

MANAGEMENT**OBJECTIVE(S)**

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Acquire, maintain, safeguard, distribute, and administer the fixed assets needed to support the entity's mission, goals, and objectives. Minimize the cost and maximize the utility of the assets acquired.

BACKGROUND

Professional public fixed asset management is a complex matter, involving governing laws, operating rules and regulations, administrative law rulings, recommended practices, designated procedures, and specific conflict-of-interest provisions. The entity must also ensure that "enough but not too much" capital equipment is available. Management controls over the recording, reporting, and safeguarding of assets are also necessary.

At the statewide level, fixed assets are managed by two central service support organizations, the Comptroller of Public Accounts and the General Services Commission. The State Property Accounting (SPA) System Policy and Procedures Manual and User's Manual, effective September 1, 1993, provide instructions for the management of fixed assets held by state entities.

At the entity level, the nature and scope of the fixed asset management function depends upon the needs of the entity. A small entity with one location that has few fixed assets other than office furniture will have a different fixed asset management structure than an entity with multiple field offices and heavy equipment.

The degree of coordination and communication between these various levels of fixed assets management can have a material effect on the efficiency, economy, and effectiveness of any specific entity and on the state as a whole.

Fixed asset management is a part of the materials management process, which also includes procurement, inventories, maintenance, and transportation. See the modules on [Procurement](#) and [Inventories](#) for further information.

DEFINITIONS

Betterment refers to an improvement which materially increases the serviceability and/or useful life of an asset.

A **capitalized asset** is personal property that has a single unit value of \$1,000 or greater and an estimated useful life of more than one year. (This is the definition used by the State of Texas.)

A **capital lease** is an agreement whereby the lessee substantially assumes all risk and benefits of ownership as specified under the rules of Generally Accepted Accounting Principles.

Condition of assets is the degree of fitness to render service (i.e. new, good, fair, poor, etc.).

Controlled assets qualify as personal property but do not meet the capitalization

threshold. However, they are secured and tracked due to their pilferable or hazardous nature.

A **debt financed asset** is one that is purchased with debt instruments such as commercial paper, general obligation bonds, or revenue bonds.

Equipment held in trust are assets held by an entity on behalf of a non-state entity (such as art collections owned by families, estates, and others) and which are under the temporary control of the entity.

Group basis refers to multiple property units tracked under one property record (for example, 100 desks having the same physical characteristics, value, and acquisition date).

Internal entities use the State Property Accounting (SPA) system as their own system and agree to maintain their records on a perpetual basis with the Comptroller (i.e. on-line with the Comptroller's system).

An **operating lease** does not satisfy the capitalization criteria and does not need to be considered a capital asset for state property accounting purposes.

Personal property is any possession of the State of Texas having sufficient value to warrant inclusion in the fixed asset portion of any official statement(s) of financial condition, or any possession of the State of Texas that, due to the nature of the asset, is required to have management controls placed upon it. Personal property does not include consumable items nor does it include real property, such as land or buildings, improvements to land or buildings, or infrastructure.

Real property is land, buildings, improvements to land or buildings, and infrastructure.

Reporting entities maintain their own personal (stand alone) property system which complies with the SPA reporting requirements of the Comptroller. The reporting entity's system must have the capacity to export files to the SPA system. A list of suggested software applications for use by reporting entities can be found in the Methodology Resource Information Folder for Fixed Assets.

Replacement is the repair or exchange of an internal or external part of an asset which allows the asset to complete its normal useful life (as opposed to betterment).

A **requirements determination** is part of fixed asset planning and includes establishing a list of fixed assets needed to support the entity's mission or function (i.e. the number of hospital beds for each ward in a hospital) and an allowance for how much may be spent on them.

Unit basis refers to the creation, recording, and maintenance of property information

by single, identifiable asset components.

Note: Other pertinent definitions are provided in the statutes listed below:

- Vernon's Texas Code Annotated (VTCA), Government Code, §§403.271 - 403.278, Executive Branch (Comptroller of Public Accounts)
- VTCA, Texas Health and Safety Code, § 12.053
- VTCA, Texas Human Resources Code, §§ 91.023 and 111.002 (5)(J)
- VTCA, Texas Natural Resources Code, §§ 31.152 and 31.154
- VTCA, Business and Commerce Code, §§1.101-36.26, (Uniform Commercial Code)
- Vernon's Texas Code Forms Annotated (VTCFA), Uniform Commercial Code For
- Vernon's Texas Civil Statutes (VTCS), Title 20, Article 601b, §§ 8.01 - 9.17, State Purchasing And General Services Act
- Texas Administrative Code (TAC), Title 1, Part V, Chapters 113, 115, 117, 121, 123, and 125. (Note: 34 TAC §5.200 was proposed on January 20, 1994. It contains rules on the new UPA system. A copy of the proposed rules can be found in the Methodology Project Resource Information folder for Fixed Assets.)

OVERVIEW OF THE PROCESS The basic phases of the fixed asset management process are:

- **Determine fixed asset needs; create a plan to fill those needs.**
- **Establish the nature, scope, and location of fixed asset management in the organization structure.**
- **Identify, document, and implement the policies, procedures, and controls needed to implement the plan.**
- **Purchase the assets. (See the Procurement Module.)**
- **Receive, inspect, inventory, store, and distribute the assets.**
- **Repair and maintain the assets.**
- **Dispose of damaged, obsolete, or unneeded fixed assets.**
- **Record and report fixed asset transactions.**
- **Monitor and evaluate the fixed asset management process.**

PROCEDURES

Suggested procedures, organized according to the elements of a finding, are listed below. They should be expanded or tailored to fit the specific entity being reviewed.

