Asset Manager

Software Version: 9.61

Windows® and Linux® operating systems

Concepts and Implementation

Hewlett Packard Enterprise

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Contents

Part I: General concepts

Chapter 1: Introduction

This chapter includes:

What is in this guide?

This guide presents portfolio management in general, as well how Asset Manager can help you implement it in your organization.

Who is this guide for?

This guide is for anyone who would like an overview of Asset Manager:

- IT manager
- Organizational manager
- Project directors and managers (setup, training, project planning/tracking, quality assurance, and so on).
- Integration project managers
- Administrators
- General users

Users who will work with only one specific part of Asset Manager can refer directly to the documentation relating to a specific module.

Chapter 2: Portfolio management with Asset Manager

This chapter includes:

Portfolio and life cycle

What is the portfolio?

The portfolio - your portfolio - is the reason for Asset Manager's existence. Typically, it is made up of physical and logical means that your company must manage in order to run its business.

The portfolio can be made up of various items:

- Land or land-based assets: grounds, access, roads, and so on.

- Building assets: buildings, heating/ air conditioner, elevators, cables, security equipment, access control, and so on.

- Professional equipment: heavy equipment, machines, robots, tools, specialized material, and so on.

- Vehicles: delivery trucks, company cars, and so on.

- IT assets: computers, peripheral devices, network equipment, auto switches, telephones, software, application service providers (ASP), rented lines, databases, archived data, and so on.

- Supplies: office supplies, accessories, bulk goods, raw materials, and so on.

- Etc.

The portfolio managed by Asset Manager is composed of whatever it is that your company needs to manage. It is this need that defines what goes into that portfolio.

- Asset Manager manages not only the items that your company possess, but also those that it rents. It is often this area of management that is the most important.

- The external items used by your company obviously require a minimum of tracking. This, in and of itself, could justify the use of Asset Manager. Yet, if both the renter and the borrower companies used Asset Manager, the productivity and the transparence of their relationship would become more evident and thus benefit both parties.

- Asset Manager also provides the ability to track assets that your company doesn't necessarily use, but for which it provides services (support, maintenance, financing, and so on).

The life cycle

The life cycle of portfolio items is the set of events that occur from the moment they enter into the portfolio until the moment retire from it. The life cycle can be extremely different depending on the portfolio item:

- The item's unit value can be very modest, or on the contrary, it can be quite considerable, necessitating specific decision-making (investments, financing, replacements, and so on) and management (identification, depreciation, and so on) procedures.

- The duration of the life itself depends on the nature of the item: It can last just days, or it can span several decades.

- Each item encounters different events in its life cycle: After the initial request and then acquisition (purchase, rental, and so on), the items can be implemented, used, in need of specific supports, in need of repairs, modified, revised, revitalized, moved, inventoried, and so on. until it is finally resold, returned to the renter or leaser, given away or consumed.

- Certain practices linked to the portfolio necessitate a specific kind of management: leasing, warranty, maintenance, and so on.

This complex web of various management needs can all be efficiently managed with Asset Manager. The combination of a powerful data model and unique functionalities makes this the perfect application to help you run your business.

Contributions to portfolio management

The life cycle of portfolio items comes into contact with nearly all aspects of your company. Lacking the dedicated functionalities, the classic management system will only track assets from one seemingly unrelated task to another, never making the connection that they are, in fact, inter-related.

This method forces you to work with very limited information. To compensate, you need to perform costly inventories, reconciliations or data-entries in order to take account of what you really possess.

Asset Manager, on the other hand, offers a coherent approach to the life cycle, where all the information relating to each portfolio item, no matter what its origin, is organized in a rational and easily accessible manner.

Operational management

Asset Manager puts operational management back in the center ring where it belongs: A rational management of daily operations provides the most reliable and abundant source of information on your portfolio, covering the entire spectrum of portfolio-item life cycles.

- Requests: Managing requests involves numerous actors in a complex process: Expressing a need, justifying that need and gaining approval, configuring the solution, seeking technical validation, searching for that item in stock or in the portfolio, looking for substitutions, and so on.
  Lacking any real portfolio management, these many and varied steps are usually processed as separate entities and without any coherence: One step is processed by an IT application; another by paper; yet another using a spreadsheet, in a notebook, buried under a pile of papers, by verbal agreement, and so on. How can one guarantee the global pertinence of decision-making? Furthermore, how can one analyze or improve this process?
  Asset Manager provides the solution by covering the entire set of request procedures in a coherent manner, and taking account of each company's specific organization. Asset Manager notably enables you to organize your approval procedures, technical qualifications, stock searching and equipment substitutions.

- Procurement: When a request cannot be satisfied using available items, the company must seek supplies. Just like request management, supply-chain management is made up of several elementary functions: searching through company catalogs, configuring solutions, obtaining estimates, making financial choices (purchase/lease), obtaining budgetary approval, placing an order, receiving the order, getting a receipt.
  Asset Manager covers the entire span of these functions, and it enables you to more specifically take into account the technical or financial notions of coherence that are managed in the more classic supply chains.

- Storage: Besides its classic stock management functions, (reservations, inventory, replenishment of inventory, and so on), Asset Manager comes with powerful portfolio-management functions such as individual or collective asset tagging, automated inventories, precise cost allocations, detailed estimates, and so on.

- Moves, adds and changes: Portfolio management cannot truly exist unless you take into account the multitude of daily actions that constantly impact portfolio items: removals from and returns to stock; relocations; borrowings; technical rehabilitations; assemblies; and so on. With Asset Manager, these actions cannot only be tracked, but can be coordinated, generating a double benefit: increased efficiency, and an accurate vision of your portfolio from one day to the next. This ability to track would not be possible, however, without the productivity and the means to customize the Asset Manager user interface: Where an ERP or a maintenance-management software application would normally generate information-acquisition costs too high to permit you to track your thousands of daily changes, Asset Manager offers an efficient and economical solution.

- Helpdesk and maintenance: Asset Manager is versatile enough to be used in diverse helpdesk management solutions, and offers complete management of warranties, contracts and maintenance agreements. Asset Manager's detailed vision of your portfolio allows it to integrate knowledge bases, which enable you to optimally manage the incidents that inevitably arise in complex configurations (networks, auto switches, heating/air conditioning systems, industrial systems, and so on).

- Retirements: Asset Manager also enables you to manage an item's retirement from the portfolio, whether its a normal retirement (end of natural life-cycle, resale, end of lease, and so on) or exceptional (accidental destruction, loss, theft, and so on). Retirement must be managed with particular care for those assets that are leased or leased-to-buy: Signaling the automatic renewal of the contract then returning the assets in the conditions and at the time established by the contract, and not without having recovered the asset from the company (equipment extensions, IT data, and so on).

Using this comprehensive set of Asset Manager functions, you can implement cooperative procedures that are both transparent and rigorous, while increasing the scope, the quality and the availability of information.

Improving security

Since it contains the description of your company's infrastructure, Asset Manager naturally subscribes to an active policy of security.

- Preservation of infrastructure: The purpose of Asset Manager's wide range of functions is to maintain a current view of your company's infrastructures using the appropriate tags and labels, inventories, assignments and clear responsibilities. This goes hand in hand with the organized and daily asset tracking procedures and rigorous, preventative maintenance (controls, saves, and so on). It thus becomes easy to avoid negligence, prevent malevolence, and rapidly detect any

anomaly.

