

# Sample 1

## Portal Management System: Structures and Cost Centers

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## Geographical and Organizational Structures Feature

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### Overview

#### How Banks Use Structures - Background

Banks are made up of organizational entities, such as departments, regions, divisions, etc. Banks operate in geographical entities, such as states, counties, cities, etc. The relationships between different organizational entities and between different geographic entities are generally hierarchical. This means that many entities exist at different levels and that an entity at one level can be the “child” of an entity at a higher level or the “parent” of an entity at a lower level.

A group of related entities can be referred to as a “structure”. Related organizational entities form an organizational structure and related geographic entities form a geographic structure. Each structure is composed of certain levels, which may or may not have names (that are, for the most part, arbitrary). As indicated, each level has a number of entities.

Within a bank, (whether or not Portal System is present) the organizational structure might be represented and defined by organization charts. Some of these organization charts might show at a high level the bank’s organizational entities and possibly the managers of those entities. Other, more detail charts might show all of the employees who are assigned to these entities. Bank analysts or other employees could refer to these charts to determine who works for whom or what organization is a part of what other organization.

Geographical information, showing the physical locations where the bank operates might (again, outside of Portal System) be represented by geographic charts which show where various organizational entities are located. Alternatively, geographic information might be blended into the organizational charts. For example, organizational entities might be referred to by geographic names, such as the “Park Road Branch” or the “Ohio Division”. In this manner, geographic information could be inferred from the organizational chart. Geographic information might also be represented by means other than charts. For example, the bank might publish a fee table in which default values are established for the fees charged by the bank. The fees might be established for different states and for different regions within those states. A bank policy might state that if no regional fee has been established, the state fee will be used.

#### Using Bank Structures in Portal System

Portal System only maintains the structure-based information that it needs to satisfy business requirements relevant to Portal System. At the present time, these business requirements lie, generally, in these areas:

1. Portal System needs the ability to associate, at least indirectly, employees to organizational and geographic entities. (The word “indirectly” is used because employees will belong to cost centers and cost centers will be associated to organizational and geographic entities. This will be explained later.)
2. Portal System needs the ability to assign workstations to a specific LAN and we have decided for this version that a specific LAN is directly equivalent with a location in the lowest level of the geographical structure.

3. Portal System needs the ability to define a fee structure based directly on organizational or geographic entities, or indirectly to these entities through an association to cost centers (implemented in a future version).

## Main Features of Structures

As indicated above, the relationship between entities in a given geographical or organizational structure is hierarchical, meaning that an item in a lower level can only have one association with the next level up. For example, the state of North Carolina can only belong to the Southeast region and the state of New York can only belong to the Northeast region.

Portal System supports an unlimited number of hierarchical levels and an unlimited number of entities at each level.

Levels are created as “child” entities are added to parents. For example, adding a county (i.e., Cleveland) under North Carolina would create a new level and adding a city (i.e., Shelby) under Cleveland would create another level.

It is expected that levels in Portal System will be specified using “entity-types”. These are designations associated with each entity in a structure. As initially shipped to a bank, Portal System will have predefined hierarchical levels (entity-type designations) each for the geographic structure and for the organizational structure. To facilitate a starting point, each entity-type will have a predefined name and a predefined extended description.

Banks will maintain the two structures using the Maintain Organizational Structures function and the Maintain Geographical Structures function.

During installation and setup, the bank uses these functions to initially capture its own geographic and organizational structures. It modifies the predefined levels (entity-types) as needed – removing or adding levels, changing names, etc.

After the initial definition, banks will be allowed to add, modify or delete entities at existing levels, and to add and remove levels. Depending on the extent of the reorganization, some of the associations to structure entities might need to be revised.

The specific business rules and requirements for the Maintain Organizational Structures function and the Maintain Geographical Structures function are described later in this specification.

## Cost Centers

Employees will not directly belong to entities in the geographic and organizational structures, but to cost centers. Cost centers, through a Cost Center Maintenance function, will be associated directly to these entities. Each cost center must be associated to one geographic entity and to one organizational entity.

Through cost centers, employees are associated indirectly to entities in the geographic and organizational structures.

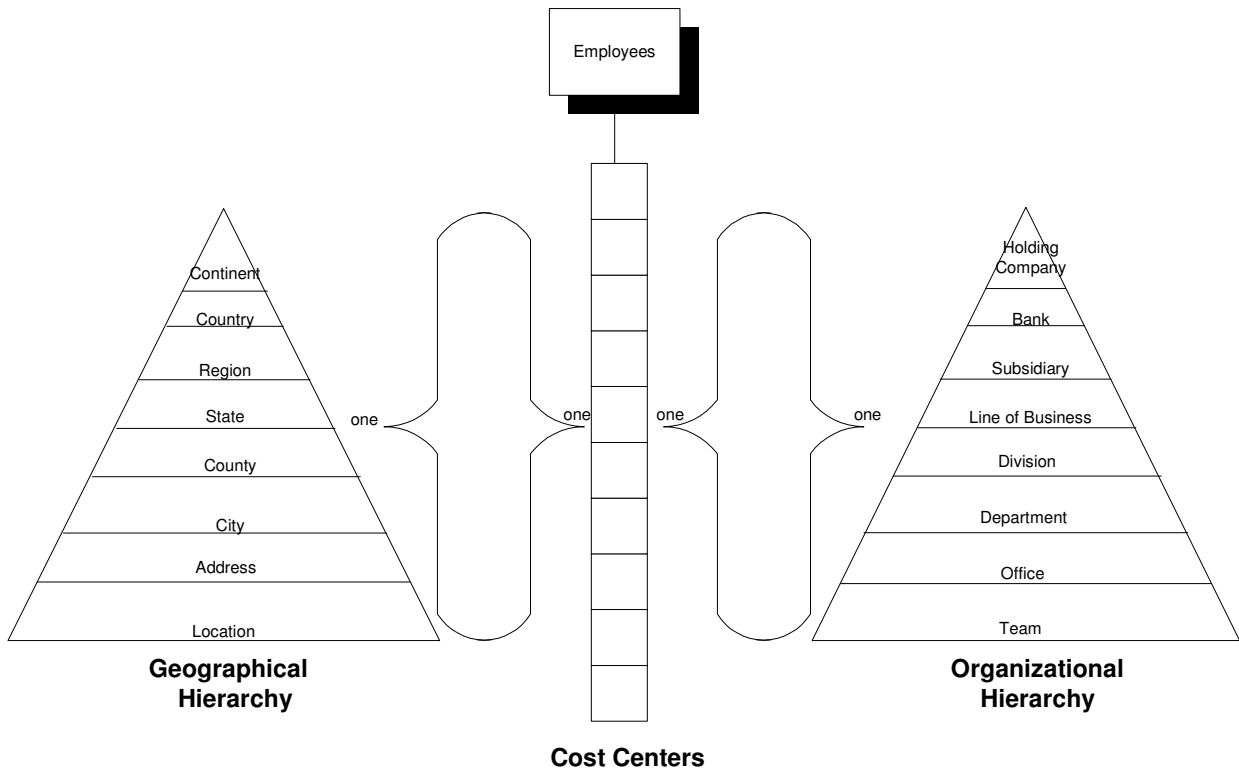
Using Cost centers serves several purposes, as noted below:

- It facilitates the reorganization of structures by allowing new levels to be added or existing levels to be deleted. By having employees “pointing” to entity-association members, instead of directly to structure entities, it lets the structures be modified independently.