Note: The following procedures and the process described above are normative, rather than prescriptive. That is, they represent "average" or baseline thinking since they assemble information which repeatedly appeared in the various resources used to prepare this module. Do not be too hasty or literal in applying a given criterion or procedural step to a specific entity. While omissions or variations may be obvious, judgment must still be used to determine whether such omissions or variations are material.

Review criteria:
General criteria

General criteria applicable to the fixed asset management process are as follows:

Fixed asset programs may be carried out within a single entity unit, in multiple units within an entity, or by multiple entities. Coordination and communication within and

outside the entity can, therefore, become a very important part of the fixed asset management process.

Fixed asset management should address the full range of fixed asset activities, including planning, attainment, reporting, responsibility, storage, standards and quality assurance, issue and receipt control, valuation, and disposition. Fixed asset strategies, goals, objectives, and performance measures should be established and set forth in writing.

Common key variables in fixed asset management include:

- count accuracy
- document number control
- hidden fixed assets
- fixed assets at vendors or on loan
- count value extension
- cutoff documents
- unit of issue accuracy
- reconciliation methods
- rust and dust on material
- item description
- obsolete items
- count versus record differences
- lost tags or lists

Specific criteria

The criteria related to these specific phases of the fixed asset management process are as follows:

Determine fixed asset needs; create a plan to fill those needs

Identify any statewide strategies, goals, and objectives that are directly or indirectly related to fixed asset management. For example, an indirect statewide strategy related to fixed assets might be a requirement, intended to provide employment opportunities to the disabled, that state agencies purchase certain types of assets from workshops for the blind. Link the entity's fixed asset goals to these statewide strategies, goals, and objectives.

Identify any entity strategies, goals, and objectives that are directly or indirectly related to fixed assets management. Link the fixed asset strategies, goals, and objectives to these entity strategies, goals, and objectives.

Goals for any central fixed asset authority should reflect internal enhancement as well as external client-focused enhancements (i.e. redistribution of surpluses to satisfy new requirements, etc.).

Some factors that should be considered when determining fixed asset requirements:

- Could the task be completed using other kinds of resources? For example, could a task be completed manually rather than by computer. Are the

- alternatives more or less effective? Do they cost more or less?
- How long is the useful life of the asset? Consider not only physical life but whether it is likely to become obsolete. How adaptable is the asset?
- What are average maintenance costs? Does the entity have the technical resources needed to maintain the asset?

Planning for fixed asset management should include a requirements determination, forecasting, budgeting, and scheduling.

The entity should:

- Determine fixed assets needed to support the entity's mission.
- Inventory the current condition of all existing equipment by determining in-service dates, service life expectancy, and potential betterment or service life extension opportunities.
- Compare this inventory of existing equipment with assets needed to determine deficiencies.
- Determine how deficiencies will be resolved:
 - redistribute excesses from entity, state, or federal surplus
 - repair existing assets
 - upgrade existing assets (see **betterment**)
- Prepare an authorized fixed asset allowance list.
- Prepare an implementation schedule.
 - purchase new assets
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The requirements determination process establishes an authorized allowance list of fixed assets needed to support the entity's mission. This allowance list should prioritize requirements and be approved by the entity head or a designated representative.

The acquisition of certain types of fixed assets require specialized approval. For example, Department of Information Resources approval is required for the purchase and/or development of large management information systems.

Establish the nature, scope, and location of fixed asset management in the organization structure

The entity should appoint a designated fixed asset (property) manager. As appropriate, the entity should appoint property managers at various operating levels. Formal procedures should exist for notifying the property manager when an item is transferred to another division or user. Accountability for fixed assets should be assigned by the property manager in writing to those using the assets.

Consider establishing a central fixed asset office responsible for policy-making and oversight. This central fixed asset office would be responsible for the management and direction of the full spectrum of fixed asset activities and functions.

The chief fixed asset official should have prior experience. Staff should be appropriate to meet fixed asset strategies, goals, and objectives.

A written agreement should exist between the central fixed asset office and its related entities documenting policy and procedures in areas such as reporting excesses and determining levels of attainment of authorized property.

Some potential benefits of a centralized fixed asset management office are:

- volume discounts can be obtained by consolidating orders
- administrative staff can be minimized
- opportunities for filling assets needs in one part of the entity with surpluses in another part of the entity can be more easily identified

See also the module on [Organization Structure](#) for advantages and disadvantages of centralized departmentation.

A central fixed asset management function should be located at a level that provides sufficient authority, independence, and safeguards to foster the goals and objectives of the fixed asset program. Define the accountability, responsibility, and authority of central fixed assets management, authorize delegation by central fixed assets management, and exclude blanket exemption for any agency.

Identify, document, and implement the policies, procedures, and controls needed to implement the plan

Policies, procedures, and controls should clearly define legislative intent while providing suitable administrative discretion in central fixed asset management (i.e. not be so detailed as to be unduly restrictive).

In cases where there is a central fixed asset authority, delegated activities should be controlled by rules, policies, and procedures and should be monitored for compliance.

The central fixed asset function should be authorized to adopt any additional rules, not inconsistent with the statute, needed to carry out the purposes of the law.

Written instructions should exist to govern activities that central fixed assets management delegates to other departments and entities, including the manner in which such activities will be monitored by central fixed asset management.

The entity should properly authorize transactions and activities by:

- Designating individuals who may initiate capital asset transactions and clearly defining the limits of their authority. Appointees should be someone other than the individual responsible for final approval to commit government resources. Legislative approval may be required on significant capital asset projects and acquisitions. Grantor approval (federal, state, or private) may be required for the use of grant funds for capital asset acquisition.
- Writing guidelines to establish key considerations such as price, vendor,

terms, quality standards, and the provisions of grants or bonds which may finance the expenditures.

