PROVANCE

Provance Bar Code

USER GUIDE

Microsoft System Center Service Manager

Introduction

Provance® Bar Code for Microsoft System Center is a mobile asset scanning software suite. With a minimum of data entry, it gives you the freedom to receive new assets and to perform ad-hoc audits wherever you prefer. Use its simple four-task menu to receive new assets, track the movement of existing assets, verify asset characteristics, and manage your non-serialized assets at a depot. Provance Bar Code is integrated with Microsoft System Center 2016 - Service Manager and hence Provance IT Asset Management Enterprise and Standard edition. The architecture allows an asset scanned with a mobile scanner to ultimately create or update hardware asset configuration items in the Service Manager Configuration Management Database (CMDB), and therefore the hardware assets in Provance IT Asset Management Enterprise/Standard. The bar code scanner software, Provance Scanner, operates on Windows Operating System bar code scanners.

Versions

The Provance version covered by this User Guide is Provance 2016.

The version of Bar Code covered by this guide is 3.5.15.

Bar code types

The Motorola (now Zebra) scanners can read the following types of bar codes:

- Micro QR
- I2of5
- CODABAR
- CODE11
- CODE39
- CODE93
- CODE128
- DATAMATRIX
- D2OF5
- EAN13
- EAN8
- PDF417
- UPCA
- UPCE1
- UPCE0

The CODE39 and CODE128 are the most common symbologies used in IT asset management.

NOTE: *Provance Bar Code only supports a single line of text with 2D codes; it cannot parse newline characters.*

Receive shipments

Usually an organization receives most IT and Facilities inventory for company use through a Receiving depart-

ment. Typically the best practice is for receiving personnel to note the receipts on company forms, and manually input this data in order to record the items available for distribution.

With Provance Bar Code, receiving personnel use only a bar code scanner to scan each item received, and enter a minimum amount of information about each shipment. When the device is synchronized with Service Manager, hardware assets are automatically created or updated in Provance IT Asset Management Enterprise/Standard. Behind the scenes the scanner makes a call through the web service using the Synchronization url you provided during configuration. The scanner communicates through the web service with the Provance Management database, which then updates the CMDB with the assets scanned.

The use of bar code scanning technology reduces the time needed for processing new inventory, and it reduces the occurrence of errors resulting from manual data entry.

Track movement of assets

The organization's IT staff is tasked with IMACD tasks, such as install, move, add, change, and dispose. Numerous items are distributed or recalled for repair or retirement on a daily basis.

Detailed records of these changes ensure accurate reporting of asset movement and assignment to an organization's employees. Provance Bar Code allows staff to pre-fill common information, like location, ownership, and life cycle status, then simply scan all items participating in the

action. Recording data in bulk greatly reduces the time required for processing multiple asset transactions and improves the accuracy of the changed assets.

Verify inventory

Traditionally, IT resources physically verify all of the IT related assets exceeding a specific value. This process requires the dedicated effort of the entire IT staff for an extended period of time each year. They manually record the asset information and then spend hours transcribing the collected data into Service Manager and Provance IT Asset Management Enterprise. The transcription process includes verifying whether or not the asset exists in Service Manager. If an asset exists, the staff member verifies that the asset characteristics are correct before updating. If the asset does not exist, a new asset is created.

Provance Bar Code simplifies the process of performing an inventory of your assets. Each staff member begins by synchronizing a bar code scanner with Service Manager. The act of synchronizing loads current asset, user, organization, and location information from Service Manager onto the scanner.

Next, each asset's bar code label is scanned and a description of the asset is displayed on the device's screen, such as the assignment, location, organization, etc. If the information is correct, no action is necessary because the verification process is recorded on the History tab of the asset as a **Last Scanned Date** change. Incorrect information can be changed using the scanner or, if the asset is not

found in inventory, the remaining asset data can be entered and a new record created from it.

After scanning the assets, the staff member simply synchronizes the scanner with Service Manager. This updates the existing records and creates new records as needed.

