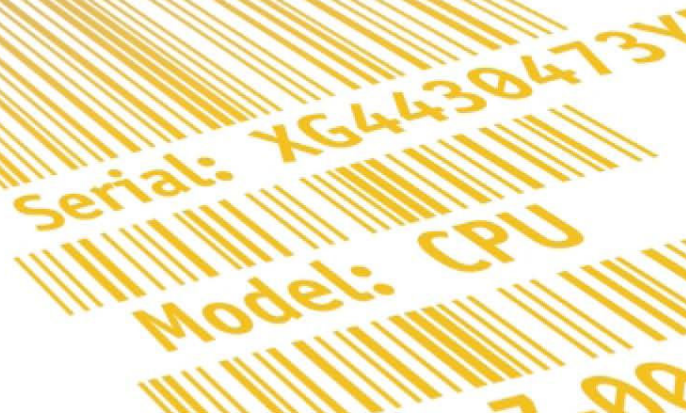


Physical Inventory Techniques



During physical inventory, track-able items (real, personal, fixed assets, and consumable inventory) are physically accounted for. The intent is to single out track-able assets (i.e. an asset that may be physically seen and verified), verify asset existence and to capture related information. This document offers insight into the activity and in particular, Lockwood's approach to conducting physical inventory projects. Because physical inventory is a labor intense activity that is prone to error, it is prudent to affix tracking labels to the items being counted thereby easing future count activities. This document will also explore tracking labels and associated tracking technologies (known as automatic data capture).

Methods

There are various methods of conducting physical inventory. These include; partial counts known as cycle counts, closed inventory whereby a full inventory is conducted while operations cease and an open inventory whereby a full inventory is conducted during the course of normal ongoing operations.

Cycle Counting

A cycle count is a partial count of selected items within specific areas. The count is cycled through various items and various areas over time. The results are used as a means to measure levels of accuracy using the cycle count as a barometer measurement of the whole, without having to verify the entire installed base.

Full Count

Closed and open inventories essentially are full blown physical counts. The major difference is that a closed

inventory is less error prone than an open inventory. This is true because during an open inventory the inventory base can be constantly changing thus allowing for a larger percentage or error. During a closed inventory, nothing moves or changes until the count has been completed.

There are many methods for conducting physical inventory and when outsourcing this activity to external vendors there are a variety of methods for pricing the project. Time and materials is the most common, whereby the vendor charges an hourly rate and is reimbursed for materials consumed and expenses incurred. Another common pricing mode is to charge a fixed fee per item (or asset) counted. The obvious drawback to both of these methods is the fact that the total cost is not known in advance and therefore cannot be controlled. However, some common sense can be applied here. The more involved the inventory the greater the cost will be. Labor is the primary driver of the vendor's cost, so time required to conduct the work as well as the timing will impact the price. Lockwood offers a fixed project fee based upon approximations and assumptions thereby eliminating these problems.

Lockwood specializes in planning and conducting physical inventory capture. The process is defined into 3 stages ***planning, execution and information cleansing/loading.***

1) **Planning** is the primary priority with emphasis on detail. It is our attention to precise planning that enables efficient, as well as accurate physical inventory capture. Our plans detail every

aspect of the project, including schedules and milestones, and are used as the sole guiding document that all inventory representative's follow. Our Project Managers and Inventory Controllers conduct all the planning elements. Planning elements include definition of:

- ✓ Data collection and related standards
- ✓ Bar code label appearance, size, type
- ✓ Bar code placement in a uniform fashion
- ✓ Communications
- ✓ Building/location access
- ✓ Schedules
- ✓ Daily sweeps
- ✓ Information management
- ✓ Contingency plans

