CA Gen

Client Server Encyclopedia Subsetting User Guide

Release 8.5

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- CA Gen

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Chapter 1: Introduction

This chapter provides an overview of subsetting, basic concepts and definitions that are necessary for you to use CA Gen CSE Subsetting product.

Subsetting is a way of subdividing a model based on the tasks you need to perform on the model and the tasks others need to perform on the model. Subsetting provides a means of retrieving only those parts of a model needed to accomplish a task.

A checked out subset is a workset created from a model. Users can perform tasks using a subset without interfering with other users' work on that model. Checking out a subset rather than the whole model minimizes the amount of data downloaded to perform workstation tasks. Subsetting allows users to work simultaneously on a model and share objects with full protection against update conflicts.

When you create a subset, you become the owner of that subset. You can modify the subset at any time. You can also rename it, copy it, or delete it. You can grant or restrict other users from modifying, deleting, or renaming any subset you own. However, anyone with access to the model can copy your subset.

This section contains the following topics:

Subset Definition

Defining a subset is the process of selecting scoping objects from a model to include in a subset. To define a subset, select the scoping objects related to the task you want to accomplish.

After a scoping object is selected, you must specify its protection and expansion or accept the defaults. For more information, see Expansion and Protection.

Each scoping object defines a set of target objects to be included when the subset is expanded. These objects may include scoping objects and other non-scoping objects. The set of objects in the expansion depends on the object itself, its protection and expansion specifications, and the maturity of the model.

Scoping Object

A scoping object is the occurrence of an object on which the subset will be based. Certain object types can be used as scoping objects.

Scoping Object Types

The following table lists the scoping object types in the order they appear in the Object Type List in the Encyclopedia Client.

Scoping Object Type	Description
ACTION BLOCK	Action block (Common, Procedure Step, Process)
ACTIVITY CLUSTER	Activity cluster
BATCH JOB	Batch job
BATCH JOB STEP	Batch job step
BUSINESS AREA	Business area
BUSINESS SYSTEM	Business system
COMMAND	Command
COMPONENT IMPLEMENTATION	Component implementation
COMPONENT MODEL	Component model
COMPONENT SPECIFICATION	Component specification
CONFIGURATION INSTANCE	Configuration Instance
CRIT SUCCESS FACTOR	Critical success factor
CURRENT DATA STORE	Current data store
CURRENT INFO SYSTEM	Current information system
CUSTOM PROXIES	Custom Proxies
DATA CLUSTER	Data cluster (natural data store)
DATA TABLE	Data record
DATABASE	Database
DIALECT	Dialect
ENTITY TYPE	Entity type
ENVIRONMENT	Hardware/software environment

Scoping Object Type	Description
EVENT	Event
EXIT STATE	Exit state
EXTERNAL OBJECT	External object
FACILITY	Computing/communication facility
FUNCTION	Function definition
GOAL	Business goal
INFORMATION NEED	Information need
INTERFACE TYPE	Interface type
INTERFACE TYPE MODEL	Interface type model
LINK TABLE	Link record
LOCATION	Location of business assets
NAVIGATION DIAGRAM	Navigation diagram
OBJECTIVE	Business objective
ONLINE LOAD MODULE	Online load module
OPERATIONS LIBRARY	Operations library
ORGANIZATIONAL UNIT	Organizational unit
PERFORMANCE MEASURE	Performance measure
PROCEDURE	Procedure
PROCEDURE STEP	Procedure step
PROCESS	Process definition
SCREEN	Screen
SCROLL AMOUNT VALUE	Scroll amount value
SERVER MANAGER	Server manager
SPECIFICATION TYPE	Specification type model
STORAGE GROUP	Storage group
STRATEGY	Strategy
SUBJECT AREA	Subject area
SYSTEM DEF MATRIX	System defined matrix
SYSTEM DEF OBJ CLASS	System defined object class
SYSTEM WORK ATTR SET	System work attribute set

Scoping Object Type	Description
TACTIC	Tactic
TECH DESIGN DEFAULT	Technical design default
TEMPLATE	Screen template
TRANS OPERATION	Transaction operation
TYPEMAP	Type map
USER DEF MATRIX	User defined matrix
USER DEF OBJ CLASS	User defined object class
USER DEFINED OBJECT	User defined object
WEB SERVICE DEFINITION	Web service definition
WINDOW LOAD MODULE	Window load module
WORK ATTRIBUTE SET	Work attribute set
z/OS LIBRARY	z/OS library

Default Set of Objects

The following table lists the objects that are included in all subsets, along with the objects you explicitly scope.

Note: Parent and short expansions are non-selectable internal expansions.

Object	Expansion	Protection
pcroot object for the model		Access
root Subject Area	Parent	Access
System Supplied Function Definitions	Default	Access
global Exit States	Default	Access
Async Request	Default	Access
IEF_SUPPLIED Work Attribute Set	Default	Access
$IEF System Work Attribute Set	Default	Access
Dialects	Default	Access
Scroll Amount Values	Default	Access

Object	Expansion	Protection
root Organizational Unit	Default	Access
root Function	Short	Access
Technical Design		Access
default Database	Short	Access
default Storage Groups	Default	Access

Subset Type

Subset type is an option whose value you specify when you define your subset. The subset type option refers to the development phase you are in when you create this subset. In some cases, it has no effect on the subset expansion and the default option of design is adequate. There are three subset types:

Design

Accept the default subset type, design, for all tasks performed outside of construction. For more information, see Expansion Options (see page 14).

Unit Test

Select unit test when generating code for local testing. Do not select unit test when producing code to be installed with code from other subsets of the same model. In most development life cycles, you would perform unit testing prior to performing any system testing or full integration testing.

System Test

Select system test to use executables produced with executables from other system test subsets of the model or with the entire model. Selecting system test will produce a larger subset than selecting unit test. Use system test following successful unit testing.

System test subsets are supersets of the same scoping objects in a unit subset. Referential integrity triggers generated from a system test subset are also valid for use with other code produced from system test subsets of that model or the entire model. Do not use unit for generating referential integrity triggers.

Expansion

Expansion is the extent to which additional objects are included when a subset is checked out. Expansion occurs when downloading a subset. The default expansion of every subset provides the IEF_SUPPLIED Work Attribute Set. The default expansion also provides what you need to add other work sets (the root subject area with Access protection).

You may accept the default expansion for all scoping object types or you may specify another expansion option. If you specify Design, you get the expansions defined in this chapter. Both the unit and system test options change the expansion of the subset for some scoping objects. See Expansion Tables for details.

Expansion Options

Valid expansion options are:

- Short
- Default
- Full

Not all expansions are applicable for every scoping object type. For example, a business system has three expansion levels; a command has only default expansion. Default expansion contains more objects than short expansion and fewer objects than full expansion.

The following table lists the selectable expansion options for the scoping object types:

Scoping Object Type	Short Expansion	Default Expansion	Full Expansion
ACTION BLOCK		Yes	Yes
ACTIVITY CLUSTER		Yes	
BATCH JOB	Yes	Yes	Yes
BATCH JOB STEP	Yes	Yes	Yes
BUSINESS AREA		Yes	
BUSINESS SYSTEM	Yes	Yes	Yes
COMMAND		Yes	
COMPONENT IMPLEMENTATION	Yes	Yes	Yes
COMPONENT MODEL		Yes	Yes
COMPONENT SPECIFICATION	Yes	Yes	Yes
CONFIGURATION INSTANCE		Yes	Yes
CRIT SUCCESS FACTOR		Yes	
CURRENT DATA STORE		Yes	

Scoping Object Type	Short Expansion	Default Expansion	Full Expansion
CURRENT INFO SYSTEM		Yes	
CUSTOM PROXIES	Yes	Yes	Yes
DATA CLUSTER		Yes	
DATA TABLE		Yes	
DATABASE		Yes	
DIALECT		Yes	
ENTITY TYPE	Yes	Yes	Yes
ENVIRONMENT		Yes	
EVENT		Yes	
EXIT STATE		Yes	
EXTERNAL OBJECT		Yes	
FUNCTION		Yes	Yes
GOAL		Yes	
INFORMATION NEED		Yes	
INTERFACE TYPE	Yes	Yes	Yes
INTERFACE TYPE MODEL		Yes	Yes
LINK TABLE		Yes	
LOCATION		Yes	
NAVIGATION DIAGRAM		Yes	Yes
OBJECTIVE		Yes	
ONLINE LOAD MODULE	Yes	Yes	Yes
OPERATIONS LIBRARY	Yes	Yes	Yes
ORGANIZATIONAL UNIT		Yes	
PERFORMANCE MEASURE		Yes	
PROCEDURE	Yes	Yes	Yes
PROCEDURE STEP	Yes	Yes	Yes
PROCESS		Yes	Yes
SCREEN		Yes	
SCROLL AMOUNT VALUE		Yes	

Scoping Object Type	Short Expansion	Default Expansion	Full Expansion
SERVER MANAGER	Yes	Yes	Yes
SPECIFICATION TYPE	Yes	Yes	Yes
STORAGE GROUP		Yes	
STRATEGY		Yes	
SUBJECT AREA	Yes	Yes	
SYSTEM DEF MATRIX		Yes	
SYSTEM DEF OBJECT CLASS		Yes	
SYSTEM WORK ATTR SET	Yes	Yes	
TACTIC		Yes	
TECH DESIGN DEFAULT		Yes	
TEMPLATE		Yes	Yes
TRANS OPERATION		Yes	
TYPEMAP		Yes	
USER DEF MATRIX		Yes	
USER DEF OBJECT CLASS		Yes	
USER DEFINED OBJECT		Yes	
WEB SERVICE DEFINITION	Yes	Yes	Yes
WINDOW LOAD MODULE	Yes	Yes	Yes
WORK ATTRIBUTE SET	Yes	Yes	
z/OS LIBRARY	Yes	Yes	Yes

Expansion of Scoping Objects Within a Subset

Expansion of scoping objects within a subset is hierarchical and recursive. When a scoping object is included in a subset and expanded, it often includes other scoping objects. These other scoping objects are also expanded in the subset, and in turn any scoping objects that they include would also be expanded. This expansion can create a very large subset.

For example, scoping on a Business System with short expansion adds:

- The default set of objects.
- The scoping objects included in the Business System and the other objects included in their expansion.
- The non-scoping objects in the Business System expansion.

By specifying the subset type, you may alter the expansion of the subset.

Protection

Protection is the logic or rules governing overlapping subset definition. Protection is the level of authorization or degree of authorization you have on an object.

When a subset is not checked out, the way protection is defined for its objects has no effect on users who check out other subsets that include the same objects. For example, if your subset is defined with Delete protection on Procedure Step A but your subset is not checked out, another subset containing Procedure A with Delete protection may be checked out and that procedure step may be deleted.

Protection Levels

There are four protection levels:

- Delete
- Modify
- Access
- Read

Protection maintains the model's integrity and prevents conflicting changes.

The following lists the protection levels and what they allow the user to do:

Delete

Lets you delete objects and their components.

Modify

Lets you modify objects and their shared components. Lets you delete non-shared components.

Access

Lets you add or delete referencing associations to objects and their shared components.

Read

Lets you read and generate objects and their components.

Protection Hierarchy

Protection levels are hierarchical and are from highest to lowest:

1. Delete
2. Modify
3. Access.
4. Read

The levels are also inclusive. This means that a user with delete protection also has modify, access, and read privileges; a user with modify privileges does not have delete privileges but does have access and read privileges; and so on.

In general, the first user to request a protection level is granted it. Subsequent users requesting a protection level will be granted it only if that level accommodates multiple users at that level.

Object's Protection Level	The number of checked out subsets with this object at this protection level
Delete	One
Modify	One
Access	Many
Read	Many

An object may be downgraded from delete to modify if the expansion does not include all references to the object.

Object Checked Out With This Protection	The highest level of protection granted for that object in a subset subsequently checked out is:
Delete	Read
Modify	Access
Access	Modify

Object Checked Out With This Protection	The highest level of protection granted for that object in a subset subsequently checked out is:
Read	Delete

How Scoping Object Protection Works

During subset definition, you request protection on a scoping object.

During subset checkout, the protection level is granted according to the following table, assuming the scoping object is not in a subset that someone else is using and the expansion of the scoping object is complete.

If you request an available scoping object with this protection …	You will get the scoping object with this protection.
Delete	Delete **Note**: This is true only if your subset contains all references to the object you want to delete. Otherwise, protection may be downgraded to Modify.
Modify	Modify
Access	Access
Read	Read

If a scoping object in the subset you are checking out is included in a checked out subset, the protection level you request for that object is downgraded if there is a conflict between this protection level and that already granted to the object in the checked out subset. The six combinations causing conflict follow:

If you request a scoping object with this protection	But the object is checked out with this protection …	You get the object with this downgraded protection
Delete	Delete	Read
Delete	Modify	Access
Delete	Access	Modify
Modify	Delete	Read
Modify	Modify	Access
Access	Delete	Read

Object protection determines what you can do to the object and what others can do to the object while you have it checked out in a subset.

Objects are assigned protection based on three things:

- The correlation of the object to the scoping object
- The expansion option of the scoping object
- The protection level requested of the scoping object

How Expansion Object Protection Works

When you select a scoping object for a subset at default expansion, the subset includes not only the scoping object but also its components. Component objects are integral to the scoping object. There are two types of component expansion objects:

- **Shared component**-Is shared by other scoping objects.
- **Non-shared component**-Belongs exclusively to the scoping object.

The protection implicitly requested for components is based on the protection explicitly requested for the related scoping object.

For shared components, protection is inherited from the scoped object. That is, whatever protection you explicitly request for the scoping object, that same protection is implicitly requested for all the shared components of that scoping object.

