dcTrack® Version 9.0.0

These release notes contain important information regarding the release of this product, so please read them carefully. We recommend that you read the entire document and upgrade to this release.

Important Notices

Compatibility

If you are currently using both dcTrack and Power IQ, please note that dcTrack 9.0.0 is not compatible with Power IQ versions earlier than 8.0.0. If you are using an earlier version of Power IQ, you must upgrade to at least version 8.0.0 prior to upgrading your dcTrack to version 9.0.0.

Back Up Your System Before You Upgrade!

Before you upgrade, **we strongly recommend that you generate a backup of your dcTrack system configuration** and save it to another device, such as your hard drive. We also strongly recommend that you set up remote storage for backup files to automatically push all daily backups to a remote storage location. For more information, see **Data Backups** in the dcTrack online documentation.

Security Enhancements

This upgrade addresses several security vulnerabilities identified by the National Institute of Standards and Technology (NIST). For additional information on the specific issues addressed by this fix please refer to the following articles on the NIST website.

- **https://nvd.nist.gov/vuln/detail/cve-2022-31676**
- **https://nvd.nist.gov/vuln/detail/cve-2019-8331**
- **https://nvd.nist.gov/vuln/detail/cve-2022-31197**
- **https://nvd.nist.gov/vuln/detail/cve-2020-28500**
- **https://nvd.nist.gov/vuln/detail/cve-2021-23337**
- **https://nvd.nist.gov/vuln/detail/cve-2020-8203**

Removal of weak ciphers: After a review of the ciphers and key exchanges supported by dcTrack's web server, weak ciphers and those that didn't support Forward Secrecy were removed. The list of supported ciphers in dcTrack 9.0.0 is:

```
Protocol    Cipher Suite Name (RFC)                 Key Exchange   Strength
-------------------------------------------------------------------------
TLS1.3      TLS_AES_256_GCM_SHA384                  x25519         256
TLS1.3      TLS_CHACHA20_POLY1305_SHA256            x25519         256
TLS1.3      TLS_AES_128_GCM_SHA256                  x25519         256
TLS1.3      TLS_AES_128_CCM_SHA256                  x25519         256
TLS1.2      TLS_ECDHE_RSA_WITH_AES_128_GCM_SHA256   x25519         256
TLS1.2      TLS_ECDHE_RSA_WITH_AES_256_GCM_SHA384   x25519         256
```

Advanced deprecation notice: As all supported browsers for dcTrack support TLS1.3, Sunbird plans to remove support for TLS 1.2 in late 2023 or early 2024 to keep the solution as secure as possible. For customers that have internal

applications that integrate with dcTrack through our HTTPS public APIs, they should investigate if this will introduce complexities that cannot be easily mitigated. If so, please reach out to Sunbird support so that we can make sure that this planned change does not adversely impact our customers.

Applicability

This software release is applicable to both the virtual appliance and the hardware appliance. Please see the note above about who should not upgrade to this release.

New Features and Enhancements

The following features are new or enhanced in dcTrack 9.0.0:

New Facility Item Classes for Asset Management

dcTrack 8.2.0 introduced new classes to track the inventory associated with all the equipment typically found in the "gray space" from the Commercial Utility feed and Emergency Generators down to the distribution level including switchgear and switchboards, transformers, and power panels (panelboards).

dcTrack 9.0.0 includes enhancements to these Facility Items to allow you to capture additional details specific to each (see table below) as well as support for Power Ports and Connections.

AC Distribution Class

AC Distribution Class is broken into the following subclasses.

- Switch - Item representing Switchgears, Switchboards, ATS

- Load Device - Large breakers found in a switchgear or switchboard allowing connections to other items

- Other Device – Devices in switchgear or switchboard that don't carry a load such as power meter, power conditioner, surge protection, etc.

- Power Panel   - Component that splits a power feed into secondary circuits, while simultaneously providing a protective circuit breaker

- Transformer - Used to step up (increase) or step down (decrease) the voltage levels before distributing it to the next circuit

- AC Bay – The free-standing frame that contains the load and other devices.

- UPS Bank – Sister subclass to the Switch, with load devices that allow the UPS Bank to be fed from UPS Units and downstream to Floor PDUs

Power Source Class

The Power Source Class is broken into the following subclasses.

- Generator: Supply backup power when utility power goes out

- Fuel Tank: Used to store fuel for the generator

- Utility Feed: Independent electrical feed coming into a data center from the utility company

HVAC Class

The HVAC Class is broken into the following subclasses.

- Cooling Unit - Previously called CRAC

- Cooling Zone - Previously called CRAC group

- Heat Rejection - Covers other cooling objects such as chillers, condensers and water towers

The following table lists the new fields that are found on the Configuration sub tab of each Class/Subclass Item Detail page.

Field	Applies To	
	Power Source	**AC Distribution**
Tank Size (gallon)	Fuel Tank	
Speed (RPM)	Generator	
Built-in Tank Size (gallon)	Generator	
Rating (kVA)	Generator, Utility Feed	Transformer
Rating (kW)	Generator, Utility Feed	
Rating (A)	Generator, Utility Feed	UPS Bank, Switch, Load Device, Power Panel
Derate 80%		Power Panel
Rating (Vac)	Generator, Utility Feed	UPS Bank, Switch, Load Device
Output Wiring	Generator, Utility Feed	UPS Bank, Switch
Phase		Load Device, Power Panel, Transformer
Output Phase		Transformer
Wire Gauge	Generator, Utility Feed	Load Device, Transformer

Wire Colors	Power Panel
Connector Type	Load Device
I.C Rating (kA)	Load Device, Power Panel
Number of Poles	Power Panel
Panel Layout	Power Panel
Power Fed From	Load Device, Power Panel, Transformer

Power Single Line Diagram

dcTrack 9.0.0 includes a new Power Single Line Diagram (SLD) feature. This feature allows users to visualize the entire Power Chain and use this view to understand connectivity and relationships. Users can also view readings and capacities at a glance to better understand load balancing and fail-over impacts.

This feature can be managed by administrators and users who have the new auxiliary role "Manage Power SLD"

World Map

dcTrack 9.0.0 includes a World Map feature that enables you to visualize your data center locations across the world. The World Map is accessed from the Visualization menu. It provides a tree view of all your locations as well as a visual representation of their locations.

The hierarchy of the tree is Country > Data Center > Floor > Room. If the address of the Location has been supplied the tree will display a building icon next to the Location, if not a question mark "?" icon is displayed.