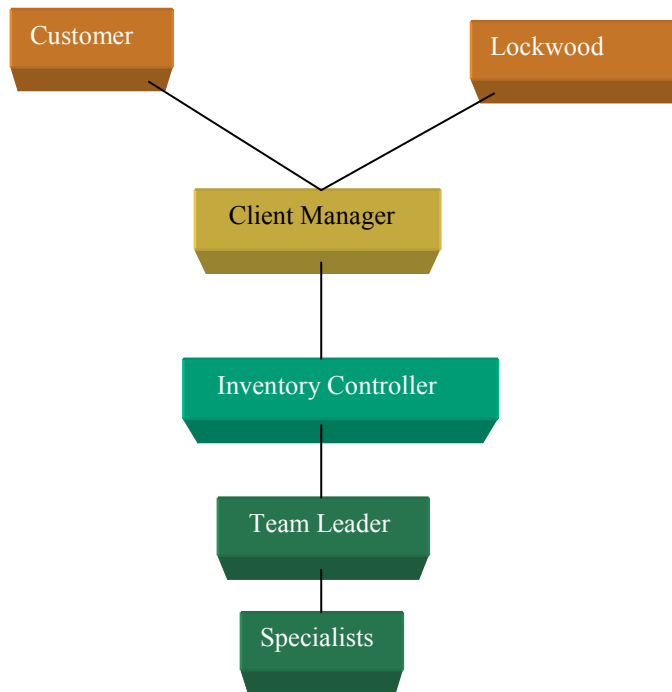
The plan becomes a formal “living” document, which has precise details regarding the project and serves as both the project guide and also as the document of record once the project has been completed. Once the planning has been completed, the plan is presented for approval to our client. Once approval has been granted, team training is initiated using the plan as the basis. The plan contains pictures of the various asset classes, contains specific information conventions, customer-specific schedules and rules as well as building blueprints. Further, delays and problems are forecasted and planned for with contingencies identified for each conceivable problem being envisioned. All of this an excellent means for training and team preparation and is also very useful in terms of setting expectations all around. Once the plan has been approved variations to the plan require a formal adjustment process.

It has been our consistent experience that the effort placed into the planning stage

is returned in droves in the time required to conduct the physical count. And all involved are fully prepared for problems with contingency paths clearly defined and understood.

- 2) Inventory Specialists who are led by Inventory Controllers **execute Inventory Capture**. These people wear uniforms and identification badges. They are placed into teams, which focus upon specific objectives and timetables. Teams communicate with each other via walkie-talkies, and others (outside of the teams such as headquarters and customers) via cellular telephones. Teams are allocated specific responsibilities. For example, teams are assigned specific locations to count and in some cases specific asset class types. (i.e. we often send specialists to focus on the assets that they have specific expertise with). Our specialists will gather all the required asset information, as well as take digital pictures (and can also take videos as well) that are included in the data repository. Teams are equipped with hand-held data collection hardware (portable computers, bar code scanners and portable cordless bar code printers) and software. Using these tools they record asset information and print bar code labels on demand as they go. The asset information accumulates in the data collection units, which is then downloaded (to one master computer) and reconciled each night as the teams finish for the day. If a team encounters a problem or question, they contact a controller (via the walkie-talkie or cell phone) and ask for direction. The controller determines the solution/answer (often by contacting the client for direction) and then communicates the results to all teams.

Lockwood employees adhere to the following management hierarchy:



The Client Manager is the senior Lockwood Manager assigned to the engagement and has ultimate overall responsibility for the project with the authority to make commitments for Lockwood. Onsite Inventory Controllers, oversee all aspects of all physical inventory activities. Team Leaders execute the physical counts and supervise the Inventory Specialists allocated to the respective teams. All Lockwood employees wear name badges and company uniforms (excepting the Client Manager and Controllers).

This hierarchy adheres to strict rules related to; communications, decision-making, problem resolution, project and schedule coordination and quality review. For example, assume an Inventory Specialist encounters a

specific (major) problem related to the physical count as defined within the plan. The Specialist conveys the issue to their respective Team Leader via a 2-way radio. The Team Leader conveys the problem to their respective Inventory Controller for resolution and direction. The Inventory Controller will attempt to resolve this with their local customer site representative if possible; otherwise will convey the problem to the Client Manager. In either case, the Inventory Controller will communicate the situation to all other Inventory Controllers ensuring that they are aware and request that they await word of resolution. The Client Manager coordinates resolution between the customer and Contractor Management. Once resolution has been obtained communication then reverses the flow downward thereby insuring all Lockwood employees have been informed of the action and resolution in a single consistent fashion. Minor problems, such as delay getting into a specific area to count will not be communicated to all Inventory Controllers unless the delay has some specific impact to their areas of responsibility. Daily and weekly status reporting is administered by the Client Manager to facilitate communications and coordination with the customer and Lockwood management (Headquarters).

Organization & Control

Each Inventory Controller is allocated a portion of the whole physical inventory scope. The project is separated into areas of responsibility. Controllers have responsibility for insuring the counting of all locations and assets within a designated region. Controllers subdivide their region(s) into zones (A, B and so on) that are delegated to Team

Leaders who have direct responsibility for supervising the counting of assets in. Zones are comprised of buildings and rooms and are associated with specific schedules that the Team Leader must complete. Team Leaders assign areas within their zone(s) to the specific Inventory Specialists, who use facility maps to navigate, guide and record their progress.

