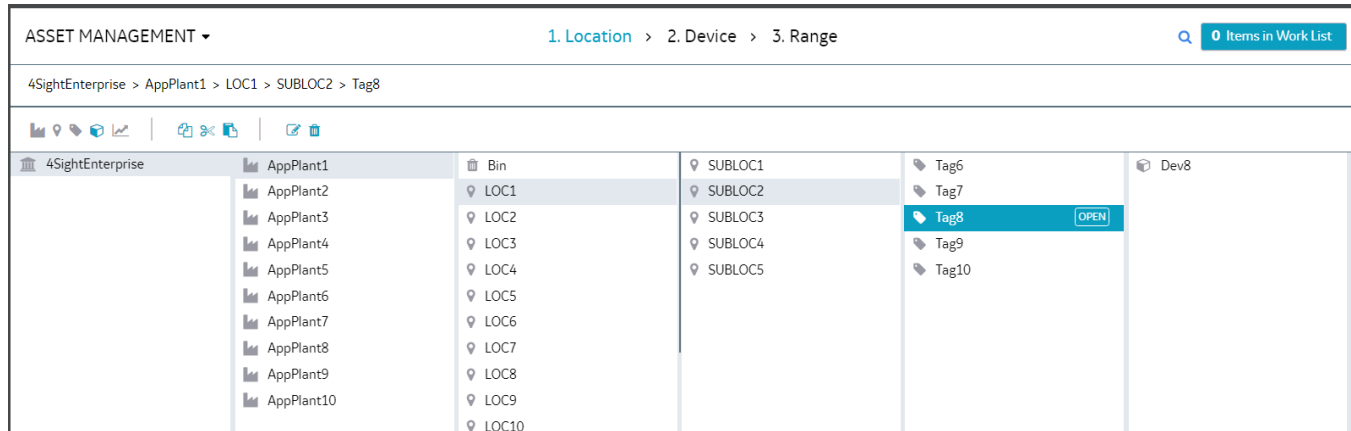
Menu/Symbols	Menu Item	Sub-Menu Items	Description
	Routines	Procedures	Option to access Routine and Procedure
	Test Equipment		Option to add/edit test equipment information
	Resources	<ul style="list-style-type: none"> • Users • Groups • Permission Sets • System Configurations 	Options to add/edit/delete/link Users, Groups, Permission Sets and System configurations.
	License		Option to access license information
	System Management	<ul style="list-style-type: none"> • System Configurations • Database management 	Options to configure assets, device priority and locations
	Help	<ul style="list-style-type: none"> • Quick Start Guide • User Manual 	Option to view Quick Start Guide and User Manual
	Actions drop-down	Sub-menu varies based on the displayed page	Menu item varies based on the displayed page. Sample menu items are Edit Details, Delete, etc.,
	Work list		Option to view the items in work list

Menu/Symbols	Menu Item	Sub-Menu Items	Description
			<ul style="list-style-type: none"> • Upload to Portable Calibrator- Send the selected range to portable calibration list • Send to Manual Calibration - Send the selected range to Manual Calibration list • Send to Automated Calibration Send the selected range to Automated Calibration list • Clear Work List - Removes all On Time ranges from the list • Remove Selected Items - Removes selected On Time ranges from the list
	Advanced Search		Option to view advanced search, where Approvers and Technicians can be assigned to Tasks
	Add		Option to Link Items to other Items
	Unlink		Option to unlink the attached property
	More		Option to view more items in the context browser - such as add, move, copy, delete assets

Context Browser

The context browser displays the structure of assets that have been added in the enterprise.

You can view the context browser by using the 4Sight2 Navigation Menu, Selecting the assets and then clicking on the title to drop-down the context browser.



The Context Browser in Assets section allows the user to drill-down through a hierarchical menu in order to switch the context of the overall view. Examples of possible contexts include specific locations organized geographically, physical assets organized by model or other classification, or assets organized by department or function.

When a user clicks on the title or arrow, the expanded view of the context browser is displayed. Selecting an item in the context browser causes sub-items of this asset to be displayed in the next panel. By selecting the open buttons, visible next to each asset, the details of the selected asset are displayed.

Linking Documents

Documents like Certificate/Brochure/Data sheet/Manual/Procedure can be linked to any plant location, asset, or test equipment. A user can upload a new document or link an existing document which has uploaded previously into 4Sight2.

Linking a New Document

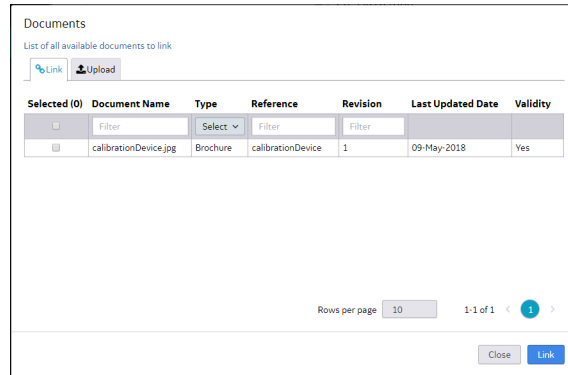
A user can link a document to an Asset, Routines, Procedures and Test Equipment. Users can upload a new document or link to an existing document available in 4Sight2.

- 1) From the Application Navigation menu, click on **Assets** to display the Asset page.
- 2) From the **Assets** page, click on the Assets title to display the context browser.

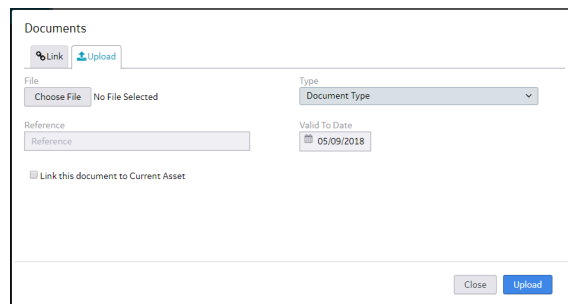
The screenshot shows the 4Sight2 interface for asset PRESSRTX1000. The breadcrumb trail is 4SIGHTENTERPRISE > SOUTH POWER STATION > PUMP ROOM. The asset details include a Medium priority warning, a maintenance date of 09-May-2018, and various identification numbers. The Documentation section shows no linked documents, and the Routines section displays a table of assigned routines.

Routine Name	Application	Schedule
3 Month	Inherited from PLANT 'South Power Station'	3 Months
Annual	Inherited from PLANT 'South Power Station'	12 Months

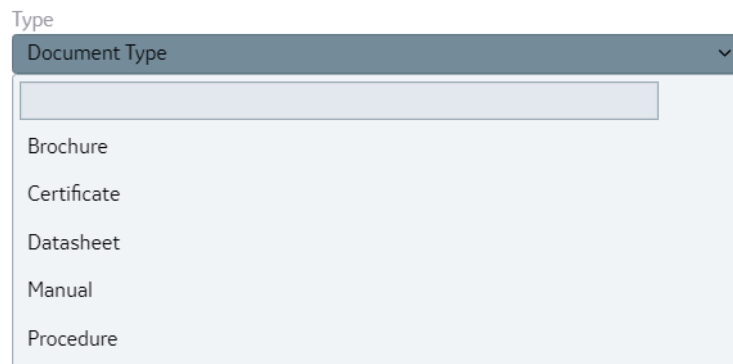
- 3) View any of the Assets details by navigating to the asset in the context browser and selecting open.
- 4) Click on + button in DOCUMENTATION section to add a document.



- 5) Click on **Upload** tab to upload a new document.



- 6) Click **Choose File** to select the file from the system.
- 7) Select **Document Type** from the drop-down.



- 8) Enter a name for the file being uploaded in **Reference**.

Linking an Existing Document

- 1) From Application Navigation menu, click on **Assets** to display the Asset page.
- 2) From the **Assets** page, click on the Assets title to display the context browser.

Druck 4Sight2

PRESSRTX1000
4SIGHTENTERPRISE > SOUTH POWER STATION > PUMP ROOM

Priority: Medium

PressRTX1000

Actions

Device Details

Device Description	Maintenance Date	
PressRTX1000	09-May-2018	
Device Id	Asset Id	Device Type
PressRTX1000	PressRTX1000	Pressure
Manufacturer	Model Number	Serial Number
GE Druck	RTX1000H Gauge-Analytical	PressRTX1000

DOCUMENTATION +

No linked document(s) found

ROUTINES +

Routine Name	Application	Schedule
3 Month	Inherited from PLANT 'South Power Station'	3 Months
Annual	Inherited from PLANT 'South Power Station'	12 Months

Rows per page: 10 1-2 of 2 < 1 >

Admin

Privacy Terms Contact Accessibility Cookies **BAKER HUGHES** GE company

3) Click on + button in DOCUMENTATION section to add a document.

Documents

List of all available documents to link

[Link](#) [Upload](#)

Selected (0)	Document Name	Type	Reference	Revision	Last Updated Date	Validity
<input type="checkbox"/>	<input type="text" value="Filter"/>	<input type="text" value="Select"/>	<input type="text" value="Filter"/>	<input type="text" value="Filter"/>		
<input type="checkbox"/>	calibrationDevice.jpg	Brochure	calibrationDevice	1	09-May-2018	Yes

Rows per page 1-1 of 1 < **1** >

[Close](#) [Link](#)

- 4) The Documents page displays the following details about the document:
- **Document Name**- name of the document uploaded
 - **Type** - document type
 - **Reference** - entered reference name
 - **Revision** - revision number of the document
 - **Last Updated**- the date when the document was uploaded to 4Sight2
 - **Validity** - status showing if document is valid or not, based on valid date selected by the user when uploaded
- 5) Click on the check boxes to select and link the document.

Documents

List of all available documents to link

[Link](#) [Upload](#)

Selected (1)	Document Name	Type	Reference	Revision	Last Updated Date	Validity
<input type="checkbox"/>	<input type="text" value="Filter"/>	<input type="text" value="Select"/>	<input type="text" value="Filter"/>	<input type="text" value="Filter"/>		
<input checked="" type="checkbox"/>	calibrationDevice.jpg	Brochure	calibrationDevice	1	09-May-2018	Yes

Rows per page 1-1 of 1 < **1** >

[Close](#) [Link](#)

- 6) Click **Link** to link the selected document with the device. The linked documents will be displayed in Documentation section. To unlink the documents, use the **Unlink** button.

DOCUMENTATION



Name	Type	Reference	Revision	Last Updated	Unlink
calibrationDevice.jpg	Brochure	calibrationDevice	1	09-May-2018	🗑️

Users

Creating Users

- 1) From the 4Sight2 menu select **Resources > Users** to display the **Users** page.
- 2) From the **Actions** drop-down menu select **Add New User** to display the **New User** page.

The screenshot shows the 'New User' form in the 4Sight2 application. The form is divided into three sections: USER INFORMATION, PASSWORD MANAGEMENT, and ACCESS PERMISSION. The USER INFORMATION section includes fields for User Id, First Name, Last Name, Email, Mobile Phone, and a Status checkbox (Active). The PASSWORD MANAGEMENT section includes fields for Password and Confirm Password. The ACCESS PERMISSION section includes dropdown menus for Hierarchy Access, Enterprise, Plant, and Location. At the bottom, there are buttons for Reset, Cancel, and Create.

- 3) Enter the following details:
 - **User ID** - Login User ID for new user
 - **First Name**
 - **Last Name**
 - **Email ID** - Correct format of an Email ID with @ symbol.
 - **Mobile number**
 - **Password**

- **Confirm Password**
 - **Status** - To define if a user is currently active within the system. The inactive users will not be able to log in to the system. If a user leaves the company then the user should be made inactive.
 - **Enterprise** - Enterprise, Plant and Location fields are used to limit the user's view and access to the plant structure. The Asset tree is displayed and restricted for this user based upon the access permissions selected.
 - **Plant** - Restricts user to view a single plant when plant is selected
 - **Location** - Restricts users to view a single location when plant and location are selected
- 4) Click **Create**. The successful creation of the User message will be displayed.

Linking a Group to a User

- 1) From the 4Sight2 menu, select **Resources > Users** to display the **Users** screen.
- 2) To select the user, click on the User name to display the user information screen. This screen displays information about the user.

Users			
Name	User Id	Email	(#)of Groups
<input type="text" value="Filter"/>	<input type="text" value="Filter"/>	<input type="text" value="Filter"/>	
Admin User	Admin	admin@123.com	6
Tech User	Tech	tech@123.com	5
Supervisor User	Supervisor	super@123.com	5

Rows per page 1-3 of 3 < 1 >

The screenshot shows the 4Sight2 Admin interface. The left sidebar contains navigation options: Dashboard, Calibration, Assets, Routines, Test Equipment, Resources, Users (highlighted), Groups, Permission Sets, System Configurations, License, and Help. The main content area is titled 'Admin' and includes a 'Back' button and an 'Actions' dropdown menu. The user information section displays the following details:

User Id	First Name	Last Name
Admin	Admin	User
Email	Mobile Phone	Status
admin@123.com	NA	<input checked="" type="checkbox"/> Active
Created On	03-May-2018 14:05	

The ACCESS PERMISSION section shows:

Enterprise	Plant	Location
4SightEnterprise		

The GROUPS section features a table with a '+ ' button to add groups:

Assigned Group	Unlink
User group log in	
Reset password	
Change Password	
User group read	
User group write	
Admin	

The bottom of the interface includes a footer with 'Admin' and a 'BAKER HUGHES' logo.

- 3) In Groups section click on “+” symbol to display the **Select a Group** screen.

The 'Select a Group' dialog box contains a table with the following data:

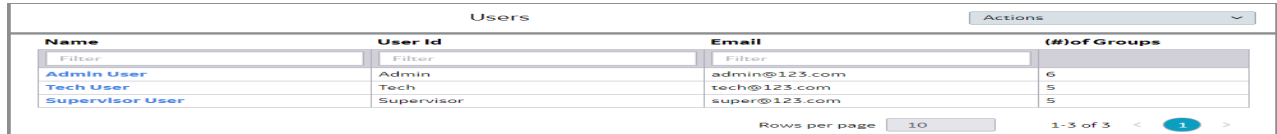
Selected (0)	Group Name	Description
<input type="checkbox"/>	Filter	
<input type="checkbox"/>	User group read	Read all SCIM entities, i.e. users and g...
<input type="checkbox"/>	User group write	Create and edit group information
<input type="checkbox"/>	User group log in	Login to the system
<input type="checkbox"/>	Change Password	Change password
<input type="checkbox"/>	Reset password	Reset password
<input type="checkbox"/>	Admin	Admin
<input type="checkbox"/>	Technician	Technician
<input type="checkbox"/>	Supervisor	Supervisor
<input type="checkbox"/>	Auditor	Auditor
<input type="checkbox"/>	Default	Default

Buttons for 'Cancel' and 'Link' are located at the bottom right of the dialog.

- 4) From the listed groups, click on the desired group check box.
- 5) Click **Link** to add the group to the user and the successful linking message will be displayed.
- NOTE:** A user can be unlinked from the group by using the **Unlink** button available next to user name in Groups section

Editing Users

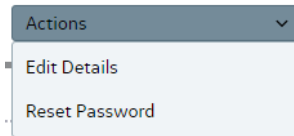
- 1) From the 4Sight2 menu, select **Resources > Users** to display the **Users** screen.
- 2) Click on the Users name to display the user information screen. This screen displays information about the user.



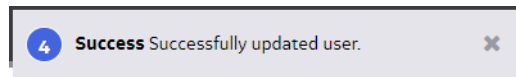
Name	User Id	Email	(#)of Groups
Admin User	Admin	admin@123.com	6
Tech User	Tech	tech@123.com	5
Supervisor User	Supervisor	super@123.com	5

Rows per page: 10 1-3 of 3 < 1 >

- 3) From the **Actions** drop-down menu select **Edit Details** to display the **Update User** page.



- 4) After updating the user details, click **Update** to update the user information.
- 5) The successful update message will be displayed.



Groups

Groups in 4Sight2 enables a user with administrator privileges to create a user group and assign the privileges to that group.

A user with administrator privileges can provide read/write access to various functionalities within the 4Sight2 application. This is achieved through assigning defined Permission Sets to a group.

After creating a new group, the user with administrator privileges can assign users to that group. This gives the administrator the ability to limit each users access to areas and functionality within the application depending upon their particular role.

Name	Description	Users
	Filter	
User group read	Read all SCIM entities, i.e. users and g...	3
User group write	Create and edit group information	1
User group log In	Login to the system	3
Change Password	Change password	3
Reset password	Reset password	1
Admin	Admin	1
Technician	Technician	1
Supervisor	Supervisor	1
Auditor	Auditor	0
Default	Default	2

- **Auditor**- An Auditor group user has read access to the system. They can only view the data.
- **Default** - User Group Log in and User Group Read are the default groups. These are the minimum groups assigned to a new user. The new users assigned to these groups can log in and navigate the application.
- **Change Password** - Group user have password changing rights
- **Reset Password** - Group user have rights to reset other users password
- **Admin** - Group user have admin rights
- **Technician** - Group user have rights to execute and upload calibration tasks
- **Supervisor** - Group user have supervisor or approver rights
- **User Group log in** - Group users have login rights
- **User Group read** - Group users can view users, permissions and groups
- **User Group write** - Group users can create, modify and delete users, permissions and groups.

Creating Groups

- 1) From the 4Sight2 menu, select **Resources > Groups** to display the **Groups** screen.
- 2) From the **Actions** drop-down menu select **Add Group** to display the **New Group** screen.

- 3) Enter the group Name, Description and click **Create**.
- 4) A message indicating the successful creation of the group shall be displayed.

Linking a User to a Group

- 1) From the 4Sight2 menu, select **Resources > Groups** to display the **Groups** page.
- 2) Click on the group name to view group information.

- 3) Click on the plus + symbol on Users section to display the list of Users available.

Selected (0)	User Id	Name
<input type="checkbox"/>	Admin	Admin User
<input type="checkbox"/>	Tech	Tech User
<input type="checkbox"/>	Supervisor	Supervisor User

- 4) Click on the check boxes of respective users to be linked and click **Link**.
- 5) The selected users will be linked and will be listed on Users section.

USERS			+
Assigned UserID	Name	Unlink	
Tech	Tech User		

NOTE: To unlink a user, click on **Unlink** icon available next to the User.

Linking a Permission Set to a Group

- 1) From the 4Sight2 menu, select **Resources > Groups** to display the **Groups** page.
- 2) Click on the group name to view group information.
- 3) Click on the plus + symbol on Permission Sets section to display the list of Permission Sets available.

Permission Sets

Selected (0)	PermissionSet Name	Description
<input type="checkbox"/>	<input type="text" value="Filter"/>	<input type="text" value="Filter"/>
<input type="checkbox"/>	Admin Permission Set	Admin Permission Set
<input type="checkbox"/>	Technician Permission Set	Technician Permission Set
<input type="checkbox"/>	Supervisor Permission Set	Supervisor Permission Set
<input type="checkbox"/>	Auditor Permission Set	Auditor Permission Set
<input type="checkbox"/>	Default Permission Set	Default Permission Set

Rows per page 1-5 of 5 < 1 >

- 4) Click on the check boxes of respective permission sets to be linked and click **Link**.
- 5) The selected permission sets will be linked and will be listed on Permission Sets section.

PERMISSION SETS		+
Assigned Permission-Sets	Unlink	
Default Permission Set		
Auditor Permission Set		

NOTE: To unlink a permission set, click on **Unlink** icon available next to the Permission Set.

Viewing Group Details

- 1) From the 4Sight2 menu, select **Resources > Groups** to display the **Groups** page.

Name	Description	Users
	Filter	
User group read	Read all SCIM entities, i.e. users and g...	3
User group write	Create and edit group information	1
User group log in	Login to the system	3
Change Password	Change password	3
Reset password	Reset password	1
Admin	Admin	1
Technician	Technician	1
Supervisor	Supervisor	1
Auditor	Auditor	0
Default	Default	2

Rows per page 10 1-10 of 10 < 1 >

- 2) Click on the group name to view group information.

Editing Groups

- 1) From the 4Sight2 menu, select **Resources > Groups** to display the **Groups** page.
- 2) Click on the group name to view the group information.
- 3) From the **Actions** drop-down menu select **Edit Details** to display the **Update Group** page.
- 4) After updating, click **Update** to save the changes.

Deleting Groups

- 1) From the 4Sight2 menu, select **Resources > Groups** to display the **Groups** page.
- 2) Click on name of the group to delete.
NOTE: It is not possible to delete the default groups which were installed as part of the 4Sight2 application.
- 3) From the **Actions** drop-down menu select **Delete** to display the **Confirm Delete** message.

Delete

Confirm Delete !

Are you sure you want to delete Group PressureTechnician?

- 4) Click **Delete** to delete the group.

Permission Sets

Permission Sets allows a user with Administrator privileges to enable or disable access rights to application functionality for group members. Permission sets are linked to groups and are used to define that groups access to system areas and functions.

Creating Permission Sets

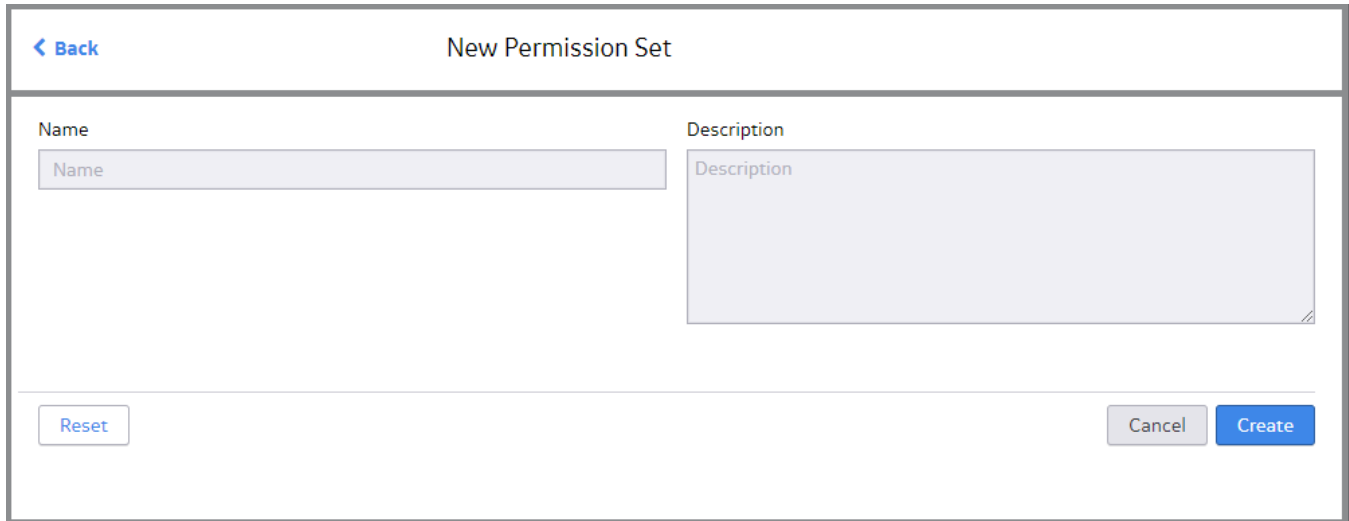
- 1) From the 4Sight2 menu, select **Resources > Permission Sets** to display the **Permission Set** screen.

The screenshot displays the 4Sight2 interface for managing Permission Sets. The left sidebar shows the navigation menu with 'Resources' selected and 'Permission Sets' highlighted. The main content area shows a table of existing permission sets.

Name	Description	Groups	Individual Users
Admin Permission Set	Admin Permission Set	1	1
Technician Permission Set	Technician Permission Set	2	1
Supervisor Permission Set	Supervisor Permission Set	1	1
Auditor Permission Set	Auditor Permission Set	1	0
Default Permission Set	Default Permission Set	2	2

At the bottom of the table, there is a pagination control showing 'Rows per page' set to 10 and '1-5 of 5' items, with the first page selected.

- 2) From **Actions** drop-down menu select **Add Permission Set** to display the **Permission Sets** screen.



[← Back](#)

New Permission Set

Name

Name

Description

Description

Reset

Cancel

Create

- 3) Enter the Permission set Name, Description and click **Create**.
NOTE: In order to select the permission set the user must edit the permission set that has been just created.
- 4) A message indicating the successful creation of the permission set will be displayed.

Setting/Editing Permission Sets

- 1) From the 4Sight2 menu, select **Resources > Permission Set** to display the **Permission Set** page.
- 2) From the permission set table, select the name of the Permission set to be edited. This will display the current details of the selected Permission Set.
- 3) From the **Actions** drop-down menu select **Edit Details** to display the **Update Permission Set** page.

The screenshot displays the 'Update Permission Set' page in the 4Sight2 application. The left sidebar contains a navigation menu with 'Permission Sets' highlighted. The main area shows the 'Auditor Permission Set' being updated. The 'PERMISSIONS' section is organized into several groups, each with a group head box and a list of individual permissions with checkboxes. The permissions are as follows:

Group	Permissions
User Management	<input type="checkbox"/> User Management <input checked="" type="checkbox"/> User Logout <input type="checkbox"/> Update User Resources <input type="checkbox"/> Update Permissionset <input type="checkbox"/> View Permissionset <input type="checkbox"/> Link/Unlink Permissions... <input type="checkbox"/> Delete Permissionset <input checked="" type="checkbox"/> View User Resources <input type="checkbox"/> Create Permissionset <input checked="" type="checkbox"/> View User Info
License Management	<input type="checkbox"/> License Management <input type="checkbox"/> Delete License <input type="checkbox"/> Activate License <input checked="" type="checkbox"/> View License <input type="checkbox"/> Upload License
Document Management	<input type="checkbox"/> Document Management <input type="checkbox"/> Link/Unlink Document <input checked="" type="checkbox"/> View Document
Type Management	<input type="checkbox"/> Type Management <input checked="" type="checkbox"/> View Type <input type="checkbox"/> Update Type <input type="checkbox"/> Create Type
Job Management	<input type="checkbox"/> Job Management <input type="checkbox"/> Update Job <input checked="" type="checkbox"/> View Procedure <input type="checkbox"/> Delete Routine <input type="checkbox"/> Update Routine <input checked="" type="checkbox"/> View Result <input type="checkbox"/> Create Procedure <input type="checkbox"/> Approve Result <input type="checkbox"/> Update Result <input type="checkbox"/> Assign Job <input checked="" type="checkbox"/> View Routine <input checked="" type="checkbox"/> View Worklist <input type="checkbox"/> Update Procedure <input type="checkbox"/> Delete Procedure <input type="checkbox"/> Upload Result <input checked="" type="checkbox"/> View Entire Searchlist F... <input type="checkbox"/> Create Job <input type="checkbox"/> View Job <input type="checkbox"/> Create Routine <input type="checkbox"/> Link/Unlink Procedure <input type="checkbox"/> Link/Unlink Routine
Report Management	<input checked="" type="checkbox"/> Report Management <input checked="" type="checkbox"/> Manual Calibration Rep... <input checked="" type="checkbox"/> Portable Calibration Re...

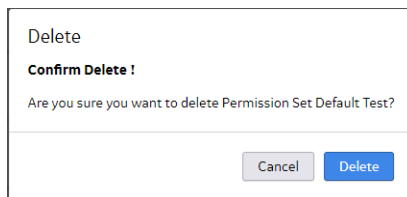
- 4) To assign functionalities to a permission set, click on the check boxes and click **Update**.
- 5) The successful update of the permission set message will be displayed.

NOTE: To select the entire group of permissions click on the respective group head box.

NOTE: Default permission sets, as installed by the 4Sight2 application are not editable.

Deleting Permission Sets

- 1) From the 4Sight2 menu, select **Resources > Permission Set** to display the **Permission Set** page.
- 2) From the permission set table, select the name of the Permission set to be removed. This will display the current details of the selected Permission Set.
- 3) From the **Actions** drop-down menu select **Delete** to display the **Confirm Delete** page.



4) Click **Delete** to delete the selected permission set.

NOTE: There is no option to delete the default permission sets.

Permissions

The following permission settings are configurable by either selecting the heading check box to include all of the associated permissions within that heading or by selecting permission(s) individually.

License Management - Contains the permissions related to license activation, upload, deletion and viewing.

System Configuration - This contains only the permission to update system configuration that includes:

Type Management

This contains the permission to view the static data related to drop-downs in the application. This permission is required in conjunction with System Configuration options to enable the configurations to be stored in the application database for Manufacturer and Model/Country and State.

Asset Management

Contains the Create/Update/Delete/View permissions pertaining to all the assets that includes Plants, Locations, Sub Locations, Devices, Ranges and also Test Equipment. It also contains an additional permission required to view the Asset Table. The permissions related to Tag/Device copy and movement are also present here.

Job Management - This contains the permissions related to the scheduling aspects of routine, procedure and calibration job management.

Report Management - This contains the permissions required to view the Calibration Report PDF generated through Portable or Manual calibration.

Import Export Management - This contains the permissions required to utilize the import/export facility in the application.

Document Management - This contains the permissions to the viewing, linking and de-linking of documents in the application.

User Management - This contains the permissions to create, view, update and delete the resources i.e., Users, Groups and Permission Sets in the application.

System Configurations

The System Configurations page allows an Admin user to configure lists of Assets, Calibrators, and Locations. It allows the user to Add, Update, and Edit items in these lists. This page also provides the ability to edit Plant details which are used to generate customised reports.

Device Manufacturer and Model Fields

By adding or updating an Asset the user is editing the list of manufacturers and models available when creating a device.

- Manufacturer Name
- Model Name

NOTE: As the manufacturer name and model name are entered into the text box, the system automatically searches the application for existing items. If the same manufacturer /model is available it will be displayed in the search list.

Calibrator fields

By adding or updating a calibrator the user is editing the list of manufacture or models available when creating a new piece of test equipment.

- Manufacturer Name
- Model Name

Location fields

By adding or updating location details the user is editing the list of countries and states available when creating a new plant.

- Country Name
- State Name

Device Priority and Device Type

By adding Device priority and Device Type, the user is creating a new list of device priority and device type other than default values when creating/updating a new device.

DEVICE PRIORITY & DEVICE TYPE
▼

Device Priority

Name	Order	Actions
Filter		
Critical		
High		
Medium		
Low		

Rows per page 10 1-4 of 4 < 1 >

Add Restore Defaults Save

Device Type

Name	Order	Actions
Filter		
Area		
Density		
Electrical		
Humidity		
Pressure		
Temperature		
Time		
Volume		
Weight		
velocity1		Edit

Rows per page 10 1-10 of 10 < 1 >

Add

To add a device priority and device type, click **Add**. Enter the new value on the box and then click Add.

To modify the created value, Click **Edit**.

Database Management:

User can set the maximum number of latest backup to keep.

DATABASE MANAGEMENT
▼

Maximum number of latest backups to keep

Update Reset

Report Details fields

Report details configurations allow the user to edit details displayed on a calibration report once a calibration has been complete. The user can view these reports by navigating to a range that has been calibrated and selecting generate report from the actions drop-down.

REPORT DETAILS

<p>Company Name <input type="text" value="Company Name"/></p> <p>Company Telephone <input type="text" value="Company Telephone"/></p> <p>Company Email <input type="text" value="Company Email"/></p> <p>Accreditation Company Name <input type="text" value="Accreditation Company Name"/></p> <p>Accreditation Company Number <input type="text" value="Accreditation Company Number"/></p>	<p>Company Address <input type="text" value="Company Address"/></p> <p>0/120 Company Logo (.jpg, .png, .gif, .bmp) <input type="button" value="Choose File"/> No File Selected</p> <p>Accreditation Company Details <input type="text" value="Accreditation Company Details"/></p> <p>Accreditation Company Logo (.jpg, .png, .gif, .bmp) <input type="button" value="Choose File"/> No File Selected</p>
---	--

- Company Name
- Company Address
- Company Telephone
- Company Email
- Accreditation Company Name
- Accreditation Company Number
- Company Logo (File types accepted: .jpg, png, .jpeg, .bmp)
- Accreditation Company Details
- Accreditation Company Logo (File types accepted: .jpg, png, .jpeg, .bmp)

Adding a New Item

- 1) From the 4Sight2 menu, select **Resources > System Configurations** to display the **System Configurations** page.
- 2) Choose to **Add** either new Calibrator, Asset or Location details by entering the new details into the related text box.
- 3) First enter the Manufacturer/Location and select **Add**.

Enter Manufacturer Name

General Electric

General Monitors, Inc.

- 4) Then retype the new item into the Manufacturer/Location text box.

<p>Enter Manufacturer Name</p> <div style="border: 1px solid #ccc; padding: 5px; display: flex; align-items: center;"> <input style="width: 90%; border: none;" type="text" value="General Electric"/> <input style="width: 10%; border: none; text-align: center; font-size: 20px; margin-left: 5px;" type="button" value="Q"/> </div> <div style="margin-top: 5px;"> <input type="button" value="Add"/> <input type="button" value="Update"/> <input type="button" value="Cancel"/> </div>	<p>Enter Model Name</p> <div style="border: 1px solid #ccc; padding: 5px; display: flex; align-items: center;"> <input style="width: 90%; border: none;" type="text" value="Enter Model Name"/> <input style="width: 10%; border: none; text-align: center; font-size: 20px; margin-left: 5px;" type="button" value="Q"/> </div> <div style="margin-top: 5px;"> <input type="button" value="Add"/> <input type="button" value="Update"/> <input type="button" value="Cancel"/> </div>
--	---

- 5) The user can now add Model/State to the item.

<p>Enter Manufacturer Name</p> <div style="border: 1px solid #ccc; padding: 5px; display: flex; align-items: center;"> <input style="width: 90%; border: none;" type="text" value="General Electric"/> <input style="width: 10%; border: none; text-align: center; font-size: 20px; margin-left: 5px;" type="button" value="Q"/> </div> <p>Existing Name : General Electric</p> <div style="margin-top: 5px;"> <input type="button" value="Add"/> <input style="background-color: #0070c0; color: white;" type="button" value="Update"/> <input type="button" value="Reset"/> </div>	<p>Enter Model Name</p> <div style="border: 1px solid #ccc; padding: 5px; display: flex; align-items: center;"> <input style="width: 90%; border: none;" type="text" value="Genii"/> <input style="width: 10%; border: none; text-align: center; font-size: 20px; margin-left: 5px;" type="button" value="Q"/> </div> <div style="margin-top: 5px;"> <input style="background-color: #0070c0; color: white;" type="button" value="Add"/> <input type="button" value="Update"/> <input type="button" value="Reset"/> </div>
--	--

- 6) Click **Add**. The information will be added to the list.
- 7) A message indicating the successful update will be displayed.