When first upgrading to this release, a user with permission to all locations, such as the admin, can click the "Resolve Addresses" button, which uses a geocoding service to retrieve the longitude and latitude of each location where an address is entered.
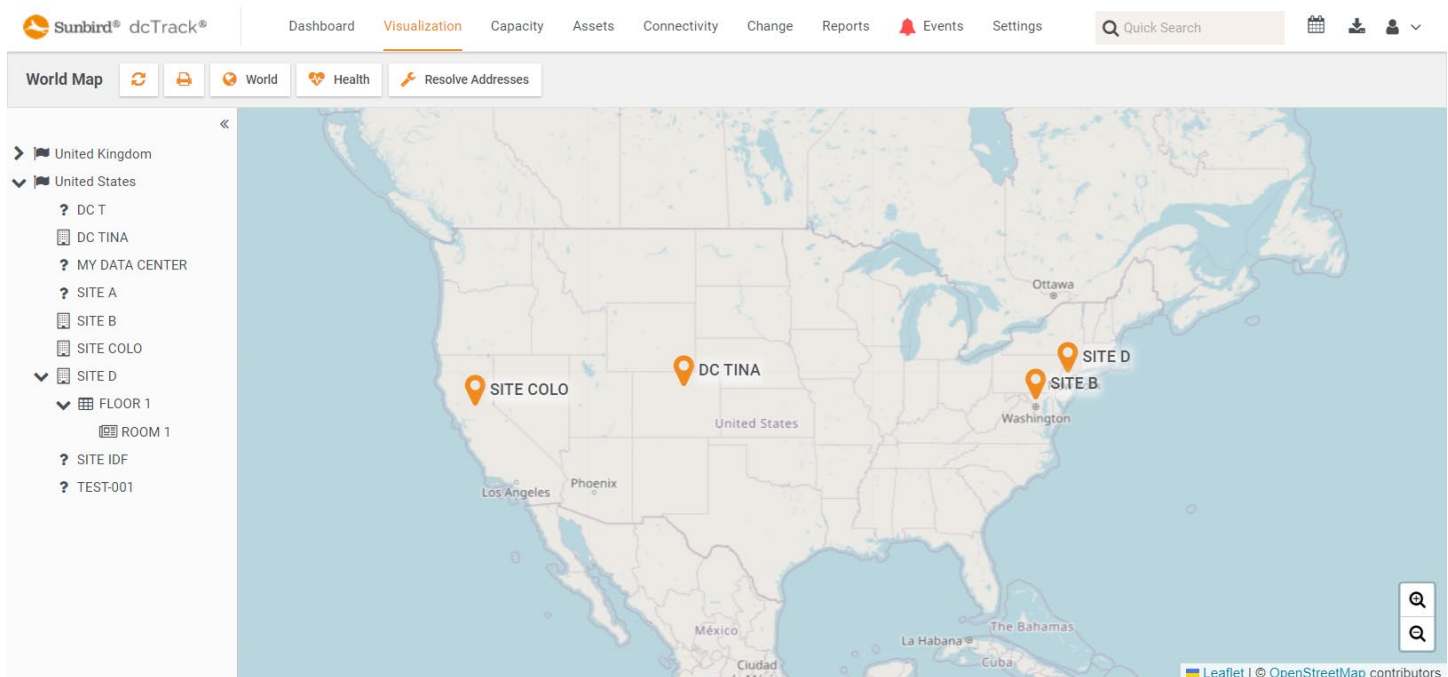
Manage Locations (Web Client) under Assets > Locations

As of dcTrack 9.0.0, the Locations feature has moved to Assets > Locations. This provides greater access for users in addition to Administrators and Gatekeepers, however all existing RBAC rules will continue to be enforced.

Custom Color Assignments for Floor Maps

Administrators and Global Gatekeepers can choose to highlight Items on Floor Maps by assigning colors based on Standard or Custom Field Values. For example, users can highlight and quickly see all of the Items for a single Project or multiple Projects.

Prior to dcTrack 9.0.0 colors were assigned automatically and could not be changed. dcTrack version 9.0.0 introduced the ability to customize colors allowing users to select which colors are assigned to each value. Color Coding is available in both 2D and 3D Modes.

## Custom Color Assignments for Data Network Diagrams

Administrators and users with the "Manage Network Diagrams" role can choose to highlight Items on Data Network Diagrams by assigning colors based on Standard or Custom Field Values. For example, users can highlight and quickly see all the Items for a single Project or multiple Projects.

Simultaneous Search and Color Highlighting on Floor Maps

With dcTrack 9.0.0 and beyond, the Floor Map search feature has been enhanced to allow users to apply Color Coding in conjunction with the Search. When searching with color, the results of the search are still isolated, however the search results display in the color assigned by the Color Feature. The rules for applying colors with search are as follows:

- When the search matches on a cabinet's contents but not the cabinet itself, the cabinet will display in a transparent light green color.
- When the search matches the cabinet itself, but none of the contents matches, the cabinet displays in the solid color assigned by the color feature.
- When the search matches the cabinet and some of the contents, then the cabinet is displayed in the transparent color assigned by the color feature and the qualifying contents display in their assigned color.
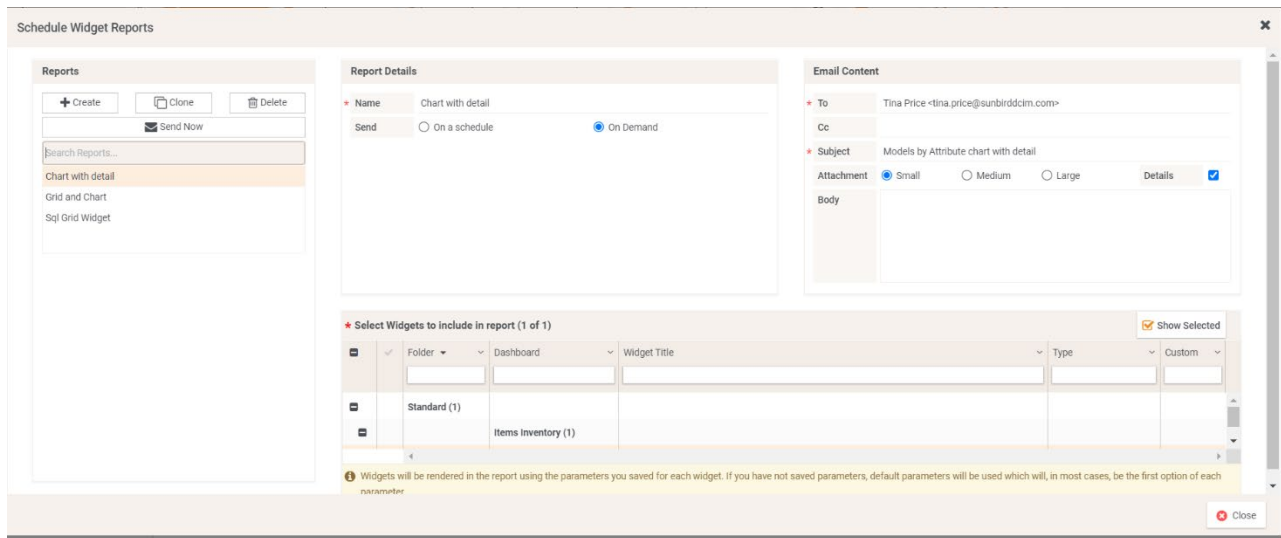
Example: Colors are applied based on Class
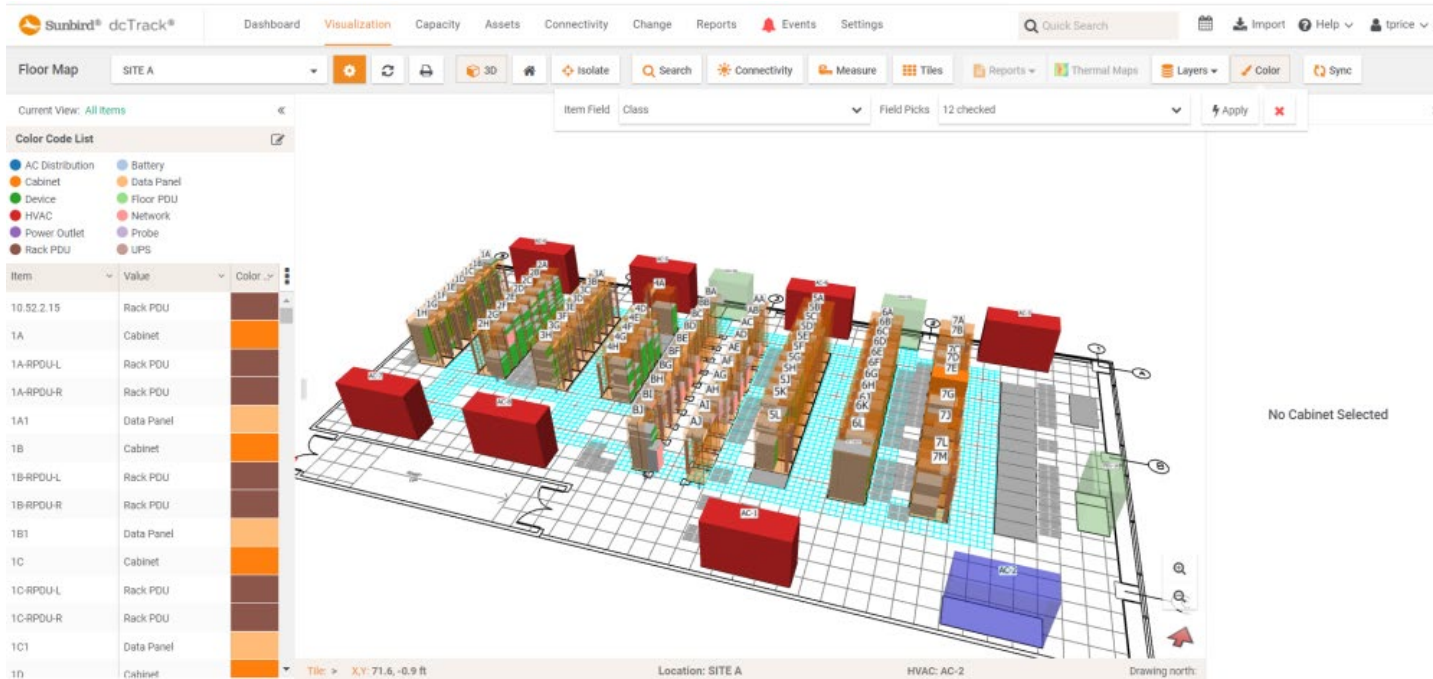
Schedule and email reports with SQL Grid Widgets and Chart widget data emailed as CSV files when scheduled

dcTrack enables you to create a report that can be emailed immediately or scheduled to be generated automatically and emailed on a set frequency. dcTrack 9.0.0 and beyond will support scheduling SQL Grid Widgets in addition to HTML Chart Widgets. Chart Widgets have also been enhanced to allow you to include the detail behind the chart as a .csv attachment on the email.

Note: Sending widgets via email may be limited by your SMTP server.

Add Part Number, Description and Other New fields for Item Models

dcTrack 9.0.0 introduced several new Standard Model fields:

- Part Number

- Description

- Made in

- Warranty Period

- Weight Capacity - Applies to Cabinet, DC Bay, Plant Bay and AC Bay items only only
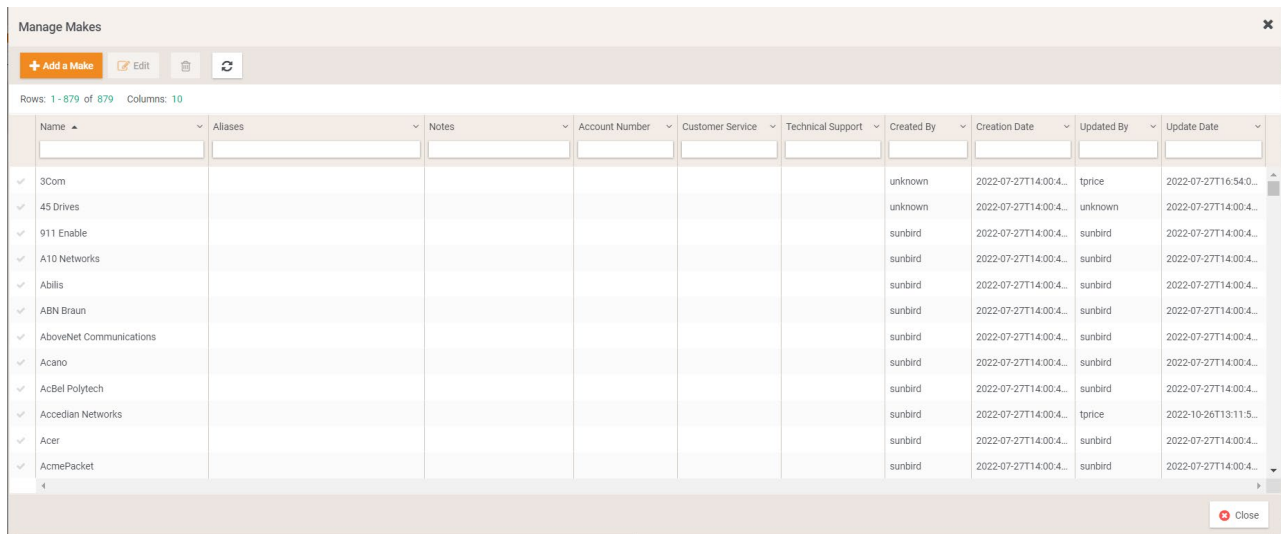
All the new fields are optional, however the rule for determining uniqueness of a model will now include Part Number. In other words, the combination of Model Name and Part Number must be unique across the database including Model Aliases.