Responsibilities

Team Leaders continually spot-check the work being conducted by their Inventory Specialists. Inventory Controllers randomly spot-check the work being conducted in the areas they are responsible for. Team Leaders have responsibility managing (and accounting for) all Contractor equipment and supplies and for keeping their teams supplied with fresh batteries and supplies (labels) for the data collection and bar coding equipment throughout each day. Inventory Controllers have ultimate responsibility for all physical inventory information (compilation and quality). Daily information review, scrubs and merges are facilitated by the Inventory Controllers as a group, producing a single data file, that continues to accumulate inventory results as the engagement progresses.

At the end of each day Team Leaders and Inventory Controllers convene to review all data that was collected during the day to verify quality and consistency. Schedules are reviewed and adjusted where necessary and status reporting is prepared and submitted to the Client Manager for compilation and submission to the customer and Lockwood Headquarters.

In addition to engagement coordination and customer communications, the Client Manager also provides ongoing status reporting and makes the inventory data results available to the customer at the conclusion of each day's counting activities. The Client Manager will review the day's results with the appropriate customer representative(s) enabling our customers to measure and react to the project as it progresses.

Supervision of Lockwood personnel follows the hierarchy depicted in the chart above. Replacement of Lockwood personnel (if necessary) is coordinated between the Client Manager, Lockwood Headquarters and the customer.

Equipment

We equip our Inventory Specialists with technology specifically geared to the asset class they are to count and the data requirements that they are to gather. Typically, each Specialist will have at a minimum: a hand-held data collection unit that features a built-in bar code scanner and has an attached, portable bar code label printer. These hand held data collection units are custom pre-scripted by our software engineers to meet the exact requirements of each asset class (as the data requirements may differ by asset type). Each Specialist also is equipped with a small digital camera and they take pictures of each asset class they are to count and include asset descriptions and notes in order to help with later reconciliation efforts. Other equipment that is at the disposal of the Specialists (and is allocated by the Team Leaders) are; optical character recognition scanners (OCR), counting scales, memory sticks, contact memory tools and buttons and RFID tags and scanners.

The following exhibits represent typical data collection tools Inventory Specialists usually employ.

Symbol SPT 1800

Integrated bar code scanner



Zebra TR220 Pistol Grip Printer



SPT1800 combined with TR220 printer



Procedures

The basis for conducting the actual count is that we assign Inventory Specialists to specific asset categories (e.g. our

employees are grouped and assigned to count selected, specific asset classes). Consequently, one team will focus on telecommunications while another will focus on computers and yet another will focus on audio-visual and so on. Each Inventory Specialist is prepared in advance

for each engagement by attending a briefing session prior to the start of the project where they are briefed and trained as to their responsibilities and plan specifics. Each Inventory Controller is allocated regions that they will have responsibility for counting assets within. The Controller then divides their regions into zones that each Team Leader will have direct responsibility for counting assets in. Team Leaders then deploy Inventory Specialists into the buildings within their respective zones to count assets. Leaders provide facility maps to the Inventory Specialists, who use these maps to navigate and guide their counting progress. Locations are checked off on the map as they are completed, or are highlighted if they were not accessible and need to be re-tried at a later point in the project. Throughout each day progress is communicated upward (Specialists to Leaders, Leaders to Controllers, Controllers to Client Manager and Client Manager to the customer and Lockwood Headquarters).

Each Inventory Specialist is responsible to physically see each asset that they count, to obtain specific information related to that asset (e.g. description, serial and asset numbers, model, location, etc.), generate a bar code label and affix that label to the asset in a predefined consistent location and to take a digital picture of each asset type. The priorities for the Specialists are to

first, find and count all assets in their respective areas, second to gather accurate asset information third, to generate and affix a bar code label to each asset, four, to check all buildings/rooms/locations within their count area for assets and five to follow and fulfill project schedules.

Lockwood employs a technique known as “*remote counting*” for assets in locations where travel advisories are in affect or where it is not cost-effective to travel there to count a small number of assets with a relatively low-net book value. Remote counting is administered by Lockwood (remotely) and conducted physically by local (onsite) client personnel under Lockwood’s guidance.