The entity should review current federal and state surplus property listings to determine if these surplus assets can be used to fill deficiencies.

The entity should establish controls to ensure separation of duties, including:

- A physical inventory by someone other than the custodian.
- Investigation of discrepancies between physical inventory and records by a person other than the custodian.
- Initiating, evaluating, and approving capital expenditures, leases, and maintenance or repairs by someone other than the individual responsible for property accounting and record keeping. Also, responsibilities for initiating capital asset transactions should be separate from individuals responsible for final approval.
- Physical inspection of items to be deleted as obsolete or worn out by a knowledgeable person who is not responsible for the record keeping or custodial function. The property should be destroyed or marked so that it will not be included in the next physical inventory.

Operational controls should include:

- An operating manual which is simple and easy to understand.
- Classification and identification of fixed assets using standard nomenclature or part numbers.
- An appropriate central warehouse with the necessary storage and fixed asset handling aids, including a material location system.
- Strict record control -- written authorization should be required for all withdrawals of fixed assets from a warehouse, stockroom, or stockyard.
- An effective cost control check for all fixed assets.
- Training of all employees on accountability for property.
- Utilization of a fixed asset catalog which has details on establishing allowances, check out and return to warehouse procedures, pick-up and delivery policy, comments on quality of assets in stock, and location of all warehouses or storerooms.
- Clear criteria for the identification of damaged, obsolete, or unneeded items.
- Procedures for disposal of salvage or surplus property, including segregation and special handling of dangerous/hazardous equipment and controls to ensure salvage and surplus do not consume costly storage space.
- A records retention policy, which establishes file retention periods and documents record retrieval and disposal standards.

Both internal and reporting entities should maintain a computerized perpetual fixed asset record which reflects all transactions. The principle of segregation of duties should be maintained within EDP processing activities. Reporting entities can use the State Property Accounting System, custom application, or commercial application like Best Programs, Inc., software for fixed assets, FAS1000 or FAS2000.

Purchase the assets

See [Procurement](#) and [Cash Management](#) modules.

Receive, inspect, and distribute the assets

The receiving department should check all incoming materials by:

- Reconciling the packing slip with the material received.
- Inspecting for concealed damage from rust, breakage, or moisture.
- Reporting variances in quantity ordered versus quantity shipped. Quantities less than those indicated on the purchase order may be accepted; however, quantities more than those indicated on the purchase order should be approved by the fixed asset manager, requisitioning department, and the buyer.
- Forwarding completed packing slip and freight bill to purchasing for reconciliation with the purchase order.
- Inspecting the material in a non-technical manner for conformance to manufacturer brand names, model numbers, and catalog number.
- Conducting a technical inspection in accordance with requirements in the purchase specifications and user department inspection procedure, or industry standard applicable to the product such as those published by the American Society for Testing and Materials.
- Completing a material discrepancy report and forward to the buyer when one or more of the following conditions exist:
 - if damage or discrepancy is revealed in receiving or inspecting the shipment
 - subsequent inspection reveals a latent defect that is a supplier responsibility

Suggested policies and procedures for storing fixed assets:

- Take advantage of full cube capacity of storage space. Maximize storage space by using material handling equipment such as fork lifts or pallet racks.
- Include ample room for aisle space.
- Match the size of material handling equipment with storage job at hand.
- Store fast moving items nearest the loading dock or issue counter.
- Move all items the fewest number of times.
- Store bulky and heavy items nearest the loading dock.
- Ship and receive from separate loading docks.
- Provide adequate security at all times.
- Place warehouse office space, restrooms, and personnel lockers in peripheral areas.
- Plan for column and stanchion spacing (an internal storage feature to ensure best use of space).
- Provide for one or more oversized doors.
- Anticipate future needs.

Suggested policies and procedures for distribution:

- Consider the closed stores system: physically securing the entry against unauthorized persons and requiring an established accounting document for all

- materials and supplies entering and/or leaving the facility.
- Provide for internal distribution: receiving demands from users, selecting the items required, and handing them over, or sending them out, to the users. It also may involve the packaging of items to be issued, the loading of vehicles, and the operation of an internal delivery fleet.

All fixed asset management offices should maintain the value of items in stock at the lowest practical levels at all times in order to economize in the use of working capital and to minimize storage costs. Inventory control procedures should adequately protect fixed assets. For detailed procedures, see the [Inventory](#) module.

Repair and maintain the assets

A Maintenance module has been proposed.

Dispose of damaged, obsolete, or unneeded fixed assets

The entity should clearly define what constitutes damaged, obsolete, or unneeded items.

Those items which have no further value should be destroyed.

The disposal of any surplus items must comply with state and federal surplus property rules.

Record and report fixed asset transactions

All entities must comply with State Property Accounting System Policies and Procedures Manual, effective September 1, 1993. This requires the accumulation, classification, and summarization of fixed asset transactions through:

- Maintenance of a General Fixed Assets Account Group for property, plant, and equipment acquired by general, special revenue, capital project, proprietary, or trust funds.
- Maintenance of general ledger accounts which:
 - track fixed assets by classes
 - capture fixed assets provided by construction contractors
 - capture fixed asset related expenses such as insurance, maintenance, and repairs in properly classified accounts
 - consistently apply accounting methods from year to year

The entity must establish a value for all fixed assets. Accurate records must be maintained. This process includes:

- adherence to appropriate depreciation schedules when required for assets used by proprietary/enterprise funds
- determination of acquired value (carried at cost or fair market value at the time of receipt if assets are received by donation)
- determination of depreciable basis
- determination of salvage value
- determination of quality level desired and useful life of asset

- determination of gain or loss by general ledger and sub-account
- determination of proceeds from sale of property

General criteria applicable to financial reporting on fixed assets are as follows:

- Fixed assets reported on the balance sheet actually exist at that date (Existence Assertion).
- Fixed asset balances that should be included in the financial statements are included and there are no undisclosed balances (Completeness Assertion).
- Fixed assets represent assets to which the entity has legal rights (Rights Assertion).
- Fixed assets are included in the financial statements at appropriate amounts, are properly measured (historical cost) and allocated to the proper period (depreciated when applicable) (Valuation/Allocation Assertion).
- Fixed assets are properly classified, described, and disclosed in financial statements (Presentation/Disclosure Assertion).