If you request this protection for the scoping object ...	The implicitly requested protection for its shared components is:
Delete	Delete
Modify	Modify
Access	Access
Read	Read

For non-shared components, protection is automatically upgraded to delete if the protection requested for the scoping object is Modify. This lets you delete non-shared components of an object scoped with Modify. Other implicit protections follow:

If you request this protection for the scoping object	The implicitly requested protection for its non-shared components is:
Delete	Delete
Modify	Delete

If you request this protection for the scoping object	The implicitly requested protection for its non-shared components is:
Access	Read
Read	Read

When you select a scoping object for a subset at full expansion, the subset includes not only the scoping object and its components, but also its shared companions. Companion objects are not integral to the scoping object, but add context.

The protection implicitly requested for companion objects is based on the protection explicitly requested for the related scoping object. A companion object is granted the requested protection unless another user already has this companion object checked out at a conflicting protection level.

If you request this protection for the scoping object ...	The implicitly requested protection for its shared companions is:
Delete	Access
Modify	Access
Access	Access
Read	Read

The correlation between the scoping object and the expansion object is what determines the protection requested for the non-scoped expansion object. There are four correlations used in the expansion table:

- Shared Component
- Non-Shared Component
- Shared Companion
- Special 1.

Special 1 refers to a Relationship Membership assigned the lesser of the source or target entity's protection

Subsetting Guidelines

See the guidelines given in this section for easier Subsetting.

Minimize Conflict Over Shared Objects

Conflict occurs when more than one user requests the same object in a subset expansion.

Follow these guidelines to minimize conflict:

- Define the smallest subset possible.
- Request the minimum protection needed to accomplish your task.
- Check out a subset only as you need it.
- Check in the subset promptly.

Recommendations

Consider these recommendations when subsetting:

- Know what you plan to do with a subset before you define it. Each subset should be created to support a specific set of workstation tasks.
- Keep subset definitions small. Understand what each scoping object adds to the subset and scope only those objects you need. Smaller subsets result in:
  - Reduced time to download
  - Reduced protection conflicts between subsets of a model
  - Maximized concurrent access to the encyclopedia
- Do not request delete protection for a scoping object unless you need to delete a component that requires this level of authority on the object.
- If you download a subset with delete protection for a scoping object, perform the operation quickly and check the subset back in.

Common Subsetting Errors

Avoid these common subsetting errors:

- Making the subset too large.
- Requesting delete protection when modify or access protection is adequate to your needs.
- Failing to check in subsets with delete protection on scoping objects soon.
- Requesting full expansion when it is not required for the task.
- Requesting read-only protection when access protection is required to create a reference to an object.

Key Concept of CSE Subsetting

The basic rule of subsetting in the Client/Server Encyclopedia (CSE) is that the only way you will get a scoping object or an expansion object with delete or modify protection is to explicitly scope the object with the requested protection or, if the required object is not a scoping object, scope the object of which the needed object is a component.

- To get a scoping object with delete or modify protection, scope that object with delete or modify protection, respectively.
- To get an expansion object with delete or modify protection, identify the scoping object of which the required object is a component.
  - If the required object is a non-shared component, request modify protection on the related scoping object to either modify or delete the component.
  - If the required object is a shared component, request delete protection on the scoping object to delete the component or request modify protection on the scoping object to modify the component.

CSE and Host Encyclopedia Terminology Differences

In general, CSE subsetting is more granular than subsetting on the Host Encyclopedia. This provides more effective sharing of the model.

Some of the terms used in subsetting on Host Encyclopedia are not the same as those used in CSE.

CSE	Host Encyclopedia
Target object	Implied Object
Scoping	Subset Definition

New Term

The term, internal expansion, might be new to the Host Subsetting user.

Internal expansion takes place on the CSE similar to the way it is accomplished on the Host Encyclopedia. The expansion on the Host Encyclopedia simply is not named.

Expansions you can select continue to be Short, Default, and Full. Non-selectable internal expansions, which include the following, are documented in the expansion tables, which you can use to determine successive expansions of a scoping object.

- Short
- Short2

- Parent
- Full2
- Default+
- Full+

Chapter 2: Creating and Maintaining a Subset Definition

This chapter describes how you can create and maintain subset definitions. Create subsets to allow multiple users to update a model simultaneously.

This section contains the following topics:

Create and Modify a Subset Definition

Creating a subset defines a subdivision of the model, which can be separately checked out. Creating a subset involves naming the subset and selecting the scoping objects to include in the subset. You select the protection and expansion for each scoping object included in the subset when you create it.

Before creating a subset, determine which scoping objects you want included in the subset and the preferred protection and expansion for each scoping object. Select the objects based on the tasks you need to perform.

Note: For more information, see chapter "Maintaining Definitions for Subset Administrator and Users (see page 31)." Also see the chapter "Quick Start for Users" in the *Client Server Encyclopedia User Guid*e.

After you create a subset, you may want to grant users access to the subset or check it out.

Create a Subset Definition

Follow these steps:

1. Log on to the encyclopedia via the Encyclopedia Client.
2. Name the new subset. Specify the model and subset names.
   a. From the main window, select Subset.
   b. From the Encyclopedia Subset Selection window, select Actions, List Models.

c. From the Model List, highlight the model from which the subset is to be created and click Open.

d. Enter the name for the new subset and click New.

3. Select new objects. Select the scoping objects that are to compose your subset.

   a. From the Subset Selected Object List, select Actions, Select New Objects.

   b. From the Object Type List, select the types of objects you want in the subset. You can select all the object types and click List or you can select one at a time. The following assumes you have selected all at once, where "all" can include object types for high-level objects you plan to expand for selection of subordinate scoping objects.

      Note: For more information on the scoping object types in the order that they appear, see the Scoping Object Types section in the "About Subsetting (see page 10)" chapter.

   c. From the Subset Object Occurrence List of the displayed selected object type, select the objects you want in this subset and click Add.

   If you want to select a subordinate object of a displayed object, highlight the displayed object and click Expand to display the Subset Expanded Object Occurrence List. Continue selection and, optionally, expansion; click Add to add objects you highlight. Click Continue to continue selection from the list from which you selected Expand.

   Avoid duplicate scoping. That is, expand only objects that you are not selecting for inclusion in the subset.

   If you do not want to select a subordinate object of one of the displayed objects, click Continue to display the next object type you selected until you have selected occurrences of the last selected object type. Then click Cancel twice to display the Subset Selected Object List containing all selected objects with default protection and expansion.

4. Modify the subset definition. Tailor the subset definition to the task requirements.

   a. Change or Verify Subset Type.

      If creating a subset for testing, change the default type, Design, to either Unit Test or System Test. Otherwise, accept the default.

   b. Remove Unnecessary Objects.

      For any displayed object that is not required by your task, highlight and select Remove. For recommendations, compare the displayed list of objects with the Task Table for the task you plan to perform with this subset.

c. Change Object Protection.

For each object that requires a protection level different from that displayed, make the needed change. To make a change, highlight the object and select Actions, Modify then Protection/Expansion. Always select the lowest possible protection level that is sufficient for successful completion of your task.

Protection options, from high to low, are as follows:

- **D**-(Delete) Required to delete the object.

  (Prevents others who check out after you from getting object with more than Read protection.)

- **M**-(Modify) Required to change the object or add components to it.

  (Prevents others who check out after you from getting object with more than Access protection).

- **A**-(Access) Sufficient to reference or build an association to object.

- **R**-(Read) Sufficient to read the object.

d. Change Object Expansion. For each object that requires an expansion level different from that displayed, make the needed change. For recommendations, compare the displayed expansion for each object with the expansion recommended in the Task Table for your task. To make a change, highlight the object and select Actions, Modify Protection/Expansion. Always select the lowest expansion level that brings in all the objects you need to complete your task. To compare expansion levels, see the expansion table for the object. Expansion options are as follows:

- **F-**(Full) Includes the most objects of the options.

- **D-**(Default) Includes fewer objects than Full, but more than Short.

- **S-**(Short) Includes the fewest objects of the options.

5. Confirm the subset definition. When you have reviewed the subset definition and made all required changes, click Actions, Save and Exit.

Copy a Subset Definition

Copying a subset definition duplicates a subset definition. A subset definition consists of a list of scoping objects and the requested protection and expansion for each object. The new (copied to) subset definition contains the same scoping objects as the original (copied from) subset definition. The original subset definition is **not** affected.

After you copy a subset, you may need to add additional objects to the subset, remove objects from the subset or modify objects in the subset. See the Create a Subset Definition section, step 4, Modify the Subset Definition, in this chapter. You might also want to authorize access to the subset. For more information, see Grant or Revoke Subset Access in the chapter "Maintaining Definitions for Subset Administrator and Users."

Copying a Subset

Follow these steps:

1. Log on to the encyclopedia via the Encyclopedia Client.
2. Open the subset.
   a. From the main window, select Subset.
   b. From the Subset Selection window, select Actions, List Subsets.
   c. From the Model List, select the model containing the subset to be deleted and click Open.
   d. From the Subset List, select the subset to be deleted and click Open.
3. Copy the subset:
   a. At the Subset Selection window, select Actions, Copy.
   b. Enter a name for the subset that is unique among subsets in the model.

      For other restrictions, see the section, Restrictions for Copying a Subset.
   c. Click OK.

Restrictions for Copying a Subset

The following restrictions apply to copying a subset.

- You must have at least update authority on the model.
- The subset name must be:

  Unique within a model.

  No more than 32 characters long.

  Alphanumeric, and **not** include the characters ' " ! & ^ [,

Delete a Subset Definition

Deleting a subset permanently removes the subset definition from an encyclopedia. You are prompted to confirm the deletion. Deleting a subset definition does not delete the scoping objects defined in the subset from the model. You cannot delete a subset if it is currently checked out.

Deleting a Subset

Follow these steps:

1. Log on to the encyclopedia via the Encyclopedia Client.
2. Select the subset to be deleted:
   a. From the main window, select Subset.
   b. From the Subset Selection window, select Actions, List Subsets.
   c. From the Model List, select the model containing the subset to be deleted and click Open.
   d. From the Subset List, select the subset to be deleted and click Open.
3. Delete the subset:
   a. From the Subset Selection window, select Actions, Delete.
   b. At the Delete Confirmation, click Yes.

Rename a Subset

Renaming a subset changes the name of a subset. The name of the model to which the subset belongs is not affected. You cannot rename a subset while it is checked out.

Follow these steps:

1. Log on to the encyclopedia using the Encyclopedia Client.
2. Open the subset.
   a. From the main window, select Subset.
   b. From the Subset Selection window, select Actions, List Subsets.
   c. From the Model List, select the model containing the subset to be deleted and click Open.
   d. From the Subset List, select the subset to be renamed and click Open.

3. Rename the subset:

   a. At the Subset Selection window, select Actions, Rename.

   b. Enter the new subset name. For restrictions, see the next section, Restrictions on Renaming Subsets.

   c. Click OK.

Restrictions on Renaming Subsets

The following restrictions apply to renaming a subset.

- You must be an encyclopedia administrator, model administrator, or subset administrator.
- The subset name must be:

  Unique within a model.

  No more than 32 characters long.

  Alphanumeric, but do **not** include these characters: ' “ ! & ^ [,

Chapter 3: Maintaining Definitions for Subset Administrator and Users

Modifying the subset administrator ID establishes a new administrator for the subset. The change in administrator status affects only the subset specified.

This section contains the following topics:

Assign a New Subset Administrator

To modify the subset administrator you must be one of the following:

- The user who checked out the subset
- The subset administrator or a member of the group that administers the subset
- The model administrator or a member of the group that administers the model
- The encyclopedia administrator

Modifying the Subset Administrator

Follow these steps:

1. Log on to the encyclopedia via the Encyclopedia Client.
2. Open the subset.
3. Specify the new administrator:
   a. At the Subset Selection window, select Authorization, Modify Administrator.
   b. Enter the ID for the new administrator. For restrictions, see the next section, Restrictions on Modifying the Subset Administrator.
   c. Click OK.

Restrictions on Modifying the Subset Administrator

The following restrictions apply to modifying an administrator ID:

- The new administrator must exist as an authorized user (added with the Coordination Client).

- You must be an encyclopedia administrator, model administrator, subset administrator, or a member of the group that administers the subset.

Grant or Revoke Subset Access

By authorizing access to a subset, you authorize an individual user or group to check out the subset, change it, and check it back in.

A user cannot create a new subset unless you grant update access for the entire model.

Note: For more information, see Authorizing Access to a Model in the chapter "User Management/Access" of *CA Gen Client Server Encyclopedia Public Interface Reference Guide*.

You can also revoke a user's or group's authorization to check out and update a specific subset of a model in the encyclopedia.

To grant or revoke access to a subset, you must be **one** of the following:

- An encyclopedia administrator
- The administrator of the model that contains the subset or the model owner
- The subset administrator
- A member of the group that administers the model
- A member of the group that administers the subset

You cannot revoke access for users who have subsets checked out.

Grant or Revoke a User Access to One or More Subsets

Use the following procedure to assign an individual user or group of users access to several subsets at once:

Authorizing Access to a Subset by User

Follow these steps:

1. Log on to the encyclopedia you want using the Encyclopedia Client.
2. Open the user (individual or group).

3. Select the authorization for the subset:

    a. At the Group Selection or Individual Selection window, select Authorization, Maintain Subset Access.

    b. If you know the model name, enter it in the Name field, and click OK. If you do not know the model name, leave the Name field blank and click OK to display a list of models from which to select.

    c. To grant authorization, select subsets from the Subsets Unauthorized For list and click Grant. To revoke authorization, select subsets from the Subsets Authorized For list and click Revoke. Click OK.

Grant or Revoke One or More Users Access to a Subset

Use the following procedure to assign many individual users or group of users access to a specific subset:

Authorizing Access to a Subset by Subset

Follow these steps:

1. Log on to the encyclopedia you want via the Encyclopedia Client.
2. Open the subset.
3. Select the authorization:

    a. At the Encyclopedia Subset Selection window, select Authorization, Maintain User Access.

    b. To grant access to the selected subset, select users from the Unauthorized Users list and click Grant. To revoke authorization to the selected subset, select the target users from the Authorized Users list and click Revoke. Verify the lists and click OK.