Updating an Existing Item

- 1) From 4Sight2 menu, select **Resources > System Configurations** to display the **System Configurations** page.
- 2) As the Manufacturer name and Model name are entered into text box, the system automatically searches the application for existing items. If the same Manufacturer/Model is available, it will be displayed in the search list.
- 3) Enter the Manufacturer name or Model name into the respective fields and select the item to update from the drop-down.

Enter Manufacturer Name

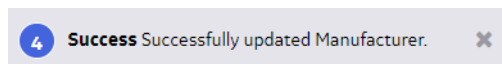
Existing Name : General Electric

- 4) Edit the details by typing over the existing item.
- 5) After modifying click **Update** to update the detail.

Enter Manufacturer Name

Existing Name : General Electric

- 6) A message the successful update will be displayed.



Assets

The Asset module allows you to represent physical locations and devices on your site(s) in a single view. You can set-up: Plants, Locations, Sub-Locations, Tags, Devices and Device Ranges. With this information, you can schedule the calibration for all your devices.

From the **4Sight2** application navigation menu, click on **Assets** to display the Assets page.

The Assets page displays the Assets Table.

Location	Tag #	Device	Range	DeviceType	Priority	Cal Status	State	Due Date
Electrical Test	110 - Observed - RTD	110 - ObsHPt100	110 - ObsHPt100	Electrical	High	In Progress	Started	05/05/2017
Electrical Test	19 - Observed - TC	19 - ObsHKTC Device	19 - ObsHKTC	Electrical	High	In Progress	Started	05/05/2017
Electrical Test	12 - mV - mA	12 - mV - mA Device	12 0100mV420mA	Electrical	High	Needs Calibration	Ready	22/11/2017
Electrical Test	13 - TC - mA	13 - TC - mA Device	13 0100CK420mA	Electrical	High	Failed	Ready	22/11/2017
Electrical Test	17 - Observed - mA	17 Obs420mA Device	17 - Obs420mA	Electrical	High	Needs Calibration	Ready	22/11/2017
Electrical Test	15 - Ohms - mA	15 - 04KOhms420mA Device	15 04KOhms420mA	Electrical	High	Needs Calibration	Ready	22/11/2017
Electrical Test	16 - RTD - mA	16-0100Cp100420mA Device	16 - 0100Cp100420mA	Electrical	High	Needs Calibration	Ready	22/11/2017
Electrical Test	18 - mA - mA	18 420mA420mA Device	18 - 420mA420mA	Electrical	High	Failed	Ready	22/11/2017
Electrical Test	111 - Observed-Observed	111 - 0100bs0100Obs	111 - 0100bs0100Obs	Electrical	High	Needs Calibration	Ready	22/11/2017
Electrical Test	112 - mA - Observed	112 - 420mA0500bs Device	112 - 420mA0500bs	Electrical	High	Needs Calibration	Ready	22/11/2017

From Assets page click on **Assets** title to display the context browser as shown below:

ASSET MANAGEMENT - 1. Location > 2. Device > 3. Range

4SightEnterprise

- 4SightEnterprise
- plant 1

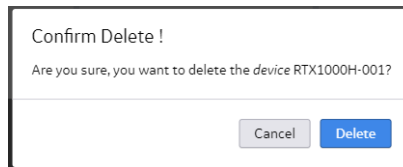
ROUTINES

All Assigned | Inherited | Direct

The **4SightEnterprise** is the default asset and you can add plants under this Asset. To view previously added plants click on **4SightEnterprise** these will be displayed in the next panel.

Deleting an Asset

- 1) From the Application Navigation menu, click on **Assets** to display the Asset page.
- 2) From the Assets page, click on the Assets title to display the context browser.
- 3) From Assets context browser, click on **Assets >> 4SightEnterprise** to display the list of Assets (Plant/Location/Sub-Location/Tag/Device) in next panels.
- 4) To delete the asset, select the asset and click on the Delete icon to display the Confirm Delete message.



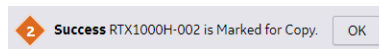
- 5) Click **Delete** to remove the selected asset.

***NOTE:** Assets can be deleted only if there is no sub-assets associated. To delete an asset, delete from the lowest level asset, from Range up the structure to Plant level. **NOTE:** Range cannot be deleted if calibration results are associated with it.*

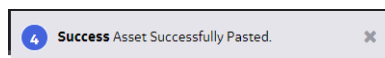
Copying Asset Information

Copy and Paste create a new copy asset using the copied asset as a template. The asset information from a location or sub-location can be copied and pasted in other location or sub-location.

- 1) From the panel of the context browser, click on the Location or Sub-Location to display the assets.
- 2) Select the asset and click on **Copy icon**.
- 3) A successful message for copy will be displayed.



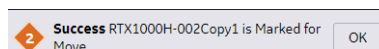
- 4) Select the **Location** or **Sub-Location** to paste the asset information.
- 5) Click on **Paste** icon to reuse the asset information in the selected location or sub-location. A message stating that the asset has been successfully pasted will be displayed.



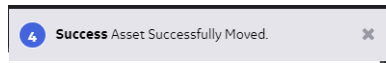
Moving Asset Information

Move option relocates the selected device or tag to a new location with that devices calibration history.

- 1) From the **Location** panel of the context browser, click on the Location or Sub-Location to display the assets.
- 2) Select the asset and click on **Move** icon.
- 3) A successful message for move will be displayed.



- 4) Select the **Location** or **Sub-Location** to paste the asset information.
- 5) Click on **Paste** icon to reuse the asset information in the selected location or sub-location. A message stating the asset has been successfully moved will be displayed.



Importing Asset Data

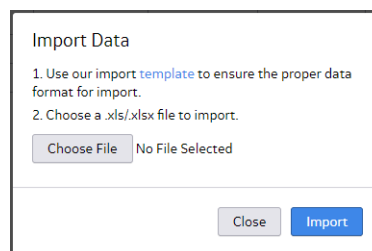
4Sight2 allows you to Import or Export the Tag, Device and Range configuration data through a Microsoft Excel sheet.

- 1) From 4Sight2 application navigation menu, click on **Assets** to display the Asset page.

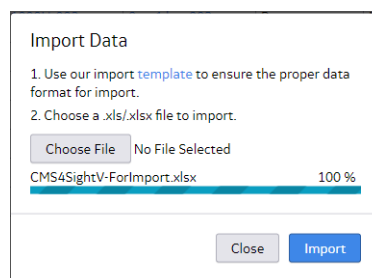
 The screenshot shows the 4Sight2 interface. On the left is a navigation menu with "Assets" selected. The main area is titled "ASSET MANAGEMENT" and contains a table of "ASSET RANGES". The table has columns for Location, Tag, Device, Range, Device Type, Priority, Cal Status, and Status. There are also filter boxes for Location, Tag, and Device. An "Actions" dropdown menu is open, showing "Import Data" and "Export Data" options. At the bottom right, there is a pagination control showing "Rows per page: 10" and "1-4 of 4".

Location	Tag	Device	Range	Device Type	Priority	Cal Status	Status	Import Date
Location 1		RTX1000-002	Range 1	Pressure	Critical	Adhoc	Ready	02-Apr-2019
Location 1		RTX1000-002	Switch	Pressure	Critical	Adhoc	Ready	02-Apr-2019
Location 1		RTX1000-003	0-5 bar	Pressure	Critical	Passed	Ready	29-May-2019
Location 1		RTX1000-003	SwitchCopy3	Pressure	Critical	Unknown	Not Assigned	

- 2) From Actions drop-down select Import Data to display the **Import Data** page.



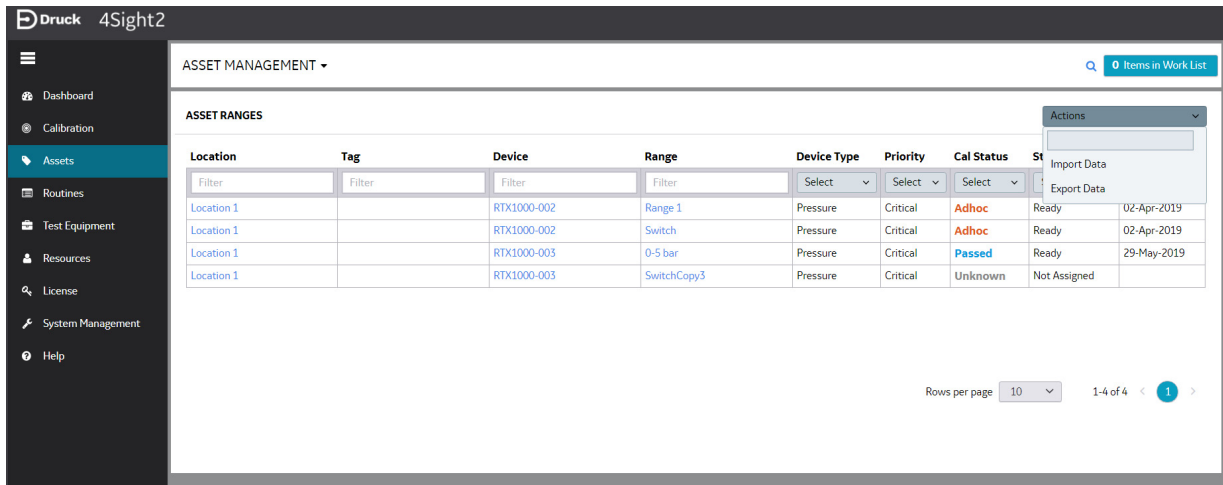
- 3) Click **Choose File** to select the Excel sheet and click **Import** the file.



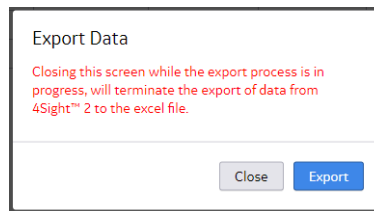
NOTE: You can download the **template** by clicking on **Import Data** page.

Exporting Asset Data

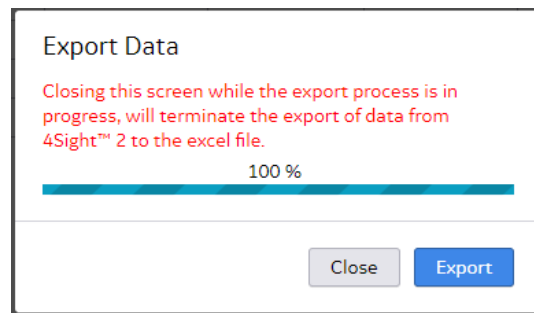
- 1) From 4Sight2 application navigation menu, click on **Assets** to display the Asset page.



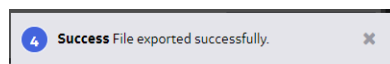
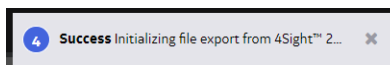
- 2) From Actions drop-down select **Export Data** to display the **Export Data** page.



- 3) To download the Excel sheet click **Export**.



- 4) The successful message for export will be displayed.



- 5) You can download the exported excel sheet.

Plant

The **Plant** section in Asset module allows a user to add a plant with the following details: Plant Name, Country, State, City, ZIP Code, and Address of the plant.

Creating Plants

- 1) From Application Navigation menu, click on **Assets** to display the Asset page.
- 2) From the Assets page, click on the Assets title to display the context browser.
- 3) From Assets context browser, click on **Assets >> 4SightEnterprise** to display the list of plants in next panel.
- 4) To create a new plant, click on **Create plant** icon to display the **Create Plant** screen.

NOTE: Only blue colour icons are available to the user for selection and the grey colour icons are unavailable to the users at that moment. Click on the appropriate panel to enable the icons.

The screenshot displays the 'ASSET MANAGEMENT' interface. At the top, there is a breadcrumb navigation: '1. Location > 2. Device > 3. Range'. A search icon and a button labeled '0 Items in Work List' are visible on the right. Below the breadcrumb, the context browser shows '4SightEnterprise'. A toolbar with various icons is present. The main area shows a list of items, with '4SightEnterprise' and 'plant 1' visible. At the bottom, there is a pagination control showing 'Rows per page 10' and '1-3 of 3'.

ASSET MANAGEMENT ▾ 1. Location > 2. Device > 3. Range 🔍 0 Items in Work List

Create Plant

PLANT DETAILS

Plant Name

Address (0/500)

Plant Description (0/250)

Country State

City ZIP Code

Plant Name: Enter the Plant name (Maximum 50 characters)

Plant Description: Enter the description (Maximum 250 characters) of plant to be created.

Address: Enter the address of the plant.

Country: Select the country where the plant is located from the drop-down list

State: Select the state from the drop-down list

NOTE: Use the System Configuration to add a different location to the system if the location is not listed by default.

City: Enter the name of the city

Zip Code: Enter the zip code of the city

- 5) Click **Create** to add the new plant.

NOTE: Click **Create & Add New** to save the current plant details and open a new Create Plant screen to create another plant

- 6) Successful creation of the new plant will be displayed.

- 7) **Reset:** use to clear the fields

- 8) **Cancel:** use to abort the current operation

Viewing Plant Details

NOTE: If the correct country or state is not available then please see Resources >> System Configurations to add new items to the available selection.

- 1) From the Application Navigation menu, click on **Assets** to display the Asset page.
- 2) From the Assets page, click on the Assets title to display the context browser.
- 3) From Assets context browser, click on **Assets >> 4SightEnterprise** to display the list of plants in next panel.

SOUTH POWER STATION ▾
4SIGHTENTERPRISE > SOUTH POWER STATION

... 🔍 0 Items in Work List

🏠 South Power Station Actions ▾

PLANT DETAILS

Plant Description	Country	State
South Power Station	UK	South
Address	City	ZIP Code
South Power Station	South City	S1

DOCUMENTATION +

No linked document(s) found

ROUTINES +

[All Assigned](#) Inherited Direct

No linked routines found !

4) Click **Open** to view the plant information.

ASSET MANAGEMENT ▾ 1. Location > 2. Device > 3. Range 🔍 0 Items in Work List

🏠 South Power Station Actions ▾

PLANT DETAILS

Plant Description	Country	State
South Power Station	UK	South
Address	City	ZIP Code
South Power Station	South City	S1

DOCUMENTATION +

No linked document(s) found

ROUTINES +

[All Assigned](#) Inherited Direct

No linked routines found !

Editing Plant Details

To update plant information:

- 1) From Application Navigation menu, click on **Assets** to display the Asset page.
- 2) From the Assets page, click on the Assets title to display the context browser.
- 3) From Assets context browser, click on **Assets >> 4SightEnterprise** to display the list of plants in next panel.
- 4) Click **Open** to view the plant information.

SOUTH POWER STATION ▾
4SIGHTENTERPRISE > SOUTH POWER STATION

⋮ 🔍
0 Items in Work List

🏠 South Power Station

Actions ▾

PLANT DETAILS

Plant Description	Country	State
South Power Station	UK	South
Address	City	ZIP Code
South Power Station	South City	S1

DOCUMENTATION +

No linked document(s) found

ROUTINES +

All Assigned
Inherited
Direct

No linked routines found !

- 5) From Actions drop-down menu select **Edit Details** to display the **Update Plant** page.

Druck 4Sight2

SOUTH POWER STATION
4SIGHTENTERPRISE > SOUTH POWER STATION

0 Items in Work List

Update Plant

PLANT DETAILS

Plant Name: South Power Station

Address (19/500): South Power Station

Plant Description (19/250): South Power Station

Country: UK State: South

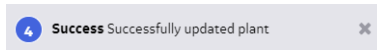
City: South City ZIP Code: S1

Cancel Update

Admin

Privacy Terms Contact Accessibility Cookies **BAKER HUGHES** a GE company

- 6) After updating Plant details, click on **Update** to update the information. The successful update message will be displayed.



Plant Bin

Each time a new Plant is created in the application it is created with a single default Bin location.

The Bin location can be used to move Tags/Devices from the active Plant into inactive Location. For example, when an Asset has reached the end of it's active life within the plant it can be moved to the Bin location and replaced with a new one.

When the Tag/Device is moved to the Bin location of all it's previous calibration history is retained and calibration reports may still be generated from this location.

Locations and Sub-Locations

CONTEXT:

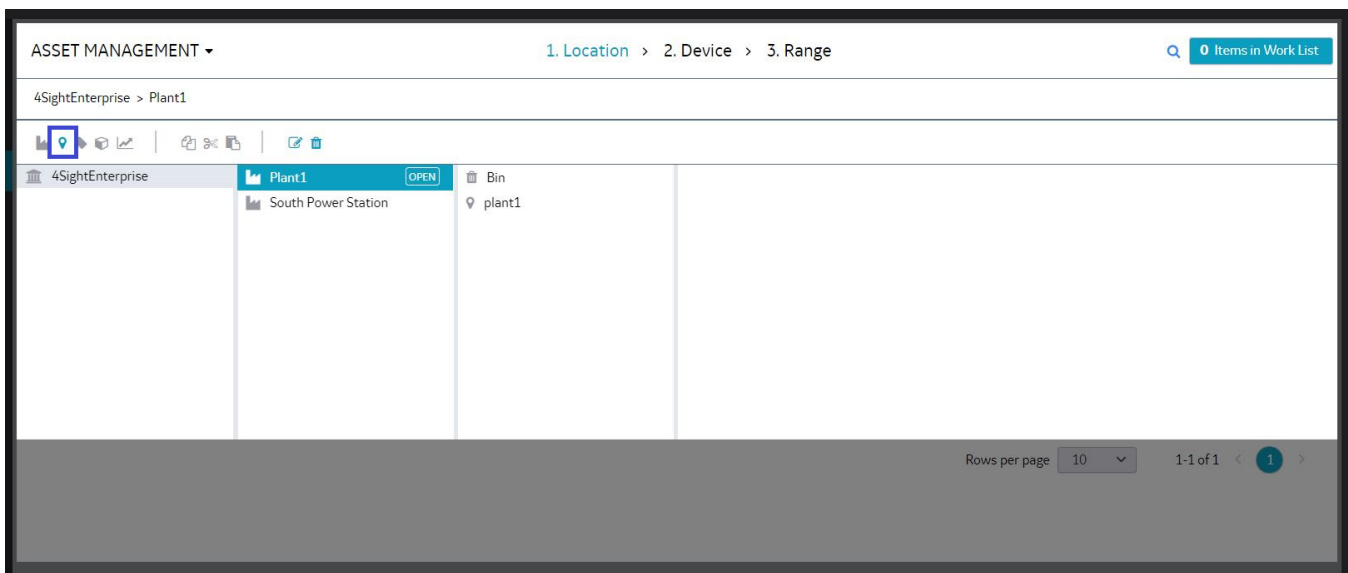
A **Location** or **Sub-Location** usually represents a physical location on your site (Example: a building or room) but you can set up any alternative group structure (Example: Druck, Ruska). You can add more than one device or tag to a location.

Sub-location

The application enables the user to create **Sub-Location** within a location for better identification of the device location within a plant. Ten levels of sub-location can be created within location, by placing sub-location within sub-locations.

Creating Locations

- 1) From the **Plant** panel of the context browser, click on **Create Location** icon.



This will display the **Create Location** screen.

 A screenshot of the 'Create Location' form in the ASSET MANAGEMENT application. The breadcrumb navigation shows '1. Location > 2. Device > 3. Range'. The form title is 'Create Location'. Under the heading 'LOCATION DETAILS', there are two input fields: 'Location Name' with a placeholder 'New Location Name' and 'Location Description 0/250' with a placeholder 'Location Description'. At the bottom of the form, there are three buttons: 'Reset', 'Cancel', and 'Create & Add New' (which is highlighted in blue), and a 'Create' button.

- **Location Name:** enter the location name (Maximum 250 characters)

- **Location Description:** enter the description (Maximum 250 characters) about the location of the plant.

- 2) Click **Create** to add the location/sub-location.
- 3) Successful addition of the location message will be displayed.

Viewing Locations

To view the location/sub-location information:

- 1) From the **Plant** panel of the context browser, click on the Plant to display the list of Locations
- 2) Select the location and click **Open** to display the location information.

The screenshot displays the 4Sight2 interface for viewing location details. The breadcrumb path is 4SIGHTENTERPRISE > SOUTH POWER STATION > BOILER ROOM. The page title is 'Boiler Room' with an 'Actions' dropdown menu. The 'LOCATION DETAILS' section shows the location description as 'Boiler Room'. The 'DOCUMENTATION' section indicates 'No linked document(s) found'. The 'ROUTINES' section contains a table with the following data:

Routine Name	Application	Schedule
3 Month	Inherited from PLANT 'South Power Station'	3 Months
Annual	Inherited from PLANT 'South Power Station'	12 Months

The interface also shows a 'Rows per page' dropdown set to 10 and a pagination indicator '1-2 of 2' with a page number '1' highlighted. The footer includes links for Privacy, Terms, Contact, Accessibility, and Cookies, along with the Baker Hughes logo.

Editing Locations

To update the location/sub-location information:

- 1) From the **Plant** panel of the context browser, click on the Plant to display the list of Locations
- 2) Select the location and click **Open** to display the location information.

The screenshot displays the 4Sight2 Asset Management interface. The top navigation bar includes the 'Druck 4Sight2' logo, a breadcrumb trail '1. Location > 2. Device > 3. Range', and a search icon with '0 Items in Work List'. The left sidebar contains a menu with 'Assets' selected, along with other options like Dashboard, Calibration, Routines, Test Equipment, Resources, License, System Management, and Help. The main content area is titled 'Boiler room' and is divided into three sections: 'LOCATION DETAILS' (showing 'Boiler room' as the location description), 'DOCUMENTATION' (with a message 'No linked document(s) found'), and 'ROUTINES' (with a message 'No linked routines found!'). An 'Actions' dropdown menu is visible in the top right corner, containing an 'Edit Details' option.

3) From Actions drop-down click **Edit Details** to update the location information.

The screenshot displays the 4Sight2 web application interface. On the left is a dark sidebar with a menu containing: Dashboard, Calibration, Assets (highlighted), Routines, Test Equipment, Resources, License, and Help. At the bottom of the sidebar is the user profile 'Admin'. The main content area is titled 'Update Location' and shows the breadcrumb path: '4SIGHTENTERPRISE > SOUTH POWER STATION > BOILER ROOM'. Below the breadcrumb is a search bar with '0 Items in Work List'. The 'LOCATION DETAILS' section contains two text input fields: 'Location Name' with the value 'Boiler Room' and 'Location Description 11/250' with the value 'Boiler Room'. At the bottom right of the form are 'Cancel' and 'Update' buttons. The footer includes links for Privacy, Terms, Contact, Accessibility, and Cookies, along with the Baker Hughes logo and 'a GE company' text.

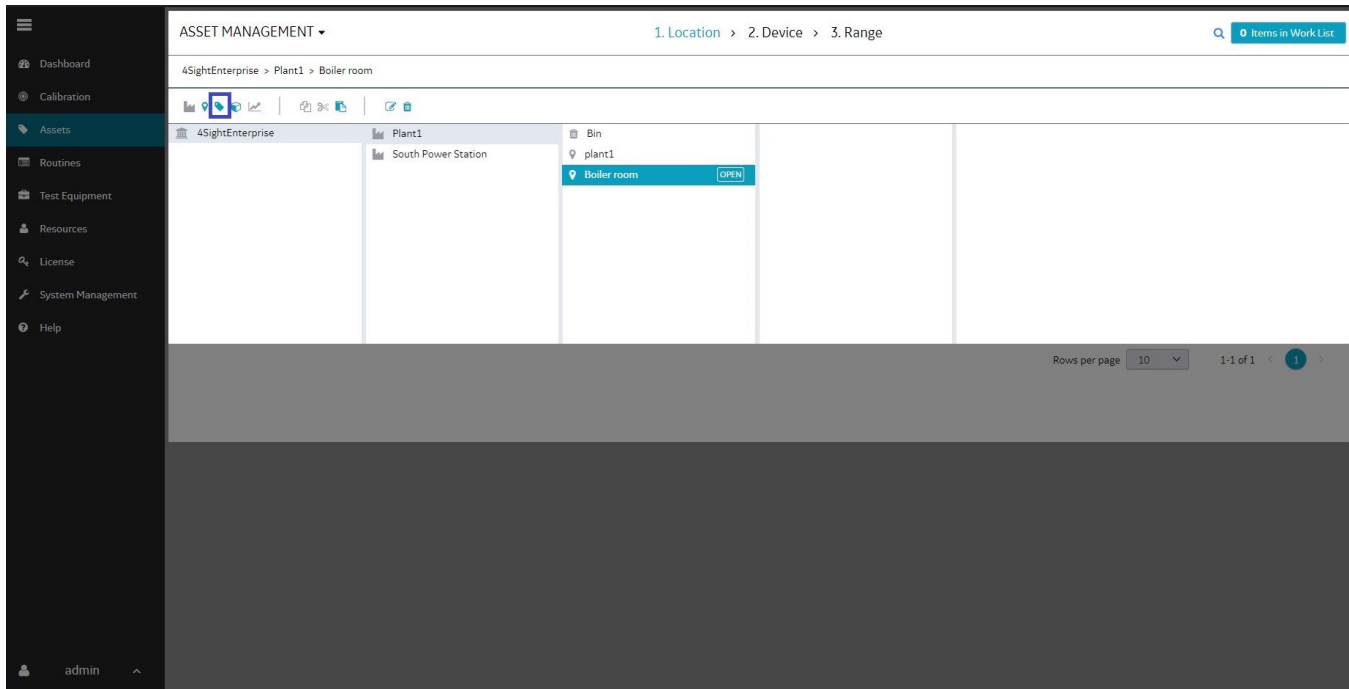
4) After updating the location information, click **Update**.

Tags

Tags in Asset module is similar to a location but a tag is only associated with a single device. For example: You can set up a tag for a unique device operation. If you calibrate the related device, there is a link to the device and the tag.

Creating Tags

- 1) From the **Location** panel of the context browser, click on **Create Tag Icon** to display the **Create Tag** screen.



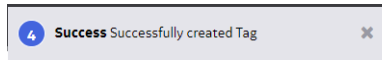
The screenshot shows the 'Create Tag' form. The breadcrumb navigation is '1. Location > 2. Device > 3. Range'. The form is titled 'TAG DETAILS' and includes the following fields:

- Tag Name:** A text input field with the placeholder text 'New TAG Name'.
- TAG Description 0/250:** A text area with the placeholder text 'TAG Description'.

At the bottom of the form, there are three buttons: 'Reset', 'Cancel', and 'Create & Add New' (highlighted in blue), and a 'Create' button.

- **TAG Name:** enter the name (Maximum 50 characters)
- **TAG Description:** enter about (Maximum 250 characters) the tag to created.

- 2) Click **Create** to add the TAG. Successful addition of TAG will be displayed.



Viewing Tag Details

- 1) From the **Location** panel of the context browser, click on the Location or Sub-Location to display the Tags.
- 2) Select the Tag and click **Open** to view the Tag information.

ASSET MANAGEMENT ▾ 1. Location > 2. Device > 3. Range 0 Items in Work List

Location 1

LOCATION DETAILS
Location Description
Location 1

DOCUMENTATION +
No linked document(s) found

ROUTINES +

All Assigned Inherited Direct

Editing Tags

- 1) From the **Location** panel of the context browser, click on the Location or Sub-Location to display the Tags.
- 2) Select the Tag and click **Open** to view the Tag information.

1.2 - MV - MA ▾ 45IGHTENTERPRISE > ... > DPH20G TEST LAB > ELECTRICAL TEST > 1.2 - MV - MA 2 Items in Work List

1.2 - mV - mA

TAG DETAILS
TAG Description
The mV to mA Test

DOCUMENTATION +
No linked document(s) found

ROUTINES +

Routine Name	Application	Schedule
2DayDemoRoutine	Inherited from PLANT 'Release 1.2 Test Plant'	2 Days
5DayPressureRoutine	Inherited from PLANT 'Release 1.2 Test Plant'	5 Days
7DayTestRoutine	Inherited from PLANT 'Release 1.2 Test Plant'	7 Days

Rows per page 10 1-3 of 3 < 1 >

- 3) Select **Edit Details** from Actions drop-down to edit the Tag information in Update Tag page.

1.1 - VOLTS - MA ▾
4SIGHTENTERPRISE > ... > BOILER ROOM > 1.1 - VOLTS - MA

... 🔍 0 Items in Work List

🏷️ Update Tag

TAG DETAILS

Tag Name
1.1 - Volts - mA

TAG Description 13/250
volts mA Test

Cancel Update

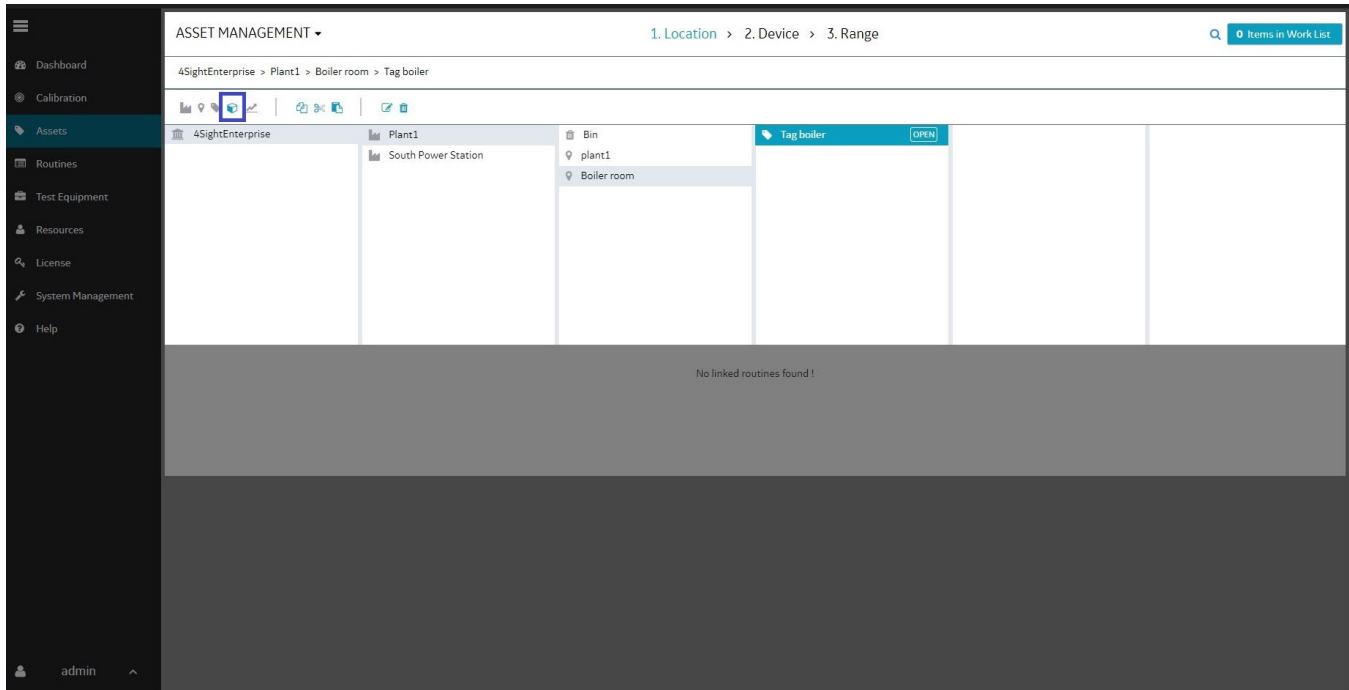
- 4) After the modifying Tag information click **Update**.

Devices

Device in Asset module is provided to add information about the instrument to be calibrated in the given location.

Creating Devices

- 1) From the **Location** or **Tag** panel of the context browser, click on **Create Device** icon to display the Create Device screen.



Priority Create Device

Select ▾

Device Details

Device Name
New Device Name

Device Description 0/250
Device Description

Maintenance Date
04/02/2019

Device Id
Device Id

Asset Id
Asset Id

Device Type
Select ▾

Manufacturer
Select ▾

Model Number
Select ▾

Serial Number
Serial Number

Reset Cancel Create & Add New Create

***Priority:** Select the priority level from the drop-down list

Asset Name: Enter the name of the device (Maximum 50 characters)

Asset Description: Enter description about the device (Maximum 250 characters)

Last Calibration Date: Enter the latest calibration date of the device

***Device ID:** Enter the device identification (not mandatory)

Asset ID: A unique identifier for the Device (Maximum: 50 characters) (not mandatory)

Device Type: Select the type of device from the drop-down

Serial Number: The serial number specified by the manufacturer.

***Model Number:** The model number specified by the manufacturer.

***Manufacturer:** The manufacturer.

* New Manufacturers, Models, Device type and Device priority can be configured in the SystemConfigurations section.

- 2) Click **Create** to add the device to the list. Successful addition of the device will be displayed.

Viewing Devices Details

To view the devices:

- 1) From the **Location** panel of the context browser, select the Location to display the list of devices.
- 2) Select the Device and click **Open** to view the device information.

Priority **Critical** PACE 6000 Actions

DEVICE DETAILS

Device Description: PACE 6000 Pressure Calibrator | Last Calibration Date: 06/07/2017

Device ID: 7357 | Asset ID: 7357 | Device Type: Pressure

Manufacturer: GE Druck | Model Number: RTX1000H Gauge-Analytical | Serial Number: 7357

DOCUMENTATION No linked document(s) found

ROUTINES

Routine Name	Application	Schedule
Monthly Routine	Inherited from PLANT 'GE Druck'	1 Months

Editing Devices

To update the device information:

- 1) From the **Location** panel of the context browser, select the Location to display the list of devices.
- 2) Select the Device and click **Open** to view the device information.