For example, consider Model 1 whose Model Name is DL360 and whose Part Number is 123. Model 2 has a Model Name of DL360 and Part Number 456. In this scenario dcTrack will allow an alias of "DL360" to be created (the combination of Model Name: "DL360" Part Number: Null is unique) but would not allow alias "DL360 123" to be created (this would be considered a duplicate of Model 1).

These fields can be used in File Import as well as CMDB configuration files.

Manage Makes in the Models Library

dcTrack 9.0.0 introduced a new user interface for managing Makes in the dcTrack Models Library. The new UI is designed to improve usability by providing improved filtering and sorting as well as the ability to create your own views.

Initiate Cabinet Search for an Existing Planned Item

dcTrack version 9.0.0 introduced the ability to initiate a Cabinet search directly from the Item Detail page of an existing Planned Item. This allows users to quickly and easily locate the optimal placement options while editing an Item currently in the "Planned" status. This is useful if you do not have a cabinet identified to install an item and want to quickly locate a cabinet in your data center that can accommodate it without having to leave the Item Detail page.

This feature works on rackable Device, Network or Probe Items that were previously saved, and is not available when adding a new Item.

Scan Blades and More with Asset Audit Enhancements

dcTrack version 9.0.0 enhances the Asset Audit feature to enable you to:

- Scan Blades and Zero-U Mounted Items
- View and edit an item's details during an audit.
- Scan items that are not in cabinets, such as free-standing items and items on a pallet or a shelf in a storage room

Place Items from Capacity Search when Searching by RU

In previous versions of dcTrack, Capacity Search, when searching by RU, was limited to finding the appropriate Cabinets. In dcTrack version 9.0.0 and beyond in addition to locating the cabinets, users can also reserve the space in the selected Cabinets. Additionally, when reserving space for a single Item, you will be automatically taken to the Item Detail page to complete the placement.

Assign Branch Circuit Break Types and Manual Breaker State

dcTrack version 9.0.0 includes an enhanced layout for the Power Panel subtab for AC and DC Power Panels. In addition to the layout changes, new editing options are available for managing Breakers. In previous versions of dcTrack Breakers were edited in-line on the Panel. Users will now be presented with a dialog box where they can supply breaker information in a more intuitive way.

Manage Power Fed-From Item and other configuration options for Floor PDUs and Power Panels

dcTrack 9.0.0 introduces a new configuration subtab for Floor PDUs and Power Panels. It is on this subtab that you can manage the Fed-From item as well as other configuration options.

Support Batteries for UPS with run-time calculations

dcTrack 9.0.0 enables you to create Battery Strings for UPS Units. In addition, dcTrack will calculate the estimated runtime for the UPS based on the Manufacturers specifications as well as specifications entered by the user.

Manage Virtual Power Chains

In addition to the existing support for AC Virtual Power Chains, dcTrack 9.0.0 introduced support for DC Virtual Power Chains.

These are useful if, for example, you want to build out a cabinet and create power connections, but do not want to build your DC power chain at the same time. You can add all your items to the cabinet and connect each circuit to a DC VPC.

For DC Power Connections, when creating a circuit and the selected node is for a device power supply (direct current phase), you may connect the power supply directly to a Generic VPC Plant Panel breaker.

When creating a circuit and the selected node is for a DC FAP or Rack Inverter Inlet, you may connect the Inlet directly to a Generic VPC Plant Panel breaker.

Auto Refresh Power IQ Readings

dcTrack 9.0.0 improves the freshness of Power IQ readings by automatically getting fresh readings for integrated items that display readings in the dcTrack UI. Fresh readings are determined by the Reading Refresh Interval set on the Power IQ Integration screen for the specific Power IQ Integration. It is the amount of time dcTrack will consider readings to be up to date. If Readings are older than the interval, they will be refreshed automatically the next time a page with readings is accessed. Also, if a user requests readings manually by clicking the "Get Readings" button, readings will only be refreshed if the last reading was outside of the interval's timeframe.

Decommission Rack PDUs in dcTrack When Integrated with Power IQ

dcTrack 9.0.0 has streamlined the process of decommissioning items integrated with Power IQ. In dcTrack 9.0.0 integrated Rack PDUs and IT Devices can only be decommissioned from dcTrack. The items in both systems will reflect the Decommissioned status, and the Power IQ items will remain associated with the Cabinets they resided in prior to the decommission. Sensors in Rack PDUs will also remain associated with the cabinet and externally placed sensors will retain their information. IP addresses will also no longer be removed.

Note: This feature will not take effect until your Power IQ instance is upgraded to Power IQ 9.0.0

Purge Archived Items

Items with a status of Archived can be purged from dcTrack without first requiring the item to transition to "Planned". Since purging an Item removes the Item completely from the database, previously this feature was limited to users with the Administrator role. dcTrack 9.0.0 introduced a new Auxiliary Functional role, "Manage Archived Items". Users with this role will also be allowed to Edit and Delete Archived Items. Operators and Gatekeepers will no longer be allowed to Edit Archived Items unless they also have the "Manage Archived Items" role assigned.

Un-Map Integrated Items using File Import

dcTrack 9.0.0 introduces the ability to Un-Map Integrated Items using File Import. This feature is designed to allow users to break the Integration for specific Items without losing the audit trail for the item. This includes CMDB Integration, Power IQ Integration, and VMware Integration.

Track Ticket Number in Parts Transactions

dcTrack 9.0.0 introduced the ability to link a Ticket to the Adjust Stock and Transfer Stock Transactions. If a Project has been assigned to the Transaction, Tickets will be limited to those linked to the specified Project. If no Project is specified, the Transaction can be linked to any Ticket. If entered the Ticket Number will appear in the generated Transactions and can be used for filtering and reporting.

Support zero-u rack PDUs that are taller than the number of rack units in a cabinet

As of dcTrack 9.0.0 users can properly place Zero-U Rack PDUs. As a result, they will display correctly in Floor Maps. To determine if a Rack PDU will fit in a cabinet, dcTrack will use the cabinet height in inches as it compares to the Rack PDU height in inches instead of making the determination based on RUs.

For example, a 10 RU Cabinet whose height is 21 inches can accommodate a Zero-U Rack PDU that is 12 RU and 20 inches. This allows you to place the Rack PDU in a U-Position within the cabinet.

Improved best match for Models Library

The algorithm for determining "Best Match" for Models has been enhanced to produce more accurate results. Additionally, the "CHECK" operation available in file import has been enhanced to provide a score for what is thought to be the "Best Match" and will now include up to 20 other suggestions when a 100% match cannot be found. This algorithm will be applied to all areas where a lookup is performed on a Model.

Use Hyperlinks in dcTrack's Item List

dcTrack 9.0.0 supports hyperlinks for any text field on the Item list. If a text field, either Standard or Custom contains a valid URL it will be converted into a hyperlink. This will allow users to navigate directly from the list without having to access the Item Details page. As with hyperlinks on the Detail page, the hyperlinks on the Items list will always open in a new tab.