Fixed asset management software used by reporting entities should have these features:

- Reporting flexibility in the following areas:
 - data entry procedures -- ability to customize fields to meet entity's needs, availability of user-defined fields, overriding capabilities allowing user to bypass unrelated field
 - ability to define customer depreciation methods
 - ability to adjust the system to any year-end
 - flexible asset groupings and subtotals for reporting
 - ability to handle short-year calculations
 - availability of depreciation reports on a monthly, quarterly, or annual basis
 - availability of additional depreciation books for user to define
 - ability to accept prior depreciation balances upon conversion, allowing the user to start with figures already recorded on financial statements
 - advanced sorting and reporting options
 - ability to calculate depreciation for periods greater than one year to bring an asset up to date
 - ability to track an asset's status change or other asset activity
- Calculations for:
 - conventions -- half-year, mid-quarter, mid-month
 - gain/loss report
 - salvage value
 - amortization
 - allocation of depreciation expense by an asset's status and/or activity
- Standard reports for:
 - input form
 - current depreciation expense report
 - annual activity reports

- quarterly acquisition reports
- gain or loss on disposal
- net value report
- labels for inventory tracking
- asset and annual depreciation projections
- depreciation adjustments
- depreciation by asset's status or activity

Note: Computer software with the above features is commercially available to run as a stand-alone application or to interface with accounting software. More information on these computer programs is found under "Software" in the resources section at the end of this module.

Monitor and evaluate the fixed asset management process

The entity should periodically evaluate the various fixed asset management processes for effectiveness and efficiency. This information should be used to enhance or modify current processes. Managerial reports should identify trends for key performance measures, which include:

Input indicators:

- the number of fixed assets received
- the number of fixed assets issued

Output indicators:

- the number of fixed assets above or below authorized allowances
- the dollar value of fixed assets above or below authorized allowances
- the dollars recovered by using surplus property in lieu of purchases

Outcome indicators:

- amount of backlog that needs to be overcome to obtain all fixed assets that have been approved
- the level of fixed assets in serviceable condition
- the reduction in losses
- number of returns for non-compatibility

Assess Condition: Determine the actual process used

Conduct interviews, observe operations, and identify and collect available documentation in order to gain an understanding of the entity's actual fixed asset management process and controls. Included in the actual process are both official/unofficial and formal/informal processes and controls. An official process may exist even if it is not documented. Possible procedures include, but are not limited to:

- Determine where the fixed asset management process resides in the entity, who participates in the process, and how the participants are selected.
- Obtain and review any manuals, policies, and forms that could document any phase of the fixed asset management process, including its relationship to entity goals, objectives, strategies, and plans.
- Determine if and how management consciously selects and employs the

assumptions, criteria, methods, processes, and techniques used in the fixed asset management process. Obtain and review available documentation on the assessment of risks, costs, and benefits.

- Determine how the entity plans for fixed asset management through requirements determination, forecasting and budgeting, and scheduling.
- Review and document the process for valuation of fixed assets.
- Review and document the processes for additions and deletions of fixed assets.
- Perform a walk through or observe a physical inventory.
- Review process for disposition of fixed assets.
- Review procedures for storage of fixed assets.
- Observe quality assurance, inspection, and testing procedures.

In addition to gaining an understanding of the actual process, you should also try to find out:

- how the participants view the actual process
- what parts of the process they see as successful or unsuccessful and why
- what they think is important about the process and why

This information may help identify causes and barriers.

Determine the strengths and weaknesses of the actual process

Using the tailored criteria, the understanding of the entity's process gained above, and the procedures in this section, analyze the actual process to determine if it:

- is designed to accomplish the management objective (this module, page 1)
- has controls that provide reasonable assurance that the process will work as intended
- is implemented and functioning as designed
- is actually achieving the desired management objective(s)

Suggested procedures for each of these four analysis steps are detailed below. In executing these procedures, remember to identify and analyze both strengths and weaknesses.

Identify and review the steps in the actual process to determine if the process is designed to accomplish the management objectives. Possible procedures include, but are not limited to:

- Determine if all major steps in the criteria are included in the actual process. If steps are missing, determine if their absence is likely to have a materially negative effect on the fixed asset management process at the entity you are reviewing.
- Determine if all the steps in the process appear to add value. If there are steps that do not appear to add value, try to get additional information on why they are included in the process.
- Review the order of the steps to determine if it promotes productivity.
- Review the level of technology used in the process to determine if it is up-to-date and appropriate to the task. Besides computer, electronic, communications, and other mechanical technology, you should also consider what kinds of management technology are used (Gantt charts, process maps,

decision matrices, etc.).

See the [appendix](#) to the module on Problem-Solving and for more information.