ASSET MANAGEMENT 1. Location > 2. Device > 3. Range 0 Items in Work List

Priority **Critical** RTX1000H-002 Actions

Device Details

Device Description: RTX1000H-002 | Maintenance Date: 18-Mar-2019

Device Id: RTX1000H-002 | Asset Id: RTX1000H-002 | Device Type: Pressure

Manufacturer: GE Druck | Model Number: RTX1000H ABS-Analytical | Serial Number: 111002

DOCUMENTATION No linked document(s) found

ROUTINES

Routine Name	Application	Schedule
routine1	Applies directly to this asset only	1 Months

Rows per page 10 1-1 of 1

- 3) Select **Edit Details** from Actions drop-down to edit the device information in **Update Device** screen.
NOTE: If the device is within the calibration cycle then it's details are locked until the calibration is completed.

RTX1000H-002 ▾
4SIGHTENTERPRISE > ... > BOILER ROOM > RTX1000H-002

... 🔍 0 Items in Work List

Priority
Medium ▾

Update Device

Device Details

Device Name
RTX1000H-002

Device Description 12/250
RTX1000H-002

Last Calibration Date
📅 05/04/2018

Device Id
RTX1000H-002

Asset Id
RTX1000H-002

Device Type
Pressure ▾

Manufacturer
GE Druck ▾

Model Number
RTX1000H Gauge-Analytical ▾

Serial Number
111002

Cancel Update

- 4) After modifying the device information, click **Update**.

Ranges

Ranges provide the measurement capabilities of a device. For every device added there must be at least one range associated with this device.

Creating Ranges

- 1) From the **Device** panel of the context browser, click on the **Create Range** icon to display the **Create Range** screen.

ASSET MANAGEMENT ▾ 1. Location > 2. Device > 3. Range 0 Items in Work List

4SightEnterprise > Plant1 > Boiler room > Tag boiler > RTX1000H-002

4SightEnterprise Plant1 Bin Tag boiler RTX1000H-002 [OPEN]

South Power Station plant1 Boiler room

No linked documents found

ROUTINES +

All Assigned Inherited Direct

Routine Name	Application	Schedule
routine1	Applies directly to this asset only	1 Months

Rows per page 10 1-1 of 1 1

admin

Create Range

INSTRUMENT DETAILS

Device Id: _____ Device Type: Pressure Manufacturer: Ronan
 Tag ID: _____ Serial Number: 212 Model Number: X96 W-Flow

RANGE DETAILS

Range Name: On Uploading Adhoc Results:

I/O CONFIGURATION

Input/Output Ratio: Settling Time:

INPUT **OUTPUT**

Parameter: Parameter:

Minimum: Maximum: Unit: Minimum: Maximum: Unit:

% Span Pass Fail: % Span Adjustment:

SCHEDULING

ROUTINE **PROCEDURE**

Select: Schedule: 1 Months Select: Type: _____

DEFAULT USER (OPTIONAL)

Assign Technician: Assign Approver:

Range Name: Enter a name for the new range.

On Uploading Adhoc Results:

- **Retain Last Calibrate Date:** It retains the last calibration date and does not affect the actual calibration schedule
- **Reset Last Calibrate Date:** It resets the last calibration date to the date on which adhoc calibration is performed and the calibration schedule will be changed respectively

Input/Output Configuration: Click on the drop-down list and select the applicable type. These include:

- **Linear:** A typical straight-line relationship.
- **Square Root:** Flow calculations use this type of relationship. The data includes the option to set a Break Point.
- **Switch:** For switches only.

Parameter: Click on the drop-down list and select the applicable Parameter.

Current	Observed	Temperature
Density	Pressure	Temperature (RTD)
Frequency	Resistance	Temperature (TC)
Humidity	Switch *	Voltage

* Only available as an output parameter when input/output ratio of switch is selected

If I/O configuration is selected as Linear or square root, following parameters will appear to the user

- **Minimum/Maximum:** Enter applicable values for the Device.
- **Unit:** Click on the drop-down list and select the applicable units (See Appendix A).
- **% Span Pass Fail:** Enter the necessary calibration limits for pass and fail
- **% Span Adjustment:** Enter the permitted amount of adjustment. The user defined adjustment limit used to warn of drift towards failure and therefore adjustments is recommended.

If I/O configuration is selected as Switch, following parameters will appear to the user

ASSET MANAGEMENT ▾ 1. Location > 2. Device > 3. Range

Create Range

INSTRUMENT DETAILS

Device Id	Device Type	Pressure	Manufacturer	Ronan
Tag ID	--	Serial Number	Model Number	X96 W-Flow

RANGE DETAILS

Range Name: On Uploading Adhoc Results

Retain Last Calibration Date ▾

I/O CONFIGURATION

Input/Output Ratio: Switch ▾

INPUT

Parameter: Select ▾

Minimum: Maximum: Unit: Select ▾

OUTPUT

Parameter: Switch ▾

Please Select Input parameter and corresponding Unit.

Actuation Tolerance **Deactuation Tolerance**

SCHEDULING

ROUTINE

Select: routine ▾ Schedule: 1 Months Type:

PROCEDURE

Select: Select ▾

DEFAULT USER (OPTIONAL)

Assign Technician: Select ▾ Assign Approver: Select ▾

- **Minimum/Maximum:** Enter applicable values for the Device.
- **Unit:** Click on the drop-down list and select the applicable units (See Appendix A).
- **Actuation Point:** Enter the value to set switch actuation point from close to open.
- **Deactuation Point:** Enter the value to set switch deactuation point from open to close.
- **Switch Status:** Select the status of the switch
- **Trip:** Select the type of trip: raising or falling
- **Contact:** Select the type of contact
- **Actuation/Deactuation Tolerance:** Enter the necessary actuation/deactuation point tolerance

Routine: Linking a routine to a range provides calibration schedule to that range. Click on the drop-down list and select the existing routine or create a new routine by selecting <<**Create Routine**>> from the drop down.

Procedure: Linking a procedure to a range creates a specific instance of that test procedure using the ranges specified. Click on the drop-down list and select the existing procedure or create a new procedure by selecting <<**Create Procedure**>> from the drop down.

Assign Technician: Click on the drop-down list and select the default technician to the range.

Assign Approver: Click on the drop-down list and select the default approver to the range.

- 2) Click **Create** to add the range.
- 3) Successful addition of range will be displayed.

Viewing Range Details

To view the range information:

- 1) From the **Device** panel of the context browser, click on the device to view the ranges.
- 2) Select the range and click **Open** to view the range information.

ASSET MANAGEMENT 1. Location > 2. Device > 3. Range 0 Items in Work List

Range 1 Actions

INSTRUMENT DETAILS

Device Id	RTX1000H-002	Device Type	Pressure	Serial Number	111002
Tag ID	Tag boiler	Manufacturer	GE Druck	Model	RTX1000H ABS-Analytical
Next Cal Date	18-Apr-2019				

RANGE DETAILS

Range Name	Range 1	On Uploading Adhoc Results	Retain Last Calibration Date
------------	---------	----------------------------	------------------------------

I/O CONFIGURATION

I/O Configuration		Settling Time	1 sec
I/O Ratio: Linear		Output	4 to 20 mA
Input	0 to 4 bar		
Input: Pressure			
Reference Mode	Absolute		
Span Pass/Fail	2 % Span	Span Adjustment	2 % Span

PROCEDURES +

Assigned Procedure	Routine	Type	Unlink
Procedure 1	routine1	Proportional	🗑️

Linking a Range to a Procedure

Linking a procedure to a range creates a specific instance of that test procedure using the ranges specified.

- 1) From the **Device** panel of the context browser, click on the device to view the ranges
- 2) Select the range and click **Open** to view the range information.
- 3) Click on the plus “+” symbol on Procedures section to view the list of procedures.

Select a Procedure

Selected (0)	Procedure Name	Routine Name
<input type="checkbox"/>	5 up	3 Month

Filter

Filter

Rows per page 10 1-1 of 1 < 1 >

Cancel Link

- 4) After selecting the procedure, click **Link** to link the procedure with a range. The linked procedure will be displayed in Procedures section.
- NOTE:** To unlink a procedure with a range, click on the **Unlink** icon available next to the linked procedure.

Editing Ranges

To update the range information:

- 1) From the **Device** panel of the context browser, click on the device to view the ranges.
- 2) Select the range and click **Open** to view the range information.

ASSET MANAGEMENT ▾ 1. Location > 2. Device > 3. Range 0 Items in Work List

Range 1

Actions
Edit Details

INSTRUMENT DETAILS

Device Id	RTX1000H-002	Device Type	Pressure	Serial Number	111002
Tag ID	Tag boiler	Manufacturer	GE Druck	Model	RTX1000H ABS-Analytical
Next Cal Date	18-Apr-2019				

RANGE DETAILS

Range Name	Range 1	On Uploading Adhoc Results	Retain Last Calibration Date
------------	---------	----------------------------	------------------------------

I/O CONFIGURATION

I/O Configuration	I/O Ratio : Linear	Settling Time	1 sec
Input	0 to 4 bar	Output	4 to 20 mA
Input : Pressure			
Reference Mode	Absolute		
Span Pass/Fail	2 % Span	Span Adjustment	2 % Span

PROCEDURES

Assigned Procedure	Routine	Type	Unlink
Procedure 1	routine1	Proportional	⊗

- 3) Select **Edit Details** from Actions drop-down to display the **Update Range** page.

ASSET MANAGEMENT ▾ 1. Location > 2. Device > 3. Range 🔍 0 Items in Work List

Update Range

INSTRUMENT DETAILS

Device Id	RTX1000H-002	Device Type	Pressure	Manufacturer	GE Druck
Tag ID	Tag boiler	Serial Number	111002	Model Number	RTX1000H-ABS-Analytical

RANGE DETAILS

Range Name: On Uploading Adhoc Results:

I/O CONFIGURATION

Input/Output Ratio: Settling Time: sec

INPUT **OUTPUT**

Parameter	Pressure	Parameter	Electrical
Minimum	0	Minimum	4
Maximum	4	Maximum	20
Unit	bar	Unit	mA

Reference Mode:

% Span Pass Fail: % Span Adjustment:

SCHEDULING

ROUTINE	PROCEDURE
Select: <input type="text" value="routine1"/>	Select: <input type="text" value="Procedure 1"/>
Schedule: 1 Months	Type: Proportional

DEFAULT USER (OPTIONAL)

Assign Technician: Assign Approver:

4) After modifying the range information click **Update**.

Routines

Routines allows the user to create and manage the calibration schedule. You can setup a calibration schedule based on the procedures associated with the routine.

Creating Routines

- 1) From the 4Sight2 menu, click **Routines** to display the **Routines** page.

The screenshot displays the 'Routines' page in the 4Sight2 application. The page title is 'Routines' and there is an 'Actions' dropdown menu in the top right corner. The main content area is titled 'ROUTINES' and contains a table with the following data:

Routine Name	Components	Schedule	# Affected Devices
<input type="text" value="Filter"/>			
Annual	Calibration	12 Months	0
3 Month	Calibration	3 Months	0

Below the table, there is a 'Rows per page' dropdown set to '10' and a pagination indicator showing '1-2 of 2' with a page number '1' in a blue circle. The sidebar on the left includes navigation options: Dashboard, Calibration, Assets, Routines (selected), Procedures, Test Equipment, Resources, License, and Help. The footer contains links for Privacy, Terms, Contact, Accessibility, Cookies, and the Baker Hughes logo.

- 2) From **Actions** drop-down menu select **Add New Routine** to display the **Create Routine** page.

The screenshot shows the 'Create Routine' form in the Druck 4Sight2 application. The form is titled 'Create Routine' and has a 'Back' button. It is divided into 'ROUTINE DETAILS' with the following fields:

- Routine Name:** A text input field with the placeholder 'New Routine Name'.
- Routine Description:** A large text area with the placeholder 'Routine Description' and a character count '0/250'.
- Priority:** A dropdown menu with 'Select' as the current value.
- Interval:** A text input field with '0' and a 'Days' label.
- Period:** A dropdown menu with 'Select' as the current value.
- Due Tolerance:** A text input field with '0' and a 'Days' label.
- Overdue Tolerance:** A text input field with '0' and a 'Days' label.

At the bottom of the form are three buttons: 'Reset', 'Cancel', and 'Create'. The user 'Admin' is logged in, as indicated by the 'Admin' label and a dropdown arrow in the bottom left corner. The footer of the application includes links for 'Privacy', 'Terms', 'Contact', 'Accessibility', and 'Cookies', along with the 'BAKER HUGHES' logo and 'a GE company' text.

- 3) Enter the following data:
 - **Routine Name:** Enter the name
 - **Description:** Enter a description of the routine
 - **Priority:** Select the priority from drop-down
 - **Interval:** Enter the interval period for calibration in Days/Months.
 - **Period:** Select the interval in Days or Months
 - **Due Tolerance:** Enter the tolerance level of days for calibration. This tolerance is used to specify the number of days the calibration can be performed before it's due date.
 - **Overdue Tolerance:** Enter the overdue tolerance for the calibration. This tolerance is used to specify the number of days the calibration can be performed after it's due date.
- 4) Click **Create** and the successful creation of the routine message will be displayed.

Viewing Routine Details

To view routine information:

- 1) From the 4Sight2 menu, click **Routines** to display the **Routines** page.

The screenshot displays the 'Routines' page in the 4Sight2 application. The page features a dark sidebar menu on the left with 'Routines' highlighted. The main content area shows a table of routines. The table has four columns: 'Routine Name', 'Components', 'Schedule', and '# Affected Devices'. There are two rows of data: 'Annual' and '3 Month', both with 'Calibration' components and 0 affected devices. The page also includes a filter input, a 'Rows per page' dropdown set to 10, and a pagination indicator showing '1-2 of 2' pages.

Routine Name	Components	Schedule	# Affected Devices
Annual	Calibration	12 Months	0
3 Month	Calibration	3 Months	0

- 2) Click on the routine to display the routine page.

Editing Routines

NOTE: If the routine is linked to a range which has calibration results or if the calibration is in progress the routine cannot be edited.

- 1) From the 4Sight2 menu, click **Routines** to display the **Routines** page.
- 2) Click the routine name to update and to display the routine page.
- 3) From the **Action** drop-down select **Edit Details** to view the **Update Routine** page.
- 4) After updating the routine information, click **Update** to update the changes.

Deleting Routines

- 1) From the 4Sight2 menu, click **Routines** to display the **Routines** page.
- 2) Click the routine name to delete and to display that routine details.

- 3) From **Action** drop-down select **Delete** to display the **Confirm** page.

Delete

Are you sure, you want to delete the routine *3 Month*?

Cancel
Delete

- 4) Click **Delete** to confirm the deletion of routine.
NOTE: If a routine is linked to any device, it can't be deleted.

Linking a Procedure to a Routine

Every procedure has to be linked to a calibration schedule through a routine.

To link a procedure to routine:

- 1) From the 4Sight2 menu, click **Routines** to display the **Routines** page.
- 2) Select a routine from the list that has to be linked with a procedure.
- 3) From the Routine page, click the plus symbol to display the list of procedures.

Select a Procedure

Selected (0) **Procedure Name**

	Filter
<input type="checkbox"/>	3 up-down
<input type="checkbox"/>	Span
<input type="checkbox"/>	Switch - Rising

Rows per page 1-3 of 3 <

1 >

Cancel
Link

- 4) Select the procedures to be linked and click **Link**. Successful linked message will be displayed, also you can view the procedure name displayed in Procedures section of Routine page.

Assigned Procedure	Type
5 Points Up	Proportional
3Up3Down	Proportional

NOTE: To unlink the linked procedure, click on the **Unlink** icon.

The Affected Devices section of the Routine page displays details of the assets which are currently linked to the Routine.

AFFECTED DEVICES

Device Name	Serial Number	Range Name
<input type="text" value="Filter"/>	<input type="text" value="Filter"/>	<input type="text" value="Filter"/>
TestDevice1	32654158	0-1Bar,4-20mA Test
TestDevice2	256836254	0-1000mbar,4-20mA Test

Linking Routine to an Asset

Every asset needs to be linked to a calibration schedule through a routine. The routine can be linked to any Plant/Location/Tag or Device within the plant structure. If a routine is linked higher up the plant structure then all children automatically inherit the linked routines. This can be useful if there are only certain routines which a plant uses as these can be linked at the plant or location level and then all device will automatically inherit them and they will only need to be added once at this higher level.

Alternatively the routines can be linked at the lowest, device level and only apply to that device.

- 1) From Application Navigation menu, click on **Assets** to display the Asset page.
- 2) From the Assets page, click on the Assets title to display the context browser.
- 3) From Assets context browser, click on **Assets >> 4SightEnterprise** to display the list of plants in next panel.

ASSET MANAGEMENT ▾ 1. Location > 2. Device > 3. Range 0 Items in Work List

4SightEnterprise > plant 1 > Location 1 > RTX1000-003

4SightEnterprise	plant 1	Location 1	RTX1000-002	0-5 bar
			RTX1000-003 OPEN	


Rows per page: 10 | 1-3 of 3 | 1

- 4) Select the device and click **Open** to display the device page.

RTX1000H-001 0 Items in Work List

4SIGHTENTERPRISE > ... > BOILER ROOM > RTX1000H-001

Priority RTX1000H-001 Actions

 Medium

Device Details

Device Description	Maintenance Date	
RTX1000H-001	04-May-2018	
Device Id	Asset Id	Device Type
RTX1000H-001	RTX1000H-001	Pressure
Manufacturer	Model Number	Serial Number
GE Druck	RTX1000H Gauge-Analytical	111001

DOCUMENTATION +

No linked document(s) found

ROUTINES +

All Assigned	Inherited	Direct
Routine Name	Application	Schedule
3 Month	Inherited from PLANT 'South Power Station'	3 Months
Annual	Inherited from PLANT 'South Power Station'	12 Months

Rows per page 1-2 of 2 < 1 >

5) From the device page, click “+” symbol in Routines section to display the list of routines.

Routines

Selected (0)	Routine Name	Schedule
<input type="checkbox"/>	<input type="text" value="Filter"/>	
<input type="checkbox"/>	3 Month	3 Months
<input type="checkbox"/>	Annual	12 Months

Rows per page 1-2 of 2 < **1** >

- 6) Select the routines by clicking on the respective routine check box and click **Link**.
- 7) The routines are linked with the device and will be displayed in routines section.

Procedures

Procedures helps the user to setup and manage the calibration procedures. The user can define the generic format for calibration. To make the created **Procedure** effective you need to link it to a **Routine**.

Create Procedures

- 1) From the 4Sight2 menu click **Routines > Procedures** to display the **Procedures** page.

The screenshot displays the 'Procedures' page in the 4Sight2 application. The page title is 'Procedures' and it features an 'Actions' dropdown menu in the top right corner. The main content area contains a table with the following data:

Procedure Name	Description	Type	Number of Points	# Affected Devices
3 up-down	3 up-down	Proportional	5	0
Span	Span	Proportional	2	0
Switch - Rising	Switch - Rising	Switch	1	0
5 up	5 up	Proportional	5	0

At the bottom of the table, there is a pagination control showing 'Rows per page' set to 10, and '1-4 of 4' pages, with the current page being 1.

- 2) From **Actions** drop-down menu select **Add Procedures** to display the **Create Procedure** page.

The screenshot shows the 'Create Procedure' form in the Druck 4Sight2 application. The form is titled 'Create Procedure' and has a 'Back' button. It contains the following fields and controls:

- Procedure Name:** A text input field with the placeholder text 'New Procedure Name'.
- Procedure Type:** A dropdown menu with the text 'Select' and a downward arrow.
- Exercise Cycles:** A text input field with the value '1'.
- Description:** A large text area with the placeholder text 'Procedure Description' and a character count of '0/250'.
- External Power:** A checkbox labeled 'External Power'.
- Buttons:** 'Reset', 'Cancel', and 'Create' buttons.

The interface also features a dark sidebar on the left with navigation options: Dashboard, Calibration, Assets, Routines, Procedures (highlighted), Test Equipment, Resources, License, and Help. At the bottom of the sidebar, the user is identified as 'Admin'. The footer of the application includes links for Privacy, Terms, Contact, Accessibility, and Cookies, along with the Baker Hughes logo and the text 'A GE company'.

3) Enter the following procedure details:

Procedure Name - Enter name of the procedure

Procedure Type - Select either Switch or Proportional to define the procedure type

Description - Enter a description of the procedure

Exercise Cycle - Enter the number of cycles which the procedure is to be performed

External Power- Use the check-box to define the source of the external power to the DUT. If checked, power is to be provided externally by the plant. If un-checked, power is to be generated by the calibrator.

Create Procedure

Procedure Name: Description:

Procedure Type: Exercise Cycles:

0/250 External Power

PROPORTIONAL TEST SETTINGS

Point	% Span	+	-	↓	Test Point Tolerance (% Span)
1	<input type="text" value="0"/>				<input type="text"/>
2	<input type="text" value="100"/>				

Proportional

- **Point:**- Test points can be added and defined individually by manually adding the point along with the %Span for that point or by using the **Procedure Point Wizard**
- **% Span:** - The %Span value for a point is the % of total input span with 0% being the minimum range value and 100% the maximum range value
- **Test Point Tolerance** - To set an applicable calibration tolerance for each test point
- **Procedure Wizard** - Test point wizard used to create a set of test points

Switch

- **Ramp Time (Seconds)**- Set the period (in seconds) for the portable calibrator to go from the low value to the high value
- **Test Reset** - Select this option to see if the switch resets correctly
- Click **Create**. The successful creation of the procedures message will be displayed.

Updating Procedures

- 1) From the 4Sight2 menu, click **Routines > Procedures** to display the **Procedures** page.
- 2) Click the procedure name to update.

PROCEDURE DETAILS

Name: 5 up
 Type: Proportional
 Description: 5 up
 External Power

PROPORTIONAL TEST SETTINGS

Point	% Span	Test Point Tolerance (% Span)	Exercise Cycles
1	0	5	1
2	25		
3	50		
4	75		
5	100		

AFFECTED DEVICES

Device Name	Serial Number	Range Name
Filter	Filter	Filter

No Results

Rows per page: 10 0-0 of 0

- 3) From the **Actions** drop-down, select **Edit Details** to display the **Update Procedure** page.
- 4) After updating the procedure information, click **Update** to update the changes.

Deleting Procedure

- 1) From the 4Sight2 menu, click **Routines > Procedures** to display the **Procedures** page.
- 2) Click the procedure name to delete.
- 3) From the **Actions** drop-down, select **Delete** to display the **Confirm Delete** page.

Delete

Confirm Delete !

Are you sure you want to delete the procedure 5 up?

Cancel Delete

- 4) Click **Delete** to confirm the deletion of procedure.

Test Equipment

The Test Equipment enables you to add the equipment information which is used to perform a calibration. Test equipment page also has the ability to select the defined test equipment and view the details. This page displays the test equipment details with the status which shows if the equipment is in use and which devices it is currently being used to calibrate.

Creating Test Equipment - Manually

- 1) From the 4Sight2 menu, click **Test Equipment** to display the **Test Equipment** page.

The screenshot shows the 'Test Equipment' page in the 4Sight2 application. The page title is 'Test Equipment' and there is an 'Actions' dropdown menu. The main content area displays a table with the following data:

Equipment Name	Status	Calibration Due
DPI620G-001	Available	08-May-2019
DPI620G-002	Available	07-May-2019
DPI620-001	Available	01-May-2019

At the bottom of the table, there is a 'Rows per page' dropdown set to '10' and a pagination indicator showing '1-3 of 3' with a page number '1' highlighted. The sidebar menu includes options like Dashboard, Calibration, Assets, Routines, Test Equipment (selected), Resources, License, and Help. The footer contains links for Privacy, Terms, Contact, Accessibility, Cookies, and the Baker Hughes logo.

The Test Equipment home page displays equipment's status and its Calibration due date. **Status**- displays the current status (Available/In Use), **Calibration Due**- displays the calibration due date.

- 2) From **Action** drop-down select **Add Equipment** to display the **Create Test Equipment** page.

The screenshot shows the 'Create Test Equipment' form in the Druck 4Sight2 interface. The form is titled 'Create Test Equipment' and has a 'Back' button. The form is divided into sections for 'TEST EQUIPMENT DETAILS'. The fields are as follows:

Field	Value
Name	TE22
Serial Number	1212121
Manufacturer	GE DRUCK
Model	PACE1000
Purchased	01/23/2019
Last Calibration	01/23/2019
Calibration Interval	10 Days
Firmware Version	2.1

Buttons: Reset, Cancel, Create

3) Enter the following


- **Name:** Enter the name of the equipment
- **Serial Number:** Enter the serial number of the equipment
- **Manufacturer*:** Enter the name of the equipment manufacturer
- **Model*:** Enter the model number of the equipment
- **Purchased:** Select the date, month and year of purchase
- **Last Calibration:** Select the last calibration date
- **Calibration Interval:** Select the days for calibration interval
- **Firmware Version:** Enter the firmware version number

** New Test Equipment Models and Manufactures can be added in the System Configuration using the Calibrators section.*

- 4) Click **Create** to update the equipment information. Successful creation of the equipment message will be displayed.
- 5) Clicking the name of the test equipment displays equipment details along with its image as below.

< Back
TestEquipment1
Actions ▼

EQUIPMENT DETAILS

	Name TestEquipment1	Model PACE5000	Equipment Status Available
	Serial Number ABCD12349865	Manufacturer GE DRUCK	
	Purchased 20-Mar-2019	Firmware Version 2	

CALIBRATIONS IN PROGRESS

No Calibrations In Progress

DOCUMENTATION

No linked document(s) found +

Creating Test Equipment - Automatically

Test equipment is automatically created, if the user has the permissions required, upon attempting to send a range test to a calibrator which is not known within 4Sight2.

If a piece of test equipment is connected, the calibration and serial number details are used to create a test equipment entry.

Warning

Test equipment not present in 4Sight application

CREATE TEST EQUIPMENT

Name <input type="text" value="Name"/>	Model DPI620G	
Serial Number 302456	Manufacturer GE DRUCK	
Purchased <input type="text" value="05/09/2018"/>	Last Calibration 06-Dec-2017	Calibration Interval 390 Days

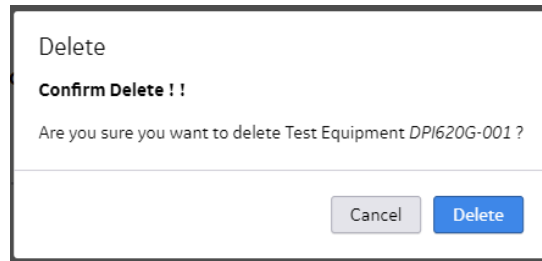
Editing Test Equipment

- 1) From the 4Sight2 menu, click **Test Equipment** to display the **Test Equipment** page.
- 2) Select the test equipment from the list to edit.
- 3) From **Action** drop-down select **Edit Details** to display the **Update Test Equipment** page.
- 4) After modifying the test equipment details, click **Update** to update the details.

Deleting Test Equipment

NOTE: The test equipment cannot be deleted if a calibration is in process or range data is related to the test equipment.

- 1) From the 4Sight2 menu, click **Test Equipment** to display the **Test Equipment** page.
- 2) Select the test equipment from the list to delete.
- 3) From the **Action** drop-down select **Delete** to display the confirm delete page.



- 4) Click **Delete** to delete the selected test equipment.

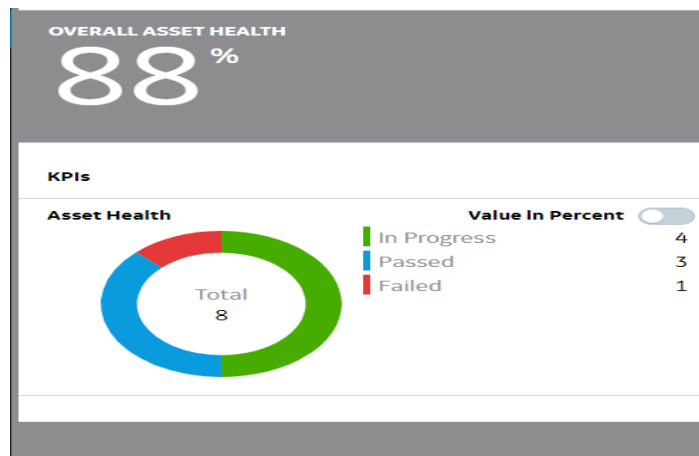
KPI Dashboard

On Login to 4Sight2, the Key Performance Indicator, (KPI), dashboard will be displayed.

For a new application install, where no asset/test equipment data has been populated, the KPI display will be populated with demo data & grayed out to indicate that it is not yet active.

The screenshot displays the 4Sight2 KPI Dashboard. The interface includes a dark sidebar on the left with navigation options: Dashboard (selected), Calibration, Assets, Routines, Test Equipment, Resources, License, and Help. The main content area is titled 'Dashboard' and features two large grayed-out KPI cards at the top: 'OVERALL ASSET HEALTH' and 'TEST EQUIPMENT AVAILABILITY', both showing '0 %'. Below these is a 'KPIs' section with a refresh button and a timestamp: 'Last refreshed on Thursday 10-May-2018 12:59:40'. This section contains two smaller grayed-out cards: 'Asset Health' and 'Test Equipment Status', both showing 'Total 0'. Each card has a 'Value In Percent' toggle switch. The user 'Admin' is logged in, as shown in the bottom left. The footer contains links for Privacy, Terms, Contact, Accessibility, and Cookies, along with the Baker Hughes logo (a GE company).

OVERALL ASSET HEALTH KPI



Passed- This status indicates that all ranges on the asset have passed calibration & are within defined tolerances.

Needs Calibration - This status indicates that an asset is due for calibration from the schedule defined by the routine/procedure linked to the asset.

The exact Needs Calibration status can be determined by viewing those assets under ASSETS dashboard - Advanced search, ().

Due - Range is within the defined calibration due tolerance.

Past Calibration Date - Range is past its calibration date, but not beyond the defined overdue tolerance.

Overdue - Range is beyond the defined calibration overdue tolerance.

In Progress - This status indicates that an asset procedure, (or procedures for a device with multiple ranges), has been downloaded to a portable calibrator & that the calibration is currently in progress. The In Progress status remains valid until the procedure(s) have been completed, uploaded back into 4Sight2, reviewed & completed by the technician, reviewed & approved, (or rejected), by the approver.

Status will then change from In Progress, to Passed, Needs Adjustment or Failed as determined by the individual range specifications.

Needs Adjustment - This status indicates that one, (or more), ranges on an asset are within the defined overall Pass/Fail tolerance, but have exceeded the defined adjustment tolerance & adjustment is recommended/needed to maintain range accuracy.

Example: - If an asset has 3 ranges, 2 of which pass, but one requires adjustment, the overall status of the asset will show as Needs Adjustment in the KPI.

Failed - This status indicates that one, (or more), ranges on an asset are outside of the defined overall Pass/Fail tolerance.

Example: - If an asset has 3 ranges, 2 of which pass, but one has failed, the overall status of the asset will show as Failed in the KPI.

Unknown - This status indicates that asset range(s) have been created, but have not been linked to a test procedure. (This status will only be displayed if all the ranges of an asset do not have a linked procedure).

Example: - If an asset has 3 ranges, all with linked procedures, then Unknown will be the displayed status for that asset. If one, (or more), of the ranges is then linked to a routine/procedure pair within the 4Sight™2 application, the status of that asset will change to Passed.

Please Note: The 4Sight2 application assumes that upon linking a new asset to a routine/procedure pair that the asset has passed its previous calibration. Therefore, it is the Administrator/Supervisor's responsibility when first linking an asset within the 4Sight2 application to ensure that the asset passed its previous calibration, the calibration date of the asset is correct and matches the calibration certificate issued. Calibration certificates can be uploaded and stored within the 4Sight™2 application for each asset.

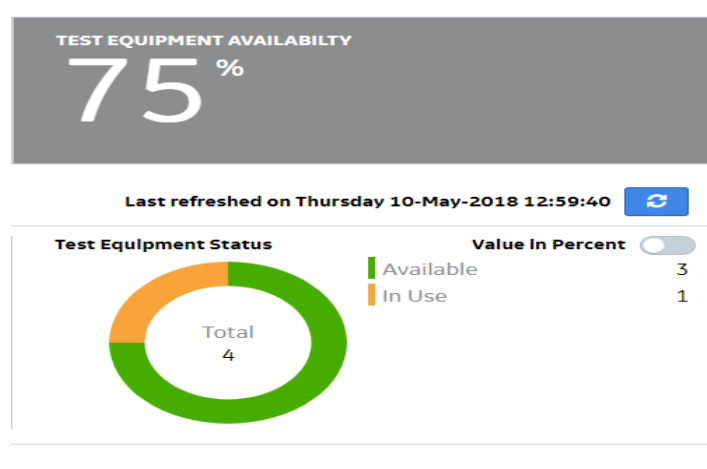
(Example in Figure 3 below would give an overall asset status of Needs Adjustment as 2 of 3 ranges have been tested within the 4Sight2 application).

Note: - If an asset becomes inactive, or is moved to an inactive location, it is not considered for KPI.

AVAILABLE EQUIPMENT KPI

The Available Equipment KPI displays the current status of the test equipment.

For a new application install, where no asset/test equipment data has been populated, the KPI display will be populated with demo data & greyed out to indicate that it is not yet active.



Test Equipment Status shows total number of test equipment available for use and availability status.

Available- Test equipment is available for download of procedures to perform calibrations.

In Use - Test Equipment is currently in use to perform calibrations.

Performing a Calibration

The Calibration module helps you to manage the calibration records of Devices. Setting up the calibration requires understanding the task on which calibration range can be executed with the device available. The 4Sight2 application allows the following calibrations:

- **Portable Calibration:** For use with a calibrator that supports USB communications. The range, procedure and routine can be sent to the calibrator through USB communications port from 4Sight2 application and the calibration results can be received from the calibrator to 4Sight2 through USB communications port.
- **Manual Calibration:** For use with a calibrator that does not support USB communications. Based on the range, procedure and routine assigned the technician has to execute calibration task and manual enter the calibration data to 4Sight2 application.
- **Automated Calibration:** For use with a calibrator and controller that supports USB communications. The range, procedure and routine can be sent to the controller which sends input to the device under calibration with the help of external pressure source and the calibrator fetches the results to the 4sight™2 application with the help of USB communications.