Manage non-serialized assets

The Manage module lets you perform the following functions with any non-serialized assets, such as cables, mice, ink cartridges, and flash drives:

- restocking your existing inventory
- picking assets from your inventory
- adjusting your inventory according to the quantity on hand due to a loss or a recovery of assets

Upon synchronization, your inventory in ITAM is adjusted according to the actions you take in the module. For example if you had 30 as the **In Stock Quantity** on a VGA Cable asset, and you added an additional 10 cables to your stock using the Manage module, then the In Stock Quantity would increase as shown on the asset:

If for some reason you cannot completely fill an order from your inventory, you can include a status code to identify the reason for the discrepancy. All transaction records will include this status code if selected, along with the depot id, the scanner user id, date and time, part number, quantity requested and quantity picked. You can find the transaction details in the **CurrentLog** file on the Scanner (Program Files>Provance Scanner>Log).

You must always select the specific depot that you want to make your changes to before beginning any manage task. Naturally, depots, assets and their part numbers need to be configured in ITAM before using the module.

Synchronization with the Manage module

There are two methods of synchronizing your inventory changes with the CMDB:

- synchronize all outstanding transactions you have performed while working within the Manage module. Use the **Synchronize** task on the Main menu
- synchronize every time you save the Manage form (abbreviated in this document as micro-sync)

Naturally the scanner must be on-line at all times when you have chosen to synchronize on every save (Preferences > Manage > Synchronize every transaction saved). Both sync methods can operate independently or together. When used together, the main synchronization pulls down all relevant configuration items, such as users and assets to the scanner. But when you save each order in the Manage module, the micro-sync will send the transactions performed in that module up to the database. Only the Manage module transactions are sent to the database. That means you can check the In Stock Quantity on assets for immediate updates. But you must perform a full synchronization to send the data from all other modules to the database.

Micro-sync is intended to allow multiple scanners to operate against a depot or a storage facility. Using this option several scanners can work on the same part number and have the inventory adjusted in real time; however, the scanners must be on-line continuously, or placed in the cradle before synchronizing saved data.

Forms for receiving, tracking, verifying and managing

Each task you perform with the bar code scanner will involve completing one of the forms that describe the assets you are scanning. The forms contain information that is a subset of what you will find on a hardware asset's form in Provance IT Asset Management Enterprise. The forms are designed as templates for bulk scanning of assets. You complete the information that is common to all the assets, then you scan each asset tag and serial number to complete the form for a particular asset. This section describes the forms in detail and the information that you will complete on each one.

Hints for using forms

When using the forms, by default a red field indicates that it is required and a green field indicates it is a scan field.

Any field can be reset to its previous value, after you change it, by double-clicking the field name.

Swipe to scroll right or left on the screen.

Windows Mobile operating system offers suggestions (auto complete) when typing text into a field.

When searching for items like Models in a look up table, use the % as a wild card in your queries. For example, if I wished to find 3550 because it is the portion of the model name I remember, I would enter %3550. This query would find **Catalyst 3550 Ethernet**.First select the column that

you wish to search because the search is only performed on one column at a time.

Receive form

The receive form is used when processing new assets (inventory).

The receive form is preconfigured to scan or enter data into the following hardware asset fields:

- **Last Scan** (bar code number previously scanned): Bar codes can be entered by hand into this field. Click the ellipses to populate the field to be scanned into with the bar code entered by hand.
- **Next Scan:** Designates the next field to be scanned into with the device. Click this field to toggle between the possible scan fields should you wish to change which field will be scanned into next.
- Asset Tag (scan field)
- Serial Number (scan field)
- Asset Class
- Type
- Model (required by default)
- Description (of the hardware catalog item)
- Description
- Life Cycle (required by default)
- Location (scan field)
- Cost Center (scan field)
- Organization (scan field)
- Assigned to

- Received Date
- Designated Use
- Readiness (Status)
- Purchase Order
- Invoice
- Supplier

Track form

The track form is used when performing a change on an existing asset, such as an install, a move or a dispose. The track form is preconfigured to scan or enter data into the following hardware asset fields:

- **Last Scan** (bar code number previously scanned): Bar codes can be entered by hand into this field. Click the ellipses to populate the field to be scanned into with the bar code entered by hand.
- **Next Scan:** Designates the next field to be scanned into with the device. Click this field to toggle between the possible scan fields should you wish to change the next field to be scanned into.
- Asset Tag (scan field)
- Serial Number (scan field)
- Asset Class
- Type
- Model (required by default)
- Description (of the hardware catalog item)
- Life Cycle (required by default)
- Assigned To
- Designated Use
- Readiness (Status)
- **Location:** The location may be prefilled on the form, based on the default location. Prefilling the location reduces the amount of data entry when scanning assets. To set the default location, go to Preferences and select **Use Default Location**.
- Organization

Verify form

The verify form is used when auditing or inventorying your assets, and allows you to create assets on the fly if necessary. The verify form is preconfigured to scan or enter data into the following hardware asset fields:

- **Last Scan** (bar code number previously scanned): Bar codes can be entered by hand into this field. Click the ellipses to populate the field to be scanned into with the bar code entered by hand.
- Asset Tag (scan field)
- Serial Number (scan field)
- Asset Class
- Type
- Model (default required)
- Description (of the hardware catalog item)
- Life Cycle
- Assigned To
- Designated Use
- Readiness (Status)
- Location
- Organization

Manage form

The Manage form is used to pick from inventory or stock an inventory with non-serialized assets. The Manage form is preconfigured to scan or enter data into the following fields:

- **Last Scan:** Bar code number previously scanned by the device. You may enter bar codes into here manually and click the ellipses to place them into a scan field. The field that a bar code is placed into is designated by the Next Scan field.
- **Next Scan:** Designates the next field to be scanned into with the device. Click this field to toggle between the possible scan fields should you wish to change to the next field to be scanned into.
- **Depot Name (Required):** Choose the depot where you will be picking or stocking assets from. The default depot is managed from the Preferences, but you can change it temporarily from here when you are at a different locale.
- **Trans Type:** Choose the type of transaction, corresponding to the action that you wish to perform: Pick or Stock.
- **Order ID (scan field):** Scan the order ID, which is a unique identifier for the particular order. You can enter a number manually if you don't have a bar code for the order but enter it into the Last Scan field and click the ellipses. The order ID may be left blank if one is not available.
- **Part Number (scan field):** Scan the asset's part number.

- **Asset Name:** The asset's name given to it in Provance ITAM.
- **Part Count:** The number of parts currently in inventory at the selected depot (only visible on a stock).
- **Qty Requested:** Enter the amount originally requested. This may be useful when you cannot completely fulfill an order request. There may not be enough inventory to complete the order, but you can keep track of the amount requested here.
- **Qty Pick/Adj.:** Enter one of the following depending on your task: the amount you wish to remove from inventory (pick); the amount which you are adding to inventory (stock); the amount you are setting/adjusting the inventory to (stock).
- **Status:** Select the status of the order, such as Fulfilled, Receive Inventory, Adjust Inventory, or a reason for not fulfilling it, such as **Partial** or **No Stock**.
- **Action Code:** (Stock only) Select the adjustment you wish to make to your inventory as follows: decrement (to remove items from inventory); increment (to add stock to your inventory); and set (to set the inventory to a specific value).

Receiving assets

Receiving assets refers to checking in new inventory, be it IT or facilities inventory. Usually an organization receives most IT and facilities inventory for company use through its warehouse. The Receive task is therefore used to scan assets at your warehouse or even your IT department, and either create or update them in the CMDB. Any changes

made are recorded on the History tab of the hardware assets.

An efficient means of receiving assets is to group all like assets together, whether they are alike in kind, in location or in another aspect. You can process all assets that share common information together much more quickly than you could if you entered different information for each asset received. You can begin the receive by scanning the asset tag, serial number, location, cost center, or the organization.