Settings Tab Updates

The Settings Tab in dcTrack 9.0.0 has been updated for improved organization and usability.

Copy and Paste Enhancement

When pasting on top of existing text, if the pasted text does not contain CRLF, then it will paste it where the cursor or highlight was in the existing text. But if the pasted text does contain CRLF, then it will overwrite the existing text completely.

Managing Locations (Web Client)

As of dcTrack 9.0.0, the Locations feature has been moved to Assets > Locations. This will provide greater access for users in addition to Administrators and Gatekeepers, however all existing RBAC rules will continue to be enforced.

New APIs

The following new APIs and API Fields are available in dcTrack 9.0.0. Please refer to the **dcTrack 9.0.0 API guide** for complete API details.

Manage Visualizations

Description	Request HTTP method	Request URL
Get Floor Map Configuration by Location	GET	/api/v2/visualization/floormaps/configuration/{locationId}
Get Floormap Configuration for all Locations	GET	/api/v2/visualization/floormaps/configuration
Modify Floormap Configuration by Location	PUT	/api/v2/visualization/floormaps/configuration/{locationId}
Bulk Modify Floormap Configuration	POST	/api/v2/visualization/floormaps/configuration/bulk

Manage Power Chain

Description	Request HTTP method	Request URL
Get power sum for power ports with port ID list	GET	/api/v2/powerChain/powerSum/bulk
Retrieve Entire Power Chain for a Location	POST	/api/v2/powerChain/{locationId)
Retrieve Power sum for Item List	POST	/api/v2/items/powerSum/bulk

Manage Part Classes

Description	Request HTTP method	Request URL
Create Part Class	POST	/api/v2/parts/classes
Get a List of All Part Classes	GET	/api/v2/parts/classes
Delete Part Class	DELETE	/api/v2/parts/classes/{classId}
Bulk Update Part Classes	POST	/api/v2/parts/classes/bulk

Manage Part Models

Description	Request HTTP method	Request URL
Create Part Model	POST	/api/v2/partModels
Update Part Model	PUT	/api/v2/partModels/{modelId}
Delete Part Model	DELETE	/api/v2/partModels/{{modelId}
Get Model by ID	GET	/api/v2/partModels/{modelId
Part Models Advanced Search	POST	/api/v2/quicksearch/parts/models
Upload Part Model Image	POST	/api/v2/partModels/images/{modelId}
Delete Part Model Image	DELETE	/api/v2/partModels/images/{id} - Where "id" is the Part Model Id
Bulk Update Part Models	POST	/api/v2/partModels/bulk

Manage Parts

Description	Request HTTP method	Request URL
Get Part Field List	GET	/api/v2/quicksearch/parts/partModelListFields
Create Part Instance	POST	/api/v2/parts
Get Part Instance by ID	GET	/api/v2/parts/{partId}
Update Part Instance	PUT	/api/v2/parts/{partId}
Delete Part Instance	DELETE	/api/v2/parts/{partId}
Bulk Update Part Instances	POST	/api/v2/parts/bulk
Adjust/Transfer Stock	PUT	/api/v2/parts/{partId}/stock/{activity} where "activity" can be "adjust" or "transfer"
Assign Parts	POST	/api/v2/parts/assignments/{assignmentType) where "assignmentType" can be "ITEMS" or "PORTS"
Get Part Field List	GET	/api/v2/quicksearch/parts/partListFields
Get Part Transaction Field List	POST	/api/v2/quicksearch/parts/transactions
Part Transactions Advanced Search		/api/v2/quicksearch/parts/transactions

Authentication

Description	Request HTTP method	Request URL
Token Based Authentication	POST	/api/v2/authentication/login

Description	Request HTTP method	Request URL
A new column "cmbPiqHost" has been added to all Location APIs to support Power IQ associations.	GET PUT POST GET	/api/v1/locations /api/v1/locations/<location_id> /api/v1/locations /api/v1/locations{locationId}

New and Updated Dashboard Widgets

The following tables list the new and updated Dashboard Widgets in dcTrack 9.0.

New Dashboard Widgets

The following table lists the new Dashboard Widgets in dcTrack 9.0.

Dashboard	Widget Name	Description
Enterprise Overview	System Utilization	This bar chart displays the utilization of key dcTrack features across a customer's system
Inventory	Weight of Cabinet Contents vs Cabinet Capacity	This bar chart displays the total weight of the contents inside a cabinet and compares it to the cabinet's weight capacity.
Power	Power Trend Chart	This bar chart displays power trends with several parameters to filter and aggregate the data.
Cooling	Sensor Trend Chart	This bar chart displays sensor trends with several parameters to filter and aggregate the data.

Updated Dashboard Widgets

The following table lists the updated Dashboard Widgets in dcTrack 9.0.

Dashboard	Widget Name	Description
Space	Rack Units Capacity Trend	The widget has been updated to work when there are no decommissioned items.
Space	Cabinet Space Remaining	The widget has been updated to work when there are no cabinets.
Power	Power Chain Breakers Utilization	The Details Grid has been updated to add 'Serviced Customers' column
Cooling	Cooling Capacity	The widget has been updated to factor in Cooling Zones
Cooling	Latest Humidity Per Cabinet With Delta H	The widget has been updated to automatically refresh cached readings before the chart is rendered

Cooling	Latest Temperature Per Cabinet With Delta T	The widget has been updated to automatically refresh cached readings before the chart is rendered
Cooling	Latest Humidity Per Cabinet	The widget has been updated to automatically refresh cached readings before the chart is rendered.
Cooling	Latest Temperature Per Cabinet	The widget has been updated to automatically refresh cached readings before the chart is rendered

All dashboard Widgets can be downloaded from the **Sunbird Addons site.**

Bug Fixes and Customer-Requested Enhancements over Release 8.2.1

dcTrack 9.0.0 provides the following bug fixes and customer-requested enhancements over Release 8.2.1:

Ticket Number	Issue Number	Summary
11993	DCT-20336	Align dcTrack and Power IQ Decommission
22605	DCT-28719	Include electrical single line diagrams in the visualization tab
24713	DCT-30914	Support simultaneous search and color highlighting in the visualization tab
26152 39198	DCT-32541	Add public APIs to manage the functionality of the parts feature
28474 30572	DCT-34644	Allow users to customize the color coding in the visualization tab
30870	DCT-37988	Include a world map that shows the location of data centers in the visualization tab
30879 40805	DCT-29126	Allow users to schedule SQL grid widgets
34830	DCT-41551	Allow users to modify the "Fed From" or "Number Of Positions" fields for DC panels in the UI
34831	DCT-41552	Allow users to modify the "Fed From" or "Number Of Positions" fields for DC panels via import
34832	DCT-41560	Add a virtual power chain for DC power
36676	DCT-43249	Add a role that allows a user with that role to delete archived items
37033	DCT-43685	Create a column name for "Power Capacity (kW)" for use in selectedColumns with /v2/quicksearch/locations
37047 38658	DCT-43391	Add the ability to do intelligent capacity search for an item in planned status
37705	DCT-44259	Allow structured cabling to specify a starting index for data panel ports
38641	DCT-28051	Use cabinet height rather than RUs to enforce what can fit in zeroU space
38719	DCT-45228	Assets list should include hyperlinks if the text column is a valid URL
38722	DCT-45227	"Latest Temperature Per Cabinet" widget not updating
38991	DCT-45502	Include the powered on state for a virtual machine in the item list
39288	DCT-45777	Add column Budget Status to odbc view
39983	DCT-46360	Improvement to Visual Indicator of Active Cabinet on Visualization
39984	DCT-46359	Make it easier to edit drop-down values when editing a panel breaker