Chapter 4: Monitoring and Changing Subset Checkout Status

Use subset detail to view current information that the Client/Server Encyclopedia (CSE) has stored about the subset, such as, who created the subset and whether it is checked out. The Encyclopedia and Checkout Clients let you view this detail. You cannot change the information from the detail dialog.

This section contains the following topics:

Detail a Subset

Follow these steps:

1. Log on to the encyclopedia at the Checkout or Encyclopedia client.
2. Select the subset to detail.
   a. From the main window, select Subset.
   b. From the Subset Selection window, select Actions, List Subsets.
   c. From the Model List, select the model containing the subset to be deleted and click Open.
   d. From the Subset List, select the subset to be deleted and click Open.
3. View the subset details:
   a. At the client Subset Selection window, select Actions, Detail.
   b. Use online help for Subset Detail to interpret displayed details.

Determine the Checkout Status of an Object

Determining the checkout status of an object lets you see which subsets contain the selected object, the user ID associated with the checkout and the protection granted for the object.

Use this list to identify potential downgrades for the selected object.

Follow these steps:

1. Log on to the Encyclopedia Client.
2. Open a model or a subset.
3. Select any option which lets you select individual object occurrences. For example:
   - Delete Object
   - Rename Object
   - Object Cross Reference Report
   - Select New Objects for Subset
4. From an Object Occurrences list, select an object and click Checkout Status.
5. Use online help (see the Subset Checkout Status List topic) to interpret displayed fields on the Checkout Status Report.

Note: For more information, see Checkout Status Report for Selected Object in the chapter "Encyclopedia Reports" in the *CA Gen Client Server Encyclopedia* User *Guide*.

To perform a trial checkout to determine potential downgrades for objects, run the Expansion Conflict Report.

Note: For details, see the Expansion Conflict Report for Selected Model or Subset in the "Encyclopedia Reports" chapter in the *CA Gen Client Server Encyclopedia User Guide*.

Override the Checkout Status of a Subset

Overriding the checkout status of a subset lets you change a subset's status from checked out to checked in. The subset can then be checked out again.

You can no longer check in the checked-out subset if you override the checkout status. Any changes made to the subset since the last update will be lost.

You might need to override the checkout status if you make changes to a subset that you do **not** want to keep.

To override the checkout status of a subset, you must be **one** of the following:

- The user who checked out the subset
- The subset administrator
- The encyclopedia administrator
- The model administrator

- A member of the group that administers the subset
- A member of the group that administers the model

Follow these steps:

1. Log on to the encyclopedia via the Encyclopedia Client.
2. Open the subset.
3. Override the checkout status:
   a. At the Subset Selection window, select Checkout, Override. The Override Checkout Status Confirmation panel appears.
   b. To override the checkout status for this subset, click Yes. For more details, see online help for the Confirm Checkout Status Override topic.

Specify a New Checkout User ID for a Subset

Specifying a new user ID for a subset changes the user ID to which a subset is checked out. Use this function when you need a subset to be checked in by someone other than the person who checked it out. Note that the new user needs update authority on the model, not just access to the model.

Follow these steps:

1. Log on to the encyclopedia via the Encyclopedia Client.
2. Open the subset.
3. Specify the new user ID:
   a. At the Subset Selection window, select Checkout.
   b. Select Modify Userid.
   c. Enter the User ID of the individual or group to whom you want the checkout transferred. Click OK.

Chapter 5: Incremental Subsetting

Incremental Subsetting provides the ability to add scoping objects to an existing checked-out subset. Protection and expansion values can be modified for scoping objects already in the checked-out subset.

Follow these steps:

1. From the Model Window on the Toolset, select Model, Encyclopedia, Increment Subset.

   The Increment Subset Logon dialog opens.

2. Verify that the hostname and service name or port number correctly identify the CSE that the subset was checked out from and user name identifies the owner of the subset. If any of the fields are not correct, update the field to the correct value. If the user account requires a password, enter the password in the password field.

3. Click OK.

Note: The Hostname field can contain a hostname, a hostname with domain name, or an Internet Packet version 4 (IPv4) or version 6 (IPv6) address. The hostname can be a maximum of 1024 characters to accommodate host and domain names that contain non-ASCII characters.

This section contains the following topics:

Increment Subset Dialog

The Increment Subset dialog displays with your model or subset name on the first line of the Label column. A list of possible dialog object types appears in a tree-like format below the model or subset name.

Under each dialog object type, a list of scoping objects appears. The list of scoping objects varies depending on the number of objects that were defined for your model or subset. You can limit the list of objects that display by specifying selection criteria for object names in the Filter field. You can select any of these scoping objects to add to your subset.

Features of the Increment Subset Dialog

The following features of the Increment Subset dialog are described in subsequent sections:

- Status
- Protection
- Expansion

Status

Status displays the current state of each scoping object. The categories are:

- **Available**-The object has not been included in your subset.
- **Added**-The object has been selected for your subset, but the Encyclopedia has not yet updated your subset's definition.
- **Scoped**-The object is already a part of your subset's definition.

Protection

Protection logic prevents subset users from making conflicting updates and optimizes shared use of a model. The usage level defines actions to perform on a scoped object. The usage levels, listed from highest to lowest levels are:

- **Delete-**Allows deletion of an object from a model. It is the most powerful level.
- **Modify-**Allows changes to an object. You can add or delete associations.
- **Access-**Allows use of an object. The user may not change any characteristics of the object. You can add or delete associations.
- **Read-**Allows viewing of an object. You cannot add or delete associations. It is the least powerful level.

Expansion

Each scoping object type has its own combination of expansion options. Expansion options fall within one of the following categories:

- **Short-**Includes smaller groups of objects.
- **Default-**Includes the scoping object and its implied objects.
- **Full-**Adds additional, optional components.

Checkout Status Detail Dialog

The Checkout Status Detail dialog lets you view the following details that the CSE has stored about the selected object:

- Name of the selected object
- Maximum access of the object
- Name of each checked-out subset containing the selected object
- User ID of the person who checked out the subset
- Protection level of the object

The Checkout Status Detail is for viewing purposes only. You cannot change the information.

Incremental Subsetting Procedures

The following procedures are available from the Increment Subset dialog.

Adding a New Object to your Subset

Follow these steps:

1. From the Increment Subset dialog, click the + box to the left of the dialog object type. The selected object expands and displays a list of scoping objects.
2. Click the check box to the left of the scoping object's name. The status changes to Added. Default protection and expansion values display for the selected scoping object.
3. Continue through the list of objects, repeating Steps 1 and 2 for all objects to be added.

   Note: If a scoping object displays with the Scoped status, you can still select it to modify its protection or expansion values.
4. After selecting all scoping objects, click Update. A Progress bar appears as the definition of your subset is updated in the encyclopedia with the additional objects. After updating completes, the Increment Subset dialog closes and the Downgrade report displays for viewing.

   Note: The Update button remains enabled if you select any scoping objects. If not, the button is grayed out.

5. After viewing the report, press Enter. The Downgrade Report dialog closes and the Model Window redisplays.

Note: On the scoping object line, for automatic selection of a scoping object click either the Protection or Expansion field and select the preferred value. CA Gen automatically checks the box to the left of the object's name.

Modifying Expansion Values of an Object

Follow these steps:

1. From the Increment Subset dialog, click the + box to the left of the required dialog object type. The selected object expands and displays a list of scoping objects.
2. Add the preferred scoping objects to your subset. If the object is not selected prior to modifying its expansion (or protection) value, CA Gen automatically marks the check box to the left of the object's name.
3. To modify the expansion value of a scoping object, select the displayed value for that object, for example, Default. A drop-down list displays three possible values: Short, Default, and Full.

   Note: If a scoping object displays with the Scoped status, you can still select it to modify the protection or expansion values.
4. Select a value.
5. After modifying all required values, click Update. A Progress bar appears as the definition of your subset is updated in the encyclopedia with the modified values. When updating completes, the Increment Subset dialog closes and the Downgrade report displays for viewing.
6. After viewing the report, press Enter. The Downgrade Report dialog closes and the Model Window redisplays.

Note: Each scoping object within your subset can be modified to a higher expansion. Values display according to how the object was scoped. For example, if you checked out an object with Default expansion, you can change it to Full expansion but **not** to Short expansion, so Short does not display as one of your options.

Modifying Protection Values of an Object

Follow these steps:

1. From the Increment Subset dialog, click the + box to the left of the required dialog object type. The selected object expands and displays a list of scoping objects.
2. Add the preferred scoping objects to your subset. If the object is not selected prior to modifying its protection (or expansion) value, CA Gen automatically marks the check box to the left of the object's name.

3. To modify the protection value of a scoping object, click the displayed value for that object, for example, Delete. A drop-down list displays four possible values: Access, Delete, Modify, and Read.

   Note: If a scoping object displays with the Scoped status, you can still select it for purposes of modifying its protection or expansion values.

4. Select a value.

5. After modifying all required values, click Update. A Progress bar appears as the definition of your subset is updated in the encyclopedia with the modified values. When updating completes, the Increment Subset dialog closes and the Downgrade report displays for viewing.

6. After viewing the report, press Enter. The Downgrade Report dialog closes and the Model Window redisplays.

Limiting the List of Objects from the Tree View

Follow these steps:

1. To limit or filter the list of objects displayed in the tree view, open the Increment Subset dialog.

2. At the bottom of the Increment Subset dialog, place the cursor in the Filter field.

3. Enter a filter value of up to 32 characters, including special characters, according to the following rules:

4. To invoke the filter and display the filtered list, click the + box to the left of the required dialog object type. The selected object expands and displays a list of scoping objects, limited by your selection criteria.

Special Characters	Rules for Using
%	Non-Imbedded percent sign, also called the wild card character Use these rules: Any string, including no string. If used as the first character in the filter value, specifies any string preceding the literal. If used as the final character, specifies any string following the literal. If used as both the first and last characters (%LITERAL%), specifies any string containing the literal in any position. **Note:** It is automatically added to the end of the filter value that you enter.

Special Characters	Rules for Using
_	Non-trailing underscore. Any single character. Can be used multiple times, including successive positions, within the filter value and in any position, except the last position.

Viewing the Details of an Object

Follow these steps:

1. From the Increment Subset dialog, select the preferred scoping object. The Details button is enabled.
2. Click Details. The Checkout Status Detail dialog opens for viewing purposes only.
3. To close the Checkout Status Detail dialog, click OK

Note: You can also view the details of a scoping object from the Increment Subset dialog. To do this, double-click anywhere within the Label column of the required scoping object. The Checkout Status Detail dialog opens for viewing object details.

Appendix A: CSE Subsetting Task Tables

General subset definitions are definitions for Analysis, first Design subset, procedure maintenance, and workstation Construction.

Note: To delete an object and references to it, you must include all references to the object in the subset. Otherwise, you will receive a message that the subset is incomplete.

This section contains the following topics:

General Subset Definitions

The following sections define these general subsets:

- Analysis
- First Design
- Procedure Maintenance
- Workstation Construction

Analysis Subset

To scope a typical Analysis subset, use the following subset definition.

Specify This Subset Type	Scope These Object Types	At This Protection	And This Expansion	Considerations
Design	Process	Delete	Default	The scoped process, requested at Delete protection, is downgraded to Modify, but all the child and grandchild processes are included with Delete protection. To delete the scoped process, scope its parent also at Modify protection.

Specify This Subset Type	Scope These Object Types	At This Protection	And This Expansion	Considerations
		Access	Short	
	Work Set	Access	Default	
	Business System	Access	Short	

Process

In the Analysis subset, scoping a process with Design subset type, Delete protection and default expansion includes these objects at these protections:

Object Included by the Scoped Process	Protection	Considerations
Scoped process	Modify	The scoped process, requested at Delete protection, is downgraded to Modify, but all the child and grandchild processes are included with Delete protection. To delete the scoped process, scope its parent also at Modify protection.
Parent, grandparent processes	Access	
Child, grandchild processes	Delete	
Dependencies for child processes	Delete	
Process information views	Delete	The **only** way to delete a view for a process is to have Delete protection on the process. If you request Delete protection for the process and receive a protection downgrade, CA Gen still lets you delete as many views as possible.
Process expected effects	Delete	
Entity type in PAD view	Access	
Entity type in expected effects	Access	
PAD (if elementary)	Delete	To include the Process Action Diagram (PAD) in the subset, specify default expansion, which includes the fully expanded action blocks of the scoped process and its subordinates and the views of USEd action blocks.

Object Included by the Scoped Process	Protection	Considerations
Action block USEd by PAD	Delete	All Common Action Blocks (CABs) USEd by a PAD are included with Delete protection only if you obtain full expansion of the process. If action blocks are shared among project members, add the action blocks to the subset definition with Access protection (Action diagrams are a separate scoping object.) If anyone has an action block with Delete, no one else can USE that action block in a PAD. The full expansion option ensures that the CABs USEd by the CABs are also included.

Entity Type

- Scope on all entity types you want to add to your process in the general Analysis subset. Once the entity type is referenced in a view or expected effect, you do **not** need to include it in your subset definitions.
- The short expansion option of an entity type minimizes the number of entity types included in the subset.

Work Set

- Scope on all work attribute sets you want to add to your procedure in the general Analysis subset.
- Do **not** scope on the IEF_SUPPLIED work set because it is automatically included.

Business System

- Scope on the business system if you need to include exit states from that business system in your PAD (using the general Analysis subset).
- After an exit state from the business system is in your subset, CA Gen includes the short expansion of the business system automatically.
- Short expansion of the business system was chosen to prevent inclusion of procedures.

First Design Subset

To scope the first Design subset, use the following subset definition.

