# HARDCAT®
### ASSET MANAGEMENT WORLDWIDE

# What's New?

**Asset Management**
**Version 4.5**

# New features at a glance…

**Hardcat DEMO installation wrapper with SQL Express 2014**

**MTBF & MTTR calculations in Hardcat**

**Type-to capability in Hardcat search**

.

**Integration between Hardcat Helpdesk and Maintenance module**

**Enhanced Role Security & Settings**

**Single Sign on – Windows Authentication**

CRUD controls (create, read, update, delete) across entities

Hardcat Login Manager

New look and feel of Hardcat Web

Add parts to Work order & Problem actions via HardcatWeb

Ability to conduct asset audits via HardcatWeb

# Hardcat DEMO Installation Wrapper with SQL Express 2014

**Business Driver:**
Previously the effort required to install Hardcat DEMO on a machine was deemed to be too technical and complex. The process involved manually installing a database server (which non-technical users were not able to do), manually creating a database, setting up connections between the database and Hardcat, installing Hardcat software and then finally running an admin process to load data into the DEMO database.

**New Feature:**
Hardcat has now automated the entire process by including the database install and various other administration processes within the Hardcat installer.
A non-technical user can simply follow the prompts in the Hardcat wizard and start using Hardcat on its completion.

**Benefits:**
- The Hardcat installer with SQL Express wrapper reduces the effort required to install Hardcat and SQL express and makes the process seamless so that even non-technical users can install Hardcat.
- Save time having to look up SQL express download and install it as the Hardcat installer will automatically do this for you.

# MTBF & MTTR calculations in Hardcat

**Business Driver:**

One of our clients requested the ability to calculate Mean time between failure and Mean time to repair values within Hardcat.

MTTR and MTBF calculations are important KPI's in the plant maintenance industry. It provides valuable insight to the maintenance supervisor regarding two key aspects of their assets/equipment: Reliability & Availability.

An organisation can use these values as the basis for setting up a maintenance regime for their assets and equipment.

**New Feature:**

In Hardcat against a Product you are able to specify the Manufacturers' MTBF value. Against an asset, the MTTR and actual MTBF values are automatically calculated and recorded if you have access to the Hardcat maintenance module.

**Calculating Mean Time to Repair**

The calculation of the MTTR value is based on the following formula:
**Asset MTTR = (total downtime) / (number of work orders)**

Where Downtime = an assets' downtime is the total duration a work order associated to an asset was open.
i.e., (Date/time work order was closed) – (date/time work order was open)

While calculating downtime, each work order is taken into consideration individually even if there are work orders that overlap each other.
i.e., a new failure work order is created whilst another failure work order is already being repaired.

In this instance, each work order downtime must be calculated individually as per example below.

E.g. for an asset 'AS000022' that had 3 work orders created against it during its lifecycle, the MTTR value at various stages of the lifecycle will be:

| MTTR | Work Order | WO Creation date/time | WO closed date/time | Downtime |
|---|---|---|---|---|
| 45 | WO000123 | 01/01/2014 – 1:00pm | 03/01/2014 – 10:00am | 45 hours |
| 26.5 | WO000127 | 02/01/2014 – 10:00am | 02/01/2014 – 06:00pm | 8 hours |
| 43.77 | WO000333 | 17/05/2014 – 06:37pm | 03/08/2014 – 02:38pm | 78.3 hours |

**Calculating Actual Mean Time between Failure**

Actual MTBF values are only calculated for work orders that are classified as a 'failure'. In Hardcat, you can set a work order category to be a 'failure event' by going into Modules → Maintenance → Options → Configure Category → Select any category from the list and click EDIT:



Once a work order category is set to be a failure event, all work orders (task based and ad-hoc) linked to this work order category will be used for Actual MTBF calculations.

The calculation of the Actual MTBF value is based on the following factors:
• **Time between failures (TBF)** is the number of days between each failure work order date.

When the asset has its first failure work order, the TBF value will be the duration between the asset creation date and the first work order failure date.

E.g., for an asset record that was originally created on 01/01/2014 and had 3 failures at various stages of its lifecycle, the TBF value for the asset at different stages will be:

| | Assets Creation Date | 1st Failure | 2nd Failure | 3rd Failure |
|---|---|---|---|---|
| Asset AS000022 | 01/01/2014 | 01/03/2014 | 25/04/2014 | 03/08/2014 |
| Time between Failures | | **59 days** | **55 days** | **100 days** |

• Therefore, **Actual MTBF = (Sum of all TBF values/Number of failure work orders)**

Based on the same example above, the Actual MTBF value for the asset at various stages of its lifecycle will be:

| | Assets Creation Date | 1st Failure | 2nd Failure | 3rd Failure |
|---|---|---|---|---|
| Asset AS000022 | 01/01/2014 | 01/03/2014 | 25/04/2014 | 03/08/2014 |
| Time between Failures | | 59 days | 55 days | 100 days |
| **Actual MTBF** | | **59** | **57** | **71.33** |

**Benefits:**
- Ability to calculate how reliable and efficient a product is by comparing its MTTR & MTBF values calculated by Hardcat with what the product manufacturer claims it to be.
- Ability to efficiently plan the schedule for your planned asset maintenance activities by maximising their usage and output based on MTTR and MTBF values.
- Ability to make an educated assumption on when an asset needs to be serviced based on its MTBF & MTTR values.
- Compare the average down time between different manufacturers for procurement decisions
- Compare actual MTTR to manufacturer's service level agreements and warranties.
- Compare actual MTBF to manufacturer's service level agreements and warranties.

| | Assets Creation Date | 1st Failure | 2nd Failure | 3rd Failure |
|---|---|---|---|---|

# Type-To capability in Hardcat search

**Business Driver:**

Type To capability in search areas was available in Hardcat V3. When Version 4 was launched this feature was not included as the new grids had powerful search functionality which meant the type-to feature wasn't really required. However, most users who were used to the type-to search in V3 requested us to re-instate the feature in Version 4 as they found it to be of use.