- Access control: Whether you use keys or badges to control the access of people, of user accounts or even of mail boxes, Asset Manager enables you to track and control the access to any location or company data.

- Respecting security procedures: From the organization of preventative actions (fire extinguishers, automatic saves, and so on) to the application of predefined emergency procedures, Asset Manager enables you to implement and control your company's security strategies. Its capacity to integrate with different alarm and help systems make Asset Manager the ideal foundation of an active system of security management.

Legal management

The legal aspects linked to infrastructure are important and cannot be separated from the operational management of the portfolio:

- Acquisition contracts: Whether you have master leases or leases-to-buy, Asset Manager covers the entire set of tracking functionalities (description, domain of application, fees, renewals, terminations, and so on) and control functionalities (taxes, rent calculations, and so on).

- License contracts: Along with using numerous software products comes the responsibility of managing their complex license contracts. With so many, it is impossible to keep track of all of them manually. Thanks to its specific functions and its integration with the market's top, automatic inventory tools, Asset Manager enables you to track these contracts and make sure they are adhered to in your company.

- Service contracts: Asset Manager also enables you to track service contracts (maintenance, ASP, cleaning, and so on), and to calculate the associated fees. You thus have the capability of verifying the quality of services you receive by accounting for the parameters of the contract in Asset Manager: calendars, locations, types of requests and incidents, and so on.

- Regulatory provisions: Several regulatory provisions (security, pollution, and so on) are linked to a company's infrastructures. Their application and control are largely facilitated by using Asset Manager.

Accounting management

Accounting obligations generate large inventory and book-keeping efforts that, when applied to a real portfolio management system, become both less expensive and more advantageous.

- Fixed assets: Asset Manager is the natural complement to any accounting tool in the effort to manage a company's fixed assets: The portfolio is well-defined, including the assets that are difficult to inventory (computers, cell phones, mobile equipment, constructions, renovations, and so on). Moreover, asset-management information provides precious data to help you correct asset estimations (accelerated depreciation, revaluation) whenever this is necessary. With Asset Manager, you can guarantee more accurate accounts for the company itself and for its third parties.

- Taxes: Most countries collect taxes based on fixed assets. When a company lacks a sufficient method of asset tracking, their assets often appear in the books years after they have already been destroyed, lost or retired. This generates unjustified tax expenses for the company that it could have avoided with more accurate tracking.

- Insurance policies are another case where the exactitude of the inventory and the estimation is essential: A company that can justify in detail the assets that are insured is in a better position to negotiate good conditions from its insurer, while avoiding the paying for non-existent assets.

Management and project management control

Portfolio management culminates in the functions relating to planning and control.

- Cost accounting: Asset Manager's wide-ranging and powerful cost-accounting functions enable you not only to generate chargebacks (or internal billing), but also to generate inter-company billing and even client billing. Expense or chargeback lines can be generated either regularly (contract fees, monthly consumptions, and so on) or after an event (purchase, work order, reassignment, and so on). They can also take into account as many parameters as necessary (contract perimeters, uniform prices, work order duration, contractor salaries, locations, detachable pieces, markups, and so on).
  Asset Manager's capability to track and precisely allocate even the smallest expense enables you determine your total cost of ownership (TCO) for each portfolio item. This takes into account not only the cost of acquisition, but all the costs associated with that asset: training, maintenance, insurance, updates, support, relocation, and so on.

- Budgetary accounting: Asset Manager contains powerful, multi-company, budget-tracking functions that enable you to establish and track detailed budgets. Each budget can have its own expense-category classifications and timelines (semesters, trimesters, and so on). Asset Manager can thus adapt to the needs of each type of activity to which the budget center applies.

- Supplier management: The richness of information (volumes, prices, quality of service, estimates, and so on) and the analytic possibilities that portfolio management allows puts Asset Manager

users in an advantageous position when they need to negotiate discounts, retroactive discounts or the terms of contracts that associate it with the suppliers. The added value gained from this kind of situation itself justifies the implementation of portfolio management.

- Proactive portfolio management: Thanks to its functional depth, Asset Manager enables you to go further into the analysis and control of the costs linked to your portfolio, which you wouldn't normally be able to do with traditional accounting tools.
Strategic decisions such as whether to purchase or lease-to-purchase an item, whether to restore or replace equipment, what kind of technical certification is needed for a product, what kind of relations to keep with a supplier, what level of billing/chargebacks to set for services, and so on. can now be made with complete knowledge of all aspects of the situation.
In the same light, implementing budgets becomes considerably easier: Nothing is more simple that evaluating the costs it would require to update your computer portfolio with Windows XP, for example, by taking into account all the elements: cost of license, hardware extensions, machine replacements, software updates, training, outside contracting, time consumed, and so on.

IT-system portfolio management

Asset Manager easily adapts to the IT system of any company.

The following are factors to consider when using Asset Manager to manage your IT system:

Application domain

The domain covered by Asset Manager in the IT system depends on the type of activity and the willingness of the company.

- Infrastructure management: Asset Manager is first and foremost used for general infrastructure management of company or a part there within (IT portfolio management, for example).
Asset Manager thus fits into the framework of a company's IT system by complementing the administrative system and production management, which are sometimes based on an ERP type software (SAP, and so on).
Certain functions, such as tracking budgets, placing orders or recording invoices, can be processed either in Asset Manager or in other parts of your company's IT system.

- Supply chain: Some companies choose to use Asset Manager's procurement cycle with the catalog in order to offer users a powerful solution to managing all their purchases: equipments, consumables, services and raw materials.

- Production management: In sectors where the activity is based on implementing or maintaining the infrastructures available to their clients (buildings, facilities management, outsourcing general services, and so on), Asset Manager covers the entirety of production and billing management.

Level of management

Different portfolio items don't always require the same attention, and a company's management efforts must be concentrated on the most important gains. We need to take into account the:

- Size of the portfolio: The more assets you have, the more accurate your management must be. Thus, a computer consulting agency can focus its energy on managing its IT portfolio, while a taxi company focuses on its fleet of cars, and a real-estate agency on its properties.

- Complexity of assets: The management of complex and evolving configurations (IT hardware, auto switches, and so on) necessitates in particular the appropriate solutions, starting with its purchase and following it through inventories and evolutions. The more this complexity thickens, the more the functionalities of Asset Manager become important.

- Complexity of management. For example, even when they are relatively few, leased assets might require computerized portfolio management in order to avoid costly errors (loss, non-authorized relocation, automatic prolonging of contract, and so on) and also to increase transparency when managing the often complex bills received from financing companies. The more these procedures become complex, the more Asset Manager portfolio management becomes indispensable.

Supplementary solutions

Asset Manager is tightly integrated with a vast set of solutions sold by HPE and which are considered benchmark products in their respective domains:

- Specialized portfolio management: telecommunications, vehicles, general services, and so on.
- Inventory: bar codes, computer, network.
- Knowledge base
- Helpdesk management
- Application integration
- Framework
- Etc.

Your sales engineer can further explain these supplementary offers in detail.

Integration

Asset Manager contains powerful integration tools that can be implemented with the rest of the information system: Import, export, workflow, APIs and HP Software integration products. Plus, packaged solutions already exist with certain principle products on the market today (SAP, and so on).

Depending on the domain covered by Asset Manager, the other applications in place and the willingness of the company, the points of integration could vary, including (from the most general to the most specific):

- Repository objects (cost centers, suppliers, employees, and so on)
- Bills to pay
- Fixed assets
- Cost accounting
- Invoices
- Budgets
- Orders
- Receipts
- Production management
- Etc.