Note: The purpose of the first Design subset is to initialize the procedure. Once the first Design subset has been checked in, use the definition for a typical Design subset.

Specify This Subset Type	And Scope These Object Types	At This Protection	And This Expansion
Design	Skeleton Procedure	Access	Default
	Processes to implement	Access	Default
	Work Attribute Sets	Access	Default
	Common Action Blocks	Access	Default
	Entity Types	Access	Short
	Business System	Access	Short

Important! Use only short expansion for the business system. It is not necessary to scope on a template separately.

Skeleton Procedure

If you wish to start your procedure by copying from an existing skeleton, you must scope on that procedure with Access protection. If you receive Read Only protection, CA Gen does **not** allow the copy.

Processes to Implement

If the procedure implements elementary processes, scope on the implemented processes with Access. If the protection is Read Only, CA Gen does **not** allow them to be implemented.

- Full expansion of the process is not required because default expansion brings in the import and export views.

Work Attribute Set

- Scope on all work attribute sets you want to add to your procedure.
- Do not scope on the IEF_SUPPLIED work set because it is automatically included.

Common Action Blocks

Scope on all common action blocks you want to USE in your procedure.

Entity Types

- Scope on all entity types you want to add to your procedure.
- The short expansion option minimizes the number of neighborhood entity types included in the subset.

Procedure Maintenance Subset

To scope for procedure maintenance, use the following subset definition.

Specify This Subset Type	Scope These Object Types	At This Protection	And This Expansion	Considerations
Design	Procedure Step	Delete	Default	Scope on the procedure step if it has dialog flows. Scope on the procedure step if it has no dialog flows or requires dialog flow maintenance.
	or			
	Procedure	Modify	Default	
	Work Attribute Set	Access	Default	
	Common Action Blocks	Access	Default	
	Empty Types	Access	Default	

Important! Do not scope on the business system or a template. Scoping on them is unnecessary and can create a very large subset that interferes with the work of other users.

Procedure Step

- Scoping the procedure step keeps you from getting dialog flows and hence other people's procedures.
- The Delete protection requested is always downgraded to M; however, you can still:
  - Delete all views not matched using a dialog flow.
  - Delete fields from a screen.
  - Delete statements from an action diagram.

- Do **not** get full expansion on the procedure step because full expansion brings in all nested action blocks with Delete protection and prevents others from using the action block in their PrAD.

Procedure

- You can scope on the procedure when its neighborhood is small (it has no dialog flows in or out). Do not request Delete protection on the procedure because Delete also brings in all nested action blocks.
- To maintain dialog flows, you must scope on the procedure.

  However, scoping on the procedure step, M/Short, Design subset type, lets you add the flows without bringing down all associated Procedure Action Diagrams (PrADs).

Work Attribute Set

- Scope on all work attribute sets you want to add to your procedure. Once the work attribute is referenced in an information view, scoping on the work attribute is unnecessary.
- Do not scope on the Work and System attribute set because it is automatically included.

Common Action Blocks

- Scope on all common action blocks for which you wish to add references:
  - By the PrAD
  - By one of the common action blocks USEd by the PrAD
- If you must change a common action block, try Modify protection first. Use Delete protection only if you need to delete views from a common action block.

Entity Type

- Scope on all entity types you want to add to your procedure. Once the entity type is referenced in a view, scoping the entity type again is unnecessary.
- Avoid scoping on data tables because doing so makes the subset much bigger without adding any functionality.
- The short expansion option minimizes the number of shared companion entity types included in the subset.

Workstation Construction Subset

This section tells how to scope for Workstation Construction subset.

Specify This Subset Type	Scope These Object Types	At This Protection	And This Expansion	Considerations
Unit Test	Procedure Step	Delete	Default	Unit Test subset type brings in all necessary data tables for code generation and RI trigger generation. Scope on the procedure step if it has dialog flows. Scope on the procedure if it has no dialog flows or it requires dialog flow maintenance.
	or			
	Procedure	Modify	Default	
	Work Attribute Set	Access	Default	
	Common Action Blocks	Access	Full	

Important! Do not scope on the business system or a template.

Procedure Step

- Scoping the procedure step keeps you from getting dialog flows and hence other people's procedures.
- The Delete protection requested for the procedure step is always downgraded to M; however, you can still
  - Delete all views not matched via a dialog flow
  - Delete fields from a screen
  - Delete statements from an action diagram
- Do not get full expansion on the procedure step because full expansion brings in all nested action blocks with Delete protection and prevents others from using the action block in their PrAD.

Procedure

- You can scope on the procedure when it has few shared companions (it has no dialog flows in or out). Do not request Delete protection on the procedure because Delete also brings in all nested action blocks.
- To maintain dialog flows, you must scope on the procedure.
- However, scoping on the procedure step, M/Short, Design subset type, lets you add the flows without bringing down all associated Procedure Action Diagrams (PrADs).

Work Attribute Set

- Scope on all work attribute sets you want to add to your procedure. Once the work attribute is referenced in an information view, scoping on the work attribute is unnecessary.
- Do not scope on the IEF_SUPPLIED work set because it is automatically included.

Common Action Blocks

- Always scope on all common action blocks USEd by the PrAD. (Full expansion ensures that the common action blocks USEd by the common action blocks are included.)
- If you must change a common action block, try Modify protection first. Use Delete protection only if you need to delete views from the common action block.

Note: The Unit Test subset type will bring in all necessary data tables for generating code and RI triggers.

Definition of Detail

As used in the subsetting tables, the verb detail means to add or change the properties to an object. For example, to detail an entity type, you can perform such tasks as add or change the description of the entity type or add or change attributes and identifiers.

Subset Task Definitions for the Design Subset Type

Detailed subset task definitions for the Design subset type are listed under Planning/Analysis, Design, Technical Design, and Construction.

- Activity Dependency
- Common Action Blocks
- Process Action Diagram
- Procedure Action Diagram

Planning/Analysis

This section describes tables showing data modeling before and after transformation.

Data Modeling Before Transformation

The following tables show data modeling prior to transformation. All entity types must be free of Consistency Check errors before Transformation can succeed.

Subject Area

This table describes how to work with a subject area for data modeling before transformation:

Step	Description	P	E	Objects	Considerations
1	Create a subject area	A	S	Parent subject area	
2.	Create a subject area and move existing entity types into it.	M	D	Entity types to move	
3.	Detail a subject area or any of its components and entity types.	M	S	Subject area	
4.	Place unplaced subject area or any of its components.	M	S	Subject area	You may want to include more of the data model (by scoping on other subject areas with Access, Short) to make an aesthetically pleasing ERD.
5.	Delete components of a subject area.	D	D	Subject area	An attribute or relationship that is referenced in a view of an entity type cannot be deleted. The Object Cross Reference Delete Prevention report identifies scoping objects needed to define a subset that contains all references. An entity type that is referenced in a view or in expected effects cannot be deleted.

Step	Description	P	E	Objects	Considerations
6.	Delete a subject area.	D	D	Subject area	An attribute or relationship that is referenced in a view of an entity type cannot be deleted. The Object Cross Reference Delete Prevention report identifies scoping objects needed to define a subset that contains all references. An entity type that is referenced in a view or in expected effects cannot be deleted.

Entity Type

This table describes how to work with an entity type for data modeling before transformation:

Step	Description	P	E	Objects	Considerations
1	Add an entity type to the root subject area or any other subject area.	A	S	Subject area	
				or	
		A	S	Any entity type in it	
2.	Add an entity type to the root subject area and join it to an entity type in another subject area.	M	S	Entity type	
3.	Add an entity type to a subject area and join it to an entity type in another subject area.	M	S	Entity type	
		A	S	Plus subject area for new entity type	
4.	Add an entity type to a subject area and join it to an entity type in the same subject area.	M	S	Entity type	
5.	Move entity types to an existing subject area.	M	S	Entity type	
		A	S	Plus subject area	
6.	Detail an entity type or any of its attributes and components.	M	S	Entity type	
7.	Place unplaced entity type.	M	S	Entity type	

Step	Description	P	E	Objects	Considerations
8.	Delete components and attributes of an entity type.	D	D	Entity type	An attribute or relationship that is referenced in a view of an entity type cannot be deleted. The Object Cross Reference Delete Prevention report identifies scoping objects needed to define a subset that contains all references. An entity type that is referenced in a view or in expected effects cannot be deleted.
9.	Delete an entity Type	D	D	Entity type	An attribute or relationship that is referenced in a view of an entity type cannot be deleted. The Object Cross Reference Delete Prevention report identifies scoping objects needed to define a subset that contains all references. An entity type that is referenced in a view or in expected effects cannot be deleted.
		D	D	Plus related entity types	

Attribute

This table describes how to work with an attribute for data modeling before transformation:

Step	Description	P	E	Objects	Considerations
1	Add an attribute.	M	S	Entity type	To change the default permitted value, you must scope the entity type with Delete protection.

Step	Description	P	E	Objects	Considerations
2.	Transfer (move from one entity type to another	D	D	Source entity type	An attribute or relationship that is referenced in a view of an entity type cannot be deleted. The Object Cross Reference Delete Prevention report identifies scoping objects needed to define a subset that contains all references.
		M	S	Target entity type	
3.	Copy from one entity type to another	A	D	Source entity type	
		M	S	Target entity type	
4.	Detail an attribute property.	M	S	Entity type	An attribute or relationship that is referenced in a view of an entity type cannot be deleted. The Object Cross Reference Delete Prevention report identifies scoping objects needed to define a subset that contains all references.
5.	Delete an attribute	D	D	Entity type	An attribute or relationship that is referenced in a view of an entity type cannot be deleted. The Object Cross Reference Delete Prevention report identifies scoping objects needed to define a subset that contains all references.

Relationship

This table describes how to work with a relationship for data modeling before transformation:

Step	Description	P	E	Objects	Considerations
1	Add a relationship.	M	S	Both entity types	
2.	Detail a relationship.	M	S	Both entity types	

Step	Description	P	E	Objects	Considerations
3.	Delete a relationship.	D	S	Either entity type	An attribute or relationship that is referenced in a view of an entity type cannot be deleted. The Object Cross Reference Delete Prevention report identifies scoping objects needed to define a subset that contains all references.
4.	Transfer a relationship	D	S	Two related entity types	An attribute or relationship that is referenced in a view of an entity type cannot be deleted. The Object Cross Reference Delete Prevention report identifies scoping objects needed to define a subset that contains all references.
		M	S	Plus entity type to transfer relationship to	

Subtype

This table describes how to work with a subtype for data modeling before transformation:

Step	Description	P	E	Objects	Considerations
1	Add a new subtype to an existing entity type.	M	S	Parent entity type	

Data Modeling After Transformation

The tables in this section describe data modeling after transformation:

Data Model

The following table describes how to work with a data model after transformation:

Step	Description	P	E	Objects	Considerations
1	Transform the entire data model (first time).	M	D	Root subject area	The subset task recommendations in Data Modeling before Transformation allow the transformation. No special modifications are required. Expansion of the root subject area automatically provides the database with Delete protection, which enables transformation.

Entity Type

The following table describes how to work with an entity type after transformation:

Step	Description	P	E	Objects	Considerations
1	Add an entity type and transform or implement it.	M	D	Root subject area	Scoping an entity type with Modify protection includes its associated data table with Read protection and the database for that data table with Read protection also. If the entity type you are adding is a stand-alone, scope any data table of any entity type, and specify Modify protection.
		D	D	Plus any data table	

Attribute

The following table describes how to work with an attribute of a data model after transformation:

Step	Description	P	E	Objects	Considerations
1	Add an attribute and transform or implement it.	M	D	Root subject area	
		M	D	Data table for entity type	
2.	Delete an attribute.	D	D	Entity type	Scoping an entity type with Modify protection includes its associated data table with Read protection and the database for that data table with Read protection also. An attribute or relationship that is referenced in a view cannot be deleted. The action blocks containing the view must also be changed.
		D	D	Plus data table	
3.	Detail the property of an attribute.	M	S	Entity type	Scoping an entity type with Modify protection includes its associated data table with Read protection and the database for that data table with Read protection also.
4.	Copy an attribute from one entity type to another.	A	S	Source entity type	Scoping an entity type with Modify protection includes its associated data table with Read protection and the database for that data table with Read protection also.
		M	S	Target entity type	
5.	Transfer an attribute from one entity type to another	D	D	Source entity type	Scoping an entity type with Modify protection includes its associated data table with Read protection and the database for that data table with Read protection also.
		M	S	Target entity type	

Activity Hierarchy (AHD)

The following table describes how to work with an activity of an AHD, for data modeling after transformation:

Step	Description	P	E	Objects	Considerations
1	Add an activity.	M	D	Intended parent	Scoping an activity automatically brings its parents into the subset with Access protection. Subordinates have the same protection as the scoped activity.
2.	Detail an activity.	M	D	Target activity	
				or	
		M	D	Any activity in the parentage of target activity	
3.	Perform Process Synthesis on a non-elementary process.	M	D	Process	Process Synthesis can automatically add processes, expected effects, and PADs with stereotypical action diagram statements.
4.	Transfer activity to a different parent.	M	D	Current parent	If you scope on a parent activity with Delete, the parent activity is downgraded to M. However, you still receive Delete on the target activity and its subordinates and will be able to delete them or transfer them to a different parent.
		M	D	Plus new parent	
5.	Change function to process or process to function	D	D	Parent activity	To remove a PAD, you must first remove all USE statements for the PAD from any PrADS and CABs.
		M	D	Child activity	

Step	Description	P	E	Objects	Considerations
6.	Delete an activity and its subordinates (No subordinates are elementary processes with PADs USEd in other action diagrams)	D	D	Parent activity	If you scope on a parent activity with Delete, the parent activity is downgraded to M. However, you still receive Delete on the target activity and its subordinates and will be able to delete them or transfer them to a different parent.
7.	Delete an elementary process that has been USEd in other action diagrams.	D	F	Process	To remove a PAD, you must first remove all USE statements for the PAD from any PrADS and CABs.
		M	D	Plus parent process	
		M	D	Plus USEing CABs	
		M	D	Plus USEing process action blocks	
		M	D	Plus USEing procedure step action blocks	

Expected Effects for Functions (Planning)

The following table describes expected effects to a function after transformation:

Step	Description	P	E	Objects	Considerations
1	Add an existing entity type and its expected effect to a function.	A	S	Entity type Plus function or Business Function/Entity Type matrix	Once an entity type appears in the expected effects or the views of an activity, it is automatically included in every subset that includes that activity. In matrices, functions receive Modify protection, and entity types receive default (not short) expansion. Therefore, these matrices can be large.
		M	D		
		M	D		
2	Remove an entity type from a function or change its expected effects for a function.	M	D	Function or Business Function/Entity Type matrix	In matrices, functions receive Modify protection, and entity types receive default (not short) expansion. Therefore, these matrices can be large.
		M	D		

Expected Effects for Process (Analysis)

The following table describes expected effects to a process after transformation:

Step	Description	P	E	Objects	Considerations
1	Add an existing entity type and its expected effect to a process.	A M M	S D D	Entity type Plus process or Elementary Process/Entity Type matrix	Once an entity type appears in the expected effects or the view of an activity, it is automatically included in every subset that includes that activity. In matrices, functions receive Modify protection, and entity types receive default (not short) expansion. Therefore, these matrices can be large.
2	Remove an entity type from a process or change its expected effects for a process.	M M	D D	Process or Business Elementary Process/Entity Type matrix	In matrices, functions receive Modify protection, and entity types receive default (not short) expansion. Therefore, these matrices can be large.