40016	DCT-46781	Allow color coding of custom fields of type Date
40198	DCT-46514	Add an ODBC view that returns the options for custom field picklists
40286	DCT-46610	Add a button on the import screen to display the list of new or changed assets
40845	DCT-47127	Add the status column to the odbc dcModels view
42222	DCT-48293	Update the actual readings API response to include children port ids
42223	DCT-48326	Update the actual readings API to be based on port id
43250	DCT-49181	Add a new standard chart widget to show customer system utilization
43416	DCT-49304	Update cabinet inspector to show remaining / available power
28184	DCT-34316	Change standard widgets to get real-time data from Power IQ instead of using cached data
28399	DCT-34592	Refreshing all readings for a location times out if the location has a large number of PDUs
32422	DCT-44631	Remote Storage - Public Key Authentication does not work if the configuration does not contain a trailing newline
32985	DCT-39951	Budgeted amps is not correctly calculating in the cabinet overview and connections are being allowed on an over-subscribed rack PDU if the inlet amps is updated
37628 44095	DCT-44487	Widgets that show both lines and bars do not properly align the x axis labels
37637	DCT-44422	Cannot delete some port templates in Firefox
37734	DCT-44417	Floor PDU switches the "fed from" to UPS bank after modifying "Power Rating (kVA)"
37807	DCT-44454	Unclear documentation for how a user can manage Virtual Machine Clusters if no VM manager is integrated yet
38061	DCT-44484	Editing a location with a name longer than 20 characters is not possible by inline editing in the locations list
38309 41093	DCT-46041	Widgets do not display properly if the raw data includes null values
38369	DCT-45083	Capacity search results may not display all devices in the cabinet elevation when searching for more than one asset per cabinet
38573	DCT-45071	When restoring a backup of an HA system, the HA email notification is blank.
38811	DCT-45325	'Is Empty' not staying checked when switching between views
39091	DCT-45529	Incorrect warning message when updating the IP address of a PDU
39159	DCT-45661	Unable to force Y axis to zero on a widget
39203	DCT-45712	Cannot Edit breakers in the UI when U position is not filled for the connected Power Outlets.
39384	DCT-46056	The percentage of weight capacity formula incorrectly includes the weight of the cabinet
39550	DCT-46111	When changing the height of a cabinet model, the determination of whether items still fit in existing cabinet instances is off by 1 rack unit
39641	DCT-46020	Assets details page should show the model dimensions with the same precision as the models detail page
39673	DCT-46123	Location may not be updated for powered off devices
39709	DCT-46116	Connecting PDU to power chain fails to filter locations
39818	DCT-46223	User with global item create/update/delete privileges cannot perform manual sync with VM Manager or Host
39923	DCT-46333	GroupingName and GroupingNumber missing from odbc.dcAllItems list
39933	DCT-46311	Busway main breaker consumed power shows too many decimal places in the item details screen

39991	DCT-46476	Cannot add passive items of same model to the same rack unit number (front and back) through UI	
40023	DCT-46363	Bulk edit of assets should not include the location field	
40108	DCT-46597	Changing which cabinet is selected on an isolated view of a floormap does not update the totals	
40176	DCT-46502	API documentation and release notes failed to properly note that tiSubClass was deprecated and later removed	
40178	DCT-46503	Incorrect values of compensation factor are shown in some cases for cooling units	
40257	DCT-46746	Menu bar does not display properly if no locations can contain assets	
40462	DCT-47320	Historical PUE chart does not display	
40559	DCT-46791	Widget "Rack Units Capacity Trend" fails to get data if the system only includes installed assets	
40619	DCT-46909	Bulk update actual reading API does not provide a user-friendly error message for invalid inputs	
40624	DCT-47107	Appliance does not always cleanly rollback after a failed upgrade	
40681	DCT-46985	Issues creating/editing Cooling Zones of Cooling Units via import when the cooling units are in a floor	
40709	DCT-47034	Unable to get/set "tiPowerCapacityKW" field via locations API	
40755	DCT-47032	dcTrack upgrade process may not deploy floormaps correctly	
40905	DCT-47160	Deleting a breaker via import does not clear cabinet or assignment fields	
40906	DCT-47427	The floormap does not display after changing floormaps settings until the refresh button is used	
40925	DCT-47189	Users added by SAML can prevent LDAP/AD sync from working under two scenarios	
40943	DCT-47317	Readings from Power IQ do not update automatically	
40989	DCT-47238	Microsoft Visio template is not downloading properly from the import page	
41015 44447	DCT-47262	Filtering in the asset list for subclass Utility Feed returns incorrect results	
41017	DCT-47377	Error adding a breaker when both the floor PDU and panel names are long (together greater than 64 chars)	
41038	DCT-47268	"Manage Power Budget Policies" screen has a typo	
41045	DCT-47316	Mac address validation is not correct (does not support WWPN)	
41081	DCT-47352	After cloning an item, the items list re-loaded twice after clicking the clear filter button	
41147	DCT-47376	Appliance runs out of disk space after prolonged usage of the floormaps upload API	
41270	DCT-48040	Items within a dc bay or plant bay are not displayed in floormap	
41286	DCT-47441	The advanced search API returns all assets if the class name filter ends in *	
41299	DCT-47448	The word "location" is misspelt in the warning message when importing a long location code	
41315	DCT-47470	The cabinet detail reports shows both front and back views even if only back is selected	
41333	DCT-47475	When using CTRL + C to paste in additional item name into the filter after an OR the entire string is overwritten.	
41334	DCT-47476	When using a view to filter the models list, the filter is not showing the value in the My Company Standard field	
41342	DCT-47491	Incorrect partial circuits can be created in some cases via import, leaving ghost connections behind when the incorrect circuits are deleted	