- It allows geographical entities to be indirectly associated with organizational entities. This association falls outside the structure hierarchy and is only possible by the association between cost centers and structures.
- The entity-association table also simplifies employee definition. The administrator using the AMD User's function only needs to understand cost centers, not the bank's organizational and geographic structures.

### Illustration of Main Features

The following illustration depicts the above components and how they relate to one another.



The levels shown above and the names for each level illustrate the default entity-types predefined by ACME (which might change over time). Levels (entity-type designations) can be added or deleted and names changed using the Geographical Maintenance function and the Organizational Maintenance function. A given entity (organizational or geographical) can be associated with many cost centers. For example, a given branch can be associated with multiple cost centers. However, each cost center must be associated with one and only one organizational entity and one and only one geographical entity.

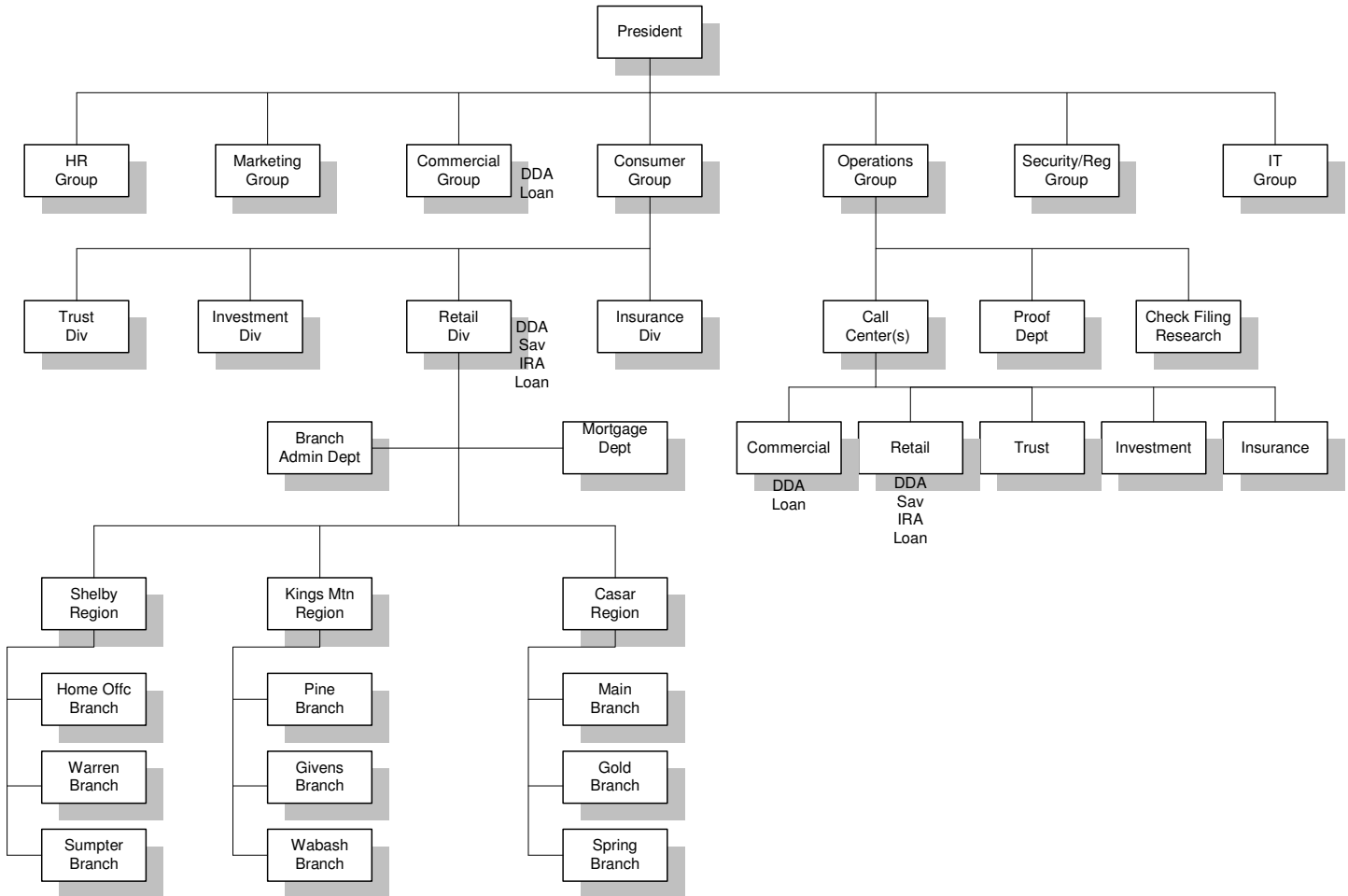
### Example - Bubba's Bank

The following two illustrations show how the Structures feature is applied to a typical (but fictional), community-sized bank, called "Bubba's Bank".

The illustration below depicts the bank's entire organization structure. Each of the boxes represents a major bank function. Generally, the relationship between the functions reflects reporting lines. In a small bank, like Bubba's, many of the functions would be managed and performed by a single individual. For example, in Bubba's bank, Bubba's secretary, Pearl, also runs the HR Group and Bubba himself is both the President and the Director of Marketing. Larger banks might have the same basic organization structure; but, in these larger banks, each of the functions shown below would be further divided into a number of sub-functions.