Activity Dependency (ADD)-Activities (Functions/Process), Events, or External Objects

The following table describes activity, event, or external object for data modeling after transformation:

Step	Description	P	E	Objects	Considerations
1	Add an activity, event, or external object.	M	D	Parent activity	Scoping an activity automatically brings its parents into the subset with Access protection. Subordinates have the same protection as the scoped activity.
2	Detail an activity, event or external object.	M	D	Target activity	
3.	Delete an activity, event, or external object.	D M	F D	Target activity Plus parent activity	
4.	Specify information that flows between a process and an external object.	M M	D D	Process or Parent function/process	

Step	Description	P	E	Objects	Considerations
5.	Change parent of an activity.	D	D	Current parent	
		M	D	Plus new parent	

Activity Dependency (ADD)-Dependencies

The following table describes dependencies of an ADD for data modeling after transformation:

Step	Description	P	E	Objects	Considerations
1	Create a dependency.	M	D	Both activities	
2	Detail a dependency.	M	D	Both activities	
3	Delete a dependency.	D	D	Both activities	

Organizational Hierarchy (OHD)

The following table describes organizations for data modeling after transformation:

Step	Description	P	E	Objects	Considerations
1	Add an organization.	A	D	Organization unit	Scoping an organization unit brings in the entire hierarchy or organization units, parents, and subordinates.
2	Detail a dependency.	A	D	Organization unit	
3.	Delete an organization.	D	D	Organization unit	Scoping an organization unit brings in the entire hierarchy or organization units, parents, and subordinates.

Process Action Diagram (PAD)

The following table describes statements in a PAD for data modeling after transformation:

Step	Description	P	E	Objects	Considerations
1	Add, change, or delete statements in a PAD.	M	D	Process	he only way to add a PAD is to add a process to the Activity Hierarchy and mark it as elementary. The only way to delete a PAD is to delete its associated process. See the tasks for Activity Hierarchy.

View Maintenance Entity View-PAD

The following table describes entity views in a PAD for data modeling after transformation:

Step	Description	P	E	Objects	Considerations
1	Add an entity view.	M A	D D	Process Plus entity type	After defining expected effects, you do not need to scope the entity type.
2.	Change an entity view's name or properties.	M	D	Process	After defining expected effects, you do not need to scope the entity type.
3.	Change a referenced entity type or subtype.	M	D	Entity type	
4.	Delete an entity view, or an attribute in the view.	D M	D D	Process action block Plus all procedure step action blocks that use it	To delete a view, your subset must contain all references to that view (all objects that use it). To identify all objects that use the view, run the Object Cross Reference Report type Referenced for that view. To identify objects that would prevent the deletion of the view, run the report type Delete Prevention from the Encyclopedia Client. If the view is view-matched to another action diagram, you may need full expansion.

Work View-PAD

The following table describes work views in a PAD for data modeling after transformation:

Step	Description	P	E	Objects	Considerations
1	Add a work view.	M	D	Process action block	
2.	Change a work view.	M	D	Process action block	
3.	Delete a work view.	D	D	Process action block	To delete a view, your subset must contain all references to that view (all objects that use it). To identify all objects that use the view, run the Object Cross Reference Report type Referenced for that view. To identify objects that would prevent the deletion of the view, run the report type Delete Prevention from the Encyclopedia Client. If the view is view-matched to another action diagram, you may need full expansion.

Local View-PAD

The following table describes local views in a PAD for data modeling after transformation:

Step	Description	P	E	Objects	Considerations
1	Add a local view.	M	D	Process action block	
2.	Change a local view.	M	D	Process action block	
3.	Delete a local view.	D	D	Process action block	

Business System Definition (DBS)

The following table describes business system defaults for data modeling after transformation:

Step	Description	P	E	Objects	Considerations
1	Add a new dialect language for system defaults.	A	S	Business system	The short expansion brings in only system default objects.
2.	Detail a business system or any of its defaults.	M	S	Business system	The short expansion brings in only system default objects.
3.	Delete a business system.	D D D	F D D	Business system Plus any load modules Plus any managers (window, server, and so on.)	Before a business system can be deleted, all load modules and associated packaging must be deleted. Be sure to include the Managers to delete entire packaging. Once these are complete, the Delete action will no longer be grayed out.

Design

The tables in this section describe the various tasks involved in the design of a subset type.

Business System Defaults

The tables in this section describe how to set the various business system defaults for designing.

System-wide Commands

The following table describes using system-wide commands of a business system:

Step	Description	P	E	Objects	Considerations
1	Add a command.	A	S	Business system	The short expansion of a business system brings in only the business system defaults. Scoping any procedure, procedure step, screen, or template includes the business system defaults with Access protection.
2.	Change a command or add a synonym.	M	S	Business system	
3.	Delete a command.	D M	S D	Business system Plus all processes, procedure steps or CABs that use the command.	To delete a command, your subset must contain all references to the command.

System-wide Function Keys

The following table describes using system-wide function keys a business system:

Step	Description	P	E	Objects	Considerations
1	Set command for PF Key.	M	S	Business system	The short expansion of a business system brings in only the business system defaults.
2.	Change command for PF Key.	M	S	Business system	
3.	Assign <None> to PF Key.	M	S	Business system	

System-wide or Global Exit States

The following table describes using system-wide exit states of a business system:

Step	Description	P	E	Objects	Considerations
1	Add an exit state to the list of exit states.	A	S	Business system	The short expansion of a business system brings in only the business system defaults. Scoping any procedure, procedure step, screen, or template includes the business system defaults with Access protection.
2.	Add, change, or delete message (standard or bilingual) and maintain exit state properties.	M	D	Exit state	
3.	Delete an exit state.	D M	D D	Exit state Plus all processes, procedure steps or CABs that use the exit state	To delete an exit state, your subset must contain all references to the exit state.

Default Video Attributes

The following table describes changing default video attributes in a business system:

Step	Description	P	E	Objects	Considerations
1	Change the default video display characteristics for fields, prompts, literals or error messages.	M	S	Business system	

Default Delimiters

The following table describes changing default delimiters in a business system:

Step	Description	P	E	Objects	Considerations
1	Change the default delimiter.	M	S	Business system	

System-wide Edit Patterns

The following table describes using edit patterns in a business system:

Step	Description	P	E	Objects	Considerations
1	Add an edit pattern.	A	S	Business system	Scoping any procedure, procedure step, screen, or template includes the business system defaults with Access protection.
2.	Change an edit pattern not copied across business systems.	M	S	Business system	
3.	Delete an edit pattern.	D	F	Business system	Full expansion includes all uses of the edit pattern within the owning business system.

Custom Video Properties

The following table describes using custom video properties of a business system:

Step	Description	P	E	Objects	Considerations
1.	Add a custom video property	A	S	Business system	The short expansion of a business system brings in only the business system defaults. Scoping any procedure, procedure step, screen, or template includes the business system defaults with Access protection.
2.	Change a custom video property	M	S	Business system	
3.	Select a custom video property for use with business system default video properties	M	S	Business system	
4.	Select a custom video property for use with a window, dialog box, or window control	M	D	Procedure Step	

Step	Description	P	E	Objects	Considerations
5.	Delete a custom video property	D M	S D	Business system Plus all windows, dialog boxes that use the custom video property	To delete a custom video property, your subset must contain all references to the custom video property.

Business System Environment Parameters

The following table describes using environment parameters in a business system:

Step	Description	P	E	Objects	Considerations
1	Change language or DBMS	M	S	Business system	For example, if the production model will use COBOL and DB2 but you are testing on the workstation, you can use a subset to set or override the Construction environment parameters (COBOL and DB2). To override the environment parameters, set Construction generation defaults to C and Oracle (for example) and check the box entitled, Override Bus Sys Target Environment with above defaults

Common Action Block (CAB)

A common action block is any action diagram that is **not** a Process Action Diagram (PAD) or a Procedure Action Diagram (PrAD). See Process Action Diagram and Procedure Action Diagram sections.

Step	Description	P	E	Objects	Considerations
1	Add a common action block.	A or A or A or A	D D D S	Process Procedure step Common action block Business system	Having Access on almost any object in your subset lets you add a common action block.

Step	Description	P	E	Objects	Considerations
2.	Add a common action block and USE it in a Process Action Diagram.	M M	F or D	Process Process action block	
3.	Add a common action block and USE it in a Procedure Action Diagram	M	D	Procedure step	
4.	Add a common action block and USE it in another existing action block.	M	D	Common action block	
5.	Add, change, or delete statements in a common action block.	M	D	Common action block	
6.	Delete a common action block.	D M M M	D D D D	Common action block Plus USEing CABs Plus USEing process Plus USEing procedure steps	To remove a CAB, you must first remove all USE statements for the CAB from all PADs, PrADs, and CABs.

Action Block Synthesis

The following table describes performing an Action Block Synthesis on an action diagram:

Step	Description	P	E	Objects	Considerations
1	Perform Action Block Synthesis on an action diagram with no existing views.	M	D	Common action block	
2.	Perform Action Block Synthesis on action diagram with existing views but not USEd in any other action diagram.	D	D	Common action block	For Action Block Synthesis to create new information views and action diagram statements, it must first delete any existing views or statements. Therefore, Delete protection is required.

Step	Description	P	E	Objects	Considerations
3.	Perform Action Block Synthesis on action diagram with existing views and USEd in another action diagram.	D M M M	D D D D	Common action block Plus USEing CABs Plus USEing Process action blocks Plus USEing procedure steps	For Action Block Synthesis to create new information views and action diagram statements, it must first delete any existing views or statements. Therefore, Delete protection is required.

View Maintenance Entity View

The following table describes using an entity view:

Step	Description	P	E	Objects	Considerations
1	Add an entity view	M S	D S	Action block Plus entity type	After defining expected effects, you do not need to scope the entity type.
2.	Change an entity view's name or properties.	M	D	Action block	After defining expected effects, you do not need to scope the entity type.
3.	Change a referenced entity type or subtype	M	D	Entity type	
4.	Delete an entity view, or an attribute in the view.	D M	D D	Action block Plus all process action blocks or procedure steps that use it	To delete a view, your subset must contain all references to that view (all objects that use it). If the view is view-matched to another action diagram, you may need full expansion.

Work View

The following table describes using a work view:

Step	Description	P	E	Objects	Considerations
1	Add a work view.	M S	D S	Action block Plus work view	
2.	Change a work view.	M	D	Action block	

Step	Description	P	E	Objects	Considerations
3.	Delete a work view.	D	D	Action block or	To delete a view, your subset must contain all references to that view (all objects that use it). If the view is view-matched to another action diagram, you may need full expansion.
		D	D	Procedure step	

Local View

The following table describes using a local view:

Step	Description	P	E	Objects	Considerations
1	Add a local view.	M	D	Action block	
2.	Change a local view.	M	D	Action block	
3.	Delete a local view.	D	D	Action block or	
		D	D	Procedure step	

Dialog Flow (DLG)

The tables in this section describe using procedure, procedure step, and dialog flow for designing a subset type.