The remote count process is as follows – Lockwood:

- 1) Assumes responsibility for communications, coordination and administration of remote counting process
- 2) Provides an intelligent electronic data entry form and user guide representing what to count, what information to gather, how to enter that information into the form and how to submit the form to Lockwood for processing
- 3) Collects forms, reviews information for accuracy (resolves problems) and imports into a single compiled database (merged with physical count data)
- 4) Provides interim asset tracking and management software – for both remote counting process and ongoing asset tracking and management use.

5) Generates and distributes bar code labels to all remote counting sites with user guide specifying label placement.

6) Will randomly select and audit 2 remote counting sites to insure conformance.

Navigation

Teams use a facility map of the building (they are in at the time) to identify the areas they are to count and will also use the map to track which areas they have completed. These maps will also provide location identifiers (or codes) for the teams to use to record the location for each asset profile they create. Each team highlights locations they are unable to gain access to, on their map for later resolution.

PROBLEM RESOLUTION

Instruction clarification & process alterations

Team Leaders communicate with each other and the Inventory Controller when they encounter a problem or need clarification concerning inventory-counting conventions. The Inventory Controller will resolve the question/problem by calling the Project/Client Manager, who in turn consults with the client representative. The Inventory Controller will communicate the result back to each Team Leader. Team Leaders will inform their partners and implement the resolution. In this way, the communication will be swift and the results will be communicated quickly and consistently to all team members without confusion or misinterpretation.

quickly and consistently to all team members.

COMMUNICATIONS

Equipment & Coordination

Team Leaders coordinate with each other, and the Inventory Controller, via walkie-talkies. The Inventory Controller communicates and coordinates the project with the Project Manager. The Project Manager communicates and coordinates with the appropriate local client representatives via a cellular telephone or in person as the situation warrants.

Communications Outward

Team Leaders communicate on behalf of their team to the other Team Leaders. Inventory Controllers communicate on behalf of all teams to the Project Manager. The Project Manager communicates with the customer.

Communications Inward

The Project Manager communicates to the Inventory Controllers. The Inventory Controllers communicate to Team Leaders. Team Leaders inform their partners and implement the communication result.

Instruction clarification & process alterations

Team leaders communicate with each other and the Inventory Controllers when they encounter a problem or need clarification on inventory conventions. The Inventory Controllers relay to the Client Manager (Project Manager). The Client Manager will resolve the question/problem by calling the appropriate client representative. Information is then relayed backward following this same hierarchy. In this way, the communication will be swift and the results will be communicated

COUNTING CONVENTIONS

Counting conventions refer to what is to be counted, what information is to be gathered and how counters will identify items. The following offers several examples of counting conventions typically applied when counting varying types of assets.

Furniture

Furniture is normally counted and labeled by assigning an item code and an asset number to each piece. The serial number would be a reflection of the asset number. Pictures are taken of each piece (one per model type) and imported into the asset's profile record. Labels are normally placed in a consistent area, which is out of sight yet is easily accessed.

Artwork

Each individual piece of art has its picture taken, frequently its value is appraised and location, artist and physical size will be captured. Asset labels are not normally applied although when they are they are affixed to the rear of the art.

Computing

Frequently desktop computers are considered a single asset configuration (i.e. monitor, CPU, keyboard, mouse, disks, etc.) and counted as one or, alternatively, depending on value, each component can be counted and labeled separately. Or, the CPU is counted as the parent while all the other components (monitor,

keyboard, mouse, etc.) can be counted as children and associated logically with the parent record. Counting methods and software are capable of relating (or logically connecting)

Asset Labels

Labels usually take the form of small bar-coded labels depicting both human-readable and bar coded symbology (typically code 39 or 128). If you want to label the question becomes what data is to be placed on the labels? We recommend:

Serial number -refers to the manufacturer's serial number found on the back of the asset

Model number -refers to the manufacturers model number found on the back of the asset as opposed to the manufacturer's name of generic model name (often found on the front on an asset). Or, in the case of furniture often this is a generic title such as desk, chair, table, file cab, etc. that enables us to sort and report on like models.

Asset number- refers to the capital asset number assigned to make the capital asset unique on the fixed asset general ledger

Asset Number Ranges

Software can automatically accept asset number ranges and apply them in a sequential fashion. In order to utilize this feature a range must be supplied. We recommend against applying a separate asset number label to each asset rather, the asset number should be included on the single bar-coded asset label as described above.