**New Feature:**

Use Type To in search, if selected will turn ON 'type-to' functionality on Hardcat grids.

This feature is best described as the ability to 'filter records as you type' and is tied to the 'contains the text' search clause. By typing several characters into the search field the results of the grid is filtered automatically as you type to contain only those records that match the text entered by the user.

Hardcat allows you to tweak the type-to search delay depending on your typing speed and requirements.

**Benefits:**
- Allows clients the flexibility to select preferred search method aligned with business requirements and preferences
- Save time in search mode

# Integration between Helpdesk and Maintenance module
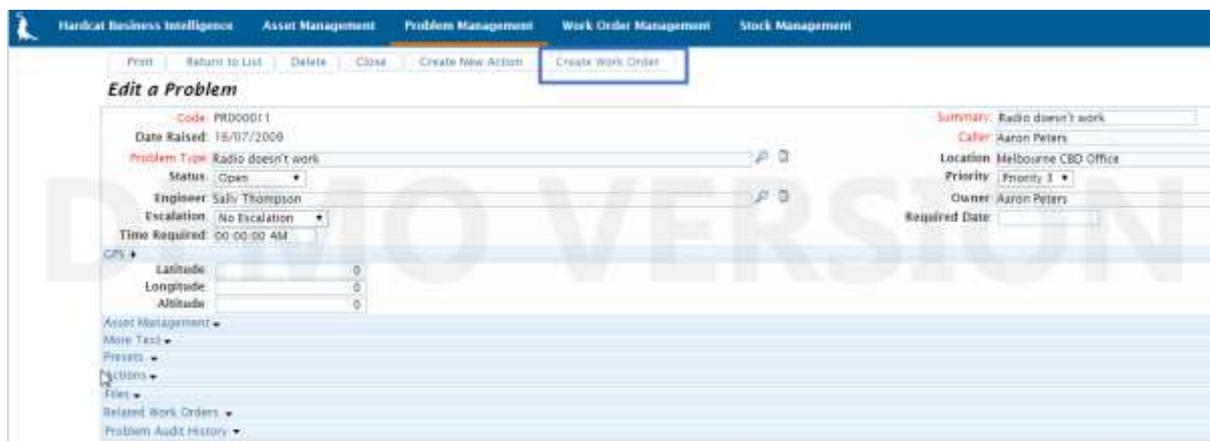
**New Feature:**

The Hardcat HelpDesk and Maintenance modules are now integrated, which allows users to create a work order from within a helpdesk record.

This feature is extremely useful for clients who wish to raise a repair job to address a help desk issue logged by their users.
The integration is available on both Hardcat Client and HardcatWeb.

From within a problem record, a new adhoc work order can be raised by clicking on the "work order create" button. Upon raising a work order from within a problem, details from the original problem record such as description, location, asset & engineer are copied across to the work order. The user is able to modify the default values on the new work order.

The business rules built into the system does not allow a user to close a problem if it finds that there are outstanding work orders linked to this problem still 'open'. Also a constant link between the problem record and the work order is maintained for reporting and searching purposes.



**Benefits:**

- Seamless workflow between Help Desk and Maintenance modules, removing duplication of data entry
- Ability to link Problems to actual work orders raised and completed against a problem.
- Ability to see the status of open work orders against a problem from within the Help Desk module, – hence easier monitoring of problem resolution

- Tighter workflow between Help Desk and Maintenance Module.
- Business rules to prevent a Help Desk problem being closed prior to related work orders being closed ensures that all problems are addressed.

# Single Sign On (SSO) – Windows Authentication

**Business Driver:**

Most large corporate organisations want to manage their users from a central control point such as the Microsoft active directory interface. This includes settings up the users' access levels, usernames, passwords and much more.

For larger organisations, the on-going management of user profiles could be a cumbersome and time consuming task for Hardcat administrators. If an employee left an organisation the Hardcat Administrator had to ensure that their account was disabled in two places; one in active directory and the other in Hardcat.

**New Feature:**

Hardcat now support Windows Authentication (Single Sign On). i.e., the ability for users to login to Hardcat using their Windows credentials.

Once the Hardcat user account is correctly setup to be mapped to a Windows account, the system will no longer prompt the user for any usernames or password when they attempt to access Hardcat.

If for any reason the users' windows account is disabled they will not be able to access Hardcat.