## Bubba's Bank

12/6/00



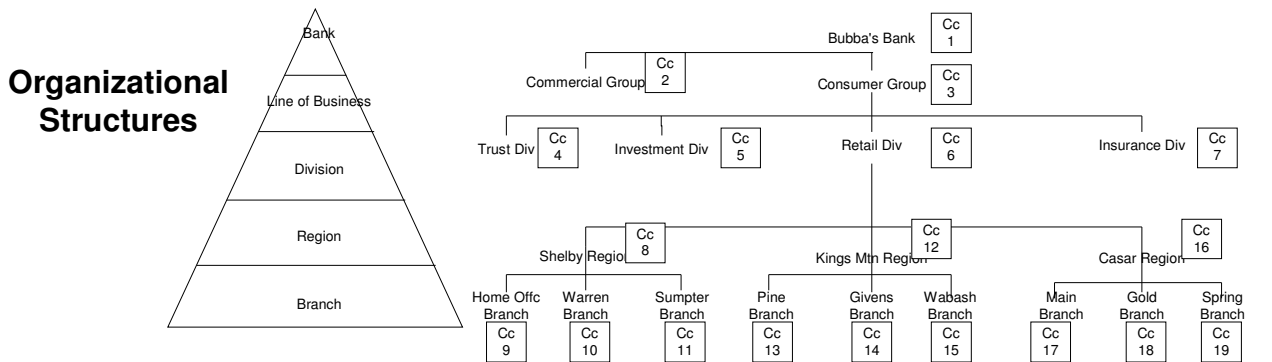
## Applying Structures to Bubba's Bank

The illustration below shows the parts of the Bubba's Bank organizational and geographical structures that are captured by the Structures functions.

At the top of the illustration is the organizational structure. Five levels in the Bubba's Bank organizational hierarchy are defined. Not all functions depicted on the overall organization chart are captured; only those that are relevant to Portal System are "modeled" by the Organizational Structures function.

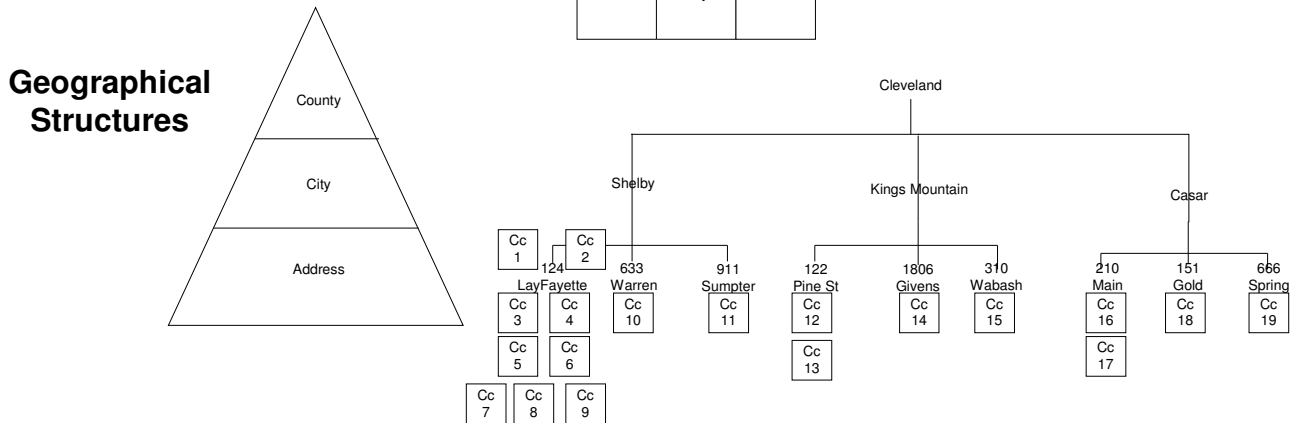
The cost centers used by Bubba's Bank are depicted in the center of the illustration. Users associated with these cost centers are shown. The asterisk beside each name indicates the manager of the functional area which uses this Cost Center. For example, Bubba is in charge of Cc 1, the "President's Office" cost center. The cost centers associated with various organizational and geographic entities is indicated by the small boxes in the upper and lower parts of the illustration.

Geographical structures are depicted on the lower part of the illustration. Bubba's Bank exists on three geographical levels. The lowest geographical level is street address. Notice that "124 LaFayette" street is the location for 9 cost centers (the bank headquarters are here, as well as the Shelby region headquarters and the Home Offc Branch 1).



### Cost Centers and Users

Cc 1 * Bubba Pearl	Cc 2 * Fred Ethel Jason Edgar	Cc 3 * Eunice Jacob	Cc 4 * Jasmine Roland Butch	Cc 5 * May Stephan	Cc 6 * Yolanda	Cc 7 * Lester Dilsey	Cc 8 * Fletcher Agness	Cc 9 * Byron Flem	Cc 10 * Robert Will	Cc 11 * Ross Doris	Cc 12 * Billy Blaze	Cc 13 * Thom Joyce	Cc 14 * John Ford	Cc 15 * Stephan Hugh	Cc 16 * Lorene Alma
							Cc 17 * George Peter	Cc 18 * Trillian Arty	Cc 19 * Holgar Eubie						



## Maintain Geographical Structures Function

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### ***Purpose***

#### Intended Users

This function will be implemented for use by bank analysts who...

- Understand the bank's geographic structure.
- Understand, from a user's point-of-view, how Business Center functions use the geographic structure. For example, the analyst should understand that the Business Center Message function uses the geographic structure to send messages to all the users who log on at locations that fall under a selected entity in the geographic structure.

#### Basic Purpose and Related Functions

The basic purpose of the Maintain Geographical Structures function is to let the bank define its geographic structure. The geographic structure that it defines will contain the entity-types, entities and relationships that are needed to support Portal System functions that refer to the geographic structure. Examples of these functions include:

- **Send Messages** When a sender elects to send messages to locations, the Message function presents the user a list of all geographic entities. The sender selects one or more entities. The system "works down" through the geographic structure tree to find the lowest-level geographic entities. The message is then sent to all users who log on to workstations associated (see below) with these lowest-level locations.
- **Select Workstation Settings – Local** The Business Location Name in a Workstation ID is based on entities at the lowest-level in the geographic structure. When selecting the Business Location Name in this function, the user chooses from a list of all these lowest-level geographic entities (entities that have no "children").
- **Modify-Delete Workstation Settings – Remote** – Same as above
- **Maintain Cost Centers** Each cost center must be associated with a geographic entity and with an organizational entity. The Maintain Cost Center function will present the user a list of all geographic entities.
- **CRM Reports** Certain CRM reports present information based on the position in the geographic or organization structure of the user who is executing the CRM report function. In other words, if a user is at a certain level in a structure, the user would see only information derived from his level lower levels in the structure. For example, a report might show customers that have been associated with bankers (employees). The report would only show those customers who are associated with bankers at or below the level of the current user. The report function would get this information by determining the cost centers to which the users belong and then deriving the level of each user from the cost center.

Over time, other functions that refer to the geographic structure will be created.