To receive assets:

1. Log into the Provance Scanner application and select the **Receive** task. The Receive form opens.
2. Complete the fields on the form that are common to your receive task (fields that are colored black). For a list of the fields, see "Receive form" on page 9.
3. Scan the first bar code representing the asset tag. The asset tag is populated on the receive form.
4. Scan the second bar code representing the serial number. The serial number is populated on the receive form.
5. Enter any additional information into the form to complete the asset record. The next scan creates a new record and saves the previous record.
6. Continue scanning the bar codes for each asset being received.
7. Once all items have been scanned, select **Save**. The scanned data is saved to the local database on the scanner.
8. Select **Synchronize** to update the Provance Management Database with the assets you just scanned. This in turn updates the CMDB with them.
9. View the assets that have been added to Provance IT Asset Management Enterprise/Standard. A message indicates that the synchronize completed successfully.
   Your changes have also been recorded on each asset's History tab.

Tracking assets

The Track task applies to any changes made to a hardware asset, such as install, move, add, change or dispose. When you perform a Track task you are updating existing hardware assets. To Track assets, pre-fill all fields that are common to the task, such as the new Location, the person the asset is being Assigned To, the Organization responsible and the new Status of the asset. Next you scan the bar codes for the items participating in the task.

To track assets:

1. Log into the Provance Scanner application and select the **Track** task. The Track form opens.

2. Complete all the fields that are common to the Track task, i.e., the fields that are changing. For a list of the fields on the form, see "Track form" on page 11.

3. Scan either the Asset Tag or Serial Number of each asset. The updated information for each asset is highlighted in red on the form. This is the data that will change for each asset scanned.
   If a record is not found, then it did not exist in the Provance Management Database after the last synchronization. In this case, you may add the asset to the CMDB by completing the fields for it.

4. Select **Save** once all assets have been scanned. The scanned data is saved to the local database on the scanner.

5. Select **Synchronize** to update the Provance Management Database with the assets you just scanned so that the CMDB may in turn be updated with them. See the updated assets in Provance IT Asset Management Enterprise. Your changes have also been recorded on each asset's History tab.

Verifying assets

Use the Verify task when you are performing an inventory or an audit on your hardware assets. You update the database on the scanner so you have a current record of your existing assets. When scanning assets you verify that the information on the asset record matches that of the physical asset. Assets that could not be found in the database can be created by completing the remaining fields on the Verify form. Information that needs to be updated may be changed on the form. For example, your assets were assigned temporary asset tags when they were received. Now you scan the serial numbers of those assets and swap their temporary asset tags with permanent ones.

The CMDB is updated with both changed assets and any new assets that were not being managed (not found).

A historical record of the verification is recorded on each asset's History tab, so even if there were no changes to it you have a record that the inventory was performed on the asset.

To verify assets:

1. Launch the Provance Scanner application and select Menu > Synchronize. This ensures the local database is up to date.
2. Log into the Provance Scanner application and select the **Verify** task. The Verify form opens.
3. Complete all the fields that are common to the verify task. For a list of the fields on the form, see "Verify form" on page 12.
4. Scan one of the inventory assets and verify that the data on the form is correct. Even when no changes are made to a form, the verify task creates a history record on the asset, indicating when it was last scanned.

5. To change the Asset Tag or Serial Number just scanned, click inside either field. Click once to change a field and twice to reset it to its original value. You can now either manually edit a value or scan in a new value. Values can be edited even after scanning them in.

6. If any other entry needs to be changed, then update the field with the new information.

7. If the asset was not found in the Provance Management Database, a Record not found verification dialog opens.

8. Click **Yes** to create a new asset record. A dialog opens asking you which tag was just scanned.

9. Select the field you just scanned, but consider the following:
   AssetTag: Used when the asset is a computer.
   AssetTag2: Used when the asset is an infrastructure.
   AssetID: Used when the asset is a general.
   AssetID2: Used when the asset is a mobile device.

10. Click **OK**. The Verify form opens.

11. Scan a new **Serial Number**.

12. Complete the remaining fields with data that is consistent with the current location/organization.

13. Continue scanning the remaining assets being verified.

14. Select **Save** once all assets have been scanned. The scanned data is saved to the local database on the scanner.

15. Select **Synchronize** to send your updates to the Provance Management Database so that the CMDB may in turn be updated. See the updated assets in Provance IT Asset Management Enterprise/ Standard. Your changes are also recorded on the asset's History tab.