Adhoc Calibration

Adhoc Calibration helps the user to perform the calibration whenever needed irrespective of the calibration schedule. Admin will create the new range and link it with a procedure and a routine and send it to technician and approver for calibration. If the status is Adhoc, then the due date of the calibration will be changed to the current date which means calibration must be performed immediately by the technician.

Benefits of adhoc feature:

- Technician can select a different procedure than its already linked while performing the calibration.
- Adhoc will not affect the actual scheduling date.

To perform an adhoc calibration, refer to [Performing an Adhoc calibration](#)

Advanced Search

The Advanced Search option helps to list the ranges with their calibration schedule and identify with **On Time** status ranges that can be added to Work List. This helps the technician to perform the calibration before the Calibration due date.

From Assets home page click on Search to list the ranges with its status.

ADVANCED SEARCH Actions

Selected (0)	Range	Tag	Location	Assigned To	Due Date ▲	Priority	State	Allocated List	Approver
<input type="checkbox"/>	<input type="text" value="Filter"/>	<input type="text" value="Filter"/>	<input type="text" value="Filter"/>	<input type="button" value="Select"/>		<input type="button" value="Select"/>	<input type="button" value="Select"/>	<input type="button" value="Select"/>	<input type="button" value="Select"/>
<input type="checkbox"/>	0 to 1 bar 002		Boiler Room		01-Aug-2017	Medium	Overdue		
<input type="checkbox"/>	0 to 1 bar 001		Boiler Room		04-Aug-2018	Medium	On Time		
<input type="checkbox"/>	0 to 1 bar 003		Boiler Room		04-Aug-2018	Medium	On Time		
<input type="checkbox"/>	0 to 1 bar 004		Boiler Room		04-Aug-2018	Medium	On Time		

Rows per page 1-4 of 4 1

Select the ranges with **On Time** status and click **Add to Work List**.

Assigning a Range to Technician and Approver

- 1) From 4Sight2 navigation menu, click on **Assets** to display the Assets page.
- 2) Click on the magnifying glass to display the list of calibration ranges.

(2) Total Items · (0) Selected

Assign Technician Assign Approver

Selected (0)	Range	Tag	Location	Assigned To	Due Date ▲	Priority	Status	Allocated List	Approver
<input type="checkbox"/>	<input type="text" value="Filter"/>	<input type="text" value="Filter"/>	<input type="text" value="Filter"/>	<input type="button" value="Select"/>		<input type="button" value="Select"/>	<input type="button" value="Select"/>	<input type="button" value="Select"/>	<input type="button" value="Select"/>
<input type="checkbox"/>	Range 1		Location 1	techuser1	29-Mar-2019	Critical	Adhoc		approveruser1
<input type="checkbox"/>	Switch		Location 1		29-Aug-2019	Critical	On Time		

Rows per page 1-2 of 2 1

- 3) To assign a range to technician click on the check box next to the range.

(2) Total Items - (1) Selected

Selected (1)	Range	Tag	Location
<input type="checkbox"/>	Filter	Filter	Filter
<input type="checkbox"/>	Range 1		Location 1
<input checked="" type="checkbox"/>	Switch		Location 1

Assign Technician

Select

- manadeep
- admin
- techuser1
- approveruser1

Assign Approver

Select

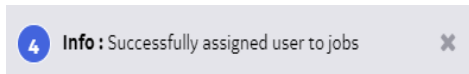
Assign

Priority	Status	Allocated List	Approver
Select	Select	Select	Select
Critical	Adhoc		approveruser1
Critical	On Time		

Rows per page 10 1-2 of 2 < 1 >

Cancel **Add to Worklist**

- 4) From **Assign Technician** drop-down select the technician from the list displayed.
- 5) From **Assign Approver** drop-down select the approver from the list displayed and click **Assign**.
- 6) If you click **Add to Worklist** without selecting the user on Assign Technician and Assign Approver drop down, the task will be assigned to default technician and approver set on the create range screen.
- 7) The range is assigned to Technician's and Approver's work list only if the range is due and adhoc, if it is On Time then it is not added to the work list and the successful message will be displayed.



Work List

The Work List helps the user to Add, Remove and Clear items to their work list.

- **Add to Work List**- the selected items will be added to user's work list
- **Remove from Work List** - the selected items will be removed from the user's work list
- **Clear Work List**- all the items will be removed from the user's work list

Based on your role (Approver or Technician) you can either add the calibration results or approve the calibration results.

For Technician roles or person handling calibration requests, the calibration screen displays the list of ranges assigned.

For Approver roles, the calibration screen displays the list of calibration results to be approved.

Performing an Adhoc calibration

The Admin has the access to change the status of calibration to adhoc whenever required. Follow the below steps to create adhoc calibration:

- 1) Create a new range for the device which requires calibration, refer to CreatingRanges.
- 2) Link a procedure and a routine to the range on the create range screen.
- 3) Click on the magnifying glass on the Assets page to display the list of calibration ranges.

- 4) Select the range and assign it to a Technician and an Approver and then click Assign. Refer to [Assigning a Range to Technician and Approver](#).
- 5) Then the range will be assigned to the Admin and Technician work list as an Adhoc status

ASSET MANAGEMENT ▾ 🔍 0 Items in Work List

ASSET RANGES Actions ▾

Location	Tag	Device	Range	Device Type	Priority	Cal Status	State	Due Date
Filter	Filter	Filter	Filter	Select ▾	Select ▾	Select ▾	Select ▾	
Location 1		RTX1000-002	Range 1	Pressure	Critical	Adhoc	Ready	02-Apr-2019
Location 1		RTX1000-002	Switch	Pressure	Critical	Adhoc	Ready	02-Apr-2019
Location 1		RTX1000-003	0-5 bar	Pressure	Critical	Unknown	Not Assigned	

Rows per page 10 ▾ 1-3 of 3 < 1 >

Technician

Sending to Calibrator

- 1) From the 4Sight2 navigation menu, click on **Assets** to display the Assets page.
- 2) From Assets page, click on **Item in Work list** to display the list of calibration work assigned.
- 3) The number displayed on the button indicated the number of items currently in your work list. The Colour of the button will also change depending on the status of the items in the work list.

RED	Overdue
ORANGE	Due
BROWN	Adhoc
BLUE	On Time
GREEN	In Progress

WORK LIST (3) Total Items - (0) Selected

Selected (0)	Range	Tag	Location	Assigned To	Due Date ▲	Priority	Status	Allocated List	Approver
<input type="checkbox"/>	Filter	Filter	Filter	Select ▼		Select ▼			
<input type="checkbox"/>	Range_0_10_bar		Compressor Section	tech	01-Feb-2019	Critical	On Time	Automated	admin
<input type="checkbox"/>	Range_0_2000_mbar		Compressor Section	tech	01-Feb-2019	Critical	Adhoc	Automated	admin
<input type="checkbox"/>	Range_4_20_mA		Compressor Section	tech	01-Feb-2019	Critical	Adhoc	Automated	admin

Rows per page 10 1-3 of 3 < 1 >

Cancel

Actions

- Send to Portable Calibration
- Send to Manual Calibration
- Send to Automated Calibration
- Remove Selected Items

- 4) The Work List page displays the ranges assigned with the following information:
- **Total Items** - Number of items in the work list
 - **Selected Items** - Number of items selected
 - **Range**- The range to be used for calibration
 - **Tag** - Tag the device is located at
 - **Location**- The location of the device to be calibrated
 - **Assigned To** - The Technician
 - **Due Date** - When the calibration needs to take place
 - **Priority** - The priority of the task
 - **Status** - The status can be one of the following: On Time, In Progress, Due, Past Calibration Date, Adhoc and Overdue. Work list item with status Due, Past Calibration Date, Adhoc or Overdue will be displayed automatically. The work list item status will change to **In Progress**, once the range has been sent to the calibrator.
NOTE: If the status is Adhoc, then the due date will be the current date which means technician must perform the calibration immediately
 - **Allocated List**- This will state whether this range has been sent to the portable or the manual list
 - **Approver** - The person who will be approving the calibration.
- 5) Click on the assigned range to display the range information.
- 6) The user can either select to send range to the Portable or Manual Calibration or Automated Calibration list to perform the calibration.

Portable Calibration

Portable Calibration is the method by which calibration is performed on the Portable Calibrator which supports USB communications function.

Technician

- 1) Navigate to Work List on the Assets page.
- 2) To select the range, click on the respective range check boxes that has to be executed through Portable Calibration and click **Send to Portable Calibrator**.

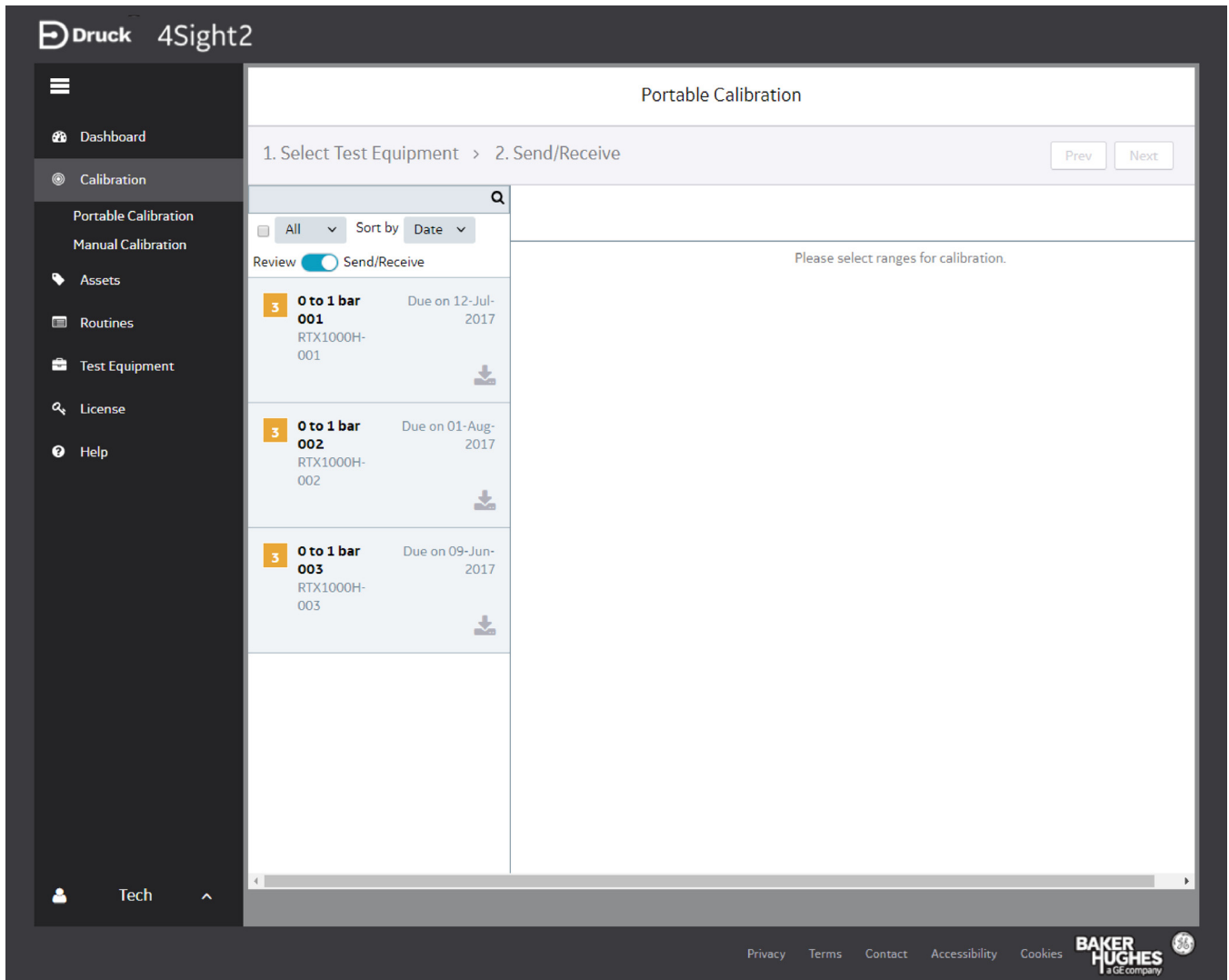
The screenshot shows a 'WORK LIST' interface with the following data:

Selected (0)	Range	Tag	Location	Assigned To	Due Date	Priority	Status	Category	Admin
<input type="checkbox"/>	Filter	Filter	Filter	Select		Select			
<input type="checkbox"/>	Range_0_10_bar		Compressor Section	tech	01-Feb-2019	Critical	A	Automated	admin
<input type="checkbox"/>	Range_0_2000_mbar		Compressor Section	tech	01-Feb-2019	Critical	Adhoc	Automated	admin
<input type="checkbox"/>	Range_4_20_mA		Compressor Section	tech	01-Feb-2019	Critical	Adhoc	Automated	admin





An 'Actions' menu is open over the table, showing options: Send to Portable Calibration, Send to Manual Calibration, Send to Automated Calibration, and Remove Selected Items.

At the bottom right, there is a 'Rows per page' dropdown set to 10, a page indicator '1-3 of 3', and a 'Cancel' button.




- 3) The range will now appear in the Portable Calibration List - 4Sight2 will redirect you to this page. Or from 4Sight2 menu, click **Calibration > Portable Calibration** to display the calibration ranges assigned.



4) Understanding the priority of task by its color:

Color	Priority
	Critical
	High
	Medium
	Low

5) Understanding the status of task by its icon:

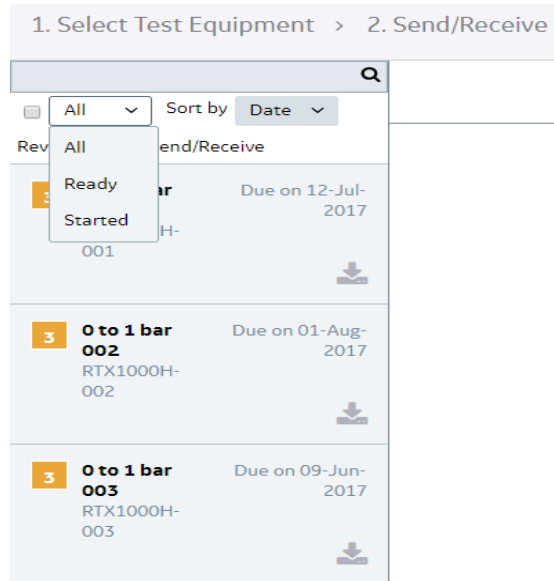
Calibration State Icon	Status
	Range is assigned to the Technician
	Range has been sent to the test equipment or the range results have been uploaded but are yet to be completed by the Technician
	Range test is completed by the Technician and the test is waiting for Approval

To send multiple range tests to a connected piece of Test equipment:-

- 1) Ensure the Portable Calibration screen is working in Send/Receive mode by selecting the toggle switch at the top of the screen. Note: this should default to Send/Receive upon entry to this page.



- 2) Select one or many range tests to send by selecting and highlighting each test by hand or by using the filter at the top of the screen which enables auto selection based upon the Calibration State of each test.



- 3) Connect the calibrator device to the system through USB port
- 4) Select the Port and Calibrator from the drop-downs. The Calibrator drop-down automatically populates the details of Druck devices connected. If this box is empty, please check your device connections and refresh the display. If the box remains empty and the connected device is not recognized then refer to the Troubleshooting section of this document.

Portable Calibration

1. Setup > 2. Upload > 3. As Found > 4. As Left > 5. Summary Prev Next

Search

All Sort by Date

Review Send/Receive

Select Test Equipment

Port :

Test Equipment :

#	Description	Due on	
3	O to 1 bar 001 RTX1000H-001	12-Jul-2017	<input type="button" value="Download"/>
3	O to 1 bar 002 RTX1000H-002	01-Aug-2017	<input type="button" value="Download"/>
3	O to 1 bar 003 RTX1000H-003	09-Jun-2017	<input type="button" value="Download"/>

- 5) Select the Port and Calibrator from the drop-downs. The Calibrator drop-down populates the details of Druck devices connected. If this box is empty, please check your device connections and refresh the display. If the box remains empty and the connected device is not recognized then refer to the Troubleshooting section of this document.
- 6) Upon selection of a calibrator, the calibration date and due date stored within the calibrator are checked against the dates held within the Test Equipment section of 4Sight2. If the calibration dates do not match, then the following warning is displayed and it is the Technician's responsibility to confirm the correct calibration dates are present in 4Sight2 before continuing to use the Test Equipment for calibration.

Warning !

Calibration dates for this Test Equipment do not match those stored in 4Sight2. Please contact your system administrator.

- 7) The **Erase Test Equipment** button can be used to completely erase the connected calibrator memory before a send. However, it should be noted that this will completely remove any existing

range test results which are present upon the calibrator at this point. It is recommended that it is confirmed prior to performing this erase that all results have been successfully uploaded to 4Sight2.

- 8) Once the test equipment for send is displayed, select **Continue** to send to this test equipment.

The screenshot shows the 'Portable Calibration' software interface. At the top, it says 'Portable Calibration' and '1. Select Test Equipment > 2. Send/Receive'. There are 'Prev' and 'Next' buttons. On the left sidebar, there is a search bar and a list of test equipment items:

- 3 0 to 1 bar 001 RTX1000H-001 Due on 12-Jul-2017
- 3 0 to 1 bar 002 RTX1000H-002 Due on 01-Aug-2017
- 3 0 to 1 bar 003 RTX1000H-003 Due on 09-Jun-2017

The main area is titled 'Send/Receive' and shows the selected test equipment: 'GE Druck -- DPI620G -- 302456'. Below this, there is an 'ENVIRONMENT' section with input fields for 'Ambient Pressure' (1013 mbar), 'Relative Humidity' (70 %RH), and 'Temperature' (20 °C). A warning message states: 'Environmental Variables are not applicable for Sending to Test Equipment process.' Below that is a 'CALIBRATION(S)' table with columns: Selected (3), Range, Tag, Location, Result Available, Filename, Procedure, and Opera. The table contains three rows of selected calibration items:

Selected (3)	Range	Tag	Location	Result Available	Filename	Procedure	Opera
<input checked="" type="checkbox"/>	0 to 1 bar 001		Boiler Room	No	RTX1000H-001_20	i	
<input checked="" type="checkbox"/>	0 to 1 bar 002		Boiler Room	No	RTX1000H-002_21	i	
<input checked="" type="checkbox"/>	0 to 1 bar 003		Boiler Room	No	RTX1000H-003_22	i	

At the bottom of the main area, there are buttons for 'Abort', 'Receive from Test Equipment', and 'Send to Test Equipment'. The 'Send to Test Equipment' button is highlighted in blue. There is also a pagination control showing 'Rows per page 10' and '1-3 of 3' with a page indicator '1'.

- 9) The Send/Receive screen contains a table which displays information about the range tests selected for send. The table displays Range/Tag and Location information to help identify the DUT. It also displays the filename of the range test as it will appear on the test equipment and if previous calibration results already exist for this test on the connected test equipment.

NOTE: The test environment values displayed at the top of this screen are for upload use only

GE Druck -- DPI620G -- 302456

ENVIRONMENT

Ambient Pressure: 1013 mbar Relative Humidity: 70 %RH Temperature: 20 °C

Environmental Variables are not applicable for Sending to Test Equipment process.

CALIBRATION(S)

Selected (3)	Range	Tag	Location	Result Available	Filename	Procedure	Opera
<input type="checkbox"/>	Filter	Filt	Filter	Filter	Filter		Filter
<input checked="" type="checkbox"/>	0 to 1 bar 001		Boiler Room	No	RTX1000H-001_20	i	
<input checked="" type="checkbox"/>	0 to 1 bar 002		Boiler Room	No	RTX1000H-002_21	i	
<input checked="" type="checkbox"/>	0 to 1 bar 003		Boiler Room	No	RTX1000H-003_22	i	

Rows per page: 10 1-3 of 3

Abort Receive from Test Equipment Send to Test Equipment

10) Select the range tests from the table for send and select **Send to Test Equipment**.

Druck 4Sight2

Portable Calibration

1. Select Test Equipment > 2. Send/Receive

Send/Receive

GE Druck -- DPI620G -- 302456

ENVIRONMENT

Ambient Pressure: 1013 mbar Relative Humidity: 70 %RH Temperature: 20 °C

Environmental Variables are not applicable for Sending to Test Equipment process.

CALIBRATION(S)

Selected (0)	Range	Tag	Location	Result Available	Filename	Procedure	Opera
<input type="checkbox"/>	Filter	Filt	Filter	Filter	Filter		Filter
<input type="checkbox"/>	0 to 1 bar 001		Boiler Room	No	RTX1000H-001_20	i	Success
<input type="checkbox"/>	0 to 1 bar 002		Boiler Room	No	RTX1000H-002_21	i	Success
<input type="checkbox"/>	0 to 1 bar 003		Boiler Room	No	RTX1000H-003_22	i	Success

Rows per page: 10 1-3 of 3

Processed 3 of 3

Abort Close Receive from Test Equipment Send to Test Equipment

Success Successfully sent range to test equipment

Success Successfully sent range to test equipment

Success Successfully sent range to test equipment

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Druck 4Sight2

Portable Calibration

1. Select Test Equipment > 2. Send/Receive

Send/Receive

GE Druck -- DPI620G -- 302456

ENVIRONMENT

Ambient Pressure: 1013 mbar Relative Humidity: 70 %RH Temperature: 20 °C

▲ Environmental Variables are not applicable for Sending to Test Equipment process.

CALIBRATION(S)

Range	Tag	Location	Result Available	Filename	Procedure	Operation Status
TCProbe 100 degC		Boiler Room	No	TCProbe-001_63		Failed

Processed 1 of 1

Buttons: Abort, Close, Receive from Test Equipment, Send to Test Equipment

Footer: Privacy, Terms, Contact, Accessibility, Cookies, BAKER HUGHES a GE company

11) If any ranges fail to send then they will display an Operation Status of **Failed**. In this case the mouse can be used to hover over each Failed result and the failed message will be displayed. In the example above the Failure were due to an unsupported RTD probe.

Druck 4Sight2 Portable Calibration

Error Sending to Test Equipment Procedure Failed Details : Temperature probe is not supported

1. Select Test Equipment > 2. Send/Receive

Send/Receive

GE Druck -- DPI620G -- 302456

ENVIRONMENT

Ambient Pressure: 1013 mbar Relative Humidity: 70 %RH Temperature: 20 °C

Environmental Variables are not applicable for Sending to Test Equipment process.

CALIBRATION(S)

Range	Tag	Location	Result Available	Filename	Procedure	Operation Status
TCProbe 100 degC		Boiler Room	No	TCProbe-001_63		Failed

Processed 1 of 1

Buttons: Abort, Close, Receive from Test Equipment, Send to Test Equipment

Footer: Privacy, Terms, Contact, Accessibility, Cookies, BAKER HUGHES a GE company

- 12) Any ranges, which have previously been sent to the calibrator, will not be sent again if selected as part of another batch. In this situation, the range test is marked as N/A in the Operation Status column.

Druck 4Sight2

Portable Calibration

1. Select Test Equipment > 2. Send/Receive

Send/Receive

GE Druck -- DPI620G -- 302456

ENVIRONMENT

Ambient Pressure: 1013 mbar
 Relative Humidity: 70 %RH
 Temperature: 20 °C

Environmental Variables are not applicable for Sending to Test Equipment process.

CALIBRATION(S)

Selected (1)	Range	Tag	Location	Result Available	Filename	Procedure
<input type="checkbox"/>	0 to 1 bar 001		Boiler Room	No	RTX1000H-001_20	?
<input type="checkbox"/>	0 to 1 bar 002		Boiler Room	No	RTX1000H-002_21	?
<input type="checkbox"/>	0 to 1 bar 003		Boiler Room	No	RTX1000H-003_22	?
<input checked="" type="checkbox"/>	Electrical 4 to 20 mA		Boiler Room	Yes	Electrical-001_65	?

Rows per page: 10 | 1-4 of 4 | 1

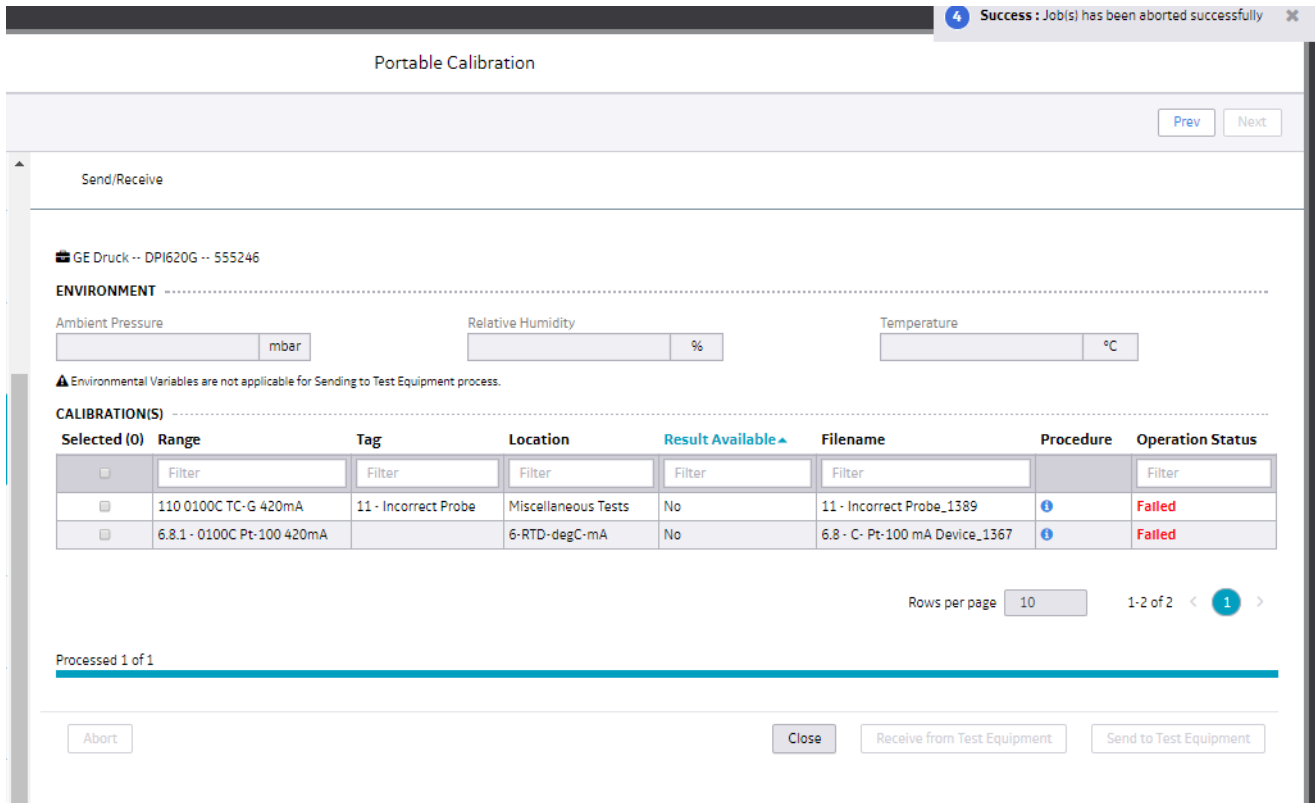
Buttons: Abort, Receive from Test Equipment, Send to Test Equipment

Footer: Privacy, Terms, Contact, Accessibility, Cookies, BAKER HUGHES GE company

13) If any tests have been sent to the calibrator in error, these can be Aborted by selecting the test(s) and selecting **Abort**.

Abort Calibration

Warning! Calibration results will be lost. Do you wish to continue?

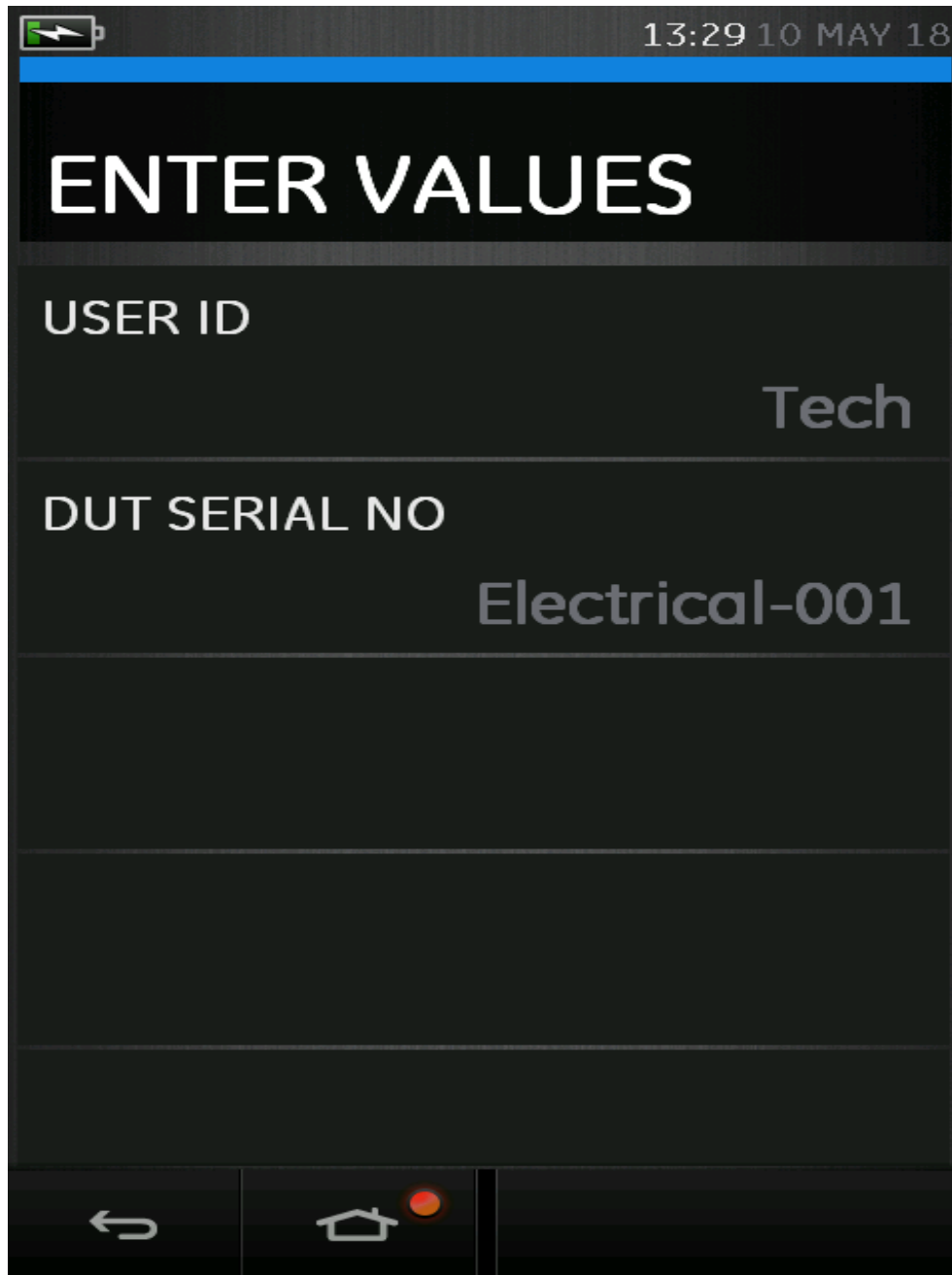


NOTE: Aborting a test will remove it from the Technician's Portable Calibration screen. Any results within 4Sight2 will also be lost but the test and any associated result data will not be removed from the Test Equipment.

- 14) Once all required tests are successfully sent select **Close**.
- 15) The range and procedure data sent from 4Sight2 will be published in the calibrator. Upon successful send, the range and procedure data sent from 4Sight2 shall be available in the Documenting section of the calibrator.

During Calibration

- 16) Navigate to the desired procedure in the Documenting section of the calibrator and confirm the auto populated values for UserID and DUT Serial Number in the Test Details section in the Calibrator. These details are automatically transferred from 4Sight2 and should be checked before the Calibration process is initiated. To know more about Calibrator operating steps, please refer to the Calibrator's manuals.



NOTE: If the UserID and serial number details are displayed differently to the picture above then please ensure you are using the correct Test Equipment firmware version(s) as defined in section Test Equipment of this document. For DPI620 or DPI620-IS, the UserID and serial number will appear displayed upon the top line as suggested entries and the user will need to manually enter this data.

- 17) Based on the test points specified in the procedure and the range Input Min/Max value specified in the range, the test point values are presented in the calibrator and calibration happens for each test point.

- 18) On completion of calibration for each test point, the results are saved in As Found results. The first time results of calibration procedure are saved as AsFound and all the subsequent test results are stored in the AsLeft results. These results can be viewed on the calibrator in tabular and graphical form before uploading.