**Benefits:**

- Reduces helpdesk costs (of maintaining and supporting Hardcat) as the feature saves the users from having to memorize another set of credentials to access Hardcat.
- Improves compliance and security capabilities

- Improves user satisfaction as the user experience is simplified and user friendly as the system will no longer prompt users to enter usernames and password.
- Time, cost and effort spent on managing Hardcat users is drastically reduced.
- Combined with the Active Directory Module, the SSO feature will provide further reduce time and administrative costs
- When combined with Active Directory Module, the SSO feature can automatically create users and populate the Windows credentials
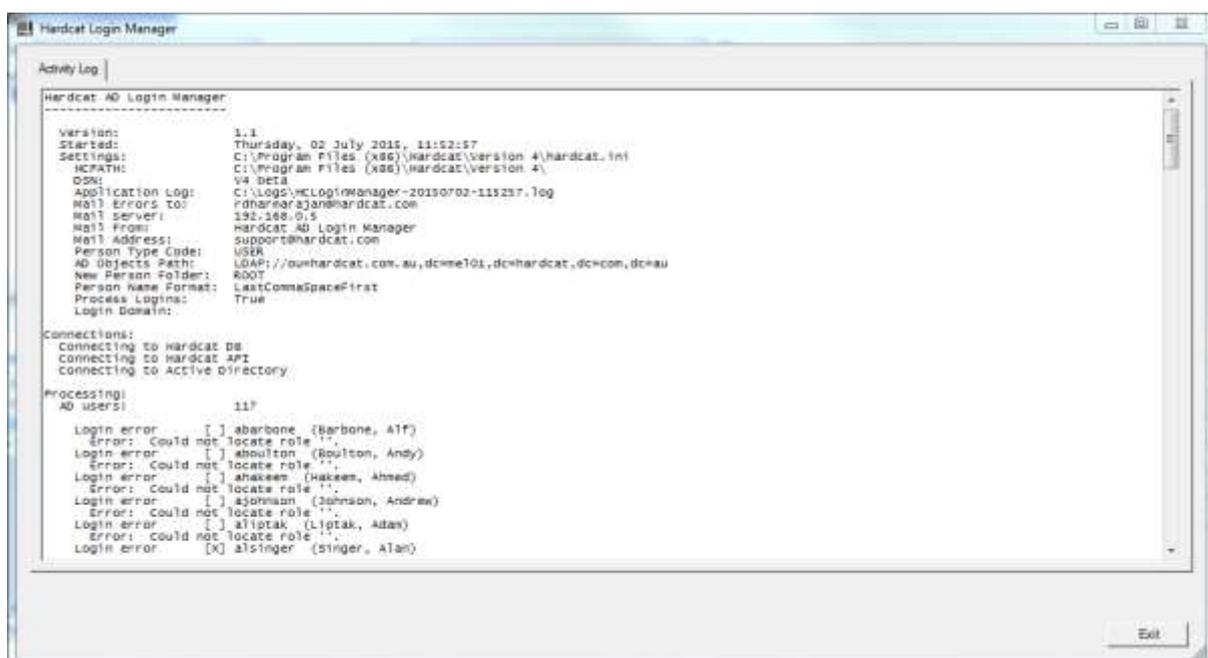
# Active Directory Module Enhancement - Hardcat Login Manager

**Business driver:**

Most corporate organisations prefer managing their users from a centralised repository. The task of creating and managing Hardcat user accounts separately was doubling up the load for the IT teams at various organisations and the request to automate the process of creating users by looking at MS Active directory interface was raised.

**New Feature:**

The Hardcat Login Manager is a separate utility that allows users to create person and login records in Hardcat by looking at the MS Active Directory structure. The utility also allows the users from the MS Active directory to be populated into various Hardcat Roles thereby making the process of assigning Hardcat permissions and access levels to users completely seamlesss. This coupled with the other new features introduced in Hardcat such as Single Sign On and Update Roles security drastically reduces the Hardcat support load faced by IT teams of large organisations.