41386	DCT-47524	Sync sensors and power ports addition/deletion are not working through bulk sync
41392	DCT-47548	When exporting the custom field definitions for one subclass, the export file includes all custom fields with the same class as the selected custom field
41397	DCT-47528	The Power Chain Breakers Utilization widget is missing the Y-Axis label
41445	DCT-48593	Generic cabinets stuck in a blank state when editing, unable to save changes
41487	DCT-47665	Appliance may run out of disk space after uploading the upgrade bundle many times but not actually upgrading
41494	DCT-47594	Users with the viewer role are not able to see all floormaps
41549 44942	DCT-47646	The item list uses a different page size when showing filtered results, which can lead to showing the same asset more than once in the list
41583	DCT-47821	When a non-dcTrack user email is setup to receive a scheduled report, the UI does not display it
41593	DCT-47669	Structured cabling length is not displayed in the units preferred by the user
41703	DCT-47783	Automatically associate cabinet to breaker/outlet in floor PDU panel
41719 44159	DCT-47787	Adjust Stock triggers error when Part has populated multi or single select custom field
41815	DCT-48885	Web pages do not display because of full disk partition
41838	DCT-47939	Upgrade fails if there are multiple makes with the same name; also upgrade failed but the audit log reported the upgrade succeeded
41862	DCT-47935	Cabinet asset not syncing with correct object on the floor map if the cabinet label starts with blanks
41863	DCT-47964	Some buttons in Visualization are not accessible on certain sized screens on Macs
41956	DCT-48216	Receiving an error message when a connector for the VPC Panel Breaker has non integer attributes
41964	DCT-47977	Two issues cloning DC Bay items
42080	DCT-48334	Moving devices in planned status incorrectly tries to preserve the u position
42138	DCT-48169	Please give a more informative error message while attempting to delete installed rectifiers
42143	DCT-48207	System does not allow a cabinet to be decommissioned when it contains connected PDUs and request bypass is not enabled
42224	DCT-48324	When cloning plant panel or a DC panel from its parent item, internal connections are not established
42238	DCT-48388	Capacity search is not pulling redundancy from the models library
42317	DCT-48395	The UI shows n/a for field values of some breakers of a floor PDU
42322	DCT-48473	Remove ODBC view for reservations from the API guide
42401	DCT-48480	User not able to create DC Plant Items due to permission error in UI
42403	DCT-49422	Remove weak key exchange settings from the web server
42520	DCT-48658	Update open vmware tools to remediate CVE-2022-31676
42619	DCT-48754	No value is displayed in Parts business group field in view mode (it shows in edit mode)
42631	DCT-48726	Enhance the update item power ports API to allow to proceed on warnings
42666	DCT-48750	Cannot delete custom field when in use by data network diagram
42754	DCT-48827	In the cabinet drop-down of the item details page, the list of cabinets is not sorted by cabinet name
42879	DCT-48941	The system allows selecting HTML widgets for emailing but that is not supported

42915	DCT-49207	The Private key is ignored while trying to SCP/SFTP to a windows box running cygwin
42966	DCT-48969	The User cannot remove a choice from a standard picklist field via the public API
43019	DCT-48992	ODBC performance degredation
43054	DCT-49017	Update security configuration for the high availability standby server
43063	DCT-49021	The public API allows adding picklist choices that are longer than 64 characters, which are then unusable in the UI
43180	DCT-49113	Date fields are restricted to less than year 2100 via import and API
43201	DCT-49115	BDFB items do not accurately update the number of available positions after making changes to the panel
43216	DCT-49128	The export file from models library cannot be imported without changing column names
43386	DCT-48769	Issues creating/editing Cooling Zones of Cooling Units via import when the cooling units are in a floor
43511	DCT-49391	IP address updates are not recorded in the audit trail
43603	DCT-49541	The Stranded power column in Stranded Widgets drill down is incorrect
43617	DCT-49573	High availability cannot be established due to file permissions error
43634	DCT-49517	Scheduled reports sent by dcTrack are in eastern time instead of the configured time zone for the appliance
43645	DCT-49536	Remove vulnerable RSA ciphers in SSL/TLS
43673	DCT-49927	Deleting a system from the integration pages does not delete all needed rows from the database
43681	DCT-49782	The treeview of locations for the network diagram page should always show the floors/rooms of a selected location when filtering by location
43756	DCT-49605	Actual readings uploaded via the public API are not displaying in the UI for DC and plant panels
43757	DCT-49606	Change the logic when updating amps values for three phase breakers using the actual readings public API
43862	DCT-49700	The user cannot associate a custom field to a single subclass of a class
44061	DCT-49892	The user cannot add/edit DC Panel via import
44085	DCT-50049	Item Archive Request Process over consuming connections
44197	DCT-50136	The message shown when attempting to delete a location that only includes archived items needs to be improved
44220	DCT-50113	The type and function drop-downs in the floor maps search are not reporting correct data
44348	DCT-50321	Remove references to the mobile application from the documentation
44352	DCT-50258	Rectifier names need to be unique to a plant in same location
44353	DCT-50259	Batteries names need to be unique to a plant in same location
44396	DCT-50307	The user cannot add a breaker when the remote power panel name is too long
44406	DCT-50298	The user cannot include custom field values in an import sheet while adding DC panels
44425	DCT-50603	An error message is dispayed when clicking the item details menu option for a bank breaker in the connectivity tab
44433 42525	DCT-50322	The user cannot delete structured cabling after connecting both the sides with a patch cord connection
44514	DCT-50382	Sample import template should have clearer comments

44542	DCT-50557	Incorrect current measurements on busway object when a rack PDU is connected to another rack PDU
44574	DCT-50489	The user is unable to set the power source for a floor PDU via import sheet
44763	DCT-50670	dcUsers OBDC view only displays one group if a user is in more than one group
44834	DCT-50760	Printing dashboard widgets does not always fit the page size properly
44900	DCT-50846	Boolean custom fields display as True/False instead of Yes/No in item details

Deprecation Notice

The following APIs were deprecated in dcTrack 8.2.0 or prior and will be removed in dcTrack 9.1.0:

Manage Items [v1]

Description	Request HTTP method	Request URL
Create an Item	POST	/api/v1/items/?returnDetails=true/false
Modify an Item	PUT	/api/v1/items/<item_id>?returnDetails=true/false
Delete an Item	DELETE	/api/v1/items/<item_id>
Retrieve an Item		

Manage Items [v2]

Description	Request HTTP method	Request URL
Retrieve A List of One or More Items	GET	/api/v2/dcimoperations/search/items/{itemName}/{locationId}
Retrieve a Filtered List of Items With Details (Paginated)	GET	/api/v2/dcimoperations/search/list/items {item criteria JSON}

Manage Sub Locations[v2]

Description	Request HTTP method	Request URL
Get Labels	GET	/api/v2/subLocations/labels
Update Labels	PUT	/api/v2/subLocations/labels

Manage Makes, Models and Connectors [v2]

Description	Request HTTP method	Request URL
Retrieve a Filtered List of Items With Details (Paginated)	GET	/api/v2/dcimoperations/search/models/{modelName}/{makeId

Manage Actual Readings [v2]