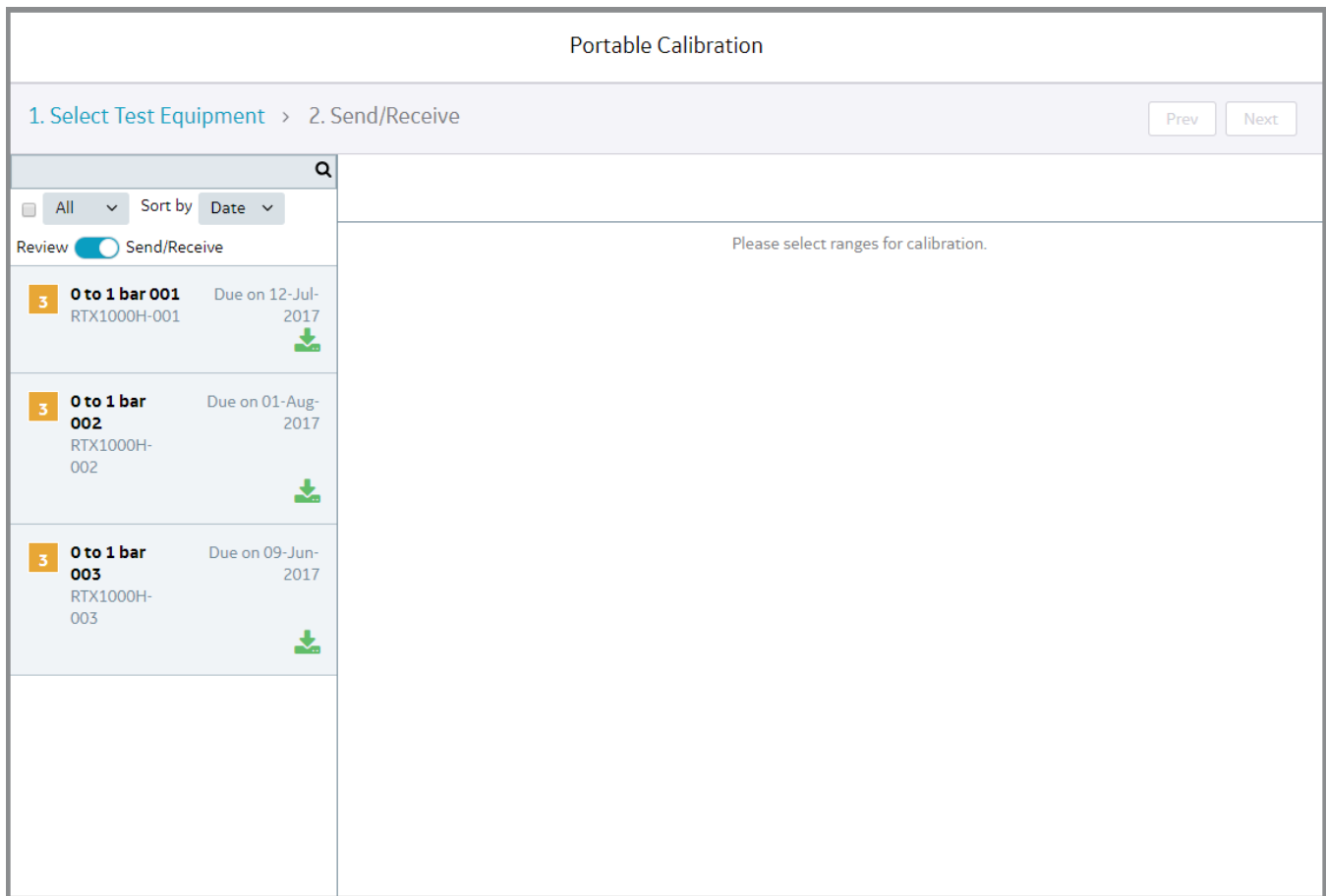
Receiving from Calibrator

To receive multiple range tests from a connected piece of Test equipment:-

- 19) Ensure the **Portable Calibration** screen is working in **Send/Receive** mode by selecting the toggle switch at the top of the screen.

NOTE: This should default to Send/Receive upon entry to this page

Review Send/Receive



- 20) Select one or many range tests to receive by selecting and highlighting each test by hand or by using the filter at the top of the screen which enables auto selection based upon the Calibration State of each test.

NOTE: Range tests which are available for receive are displayed with



Portable Calibration

1. Select Test Equipment > 2. Send/Receive Prev Next

Review Send/Receive

- 3
0 to 1 bar 001
Due on 12-Jul-2017
- 3
0 to 1 bar 002
Due on 01-Aug-2017
- 3
0 to 1 bar 003
Due on 09-Jun-2017
- 3
Electrical 4 to 20 mA
Due on 09-Aug-2018

Select Test Equipment

Port :

Test Equipment : ↻

Reset
Erase Test Equipment Memory
Continue

- Dashboard
- Calibration
- Portable Calibration
- Manual Calibration
- Assets
- Routines
- Test Equipment
- License
- Help

HJTech

Portable Calibration

1. Select Test Equipment > 2. Send/Receive Prev Next

Review Send/Receive

- 3
6.1 - 0100C Cu-10 420mA
Due on 10/12/2017
- 3
6.10 - 0100C Pt-200 420mA
Due on 10/12/2017
- 3
6.5 - 0100C Ni-120 420mA
Due on 10/12/2017
- 3
6.8.2 - 0212F Pt-100 420mA
Due on 10/12/2017

Send/Receive

GE Druck -- DPI620G -- 555246

ENVIRONMENT

Ambient Pressure mbar Relative Humidity % Temperature °C

▲ Environmental Variables are not applicable for Sending to Test Equipment process.

CALIBRATION(S)

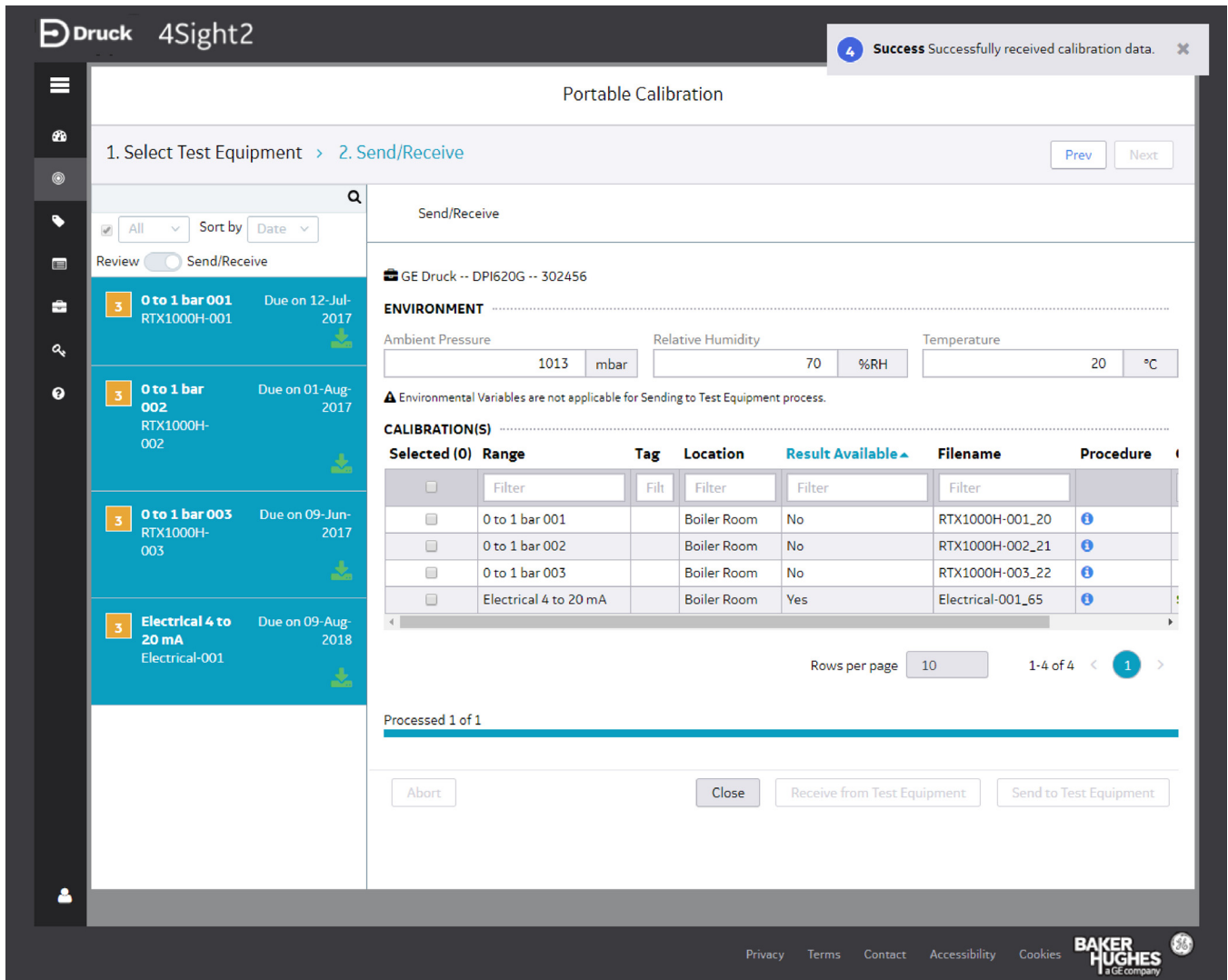
Selected (4)	Range	Tag	Location	Result Available	Filename	Procedure	Operation Status
<input type="checkbox"/>	6.1 - 0100C Cu-10 420mA		6-RTD-degC-mA	Yes	6.1 - C Cu-10 mA Device_1356		
<input checked="" type="checkbox"/>	6.10 - 0100C Pt-200 420mA		6-RTD-degC-mA	Yes	6.10 - C Pt-200 mA Device_1363		
<input checked="" type="checkbox"/>	6.5 - 0100C Ni-120 420mA		6-RTD-degC-mA	Yes	6.5 - C Ni-120 mA Device_1366		
<input checked="" type="checkbox"/>	6.8.2 - 0212F Pt-100 420mA		6-RTD-degC-mA	Yes	6.8 - C Pt-100 mA Device_1368		

Rows per page 1-4 of 4 1

Abort
Receive from Test Equipment
Send to Test Equipment

92

- 21) Range tests which contain test results on the connected test equipment are automatically selected and highlighted for upload.



- 22) Enter the environment for the tests to be received.
NOTE: The environment data entered here will be applied to each of the received tests. This data will be reviewed and can be changed upon review of the received test results prior to completing the calibration.
- 23) Select **Receive from Test Equipment** to receive the test results into the 4Sight2.

Portable Calibration

1. Select Test Equipment > 2. Send/Receive
Prev Next

All Sort by Date

Review Send/Receive

3 **0 to 1 bar 001** Due on 12-Jul-2017
 RTX1000H-001

3 **0 to 1 bar 002** Due on 01-Aug-2017
 RTX1000H-002

3 **0 to 1 bar 003** Due on 09-Jun-2017
 RTX1000H-003

3 **Electrical 4 to 20 mA** Due on 09-Aug-2018
 Electrical-001

Send/Receive

GE Druck -- DPI620G -- 302456

ENVIRONMENT

Ambient Pressure
 mbar

Relative Humidity
 %RH

Temperature
 °C

⚠ Environmental Variables are not applicable for Sending to Test Equipment process.

CALIBRATION(S)

	Tag	Location	Result Available	Filename	Procedure	Operation Status
	<input type="text" value="r"/>	<input type="text" value="Filter"/>	<input type="text" value="Filter"/>	<input type="text" value="Filter"/>		<input type="text" value="Filter"/>
	bar 001	Boiler Room	No	RTX1000H-001_20	i	
	bar 002	Boiler Room	No	RTX1000H-002_21	i	
	bar 003	Boiler Room	No	RTX1000H-003_22	i	
	cal 4 to 20 mA	Boiler Room	Yes	Electrical-001_65	i	Success

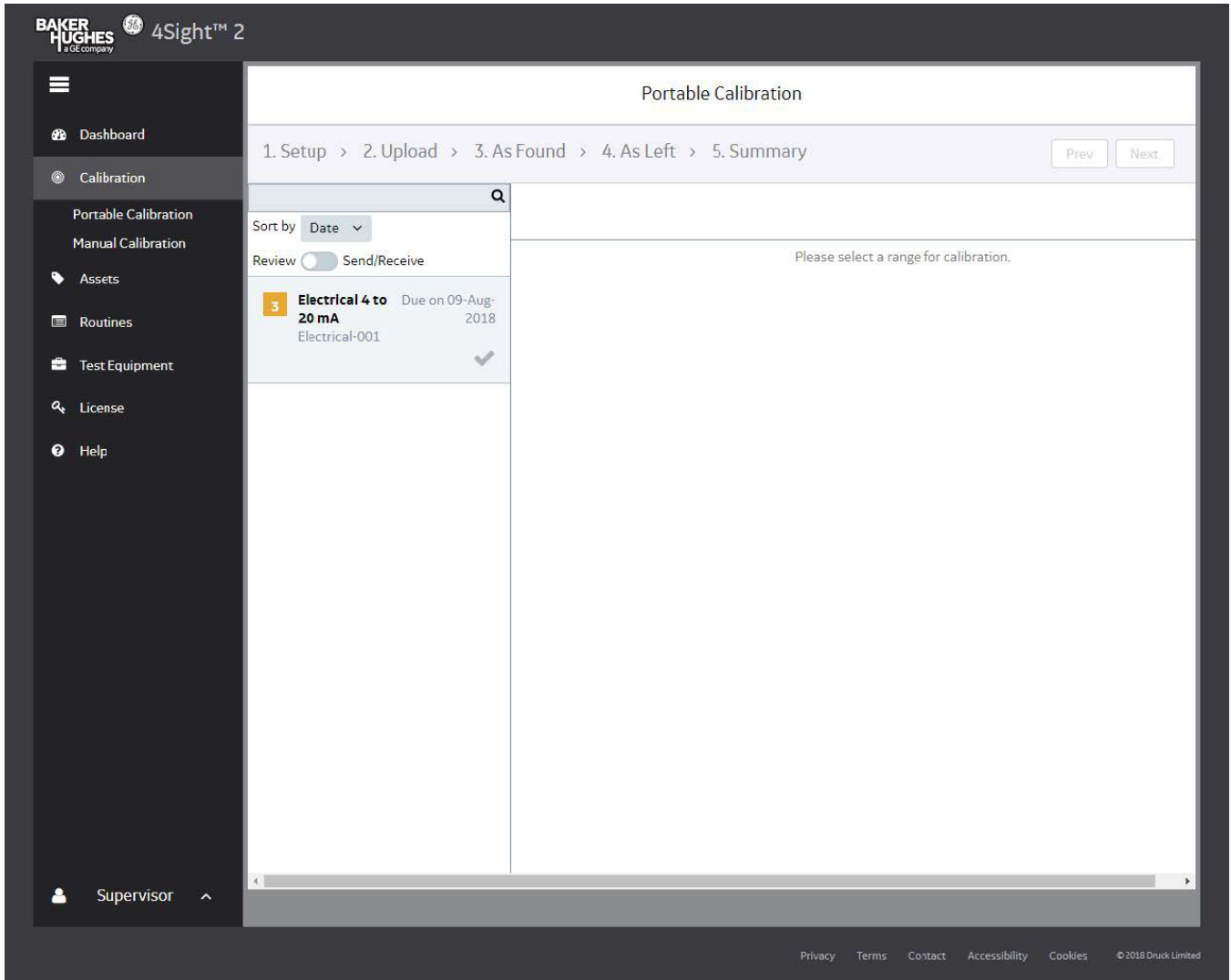
Rows per page 1-4 of 4 1

Processed 1 of 1

Abort
Close
Receive from Test Equipment
Send to Test Equipment

- 24) The operation status column will display the result of the receive operation. If any range test fails to be received then an error message will be displayed at the top of the screen and upon hovering over the Failed status the error message will also be displayed.
 - 25) If at this point any tests need to be aborted, then they can be selected and aborted as described above.
 - 26) Select close to complete the receive process.
- Completing Calibration**
- 27) Received results are reviewed by selecting Review at the top of the Portable Calibration menu.

Review Send/Receive



28) Each received result can be displayed by selecting the test.

Druck 4Sight2

Portable Calibration

1. Setup > 2. Upload > 3. As Found > 4. As Left > 5. Summary

3 0 to 1 bar 001 Due on 12-Jul-2017
RTX1000H-001

3 0 to 1 bar 002 Due on 01-Aug-2017
RTX1000H-002

3 0 to 1 bar 003 Due on 09-Jun-2017
RTX1000H-003

3 Electrical 4 to 20 mA Due on 09-Aug-2018
Electrical-001

Range Details
Serial No Electrical-001
Input 4 to 20 mA
Output 4 to 20 mA
I/O Ratio Linear
Max Error 5 % Span
Test Electrical-
Name 001_65

3 Electrical 4 to 20 mA
AS FOUND
09-May-2018 09:30
Passed
No Adjustment Required.

#	Calibration Set Point mA	Actual Applied mA	Actual Output mA	Deviation mA	% Error Span	Status
1	4.00000	4.00000	4.00660	0.00660	0.04125	Passed
2	8.00000	8.00000	8.01790	0.01790	0.11188	Passed
3	12.00000	12.00000	12.03880	0.03880	0.24250	Passed
4	16.00000	16.00000	16.05300	0.05300	0.33125	Passed
5	20.00000	20.00000	20.07480	0.07480	0.46750	Passed

min-Span max-Span min-Adjust max-Adjust As Found

%Error-Span

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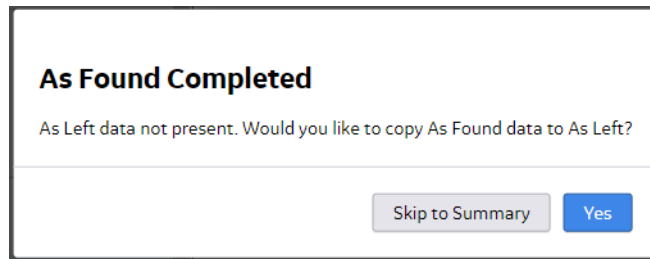
29) AsFound and AsLeft results will be displayed to the user in the form of a table and graph.

BLUE	Passed	Within the adjustment limit and max error limit
ORANGE	Need Adjustment	Within the max error limit but outside the adjustment limit
RED	Failed	Outside the max error limit

30) If another set of calibration for each test point is performed, then the results for those are saved as As Left results.

The cumulative status depends on the statuses of the different test points. If one of the test point is failed, then irrespective of status of other test points, the cumulative status is Failed. If out of two test points, if one test point status is Passed and the other test point status is Needs Adjustment, then the cumulative status is Needs Adjustment. Only if all the test points have status of Passed then the cumulative status is Passed.

- 31) When you have finished viewing the As Found results, click **Continue**. If the calibration procedure passes first time then as there is no adjustment needed there is no need to repeat the procedure to obtain As Left result. In this situation the calibrator will only contain the As Found results and as such the user is prompted to copy these results to As Left.



- 32) Click **Continue** to display the Summary page.

Druck 4Sight2

Portable Calibration

1. Setup > 2. Upload > 3. As Found > 4. As Left > 5. Summary

3 0 to 1 bar 001 Due on 12-Jul-2017
RTX1000H-001

3 0 to 1 bar 002 Due on 01-Aug-2017
RTX1000H-002

3 0 to 1 bar 003 Due on 09-Jun-2017
RTX1000H-003

3 Electrical 4 to 20 mA Due on 09-Aug-2018
Electrical-001

Range Details
Serial No Electrical-001
Input 4 to 20 mA
Output 4 to 20 mA
I/O Ratio Linear
Max Error 5 % Span
Test Electrical-
Name 001_65

ENVIRONMENT

Ambient Pressure 1013 mbar Relative Humidity 70 %RH Temperature 20 °C

Notes :
Add Notes... 0/500

I complete this calibration.
Tech 09-May-2018 09:42

Done

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- 33) On the Summary page for each range test, confirm the environment data is correct.
- 34) Enter any comments on the calibration performed or notes for the approver into the **Notes** box (characters < 500).

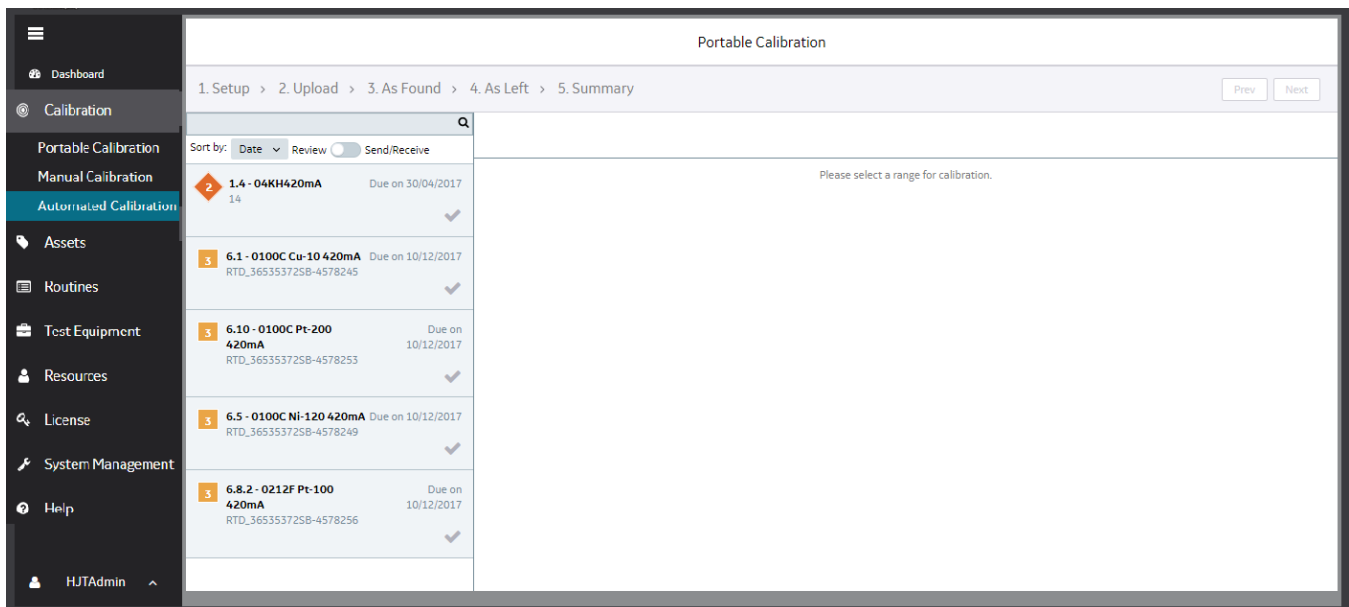
- 35) To approve the calibration click **I complete this calibration** check box to enable the **Done** button.
- 36) The Range will now be removed from your portable calibration list and will be sent to the Approver's Portable Calibration list.

Approver

Calibration Approval

- 37) To approve the Calibration work uploaded by the technician, login to 4Sight2 application through Approver login.
- 38) From the 4Sight2 menu click **Calibration > Portable Calibration** or **Manual Calibration** or **Automated Calibration** to view the calibration results.
- 39) Results ready for approval can be viewed by selecting the Review option at the top of the screen.

Review Send/Receive



- 40) Select the range you need to approve to view the As Found Details.

Portable Calibration

1. Setup > 2. Upload > 3. As Found/As Left > 4. Summary Prev Next

Sort by Date ▼

Review Send/Receive

3 Electrical 4 to 20 mA Due on 09-Aug-2018
Electrical-001

Range Details

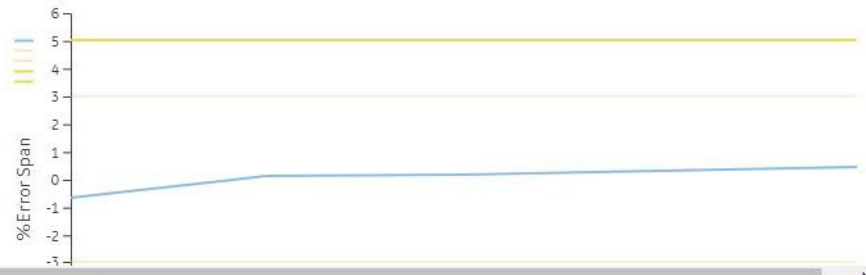
Serial No: Electrical-001
 Input: 4 to 20 mA
 Output: 4 to 20 mA
 I/O Ratio: Linear
 Max Error: 5 % Span
 Test: Electrical-
 Name: 001_65

3 Electrical 4 to 20 mA

AS FOUND/AS LEFT Passed
 09-May-2018 09:39 No Adjustment Required.

#	Calibration Set Point mA	Actual Applied mA	Actual Output mA	Deviation mA	% Error Span	Status
1	4.00000	4.00000	3.89610	-0.10390	-0.64937	Passed
2	8.00000	8.00000	8.01600	0.01600	0.10000	Passed
3	12.00000	12.00000	12.02690	0.02690	0.16813	Passed
4	16.00000	16.00000	16.05070	0.05070	0.31688	Passed
5	20.00000	20.00000	20.06970	0.06970	0.43563	Passed

min-Span max-Span min-Adjust max-Adjust As Found/As Left



- 41) The As Found screen displays the calibration results uploaded by the technician.
- 42) Click the **Continue** to view As Found page.
- 43) Click **Continue** to view the Summary page.

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1. Setup > 2. Upload > 3. As Found/As Left > 4. Summary Prev Next

Sort by Date ▼

Review Send/Receive

3 **Electrical 4 to 20 mA** Due on 09-Aug-2018
Electrical-001

Range Details

Serial No Electrical-001
Input 4 to 20 mA
Output 4 to 20 mA
I/O Ratio Linear
Max Error 5 % Span
Test Electrical-
Name 001_65

ENVIRONMENT

Ambient Pressure mbar Relative Humidity %RH Temperature °C

Technician Notes

OK

Done By : Tech User (Tech) on 09-May-2018 09:45

Notes :

I approve this calibration.

Supervisor 09-May-2018 09:47

- 44) Enter the remarks in **Notes** text box (characters < 500).
- 45) To approve the calibration select I approve this calibration check box to enable the **Approve** button, Click **Approve**.
- 46) Or to reject, enter the remarks in Notes text box (characters < 500) and click **Reject** (By default the Reject button is enabled).
- 47) The calibration is now complete and this range is removed from your portable calibration list. The results are now attached to the range.

Once Calibration is complete the Calibration results can be viewed under the device and range that they are related to.

Open the range and you will be able to see the summary graph, the As Found and As Left results in the form of a table, Calibration Notes and the test equipment used for performing the calibration.

The user can also generate a Calibration Report using the Action Drop-Down.

Manual Calibration

The Manual Calibration helps you to add the calibration results of the Calibrator that doesn't support USB communications function.

Based on your role (Approver or Technician) you can either add the calibration results or approve the calibration results.

For Technician roles or person handling calibration requests, the Manual Calibration screen displays the list of calibration work assigned.

For Approver roles, the Manual calibration screen displays the list of calibration results to be approved.

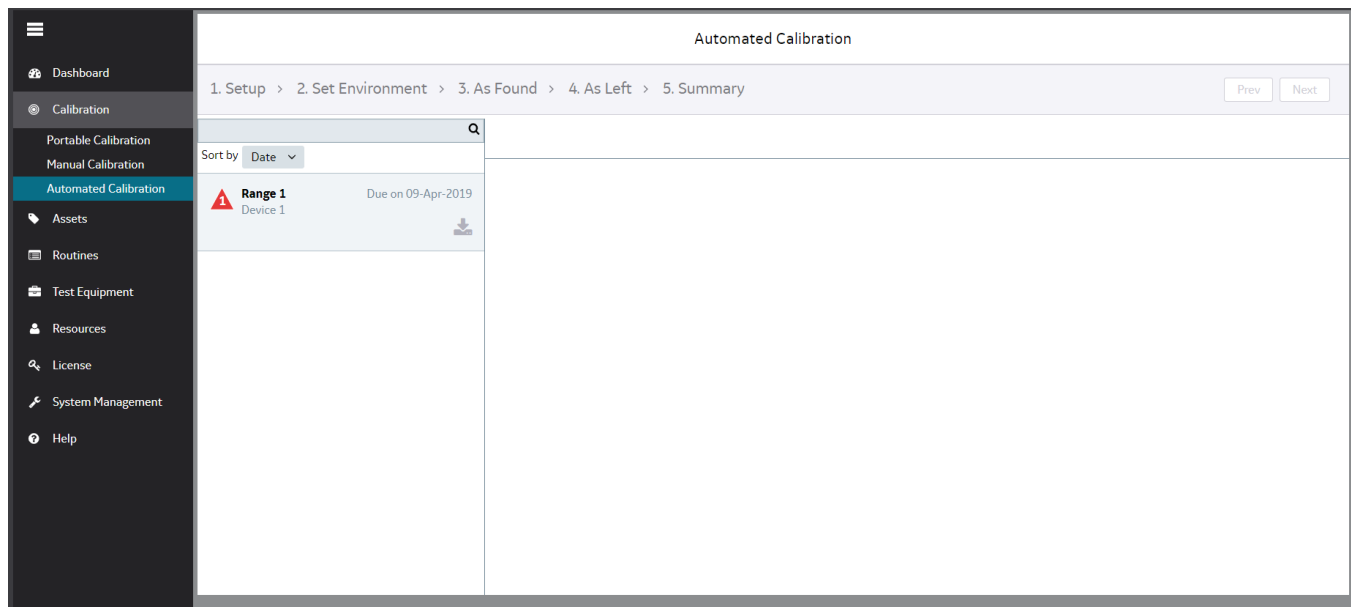
Calibration Reports

Before starting the calibration task, to record the manual calibration data on paper, you can generate a blank calibration report and print it. After entering the calibration data into 4Sight2 you can generate the calibration report.

Technician

To add the Manual Calibration:

- 1) From 4Sight2 navigation menu, click on **Assets** to display the Assets context browser.
- 2) From the Assets context browser, click on **Item in Work list** to display the list of assigned ranges.



- 3) Select the Ranges by clicking on the corresponding check box that has to be executed through Manual Calibration and click **Send to Manual Calibration**.

WORK LIST (3) Total Items - (0) Selected

Selected (0)	Range	Tag	Location	Assigned To	Due Date ▲	Priority	Status	Admin
<input type="checkbox"/>	Filter	Filter	Filter	Select ▼		Select ▼		
<input type="checkbox"/>	Range_0_10_bar		Compressor Section	tech	01-Feb-2019	Critical	Adhoc	admin
<input type="checkbox"/>	Range_0_2000_mbar		Compressor Section	tech	01-Feb-2019	Critical	Adhoc	admin
<input type="checkbox"/>	Range_4_20_mA		Compressor Section	tech	01-Feb-2019	Critical	Adhoc	admin

Actions ▼

- Send to Portable Calibration
- Send to Manual Calibration
- Send to Automated Calibration
- Remove Selected Items

Rows per page 10 ▼ 1-3 of 3 < 1 >

Cancel

- 4) 4Sight2 will then automatically navigate you to the Manual Calibration page. This page can also be reached **Calibration > Manual Calibration**
- 5) Click on the range you wish to use to perform the manual calibration from the manual calibration list.
- 6) Add an input and output Measurement Device and click **Start Calibration**.

- 7) Set the DUT Serial Number and calibration environment by providing the information and click **Set Environment** to view the next screen.

8) Enter the As Found Calibration data, to view the calibration result.

Results:

BLUE	Passed	Within the adjustment limit and max error limit
ORANGE	Need Adjustment	Within the max error limit but outside the adjustment limit
RED	Failed	Outside the max error limit

- Dashboard
- Calibration
- Portable Calibration
- Manual Calibration
- Assets
- Routines
- Test Equipment
- License
- Help

Manual Calibration

1. Setup > 2. Set Environment > 3. As Found > 4. As Left > 5. Summary

Sort by: Date

Press1000H - 0 to 10 bar Due on 09-Aug-2018

PressRTX1000

Range Details

Serial No PressRTX1000

Input 0 to 10 bar

Output 4 to 20 mA

I/O Ratio Linear

Max Error 5 % Span

Test PressRTX1000_7

Name 0

3 Press1000H - 0 to 10 bar

As Found

✖ **Failed**

Points in RED failed.

#	Calibration Set Point bar	Actual Applied bar	Actual Output mA	Deviation mA	% Error Span	Status
1	0.00000	<input type="text" value="0.00040"/>	<input type="text" value="4.00007"/>	-0.00057	-0.00356	Passed
2	2.50000	<input type="text" value="2.40000"/>	<input type="text" value="7.10002"/>	-0.73998	-4.62486	Needs Adjustment
3	5.00000	<input type="text" value="5.10000"/>	<input type="text" value="10.50004"/>	-1.65996	-10.37475	Failed
4	7.50000	<input type="text" value="7.50108"/>	<input type="text" value="15.50500"/>	-0.49673	-3.10456	Needs Adjustment
5	10.00000	<input type="text" value="10.30000"/>	<input type="text" value="20.10004"/>	-0.37996	-2.37475	Passed

min-Span | max-Span | min-Adjust | max-Adjust | As Found

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Manual Calibration

1. Setup > 2. Set Environment > 3. As Found > 4. As Left > 5. Summary

Point	Value	min-Span	max-Span	min-Adjust	max-Adjust	As Found	Status
2	2.50000	2.40000	7.10002	-0.73998	-4.62486		Needs Adjustment
3	5.00000	5.10000	10.50004	-1.65996	-10.37475		Failed
4	7.50000	7.50108	15.50500	-0.49673	-3.10456		Needs Adjustment
5	10.00000	10.30000	20.10004	-0.37996	-2.37475		Passed

min-Span: 7.50108 / -5 max-Span: 7.50108 / 5 min-Adjust: 7.50108 / -3 max-Adjust: 7.50108 / 3 As Found: 10.3 / -2.37475

% Error Span vs bar graph showing a linear trend with data points and error bars.

Buttons: Abort, Continue

9) Press the **Continue** button to display the **As Found Completed** page.

As Found Completed

As Left data not present. Would you like to copy As Found data to As Left?

10) To add As Found data click **No** or to copy data click **Yes** to proceed to As Left page.

Manual Calibration

1. Setup > 2. Set Environment > 3. As Found > 4. As Left > 5. Summary

Sort by: Date

Range 1 123 Due on 05-24-2017

Range Details
 Serial No: 123
 Input: 0 to 2 bar
 Output: 4 to 20 mA
 I/O Ratio: Linear
 Max Error: 5% Span

As Left ✔ **PASSED**
 No Adjustment Required.