Managing non-serialized assets

There are essentially three tasks you can perform within the Manage module:

- pick from inventory

- stock inventory
- set or adjust inventory

Which of these tasks you perform depends on the Transaction Type, pick or stock, and the Action Code option you select.

To pick from inventory:

1. Launch the Manage module. The Manage page opens. If you have not set a default depot in the Preferences, you are prompted to choose one for the transaction. In this case the depot you choose is not saved as the default, so you will be prompted each time you launch the module.

2. The **Depot Name** fields contains the default depot for the transaction. All your inventory selections will take place from this depot.
You can change the Depot temporarily for the transaction and the default depot will not be changed.

3. Choose a **Transaction Type** of Pick, which removes items from your stock. You cannot change the Trans Type once it is selected.

4. Scan your **Order ID**. You may also enter it manually in the Last Scan field, if you don't have a bar code, or leave it blank.

5. Scan the **Part Number** or select it from the pick list.
If the Asset Name does not match the part, click the scan field to reset it so that you can scan another part number.

6. Enter the **Qty Requested** from the order (optional).

7. Enter the **Qty Pick**, which is the number of assets you are removing from inventory.

8. Select a **Status** for the order, such as Fulfilled, Partial or No Stock.

9. Scan a new part number and continue this procedure for each asset being picked from inventory. You do not need to save between each scan. Your data is being saved behind the scenes.

10. Click the Menu button and choose either **Save and Exit** or **Save** to save the entire transaction.

11. Confirm the order by clicking **Yes**.

   If enabled, the scanner performs a micro-sync to upload your transaction to the database and return the latest part counts for the depot. If there are issues see "When a micro-sync fails" on page 22.You should immediately see the inventory changes you made to the In Stock Quantity on your assets in Provance ITAM. If the option to micro-sync is not enabled, exit the Manage form and click **Synchronize** to upload your transactions to the database.

To stock or adjust your inventory to a set value:

1. Launch the **Manage** module. The Manage page opens. If you have not set a default depot in the Preferences, you are prompted to choose one for the transaction. In this case the depot you choose is not saved as the default.

2. The **Depot Name** field contains the default depot for the transaction. All your inventory selections will take place from this depot.

   You can change the Depot temporarily for the transaction and the default depot will not be changed.

3. Choose a **Transaction Type** of Stock, which restocks the inventory. You cannot change the Trans Type once it is selected.

4. Scan your **Order ID**, enter it manually into the Last
   Scan field and click the ellipses, or skip it entirely if you
   don't have one.

5. Scan the **Part Number** or select it from the list.

   If the Asset Name does not match the part, click the scan field to
   reset it so that you can scan another part number.

   The **Part Count** should update to indicate the number of parts in
   stock at the depot.

6. Enter a **Quantity Requested** (optional).

7. Select an Action of **Increment** to add stock or **Set**
   when you wish to set the inventory on hand to a specific
   value.

8. Select a **Status** for the order, such as Fulfilled, Partial
   or No Stock (optional).

9. Scan a new part number and continue this procedure for
   each asset being added to the inventory. There is no
   need to save unless you wish to start another order,
   with a new order number.

10. Click Menu and select either **Save and Exit** or **Save** to
    save the entire transaction. If enabled, the scanner per-
    forms a micro-sync to upload your transaction to the
    database and return the latest part counts for the
    depot. If there are issues, see "When a micro-sync fails"
    on page 22. You should immediately see the inventory
    changes you made to the In Stock Quantity on your
    assets.

    If the option to micro-sync is not enabled, exit the Manage form
    and click **Synchronize** to upload your transactions to the data-
    base.

When a micro-sync fails

If the micro-sync fails the transaction is still saved. Use the Synchronization on the main menu or login screen to submit the transactions. You need to re-enter the Manage module (get the list of depots) and select/confirm the depot. It may take a few minutes for the transactions to run and update the part counts (In Stock Quantity) in the depot.