## General Description

### Entities

Entities are the building blocks of structures. Each entity has these attributes:

- **Name - Required** This designation is how the entity is referred to by other Portal System components.
- **Parent – Required** This attribute determines the structure hierarchy. Except for the entity at the root, or top of the structure, each entity must have a parent. A parent can have any number of children. Children, grandchildren, great grandchildren, etc. establish “levels” in the structure. Entities in the same level are “siblings” or “cousins”. Siblings have the same parents; cousins have different parents. The geographical structure can have an unlimited number of levels and each level (except for the root level) can have an unlimited number of siblings and cousins.
- **Entity-Type – Required** The entity-type name of each entity is selected from a predefined list of names. Entity-types are described more completely below.
- **Extended Definition – Optional** This is approximately four lines of optional text describing each entity.

### Entity-Types

Entity-types are used to group similar entities. In simple structures, entity-types and levels are synonymous.

**However, repeating what was noted above, parent-child relationships create levels. The entity-type that is assigned to an entity is purely a matter of user convention. The association does not have to make sense. The only requirement is that each entity has an entity-type designation.**

The default entity-types provided by ACME (listed below) are synonymous with levels. Each entity-type will have a predefined name and a predefined extended description.

During installation and setup, the bank uses the Maintain Geographical Structures function to define its own entity-types. It modifies the predefined entity-types as needed – removing or adding entity-types, changing names, etc.

The predefined geographic entity-types provided by Portal System are listed below:

Name	Nominal position in hierarchy
Continent	Highest level
Country	
Region	
State	
County	
City	
Address	
Location	Lowest level

### Structure Maintenance Wizard

Entities and entity-types can be modified, added and deleted. However, no structure will be saved that (1) would cause a violation of any of the rules described in this document or (2) would cause a referential integrity violation in the database (because another component is referring to the

entity). The Structure Maintenance Wizard will be launched whenever the user does something that will result in one of these errors. The Wizard will also be launched if the user makes a change that needs to be confirmed before proceeding.

The Structure Maintenance Wizard has various features, not all of which need to be implemented in Version 2.0 of Portal System. Following are the main features:

1. When encountering operations that would result in an error or changes that need confirmation it will (1) describe the results of the operation, (2) and will allow the user to cancel the operation. **NOTE:** This is the only feature required for current version of Portal System. The other features of the Structure Maintenance Wizard would not be required until later versions.
2. It will, based on algorithms to be specified, propose a solution to errors.
3. This feature will let the user alter the solutions that it proposes.

Following is a list of errors or warnings that will be presented to the administrator by the Structure Maintenance Wizard:

#### When attempting to delete entities that are being referenced

1. If an entity is a parent of another entity, the following message appears...  
“You have requested to delete a parent entity. Before you can do that you must either delete the children of this entity or you must reassign them to a new parent.”
2. If a “leaf” entity (one that has no children) is referenced in a workstation definition, the following message appears...  
“You have requested to delete an entity that is referenced by a workstation. Before you can do that you must either delete the workstation or you must reassign it to a another entity.”
3. If a “leaf” entity (one that has no children) is referenced by a cost center, the following message appears...  
“You have requested to delete an entity that is referenced by a cost center. Before you can do that you must either delete the cost center or you must reassign the cost center to a another entity.”

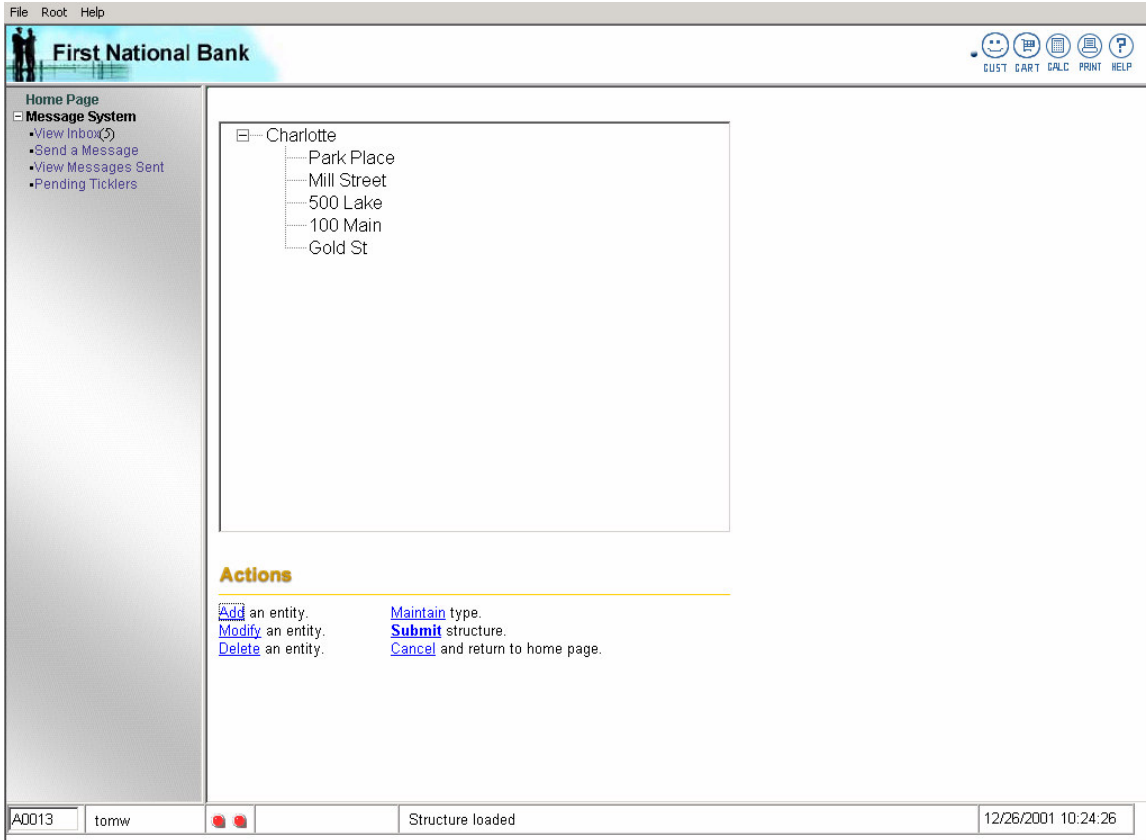
#### When attempting to delete a type that is being referenced

4. If an entity type is referenced by an entity, the following message appears...  
“You have requested to delete an type that is referenced by an entity. Before you can do that you must either delete the entity or you must reassign the entity to a another type”

## Description of Pages and Dialogs

This section describes the pages and dialogs used by the Maintain Geographical Structures Function.