#	Calibration set point bar	Actual Applied bar	Actual Output mA	Deviation mA	% Error Span	Status
1	0.00000	0.009	4.012	-0.06000	-0.37500	Passed
2	0.50000	0.49849	8.123	0.13508	0.84425	Passed
3	1.00000	1.001	12.12	0.09200	0.57499	Passed
4	1.50000	1.52	16.0012	-0.15880	-0.99250	Passed
5	2.00000	1.99123	20.01	0.08015	0.50094	Passed
6	1.50000	1.50102	16.124	0.11584	0.72400	Passed
7	1.00000	0.9923	12.23	0.29160	1.82250	Passed
8	0.50000	0.506823	8.02	-0.02658	-0.16612	Passed
9	0.00000	0.0012	4	-0.00959	-0.05994	Passed

Max-Span | Min-Span | Max-Adjust | Min-Adjust | As Left

Manual Calibration

1. Setup > 2. Set Environment > 3. As Found > 4. As Left > 5. Summary

Sort by: Date

Range 1 123 Due on 05-24-2017

Range Details
 Serial No: 123
 Input: 0 to 2 bar
 Output: 4 to 20 mA
 I/O Ratio: Linear
 Max Error: 5% Span

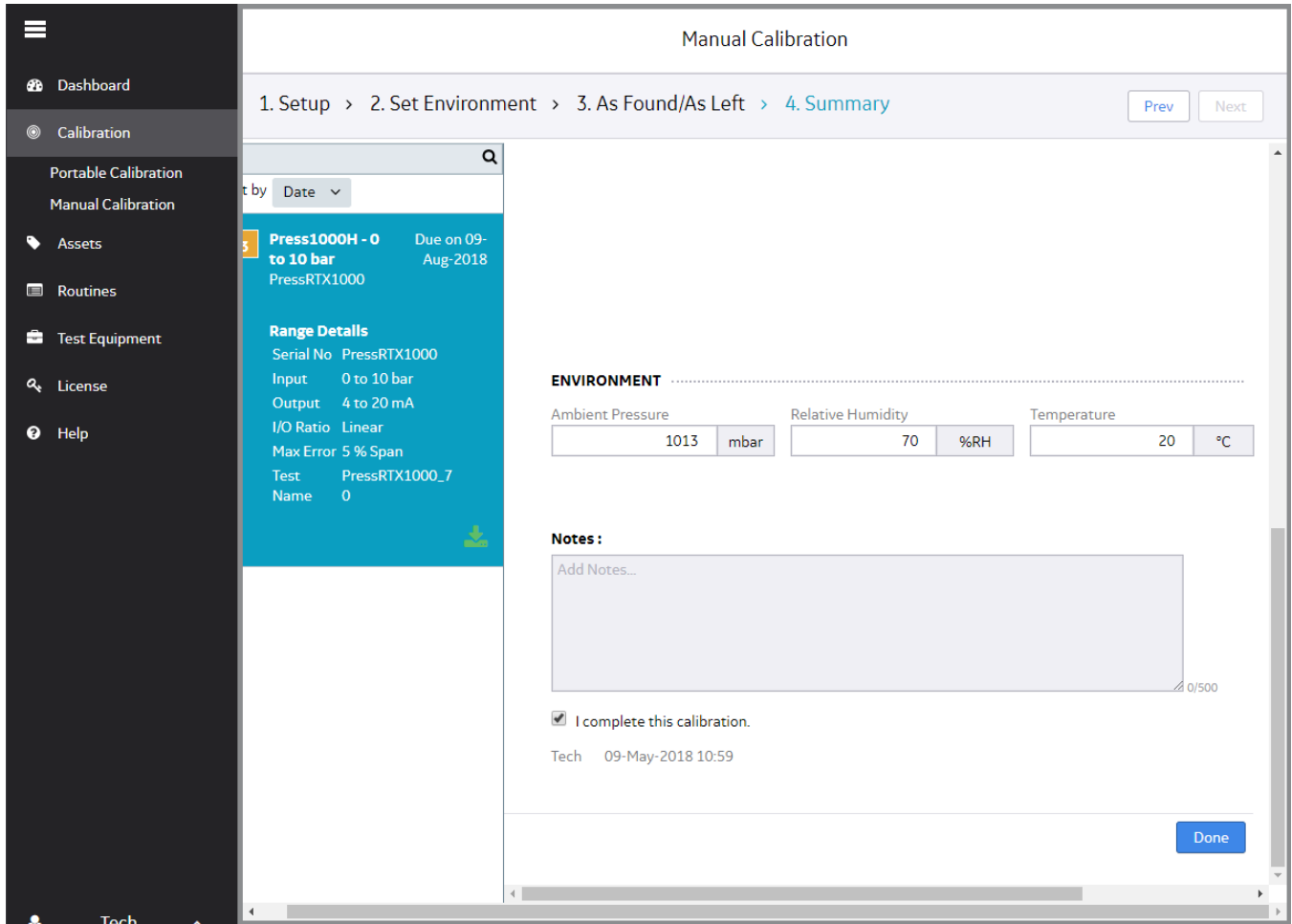
6	1.50000	1.50102	16.124	0.11584	0.72400	Passed
7	1.00000	0.9923	12.23	0.29160	1.82250	Passed
8	0.50000	0.506823	8.02	-0.02658	-0.16612	Passed
9	0.00000	0.0012	4	-0.00959	-0.05994	Passed

Max-Span | Min-Span | Max-Adjust | Min-Adjust | As Left

% Error Span vs bar

Abort | Continue

11) Click **Continue** to display the Summary page, this page displays an overview graph and a section to add technician notes.



- 12) Enter any observations or comments in Notes. Click on the **I Complete this Calibration** box and click **Done**. The range will be removed from Technician’s work list.

Approval of Calibration result

As the technician has uploaded the manual calibration results and this data is available for approval by the Approver. To approve the manual calibration results the assigned Approver reviews the using the Manual Calibration view.

- 1) From 4Sight2 menu, select **Calibration > Manual Calibration** to view the range awaiting for the approval or rejection.

The screenshot displays the 'Manual Calibration' view in the 4Sight2 system. The interface includes a navigation menu on the left with options like Dashboard, Calibration, Portable Calibration, Manual Calibration, Assets, Routines, Test Equipment, Resources, License, and Help. The main content area shows the calibration details for 'Press1000H - 0 to 10 bar' (Serial No. PressRTX1000), which is due on 09-Aug-2018. The status is 'Passed' with a green checkmark and the note 'No Adjustment Required'. Below this, a table lists five calibration points with their respective set points, actual applied values, actual outputs, deviations, and error spans. A line graph at the bottom shows the % Error Span across the range, with horizontal lines indicating min-span, max-span, min-adjust, and max-adjust limits.

#	Calibration Set Point bar	Actual Applied bar	Actual Output mA	Deviation mA	% Error Span	Status
1	0.00000	0.00400	4.05000	0.04360	0.27250	Passed
2	2.50000	2.70000	8.00007	-0.31993	-1.99956	Passed
3	5.00000	5.06000	12.00000	-0.09600	-0.60000	Passed
4	7.50000	7.50070	16.00001	-0.00111	-0.00694	Passed
5	10.00000	10.08070	20.00005	-0.12906	-0.80662	Passed

- 2) Click on the range to view the latest calibration results.
- 3) Click **Continue** to view further results like **As Found** and **As Left**, enter the remarks in **Notes** section.
 - To reject the calibration, click **Reject**.
 - To approve the calibration, click on the check box **I Approve this calibration** to enable the Approve button and click **Approve**.
- 4) Successfully approved the calibration message will be displayed.

Viewing Calibration record

- 1) From the 4Sight2 navigation menu, click on **Assets** to display the Assets context browser.
- 2) Search for the range to view the in Asset table of context browser.
- 3) Calibration data will be displayed under the range details.

Druck 4Sight2

- Dashboard
- Calibration
- Assets
- Routines
- Test Equipment
- Resources
- License
- Help

Admin ^

PRESS1000H - 0 TO 10 BAR
0 Items in Work List

Device Id: **PressRTX1000**

Tag ID: --

Press1000H - 0 to 10 bar

09-May-2018 10:51

Actions

CALIBRATION RESULTS

min-Span max-Span min-Adjust max-Adjust As Found/As Left

Passed and Approved						
#	Calibration Set Point bar	Actual Applied bar	Actual Output mA	Deviation mA	% Error Span	Status
1	0.00000	0.00400	4.05000	0.04360	0.27250	Passed
2	2.50000	2.70000	8.00007	-0.31993	-1.99956	Passed
3	5.00000	5.06000	12.00000	-0.09600	-0.60000	Passed
4	7.50000	7.50070	16.00001	-0.00111	-0.00694	Passed
5	10.00000	10.08070	20.00005	-0.12906	-0.80662	Passed

POSITION

Device: PressRTX1000
 Location: Pump Room
 Plant: South Power Station

INSTRUMENT

Device Type: Pressure
 Serial Number: PressRTX1000
 Model: RTX1000H Gauge-Analytical
 Manufacturer: GE Druck
 Input: 0 to 10 bar
 Output: 4 to 20 mA
 I/O Ratio: Linear
 Span Pass/Fail: 5 % Span
 Span Adjustment: 3 % Span

CALIBRATION

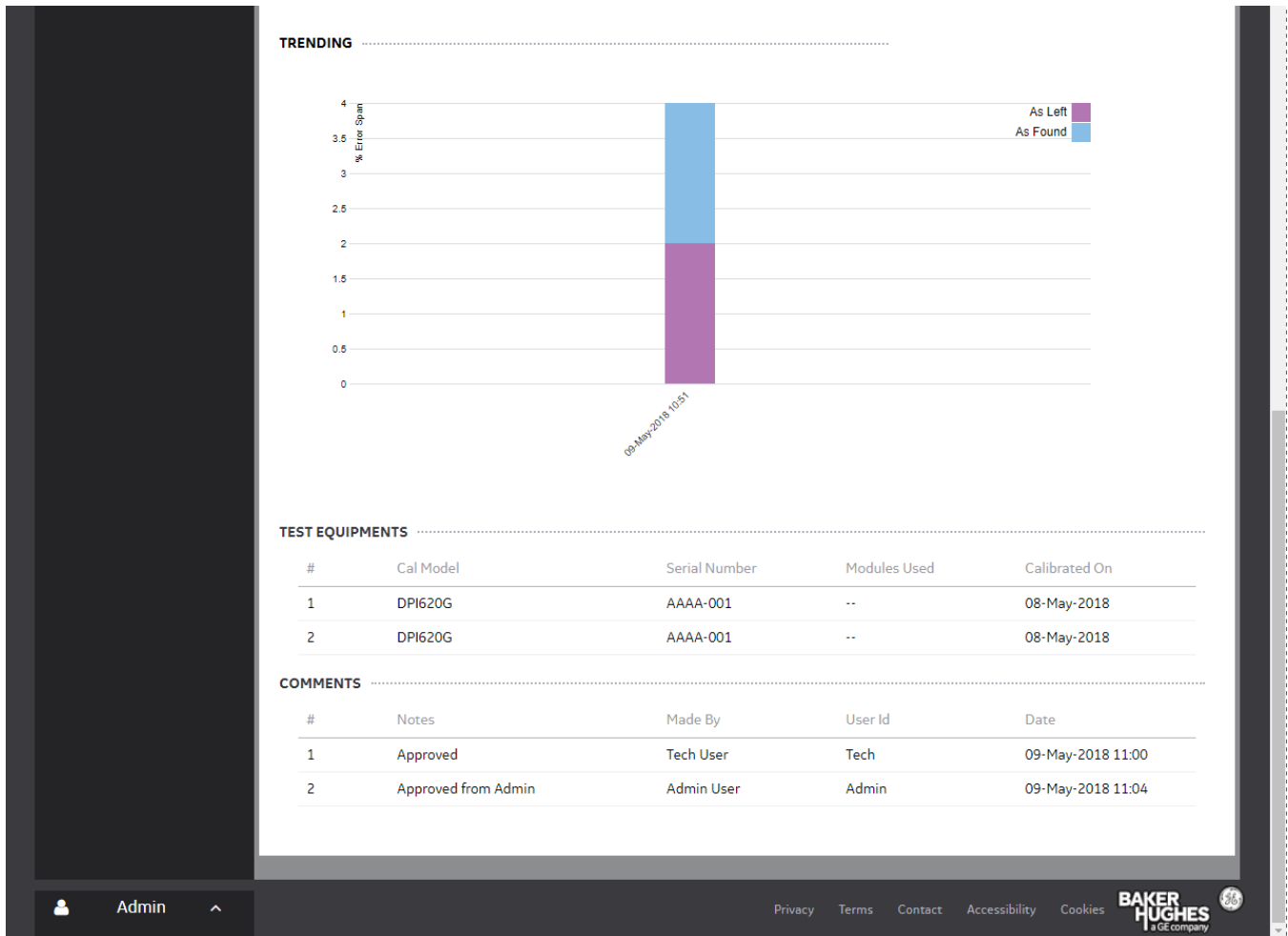
Cal Procedure: 5 up
 Cal Routine: 3 Month
 Cal Date: 09-May-2018 10:51
 Done Date: 09-May-2018 11:00
 Approval Date: 09-May-2018 11:04
 Cal Period: 3 Months
 Next Cal Date: 09-Aug-2018
 Env. Temp: 20 °C
 Env. Pressure: 1,013 mbar
 Env. Humidity: 70 % RH

INPUT : PRESSURE

Reference Mode: Gauge

OUTPUT : ELECTRICAL

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- 4) **Generating a Report**
- 5) From **Actions** drop-down select **Generate Report** to generate a report. A sample report given below:

Calibration Report

Report No:20182

PressRTX1000

Device Details

Device Name PressRTX1000
 Tag Name
 Location Name Pump Room
 Manufacturer Name GE Druck
 Model Number RTX1000H Gauge-Analytical
 Serial Number PressRTX1000

Calibration Details

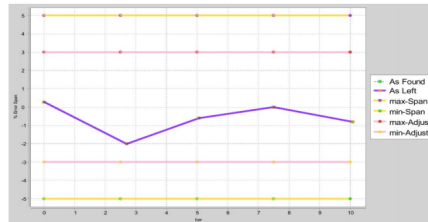
Calibration Date 09-May-2018 10:51:54 UTC +00:00
 Calibration Due Date 09-Aug-2018 UTC +00:00
 Temperature 20°C
 Ambient Pressure 1,013mbar
 Relative Humidity 70% RH

Range Details

Range Name Press1000H - 0 to 10 bar Relationship Linear
 Input 0 to 10 bar Pass/Fail Tolerance 5% Span
 Reference Mode Gauge Adjustment 3% Span
 Output 4 to 20 mA

Calibration Details

Manufacturer Name	Model Name	Serial No	Calibration Date	Calibration Due Date
GE DRUCK	DPI620G	AAAA-001	08-May-2018 UTC +00:00	08-May-2019 UTC +00:00
GE DRUCK	DPI620G	AAAA-001	08-May-2018 UTC +00:00	08-May-2019 UTC +00:00



As Found / As Left

Actual Input bar	Actual Output mA	% Error Span	Status
0.004	4.05	0.2725	Passed
2.7	8.0007	-1.99956	Passed
5.06	12	-0.6	Passed
7.5007	16.0001	-0.00694	Passed
10.0807	20.0005	-0.80662	Passed

Technician Comment:

Approver Comment:

Approved

Approved from Admin

Calibrated by : _____

Approved by : _____

Automated Calibration

Automated Calibration is the method by which calibration is performed with the help of a controller and a calibrator which supports USB communication functions.

NOTE: Automated calibration is available only to the user with the appropriate license.

List of devices supports automated calibration are Druck PACE 1000, 5000 & 6000, DPI611, DP612, DPI620G and DPI620G-IS



Before performing automated calibration, checks should be performed to ensure that the DUT and the pressure controllers/sensors are all within the expected and compatible pressures operating ranges. **DO NOT** rely on the system to check everything. Refer to the safety instructions at the start of this manual.



Using USB connection does not prevent Ethernet connection from also controlling the PACE, care should be taken to remove the Ethernet connection for the safest operation.



Loss of communication, or loss of local services can result in trapped/residual pressure within the system, which will require careful manual vent before operations can be resumed.

Technician

To add the Automated Calibration:

- 1) From 4Sight2 navigation menu, click on **Assets** to display the Assets context browser.
- 2) From the Assets context browser, click on **Item in Work list** to display the list of assigned ranges.

The screenshot shows the 'Automated Calibration' page in the 4Sight2 application. The left-hand navigation menu is open, with 'Automated Calibration' highlighted. The main content area displays a table with the following data:

Range	Device	Due Date
Range 1	Device 1	09-Apr-2019

The breadcrumb trail at the top of the page indicates the current location: 1. Setup > 2. Set Environment > 3. As Found > 4. As Left > 5. Summary. There are 'Prev' and 'Next' buttons on the right side of the breadcrumb trail. The table also includes a search bar and a 'Sort by Date' dropdown menu.

- 3) Select the Ranges by clicking on the corresponding check box that has to be executed through Automated Calibration and click **Send to Automated Calibration**.

WORK LIST (3) Total Items - (0) Selected

Selected (0)	Range	Tag	Location	Assigned To	Due Date ▲	Priority	Status	Created By	Last Modified By
<input type="checkbox"/>	Filter	Filter	Filter	Select ▼		Select ▼			
<input type="checkbox"/>	Range_0_10_bar		Compressor Section	tech	01-Feb-2019	Critical	Adhoc	admin	admin
<input type="checkbox"/>	Range_0_2000_mbar		Compressor Section	tech	01-Feb-2019	Critical	Adhoc	admin	admin
<input type="checkbox"/>	Range_4_20_mA		Compressor Section	tech	01-Feb-2019	Critical	Adhoc	admin	admin

Rows per page: 10 | 1-3 of 3 | 1

Cancel

- 4) 4Sight2 will then automatically navigate you to the Automated Calibration page. This page can also be reached **Calibration > Automated Calibration**
- 5) Connect the controller and the calibrator to the system through USB port. For switch calibration, go to Step 22.
- 6) Click on the range you wish to perform the Automated calibration from the Automated calibration list.
- 7) Select the **Input Controller** and its **Module** from the drop down. Before performing the calibration, user can perform controller test options such as Leak Test, Exercise and Vent to ensure integrity of the product and consumer safety. For more details, refer to [Controller Options](#)

Automated Calibration

1. Setup > 2. Set Environment > 3. As Found > 4. As Left > 5. Summary

Range_0_2_bar

Procedure: [Spoint](#)

Sort by: Date

Range_0_2_bar Due on 01-Feb-2019

Range Details

- Serial No: 123456
- Input: 0 to 2 bar
- Output: 4 to 20 mA
- I/O Ratio: Linear
- Max Error: 2 % Span
- Test Name: RTX1000_6

CONTROLLER OPTIONS

Leak Test Exercise Vent

INPUT CONTROLLER

Controller: PACE5000 -- 5240565

Module: Module 1 [-1 to 2 bar G (10410851)]

INPUT READING

0.00178 bar

INPUT MEASUREMENT

Reference Device: PACE5000 -- 5240565

Module: Module 1 [-1 to 2 bar G (10410851)]

OUTPUT READING

4.01140 mA


OUTPUT MEASUREMENT

Output Device: DPI620G -- 5262059

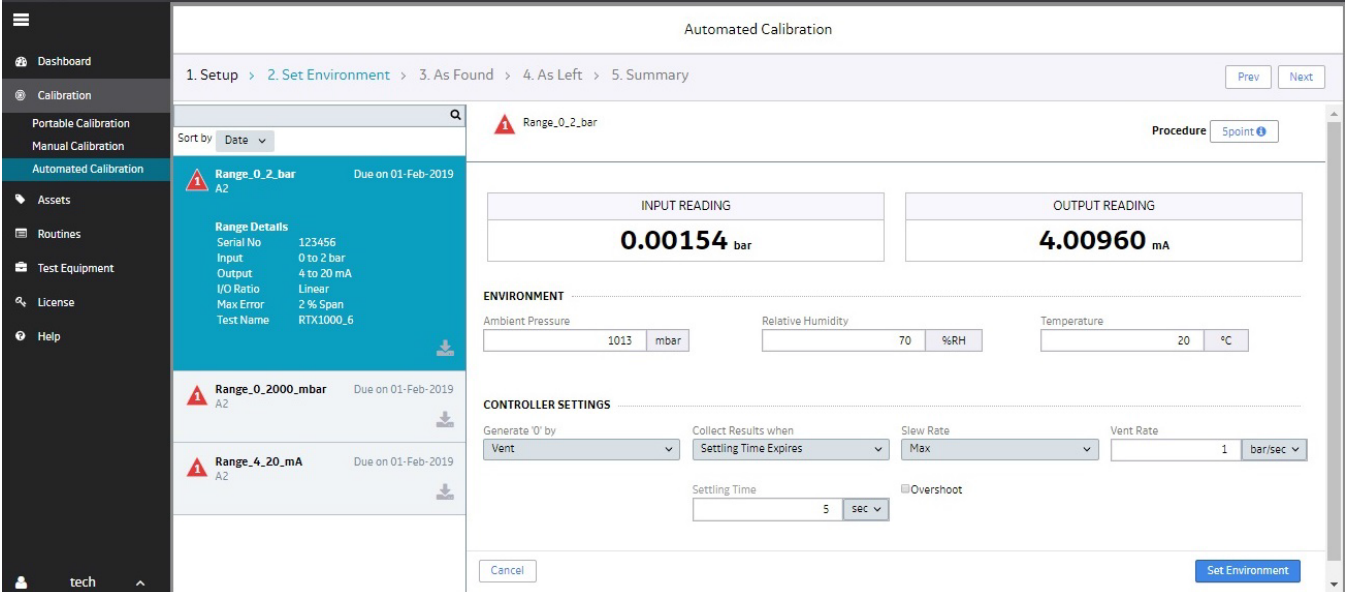
Channel: Channel 2

Cancel Refresh Continue

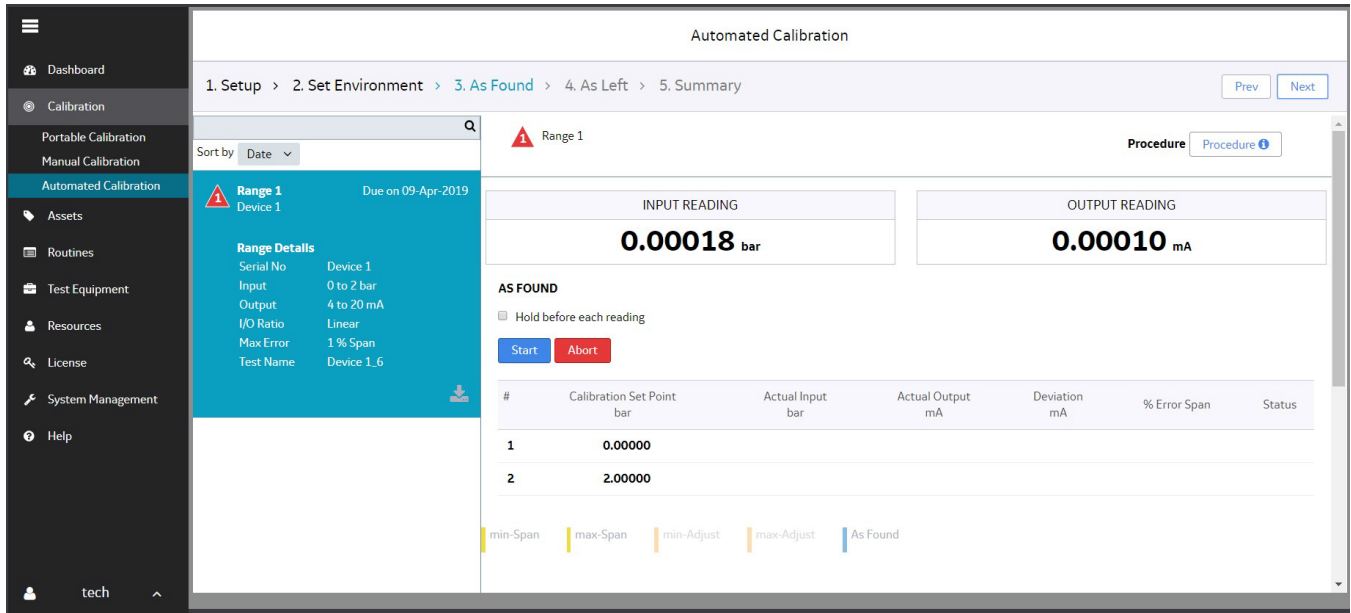
- 8) Select the **Input measurement** Device and its **Module** from the drop down.
- 9) Select the **Output measurement** Device and its **Channel** from the drop down.
NOTE: Make sure that above selected devices are added in test equipment. Failure to add will prompt a window to add the equipment along with the warning message “Test equipment not present in 4Sight application”.

	<p>Connected devices current values will be displayed in the Input reading and output reading boxes. If the colour of the reading in the boxes is red at any point of time during calibration denotes communication loss or error in device connection to the system.</p>
---	---

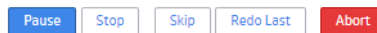
- 10) If input controller or output measurement device that doesn't support USB communication, user can manually enter the input/output values in the table. Select the Input controller/Input Measurement device or Output measurement device as Manual Entry as necessary and click **Continue**.
- 11) Set the calibration environment by providing the information and click **Set Environment** to view the next screen.



- 12) Click **Start** to start the calibration.

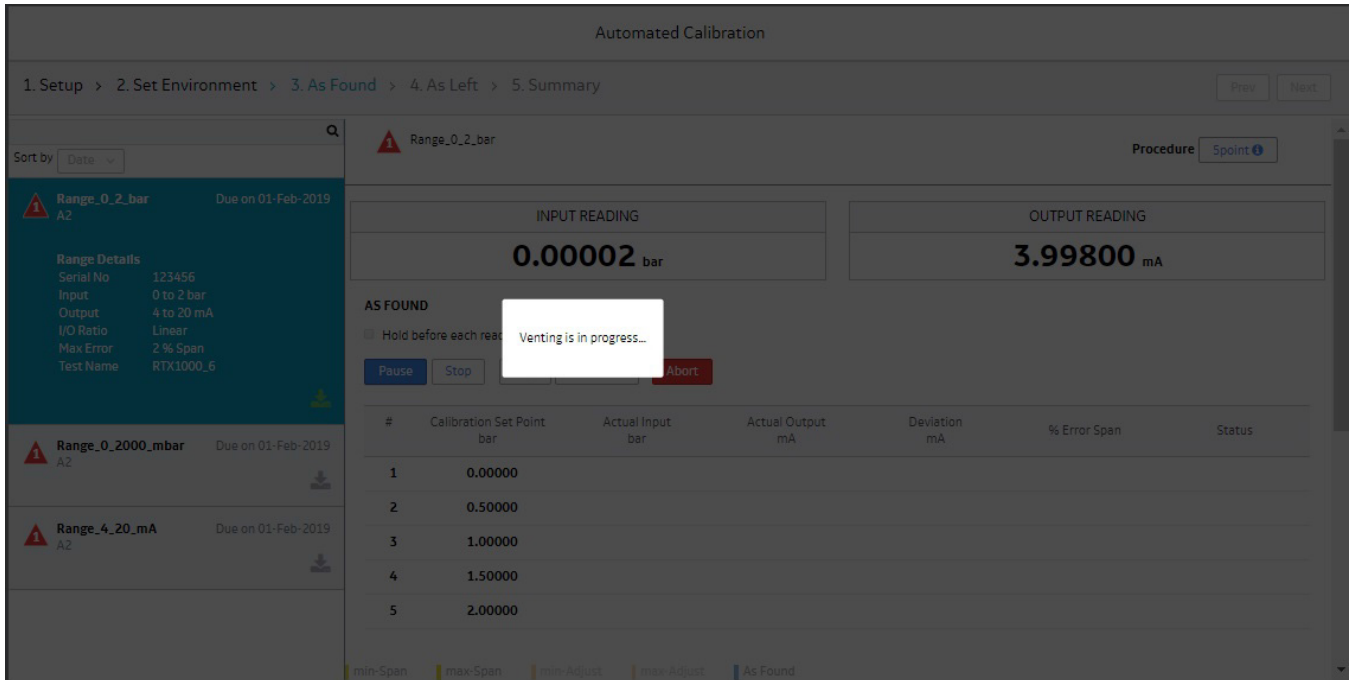


13) Upon clicking the start button, the functions shown below will be available during calibration.

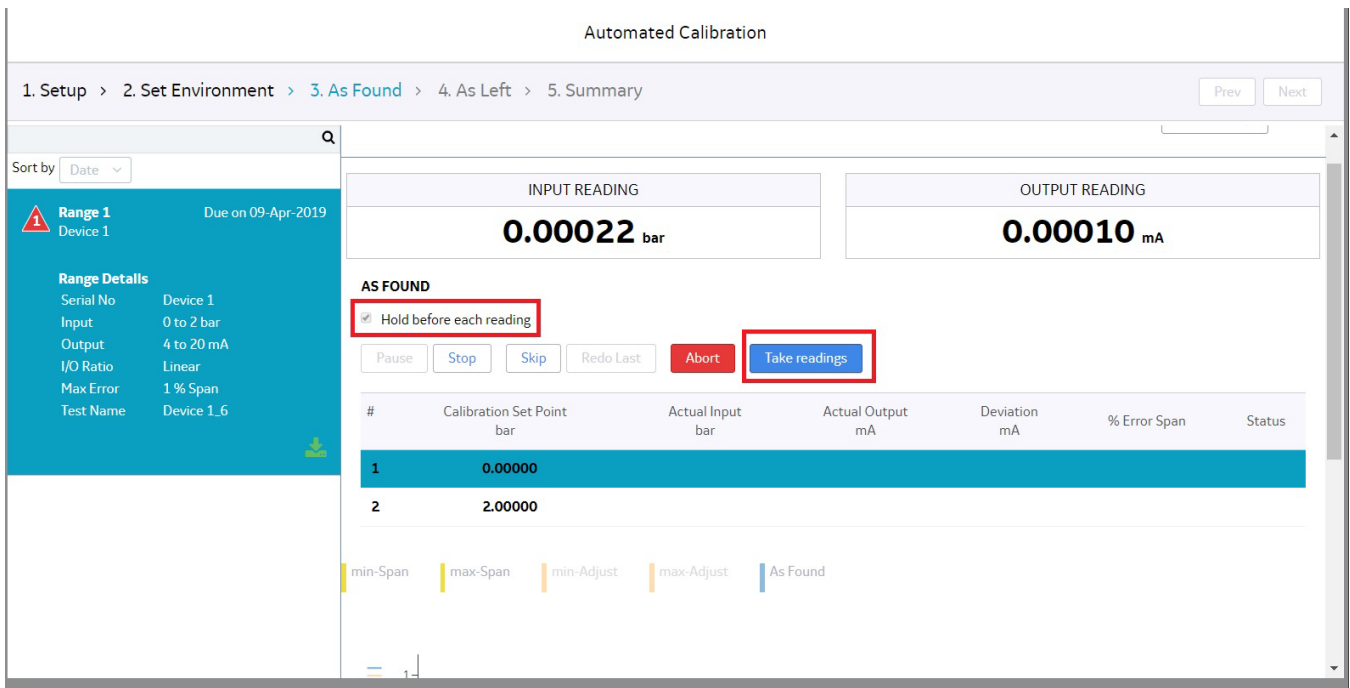


- Pause - technician can pause the calibration. Pausing the test more than 2 minutes will abort the test
- Stop - technician can stop the calibration process and start the process again from the first test point
- Skip - technician can skip the set test points which he doesn't want to execute
- Redo Last - technician can repeat the test points which he wants to exercise again
- Abort - technician can abort the calibration process and again go to Auto Calibration setup screen for any modification in controller, calibrator/reference, output device or any other configuration

14) Before the first test point and after the last test point, 4Sight2 vents the test equipment to atmospheric pressure for safety purpose.



- 15) Based on the test points specified in the procedure and the range Input Min/Max value specified in the range, the test point values are presented to a controller. The controller applies the test point values to the device under calibration and then the calibrator reads the output values and send it to the system.
- 16) On selecting the **Hold before reading** check box, user shall confirm that the reading can be taken upon reaching the set point by clicking **Take readings** button.



- 17) For Manual Entry, enter the values manually in the appropriate field, either input or output as selected and click **Done**.

The screenshot shows the 'Automated Calibration' software interface. The breadcrumb trail is '1. Setup > 2. Set Environment > 3. As Found > 4. As Left > 5. Summary'. The current range is 'Range 1' for 'Device 1', due on 09-Apr-2019. The 'INPUT READING' is 'Manual Entry' and the 'OUTPUT READING' is '0.00010 mA'. The status is 'AS FOUND'. A table shows calibration points with a red box highlighting the 'Actual Input' field for point 1, which contains '0' and a 'Done' button.

#	Calibration Set Point bar	Actual Input bar	Actual Output mA	Deviation mA	% Error Span	Status
1	0.00000	0				
2	2.00000					

- 18) On completion of each calibration, results will be displayed immediately on the screen and successful completion of the calibration message will be displayed.

The screenshot shows the 'Automated Calibration' software interface after a successful calibration. The breadcrumb trail is '1. Setup > 2. Set Environment > 3. As Found > 4. As Left > 5. Summary'. The current range is 'Range_0_2_bar' for 'A2', due on 01-Feb-2019. The 'INPUT READING' is '0.00109 bar' and the 'OUTPUT READING' is '4.00600 mA'. The status is 'Passed' with the message 'No Adjustment Required.'. A table shows calibration points with all 'Passed' statuses.

#	Calibration Set Point bar	Actual Input bar	Actual Output mA	Deviation mA	% Error Span	Status
1	0.00000	-0.00006	3.99670	-0.00280	-0.01750	Passed
2	0.50000	0.50008	8.00710	0.00648	0.04050	Passed
3	1.00000	0.99849	12.01000	0.02208	0.13800	Passed
4	1.50000	1.49383	15.97010	0.01946	0.12163	Passed
5	2.00000	1.96810	19.77290	0.02814	0.17588	Passed

19) Results will be displayed to the user in the form of table and graph.

BLUE	Passed	Within the adjustment limit and max error limit
ORANGE	Need Adjustment	Within the max error limit but outside the adjustment limit
RED	Failed	Outside the max error limit

20) When you have finished viewing the As Found results, click **Continue**. If the calibration procedure passes first time then as there is no adjustment needed there is no need to repeat the procedure to obtain As Left result. In this situation click **Next** and the user is prompted to copy these results to As Left.