It might be profitable to have an Asset Manager consultant come in and help you establish and prioritize the necessary integration points, then implement them.

Chapter 3: Functional architecture

This chapter describes the general principles that build the foundation of Asset Manager.

This chapter includes:

Organization of the application

This section includes:

- "Asset Manager modules" below

- "Administration programs" on page 19

- "Integration tools" on page 19

Asset Manager modules

Asset Manager is composed of several modules that each share a common repository, which describes the portfolio in a detailed manner. This repository has:

- Classifications describing the assets: companies, organizational hierarchy, locations, stocks, and so on.

- Portfolio item models, organized hierarchically and characterized by their nature (equipment, computer, software installation, consumable, and so on).

- The portfolio items themselves, which are linked to and based upon models, plus information about

their assignments and interconnections.

- Operational information: requests, reservations, absences, and so on.

The Asset Manager modules also share powerful, generic functions:

- AQL, a meta-SQL that is independent of the database engine and which uses a data dictionary. This is much more powerful than the DDL in an effort to offer you a compact and powerful syntax.

- Control and restrictions of data access.

- Data import from an ODBC or text source.

- Wizards that lead the user step-by-step through a task.

- Customizable scripts: integrity rules, default values, automated actions, integrity checks, triggers, and so on.

- Workflows that enable you to automate the management process.

- History of changes, which can be defined for each field and according to the criteria defined by the client.

- Management of attached documents.

- Etc.

Different Asset Manager modules are constructed on this common base, certain of them sharing common functions:

- Portfolio: This module has a complete set of functions dedicated to managing information technology: software management, interconnection management, IT and telephony data of electronic equipment, work groups and work-group calendars, work order management, continuous news tickertape, and so on. The Portfolio module integrates seamlessly with HPE Software's IT asset management solutions: Discovery, network topology, telecommunications management, and so on.

- Procurement: Starting with requests, this module enables you to manage estimates, orders, receptions, returns and supplier invoices. It is based on a complete catalog management system (multi-supplier/multi-client catalogs, dates of validity, client certification, configuration management, requests and standard orders, conversion units, discount calculations, alternatives, options, and so on), as well as integration functions with external catalogs (classifications, and so on).
Moreover, it includes a complete stock management system, with the automatic reservation of received items for the requester and the re-ordering of stock items according to customizable stock levels.

- Contracts: This module enables you to manage any kind of contract: leasing, maintenance, insurance, services (ASP, and so on) master leases, and so on. It also enables you to describe the contracts (parties concerned, purpose, conditions, domain of application (assets and employees), and so on) and to attach events to it (work orders, orders, and so on), as well as costs. Alarms help you to manage contract renewals and terminations.
  The specific functions linked to managing certain types of contracts are also present: managing contract extensions, buyouts and returns for lease-to-buy contracts, managing user accounts for online services (ASP), and so on.
  Finally, aligned with the financials module, this module enables you to calculate fees according to the most varied of formulas. These calculations can be used either by the supplier to generate its invoice or by the client to keep track of the invoices it receives.

- Helpdesk: This module includes helpdesk groups, service calendars (work days and work hours), work orders, and continuous news broadcasts. It enables you to track all the steps involved in the processing of a helpdesk ticket: taking the help call, qualifying the problem, searching for the solution in the knowledge base, events (call sent out or received, further information, work order), creating sub-tickets, suspension, escalation schemes, resolution, verification. Control panels help you statistically control the advancement of tickets and to measure the efficiency of each group and each engineer in a group. A knowledge base, which is integrated in the decision trees and enables you to apply test or correction procedures, is completed by the interface, with optional, external knowledge bases.
  The helpdesk management offered by Asset Manager is thus very complete, but what makes it so powerful is the fact that it's tightly integrated with other portfolio management functions offering: detailed descriptions of configurations, access to warranty or maintenance information (Contracts module), and automatic inventory (option).
  The Asset Manager Helpdesk module is not available in all countries, however. Obtain further details from your sales engineer.

- Financials: This module helps manage expense lines along with their monetary conversions and taxes. It enables you to calculate fixed assets and includes complete systems of chargebacks and budget tracking.
  The Financials module is also necessary as a complement to the Contract module for calculating contract fees.

- Cable and Circuit: This very specialized module enables you to closely manage (all the way to the pair level if necessary) the cables and circuits of a building, its patches and connections to assets. Moreover, it enables you to manage teams (groups) and their calendars, as well as work orders and information broadcasts.

- Administration: This last module regroups the Asset Manager setup tools.

Administration programs

Powerful external tools help to complete Asset Manager's many modules.

- Asset Manager Automated Process Manager drives a certain number of background tasks that are indispensable to the operation of Asset Manager: Workflows, synchronizations, complex calculations, data purges, administration of external interfaces (HPE Connect-It), automatic disconnections, alarms, and more. In addition, Asset Manager Automated Process Manager signs the Asset Manager database comparing the License Keys granted by HP AutoPass with those activated in the database to which Asset Manager Automated Process Manager is connected. If the former keys are less than the latter, the database is not signed.

- Asset Manager Application Designer enables you to manage the databases and how they are set up: connection, initialization, tests, addition of tables, fields and links in the database, customization of screens, migration, and so on. Its high-performance, graphical interface, which lets you easily browse the database structure (tables, fields, default values, integrity rules, and so on) makes it an effective tool for learning and analysis.

Integration tools

Asset Manager contains a wide range of tools that facilitate its integration with external applications:

- HPE Connect-It enables you to easily create integration scenarios between Asset Manager and a wide variety of other external applications, then test, implement and administer them.

- A simple and high-performing export tool whose user-friendly interface enables you to construct queries and produce text files, as well as SQL views in the database. You can then use them to produce control panels and reports.

- APIs that enable you to integrate Asset Manager with external applications that are written in different languages while respecting the security and integrity rules in place.

- An ODBC driver that lets you access Asset Manager databases in read-only mode via layers of security of the integrity and presentation, and totally independent of the database.

- DDE support, as client and server

Custom management

Asset Manager offers great flexibility in the modes of management that you can apply to portfolio items. The user thus has a homogenous view of the portfolio and an appropriate level of management in each case. Not only can you efficiently cover the life cycle of heavy equipment that can last several decades, but you can effectively track a batch of office chairs or even a simple box of printer paper.

One portfolio, many modes of management

Asset Manager expands the view of its portfolio through the integrated use of three management modes:

- Individualized management: This management mode enables close tracking of important, individually identified assets. It closely resembles the way that assets were managed in previous versions of Asset Manager.

- Batch-based management: This mode offers a middle-ground between individualized management and undifferentiated management. In this management mode, items are batched together and share a common identity: They are undifferentiated within the batch but differentiated against items outside of the batch, similar or not.

- Undifferentiated management: This mode extends the classic management of supplies. In this mode, only the model is known; objects are fully interchangeable.

For management reasons (operations, maintenance, security, accounting, and so on) certain kinds of objects require a minimum level of tracking (at least batch-based or individualized). It is possible to specify this need at the nature level of the model corresponding to the product. At the other end of the spectrum, Asset Manager also enables the management of not only discrete objects, but fractional quantities of loose or bulk material.

Implementation

The implementation of these three management modes is based on two relational tables:

- A Portfolio items table, which records items of a given model in a given context (location, user, cost center, and so on).