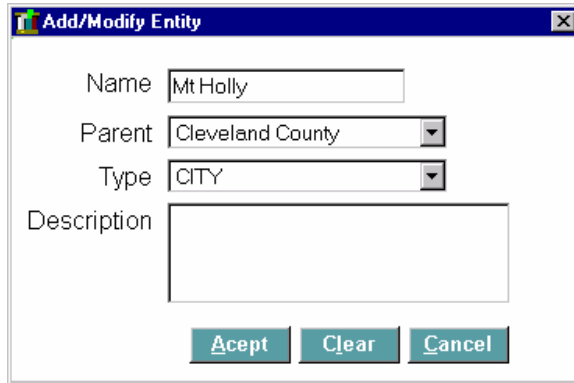
### Maintain Geographical Structures



### Maintain Geographical Structures (A0013)

This page shows a geographic structure and presents the actions that are available to maintain the structure. The display presents entities as a “tree view”. The single entity on the far left is the root-level entity. Entities in the next column are the level 1 entities; the ones the next column are the level 2 entities, etc. Parent-child sibling-sibling and cousin-cousin relationships are inherent in the presentation.

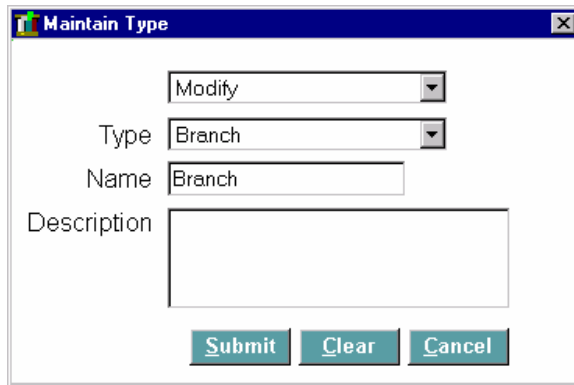
### Add/Modify Entity



### Add/Modify Entity

This dialog appears when a new entity is being added or when an existing entity is being modified. Changes appear on the Maintain Structures Page when the user selects Accept on this dialog.

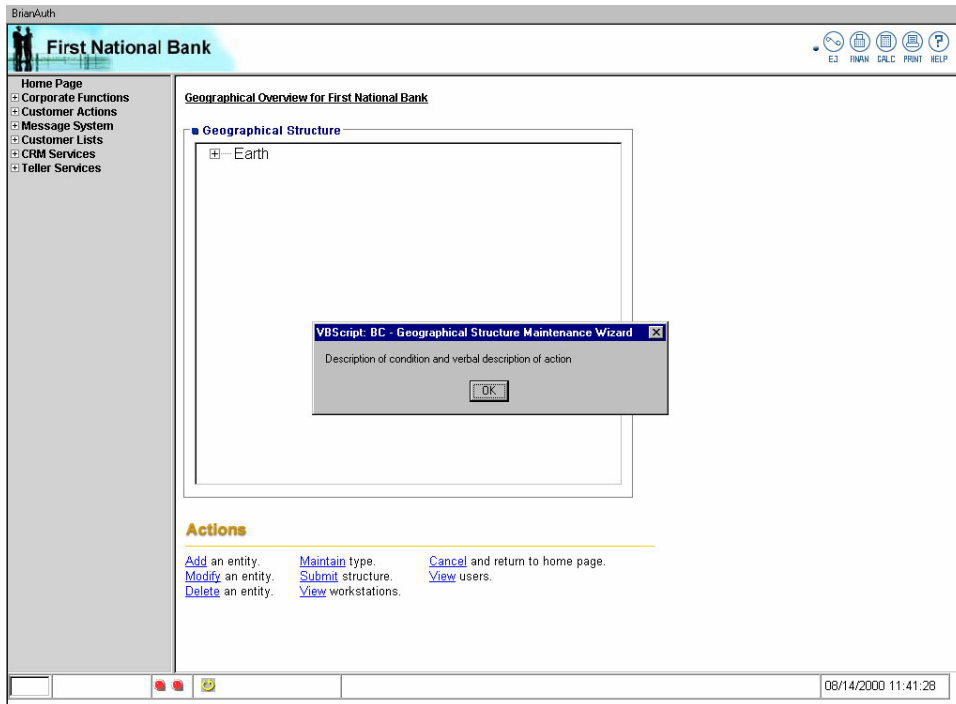
### Maintain Type



### Maintain Type

This dialog appears after the user selects the Maintain Type action on the Maintain Structures Page. The dialog is used to add, modify and delete types. The system is pre-seeded with the default Entity-Types described in the preceding.

## Maintain Structures Wizard Dialog



### Maintain Structures Wizard Dialog

This modal dialog appears if the user encounters one of the conditions described in the previous section on this topic. For the current version, the wizard only presents a text description of the condition and the appropriate actions.

## Field/Control Definitions

### Maintain Geographical Structures

Field/Control Name	Min	Max	Type	Description
Structure	N/A	N/A	Tree view control	This is visual depiction of the structure. It is dynamically rebuilt whenever changes are made. The names of entities can be changed directly in the tree view (although rules and referential integrity constraints are checked and the wizard launched if necessary).

### Add/Modify Entities

Field/Control Name	Min	Max	Type	Description
Name	1	30	Alphanumeric	This is a unique value within the structure. When adding a new entity, the name is entered in this field. When modifying an existing entity, the name can be changed. <b>NOTE:</b> Each entity has a hidden code value which never changes. Internally, objects such as cost centers and workstations are associated with the hidden code and not the entity name. This means that the entity name can be changed. It also means that when the name is changed the refereACMEng object, though still associated with the hidden, internal code, will publicly refer to the entity by the new name.
Parent	1	30	Dropdown	This dropdown list all the entities contained in the structure.  When adding a new entity, the dropdown displays the name of the entity from which Add was selected. When modifying an existing entity, this dropdown displays the current parent of the entity now being modified.  The parent can be changed to any entity in the dropdown. After the Submit Action. The entity now being modified or added along with all of its children, grandchildren, etc. will be moved under the new parent.
Type	1	30	Dropdown	This dropdown lists all the types that have been defined. As noted earlier in this specification, it is expected that types will be synonymous with level; however that will be the administrator's prerogative. Any type can be associated with any entity.
Description	0	400	Alphanumeric	Optional – This is an extended description of the entity.

## Maintain Type

Field/Control Name	Min	Max	Type	Description
New/Modify/Delete	N/A	N/A	Dropdown	This is used to select the operating mode of the dialog. The mode selection determines the content and behavior of the Name field described below.
Type	N/A	N/A	Dropdown	In New mode this dropdown is disabled. If in Modify or Delete mode, the dropdown lists the names of all the existing types. Once the name is selected, the name and the description (if any) appear on these fields
Name	1	30	Alphanumeric	The entity-type name is unique within a structure.  If in New mode, a new value is entered in this field. In this case the name must be unique.  If in Modify mode, the name selected in the above dropdown appears. The name can be changed in Modify mode. If changed, the new name will be checked for uniqueness then reapplied to all entities that use it. In Delete mode, these are display-only fields.
Description	0	400	Alphanumeric	Optional – This is an extended description of the entity type.