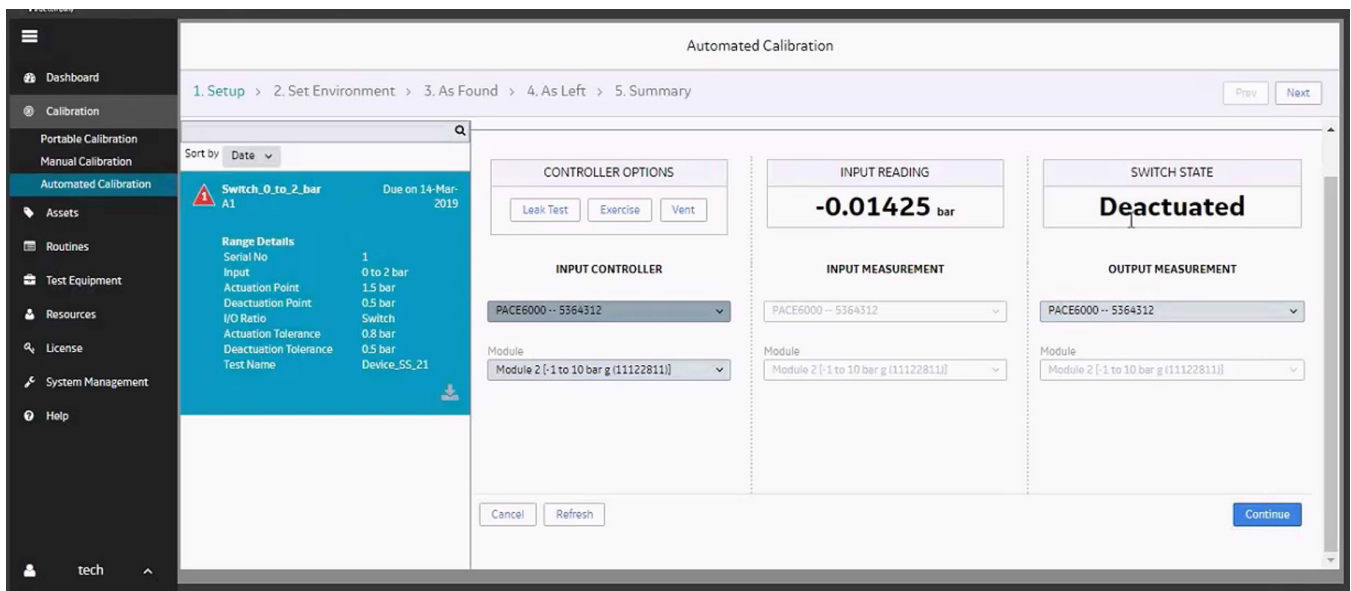
NOTE: If the calibration is aborted in As Left page, data in As Found page will also be erased.

21) Click **Continue** to display the Summary page. For other steps in automated calibration, continue from step 35.

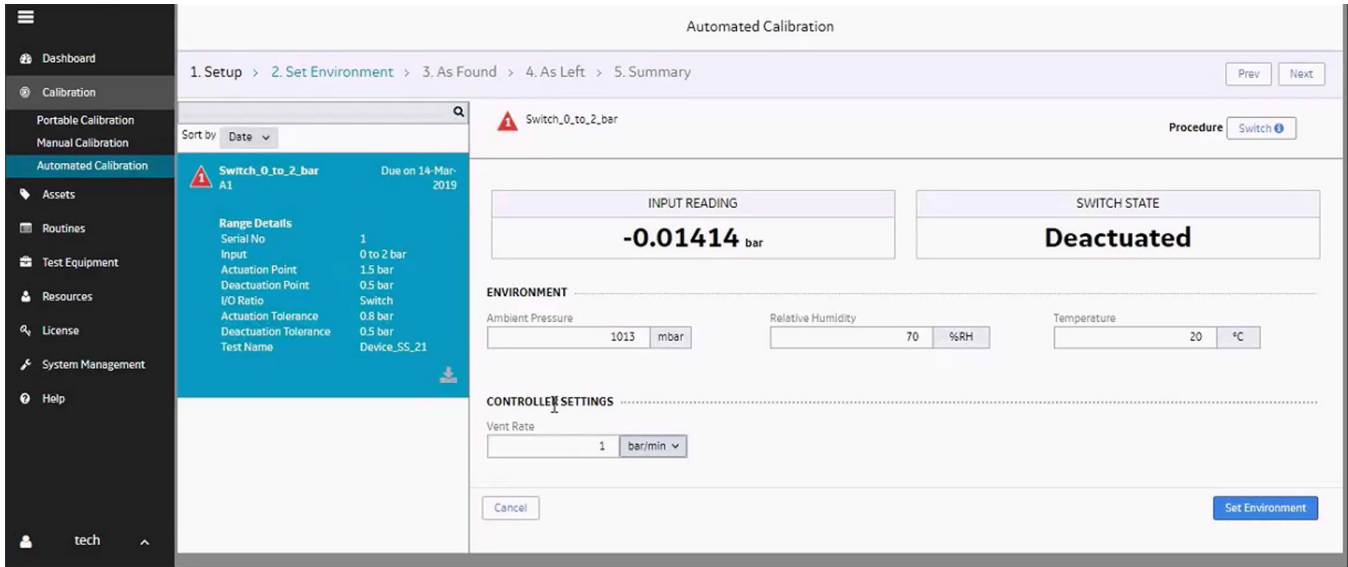
Switch Calibration

22) Click on the switch range you wish to perform automated calibration from the Automated calibration list.

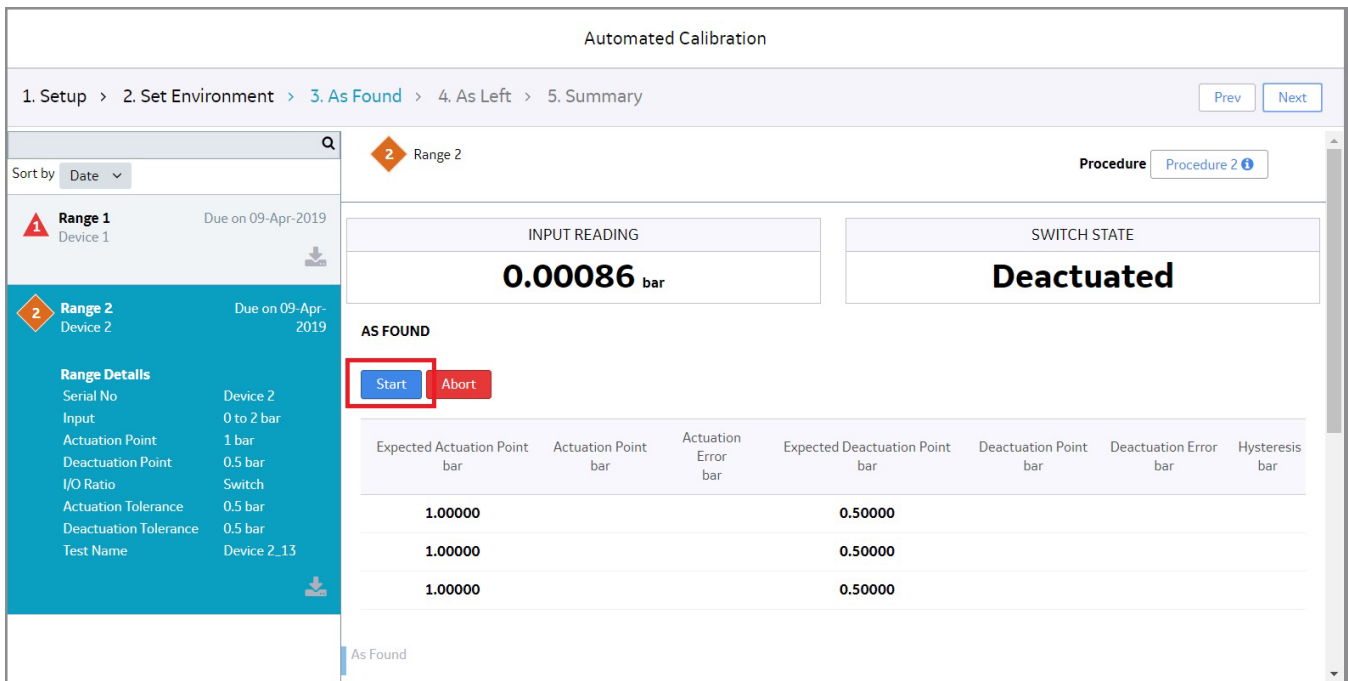
23) Select the appropriate Input Controller device and Output measurement device and their modules from the drop down. After the devices are selected, switch state will be displayed on the screen.



24) Set the calibration environment and controller settings by providing the information and click **Set Environment** to view the next screen.



25) Click **Start** to start the calibration.

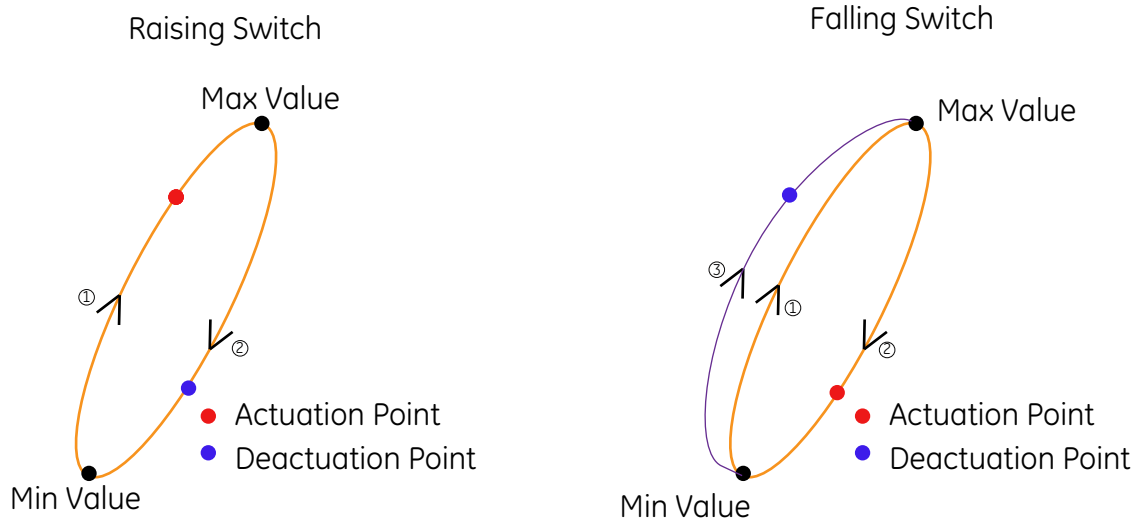


26) Based on ramp time specified in the procedure and input Min/Max value specified in the range, the controller applies pressure to the switch and then the calibrator reads the actuation and deactuation points of the switch and send it to the system. The system will show the status of the switch when it turns from close to open and vice versa.

NOTE: 4Sight2 repeats the calibrations as per the number of exercise cycles set in the procedure

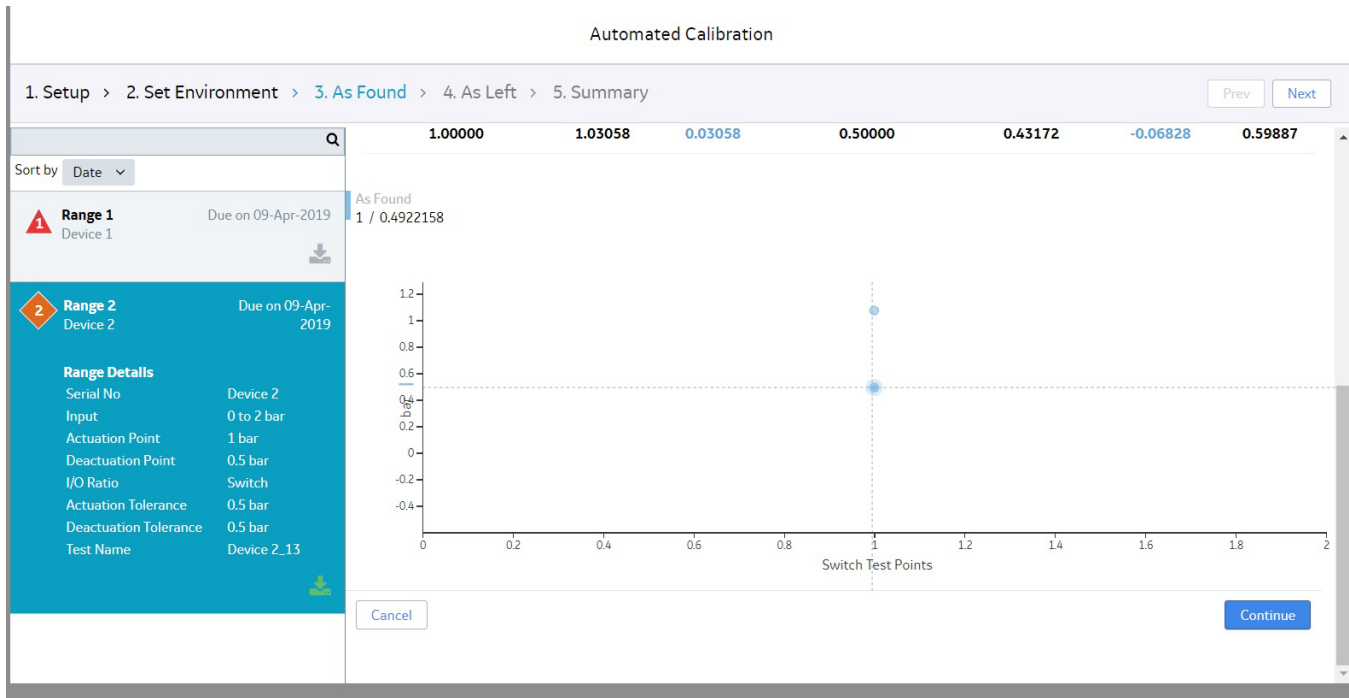
NOTE: If switch Actuation and Deactuation fails to occur, then -99999.00000 will be shown as the value in the application for the corresponding cycle

- 27) Raising switch: The controller applies pressure to the switch from minimum value to maximum value and returns to minimum value and completes the cycle. The calibrator detects the actuation point while pressure is raising and detects the deactuation point while pressure is falling.
- 28) Falling switch: The controller applies pressure to the switch from minimum value to maximum value and returns to minimum value and then continues to raise again to maximum value and completes the cycle. The calibrator detects the actuation point while the pressure is falling from max to min value and detects the deactuation point while the pressure is raising again.



- 29) On completion of each calibration, results will be displayed immediately on the screen and successful completion of the calibration message will be displayed.

Expected Actuation Point bar	Actuation Point bar	Actuation Error bar	Expected Deactuation Point bar	Deactuation Point bar	Deactuation Error bar	Hysteresis bar
1.00000	1.06783	0.06783	0.50000	0.49567	-0.00433	0.57216
1.00000	1.07335	0.07335	0.50000	0.49222	-0.00778	0.58114
1.00000	1.03058	0.03058	0.50000	0.43172	-0.06828	0.59887



30) Results will be displayed to the user in the form of table and graph.

BLUE	Passed	Within the actuation/deactuation tolerance
RED	Failed	Outside the actuation/deactuation tolerance

31) When you have finished viewing the As Found results, click **Continue**. If the calibration procedure passes first time then as there is no adjustment needed there is no need to repeat the procedure to obtain As Left result. In this situation click **Next** and the user is prompted to copy these results to As Left.

32) When you view results on As left page, cycles with max actuation error will be saved in as left results and this will be used for determining calibration results.

Automated Calibration

1. Setup > 2. Set Environment > 3. As Found/As Left > 4. Summary Prev Next

Sort by Date Range 2 Procedure Procedure 2

Range 1 Device 1 Due on 09-Apr-2019

Range 2 Device 2 Due on 09-Apr-2019

Range Details

Serial No Device 2

Input 0 to 2 bar

Actuation Point 1 bar

Deactuation Point 0.5 bar

I/O Ratio Switch

Actuation Tolerance 0.5 bar

Deactuation Tolerance 0.5 bar

Test Name Device 2_13

AS FOUND/AS LEFT **Passed**
No Adjustment Required.

09-Apr-2019 14:37

Expected Actuation Point bar	Actuation Point bar	Actuation Error bar	Expected Deactuation Point bar	Deactuation Point bar	Deactuation Error bar	Hysteresis bar
1.00000	1.07335	0.07335	0.50000	0.49222	-0.00778	0.58114

As Found/As Left

33) Click **Continue** to display the Summary page.

1. Setup > 2. Upload > 3. As Found > 4. As Left > 5. Summary Prev Next

0 to 1 bar 001 Due on 12-Jul-2017
RTX1000H-001

0 to 1 bar 002 Due on 01-Aug-2017
RTX1000H-002

0 to 1 bar 003 Due on 09-Jun-2017
RTX1000H-003

Electrical 4 to 20 mA Due on 09-Aug-2018
Electrical-001

Range Details

Serial No Electrical-001

Input 4 to 20 mA

Output 4 to 20 mA

I/O Ratio Linear

Max Error 5 % Span

Test Electrical-001_65

ENVIRONMENT

Ambient Pressure 1013 mbar Relative Humidity 70 %RH Temperature 20 °C

Notes :

Add Notes...

I complete th's calibration.

Tech 09-May-2018 09:42

Done

- 34) On the Summary page for each range test, confirm the environment data is correct.
- 35) Enter any comments on the calibration performed or notes for the approver into the Notes box (characters < 500).
- 36) To approve the calibration click **I complete this calibration** check box to enable the Done button.
- 37) The Range will now be removed from your automated calibration list and will be sent to the Approver's Automated Calibration list.

Approver

Calibration Approval

- 38) To approve the Calibration work uploaded by the technician, login to 4Sight2 application through Approver login.
- 39) From the 4Sight2 menu click **Calibration > Automated Calibration** to view the Automated calibration results.
- 40) Results ready for approval can be viewed by selecting the Review option at the top of the screen.

Review Send/Receive

The screenshot shows the 4Sight2 application interface. At the top, there is a breadcrumb trail: 1. Setup > 2. Upload > 3. As Found > 4. As Left > 5. Summary. Below this, there are 'Prev' and 'Next' buttons. The main content area is titled 'Automated Calibration' and features a 'Sort by: Date' dropdown and a 'Review' toggle (currently selected) and 'Send/Receive' buttons. The list contains five entries:

Range ID	Description	Due Date	Status
1.4 - 04KH420mA	14	Due on 30/04/2017	✓
6.1 - 0100C Cu-10 420mA	RTD_365353725B-4578245	Due on 10/12/2017	✓
6.10 - 0100C Pt-200 420mA	RTD_365353725B-4578253	Due on 10/12/2017	✓
6.5 - 0100C Ni-120 420mA	RTD_365353725B-4578249	Due on 10/12/2017	✓
6.8.2 - 0212F Pt-100 420mA	RTD_365353725B-4578256	Due on 10/12/2017	✓

The sidebar menu includes: Dashboard, Calibration (selected), Portable Calibration, Manual Calibration, Automated Calibration, Assets, Routines, Test Equipment, Resources, License, System Management, Help, and HJTAdmin.

- 41) Select the range you need to approve to view the As Found Details.
- 42) The As Found screen displays the calibration results uploaded by the technician.
- 43) Click the **Continue** to view As Found page.
- 44) Click **Continue** to view the Summary page.

1. Setup > 2. Upload > 3. As Found/As Left > 4. Summary Prev Next

Sort by Date ▼

Review Send/Receive

3 **Electrical 4 to 20 mA** Due on 09-Aug-2018
Electrical-001

Range Details

Serial No Electrical-001
Input 4 to 20 mA
Output 4 to 20 mA
I/O Ratio Linear
Max Error 5 % Span
Test Electrical-
Name 001_65

ENVIRONMENT

Ambient Pressure mbar Relative Humidity %RH Temperature °C

Technician Notes

OK

Done By : Tech User (Tech) on 09-May-2018 09:45

Notes :

I approve this calibration.

Supervisor 09-May-2018 09:47

- 45) Enter the remarks in **Notes** text box (characters < 500).
- 46) To approve the calibration select I approve this calibration check box to enable the **Approve** button, Click **Approve**.
- 47) Or to reject, enter the remarks in Notes text box (characters < 500) and click **Reject** (By default the Reject button is enabled).
- 48) The calibration is now complete and this range is removed from your Automated calibration list. The results are now attached to the range.

Once Calibration is complete the Calibration results can be viewed under the device and range that they are related to.

Open the range and you will be able to see the summary graph, the As Found and As Left results in the form of a table, Calibration Notes and the test equipment used for performing the calibration.

The user can also generate a Calibration Report using the Action Drop-Down.

Controller Options

After selecting the controller and its module, 4Sight2 enables three safety tests in Controller Operations section.

- 1) Leak Test
- 2) Exercise
- 3) Vent

Leak Test:

- 1) Leak Test is used to detect the manufacturing defects.
- 2) On the Automated calibration screen, after selecting the controller and its module, click **Leak Test** button in controller options.

NOTE: If Leak Test task is locked in PACE device and the user tries to perform Leak Test then “Communication error” will be shown in the application.

- 3) Leak Test dialog box appears.

Dwell Setting				Range Information	
Control	hh	mm	ss	Module Range	Asset Range
Control	00	: 00	: 05	Module 1 [-1 to 20 bar g (11136890)]	0 to 2 bar
Measure	00	: 00	: 05		
Thermal Stability	00	: 00	: 05		

Leak Rate		% Tolerance
<input checked="" type="radio"/> Per Second	<input type="radio"/> Per Minute	<input type="text"/>

Test Pressure			Results
Point 1	<input type="text"/>	1 bar	Point 1
Point 2	<input type="text"/>	2 bar	Point 2
End Point	<input type="text"/>	0.5 bar	Status

- 4) Enter the following data
 - Dwell Setting*
 - **Control:** Select the time period to allow the system to thermally stabilize on each test point.
 - **Measure:** Select the time period to be in measured mode and records pressure change on each test point.

Leak Rate: Select the unit of leak rate to be displayed on the results

% Tolerance: Enter the necessary tolerance limits for leaks


Test Pressure: Enter the three pressure points that need to be checked during Leak Test (Enter the pressure points within the range selected)

- 5) After entering the above data click **Start**.
- 6) Based on the Test Pressure and Dwell Setting inputs, the controller applies the pressure to the test equipments and measures the readings at each pressure point.
NOTE: If the test pressure point 1 and 2 are same, then the controller applies pressure on the same point twice and displays the result.
- 7) Controller categories the results with color codes and displays it in the Results section.

Leak Test

Dwell Setting	hh	mm	ss	✎	Range Information	
Control	00	:	00	:	10	Module Range Module 1 [-1 to 20 bar g (11136890)]
Measure	00	:	00	:	10	Asset Range 0 to 2 bar
Thermal Stability	00	:	00	:	10	

Leak Rate <input checked="" type="radio"/> Per Second <input type="radio"/> Per Minute	% Tolerance <input type="text" value="1"/> (0.02000 bar)
--	--

Test Pressure	Results
Point 1 <input type="text" value="1"/> bar	Point 1 -0.00000 bar/sec
Point 2 <input type="text" value="2"/> bar	Point 2 0.00000 bar/sec
End Point <input type="text" value="0"/> bar	Status  Passed

- 8) If the gross leak rate is zero on both the test points, then 4Sight2 displays the results as “Kindly perform leak test on PACE controller to ensure there are no warnings”.

Leak Test

Dwell Setting	hh	mm	ss		Range Information	
Control	00	: 00	: 10		Module Range	Module 1 [-1 to 2 bar g (10410851)]
Measure	00	: 00	: 10		Asset Range	-1 to 2 bar
Thermal Stability	00	: 00	: 10			

Leak Rate	% Tolerance
<input checked="" type="radio"/> Per Second <input type="radio"/> Per Minute	<input type="text" value="1"/> (0.03000 bar)

Test Pressure				Results	
Point 1	<input type="text" value="-1"/>	bar		Point 1	0.00000 bar/sec
Point 2	<input type="text" value="2"/>	bar		Point 2	0.00000 bar/sec
End Point	<input type="text" value="0"/>	bar		Status	Kindly perform leak test on PACE controller to ensure there are no warnings

Exercise:

- 1) Exercise is the process to ensure the controller is working properly before performing the actual calibration.
- 2) On the Automated calibration screen, click **Exercise** button under controller options.
- 3) In the exercise box, enter the number of exercise cycle and click **Start**.

Exercise


Enter number of exercise cycles

Status

- 4) Based on the range specified, the controller applies pressure to the equipment from minimum to maximum value and completes the exercise.
- 5) 4Sight2 verifies whether test point values are controlled properly by controller and displays the results as below.

Exercise

Enter number of exercise cycles

Status  Passed

Vent:

- 1) Vent is process of releasing the pressure of the controller to atmospheric pressure.
- 2) To perform a vent operation, on the Automated calibration screen click **Vent** button under controller options.

Venting is in progress...

Frequently Asked Questions (FAQs)

Setup & Installation

1. **Question** I have a multi-site organisation spanning across different regions in the world globally. What is the best way to setup 4Sight2?

Answer: It depends on how you maintain and run these sites. If all sites are maintained and run from a central IT hub, you can install single 4Sight2 license centrally. All sites can access 4Sight2 over the network or LAN. On the other hand, if you have child businesses that are separate entities self-run and managed, you can buy multiple 4Sight2 licenses.

2. **Question** If I buy multiple 4Sight2 licenses, will there be any communication between them?

Answer: No. Each 4Sight2 license is an isolated separate software with its own application installation and database. There is no communication between separate installations. Contact 4Sight2 team for further clarity or to discuss any special requirements.

3. **Question** How can I download 4Sight2?

Answer: You can easily download 4Sight2 from the company website. Below is the link.

OR

you can call the sales offices and raise a purchase order. You should then receive the demo version on a USB stick.

4. **Question** Can I install 4Sight2 on a non-windows operating system?

Answer: No. 4Sight2 is only supported for windows platform.

5. **Question** I have downloaded and installed 4Sight2? I cannot see any icon on my desktop or in the start menu? How do I access 4Sight2?

Answer: 4Sight2 is a web-based software. Therefore, no icon is generated on your desktop or computer when you install 4Sight2. To access 4Sight2,

- Open Google Chrome, paste below URL in the address bar and press enter,
- If 4Sight2 installed on the same computer, use, `http://localhost:<application_port_number>/4sight2` If 4Sight2 installed on a different computer in the same network, use, `http://<Computer name OR IP address>:<application_port_number>/4sight2`
- Create Bookmark in Google chrome for future reference.

Refer Installation Manual for more details.

6. **Question:** How can I make 4Sight2 access more secure?

Answer: A Self-Signed Certificate can be installed as per the instructions found in the Deployment Guide.

License Management

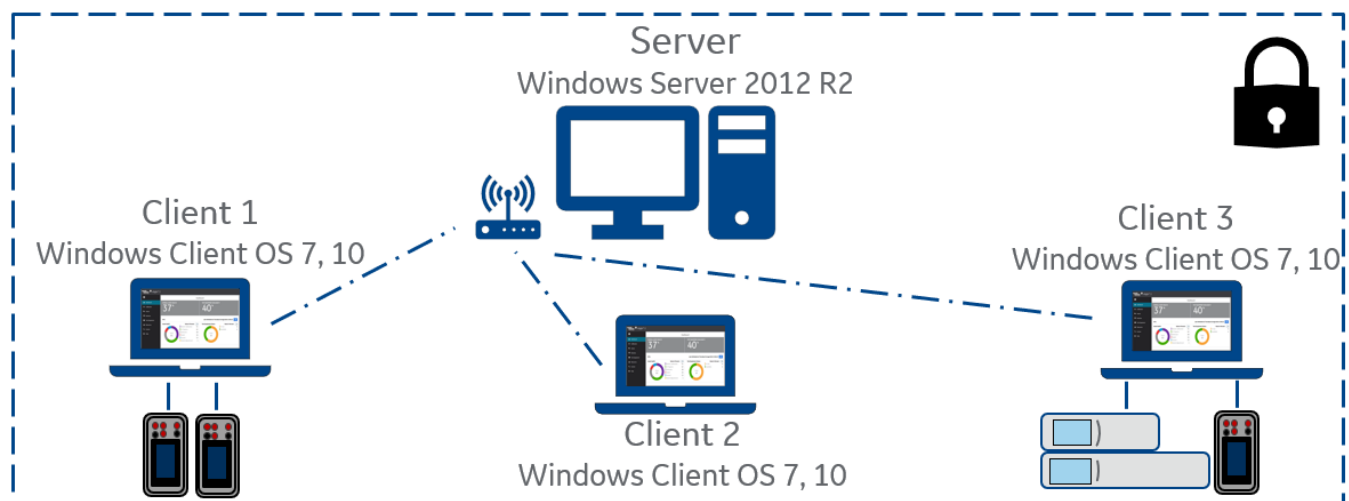
1. **Question:** I have installed 4Sight2 from USB token that I received after I purchased the software. When I login to 4Sight2, it shows license type 'DEMO' under license tab.

Answer: All 4Sight2 USB tokens have demo software. You will have to activate the license after you install the demo version of 4Sight2. To do this,

- Make sure you have installed the software on the correct computer / server.
- Send below information to the mstechsupport or 4Sight2 team via Email to enable them to generate correct license for you,
 - PO Details specifying correct part number that you have purchased.
 - 4Sight2 hardware id: This can be found on the license page in 4Sight2. Make sure you copy and paste the character string in the email to avoid any typographical errors during license generation.
 - Number of Devices / tags:
 - Number of Concurrent Users:
 - Any additional features purchased such as Real Time Calibration, (V1.4)
- Once we receive these details, we will generate a license file for you and send it via Email. You need to upload the same in 4Sight2. Contact details can be found at the bottom of this page.

Things to Remember:

- 4Sight2 license is tied to the machine you install it on and the network it is connect to. If you decide to transfer 4Sight2 to another computer / server, you will have to send us the above information again to enable us to generate a new license.
- If you wish to temporarily use 4Sight2 on a test computer, you can do so by just installation the demo version without the need for a lifelong license. You can extend the demo license if you need more time setting things up. One's your infrastructure setup are complete, and you have installed 4Sight2 in the correct environment, you can then request a perpetual license.
- 4Sight2 is a web-based solution which works best over a local area network (LAN) or wide area network (WAN).



2. Question: Why does 4Sight2 allow the upload of a demo license when a perpetual license is already in place?

Answer: If the application is already installed and a perpetual license has been uploaded. If the user then uploads a demo license, this will overwrite the perpetual license without warning. This is overcome by the user re-installing the perpetual license.

3. **Question:** When I login to 4Sight2, I get an error message, License is not valid. What do I do?

Answer: If you have a license file, try to upload the same. If you get error's while uploading the license file, please contact 4Sight2 team, technical support to generate a new license file.

4. **Question:** When I try uploading existing license file, I get an error Mismatch hardware id. What do I do?

Answer: This is because, you may have switched the network. Whenever you connect the computer on which 4Sight2 is installed to a different Wifi or set it to offline or flight mode, you change your network. Because of this your hardware id within 4Sight2 changes which leads to existing perpetual license to become invalid. Contact 4Sight2 team or mstechsupport to generate a new license based on the updated hardware id. Contact details can be found at the bottom of this page.

Asset Management

1. **Question:** I have just download and installed 4Sight2? I cannot see any data when I login? How do I proceed?

Answer: You must manually create your data in 4Sight2. OR if you have existing database that you would like to get migrated in 4Sight2, you can opt for data migration services provided by 4Sight2 team. Refer Contact details at the bottom of the page,

2. **Question:** What are basic ingredients needed to perform a calibration in 4Sight2?

Answer: You need below things at the minimum,

- One Plant
- One location within the Plant
- One Device within the location
- One Range within the plant
- One Routine (linked to either plant or location or device)
- One Procedure
- Two Users (one technician, one supervisor)
- One or more Test Equipment

3. **Question:** Where can I find my plant structure (or organisational structure) in 4Sight2?

OR

How do I access my organisational plant structure in 4Sight2?

Answer: To assess plant structure, **go to Assets screen from the navigation menu** on the left >> click on **Asset button on the top (with a down arrow)**. You should see an overlay panel sliding from the top with 4SightEnterprise.

In 4Sight2 we refer to plant structure as asset hierarchy.

Note: When you install 4Sight2, you will not have any plant under 4SightEnterprise.

4. **Question:** How can I create a new plant / location /sub-location / tag / device / range / routine / procedure?

Answer: To create any entity in asset hierarchy, go to **Assets screen from the navigation menu** on the left >> click on **Asset button on the top (with a down arrow)**>> click on parent entity >> click the **'...' button**above >> click on **Add new ...** option >> **Fill the details** >>**Create button** click. To see the created entity, navigate back to the asset hierarchy. For Routines and Procedures, first **navigate to Routines (or Procedures) screen from the navigation menu** on the left >> click on **Actions**>> click on **Add New ...** button.

5. **Question:** I have created an asset hierarchy in 4Sight2? How can I navigate quickly to the different elements such as location, device, tag or range?

Answer: Go to Asset Screen, click on the name of the entity from the table. This will take you directly to that entity. Alternatively, you can select the Asset option with a down arrow on the top, click on 4Sight-Enterprise, navigate to the element there onwards in the tree structure.

6. **Question:** I have created a new asset hierarchy up to the device level. I cannot see anything on the assets screen? OR Asset screen is empty despite having added a new device?

Answer: Only range details get displayed in the Asset Screen. If there are no ranges created in 4Sight2, this screen will be empty. Create a range for the new device and then it should appear in the Asset list.

7. **Question:** Where to assign the routine that I have created and why?

Answer: Routines can be linked at any point in the asset tree (Plant, Location, Sub-location or Device level). To do this, go to the **entity you want**to link routine to >> under **Routines section** click on the **+ button** >> **select the routine** form the list >> click **Link** button. You should now see the routine in the list under direct tab. All the child elements will automatically inherit this routine and all the child ranges can be linked to those procedures which are linked to the routine. In 4Sight2, your assets need to be subjected to a schedule for automation to run. Therefore, you need to have all assets linked to a routine. If this is not done, 4Sight2 will not be able to automate calibration workflows.