**Benefits:**

- Seamless creation and management of Hardcat users
- Integration with SSO functionality drastically reducing Hardcat Administrator support for new users
- Accuracy and automation of user details when creating new users in Hardcat
- Ability to manage currency of active user list ensuring up to date records of users at all times.
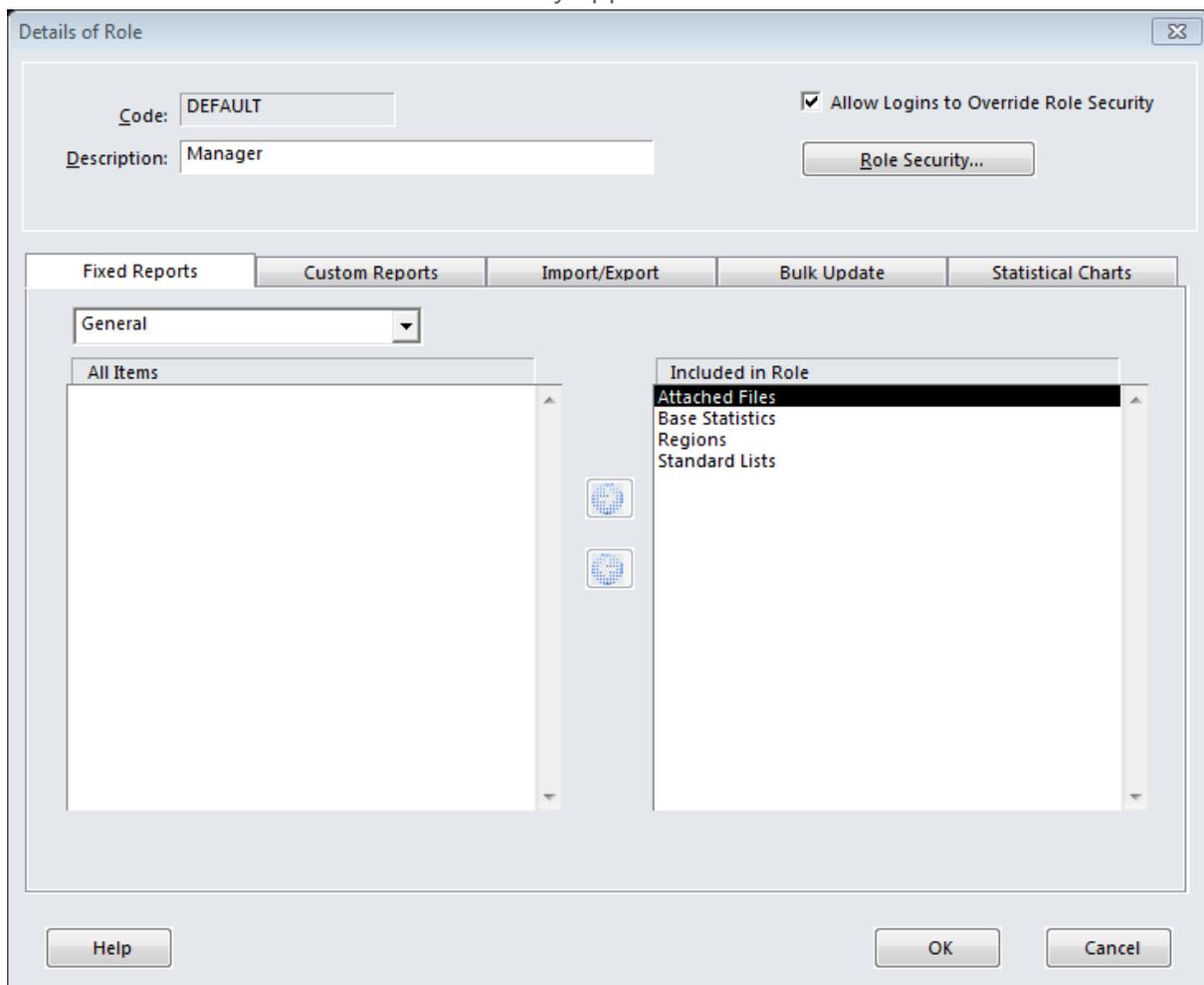
# Enhanced Role Security & Settings

**Business driver:**

Roles in Hardcat were just a container of reports, exports and charts. i.e., for a user their access to reports, exports and charts was controlled by the Role they belonged to. A majority of clients had requested user access levels (R, RA, RAD) and user security settings to be merged into Hardcat Roles so that it could be more useful when managing user permissions and access within an organisation.

**New Feature:**

Roles now contain all user security settings and access levels. By assigning a role to a user, the permissions from the Role are automatically applied to the user.
Any change made to the Role can optionally be applied to all the users that belong to the role. This is extremely useful when configuring the persmission levels for a particular type of user. i.e., rather than having to make the change on individual user accounts, the change can be made to the Role and that automatically applies to all users.

**Benefits:**

- Account management of Hardcat users is greatly simplified
- Benefits any organisation in being able to manage global user group parameters based on roles and functions rather than setting them individual user level
- Saves time and cost in user level access administration
- Reduces time in setting up new users in the system

# CRUD (create, read, update, delete) controls across entities
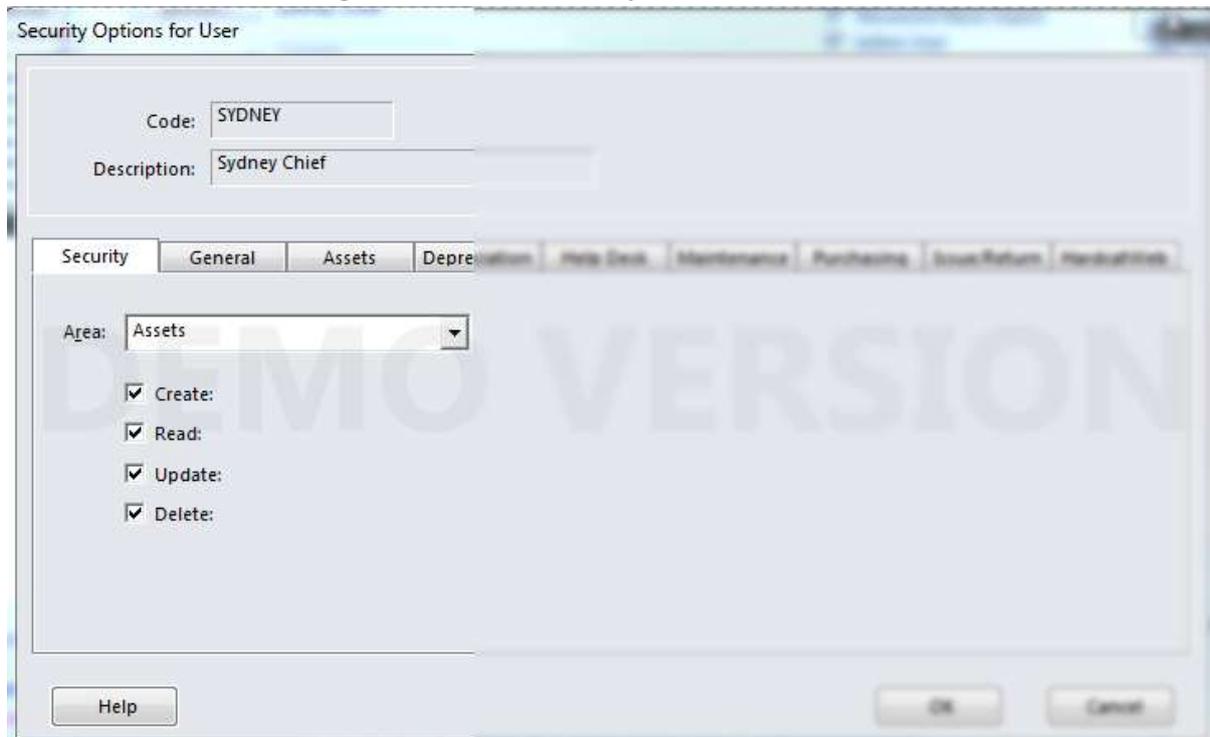
**Business driver:**
One of our clients wanted to give their users RA (read, amend) controls to the Assets area but didn't want them to create new assets. This type of flexibility was not available in the system.