## Business Rules

Following is a summary of the main rules associated with the Maintain Geographical Structures function (additional rules and details are contained in the body of this specification):

1. Entity-types must be defined so that entities can be associated with entity-types.
2. A minimum of one entity-type is required. This is necessary because each entity must be associated with a entity-type (and each workstation and each cost center must be associated with an entity).
3. The root level can only have one entity.
4. Entity-types must have a name. Entity-type names can be up to 30 alphanumeric characters. The name has to be unique.
5. Each entity-type can, optionally, have an extended definition, which can be up to 400 alphanumeric characters.
6. At least one entity must be defined and that entity must be associated with a entity-type. This is necessary so that workstations and cost centers will have something to be associated with.
7. Each entity must have a name, which can be up to 30 alphanumeric characters. The entity name must be unique within a structure. This is necessary so that business functions that refer to the structure can “point to” a unique entity. This will facilitate reorganizations by allowing associations with entities to be preserved, regardless of where the entity is located in the structure hierarchy.
8. Each entity can have an (optional) extended definition, which can be up to 400 alphanumeric characters.
9. Each entity, other than the entity at the root level must have a parent.
10. This convention shall apply to the bottom entities in the geographic hierarchy (i.e., to the entities without children – in other words, to the leaves in the geographic tree). These entities cannot span multiple LANs. For example, in a simple structure where entities have a entity-type attribute of “street address”, the assumption is that there will only be one LAN for each street address. Each workstation at a given street address must be part of a single LAN. A

single LAN cannot encompass more than one street address. It is not expected that this convention will be programmatically enforced (which is why the word “convention” is used).

11. Entity-types and entities can be added and deleted. However, the system will not complete any user action that results in...
  - A violation of the rules established in this document. For example, it will not allow a structure to be saved that has orphaned entities.
  - A violation of any referential integrity constraints that have been established in the database. For example, it is a requirement that each cost center be linked to a geographical entity. This required link establishes a referential integrity constraint in the database. Consequently, it will not be possible to delete a geographic entity which is linked to a cost center until the cost center is linked to another geographic entity.
12. If, when performing maintenance on an attribute or entity-type, a user attempts to perform an action that results in the above violations, the *Structure Maintenance Wizard* described in the preceding will be launched.

## **Actions**

### Maintain Structures

- **Add an entity** – Displays the Add/Modify Entity dialog. A new child entity will be added to the entity that was selected when this action was performed.
- **Modify an entity** – Displays the Add/Modify Entity dialog. The current entity can now be modified.
- **Delete an entity** – Deletes the entity if allowed by the rules and confirmed by the user. If the rules are violated, the Maintenance Wizard is presented. Even if the deletion is allowed, a confirmation message will appear.
- **Maintain Type** – Displays the Maintain Types dialog
- **Submit Structure** – Saves the currently defined structure. If the rules are violated, the Maintenance Wizard is presented.
- **Cancel and return to home page** – The present structure is not saved (unless it has already been saved) and the home page is presented.

### Add/Modify Entity

- **Accept**– Processes the selected action (Add or Modify) for current entity and returns to the Maintain Structures Page, which is refreshed to reflect the definition. If the rules are violated, the Maintenance Wizard is presented.
- **Clear** – If this is a new entity, clears the Name and Description fields; otherwise, just clears the Description field.
- **Cancel** – Does not save the current definition and returns to the Maintain Structures Page.

### Maintain Type

- **Submit** – Processes the current mode (New, Modify or Delete) and returns to the Maintain Structures Page. If the rules are violated, the Maintenance Wizard is presented. If the mode is Delete, a confirmation message is presented - even if the deletion would violate no rules.
- **Clear** – If the mode is “new”, clears the Name and Description fields; otherwise, just clears the Description field.
- **Cancel** – Does not save the current definition and returns to the Maintain Structures Page.

### Maintain Structures Wizard Dialog

- The action depends on the condition which caused the wizard to be launched.

### ***Issues***

Add these actions to Maintain Structures:

- **View Users** – Presents a list of users currently associated (via costs centers) to this entity.
- **View Workstations** –Presents a list of work stations that have been associated with the “leaf” entities.
- **Maintain Type** – The Submit action should be changed to Accept.

## Maintain Organizational Structures Function

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### ***Purpose***

#### Intended Users

This function will be implemented for use by bank analysts who...

- Understand the bank's organizational structure.
- Understand, from a user's point-of-view, how Business Center functions use the organizational structure. For example, the analyst should understand that Maintain Cost Center function refers to organizational entities defined in the present function.

#### Basic Purpose and Related Functions

The basic purpose of the Maintain Organizational Structures function is to let the bank define its organizational structure. The organizational structure that it defines will contain the levels, entities and relationships that are needed to support Portal System functions that refer to the organizational structure. Examples of a function that refer to the organizational structure include:

- **Maintain Cost Centers** Each cost center must be associated with a geographic entity and with a organizational entity. The Maintain Cost Center function will present the user a list of all organizational entities (perhaps grouped under level names).
- **CRM Reports** Certain CRM reports present information based on the position in the geographic or organization structure of the user who is executing the CRM report function. In other words, if a user is at a certain level in a structure, the user would see only information derived from his level lower levels in the structure. For example, a report might show customers that have been associated with bankers (employees). The report would only show those customers who are associated with bankers at or below the level of the current user. The report function would get this information by determining the cost centers to which the users belong and then deriving the level of each user from the cost center.

### ***Description***

The predefined organizational structure levels provided by Portal System are listed below:

<b>Name</b>	<b>Nominal position in hierarchy</b>
Holding Company	Highest level
Bank	
Subsidiary	
Line of Business	
Division	
Area	
Department	
Office	
Team	
Branch	Lowest level

**Other aspects of the specification for this function are the same as for the Maintain Geographical Structures function.**

## Maintain Cost Centers Function

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### ***Purpose***

#### Intended Users

This function will be implemented for use by bank analysts who...

- Understand the bank's organizational and geographic structures.
- Understand that within Portal System, cost centers are associated with these structures.
- Understand that within Portal System, employee-users are associated with cost centers.
- Understand, from the bank's point-of-view, how Business Center functions use cost centers. For example, the analyst should understand that CRM reports use cost centers to derive, indirectly, a banker's position in the organizational and geographic structures.