- An Assets table, which contains the detailed information on individualized assets or batches. Records in this table have unique asset tags.

The physical organization of the information depends on the management mode:

- An individual asset is represented by two linked records in both of these tables. The quantity given in the portfolio-item record is the unit.

- A batch is represented by a record in the Assets table, shared by one or more portfolio-item records, which contain information on the quantities.

- Undifferentiated items are represented by "asset orphan" records in the Portfolio items table.

The user interface presents an integrated view of both tables, thus abstracting the underlying complexity.

Applications

This model enables batch-based management, in which several physical items share the same identification. This functionality considerably extends the areas in which Asset Manager can be applied, by covering:

- The wide-ranging assets of small value in the enterprise, which have been too costly to manage until now: telephones, furniture, and so on.

- Perishable supplies, for which the batch can be assigned an expiration date.

- Supplies requiring technical tracking.

- Supplies requiring LIFO or FIFO stock-management calculations.

- Etc.

The most interesting point of this new design is that the different management modes in Asset Manager are now fully integrated: Assets, batches and supplies can now be presented in a consistent view, either as the assignment of resources, or as records of assets, when the information is available. In particular, there is no difference in the implementation of a batch of a single item and that of an individualized asset.

This integration makes it possible to adopt different management modes for identical assets if necessary. For example, a computer keyboard whose serial number is stipulated by a leasing agreement can be tracked individually, whereas other computer keyboards are undifferentiated.

This consistency has also made it possible to regroup multiple tables in a unified structure:

- Assets

- Accessories

- Software installations

- Consumables and consumptions

It is thus possible to inventory and represent the entire portfolio, from heavy plant equipment to simple reams of paper, with an appropriate level of management for each item. An asset can even be consistently described with a set of items making up its configuration (add-ons, software installations, and so on).

This "genericness" also frees customers from having to make difficult and irreversible decisions when creating portfolio items: The only difference between assets, batches and supplies is in the way they are identified and tracked. Only the minimum management level required by the model needs to be specified. It is even possible to make these requirements later on. For example, when certain technological assets drop in price, a less strict tracking method can be adopted: The generic tracking model makes it possible to switch between the three management modes with ease.

The user interface

Asset Manager offers its users a unique interface enabling them unequivocal flexibility and productivity, and which can be adapted to each user's specialization and level of training. Users can easily access the operation interface from the Internet Explorer instead of installing the full Windows client.

The navigation bar

Asset Manager provides a customizable navigation bar. It enables you to hierarchically organize functions (access to screens, data, wizards, reports, and so on) that are the most useful to you.

The native interface

Asset Manager's native, graphical interface enables users to navigate fluidly and coherently through the data in the database to which they have access. It's based on a database browser that contains two non-exclusive and synchronized modes: list and detail.

The list mode enables you to display the records of a relational table and offers the user great flexibility in configuring parameters:

- Display tables in list or tree structure.

- Choice of displayed fields, no matter what the current table columns, the table columns linked to the current table or the calculated fields.

- Sort on several columns.

- Filtering records by field value or on whatever other condition expressed in AQL.

- Multiselection

- Etc.

All these modifications can be made on the fly, according to your needs. Plus, a function that lets you progressively load tables enables you to browse through these tables irrespective of their size.

This detail mode enables you to display and update the data in one or many records.

The functionalities and presentation of the detail modes are the same for any table (selection lists, zoom to linked objects, and so on). This consistency minimizes the need to resituate yourself in each table.

Just like with the list mode, the user disposes of numerous options to change how a detail is displayed: order of the tabs, navigation possibilities, and so on.

Wizards

The Asset Manager wizards are the natural complement to the EasyView interface. They enable you to define the sequence of screens that guide the user through a given task. They are especially useful when:

- You want to group into one, single user transaction a complex task that will simultaneously impact several database objects.

- You want to help users perform an obscure task.

- You want to limit users to only one method of performing a task.

Parameterization

The parameterization of Asset Manager is remarkable in that it can be implemented and tested from the application itself: A simple right-click on a field, for example, enables you to immediately make it mandatory. You can then test its behavior and the result before saving the changes, which then applies to all users. Only certain, important modifications require that you use the external Asset Manager Application Designer tool.

Thanks to its immense parameterization possibilities, Asset Manager also adapts itself to the specific needs of any company.

Customizing the database

The external Asset Manager Application Designer tool enables you to add new tables to Asset Manager.

Asset Manager also lets you add supplementary fields and links to the tables in its database, which can then be used by the entire application: specific detail pages, list views, reports, APIs, and so on. You can add three types of supplementary fields:

- Columns, which can be added to relational tables using Asset Manager Application Designer. You can modify its properties: type, length, functional type (monetary, percentage, duration, and so on), destination (for foreign keys), and so on.

- Feature fields, which can be defined. They offer a lighter solution, which is particularly recommended for the implementation of columns containing little information. These fields and links are implemented in rows (one record per value) in the dedicated tables. Contrary to columns, they can be instantly added to a database while it's being used. Yet, it has a few functional limitations (no monetary conversion, certain limits on links, and so on).

- Calculated fields, which are defined as the result of an AQL formula or a Basic calculation program. They are not stored in the database and can only be used in read-only.

Customizing the user interface

Asset Manager Application Designer enables you to customize the Asset Manager native interface by defining detail screens that are different for each user that customizes them. Using Basic scripts, you

can automatically display or mask tabs, fields and command buttons according to the context, thus improving the efficiency and interactiveness of the obtained interface.

Furthermore, the wizards can also be configured in Asset Manager based on a powerful model using a declarative structure and a Basic code.

Finally, a certain number of existing external solutions (Get-It, APIs, and so on) enable you to define screens and Web platforms from outside of the application.

Integrity rules

One of most original features of Asset Manager is that it offers to define integrity rules at the level of the fields, records and links. There are numerous types of rules, and each one offers a unique ability to customize. We can define:

- A relevance rule, which can make a field or link relevant (and thus usable and displayable) or not, according to the context. For example, the user link is not relevant for an asset in stock.

- Constraints on fields, which makes a field or a link mandatory. For example, a link towards a stock can be made mandatory for an asset in stock.

- Constraints on the record, which imposes a consistency rule for a record's validity. For example, an asset retired from the portfolio can only have a "non applicable" value for its status.

- Integrity constraints between records. For example, an asset cannot be deleted as long as it has existing expense lines.

- Default values, which apply to fields and links and are used when creating or duplicating a record.

- Access-limitation rules, which make a field or a link read-only in the native interface.

- The automatic generation of histories can apply to certain fields and certain conditions. When it is triggered, the history automatically saves the date, hour and author of a modification as well as the previous value of a field or link.

All these rules can be defined easily and by taking into account the context data by using the combination of Basic scripts and AQL queries.

Keep in mind that the synchronous workflows further extend the possibilities of rule definitions and integrity automatisms.

Actions

Asset Manager's automatic actions enable you to define:

- Complex transactions that involve several records or necessitate large calculations.

- The launching of wizards.

- The automatic dispatch of e-mails.

- The generation of reports.

- The launching of external applications.

- The generation of DDE orders.

If you use Asset Manager Application Designer, you can link actions to contextual buttons defined by the user in the native screens.