Identify the controls over the process to determine if they provide reasonable assurance that the process will work as intended. These controls should be appropriate, placed at the right point(s) in the process, and cost effective. Possible procedures include, but are not limited to:

- Draw a picture of the process, the controls, and the control objectives (see the graphic of the procurement process in the [Introduction](#) for an example). Flowcharts of the fixed asset management process can help identify inputs, processes, and outputs.
- Determine if the control objectives are in alignment with the overall management objective(s)(this module, page 1).
- Identify the critical points of the process (i.e. those parts of the process most likely to determine its success or failure or expose the entity to high levels of risk) and the controls related to them. Consider whether the controls are:
 - in the right location within the process (input, operations, output)
 - timely (real time, same day, weekly, etc.)
- Compare the cost of the control(s) to the risk being controlled to determine if the cost is worth the benefit.
- Determine what controls are in place for monitoring and evaluating the overall effectiveness of the fixed asset management process and making sure that changes are made in the process if it does not yield the desired results.
- Identify, describe, and assess the process used to gather input from employees who might reasonably discover flaws in the process.
- Obtain the most current fixed asset inventory listing and select a sample of items for observation. Note the following points during the physical observation:
 - Items are properly safeguarded from loss and misuse and are located correctly on inventory listing.
 - Items have entity property tag and match description on list.
 - Items properly numbered. Look for items with serial numbers which are either omitted or inaccurately recorded on property records.
 - Items are assigned in writing to a designated user or department head.
 - Items are reasonable and necessary for the purpose for which they are being used.
- Review fixed asset inventories performed by the entity to determine adequacy of follow-up and corrective procedures on significant exceptions.
- Determine and evaluate the safeguards over assets.
- Determine if separation of duties over custodial responsibility of inventory, approval of expenditures, and physical inspection exists. Responsibilities for initiating, evaluating, and approving capital expenditures, leases, and maintenance or repairs should be separate from the property accounting and record keeping. Physical inspections of items to be deleted should be made

- by someone who is not responsible for record keeping or custodial function.
- If EDP is used, determine if the principle of segregation of duties is maintained within processing activities.

Review observations, interviews, documentation and other evidence and design specific audit procedures to determine if the process and/or the controls have been implemented and are functioning as designed. Depending upon the objectives of the project, these procedures may include both tests of controls and substantive tests, more information on which is found in *The Hub*, pp. 2-B-8, ff. Possible procedures include, but are not limited to:

- Determine if any evidence of management override exists.
- Walk through the actual process, i.e., follow a transaction through the people and documents involved, and compare to the official process.
- Select a sample of deletions from fixed assets and perform any of the following tests that are appropriate:
 - Trace to the approved property deletion request, except for trade-ins and transfers.
 - Determine how items not sold or traded in are disposed of to ensure against lost or stolen items.
 - Obtain current deletion requests pending SAO approval. Observe items where reason is unserviceable, obsolete, or broken and verify that the reason is valid.
- Select a sample of additions to fixed assets and trace to supporting documentation; note the following:
 - Proper authorization for acquisition.
 - Proper classification as a fixed asset and category (building or equipment/repairs).
 - Agreement of serial numbers between vendor support and property records.
 - Apparent need and reasonableness. Be alert for purchases from board members, officers, employees, or other related parties or for unnecessary expenditures.
- Verify that the property ledgers are reconciled to the general ledger on a regular basis by observing reconciliations and noting date of completion and review by supervisor.

Review and analyze any reports used by the entity to monitor the outcome(s) of the fixed asset management process and/or any other information available to determine if the process is actually achieving the desired management objective(s) (this module, page 1). Possible procedures include, but are not limited to:

- Analyze these process reports over time for trends.
- Discuss any apparently material negative or positive trends with management.
- Determine if and how management acts upon these trend reports and what changes, if any, were made in the process or controls as a result. Some process refinements, especially those affecting entity mission, goals, and outcome measures, may need to wait until the next appropriation cycle.

Determine causes

Determine what circumstances, if any, caused the identified weaknesses in the fixed asset management process. Possible procedures include, but are not limited to:

- Determine if the participants in the fixed asset management process understand the entity's mission, goals, and values and support them through their management of the fixed asset management process.
- Determine if the participants understand both the purpose of and their role in the fixed asset management process.
- If the process occurs at multiple locations, determine if there is a process for ensuring adequate communication and coordination among them.
- Determine if the relationship between the fixed asset management process and other entity processes is clear. For example, you could compare the computer hardware and software purchased in one area of the entity and interview staff to determine whether these purchases meet their computing needs.
- Determine if the fixed asset management process has adequate human, dollar, time, and asset resources. If they appear inadequate, determine if entity resources have been allocated according to the materiality of the fixed asset management process relative to other entity processes.
- Determine if the entity has considered using alternative resources such as industry associations, non-profit organizations, academic institutions, or other governmental entities to meet its resource needs.
- Determine if resources available to the fixed asset management process have been allocated and used in a manner consistent with the importance of that resource to the fixed asset management process.
- If there are negative trends in the monitoring reports, determine if the reports are communicated to and used by the appropriate parties to modify the process.

Determine what internal or external constraints or barriers, if any, must be removed in order to successfully overcome these weaknesses. Possible procedures include, but are not limited to:

- Review the applicable entity, state, or federal laws or regulations to determine if any of them prevent the necessary changes from being made in the process.
- Determine if there are any key employees that are unwilling to change the process and why they are unwilling.