Procedure

The following table describes using a procedure:

Step	Description	P	E	Objects	Considerations
1	Add a procedure.	A	S	Business system or	The business system scoping object has a special short (S) expansion that brings in only the system-wide default objects. Scoping any procedure or step automatically includes the business system defaults with Access protection.
		A	D	Any procedure or	
		A	D	Any procedure step	

Step	Description	P	E	Objects	Considerations
2.	Detail a procedure.	M	D	Procedure	
3.	Delete a procedure.	D	S	Procedure to be deleted	The Objects Preventing Delete Report shows all objects that would prevent deletion of the procedure step. This report may be used to help define a subset definition containing all the objects needed to delete this scoping object.
		M	D	Plus any procedure or procedure step that flows to the scoped procedure	
		M	S	Plus any load modules containing its procedure steps	

Procedure Step

The following table describes using a procedure step:

Step	Description	P	E	Objects	Considerations
1	Add a new procedure step to an existing procedure.	A	S	Procedure	
2.	Detail a procedure step, its PrAD, screen/window.	M	D	Procedure step	
3.	Copy a procedure step.	A	D	Procedure step	You must have at least Access protection on the procedure step to copy it.
4.	Delete a procedure step.	D	S	Procedure step to be deleted	The Objects Preventing Delete Report shows all objects that would prevent deletion of the procedure step. This report may be used to help define a subset definition containing all the objects needed to delete this scoping object.
		M	D	Plus any procedure or procedure step that flows to the procedure step being deleted	
		A	D	Plus any procedure step to which the procedure step being deleted flows if views are being sent or returned on the flow	

Dialog Flow

The following table describes using a work view:

Step	Description	P	E	Objects	Considerations
1	Add detail, or change a flow between procedures: a. desc b. flow type c. flows on d. properties e. data passed f. match/unmatch	M M	S S	Source procedure step Target procedure step	To change the dialog flows and what exit states initiate them, check out the procedure step from which the flows begin with at least update authority.
2.	Delete a flow.	M M	S S	Source procedure step Target procedure step	
3.	Add, detail, and change a flow to or from another business system	M M	S S	Source procedure step Target procedure step	
4.	Delete a flow to or from another business system.	M M	S S	Source procedure step Target procedure step	

Procedure Action Diagram

The following table describes using procedures, entity views, local views, and work views in a PAD for designing subset type:

Step	Description	P	E	Objects	Considerations
1	Add, change or delete statements in a Procedure Action Diagram.	M	D	Procedure step	You cannot add or delete a Procedure Action Diagram except by adding or deleting its procedure step. To build action diagram statements that reference objects that you have not referenced before, you must include those objects in your subset with at least Access protection. If the objects do not exist yet, be sure to define a subset you can use to add them. For example, you may need to include entity types, work sets, exit states of another business system, common action blocks and PADs. The expansion of a procedure brings in the action diagrams of each procedure step with full expansion.

Procedure Synthesis

The following table describes using procedures for designing:

Step	Description	P	E	Objects	Considerations
1	Procedure step with no existing views or action diagram statements.	M	D	Procedure step	

View Maintenance Entity View

The following table describes using an entity view for designing:

Step	Description	P	E	Objects	Considerations
1	Add an entity view.	M A	D S	Procedure step Plus entity type	After defining expected effects, you do not need to scope the entity type.
2.	Change an entity view's name or properties	M	D	Procedure step	After defining expected effects, you do not need to scope the entity type.
3.	Change a referenced entity type or subtype.	M	D	Entity type	
4.	Delete an entity view, or an attribute in the view.	D M	D A	Procedure step Plus all procedure steps that use it	To delete a view, your subset must contain all references to that view (all objects that use it). If the view is view-matched to another action diagram, you may need full expansion.

Work View

The following table describes using a work view for designing:

Step	Description	P	E	Objects	Considerations
1	Add a work view.	M	D	Procedure step	
2.	Change a work view.	M	D	Procedure step	
3.	Delete a work view.	D	D	Procedure step	After defining expected effects, you do not need to scope the entity type. If the view is view-matched to another action diagram, you may need full expansion.

Local View

The following table describes using a local view for designing:

Step	Description	P	E	Objects	Considerations
1	Add a local view.	M	D	Procedure step	
2.	Change a work view.	M	D	Procedure step	
3.	Delete a work view.	D	D	Procedure step	

Note: For more information, see Process Action Diagram and Common Action Blocks in this chapter.

Window Design

The following table describes working with a window of a procedure step:

Step	Description	P	E	Objects	Considerations
1	Create a window for a procedure step	M	D	Procedure step	The contents of a window include all prompts and variables. A procedure step can have multiple windows.
2.	Change the contents of a window.	M	D	Procedure step	The contents of a window include all prompts and variables. A procedure step can have multiple windows.
3.	Delete a field on a window	M	D	Procedure step	A window using a default edit pattern copied from another business system cannot delete that edit pattern. Only its usage is removed.
4.	Delete a window	M	D	Procedure step	A window using a default edit pattern copied from another business system cannot delete that edit pattern. Only its usage is removed.

WorkSet List

The following table describes creating a work attribute set:

Step	Description	P	E	Objects	Considerations
1	Create a work attribute set	M	D	Root subject area	

Interface

The following table shows using Interface:

Step	Description	P	E	Objects	Considerations
1	Create Interface	M	D	Server Manager	Server Manager and its procedures steps must exist in subset in order to create interfaces. Procedure Step must have modify protection.
				or	
		A	D	Server Manager	
		M	D	Procedure Steps	
				or	
		M	D	Procedure Steps with subset type set to unit or system	
2	Update Interface	M	D	Server Manager	Server Manager and its procedures steps must exist in subset in order to create interfaces. Procedure Step must have modify protection.
				or	
		A	D	Server Manager	
		M	D	Procedure Steps	
				or	
		M	D	Procedure Steps with subset type set to unit or system	

Custom Proxy

The following table shows using Custom Proxy:

Step	Description	P	E	Objects	Considerations
1	Create Custom Proxy Definition and add Proxy	M	D	Server Manager	Server Manager and its procedures steps must exist in subset in order to select interfaces for proxy. Procedure Step must have modify protection.
				or	
		A	D	Server Manager	
		M	D	Procedure Steps	
				or	
		M	D	Procedure Steps with subset type set to unit or system	
2	Update Custom Proxy and existing Proxies	M	D	Custom Proxy	
3	Update Custom Proxy and add new Proxy	M	D	Custom Proxy	Server Manager and its procedures steps must exist in subset in order to add/select interfaces for new proxy. Procedure Step must have modify protection.
				and	
		M	D	Server Manager	
				or	
		A	D	Server Manager	
		M	D	Procedure Steps	
				or	
		M	D	Procedure Steps with subset type set to unit or system	
4	Generate Custom Proxy	A	D	Custom Proxy	Server Manager and its procedures steps must exist in subset to generate custom proxy.
				and	

Step	Description	P	E	Objects	Considerations
		A	D	Server Manager	
				or	
		M	D	Procedure Steps	
				or	
		A	D	Custom Proxy with subset type set to unit or system	

Web Service Definition

The following table shows using Web Service Definition:

Step	Description	P	E	Objects	Considerations
1	Create Web Service Definition and add Web Operation	M	D	Server Manager	Server Manager and its procedures steps must exist in subset in order to add/select interfaces for web operation. Procedure Step must have modify protection.
2	Update Web Service Definition and existing Web Operations	M	D	Web Service Definition	
3	Update Web Service Definition and add new Web Operation	M	D	Web Service Definition	Server Manager and its procedures steps must exist in subset in order to add/select interfaces for new web operation. Procedure Step must have modify protection.
				and	
		M	D	Server Manager	
				or	
		A	D	Server Manager	
		M	D	Procedure Steps	
				or	
		M	D	Procedure Steps with subset type set to unit or system	

Configuration Instance

The following table shows using Configuration Instance:

Step	Description	P	E	Objects	Considerations
1	Add Configuration Instance	A	D	All target objects: Load Modules, Procedure Steps, Action Blocks, Database, Records, and/or Storage Groups.	
2	Delete Configuration Instance	D	D	Configuration Instance	5, 8
3	Rename Configuration Instance	D	D	Configuration Instance	5, 8
4	Modify Configuration Instance including select/unselect target objects, update generation and trace options	M	D	Configuration Instance	5, 6, 8
		A	D	Load Modules (optional)	
5	Generate Configuration Instance without making any changes	R	F	Configuration Instance	6, 7
		R	F	Load Modules (optional)	
6	Generate Configuration Instance after making changes to generation options or trace options	M	F	Configuration Instance	5, 6, 7, 8
		A	F	Load Modules (optional)	

Step	Description	P	E	Objects	Considerations
7	To change Configuration Instance from model based to file based **Note:** This will delete the objects from the model.	D	D	Configuration Instance	5, 8
8	To change Configuration Instance from file based to model based **Note:** This will create the objects in the model.	A	D	All target objects	5, 8

Note:

1. Subset must include Load Modules in order to select objects under Model Object Selection tab.
2. Subset must include Databases in order to select objects under Database tab.
3. Model must not be Read Only.
4. If subset type is Unit or System, must scope Database with Access.
5. Target objects must have at least Access protection. If a target object is downgraded to Read, user will not be able to perform this function.
6. Required to explicitly scope load modules if Configuration Instance currently includes all load modules within the business system. Otherwise, the model object selection list will be empty.
7. Recommend subset type set to System.
8. If a Configuration instance includes (or would like to include) an index, the parent Table for the index must be included in the subset with Modify or Delete protection in order to ensure that the Index gets the Access protection needed. Note that selecting a Database for inclusion in a Configuration instance will require that all Tables associated with that Database have Modify or Delete protection so that the associated indexes may be included in the instance.
9. When a configuration includes the storage group for a database, it is recommended that the database is also selected in the configuration.

Technical Design

To do all Data Structure and Data Store tasks, scope on root subject area with M and D.

Transformation

The following table describes transformation in technical design:

Step	Description	P	E	Objects	Considerations
1	Transform entire data model (first time)	M	D	Root subject area	All entity types must be free of Consistency Check errors before Transformation can succeed. In a small model, you can scope the root subject area instead of individual entity types.
2.	Change data model and perform Intelligent Retransformation or implement	M M	D D	Root subject area Plus changed data table	
3.	Add an entity type and transform or implement it	M M	D	Root subject area Plus any data table	
4.	Add an attribute and transform or implement it	M M	D D	Root subject area Plus data table for entity type	
5.	Change database defaults	M M	D D	Any data table or Database	

Data Structure

The tables in this section describe data structures in technical design.

Data Tables

The following table describes using data tables of a data structure:

Step	Description	P	E	Objects	Considerations
1	Add a new data table not associated with another data table.	M M	D D	Unimplemented entity type Plus any data table	

Step	Description	P	E	Objects	Considerations
2.	Add a new data table associated with another data table.	M M M	D S D	Unimplemented entity type Plus its related entity types Plus data table	An entity type scoped with Modify or Delete protection includes its associated data table with Read protection.
3.	Delete a data table not associated with another data table	D D	D D	Implemented entity type of target data table Plus entity type	An entity type scoped with Modify or Delete protection includes its associated data table with Read protection.
4.	Delete a data table associated with another data table.	D D M M	D D D S	**(a)** Target data table **(b)** Data tables that have target data table's relationship membership name as their identifier **(c)** Implemented entity types for data tables in (a) & (b). **(d)** Any entity types to which the foreign key column of (a) & (b) point.	

Columns and Indexes

The following table describes using columns and indexes of a data structure:

Step	Description	P	E	Objects	Considerations
1	Add a column.	M	D	Implemented entity type Plus data table	An entity type scoped with Modify or Delete protection includes its associated data table with Read protection.
2.	Delete a column.	D	D	Implemented entity type Plus data table	An entity type scoped with Modify or Delete protection includes its associated data table with Read protection.
3.	Add an index.	M	D	Data table	

Step	Description	P	E	Objects	Considerations
4.	Delete an index.	D D	D D	Implemented entity type Plus data table	An entity type scoped with Modify or Delete protection includes its associated data table with Read protection.

Linkages

The following table describes using linkages of a data structure:

Step	Description	P	E	Objects	Considerations
1	Add a linkage.	M M	D D	Both implemented entity types Plus associated data table	An entity type scoped with Modify or Delete protection includes its associated data table with Read protection.
2.	Delete a linkage.	M D	D D	Related entity types Plus related data tables	An entity type scoped with Modify or Delete protection includes its associated data table with Read protection. These scoping objects allow the deletion of the linkage only from the Data Structure Diagram. To delete the relationship from the Data Model, use the Data Model rules for the current task.

Database and Storage Group Management

The following table describes using a database of a data structure:

Step	Description	P	E	Objects	Considerations
1	Add a database.	M	D	Any data table of an existing database	
2.	Delete a database.	D M	D D	Database Plus all implemented entity types in the database	

Load Module Packaging

The following table describes packaging a load module:

Step	Description	P	E	Objects	Considerations
1	Add new packaging (a new load module).	M	S	All unpackaged procedure steps	
2.	Modify existing packaging: a. Add a trancode. b. Add procedure steps. c. Assign existing trancodes. d. Modify clear screen and dialog flow trancodes for packaged procedure steps.	A M A M M M	S S S S S S	Load module Unpackaged procedure steps Plus load module Load module Procedure steps Plus load module	You can assign clear screen and dialog flow trancodes to the newly packaged procedure steps if the trancodes are new objects on the workstation.
3.	Delete a packaged load module.	D	S	Load module	
4.	Delete packaged procedure steps from a load module.	M	S	Load module	You can delete packaged procedure steps from the load module with this protection if and only if the deletion of the packaged procedure step does not cause trigger deletion of the load module or any trancodes in the load module. Trigger deletion of the load module occurs only when you are deleting **one** of the following: All packaged procedure steps in the load module. The last remaining packaged procedure step.

If you need more detailed information on tasks that involve Construction scoping objects, see task tables for procedure step, database, action block, business system and subject area.

Subset Task Definition for the Unit Test Subset Type

One subset task definition for the Unit Test subset type is listed under Construction.

Step	Description	P	E	Objects	Considerations
1	Generate code for single procedure step without changes.	R	F	Procedure step	

Subset Task Definition for the System Test Subset Type

One subset task definition for the System test subset type is listed as follows:

Step	Description	P	E	Objects	Considerations
1	Create a remote file (.rmt).	M	D	Procedure	Implementation Logic Usage (IMPUSE) objects are included, so you need not regenerate triggers.

Appendix B: CSE Subsetting Expansion Tables A Through I

The expansion tables let you see what objects will be included when you expand a subset. They also show what protection and expansion each object that is included will have.

This section contains the following topics:

How to Use the Expansion Tables

The following steps demonstrate how to use the expansion tables.