Description	Request HTTP method	Request URL
Get Actual Readings for all Power Ports on an Item	GET	/api/v2/dcimoperations/items/{itemId}/actualReadings
Get Actual Readings for a single port on an Item by Port Name	GET	/api/v2/dcimoperations/items/{itemId}/actualReadings/{portName}
Get Actual Readings for a single port on an Item by Port Name and Index	GET	/api/v2/dcimoperations/items/{itemId}/actualReadings/{portNam
Get Actual Readings for a single port on an Item by Port Name Index and Busway Item	GET	/api/v2/dcimoperations/items/{itemId}/actualReadings/{portNam
Update Actual Readings for a single Port	PUT	/api/v2/dcimoperations/items/actualReadings
Bulk Update Actual Readings	POST	/api/v2/dcimoperations/items/actualReadings/bulk

Deprecated Fields

The following tables list fields that were deprecated in dcTrack 8.2.0 or prior and are removed in dcTrack 9.1.0 from either the APIs or the ODBC Views:

API Fields

Field Name	Resource
dtContractEndDate	**Item JSON Object Definition**
dtContractStartDate	**Item JSON Object Definition**
dtInstallationDate	**Item JSON Object Definition**
dtPurchaseDate	**Item JSON Object Definition**
modelName	**Model JSON Object**
tiDimension	**Item JSON Object Definition**
chkEnableVPC	**Location JSON Object Definition**
outputVac	**Model JSON Object**
	Model JSON Object
tiCustomerCircuitId	**PowerConnectionJSON**
H x W x D	**Item JSON Object Definition**

ODBC View Fields

Field Name	Resource
FieldAppliesTo	**odbc.dcCustomFields**
FieldSortOrder	**odbc.dcCustomFields**
CabinetItemID	**Odbc.dcAllItems**

Important Notes

The minimum hardware specifications for the Client Workstation have been updated as follows for dcTrack 8.1 and above:

- Processor Core I5 2.6G with 4+ cores
- 8GB RAM
- Graphics Card with minimum 2GB RAM and support at least 1280 x 960 resolution
- For viewing the 3D Visualization, the client workstation should have at least 16GB of RAM

Additional Comments

The table below provides helpful information on issues related to dcTrack Release 9.0.0 and above:

Issue	Comments
Saving an Item with SNMP3 enabled	Users may receive the message "SNMP V3 Authorization Level is invalid" when saving an Item with SNMP3 enabled even if the settings have not changed. To correct the problem, select a different Authorization Level from the dropdown then select the original option again and the record will successfully save.
Importing Busways	Busway Outlets can no longer be created when importing Busway Breakers. The Power Outlet column in the file must refer to an existing column. Additionally, when creating Power Outlets for Busways, the Busway column is required. As a result, the Busway must be created prior to importing their Power Outlets.
The url for external links https://<dcTrackIPAddress>/link/search/{fieldname}/{value} has been deprecated.	The new format is: https://<dcTrackIPAddress>/link/search/items?field=XXX&value=YYY
HA Email configuration is initially disabled.	To enable the configuration: Toggle the "Enable High Availability" check box checked > unchecked > checked.
dcTrack in Multiple tabs	If you have dcTrack open in multiple tabs, closing one or more of those tabs may cause your session to end in all the remaining open tabs.
ODBC access may require new drivers	The version of the database has been upgraded from PostgreSQL 9.6 to PostgreSQL 12.1. Customers who access the database via ODBC may need to update the database drivers used.
Import over 100k rows	Importing files in excel format having more than 100K rows my cause an issue and import will fail. Use csv format when importing files over 100k rows.

ODBC Query Timeout	To change the ODBC Query Timeout setting, you must restart the dcTrack appliance. Otherwise, the setting will remain unchanged until the next time the dcTrack appliance is restarted.
Rendering 3D Floor Maps on a Mobile Device	The mobile browser may fail to load the 3D Visualization. To get around this issue, from a desktop browser, set the Contents Selector in the 3D Settings tab under the Floor Map Settings section to Auto rather than Always. This setting will only affect your user account. Alternatively, you may login to dcTrack by requesting the Visualization directly by typing this URL into your mobile browser: <dctrack hostname>/dcim/#/visualization
API Move Requests on Cabinets	When using API move requests on cabinets and manipulating the rows of the original item or the ^^when moved item, there may be a leftover system row with a name ending in ^^MO,V after completing the move. This is a known issue, and the row can be safely deleted.
"snmpCommunity" string in the dct_item_snmp table	Migrating the "snmpCommunity" string to the dct_item_snmp table was an API-breaking change that will be fixed in dcTrack 9.0.1
Custom Date fields do not work in the color-code feature on the floor map.	On the floor map, for the color-code feature, colors are not grouped by month for date type fields.
A transformer's Input Rating (Vac) does not update when the Input Item's Rating (Vac) value is updated.	After creating a Utility Feed and specifying its Rating (Vac) value and setting it as the Input item for a transformer, users may find that the Transformer Input Rating (Vac) does not change when the Input item's Rating (Vac) value is updated. To address this issue: Delete the Fed-From item field in the Transformer and save your change. Then add the Fed-From Item back to the Transformer and save your changes.
A UPS is not displayed in the "UPS Units in Bank grid on the Configuration sub-tab. Units in Bank YYY" grid of a UPS Bank if the UPS is placed in a different location	When a UPS is placed in one location, and the UPS bank and its load device are placed in another location, the UPS does not display in the UPS Units in Bank grid of the UPS bank.
A Power Panel's Breaker Voltage does not update when the Fed-From item's Rating (Vac) value is updated.	After creating a Utility Feed and specifying its Rating (Vac) value, then setting it as the Fed-From item for a Power Panel, users may find that the voltages of breakers added to the Power Panel do not change when the Fed-From item's Rating (Vac) value is updated. To address this issue: Delete the Fed-From Item field in the Power Panel and save your change. Then add the Fed-From Item back to the Power Panel and save your changes.

Where to Find the Software Files and Obtain Help

- Find Software: **https://support.sunbirddcim.com/**
- Get Help: tech@sunbirddcim.com
- Sign Up for a Maintenance Contract: Contact your reseller or sales@sunbirddcim.com

Hardware Compatibility

- Raritan E2
- Dell R650/750/850

Browser Compatibility

- Microsoft Edge - Version 108.0.1462.42 (Official build) (64-bit)

- Firefox - 107.0.1 (64-bit)

- Google Chrome - Version 108.0.5359.73 (Official Build) (64-bit)

- Google Chrome on Mac - Version 108.0.5359.94 (Official Build) (arm64)

- Apple Safari - 16.0 (17614.1.25.9.10, 17614

Power IQ Compatibility

Versions 8.0.0, 8.0.1, 8.0.2, **8.0.3, 8.1.0, 8.1.1, 8.1.2,9.0.0**

About

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