Label Placement

The placement of asset labels matters. We recommend placement on the front of each asset in the same general locale on each asset (i.e. upper right hand corner) for ease of viewing and access. With furniture we would recommend a consistent spot but out of normal sight for the sake of appearance.

We recommend labeling each individual location (within a site) with a bar-coded location label. To do so you must establish location identifiers or location names or numbers. You must also determine label placement. This placement should be consistent from location to location enabling easy access and ability to locate. Ideally facility maps are provided to the inventory teams with locations depicting their respective identifiers on the map(s) allowing the teams to navigate and identify locations as they progress through the inventory. As you may have multiple sites (buildings) you should also have site identifiers in order to group assets together within a site.

Classifications

If you are going to track various types of assets, the inventory teams should classify assets (or group like assets together) within the inventory database. To do so you must identify potential asset categories. A list is offered in the question section. Further we can define which assets fall into which categories (other than the obvious such as furniture and computers for example). For example, would scrub sinks fall into biomedical or fixtures? If this is important to you then we would need to compile a list of your asset types and which categories you would like them classified within.

BOM Level

BOM refers to Bill of Material. Bill of Material includes all sub-components, which make up a single asset. You must define to what level of the BOM each asset must be tracked. We recommend tracking to the highest possible level and to duplicate the same level as that which you record a capital asset on the general ledger. Once the decision is made, each asset (or BOM component) to be tracked will be given a bar-coded label and tracked within the inventory database.

Allocation

Many companies allocate assets (within their GL by department and/or cost center) for budgeting reasons or cost of sales determination. Often assets are also allocated by employee name for accountability purposes. We need to determine if we are to allocate assets and if so in which fashions. We recommend by department and employee (when applicable).

Type

Asset types include: Capital, Expense and Inventory (stock within a stock room) You need to decide which types to include in the inventory and to assist with identifying expendable assets if they are to be counted. We can differentiate assets (within the database) by type as a result.

Pictures

The teams can take pictures of each asset model and associate the picture with the asset profile. You would decide if we were to take the pictures and if so of which asset classifications.

Resources

A common perception is that the act of conducting physical inventory for large, diverse international organizations who possess thousands or hundreds of thousands or even millions of assets is that a project of this magnitude requires extraordinary amounts of manpower and resources.

In fact just the opposite is true. Experience shows us that fewer people are required providing proper planning and coordination is applied. Applying lots of manpower often produces the opposite result in terms of efficiency, productivity and accuracy. Augmenting the data collection activities with automatic data capture tools such as optical character recognition, bar coding and radio frequency identification further reduces the dependence on the labor pool and information accuracy increases incrementally as well.

The objective therefore is to carefully plan the activities, keep the workforce to the bare minimum required and to utilize various data collection methodologies and technologies where appropriate. Lockwood has successfully conducted worldwide engagements, whereby hundreds of locations, containing thousands of asset categories situated in 50 countries or more have been successfully counted and reconciled in as little as sixty (60) days utilizing as many personnel.

3) During the final stage, **information cleansing**, our Controllers conduct inventory sweeps, checking to insure that all assets were accounted for. They also review the information that was collected, evaluating it for mistakes, consistency and comparing it to the plan requirements. If mistakes are encountered they scrub the information and recount the asset in question. It is also at this juncture that information integration occurs (if required from the plan). Digital pictures are also merged with the asset count data and stored into the master data repository. This stage occurs each day at intervals throughout the count. Consequently, the master data repository is actually being constructed each day as the count progresses. As a result, we grant access to the master database to our customers in order to enable them to review the information in the database as it accumulates. This greatly assists the count by allowing the client to review information and make decisions regarding what is being collected as it is occurring. Therefore, if the client determines that a change to the count collection process must happen, it can be detected early on in the process and communicated to the teams sooner rather, than later.

During the physical data collection our primary focus is on **accuracy**. To insure accuracy we;

- a) Use dedicated experienced professionals who are in our employ
- b) Utilize technology to the greatest degree possible
- c) Use at least two people to each inventory team - they continually double-check each other as they progress through the project
- d) Provide Inventory Controllers who manage the service onsite and who conduct daily reconciliation of the activities.
- e) We review results with our client, as we progress. This enables the client to detect problems, or request a change based upon what they have seeing early on in the project.
- f) Maintain tight communications with all teams. This insures that as problems are detected, or unexpected situations are encountered, the teams can quickly enlist support from the Inventory Controller and Client Manager. This also allows the Inventory Controller to quickly announce the resolution, or change of actions to all teams simultaneously.