Determine effect

Compare the actual entity process to a recommended alternative process(es) and determine if each weakness in the entity process is material. Alternatives can be developed by using the criteria contained in this module, applying general management principles to the process, using the processes at comparable entities, etc. Materiality can be measured by comparing the dollar cost, impact on services (either quantity or quality), impact on citizens, impact on the economy, risks, etc., of the actual process to the recommended alternative process(es). Measurements can be quantitative, qualitative, or both. Possible procedures include, but are not limited to:

- Identify performance benchmarks (industry standards, historical internal data, other comparable entities, etc.) for the process in question and compare to actual performance. Measure the difference, if possible. Include the cost of the additional controls or changes in the process.
- Estimate the cost of the actual process and the alternative process(es) and compare.
- Estimate the quantity and/or quality of services provided by the actual process and by the alternative process(es) and compare.
- Identify the risks associated with the actual process and with the alternative process(es). Measure and compare the risks.

Develop recommendations

Develop specific recommendations to correct the weaknesses identified as material in the previous section. In developing these recommendations, consider the tailored criteria, kind of process and control weaknesses identified, causes and barriers, effects, and additional resources listed at the end of this module. Possible procedures include, but are not limited to:

- Identify alternative solutions used by other entities.
- Identify solutions for removing barriers.
- Provide general guidelines as to the objectives the solution should meet so the entity can tailor it to its specific situation.
- Provide specific information, if available, on how the recommendation can be implemented.

RESOURCES**Articles**

Baily, Martin Neel. "The Productivity of Capital in a Period of Slower Growth." *Brookings Papers on Economic Activity* 1990:SPISS:369-407, January 1991. Location: The University of Texas, Perry-Castañeda Library (HC 101 B785).

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Data Bases

ABEST (Agency Budgets & Strategic Plans)

ABEST data are compiled by the Legislative Budget Office and include information on the following:

- budget requests
- input, output, and efficiency measures
- capital expenditures
- budget recommendations
- quarterly and year-to-date performance measures
- classified positions
- entity strategic plans
- statewide strategic plan

ABEST information is maintained dating from 1992 and projecting forward to 1994 and 1995. In-house contacts on ABEST are Dean Duan (4829), Tom Tharp (4912), and Sherry Varnado (4716).

UTCAT (On-Line Catalog of the General Libraries of UT-Austin)

Search parameters used to identify UT holdings include:

- S (subject) for books
- S (subject) and SK (subject keyword) for periodicals
- T (title) and TK (title keyword) for books and periodicals
- PT (periodical title) and PK (periodical title keyword) for periodicals

A search using "capital assets," "capital expenditure(s)," "capital investment(s)," and "capital equipment" revealed a substantial number of books and periodicals related to fixed assets.

An S (subject) search in the books data base or an SK (subject keyword) search in the periodicals data bases lets you scan all subjects related to a given subject area, such as "capital expenditure--evaluation" or "capital investment--mathematical models." This lets you focus the subject of your search.

Regardless of subsidiary data base, a TK (title keyword) search lets you scan bibliographic entries for all books or articles which have the words "capital asset(s)/equipment/expenditure(s)/investment(s) in their titles.

Note: Books, academic periodicals, and business periodicals are accessed in different subsidiary data bases in UTCAT. While all SAO employees can access the main UTCAT data base, access to the periodicals data bases is limited to holders of current identification cards from either UT-Austin, UT-Dallas, or UT-Pan American.

Human Resources

The following staff members have specialized training or ongoing interest in fixed asset management:

SAO Employee	Title/Function
Bill Addison, CPPB Andrew Knight Janet Reynolds	Points of Contact
Bill Addison Odie Cruz Amy Graves Babette Laibovitz, MPA Linda Lansdowne, CPA Bruce Truitt	Module Writers/Editor
Barbara Hankins, CPA Jeannie Henderson, CPA Randy Townsend, CPA	Reviewers

Periodicals

Note: Indexes and abstracts of periodicals in bold-faced type are available in the SAO Library via ABI/INFORM.

Accountant's Magazine

Published monthly by the Accountants' Publishing Company (Scotland)
Location: The University of Texas, Perry-Castañeda Library (HF 5601 A22)

Accounting and Finance

Published monthly by the Accounting Association of Australia and New Zealand
Location: The University of Texas, Perry-Castañeda Library (HF 5601 A254)

Accounting, Organizations, and Society

Published monthly by the Pergamon Press
Location: The University of Texas, Perry-Castañeda Library (HF 5657 A3368)

Accounting Review

Published monthly by the American Accounting Association
Location: The University of Texas, Perry-Castañeda Library (HF 5601 A6)

Accounting Today

Published biweekly by Lebhar Friedman, Incorporated
Location: SAO Library

American Economic Review

Published monthly by the American Economic Association
Location: The University of Texas, Perry-Castañeda Library (330.5 AM312)

Canadian Journal of Economics
Published monthly by the University of Toronto Press
Location: The University of Texas, Perry-Castañeda Library (330.5 C16)

Cashflow Magazine
Published bimonthly by Coordinated Capital Resources
Location: The University of Texas, Perry-Castañeda Library (HG 4028 C45 C373)

CMA: The Management Accounting Magazine
Published bimonthly by the Society of Management Accountants of Canada
Location: The University of Texas, Perry-Castañeda Library (H 1 C647)

CPA Journal
Published monthly by the New York Society of Certified Public Accountants
Location: The University of Texas, Perry-Castañeda Library (HF 5601 N54)

CPA Letter
Published monthly by the American Institute of Certified Public Accountants
Location: SAO Library

Credit and Financial Management
Published monthly by the National Association of Credit Management
Location: The University of Texas, Perry-Castañeda Library (HF 5565 N3)

Decision Sciences
Published bimonthly by the American Institute for Decision Sciences
Location: The University of Texas, Perry-Castañeda Library (HD 69 D4 D3248)

Engineering Economist
Published monthly by the American Society for Engineering Education and the Institute of Industrial Engineers
Location: The University of Texas, Perry-Castañeda Library (TA 177.4 E535)

FASAB News
Published monthly by the Financial Accounting Standards Advisory Board
Location: SAO Library