**New Feature:**
CRUD (create,r ead, update, delete) controls have been implemented for the following entities: Assets, Problems, Tasks, Work Orders, Invoices, Purchase orders, Purchase order templates and Stock.

Unlike the user access levels (R, RA, RAD) that applies to an AREA in Hardcat, the CRUD controls apply directly to the entities only.
i.e., even if you give RAD access to a user to the maintenance module, unless they have the C (for create) turned off against work orders they will not be able to create a work order.

**Benefits:**

- Ability to tie down users to performing certain functions within the system
- Greater user configuration by allowing users to edit an asset but not necessarily create new assets.

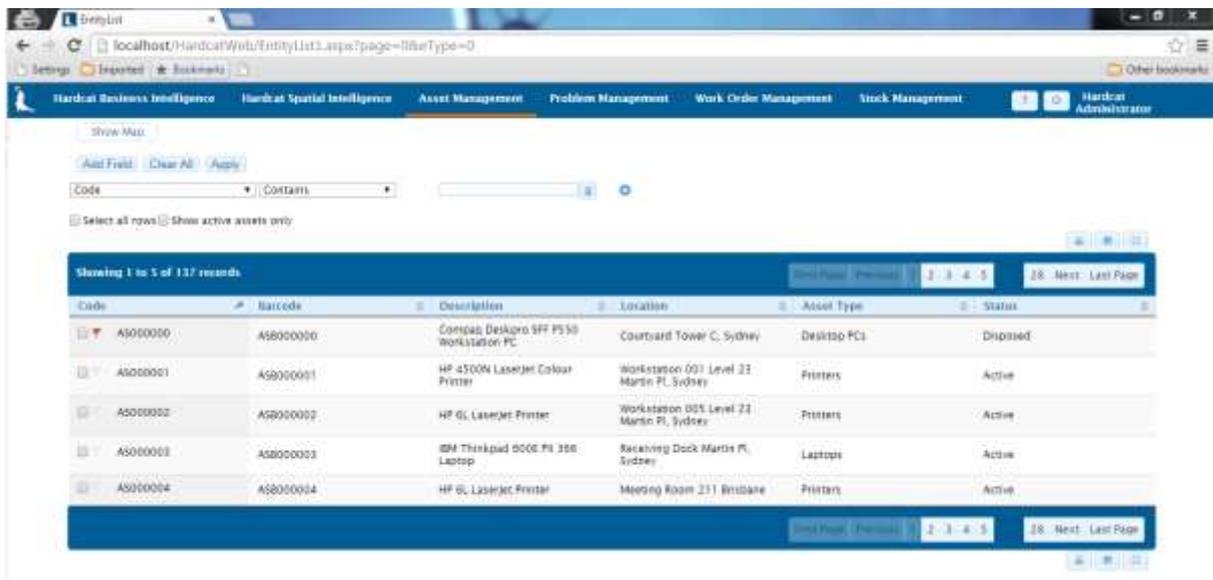# New look and feel of Hardcat Web

**Business Driver:**

Hardcat Web consists of various powerful functions, such as Issue/Return, Audit by assets, etc. but they are currently only accessible from certain pages of the site. Users who weren't aware of these functions wouldn't be able to locate them easily as they weren't highlighted on the main page of the site.
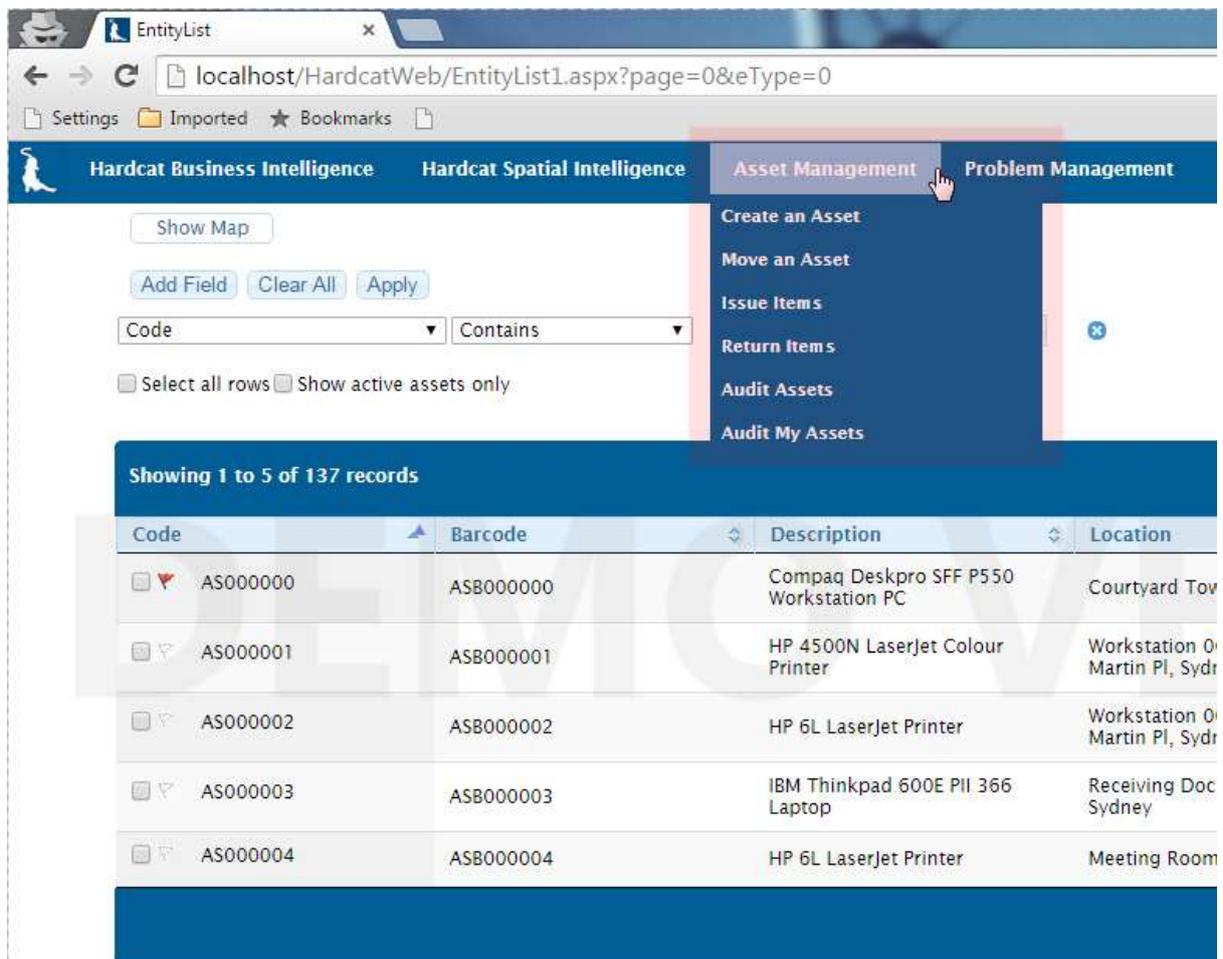