Workflows

Asset Manager contains a comprehensive workflow engine that simultaneously supports two types of functions:

- Asynchronous workflows, which can be used in particular to define complex procedures with multiple users. Users have a list of tasks to perform, which is fed by the relevant workflow activities. Users can start a wizard from this list that can be used to perform (or notify completion of) this task.

- Asynchronous workflows are executed immediately within one single database transaction.

You have unlimited possibilities when it comes to using Asset Manager's workflow engine.

- Asynchronous workflows can be used to accelerate and increase the dependability of your company's processes (such as the purchase-order authorization cycle).

- Synchronous workflows can be used to implement complex integrity rules. For example, you can automatically propagate the modification of the cost center's location to all its sub-locations.

- Workflows can be used to automatically generate all kinds of procedures (calculations, reporting editing, launching external applications, and so on) at regular intervals. These same workflows can inspect the database, trigger alarms, purge obsolete data, launch automatic inventories, and so on.

Workflows can be triggered either by modifications (creation, update or deletion of a record) in the database, or at regular intervals.

Reports

Asset Manager includes several tools enabling you to calculate statistics and generate graphical and table reports.

- Using calculated fields, you can calculate complex statistics for any object in the database. This is done through the use of Basic scripts and SQL syntax. These fields can then be inserted into lists and details (in read-only).

- The tree-structure of a list, as well as the fact it can be configured, enables you to easily create interactive screens. You can also copy these lists manually and paste them into charts or tables of other applications.

- Wizards can be configured to regularly display graphics and statistics defined by the user.

- The SAP Crystal Reports (runtime) generator is completely integrated with Asset Manager and enables you to execute numerous, standard reports. Users possessing a SAP Crystal Reports license can also create their own reports and execute them with Asset Manager.

- Finally, the OBDC driver provided with Asset Manager enables you to use practically all the report and table generators on the market, in particular, those using Cognos and BusinessObjects.

Security

Asset Manager's security model is one of the most extensive on the market. Each user is assigned a profile that is defined based on three points:

- User rights: They define the information to which the user has access according to the nature of that information. For example, you could assign HR managers access to employees' social security numbers but hide this information from Office managers.

- Access restrictions: They define the information to which users have access according to whom that information belongs. For example, you could assign the users of the Colby factory access to the records of other employees on that site but not give them access to the records of users at the Swiss site. Any condition can be used to filter the information accessible to users and user groups.

- Functional rights: They define the functions that each user can perform on data. For example, only authorized personnel can place an order.

Part II: Implementing Asset Manager

Chapter 4: Introduction

This chapter includes:

What is in this guide?

This guide contains the principles and methods recommended by HPE to carry out projects using Asset Manager.

The richness of functions provided by Asset Manager, the expanse of domains it enables you to cover and the nearly unlimited possibilities for defining parameters makes it difficult to provide one standard method of implementation. So, rather than presenting one general method for implementation, this guide tells you how to assemble the components of Asset Manager according to their contexts and illustrated by examples:

- General principles that provide the framework of this method.
- Practical elements like questionnaires, check lists, planning, and so on. that provide detail.

Small and large projects

Asset Manager is an extremely rich tool that enables its thousands of users to execute hundreds of different processes. And, they do this all in a coherent manner while conforming to the management rules determined by their company. Yet, because of its flexibility, Asset Manager is also used daily by very selective groups of users working for small companies and managing a portfolio of only a few hundred specific assets.

It is thus evident that the methods employed to implement Asset Manager for a large IT system can greatly differ from those used to employ Asset Manager in a small project. The methods provided here, however, are based on a large project and thus risk to appear extraordinarily daunting and complex for a small or mid-sized project. For this reason, it is assumed that project managers for small and mid-sized

projects will cut down or remove the steps detailed here. We still recommend that they use this guide as a source of reference material, which can steer them down the right track.

Managing such projects is a veritable test of patients and attention to detail: If overlooked or dealt with too quickly, many issues can quickly become problems that appear in the most inopportune times and risk costing your company time and money later on down the road.

Who is this guide for?

Because this guide covers the initial implementation of Asset Manager, you can use it as a reference when extending its capabilities with added functionalities. In this case, this guide is for:

- Decision-makers: General management, IT management, User representatives, and so on.

- Action-takers: Internal or external project management, Planning team, Tracking team, Quality Assurance, and so on.

- Main project managers: Configurations management, Training management, and so on.

Chapter 5: **Project organization**

Before going into the phases of an Asset Manager project and the tasks that compose it, let's go over the principles of a proper project organization.

Steering committee

The steering committee is in charge of directing the project: This group is composed of the decision makers that represent each part of the company impacted by the project. They define the general objectives of the project, its perimeter and its deadlines.

This committee also provides direction during meetings with the project committee. They are the decision makers among all the project members and have final say at the end of each major step of the project's numerous phases.

The Project committee

The project committee is in charge of directing the project: This committee is under the direction of the project director, who is responsible for the implementation of the project's steps: analysis, configuration, training, migration and deployment. This person also coordinates the transversal functions necessary for the project: tracking, management, outsourcing, and so on. Finally, the director reports to the steering committee on the advancement of the work and lets the committee make decisions that exceed his competence.

The tasks involved in directing the project include:

- Dividing the project into functional sub-projects.
- Establishing a planning and creating a table of those in charge of projects and project tracking.
- Organizing project teams: assigning team members, organizing information exchanges, training, and so on.
- Managing any out-sourcing.
- Assuring the quality: defining standards of quality for the project, verifying that these standards are respected and that the results are uniform (documents, programs, data, and so on).
- Communicating with the steering committee and the company.

Project teams

Project teams implement the new system under the direction of the Project committee. The organization and composition of these teams evolves along with the project as its advancement requires constant reorganization. In these teams, we can identify the:

- Managers of the functional sub-projects and their team members.

- Migration team

- Model manager coordinates the different components of the configuration, which are each handled by different functional managers. The watch guard verifies the consistency of these partial configurations as they are implemented, looking for: doubled data (workflows, wizards, screens, and so on), conflicts between integrity rules, and so on. This is a key role whose existence makes the difference between a smooth project with good results and a problematic project with troubling consequences.

- Testing team constructs testing procedures (trial tests, ad hoc software, and so on) and performs the tests devised in the planning.

- Security manager defines user profiles and assigns the corresponding access rights.

- Training team has a purpose that is dependant on the number of users to train. One part of this team will generally be composed of people who will continue to provide support to users after the project's implementation. This enables a company to profit from the knowledge of those employees in the Training team long after the initial implementation is complete. It also enables the company to ease dialog between users and the members of the support team.

- Technical team prepares and implements the platforms and networks necessary for the project.

Sub-project manager establishes and tracks the planning of the sub-project in collaboration with the Project committee.

Dividing the project into functional sub-projects

It usually helps to break down a project into several sub-projects. Managing a portfolio, for instance, can be divided into the following functional sub-projects:

- Catalog

- Procurement and stocks

- Assignments

- Maintenance

- Budget management

- Cost accounting

- Inventories and fixed assets

- Etc.

The number and the contents of the sub-projects will depend on the size of the progect and the priorities defined by the company.

Dividing a project into sub-projects is usually necessary when redefining the procedures. If the project is quite large, you might need to divide sub-projects even further for parameter configurations. These sub-projects require a massive watch-dog effort, however, to assure that each part is consistence to the whole.

Chapter 6: **Project phases**

Implementing an IT solution creates a certain number of tasks whose number and complexity depend entirely on the size and complexity of the project.