FE: The Magazine for Financial Executives
Published monthly by the Financial Executives Institute
Location: The University of Texas, Perry-Castañeda Library (HF 5001 F515)

Financial Accountability and Management
Published quarterly by Basil Blackwell Publishers, Limited (UK)
Location: The University of Texas, Perry-Castañeda Library (HJ 101 F56)

Financial Analysts Journal

Published bimonthly by the Financial Analysts Federation

Location: The University of Texas, Perry-Castañeda Library (332.605 AN13)

Financial Executive

Published monthly by the Financial Executives Institute

Location: The University of Texas, Perry-Castañeda Library (HF 5001 F514)

Financial Management

Published quarterly by the Financial Management Association

Location: The University of Texas, Perry-Castañeda Library (HG 4001 F55)

Financial Review

Published monthly by the University of Rhode Island

Location: The University of Texas, Perry-Castañeda Library (HG1 F56)

Financing Local Government

Published semimonthly by Government Information Services

Location: SAO Library

GAAFR Review

Published monthly by the Government Finance Officers Association

Location: SAO Library

GAO Journal

Published quarterly by the United States General Accounting Office

Location: SAO Library

GAO Reports and Testimony

Published monthly by the United States General Accounting Office

Location: SAO Library

Government Accountant's Journal

Published quarterly by the Association of Government Accountants

Location: SAO Library

Government Executive

Published monthly by National Journal, Incorporated

Location: SAO Library

Government Finance Review

Published bimonthly by the Government Finance Officers Association

Location: SAO Library

Harvard Business Review

Published bimonthly by the Harvard Business School

Location: SAO Library

Internal Auditor

Published monthly by the Institute of Internal Auditors
Location: SAO Library

Internal Auditing

Published quarterly by Warren, Gorham, and Lamont
Location: SAO Library

Journal of Accountancy

Published monthly by the American Institute of Certified Public Accountants
Location: SAO Library

Journal of Accounting and Economics

Published monthly by North-Holland Publishing Company
Location: The University of Texas, Perry-Castañeda Library (HF 5601 J861)

Journal of Accounting and Public Policy

Published quarterly by North Holland Publishers
Location: The University of Texas, Perry-Castañeda Library (HJ 9701 J687)

Journal of Accounting, Auditing, and Finance

Published quarterly by Warren, Gotham, and Lamont
Location: The University of Texas, Perry-Castañeda Library (HF 5601 J6873)

Journal of Accounting Research

Published quarterly by the Graduate School of Business, University of Chicago
Location: The University of Texas, Perry-Castañeda Library (657.05 J827)

Journal of Business

Published Monthly by the University of Chicago Press
Location: The University of Texas, Perry-Castañeda Library (HF 5001 J6)

Journal of Business Finance and Accounting

Published quarterly by Basil Blackwell, Limited (UK)
Location: The University of Texas, Perry-Castañeda Library (HG 1 J581)

Journal of Business Forecasting Methods and Systems

Published bimonthly by Graceway Publishing Company, Incorporated
Location: The University of Texas, Perry-Castañeda Library (HB 3730 J65)

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Published quarterly by the College of Business Administration, University of Georgia
Location: The University of Texas, Perry-Castañeda Library (HF 5001 J5875)

Journal of Business Strategy

Published bimonthly by Warren, Gorham, and Lamont, Incorporated
Location: The University of Texas, Perry-Castañeda Library (HD 28 J593)

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Journal of Economic Literature

Published quarterly by the American Economic Association
Location: The University of Texas, Perry-Castañeda Library (HB 1 J6)

Journal of Economic Theory

Published monthly by the Academic Press
Location: The University of Texas, Perry-Castañeda Library (330.5 J8265)

Journal of Finance

Published monthly by the American Finance Association
Location: The University of Texas, Perry-Castañeda Library (332.05 J827)

Journal of Financial and Quantitative Analysis

Published quarterly by the University of Washington Graduate School of Business
Location: The University of Texas, Perry-Castañeda Library (332.05 J828)

Journal of Management Studies

Published monthly by Basil Blackwell (UK)
Location: The University of Texas, Perry-Castañeda Library (658.05 J827)

Journal of Risk and Insurance

Published by the American Risk and Insurance Association
Location: The University of Texas, Perry-Castañeda Library (368.05 J827)

Lists of Parties Excluded from Federal Procurement Programs

Published monthly by the United States General Services Administration
Location: The University of Texas, Perry-Castañeda Library (DOCS GS1.29 MONTHLY MFICHE)

Management Accounting

Published monthly by Straker Brothers, Limited (UK)
Location: The University of Texas, Perry-Castañeda Library (HF 5686 C8 C684)

Managerial and Decision Economics

Published bimonthly by Heyden & Son
Location: The University of Texas, Perry-Castañeda Library (HD 30.22 M35)

Managerial Finance

Published quarterly by Barmarick Publications, Limited (UK)
Location: The University of Texas, Perry-Castañeda Library (HG 1 H332)

Moody's Municipal Issues

Published quarterly by Moody's Investors Services, Incorporated
Location: SAO Library

National Contract Management Journal

Published quarterly by the National Contract Management Association
Location: The University of Texas, Perry-Castañeda Library (HD 3858 N372)

National Public Accountant

Published monthly by the National Society of Public Accountants
Location: The University of Texas, Perry-Castañeda Library (657.05 N213)

National Underwriter Property and Casualty - Risk and Benefits Management

Published weekly by the National Underwriter Company
Location: The University of Texas, Perry-Castañeda Library (MFICHE 8944)