#### Basic Purpose

The basic purpose of the Maintain Cost Centers function is to let the bank create cost centers and then associate cost centers to entities in the organizational and geographic structures. The bank can delete cost centers that are not being used or change a cost center's entity associations.

Bank employees are associated with the cost centers defined in this function. Other Portal System functions can then refer to the cost centers.

## Description of Pages and Dialogs

### Maintain Cost Centers

The screenshot shows a web browser window with the title 'First National Bank'. The browser's address bar shows 'A0015' and the user 'tomw'. The page content is titled 'AMD Cost Centers'. On the left is a sidebar with a 'Home Page' link and a 'Message System' section containing links for 'View Inbox(3)', 'Send a Message', 'View Messages Sent', and 'Pending Ticklers'. The main area contains a form for adding or editing a cost center. The form has a 'Find' button and a 'New' dropdown menu. The form fields are: Name, Code, Geographical Link (with sub-fields for Type and Entity), Organizational Link (with sub-fields for Type and Entity), Manager, and Description. There is an 'Audit' checkbox. Below the form is an 'Actions' section with several links: 'View users', 'View workstations', 'Display unmanaged cost centers.', 'Delete cost center.', 'Clear editable fields.', 'Apply/Clear', 'Submit changes to cost center.', and 'Cancel and return to home page.' The status bar at the bottom of the browser shows 'A0015', 'tomw', and the date/time '12/26/2001 10:33:16'.

### Maintain Cost Centers (A0015)

This page is used to add, modify and delete cost centers. The name, code, geographical and organizational links, the manager and, optionally, a cost center description are specified. In some cases, the bank's cost centers might be obtained at installation by extracting data from existing records. However, even in those cases, geographical and organizational links, as well as the cost center manager will probably still need to be defined using this function.

Each Cost Center must eventually have a manager. This is required by functions in various business channels. Because user-employees might not have been defined before cost centers are initially defined, this requirement is not enforced on this page. However, the administrator is warned if a cost center is defined without a manager. Also, an action is provided that lets the administrator display all the cost centers that don't currently have managers.

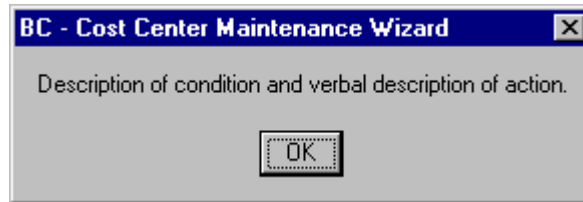
## Find Cost Centers

Name	Code	Description
Casar Regional Branch	16	
Commercial Office	2	
Consumer Office	3	
Givens Branch	14	
Gold Branch	18	
Home Office Branch	9	
Insurance Office	7	
Investment Office	5	
Kings Mtn Regional Office	12	
Main Branch	17	
Pine Branch	13	
Pres Office	1	

### Find Cost Centers

This modal, which appears when the user selects “Find” is used to search for existing cost centers. Data for the selected cost center is returned to the fields on the Maintain Cost Centers page. Any Name and Code values entered on the fields of the calling page will appear here

## Maintain Cost Centers Wizard



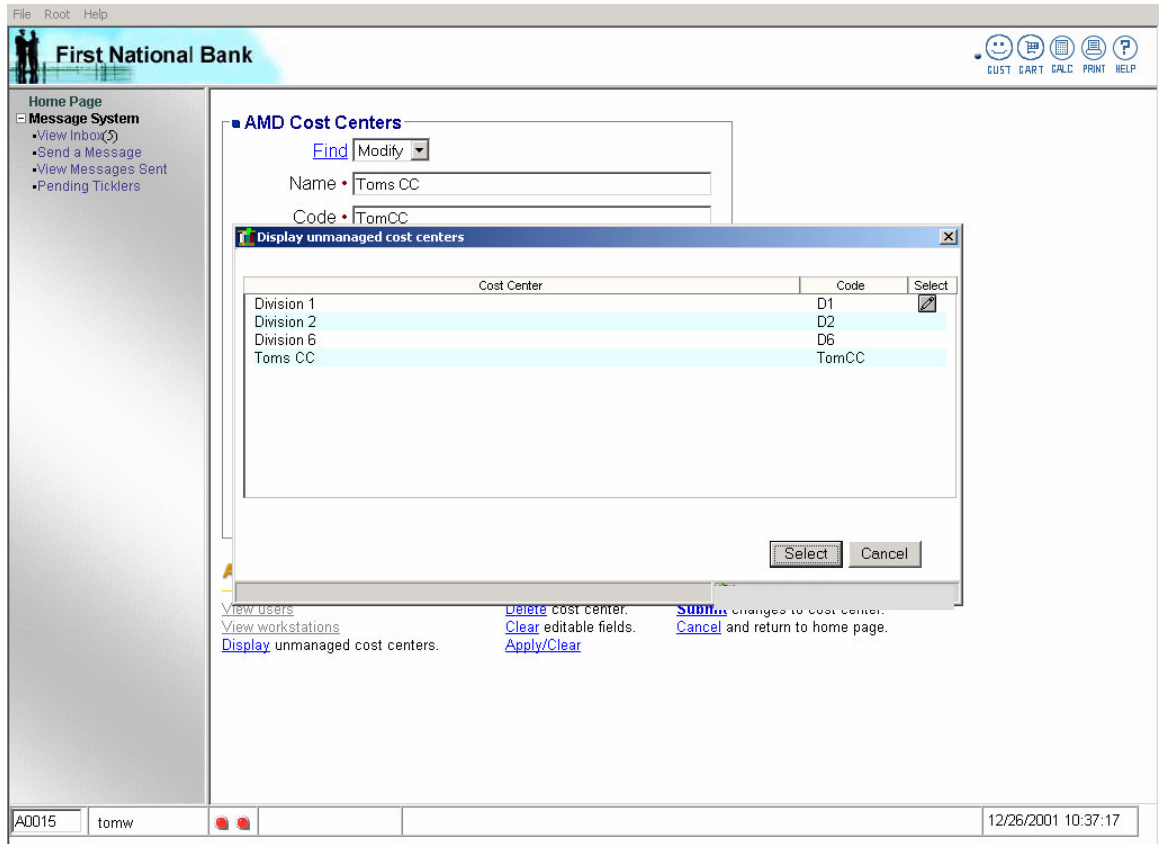
### Maintain Cost Centers Wizard

This wizard appears if the administrator violates one of the rules described in the following or encounters a referential integrity error. In the current version, the wizard only presents a text description of the condition and the appropriate action.