**New Feature:**

A new menu has been added to HardcatWeb and the layout of all pages on the site has been modified to give it a contemporary look and feel.

Hovering over the tabs on the new menu automatically brings up a list of child items that highlight the various functions on the site. Users can launch a function, e.g., Issue/Return or Audit my assets, directly from the main page of the site by using the new menu controls.

**HardcatWeb menu bar**

**Hover over tabs to access functions**



**Benefits:**

- Access various functions of the site from the main page without having to browse to other areas of the site (requires additional mouse clicks)
- Contemporary look and feel
- Industry standard menu controls gives overall site a better look and feel

# Add parts to work order & problem actions in HardcatWeb

**Business Driver:**

The ability to assign parts to a work order or problem action was always available in Hardcat client but the feature wasn't available in HardcatWeb.
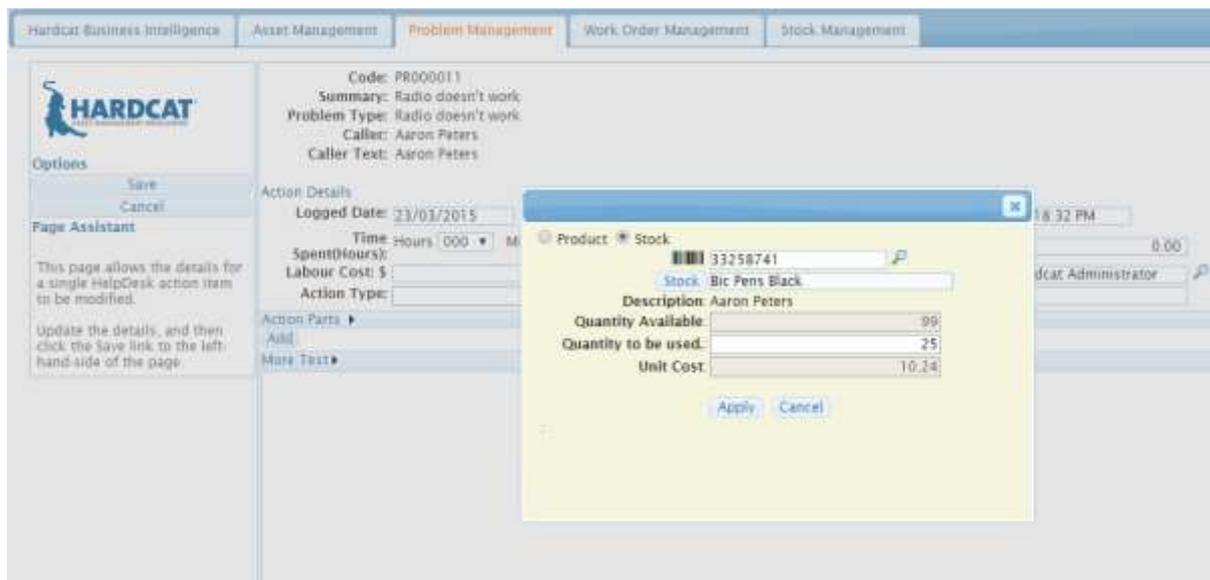With the increased growth of HardcatWeb in organisations, the request to have the ability to assign parts to an action via HardcatWeb was raised.