We can identify several large phases which are classic to most IT projects. The transition fro one phase to the next is punctuated by a meeting of the steering committee. It is during this meeting where members will ratify and/or confirm the expected results of the next step. If these phases are carried out successively:

- The tasks that compose them can often be carried out at the same time.

- A certain number of tasks can even be started in a phase previous to the one for which they were scheduled. This is particularly the case of parameter configurations, which are often done as soon as the detailed study phase is started.

We will now describe the successive phases of the project and the tasks that comprise them.

Preliminary study

This is the genesis of the project whose aim is to construct and evaluate an implementation scenario in order to respond to a need. This phase ends by the decision to launch the project or not, and, if the project will be launched, the allocation of resources and a time line.

Initialization

The project's initialization consists of determining reference points (general organization, planning, standards of quality, and so on) that will be used during all phases of the project.

The initialization continues with a transition into the General study.

General study

The general study aims to:

- Determine the terms of the project: domain of application, functional scope.

- Define the objectives by proposing precise metrics.

- Choosing the software that will be used.

- Making technical choices: platforms, database engines, and so on.

This phase ends with a steering committee meeting to discuss results.

Detailed study

The detailed study specifies in detail how this new system will work. After receiving functional validation from user representatives, this study ends with a meeting by the steering committee.

Production

The production phase consists of construction IT systems that meet the needs of determined specifications. It also consists of configuring platforms, configuring software that is used and performing specific manipulations to this software if necessary. This phase also entails the execution of a series of tests to assure the quality of the result and the determine the readiness to advance.

It is not uncommon, and indeed it is sometimes preferable, that certain configurations or developments are performed in the detailed study phase due to Asset Manager's ease of configuration. It goes without saying, nonetheless, that these studies must be carried out from the most general aspects to the most detailed ones so that the entire system is consistent.

Deployment

The deployment phase is when the new system is made available to those users ready to receive it. It must be prepared with great care in order to avoid any unplanned glitches.

Chapter 7: Asset Manager methodology

This chapter goes into detail in its discussion of each successive phase in the project. It provides reference lists (decision criteria, check lists, and so on) and can be used as a guideline while performing certain crucial steps.

This chapter includes:

Preliminary study

This is the first phase of our methodology. It consists of the following main steps:

Definition of the purpose and scope of the project's application

We must stress the importance of having a clearly defined purpose and scope for the project's application as soon as possible. This is a general concept that must be agreed upon by all involved, and which will evolve and develop as the project advances.

Definition of the project's general objectives

Just like the project's purpose, its objectives must be clearly defined for everybody. The general study of the project will be able to refine these objectives by defining precise metrics.

Evaluation

You cannot go ahead with a decision to implement a new system unless you perform a project

evaluation: costs, work load, deadlines, and so on.

Decision

The decision to go ahead with the project marks the conclusion of the preliminary study. If the project is to proceed:

- Confirm the purpose and objectives of the project.
- Choose a deadline that corresponds to the expected amount of time it will take to implement the project, taking into account the urgency of the situation and the company's resources.
- Allocate human and financial resources to each phase of the project and, in particular, designate a steering committee.
- Communicate this decision to the people concerned with the project.

Initiating the project

Mobilizing company resources

The mobilization of all those essential to the success of the project, as well as the deployment of Asset Manager, impacts numerous departments and functions of your company. The success of an IT project necessitates the contribution of a wide range of technical and functional resources. You will identify these resources and assure their availability during the initialization.

Depending on the project's scope, you might need to associate representatives of certain company departments and functionalities to the project:

- IT management
- Production department
- General departments
- Procurement department
- Maintenance department
- Logistics department
- Accounting department
- Management control

- Legal department

- Etc.

Composition of the project teams

The composition and scope of the project teams must be continually adapted according to the tasks at hand. This is an activity that needs to be managed by the Project committee.

When a company cannot - or does not want to - use internal resources for the project, it can out-source all or part of the project's conception and implementation. HPE and their partners have a wealth of specialized and experienced consulting companies available who can offer their services throughout the life of the project or at key intervals (project conception, organization, analysis, configuration, training, and so on).

Even a company with enough sufficient internal resources might want to call on functional or technical experts during of the project. These experts can join their teams and share their knowledge with them. This practice provides a positive impact on time lines, quality of results and the autonomy of the company, and is thus highly recommended.

Many of the most important departments in your company are directly impacted by the software selected during the General study phase. And many of the resources corresponding to these departments cannot be identified until after this selection has been made.

Communication

Communication merits particular attention throughout the course of the project.

Communication, especially concerning future Asset Manager users, is crucially important and must flow in both directions: The flexibility and richness of Asset Manager not only adapts itself to the needs of all groups of users but also commands the cooperation of each one to the good of the whole. This communication needs to happen:

- Between the decision-makers and the action-takers.
- Inside the project teams: This communication becomes crucial when project deadlines approach.
- For the rest of the company.

Establishing the planning

The planning details the tasks to perform, the work load involved and how long they will take.

The planning must start out general and gradually refine itself to specific needs as the project advances, taking into account the:

- Planned-upon solutions
- Objectives and deadlines of the project.
- Availability and utility of the resources.
- Constraints of the company (seasonal activity increases, and so on).

The quality of the planning and the reliability of its tracking depend directly on its level of detail: Only the precise definition and scope of each identifiable task in each sub-project will permit an effective ability to advance the project.

Standards of quality

The standards of quality could apply to the:

- Project organization: clarifying the structure of team members, decision hierarchy, meeting schedules, request and decision methods.
- Project tracking: responsibility, level of tracking, frequency of tracking, and so on.
- Reference documents: consistency, format, classification, confidentiality, and so on.
- Parameter configuration and developments: documentation, presentation, comments, and so on.

There exists a middle ground when it comes to standards of quality. This middle ground is established and assured by the Project manager.

General study

Project scope

You need to first define the scope of the project before you can implement it. This detail involves the collaboration of both the steering committee and the project team. You might find it useful to define several successive phases of implementation, covering an expanding scope.

Portfolio scope

The scope of the portfolio defines what kinds of assets and supplies will be inventoried and tracked: This is, after all, the fundamental question in the project of portfolio management. These different types

of management methods in Asset Manager (cf. "Custom management") enable you to efficiently manage even the smallest costs in all functional domains (IT hardware, telephony, vehicles, buildings, machinery, and so on). Plus, you don't have to limit yourself on the peripheral details (lease or maintenance contracts, unit values, and so on).

The scope of the project relates to the domain that Asset Manager covers. In other words, you need to decide what assets you will manage.

This scope will be chosen according to the following criteria:

- Importance of assets to the company: The more an asset's availability and integrity are important, the more its management must be precise.

- Complexity of assets: assets that can be configured, assets that require large efforts to maintain, assets that are dangerous to use, assets that necessitate precise tracking, and so on.

- Complexity of asset management: assets under financial contracts, assets that change hands frequently, assets requiring rigorous tracking, and so on.

- Volume of assets: The more assets you have in a certain category, the more difficult it will be to manually manage them.

- Willingness and ability of the company: Asset management is a profitable investment, but it requires an initial effort.

The domain of the project's application will be definitively according to several points:

The nature of the assets:

- Land: lots, land, routes, and so on.

- Building: offices, industrial sites, technical sites, and so on.

- Fixed assets: heating, air conditioning, ventilation, elevators, water, electricity, and so on.