The Wizard will appear is if someone attempts to delete a cost center that is being referenced by an employee-user or by a customer. In that case, the following message will appear:

“You have attempted to delete a Cost Center that is being referenced by one or more employees and/or customers. Before you can delete the Cost Center, you must reassign the employee(s) and/or customer(s) to another Cost Center(s).”

## Display Unmanaged Cost Centers



### Display Unmanaged Cost Centers

This modal, which appears when the user selects “Display unmanaged cost centers”, is used to list unmanaged cost centers and, optionally, to select one of those costs centers to be maintained.

## Field/Control Definitions

### Maintain Cost Centers

Field/Control Name	Min	Max	Type	Description
New/Modify	N/A	N/A	Dropdown	This dropdown lets the administrator select between new and modify modes of operation. It operates in the manner described in Section 5, "Common Business Rules".
Name	1	30	Alphanumeric	This is the unique name of the cost center. If the Name is changed, any items that refer to the cost center will show the changed name. If the name of the Cost Center is "Default" then special rules will apply – as described under Business Rules.
Code	1	10	Alphanumeric	This is a code associated with the cost center. If the Code is changed, any items that refer to the cost center will show the changed code. This code must be unique.
Geographical Link – Type	N/A	N/A	Dropdown	This dropdown presents a list of all the geographical entity types that have been defined in the Maintain Geographical Structures Function.
Geographical Link – Entity	N/A	N/A	Dropdown	This dropdown presents a list of the entities of the type selected above.
Organizational Link – Type	N/A	N/A	Dropdown	This dropdown presents a list of all the organizational entity types that have been defined in the Maintain Organizational Structures Function.
Organizational Link – Entity	N/A	N/A	Dropdown	This dropdown presents a list of the entities of the type selected above.
Manager	1	60	Display Only	This presents the First and Last Name of the employee, registered in Portal System, who manages or is otherwise responsible for this cost center. The value comes from Find Users dialog
Audit Flag	N/A	N/A	Check Box	Checking this flag indicates that audit events raised by functions used by users who belong to this cost center will be recorded in the audit log. (See Section 16, "Audit Log/Action Subsystem"). If the flag is not checked, an audit log will not be created unless: (1) the audit flag is checked for the user directly or (2) the "always audit" flag is checked for the event being raised.
Description	1	400	Alphanumeric	Optional – This is an extended description of the cost center.

## Find Cost Centers

Field/Control Name	Min	Max	Type	Description
Name	1	30	Alphanumeric	Enter the name that will be the basis for the find operation. Enter an asterisk (*) to display all cost centers. Also use an asterisk to search on a partial name. For example, entering "Cost Center ABC*" will return all cost centers whose name starts with "Cost Center ABC*" – such as "Cost Center ABCDEFGH".
Code	1	10	Alphanumeric	Enter an asterisk, the full code, or a partial code and an asterisk.
(find results display)	N/A	N/A	List-view	This List-view returns the result of the find operation. Clicking on a column heading resorts the display.

## Display Unmanaged Cost Centers

Field/Control Name	Min	Max	Type	Description
(cost center display)	N/A	N/A	List-view control	This List-view displays the unmanaged cost centers.

**Business Rules**

Following is a summary of the main rules associated with the Maintain Cost Center function (additional rules and details are contained in the body of this specification):

1. Each cost center must have a unique name. The name can be up to 30 alphanumeric characters.
2. Each cost center must eventually have a manager (selected from the list of valid Portal System employee-users).
3. Each cost center can have, optionally, an extended definition. That definition can be up to 400 characters.
4. Each cost center must be associated with one geographic entity and one organizational entity.
5. Multiple cost centers can be associated to the same geographic entity and the same organizational entity.
6. Administrators will not be allowed to delete an entity that is being referenced by another Portal System component (such as an employee). If this happens, the Cost-Center Maintenance Wizard will be launched.
7. These rules apply to the "**Default**" cost center.
  - If Default appears in the Name field, all other fields, except for Manager, will be grayed out. The only maintenance will be to assign or change the manager of the Default cost center.
  - The Default cost center cannot be deleted.
  - When the periodic update processes run, they will attempt to use an existing cost center. If the needed cost center is not in the Portal System cost center table, the Default cost center will be used. If, at that time, the Default cost center does not have a manager, the periodic update process will generate a message to that effect.

## **Actions**

### Maintain Cost Centers

- **Find (cost centers)** –Displays a modal dialog which allows the user to select a cost center from a list of existing cost centers.
- **Find (managers)** –Displays the Find Users page (described in Section 8 – User Management) which allows the user to select a manager from a list of Portal System users. In this case, Find Users only searches among employee users. Also, the Soc Sec# field and column are not displayed. See comment about managers under Submit.
- **View users** – Not implemented in current version.
- **View workstations** – Not implemented in current version.
- **Display unmanaged cost centers**– Displays on a modal page the cost centers which do not have managers assigned.
- **Delete cost center** – Deletes the specified costs center. A dialog box asks the user to confirmation the deletion. If the deletion would result in a referential integrity error, the Maintain Cost Centers Wizard will appear with the error noted in the preceding.
- **Clear editable fields** – If the mode is “new”, clears all the fields; otherwise, restores all the fields to their last saved values.
- **Apply/Clear** - Processes the current mode (add or modify), clears the fields and returns focus to the first field on the page, allowing another cost center to be processed. If the rules are violated, the Maintain Cost Centers Wizard will appear. If Submit is selected and a manager has not been assigned, the following warning message will appear: “This Cost Center does not have a manager assigned. This can cause errors to occur in various business functions. Be sure that all Cost Centers have managers before using business functions.”
- **Submit (executed by Enter)** – Processes the current mode (add or modify) and returns to the Home Page - otherwise, the action is the same as Apply/Clear.
- **Cancel and return to home page** – Does not save the current definition and returns to the Home Page.

### Find Cost Centers

- **Find** –Executes the find operation, based on the search criteria. At least one field must have an entry.
- **Stop** – Stops the find operation. This is useful if the administrator has requested a search that is taking an inordinate amount of time. The administrator can stop the search and enter search criteria that will result in a more selective search.
- **Clear** – Clears the value in the name and code fields.
- **Select** – Returns information for the highlighted cost center to the Maintain Cost Centers page (closing this modal and redisplaying that page).
- **Cancel** – Closes this modal and redisplay the Maintain Cost Centers page without selecting a cost center.

### Display Unmanaged Cost Centers

- **Select**– Returns to the Maintain Cost Centers page on which information for the selected cost center now appears.
- **Cancel** – Closes this modal dialog and redisplay the Maintain Cost Centers page without selecting a cost center.

## **Issues**

1. In a later release, the Type and Entity dropdowns used to present the user with a choice of entities might become unwieldy and need to be replaced with something more graphical and intuitive.