8. **Question:** Where to assign the procedures that I have created and why?

Answer: You need to assign your procedures to routine and ranges.

- To link procedures to routine, **click on the Routine option from navigation menu** on the left >> **select the routine you want** to link >> **click on the + button under the procedures section** >> **select the procedure from the list** >> click **Link button**. You should now see the procedures in the list. Next step would be to link the routine to the entity. See above.
- One's you have done this step. You can link procedures to the range. To do this, navigate to the range, click on the + sign under procedures section >> select the procedure >> click on Link button. The above links must be made for 4Sight2 to automatically run calibration workflows. This is part of the initial setup and need not be done each time.

9. **Question:** I have created routine and procedure. Linked them together. What do I do next?

Answer: The next step would be to link the same routine to an entity in your asset hierarchy. See above.

10. **Question:** I have linked a routine to my device (or location or tag or plant). What do I do next?

Answer: You need to link your ranges to one of the procedures that are linked to the routine. See above.

11. **Question:** Why does the range show 'Unknown' Cal Status on the Assets Screen.

Answer: This is because you have not linked any procedure to the range. To do this, click on the Range name from the list or navigate to the range form the asset hierarchy, on the range screen click on the + button under Procedures section, select the procedure from the list, click on link button. You should now see the procedure on the range screen and see the range on the assets screen. The range should now show the correct status - On time, Due, Over Due etc depending on the routine.

12. **Question:** When I try to link a procedure to the range, I cannot see any procedures when click on the + sign on the range screen.

Answer: This may have happened because,

- You may have not linked routines to the asset (either plant, location, sub-location, tag or device).
- You may have not linked procedures to the routine that is linked to the asset.

Make sure you have correctly linked procedure to the routine and linked the same routine to the asset.

To link procedure to routine, from the left navigation bar click **Routines >> Click the routine you want to link >> Click on the + button >> select the Procedures form the list >> click the Link button.**

To link routine to asset, **navigate to the asset you want to link (This can be a Plant, location, sub-location, tag or device)>> Click the + button >> Select the routine you want to link>> Click the Link button.**

13. **Question:** Is it possible to delete an asset that has calibration data?

OR

What is a Bin location?

Why is my asset showing Cal Status as Inactive on the Asset Screen?

Answer: No, you cannot delete an asset with historical calibration data. What you can do is move the asset to a Bin location within a plant. By default, one Bin location gets created when you create a plant. Bin location is meant to store assets that are no longer in service. The assets in bin location are not subject to any routines and therefore shows Cal Status as 'Inactive' on the Assets screen.

Location	Tag	Device	Range	Device Type	Priority	Cal Status	State
Bin		XT01 - 01	XT01 - 01R	Electrical	Critical	Inactive	Ready

14. **Question:** Can I re-create a Bin location in a plant?

Answer: No. By default, one Bin location gets created within the plant. If you delete the default Bin location, you cannot create one in 4Sight2. You may have to create a new Plant and move the data from old plant to new plant.

15. **Question:** Is it possible to Unlink a routine from the asset.? OR I have linked a routine to a Plant which is automatically inherited to the children. Now when I go to any child elements, I cannot unlink the routine.?

Answer: You can only unlink routine from the entity that you originally linked it to. In this case, from the plant. To do this, go to the Plant, under the Routines sections, click on Direct tab, Click on the un-link icon.

Note: You can only unlink a routine, if it is not linked to any of the child ranges.

16. Question: When I try to unlink a routine from an asset (plant, location, tag or device), I get an error message Ranges are linked to Routines?

Answer: This is because you have ranges that are linked to procedures within that routine. You must first unlink all procedures from ranges.

To do this, navigate to the range screen, under Procedures section, click on the un-link icon, in the table. Repeat this step for all ranges affected. A good way to find out what ranges are linked to a routine is to go to Routines from the navigation bar on the left, click on the routine you are interested in, under the Affected Devices section, you will see the devices and ranges that are linked to that Routine.

17. Question: When unlinking procedures, why does the navigation return to the first page of results?

Answer: If a routine has multiple procedures linked to it, when a procedure is un-linked from the nth page of procedures the display is refreshed with the cursor on the 1st page rather than the nth. User then must navigate back to the nth page by hand.

18. Question: Clicking **Create** button twice in New User page for unique user, why is the message

`User ID already exists`

displayed?

Answer: This is due to the user selecting the button more than once in quick succession and the initial request is therefore still in progress. Suggest that the user waits for the response to the initial create request to be displayed before selecting the button for a second time.

19. Question: Why does the previous filter remain on the 'Select a procedure' panel?

Answer: If a filter is applied to the procedure panel and then the panel is canceled and then re-opened, the previous filter is still applied and displayed. To remove the previous filter simply clear the filter box and all results will then be displayed.

20. Question: When I copy a device I what does the number in the new Device name mean? OR When I copy and paste a tag? Why does Copy_<Number> get appended to the Tag Name, Device Name, Asset Id, Device Id, Serial No and Range Name?

Answer: The copy numbers are generated from a system wide pool of numbers. The copied Device may be renamed by the user. This is done to maintain the uniqueness of the device. This is done because every asset needs to be unique in the system.

21. Question: Why are copied Devices renamed if they are copied to a location that does not contain a duplicate?

Answer: Copied Devices are renamed according to a global numbering system. The Copied device may be re-named by the user.

22. Question: Why can't I move a Device from one Location to another Location that contains the same Device name?

Answer: This operation is currently blocked. A user may rename the Device prior to moving to achieve this.

23. Question: Why does sorting by Due Date in the Asset screen from Ascending to Descending require two clicks?

Answer: The sorting should be the same as the other columns. Click twice to invoke sorting on this column.

24. Question: Why is the % **Error Span** label not fully visible in the Range results page?

Answer: The label has been clipped to a minor layout problem and will be fixed in a future release.

25. Question: Why do I get error message saying '... size must be between 1 and 25 or 1 and 50. When I am trying to paste an earlier copied device?

Answer: This is because the copy function appends an underscore ('_<number>') at the end of the entity names as well as asset id, device id and serial number. If the combined length is greater than 25 or 50 you will see this error message. Make sure the tag, device and range which you copy have names short enough to accommodate the appended data. You can update the names later.

Device Connectivity

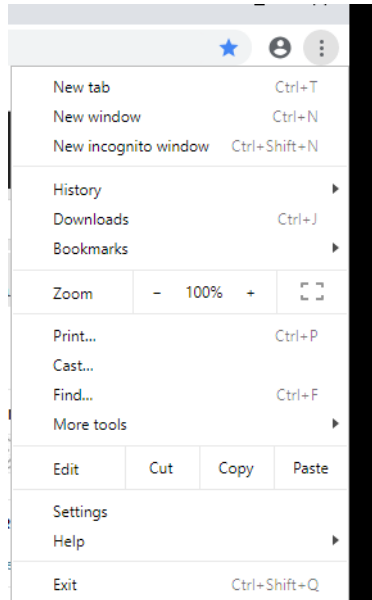
1. Question: Why is my results upload failing to my DPI620 or DPI620IS?

OR

I get an error No Devices Found when I try to download data to the calibrator?

Answer: There could be multiple reasons why this is happening, most common reasons / solutions are below,

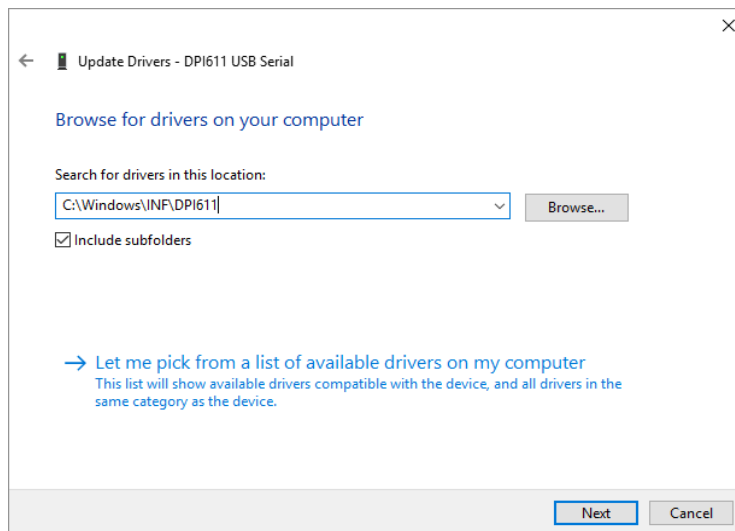
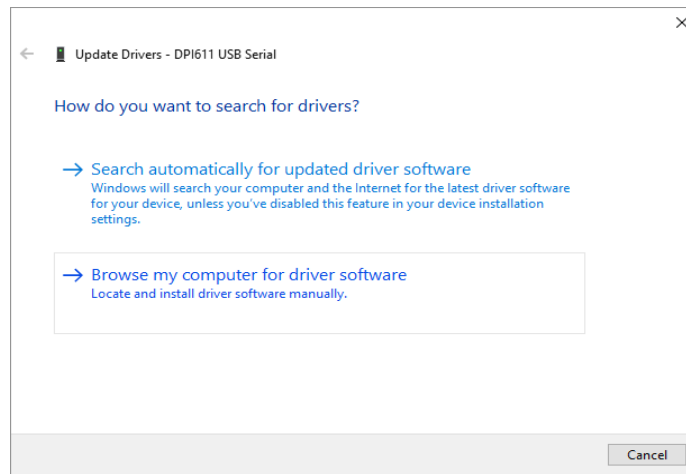
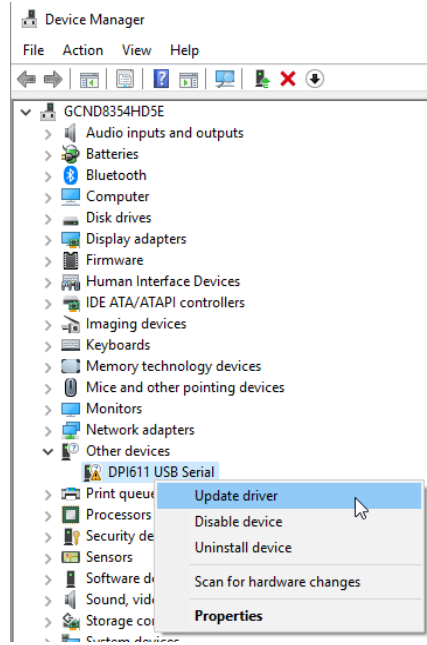
- Make sure the device is connected to the computer via USB cable. Make sure the connections are firm and the USB cable is functioning and in good condition.
- Make sure that the device driver software is installed correctly on your computer and the connected device is visible in the Windows Device Manager.
- Make sure the calibrator is in communications mode.
 - For DPI620G /IS go to **Devices >> USB Client Port >> Select Communications.**
 - For DPI611 / 612 go to **Settings >> Devices >> USB Client Port >> Select Communications.**
- There may be a date and time synchronization issue. Please ensure your DPI date and time are correctly set.
- There may be certain applications / extensions in google chrome that may interfere with the communication between driver and the calibrator. Try using google chrome in '**Incognito**' mode. To do this, press **Ctrl + Shift + N** on the google chrome window. This will open a new incognito window in google chrome. Use this window for 4Sight2. Alternatively, you can click the **three dots at the end** of address bar to open the settings menu >> click on **New incognito window** option.



2. Question: I am getting an error No Connected Devices Found when I tried to connect DPI611 and download data?

Answer: There could be two problems,

- If the DPI611 is detecting as storage device, you need to change it in the DPI. To do this, go to **DPI611 Home Screen >> Settings >> Devices >> USB Client Port >> Select Communications**. Try downloading from 4Sight2.
- If the problem persists, you need to update the drivers and make them point to correct folder. To do this, go to **Device Manager >> Other devices >> DPI611 USB Serial >> (right click) Update driver**. On the update driver window click on **Browse my computer** for driver software button >> change the path to **C:\Windows\INF\DPI611** >> click Next. # Now you should see DPI611 under Universal Serial Bus Devices. Try downloading form 4Sight2.



3. **Question:** The Calibrator which I select from the dropdown suddenly disappears and I get an error message. What should I do to move forward?

Answer: To check device is communicating in portable calibration, select the range you are going to download and select the blue refresh button next to device names dropdown. This will obtain the details of the connected devices. You could observe red remote mode bar on the calibrator. Now click on the drop-down list and you should see the serial number of all connected devices. select the device from the drop-down list.

4. **Question:** Why does 4Sight2 show that a range test has been successfully downloaded, but I can't find it on my connected Test Equipment?

Answer: The Test Equipment prevents tests from being downloaded when it is in documenting mode. If this issue occurs repeat the send procedure ensuring the Test Equipment is not in documenting mode. Click on the home button on the calibrator.

Calibration Management

1. **Question:** Why is the **Send to Test Equipment** button available prior to selecting a Calibrator?

Answer: The Calibrator should be selected from the drop-down prior to pressing **Send to Test Equipment**. Pressing the button before selecting from the drop-down will result in a field validation warning.

2. **Question:** When trying to download multiple tests to a calibrator, I set communication error for some of them. What do I do?

Answer: Sometimes the connection might get interrupted while downloading multiple tests. If this happens, select the ranges and press **Send to Test Equipment** button again.

3. **Question:** I have downloaded data to a portable calibrator, where can I find the same?

Answer: To view the downloaded tests on the calibrator, go to **Home screen >> Documenting >> Run Procedures**.

4. **Question:** When performing a Manual Calibration, why can't I skip to summary?

Answer: The manual calibration process flow is currently different to the portable calibration flow in that it does not offer the user the option to 'Skip to Summary', thereby leaving the AsLeft data empty. The way around this is to select the copy data from AsFound option and this will result in the AsFound and AsLeft results containing the same data.

5. **Question:** Why is the switch calibration graph labeling color scheme inconsistent?

Answer: The color scheme used for the labels on a switch calibration graph is not consistent across the AsFound/AsLeft and Summary page. Suggest any changes in display color are ignored for switch calibration graphs.

6. **Question:** Why does the tool-tip warn about future dates when I leave the Last Calibration blank on Test Equipment?

Answer: The tool-tip message should be ignored. It should say that the Last Calibration cannot be blank.

7. **Question:** Why does the tool-tip warn about 'Month YY is not valid' upon leaving Day as blank in Last Calibration Date field of Test Equipment?

Answer: The tool-tip message should be ignored. It should say that the 'Day cannot be blank.

8. **Question:** Why are Worklist filters retained when closing the screen then re-opening?

Answer: The filters should not be retained. The user can clear any unwanted filters after opening.

9. **Question:** Why can't I generate reports?

Answer: Generating reports requires the Reports Management permission to be set for the user.

10. **Question:** Why can't I enter a negative number in the environment settings?

Answer: Negative numbers can be entered, but the number must be entered before the minus sign.

11. **Question:** Why is it possible to enter E notation numbers for calibration points?

Answer: E notation values are allowed for input, but it is recommended to use standard numeric values only.

12. **Question:** Why is a blank line displayed on the Range results screen when a non-Pressure range is used?

Answer: The blank line is used to display pressure module information for pressure ranges. For a non-pressure range, it can be ignored.

13. **Question:** Why is the **Send to Test Equipment** button available after clicking the **Refresh** button?

Answer: This may occur if the Send button is pressed before the Refresh action has completed. It is recommended that the Refresh should be allowed enough time to complete before proceeding.

14. **Question:** Why is the Cancel/Close button not displayed on the Worklist?

Answer: This has been seen when using a screen resolution of 1280x920, if this occurs please increase the screen resolution until the buttons are accessible.

15. **Question:** I get an error 'Incorrect probe type' when I try to download range to the calibrator.

Answer: This is because, you have selected a probe that is not supported by the calibrator. For accuracy purposes, Druck Calibrators only supports few probes than those visible in 4Sight2. To correct the problem, **navigate to the update range screen >> change the probe type to the correct probe** and save the range. You can check the probe's in the calibrator or refer the datasheet to find out what probes are supported by the calibrator.

16. **Question:** Why is the **Erase Calibrator Memory** button available after pressing the Continue button in the Select Test Equipment page.

Answer: The **Erase** button may briefly be displayed but it should not be possible to press it.

17. **Question:** I accidentally added the range to manual calibration, but I wanted to add it to portable calibration and vice versa?

Answer: Go to the appropriate calibration screen, (you may need to select review button if you are on portable calibration screen), click on Abort button to abort the current calibration. Now you can go back to Worklist and re-assign the range to the correct calibration.

18. **Question:** When I generate the calibration certificate in PDF, why are there loads of empty space on the top of the page?

Answer: The empty space could be there because you may not have populated the details such as company name, address, contact, accreditation details, images and logo. These details can be set under **Resources >> System Configuration >> Report Details**.

19. **Question:** After generating a pdf calibration certificate I realised that I did not specify report details in system configuration. After updating the dates, when I re-generate pdf I cannot see the updated details?

Answer: One's you generate a report (pdf) the data is frozen in the system for historical tracking and audit purposes. Because you updated the report details after generating the pdf, those will not be included. All future calibrations however will refer to the updated report details. If you still want the earlier calibrations to refer the updated report details, you will have to repeat the calibration workflow again for those calibration.

20. **Question:** Why does the Calibration Report display of infinite input/output values?

Answer: If a temperature test is performed on the calibrator without a temperature probe attached, then the calibrator will return a value of infinity for the input/output values. This is displayed on the calibrator results screen as 'Infinity', but is returned to the 4Sight2 application as a value of 1e+100. In release 1.1 of 4Sight2, the application is unable to correctly format infinite values for display and attempts to display a very large number in a small display area which results in unreadable data. In the real world, it is very unlikely that the technician would see this scenario as they would be performing a proper test with the correct probe attachment. If the technician makes a mistake and this situation does occur, then the technician should simply abort and repeat the test with the probe attached. Or alternatively the approver should simply reject the result.

21. **Question:** On the Set Environment Page of Manual Calibration, 4Sight2 requires me to input serial number. What serial number should I enter here?

Answer: This is the serial number of the device under test (DUT) or the Asset that you are calibrating. The serial number can be found on the left-hand side panel under Range Details for the selected range that you are calibrating.

Alternatively, you can navigate to the device using the asset hierarchy to find the serial number.

User Management

1. **Question:** I have created a new Admin user, but the new user does not have permissions to view and update Users or Groups?

Answer: You need to link this user to the User group write and User group read groups. To do this, go to **Resources on the left navigation bar >> click Users >> click the user you have create >> click the + icon under Groups section >> select the above two groups >> click on Link button**.

2. **Question:** Why can't I view the calibration range test results?

Answer: The **View results** permission does not currently allow the user to view the calibration range test results without the **Report Management** permission also being set. Make sure that the user has Technician or Supervisor permissions which by default gives him report management permissions. To do this, go to **Resources on the left navigation bar >> click Users >> click the user you have create >> click the + icon under Groups section >> select Technician and Supervisor group from the list >> click on Link button**.

3. **Question:** I have assigned a range to a technician, but it is not visible in the technician's Worklist.? OR How can I assign range to a technician and supervisor so that it appears in the worklist? Or Can I manually add / items to my worklist (as a technician)?

Answer: There are below ways to add items to a worklist.

- 1) 4Sight2 automatically adds due / overdue items in the worklist: If the range is not available in worklist, it may not have been assigned to you. Log in as Admin user, go to **Assets Screen >> click the magnifying glass icon** (advanced search window) >> **filter and select the range >> click Assign Technician** option under **Actions >> Select the correct technician from the list >> click Assign Technician button**. Re-login in 4Sight2 as the technician, you should see the range in the list. Repeat the step to Assign Approver.
- 2) Technician can manually add items in his own worklist: If the range is showing Cal Status as Passed, it will not be added to the worklist as the calibration is not yet due. To manually add the range in the worklist, login as a technician and make sure the range is assigned to you, go to **Assets screen >>click the magnifying glass icon** (advanced search window) >> **filter and select the range >> click on Add to Worklist button**.
- 3) Admin user can force items to technician's worklist (Ad-Hoc Calibration): (V1.4) To do this, go to **Assets Screen >> click the magnifying glass icon** (advanced search window) >> **filter and select the range >> click Add to Technician's Worklist** button at the bottom. Now you should see the Cal Status change to 'Ad-hoc' and the range should directly appear in the Technician's worklist for ad-hoc calibration.

4. **Question:** I cannot see 'Update' or 'Delete' options in the Actions drop down list. OR When I log in to 4Sight2, I cannot see anything in the left-hand menu / navigation bar except help option.? Navigation bar is empty?

Answer: This is because you do not have sufficient permissions. Make sure correct groups are added to your user in 4Sight2 which in this case if the Admin group. This can be done by the 4Sight2 Admin user. To do this, go to **Resources on the left navigation bar >> click Users >> click the user you have create >> click the + icon under Groups section >> select Admin group from the list >> click on Link button**.

5. **Question:** Nothing happens when I enter my username and password and click sign in button on the login screen? The page does not refresh or show any signs of loading when I enter my details and click enter on login page?

Answer: This is because your account may have been locked and the error message is not getting displayed on the login screen. The only current workaround for this is to change the password reset date form the database. Please contact 4Sight2 technical support to provide further guidance. Contact details can be found below.

6. **Question:** Why has 4Sight2 become unresponsive or options are failing to load?

Answer: When the 4Sight2 server is stopped, the pages in the UI which are not cached, and user clicks on any option, the UI does not give any response to user that 4Sight2 server is down. If for any reason pages become unresponsive or options fail to load, then the server may have become unresponsive and it is suggested that you contact your system administrator.

General

1. **Question:** If you (user) want to see browser tool tips in his preferred language then he/she need to make sure that the browser language preferences are set correctly.

Answer: Chrome browser shows tool tips (Refer Image 1 green highlight). The language for these tool tips is dictated by chrome browser language setting refer Image 2. If user wants to see the browser tool tips in his preferred language then he/she need to make sure that browser language settings are as per his preference.

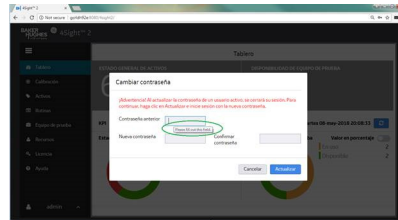


Image - 1: Language selection options in Google Chrome

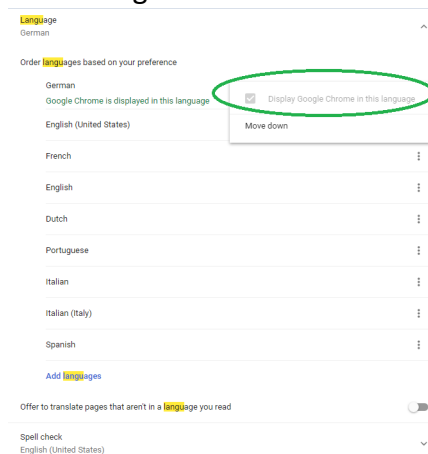


Image - 2: Selected Language



Image - 3: Language selection option in 4Sight2

2. **Question:** Why does the use of long string names cause display issues?

Answer: There is an issue where by long strings are not correctly formatted when they are displayed in the 4Sight2 application. This can result in strings being displayed wrapped around and can result in the data being difficult to read. This is especially apparent if a long device ID is defined. Current work around is to use as concise a naming convention as possible when creating items (e.g. Tag/Device ID's) within the application.

3. **Question:** Why do text entry boxes display more characters than I typed when I add a new line?

Answer: The text entry boxes interpret new lines as 2 characters. There is no impact on the loss of text.

4. **Question:** Why do the **Create** and **Cancel** buttons overlap on the Create Test Equipment screen?

Answer: Make sure your screen resolution is set to greater than 1280 x 960.

5. **Question:** Will continuously sending to and receiving from my Calibrator affect my PC's performance?

Answer: Under normal operation there will be minimal performance impact on your PC. If issues occur and your PC has not been restarted recently, we recommend restarting your PC.

6. **Question:** I cannot connect to 4Sight2 server from a public network / Wifi?

Answer: If using a public WiFi network, then a URL containing the PC Name may fail to connect to the 4Sight2 server. If this situation occurs, try using 'localhost' instead of the PC name. For example, `http://PCname:8080/4sight2` will become `https://localhost:8080/4sight2`

7. **Question:** How to restore and backup postgres database?

Answer: Refer to Installation Manual (123M3140) for database restore and backup

Resources and Settings

1. **Question:** Why is my Country/State not listed when I attempt to create my Plant?

Answer: 4Sight2 is pre-loaded with a set of Country/State data. If the Country/State is not listed, it may be added using **Resources >> System Configurations**. This is only possible in V1.2. In later versions users will have to add country and state names directly on the plant screen.

2. **Question:** Why can't I delete user added System Configurations.

Answer: Care should be taken when adding additional information in System Configurations. Items cannot be deleted in this release.

Things to remember on Login behavior

- In Chrome browser single session/instance, if user X logs in to 4sight and when in another tab/browser instance the 4sight url is hit, then the same user shall be remained logged in to 4sight with the Dashboard page being displayed by default.
- In single server and multiple client scenario, each client machine can be considered as single user. If the concurrency user limit is reached across clients then appropriate error shall be displayed for that particular client machine.
- Within same machine/system, once a user is logged into 4sight, there is no restrictions on the number of tabs/sessions with which 4sight can be opened having that same user.
- In incognito mode, in single 4sight login page instance, either new user or user which is logged in to 4sight using normal mode, can be used to login to 4sight. Above three acceptance criteria are applicable to incognito mode as well.
- If there are 2 tabs both containing login page of 4sight2, if in Tab1 User1 logs in and then in Tab2 User2 logs in, User2 will be considered as latest user and then if User1 performs any actions in his instance then appropriate error shall be displayed. If User1 does explicit refresh then 4sight login will be refreshed with login of User2.
- In browser, 'X' button doesn't impact these scenarios.
- No impact of 'Refresh' button/functionality to above data.

- If there are multiple 4sight browser instances/tabs and if in one tab logout is performed, then in remaining tabs any action performed by user results in auto log out.
- If there are 2 tabs both containing login page of 4sight2, if in Tab1 User1 logs in and then in Tab2 User2 logs in, If User1 does explicitly sign out then he should be redirected to login page.
- Language selection will be handled separately in Incognito mode.
- Auto Log Out upon session expire shall be applicable across all open 4sight browser instances/tabs.
- Check for httpOnly = true in F12.
- When cookies are disabled the 4sight application will not load [AS-IS].

Troubleshooting

4Sight2 installer failing to locate Postgres Database files

Please ensure the installer has been extracted to a local location and the executable is being run from the Disk 1 folder. Ensure the local location to which the installer has been extracted does not have a long pathname as this can also result in failure to find the installer prerequisite files.

Asset failing to appear in advanced search or asset table

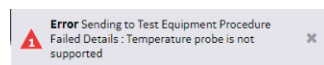
Make sure routine is linked in asset structure and procedure is linked to the range.

Empty drop-down list, or not being able to view part of the plant

You do not have permissions to these areas or views, please contact admin if permissions need editing.

Add range to manual Calibration, but needed to send to Portable Calibrations instead

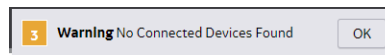
Use worklist to reassign to alternative list. Abort available if in progress.



When creating a range with an RTD / TC Input or Output ensure the correct probe is selected for the temperature type.

Any error upon download


Please refer to DPI datasheet and check that data downloaded is in range or valid combination



No devices Found

- Check physical hardware connection
- Check in the device is listed in Windows Device Manager
- Check DPI device is in communication mode - this option can be found under Device in the DPI menu


Port :

Calibrator :
 

To check device is communicating in portable calibration select the range you are going to download and select the blue refresh button next to device names to obtain details of the connected devices, observe red remote mode bar appear on calibrator and the serial number appears in the device drop-down.

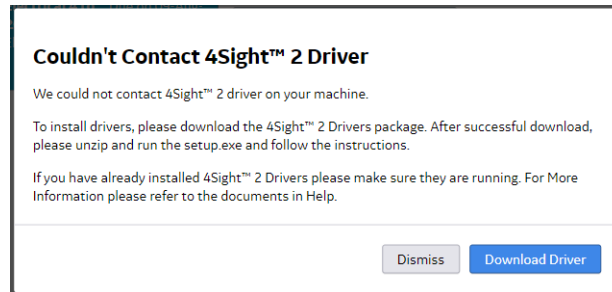
Serial number of this calibrator does not exist in 4SightV2. Please configure this calibrator in 4SightV2.

Port :

Calibrator :
 

Device not recognised

Make sure device is added to test equipment with correct serial number



Device Driver Not Found

Please see the Driver Installation Manual for more details.

Communications stop to Portable Calibrator

If you have successfully received the connected calibrator serial number but any subsequent communication attempts result in the 'Couldn't Contact 4Sight2 Driver' box being displayed, this may be due to a Google Chrome extension interfering with the device communication.


In this situation it is recommended that the 4Sight2 application is accessed using Google Chrome run in Incognito mode as this disables any extensions which may be causing the communication issue.

To create a new Google Chrome window running in Incognito mode, select Ctrl+Shift+N in a normal Google Chrome window and then access the 4Sight2 application is normal. Refer to FAQ, Device Connectivity Section for further details.


System Configurations

DEVICE MANUFACTURER & MODELS ▼

Enter Manufacturer Name

Enter Model Name

Calibration equipment stops being recognized after a Windows update

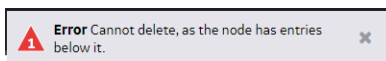
If communications has been successfully established and then cease working after a Windows update it may be that the update has re-enabled drive signature enforcement. Please see the Driver Installation Manual for details on how to disable driver enforcement.

New piece of calibration equipment fails to communicate

The driver is required to be manually installed for each product type. Therefore if communications have been successfully established for a DPI611 and a DPI620 is subsequently connected and not recognized this is because the driver needs to be manually installed for this product ID. Please see the Driver Installation Manual for details on how to install the driver using Windows Device Manager.

Missing Manufacture or Model when creating a device

Add new details in Resources >> System Configuration



Cannot delete as node has entries below it

Delete all items below selected item in asset structure

For example, if you want to delete a Tag delete the ranges and then the device stored within the tag. . Refer to FAQ, Asset Management, for further details.

Why can't I delete a user?

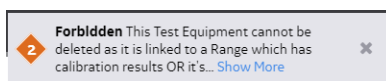
Users cannot be deleted however they can be set to inactive meaning they cannot log into their 4Sight2 user account

To do this, **go to Resources on the left navigation bar >> Users >> click the user name from the list >> click Actions >> click Edit >> uncheck Active checkbox >> click Update button.**

Critical Error in Procedure displayed on calibrator

Please refer to GE Druck Pressure Calibrator data sheet for valid input output combinations and valid range data.

NOTE: The calibrator can become stuck in this invalid state and produce this error for all subsequent test procedures run. If this error is observed it is recommended that the calibrator is re-booted to prevent this.



Test Equipment cannot be edited if has been already used to perform a calibration or a calibration is in progress.

I have logged in, but can only see the user manuals.

Contact your administrator, as you have not been assigned any permissions. If you are a Admin user, you need to grant the user required permissions within 4Sight2. To go this, go to **Resources >> Users >> select the user >> click the + button under Groups section >> select the appropriate group >> click Link button.** Depending on the group linked, the user must now see additional options in the navigation bar on the left.

Failure to upload calibration from DPI611 or DPI620

There is an issue with setting the *date and time of the DPI during download after removal of the power supply. The first download after power on does not set these values correctly and then the upload of the

test results to the 4Sight2 application fails. To ensure this problem does not occur, please follow below steps.

- 1) Download the first test after a power on twice. This will ensure the date and time are set correctly.
- 2) Manually update the date and time after a power on to ensure that they are in-line with local settings.

* The date and time are displayed on the DPI611 display and can be easily checked to ensure they are in line with the local settings.

Changes to server date and time

If the server date or time requires adjustment then please ensure that all users are logged out of the 4Sight 2 application before modification.

Unable to access 4Sight2 application with specified URL

There is an issue where if DG Agent is installed on the PC running the 4Sight2 application it prevents the URL working. In this situation it is recommended that the IP Address is used in place of the computer name in the URL as follows:

```
http://IPAddress:PortNumber/ApplicationName
```

If the URL specified above fails to result in the login box being displayed, *e.g.*,

The following URL should be used:

```
http://IPAddress:PortNumber/uaa/login
```

If the above does not work, try restarting 4Sight2 Service.

ZZZ displayed on 4Sight2 menu items

This issue is due to the locale setting on the Chrome browser. change the browser settings to English language and the 'ZZZ' should be removed from the menu options.

Genii 620 is connected to 4sight system and is visible as a selectable Test Equipment in the UI. Upon initiating 'Send to Test Equipment' process for a particular range using the Geni device a failure is seen in the UI. It is visible that the data from 4sight has not reached Geni as there is no Red colored highlight of the Geni system visible.

In order to resolve this the Geni 620 device needs to be shutdown and restarted. Thereafter above process works.

Whenever the user changes the language on the login page, it gets auto changed to English language

This issue occurs due to some cookie became dormant and does not allow to update cookies. By closing all the chrome browsers it gets resolved.

Error on adding/displaying Tag name, Device name, Device serial number, Observed unit.

Do not use \\ and // characters on the above parameters. Double slash is not permitted. Device cannot read when double slash is used on the above parameters.

Unable to open 4Sight2 URL, web browser shows "This site can't be reached" message or Unable to launch Postgres service after unexpected system shutdown

This error occurs due to the computer where 4Sight2 Server is installed has restarted unexpectedly and causing postgres service not to start properly. follow the below steps to resolve

- 1) Open Task manager on Windows operating System
- 2) Kill all the instances of currently running postgres.exe
- 3) Clean postmater.pid file under data directory of Postgres
- 4) Open Windows Services. **(Start -> Run -> Services.exe)**
- 5) Start Postgres service
- 6) Once Postgres service is up and running, start 4Sight2 service.

Unable to open 4Sight2 post upgrade

Clear the cache and then launch 4Sight2 post upgrade

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Springfield Central
Phone: 1300 171 502
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