- Security: locks, identity card scanners, fire extinguishers, and so on.

- Access: keys, identity cards, user accounts, and so on.

- Payment: user accounts, company payment cards, and so on.

- Cabling: risers, termination fields, wall outlets, wiring closet, and so on.

- Telephony: operator services, autoswitches, repeaters, cell phones, pagers, and so on.

- Network: hubs, routers, firewalls, specialized lines, Internet connections, and so on.

- IT: mainframes, servers, client machines, and so on.

- Software and data: licenses, installations, ASPs, user accounts, e-mail accounts, databases, and so on.

- Office equipment: fax, printers, copy machines, and so on.

- Office furniture: desks, chairs, safes, refrigerators, microwaves, and so on.

- Vehicles: company cars, delivery trucks, and so on.

- Intellectual property: patents, registered patterns, licenses, brands, domains, and so on;

- Industrial equipment: heavy machinery, tools, robots, cargo equipment, control consoles, specialized material, and so on.

- Office supplies: consumables, printer paper, and so on.

- Raw goods: sand, concrete, and so on.

- Etc.

The specific management needs:

- Tracking: fixed assets, inventory, damage control, and so on.

- Specific risks: These risks cover dangerous material, rules, contractual obligations, confidentiality, availability, integrity, taxes, and so on.

- Production constraints: maintenance, assignment, user support.

- Supplier tracking: purchases, management and IT management, and so on.

- Work material: maintenance or support-related supplies, third-party account management, and so on.

- Etc.

Geographic location:

- Continent

- Country

- Region

- Site

- Etc.

Organization:

- Activity

- Department

- Budget center

- Etc.

Functional scope

The functional scope defines the functions that you want to implement into the management of your portfolio. This scope will be different depending on the domain of application you want to impose.

You need to add to this list of functions those that can be performed by Asset Manager's additional software or the company's existing software that can be interfaced with Asset Manager. It is important to understand how you will use Asset Manager in relation to its additional applications for a global management system. Using our methods, you need to consider each functional domain and its sub-domains one by one to determine which mode of management and what tools to use for each one: You could use Asset Manager, a specialized solution from HPE Software or another supplier, an interfacing system with the company's existing software, an office-management tool, manual management, and so on.

The functional scope must also define where and how other IT applications will integrate in relation to this project (accounting, production management, and so on).

The functions typical to portfolio management are listed here. Certain of these functions require the use and interaction of additional Asset Manager software, such as HPE Discovery and Dependency Mapping Inventory, HPE Service Manager, and so on. Other functions might require a specialized configuration of Asset Manager. Finally, certain functions appear simultaneously in different categories.

- Requests: data acquisition, allocation, technical qualification, configuration, approval, tracking, statistics, and so on.

- Supplier estimates: data acquisition (EDI, online, and so on), arbitration, history, statistics, and so on.

- Supplier orders: validation, emission (e-mail, fax, EDI, and so on) or export to another application, acceptance, modification, cancellations, statistics, and so on.

- Receptions: delivery tracking, receipts, returns, statistics, and so on.

- Financing: loans, arbitration, renewals, rents, refinancing, returns, chargebacks, statistics, and so on.

- Supplier invoices: data acquisition, reconciliation, approval, taxes, integration with supplier accounting, statistics, and so on.

- Client invoices: generation, creation or import, validation, integration with client accounting, modification, statistics, and so on.

- Assignments: reservations, installations, training, allocations, moving, loans, losses, resales, statistics, and so on.

- Stock: appraisals, allocations, automatic stock replenishment, lapses, returns, statistics, and so on.

- Fixed assets: data acquisition depreciation calculations, allocations, accelerated depreciation, statistics, and so on.

- Inventory: labeling, bar-code inventories, computer and network scans, retirement, statistics, and so on.

- Security: access methods, inventory, payment, statistics, and so on.

- Contract: data acquisition, fees, rents, reimbursements, expense calculations, allocations, amendments, deadline alarms, cost control, statistics, and so on.

- User support: data acquisition, qualification, knowledge base, service levels, escalation schemes, alarms, chargebacks, statistics, and so on.

- Maintenance: data acquisition, qualification, knowledge base, service levels, escalation schemes, alarms, factory returns, preventative maintenance, upgrades, work orders, detachable material, chargebacks, statistics, and so on.

- Software: licenses, ASP contracts, installations, users, inventory, reconciliations, upgrades, training, chargebacks, statistics, and so on.

- Resources: work hours, work loads, chargebacks, statistics, and so on.

- Budgets: preparation, validation, tracking, modifications, statistics, and so on.

- Cost accounting: splits and chargebacks, work units, metrics, and so on.

- Knowledge: training, certifications, experience, assignments, statistics, and so on.

- Insurance: valuation, contracts, bonuses, statistics, and so on.

- Suppliers: master leases, markets, service quality, prices, discounts, and so on.

- Catalogs: data acquisition (EDI, online, and so on), technical certification, price certification, configuration types, statistics, and so on.

- Quality assurance: service quality metrics, user surveys, and so on.

The contents and the relevance of each function will vary according to the nature of the asset: The maintenance of a building is completely different from that of a computer, for example.

Overlapping needs

When managing a portfolio, you will often encounter areas where needs and constraints overlap. Among such areas are:

- Multi-company issues

- Multi-currency issues

- Multiple time-zone issues

- Multi-language issues

- Availability issues

- Security issues

- Performance issues

Project objectives

The General study quantifies a project by defining precise metrics to all of its identifiable objectives:

- IT equipment in stock < 3 %.

- Time required to implement a workstation after the initial request < 16 work hours.

- Money saved on supplier prices > 2 %.

- Time required to enter a work order approval < 1 minute.

- Availability rate of company vehicles: > 98%.

- Etc.

Choosing your architecture

Choosing your architecture is a crucial part of the General study phase. It includes choosing a platform, a database engine, software applications, and so on. This phase will have considerable impact not only on the way the project will unfold, but all the final result. This phase includes the:

- Definition of the project's technical standards: operating system, network, required software architecture, database engine, data division, response time, and so on.

- Creating and writing your project specifications.

- Calling for offers.

- Evaluating the solutions.

The choice of solutions depending on the following criteria:

- Functions

- Flexibility

- Amount of configuration or programming.

- Robustness

- Conformity to technical standards.

- Survivability

- Quality and availability of the service suppliers.

Now that the scope of the project has been defined, you must choose the solution that will work for all functional areas. According to the domain and the functional areas sought, this solution can be the:

- Use of native functions.

- Configuration of specialized functions.

- Interface with a specialized product (new or existing).

- Development of supplementary applications.

- Continuation of existing solutions.

- Application of manual procedures.

Detailed study

The Detailed study is the phase in which the user representatives are consulted the most. Their availability and their personal investment in this critical phase will determine the functional quality of the final result.

Redefining the procedures

Taking advantage of the multiple possibilities offered by a system like Asset Manager requires that you reevaluate and improve the existing procedures in your company. This step enables you to think about how to adapt your current procedures to an advanced information-technology software. It is during this functional analysis of the company's procedures that the contribution from managers representing the main functional departments of your business is the most important.

You need to take into account how this adaptation will impact not just one department or one company procedure, but the whole of the impact on the entire company and all its department. Thus, you need to analyze your procedures, one by one, from the most general to the most specific to precisely define:

- Responsibilities

- Division of tasks

- Contents of tasks

- Procedures of control and verification

- Reference documents: forms, reports, procedural transactions, and so on.