Practical Accountant

Published monthly by Faulkner and Gray
Location: SAO Library

Public Budgeting and Finance

Published quarterly by the Transaction Periodicals Consortium
Location: The University of Texas, Perry-Castañeda Library (HJ 2052 A2 P8)

Public Contract Law Journal

Published monthly by the American Bar Association, Contract Law Section
Location: The University of Texas, Law Library (LAW K 16 U19)

Public Finance Accountant

Published weekly by American Banker
Location: SAO Library

Public Finance Washington Watch

Published weekly by the Bond Buyer
Location: SAO Library

Review of Economics and Statistics

Published monthly by the Harvard University Press
Location: The University of Texas, Perry-Castañeda Library (330.5 R325)

Risk Analysis

Published quarterly by the Society for Risk Analysis and Plenum Publishing
Location: The University of Texas, Perry-Castañeda Library (T 174.5 R55)

Risk Management

Published monthly by the Risk and Insurance Management Society

Location: The University of Texas, Perry-Castañeda Library (HG 8059 C7 N312)

SAM Advanced Management Journal

Published quarterly by the Society for Advancement of Management

Location: The University of Texas, Perry-Castañeda Library (HD 28 S622)

Strategic Management Journal

Published bimonthly by John Wiley and Sons

Location: The University of Texas, Perry-Castañeda Library (HD 28 S77)

Texas Industrial Expansion

Published monthly by the Bureau of Business Research, UT Business School

Location: SAO Library

Treasury Management Association Journal

Published bimonthly by the Treasury Management Association

Location: The University of Texas, Perry-Castañeda Library, Request at Periodicals Desk, PCL Level 1)

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Society for Risk Analysis
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Washington, D.C.
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Universal Public Purchasing Certification Council
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University of Georgia Institute of Government
Athens, Georgia
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University of Texas at Austin Graduate School of Business
Austin, Texas
(512) 471-5921

Urban Institute
Washington, D.C.
(202) 833-7200

Related Modules and Reports

Budgets
Inventory
Logistics
Organization Structure
Procurement
Scheduling

SAO Report 2-109: *Texas Surplus Property '91*
SAO Report 3-048: *Texas Surplus Property '92*
SAO Report 1-078: *Texas Department of Criminal Justice -- Certification of the In-House Cost Estimate for the Food Service Division's Ferguson Unit*

- Texas Comptroller of Public Accounts: *1992 Comprehensive Annual Financial Report (CAFR)*
- Texas Comptroller of Public Accounts: *State Property Accounting (SPA) Policies and Procedures Manual*
- Texas Comptroller of Public Accounts. *State Property Accounting (SPA) System User's Manual*

Software

PCLAN-based systems which include a fixed asset module are listed below. These and other systems with the features discussed on page 11 above can either run as stand-alone applications or can interface with accounting software.

- FAS-1000/FAS-2000
Best Programs Incorporated
11413 Isaac Newton Square
Reston, VA 22090
(800) 368-2405
A stand-alone package with export capability
- Accounting Vision/32, Version, 1.207
Intellisoft Incorporated
2114 West Mayfield
Arlington, TX 76015
(800) 933-4889
Interface with Best FAS-2000 coming soon
- Great Plains Accounting, Version 7.0
Great Plains Software Incorporated
1701 Southwest 38th Street
Fargo, ND 58103
(800) 456-0025
Fixed asset interface to Best FAS-1000 with export capability
- Impact Award, Version 3.0
Syspro Impact Software Incorporated
1801 E. Edinger, #165
Santa Ana, CA 92705-4709
(800) 369-8649
Proprietary fixed asset module with export capability
- Macola Progression, Version 6.0
Macola Incorporated
333 East Center Street
Marion, OH 43301-0485
(800) 468-0834
Proprietary fixed asset module with export capability

- MICA IV, Version 2.01
MICA Accounting Software
2349 Memorial Boulevard
Port Arthur, TX 77640
(800) 448-6422
Fixed asset interface to Best FAS-2000 with export capability

- Open Systems Accounting, Version 4.52
Open Systems Incorporated
7626 Golden Triangle Drive
Eden Prairie, MN 55344
(800) 328-2276
Proprietary fixed asset module with export capability

- Platinum, Version 3.0
Platinum Software Corporation
15615 Alton Parkway
Irvine, CA 92718
(800) 999-1809
Fixed asset interface to Best FAS-1000 and FAS-2000 with export capability

- RealWorld Accounting, Version 6.5
RealWorld Corporation
282 Loudon Road
Concord, NH 03302-2051
(800) 678-6336
Fixed asset interface to Best FAS-1000 with export capability

- SBT Professional Series, Version 2.5
SBT Accounting Systems
One Harbor Drive
Sausalito, CA 94965
(800) 944-1000
Proprietary fixed asset module with export capability

- Solomon III, Version 8.0
Solomon Software
1218 Commerce Parkway
Box 414
Findlay, OH 45839
(800) 879-0444
Fixed asset interface to Best FAS-1000 and FAS-2000 with export capability

See the article "LAN-Based Accounting at the Crossroads" referred under "Articles" above for additional information.

Training

External seminars are provided by the American Production and Inventory Control Society (APICS) for the areas listed below. Such training leads to examination and certification as a Certified Production and Inventory Manager (CPIM), Certified Fellow in Production and Inventory Management (CFPIM), and Certified Integrated Resource Manager (CIRM):

- Capacity Requirements Planning and Production Activity Control
- Customers and Products
- Logistics
- Master Planning
- Material Requirements Planning
- Support Functions
- Systems and Technologies

Auditing the Materials Management Function: Fixed Assets, Inventory, Procurement

In-house training developed by Bill Addison and Janet Reynolds

Location of materials: Methodology Project Team