1. Identify the subset type required.
2. Select the subset type option design, which is the default, if you intend to perform planning, analysis, or design tasks. Select the subset type option unit or system test for construction tasks, depending on your intent.
3. Determine which scoping objects to include in your subset.
4. Find the scoping object expansion table for the scoping object and subset type option you determined in steps 1 and 2.
5. Determine what expansions include the expansion objects you need by comparing what is included with the various expansions listed in the first column.

6. Evaluate internal expansions

   For each expansion object that is documented with an expansion option in the and will expand column, see the expansion table for the expansion object and note the expansion objects associated with this object's expansion, their respective protections, and expansions, if any.

   Internal expansions are **not** selectable. The following table lists expansion options that are selectable and those that are internal.

User-Selectable Expansion Options	Non-Selectable Internal Expansions
Short	Short
Default	Short2
Full	Parent
	Full2
	Default+
	Full+

7. Identify the lowest expansion that includes the needed expansion objects at the protection required to perform your task.

Note: If you select Read protection for a scoping object, all of its expanded objects will be granted Read protection also.

Subsetting Expansion Tables

The subsetting expansion tables are listed alphabetically by scoping object. Click a letter to view tables.

Subsetting Expansion Table - A

This section describes the subsetting expansion tables starting with alphabet A.

Action Block

This section describes action block expansions for design and unit test table and system test table.

Action Block-Design & Unit Test Table

For these Action Block expansions, the expanded objects are granted protection based on whether the scoping object is Delete, Modify, or Access:

Action Block	Object for Design and Unit Test	Protection	Expands
Default Full	Action Statements	Delete/Delete/Read	
Default Full	Used Action Blocks	Access	Short
Default Full	ASYNC response event usages	Delete/Delete/Read	
Short *internal* Default Full	Attribute that is derived or defined by scoped Action Block	Access	
Short *internal* Default Full	Bind Package Default	Delete/Delete/Read	
Short *internal* Default Full	Owning Business System	Access	Short
Short *internal* Default Full	DRBM	Delete/Delete/Read	
Default Full	Command referenced in Action Block	Access	Default
Short *internal* Default Full	Owning Entity	Access	Short
Short *internal* Default Full	Owning Entity for derived attribute	Access	Short
Short *internal* Default Full	Entity Types and Subtypes (referenced by views Step Action Block	Access	Short

Action Block	Object for Design and Unit Test	Protection	Expands
Default Full	Exit States referenced in Action Block	Access	Default
Short *internal* Default Full	Implementation Unit	Access	
Short *internal* Default Full	Procedure Step (for Procedure Step Action Block)	Access	Short
Short *internal* Default Full	Process (for Elementary Process Action Block)	Access	Short
Short *internal* Default Full	RDB Table Usage	Delete/Delete/Read	
Default Full	Script Slot Action Block Def/Group	Delete/Delete/Read	
Default Full	Script Slot Action Statements	Delete/Delete/Read	
Short *internal* Default Full	Script Slot View Definitions	Delete/Delete/Read	
Short *internal* Default Full	Table Usages	Delete/Delete/Read	
Default Full	Typemap associated to the action block	Delete/Modify/Access	Default
Short *internal* Default Full	View	Delete/Modify/Access	
Default Full	View Matching between scoped Action Block and used Action Blocks	Delete/Delete/Read	
Short *internal* Default Full	Work Attribute Sets referenced by views	Access	Short

Action Block-System Test Table

For these Action Block expansions, the expanded objects for System Test are granted protection based on whether the scoping object is Delete, Modify, or Access:

Action Block	Object for System Test	Protection	Expands
Default	Used Action Blocks	Access	Short
Full	Used Action Blocks	Access	Full
Default Full	Action Statements	Delete/Delete/Read	
Default Full	ASYNC response event usages	Delete/Delete/Read	
Short *internal* Default Full	Attribute that is derived or defined by scoped Action Block	Access	
Short *internal* Default Full	Owning Business System	Access	Short
Default Full	Commands referenced in Action Block	Access	Default
Short *internal* Default Full	Entity Types and Subtypes referenced by views	Access	Default
Short *internal* Default Full	Owning Entity	Access	Short
Short *internal* Default Full	Owning Entity for derived attribute	Access	Short
Default Full	Exit States referenced in Action Block	Access	Default
Short *internal* Default Full	Implementation Unit	Delete/Modify/Access	Default

Action Block	Object for System Test	Protection	Expands
Short *internal* Default Full	Procedure Step (for Procedure Step Action Block)	Access	Short
Short *internal* Default Full	Process (for Elementary Process Action Block)	Access	Short
Default Full	Typemap associated to the action block	Delete/Modify/Access	Default
Default Full	Script Slot Action Block Def/Group	Delete/Delete/Read	
Default Full	Script Slot Action Statements	Delete/Delete/Read	
Short *internal* Default Full	Script Slot View Definitions	Delete/Delete/Read	
Short *internal* Default Full	Work Attribute Sets referenced by views	Access	Short
Short *internal* Default Full	Views	Delete/Modify/Access	
Default Full	View Matching between scoped Action Block and used Action Blocks	Delete/Delete/Read	

Subsetting Expansion Table - B

This section describes the subsetting expansion tables starting with alphabet B.

Batch Job

For these Batch Job expansions, the expanded objects for all subset types are granted protection based on whether the scoping object is Delete, Modify, or Access:

Batch Job	Object for all subset types	Protection	Expands
Short	Batch Job Steps	Delete/Modify/Access	Short
Default	Batch Job Steps	Delete/Modify/Access	Default
Full	Batch Job Steps	Delete/Modify/Access	Full
Short Default Full	Procedures	Access	Parent

Batch Job Step

This section describes batch job step expansions for design and unit test table and system test table.

Design and Unit Test Table

For these Batch Job Step expansions, the expanded objects for Design and Unit Test are granted protection based on whether the scoping object is Delete, Modify, or Access:

Batch Job Step	Object for Design and Unit Test	Protection	Expands
Short Default Full	Parent Batch Job	Access	Short
Short 2 *internal*	Parent Batch Job	Access	Parent
Short Default Full	Package List Entry	Delete/Delete/Read	
Short Default Full	Procedure Step Execution Usages	Delete/Delete/Read	
Short	Procedure Steps for this Batch Job Steps	Delete/Modify/Access	Short
Default	Procedure Steps for this Batch Job Steps	Delete/Modify/Access	Default

Batch Job Step	Object for Design and Unit Test	Protection	Expands
Fullf	Procedure Steps for this Batch Job Steps	Delete/Modify/Access	Full
Short Default Full	PSB	Delete/Modify/Access	
Short 2 *internal*	PSB	Access	

System Test Table

For these Batch Job expansions, the expanded objects for System Test are granted protection based on whether the scoping object is Delete, Modify, or Access:

Batch Job Step	Object for System Test	Protection	Expands
Full 2	Parent Batch Job	Read-only	Full
Full 2	Package List Entry	Delete/Delete/Read	
Full 2	Procedure Step Execution Usages	Read-only	
Full 2	Procedure Steps for this Batch Job Step	Read-only	Full
Full 2	PSB	Read-only	

Business System

For these Business System expansions, the expanded objects for all subset types are granted protection based on whether the scoping object is Delete, Modify, or Access:

Business System	Object for all subset types	Protection	Expands
Short Default Full	Bind Package Default	Delete/Delete/Read	
Short Default Full	Business System Implementation (Technical System)	Delete/Modify/Access	
Short Default Full	Commands	Delete/Modify/Access	Default

Business System	Object for all subset types	Protection	Expands
Short Default Full	Command referenced by Script Slot Command Definition	Delete/Modify/Access	Default
Short Default Full	Custom Video Properties	Delete/Modify/Access	
Short Default Full	Default Edit Patterns	Delete/Modify/Access	
Short Default Full	Default Literal, Prompt and Field Attributes, Default GUI Attributes	Delete/Modify/Access	
Short Default Full	Dialect Text for Default Edit Patterns	Delete/Delete/Read	
Short Default Full	Exit States	Delete/Modify/Access	Default
Short Default Full	Exit State referenced by Script Slot Exit State Definition	Delete/Modify/Access	Default
Short Default Full	Package List Entry	Delete/Delete/Read	
Short Default Full	Parameter and String Delimiters	Delete/Delete/Read	
Default	Procedures	Delete/Modify/Access	Default
Full	Procedures	Delete/Modify/Access	Full

Business System	Object for all subset types	Protection	Expands
Short Default Full	Script Capabilities	Delete/Delete/Read	
Short Default Full	Script Executions	Delete/Delete/Read	
Short Default Full	Script Slot Command Definitions	Delete/Delete/Read	
Short Default Full	Script Slot Exit State Definitions	Delete/Delete/Read	
Short Default Full	System PF Keys	Delete/Modify/Access	
Short Default Full	Templates	Delete/Modify/Access	Default

Subsetting Expansion Table - C

This section describes the subsetting expansion tables starting with alphabet C.

Command

For these Command expansions, the expanded objects for all subset types are granted protection based on whether the scoping object is Delete, Modify, or Access:

Command	Object for all subset types	Protection	Expands
Default	Owning Business System	Access	Short
Default	Command Synonyms	Delete/Delete/Read	
Default	Dialect Text for Command and Command Synonyms	Delete/Delete/Read	

Component Implementation

This section describes Component Implementation expansions for design and unit test table and system test table.

Design Table

For these Component Implementation expansions, the expanded objects for Design are granted protection based on whether the scoping object is Delete, Modify, or Access:

Component Implementation	Object for Design	Protection	Expands
Short Default Full	Parent Subject areas of the scoped component specification	Access	Parent
Short Default Full	The TD action block for the scoped component specification	Delete/Modify/Access	
Short Default Full	Implementation unit for the TD action block	Delete/Modify/Access	

Unit Test Table

For these Component Implementation expansions, the expanded objects for Unit Test are granted protection based on whether the scoping object is Delete, Modify, or Access:

Component Implementation	Object for Unit Test	Protection	Expands
Short Default Full	Parent Subject areas of the scoped component specification	Access	Parent
Short Default Full	The TD action block for the scoped component specification	Delete/Modify/Access	

System Test Table

For these Component Implementation expansions, the expanded objects for System Test are granted protection based on whether the scoping object is Delete, Modify, or Access:

Component Implementation	Object for Unit Test	Protection	Expands
Short Default Full	Parent Subject areas of the scoped component specification	Access	Parent
Short Default Full	The TD action block for the scoped component specification	Delete/Modify/Access	

Component Model

For these Component Model expansions, the expanded objects for all subset types are granted protection based on whether the scoping object is Delete, Modify, or Access:

Component Model	Object for all subset types	Protection	Expands
Default Full	Art Objects	Delete/Delete/Read	
Default	Parent Entity Types of referenced Relationships, Subtypes and Partitionings	Access	Short
Full	Parent Entity Types of referenced Relationships, Subtypes and Partitionings	Delete/Modify/Access	Default
Default	Referenced Entity Types	Access	Short
Full	Referenced Entity Types	Delete/Modify/Access	Default
Default	Referenced Partitionings	Access	
Full	Referenced Partitionings	Delete/Modify/Access	
Default	Referenced Relationships	Access	
Full	Referenced Relationships	Delete/Modify/Access	
Default	Referenced Subtypes	Access	
Default	Scoping Subject Area	Access	Default
Full	Scoping Subject Area	Delete/Modify/Access	Default

Component Model	Object for all subset types	Protection	Expands
Full	Referenced Subtypes	Delete/Modify/Access	

Component Specification

This section describes component specification expansions for design and unit test table and system test table.

Design Table

For these Component Specification expansions, the expanded objects for Design are granted protection based on whether the scoping object is Delete, Modify, or Access:

Component Model	Object for Design	Protection	Expands
Short Default Full	Parent Subject areas of the scoped component specification	Access	Parent
Short Default Full	The TD action block for the scoped component specification	Delete/Modify/Access	
Short Default Full	Implementation unit for the TD action block	Delete/Modify/Access	
Default	Interface types offered by component specification	Delete/Modify/Access	Short
Full	Interface types offered by component specification	Delete/Modify/Access	Default
Short Default	Interface type model scoped by each interface type	Delete/Modify/Access	Default
Full	Interface type model scoped by each interface type	Delete/Modify/Access	Full

Unit Test Table

For these Component Specification expansions, the expanded objects for Unit Test are granted protection based on whether the scoping object is Delete, Modify, or Access:

Component Model	Object for Unit Test	Protection	Expands
Short Default	Parent Subject areas of the scoped component specification	Access	Parent
Short Default	The TD action block for the scoped component specification	Delete/Modify/Access	
Default	Interface types offered by component specification	Delete/Modify/Access	Default
Default	Interface type model scoped by each interface type	Delete/Modify/Access	Default

System Test Table

For these Component Specification expansions, the expanded objects for System Test are granted protection based on whether the scoping object is Delete, Modify, or Access:

Component Specification	Object for System Test	Protection	Expands
Short Default	Parent Subject areas of the scoped component specification	Access	Parent
Short Default	Fully expanded TD action block for the scoped component specification	Delete/Modify/Access	
Default	Interface types offered by component specification	Delete/Modify/Access	Default
Default	Interface type model scoped by each interface type	Delete/Modify/Access	Default

Configuration Instance

For these Configuration Instance expansions, the expanded objects for all subset types are granted protection based on whether the scoping object is Delete, Modify, or Access:

Configuration Instance	Object for all subset types	Protection	Expands
Default	Referenced Business System	Access	Short
	Referenced Load Module	Access	Short
	Referenced Procedure Step	Access	Default
	Referenced Action Block	Access	Default
	Parent Procedure Step for Referenced Window and Dialog Box	Access	Default
	Referenced Storage Group	Access	Default
	Referenced Database	Access	Short
	Parent Database for referenced Tablespace and Index	Access	Short
	Referenced Record	Access	Short
	Scoping Subject Area	Access	Short
Full	Referenced Business System	Access	Short
	Referenced Load Module	Access	Default
	Referenced Procedure Step	Access	Default
	Referenced Action Block	Access	Default
	Parent Procedure Step for Referenced Window and Dialog Box	Access	Default
	Referenced Storage Group	Access	Default
	Referenced Database	Access	Default
	Parent Database for referenced Tablespace and Index	Access	Default
	Referenced Record	Access	Default
	Scoping Subject Area	Access	Default

Current Info System

For these Current Info System expansions, the expanded objects for all subset types are granted protection based on whether the scoping object is Delete, Modify, or Access:

Current Info System	Object for all subset types	Protection	Expands
Full *internal*	Produced Current Effects	Read	
Full Plus *internal*	Produced Current Effects	Delete	

Custom Proxies

For these Custom Proxy Definition expansions, the expanded objects for all subset types are granted protection based on whether the scoping object is Delete, Modify, or Access:

Custom Proxies	Object for all Subset Types	Protection	Expands
Short Default Full	Owning Business System	Access	Short
Short Default Full	Custom Proxy included in the Custom Proxy Definition	Delete/Modify/Access	
Short	Procedure Steps included in the Custom Proxy	Delete/Modify/Access	Short
Default	Procedure Steps included in the Custom Proxy	Delete/Modify/Access	Default
Full	Procedure Steps included in the Custom Proxy	Delete/Modify/Access	Full

Subsetting Expansion Table - D

This section describes the subsetting expansion tables starting with alphabet D.