**New Feature:**

HardcatWeb allows you to assign parts to a work order/problem action.

You can select parts for the action either by scanning its barcode or by browsing the parts list using the controls on the screen.
The cost of the parts assigned to the actions are added to the work order costs thereby allowing clients to calculate how much the job costed.

**Benefits:**
- Whether you are in the field or in the office, users have wider and greater access to Hardcat's Maintenance and Help desk functionality via the Web
- Ability to relate stock to work orders and manage stock usage whist using the web interface

# Audit Assets in HardcatWeb

**Business Driver:**

Users need to invest in expensive PDA hardware to conduct asset audits or use their smartphone apps. Some HardcatWeb users expressed their interest in conducting asset audits via HardcatWeb. Their plan of attack was to load HardcatWeb on a laptop (cradled on a trolley) with a USB scanner attached to it and walk around the office to conduct asset audits.

While this alternate approach cannot fully replace the performance and robust nature of audits conducted using PDA devices, it is an option for companies who have budget constraints in place stopping them from investing in hardware to conduct asset audits.

**New Feature:**
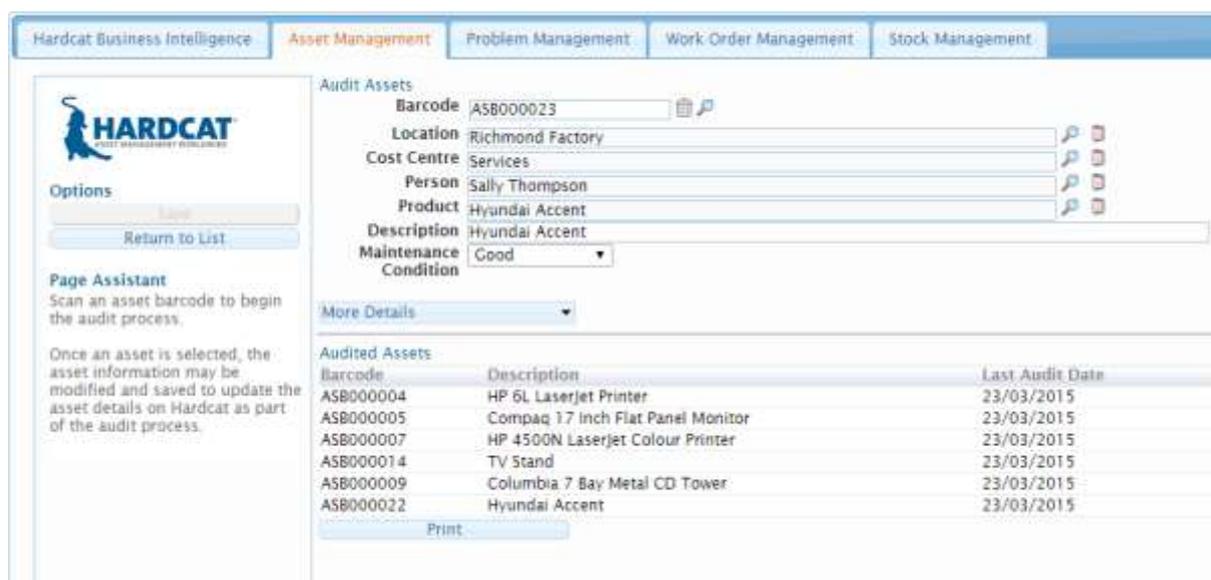
You can audit assets using HardcatWeb.

Two modes of audit are available on HardcatWeb:

- Audit by barcode
- Audit MY Assets

**Audit by Barcode:**

Scan an asset barcode to bring up its basic details. The act of successfully scanning an asset barcode itself marks the asset as being audited.
The user is then optionally able to update asset details such as Location, Cost Centre, Person, Product, Description, Maintenance Class, User Keys, Presets and much more.

**Audit My Assets:**

This function displays the assets that are assigned to the logged in user in a list.
Against assets in the list, there are two buttons: Audit & Discard.

Clicking Audit allows the user to audit the asset.
Prior to clicking audit the system 'optionally' allows the user to update the assets' location, person and condition fields.

Clicking Discard marks the asset as being discarded and automatically updates its status to a pre-configured value. For e.g., faulty or missing.