This provides you with a precise specification of the information created, used and produced during each task.

It is this detailed functional analysis that provides the basic architecture of your solution: parameter configuration, interface, supplementary developments, and so on.

Validation

The redefined procedures must be evaluated and validated by user representatives.

Asset Manager provides a wide range of possibilities when it comes to configuring its parameters. Thus, you might find it useful to perform some small configurations during this stage (additional fields, views, wizards, statuses, and so on) and have your users test and validate them. Not only does this prepare you for the production phase of your project, but it also unearths any ambiguities and misunderstandings in the procedures before it is too late in the game to change them.

Devising tests

In order that the tests be ready as early as possible for the developers, you must start devising them (and identifying their data sources and particular configurations) during the Detailed study phase.

Technical study

The detailed technical study involves identifying your server and network needs and then choosing the server and network that meet these needs.

Production

The production phase involves building the system that you defined during the Study phase.

Let us remind you once again that facility of Asset Manager's configuration and the tools at your disposal enable you to start setting and validating certain of its parameters during the Detailed study phase. We cannot stress enough the importance of delving into these configurations as early as possible, as long as you take the time to consider how each configuration will impact the whole of the project.

Devising the tests

There are two types of tests:

- Functional tests: They test the robustness of the system.

- Performance tests: They test the system's response time.

The tests must be devised as soon as possible so that the development teams can administer them and verify the quality of their work. The functional tests are usually required earlier than the performance tests.

These tests are only really effective when the user representatives participate during the administration of these tests. They will verify the:

- Representativeness of the tests. In particular, the functional tests must examine all possibilities of data configurations that can occur, including even the least frequent.

- Consistency of the tests. Only the when the tests are consistent will they enable you to implement in-depth integration tests.

Configuring the parameters

Configuring Asset Manager's parameters includes configuring the:

- Classifications used by the company for organization, cost centers, budget centers, cost types, and so on.

- Specific information that the company want to manage.

- Specific data-integrity rules that the company wants to apply.

- How data is inserted (default values, wizards, and so on).

- Events to take into account (addition, modification or deletion of data, and so on).

- Predefined processes (interactive workflows)

- Data-access rules (users and profiles)

- Control panels

Interfacing

Producing interfaces to integrate Asset Manager with the company's IT system is a delicate task that depends entirely upon the procedures defined during the functional analysis. More importantly, it

depends upon the thoroughness applied to the definition of information and its sources. To produce an interface, you can rely on:

- Standard gateways that enable you to integrate Asset Manager with additional technical applications, such as HPE Discovery and Dependency Mapping Inventory.

- Standard interfaces with other management products, such as HPE Service Manager, and so on.

- EAI (Enterprise Application Integration) tools, such as HPE Connect-It, that provide considerable support for implementing robust, yet flexible, interfaces.

Keep in mind that certain interfaces (employee interfaces, cost center interfaces, and so on) must be operational early in the game so you can recover the classifications necessary for the last phases before deployment.

Miscellaneous developments

Certain complex projects might require specific, additional developments, either inside Asset Manager (enriching its database structure, creating specific screens, and so on) or using APIs to integrate Asset Manager with external applications. These sub-projects must be conducted according to the same principles established for the other projects, and taking into account the risks that they carry.

Technical documentation

The technical documentation regrouping the parameters and developments performed is essential for maintaining the system.

In the case of Asset Manager, Asset Manager Application Designer automatically provides an interactive documentation which is very effective. Asset Manager Application Designer also includes a certain number of exporting tools that you can use to beef up your central technical documentation.

Preparing the migration

Migration is a rather complicated process (often more complicated than it seems at the onset of a project). But the focus becomes clearer when you break down the project into the following steps:

- Identifying information sources to migrate: earlier applications, individual databases, miscellaneous documents, and so on.

- Upgrading this data: cleaning it, completing it, reconciling it, and so on.

- Studying the migration of current procedures: purchase requests, and so on.

- Preparing the migration tools: SQL scripts, data formatting, JCLs, import scripts, manual-procedure definitions, verification procedures, and so on.

- Large-scale testing.

- Running and verifying the system.

In fact, the actual migration itself only comprises about a tenth of the entire project effort.

Preparing for training users

Asset Manager allows for various modes of functioning that can either be totally guided or extremely interactive. Depending on the profile of each user and the predefinition of the procedures that they must execute, everyone's training needs will be different.

We can also define, in the same organization, roles that are very limited and assisted (which are well adapted for occasional or little-trained users), as well as those that are very versatile and can take advantage of the power behind Asset Manager's user interface (which necessitates strong training).

In this case, the company must prepare for user training. This involves the following tasks:

- Training the trainers.

- Identifying user profiles and organizing the corresponding training sessions: forming groups, planning the material, and so on.

- Preparing the different training sessions: documentations, and so on.

- Running the training sessions.

- Evaluating the results: testing, surveys, and so on.

- Producing user guides.

Because of the variety of different users with different needs, you might find yourself spending most of your company's time and resources on the training effort alone.

Training is an extremely important step, however, and it must not be rushed. If run training sessions too early or too late (or too quickly), your users will be not suitably trained to use the new system.

Administering tests

The testing effort should be proportional to the importance and complexity of the system you are implementing. It should enable you to verify the:

- Adequacy of the results. This can be measured during tests with users.

- Robustness of the solution. This can be observed during functional tests.

- Response time. This can be observed during the performance tests.

All tests that are administered are done so according to rigorously defined protocols. This is to assure the consistency and representativeness of all tests.

Preparing for the deployment

This task includes:

- Organizing the teams, the trainings, the procedures, the control panels, and so on.

- Configuring the production environment: acquiring equipment, configuring the network, installing software on the server, creating the database, fine tuning, and so on.

- Configuring client workstations

- Devising backup procedures: recovery tests, disaster recovery, and so on.

- Implementing user support: organizing a support team, training, procedures, and so on. This task must be carried out according to the initial user training.

Pilot project

It can be useful to run a pilot project before launching the real project to test the system. You can do this by selecting a segment of your company's portfolio, functional scope and concerned users, then put this into production.

Deployment

The deployment step is the final goal of all your efforts up until this point. It includes the following steps:

Initialization

The initialization step is when you make all your last-minute verifications before declaring "all systems go". This includes going over the following points:

- Identifying and organizing the necessary resources.

- Defining the protocol and the planning.

- Defining the rollback protocol in case of a major problem.

- Performing a simulation.

Launching the production phase

This step includes:

- Making the decision to launch the production.

- Notifying the proper teams of this decision.

- Communicating this decision to the company.

Production phase

The production phase is the final result of your project's efforts. It includes:

- Notifying users when the old system is removed.

- Halting the operation of the old applications.

- Migrating data

- Testing

- Making the new system available.

- Notifying users when the new system is available.

Tracking

You must pay particular attention to how your new system works during its first initial days in production. Watch out for:

- Availability of the system and its functions.

- Response times

- Database integrity. (You should regularly perform tests to verify this integrity.)

- Data processing (You should regularly perform tests to verify how data is processed.)

Summative evaluation

The project's summative evaluation means:

- Determining what advantages the system has thus provided (gains in time, productivity, and so on).

- Analyzing how the project was carried out (in hindsight).

- An audit of the application, comparing initial objectives with obtained results.

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Feedback on Concepts and Implementation (Asset Manager 9.61)

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