**Audit MY Assets**

**Showing 1 to 9 of 9 entries**

| | | | Barcode | Serial | Description |
|---|---|---|---|---|---|
| Audit | Discard | ✎ | ASB000002 | 54HGE21 | HP 6L LaserJet Printer |
| Audit | Discard | ✎ | ASB000018 | Not Available | Open Display Unit |
| Audit | Discard | ✎ | ASB000047 | SAX-007 | Nissan Pulsar |
| Audit | Discard | ✎ | ASB000096 | Not Available | Pedestal - Mobile |
| Audit | Discard | ✎ | ASB000104 | 2345234523 | Compaq Deskpro 5133 Workstation PC |
| Audit | Discard | ✎ | ASB000106 | | Fire Extinguisher |
| Audit | Discard | ✎ | ASB000119 | 2222 | Compaq Deskpro 5133 Workstation PC |
| Audit | Discard | ✎ | ASB000122 | 5555 | Compaq Deskpro 5133 Workstation PC |
| Audit | Discard | ✎ | ASB000124 | wqewe | Compaq Deskpro 5133 Workstation PC |

**Benefits:**
- No need to rely on expensive PDA devices to conduct asset audits
- Ability to pass ownership of audits to end users who have access to HardcatWeb
- Ability to quickly audit large volumes of assets via end users
- Time and cost savings both in hardware investment and resources dedicated to physical audits

# Complete listing of New Features in Hardcat Version 4.5

**New Features in Hardcat:**

- Prepare Hardcat installation wrapper with SQL Express 2014
- MTBF & MTTR calculations within Hardcat
- Make extra fields available for Alerts for Problem and Asset Types
- Create an installation wrapper for SQL express 2014
- Rename default HC data source and database name to be
- Provide default colours to status values for NEW HC systems
- You cannot enter 3 digit numbers for any of the Administration
- Modify message on Migrate
- Boolean Any Search only allows for up to 10 search criteria
- Ability to specify delay before triggering type-to behaviour
- Display new parts cost field in HD and Maintenance fixed reports
- Provide single sign on functionality for Hardcat
- Ability to create custom reports based on the Task Assets table
- Integration between HC Help Desk module & Maintenance module
- Add the ability to clear selections made for reports/exports/charts on Grid list screens
- Ability to clear inactive logins from HC
- Ability to assign cost centres to depreciation sets
- Ability to tag a Hardcat system as TEST
- User is able to re-open a closed Work Order
- Add CRUD like option that controls whether user can create new assets
- Notifications dialog should display when the last Notification was sent
- Ability to configure options within the Cost 'Per' dropdown list in the Maintenance Tab of an asset
- Add support in HAPI for Version and Company information
- Add Location changes due to Bulk Update to Asset Movement report
- Ability to set the HCW landing page of user to be 'Audit my assets'
- Rename the label of 'related problems' tab in Problem edit dialog to be 'child problems'
- Create HC shortcut in application directory that overrides windows login
- Ability to specify HC user access levels & user security settings against HC ROLES
- Build HC support to allow status field of discarded assets to be updated automatically
- Create a report that lists assets that failed their audit and displays the user comments

- Update the fix logins utility so that it automatically clears orphaned locks from the HC DB
- Add use of new HCMail COM Assembly to provide EHLO SMTP and Authentication
- Revise how applications identify themselves with HAPI
- Alow .rpt specifications to be created from custom reports
- Convert existing Login options to new format and duplicate for Roles
- Create a file extraction utility that extracts all asset files to a folder
- Add option that controls whether user can navigate away from their HCW landing page
- Create a file extraction utility for Zoos Vic that extracts asset files (only .jpg format) to a folder
- Ability to set login Role via HAPI
- Initialise new CRUD security options based on existing Access Level settings
- Initialise new CRUD security options for Roles
- Create Options to fix Purchase Item More Text missing after Upgrade
- Add asset current units field to 'Task Assets' table
- Change label of options in Role configuration screen
- Add the ability to Copy and View Roles
- Add role as a column in the user security screen
- Add HELP button to Role edit dialog
- Allow ADMIN user to access Roles
- Bug Fixes

**New Features in HardcatWeb:**
- Ability to assign parts when creating WO actions and Problem actions on HCW
- Ability to filter HCW lists based on entity folders
- HCW - Modify label of function that allows parts to be added to
- Ability to audit assets from within HCW
- Ability to browse entity folder structure when filtering fields on HCW
- Revisions to action parts user interface on HCW
- Provide single sign on functionality for HardcatWeb
- HCW to display HC license name and number
- Implement new menu controls, help assistant & modify layout of view/edit pages in HCW
- Integration between HC Help Desk module & Maintenance module
- Change label of 'show/hide' option on HCW login screen to be 'click here to change password'
- Revisions to the implementation of single sign on in HCW
- Introduce new audit function in HCW called 'Audit My Assets'
- HCW child menu options for various areas
- Create a new HCW landing page that overrides windows authentication
- Create custom web URL that takes user to 'audit my assets' function

- Implement heartbeat function in HardcatWeb
- Ensure HCW uses the Login option settings instead of Role Options
- Update page assistant content for new audit functions in HCW
- Bug Fixes

**New Features in CatScan:**
- Display field descriptions in RFID screen columns

**Please contact a Hardcat expert on [sales@hardcat.com](mailto:sales@hardcat.com) for more information.**