Data Table

This section describes data table expansions for design and unit test table and system test table.

Design and Unit Test

For these Data Table expansions, the expanded objects for Design and Unit Test are granted protection based on whether the scoping object is Delete, Modify, or Access:

Data Table	Object for Design and Unit Test	Protection	Expands
Short *internal* Default	TD Action Blocks for from Constraints	Delete/Modify/Access	
Short *internal* Default	Columns (Data, Denormalized, and Foreign Key)	Delete/Modify/Access	
Short *internal* Default	from Constraints	Delete/Delete/Read	
Default	to Constraints	Read	
Short *internal* Default	Data Sets for included Tablespaces and Indexspaces	Delete/Delete/Read	
Short *internal*	Target Data Tables of from Constraints	Access	Short
Default	Target Data Tables of to and from Constraints	Access	Short
Short *internal* Default	Parent Database	Access	Short
Short *internal* Default	Entity Type the Data Table implements	Access	Short
Short *internal* Default	Extended Columns	Delete/Delete/Read	
Short *internal* Default	Extended Constraints for included Constraints	Delete/Delete/Read	
Short *internal* Default	Extended Indexes for included Indexes	Delete/Delete/Read	
Short *internal* Default	Extended Indexspaces for included Indexspaces	Delete/Delete/Read	
Short *internal* Default	Extended Tables	Delete/Delete/Read	
Short *internal* Default	Extended Tablespaces for included Tablespaces	Delete/Delete/Read	
Short *internal* Default	Indexes for Data Table	Delete/Delete/Read	

Data Table	Object for Design and Unit Test	Protection	Expands
Short *internal* Default	Indexspaces for Indexes	Delete/Delete/Read	
Default	Target Link Tables of from Constraints	Access	Default
Short *internal* Default	Storage Groups containing Data Stores included in the expansion	Access	Default
Short *internal* Default	Storage Groups holding Data Sets included in the expansion	Access	Default
Short *internal* Default	Tablespaces for Data Table	Delete/Modify/Access	
Short *internal* Default	Tablespace referenced by Extended Indexspace Oracle	Access	
Short *internal* Default	Tablespace referenced by Extended Tables	Access	

System Test

For these Data Table expansions, the expanded objects for System Test are granted protection based on whether the scoping object is Delete, Modify, or Access:

Data Table	Object for System Test	Protection	Expands
Short *internal* Default	TD Action Blocks for from Constraints	Delete/Modify/Access	Default
Short *internal* Default	Columns (Data, Denormalized, and Foreign Key)	Delete/Modify/Access	
Short *internal* Default	from Constraints	Delete/Delete/Read	
Default	to Constraints	Read	
Short *internal* Default	Data Sets for included Tablespaces and Indexspaces	Delete/Delete/Read	
Short *internal*	Target Data Tables for from Constraints	Access	Short
Default	Target Data Tables of to and from Constraints	Access	Short
Short *internal* Default	Parent Database	Access	Short

Data Table	Object for System Test	Protection	Expands
Short *internal* Default	Entity Type the Data Table implements	Access	Short
Short *internal* Default	Extended Columns	Delete/Delete/Read	
Short *internal* Default	Extended Constraints for included Constraints	Delete/Delete/Read	
Short *internal* Default	Extended Indexes for included Indexes	Delete/Delete/Read	
Short *internal* Default	Extended Indexspaces for included Indexspaces	Delete/Delete/Read	
Short *internal* Default	Extended Tables	Delete/Delete/Read	
Short *internal* Default	Extended Tablespaces for included Tablespaces	Delete/Delete/Read	
Short *internal* Default	Indexes for the Data Table	Delete/Delete/Read	
Short *internal* Default	Indexspaces for Indexes	Delete/Delete/Read	
Default	Target Link Tables of from Constraints	Access	Default
Short *internal* Default	Storage Groups containing Data Stores included in the expansion	Access	Default
Short *internal* Default	Storage Groups holding Data Sets included in the expansion	Access	Default
Short *internal* Default	Tablespaces for Data Table	Delete/Modify/Access	
Short *internal* Default	Tablespace referenced by Extended Indexspace Oracle	Access	
Short *internal* Default	Tablespace referenced by Extended Tables	Access	

Database

For these Database expansions, the expanded objects for all subset types are granted protection based on whether the scoping object is Delete, Modify, or Access:

Database	Object for all subset types	Protection	Expands
Default	Column Index Values that determine partitioning for Data Sets included in the expansion	Delete/Delete/Read	
Default	DASD Volumes	Delete/Delete/Read	
Default	Data Sets for all Tablespaces and Indexspaces	Delete/Delete/Read	
Default	Data Tables (inherits protection from Database)	Delete/Modify/Access	Default
Short *internal* Default	Database files	Delete/Delete/Read	
Short *internal* Default	Extended Databases	Delete/Delete/Read	
Short *internal*	Extended Tablespace for included Tablespaces	Delete/Delete/Read	
Default	Extended Tablespace for all Tablespaces	Delete/Delete/Read	
Default	Link Tables	Delete/Modify/Access	Default
Short *internal* Default	Default Storage Group	Access	Default
Default	Storage Groups containing Data Stores included in the expansion	Access	Default
Default	Storage Groups holding Data Sets included in the expansion	Access	Default
Default	Tablespaces	Delete/Modify/Access	

Subsetting Expansion Table - E

This section describes the subsetting expansion tables starting with alphabet E.

Entity Type

This section describes entity type expansions for design and unit test table and system test table.

Design Table

For these Entity Type expansions, the expanded objects for Design are granted protection based on whether the scoping object is Delete, Modify, or Access:

Entity Type	Object for Design	Protection	Expands
Default	Action Blocks for Attributes with default or derivation algorithms	Delete/Modify/Access	Default
Default	Owned Action Blocks	Access	Short
Full	Owned Action Blocks	Delete/Modify/Access	Default
Short Default	TD Action Block	Delete/Modify/Access	
Short Default	Aliases	Delete/Delete/Read	
Short Default Full	Attributes and Foreign Key Attributes	Delete/Modify/Access	
Short Default Full	Attribute Relationship Usages	Delete/Delete/Read	
Short Default	Classifiers	Delete/Delete/Read	
Default	Contents	Delete/Delete/Read	
Short Default	Dialect Text for Prompt for Values and Prompts	Delete/Delete/Read	
Short Default	Entity State Transitions, and changes for the scoped entity and its subtypes	Delete/Delete/Read	
Default	Entity Type included Contents are used by	Access	Short
Short Default Full	Parent Entities of Attributes from which Foreign Key Attributes are derived	Access	Short
Default	Related Entity Types	Access	Short

Entity Type	Object for Design	Protection	Expands
Short	Target Entity Types (for identifying relationships)	Access	Short
Short Default	Identifiers	Delete/Delete/Read	
Short Default	Implementation Unit for TD Action Blocks	Delete/Modify/Access	
Default	Mutually Exclusives	Delete/Delete/Read	
Short Default	Partitioning	Delete/Modify/Access	
Short Default	Permitted Values	Delete/Modify/Access	
Short Default	Prompts	Delete/Modify/Access	
Short Default	Prompt for Values	Delete/Modify/Access	
Short Default	Record implementing the Entity (included only if the requested protection for the scope identity was Modify or Delete)	Read	Short
Short Default Full	Relationships for included Attribute Relationship Usages	Access	
Short	Relationships (All relationships for scoped Entity Types are included, if the target Entity has not been scoped the relationship is included only if it is identifying)	The lesser of the source or target entity's protection (Special 1)	
Default	Relationships (All relationships for scoped and related Entity Types are included)	The lesser of the source or target entity's protection (Special 1)	
Short Default	Parent Subject Area	Access	Parent
Short Default	Subtypes	Delete/Modify/Access	
Default	Owned Transaction Operations	Access	Short
Full	Owned Transaction Operations	Delete/Modify/Access	Default

Unit Test Table

For these Entity Type expansions, the expanded objects for Unit Test are granted protection based on whether the scoping object is Delete, Modify, or Access:

Entity Type	Object for Unit Test	Protection	Expands
Default	Column Index Values that determine partitioning for Data Sets included in the expansion	Delete/Modify/Access	Default
Default	owned Action Blocks	Access	Short
Short Default	TD Action Block	Delete/Modify/Access	
Short Default	Aliases	Delete/Delete/Read	
Short Default	Attributes and Foreign Key Attributes	Delete/Modify/Access	
Short Default	Classifiers	Delete/Delete/Read	
Default	Contents	Delete/Delete/Read	
Short Default	Data Table implementing the Entity	Read	Short
Short Default	Dialect Text for Prompt for Values and Prompts	Delete/Delete/Read	
Short Default	Entity State Transitions, and changes for the scoped entity and its subtypes	Delete/Delete/Read	
Default	Entity Type included Contents are used by	Access	Short
Default	Related Entity Types	Access	Short
Short	Target Entity Types (for identifying relationships)	Access	Short
Short Default	Identifiers	Delete/Delete/Read	
Default	Mutually Exclusives	Delete/Delete/Read	
Short Default	Partitioning	Delete/Modify/Access	

Entity Type	Object for Unit Test	Protection	Expands
Short Default	Permitted Values	Delete/Modify/Access	
Short Default	Prompt for Values	Delete/Modify/Access	
Short Default	Prompts	Delete/Modify/Access	
Short	Relationships (All relationships for scoped Entity Types are included, if the target Entity has not been scoped the relationship is added only if it is identifying)	The lesser of the source or target entity's protection (Special 1)	
Default	Relationships (All relationships for related Entity Types are included)	The lesser of the source or target entity's protection (Special 1)	
Short Default	Parent Subject Area	Access	
Short Default	Subtypes	Delete/Modify/Access	
Default	Owned Transaction Operations	Access	Short

System Test Table

For these Entity Type expansions, the expanded objects for System Test are granted protection based on whether the scoping object is Delete, Modify, or Access:

Entity Type	Object for System Test	Protection	Expands
Short Default	Action Blocks for Attributes with default or derivation algorithms	Delete/Modify/Access	Default
Default	Owned Action Blocks	Access	Short
Short Default	TD Action Block	Delete/Modify/Access	Default
Short Default	Aliases	Delete/Delete/Read	
Short Default	Attributes and Foreign Key Attributes	Delete/Modify/Access	

Entity Type	Object for System Test	Protection	Expands
Short Default	Classifiers	Delete/Delete/Read	
Default	Contents	Delete/Delete/Read	
Short Default	Data Table implementing the Entity	Read	Short
Short Default	Dialect Text for Prompt for Values and Prompts	Delete/Delete/Read	
Short Default	Entity State Transitions for the scoped entity and its subtypes	Delete/Delete/Read	
Default	Entity Type included Contents are used by	Access	Short
Default	Related Entity Types	Access	Default
Short	Target Entity Types (for identifying relationships)	Access	Default
Short Default	Identifiers	Delete/Delete/Read	
Default	Mutually Exclusives	Delete/Delete/Read	
Short Default	Partitioning	Delete/Modify/Access	
Short Default	Permitted Values	Delete/Modify/Access	
Short Default	Prompts	Delete/Modify/Access	
Short Default	Prompt for Values	Delete/Modify/Access	
Short	Relationships (All relationships for scoped Entity Types are included, if the target Entity has not been scoped the relationship is added only if it is identifying)	The lesser of the source or target entity's protection (Special 1)	
Default	Relationships (All relationships for related Entity Types are included)	The lesser of the source or target entity's protection (Special 1)	

Entity Type	Object for System Test	Protection	Expands
Short Default	Parent Subject Area	Access	Parent
Short Default	Subtypes	Delete/Modify/Access	
Default	Owned Transaction Operations	Access	Short

Exit State

For these Exit State expansions, the expanded objects for all subset types are granted protection based on whether the scoping object is Delete, Modify, or Access:

Exit State	Object for all subset types	Protection	Expands
Default	Owning Business System	Access	Short
Default	Dialect Text for Exit State Message	Delete/Delete/Read	
Default	Exit State Message	Delete/Delete/Read	

External Object

For these External Object expansions, the expanded objects for all subset types are granted protection based on whether the scoping object is Delete, Modify, or Access:

External Object	Object for all subset types	Protection	Expands
Default	Included External Objects	Delete/Modify/Access	Default

Subsetting Expansion Table - F

This section describes the subsetting expansion tables starting with alphabet F.

Function

For these Function expansions, the expanded objects for all subset types are granted protection based on whether the scoping object is Delete, Modify, or Access:

Function	Object for all subset types	Protection	Expands
Default Plus *internal* Full Plus *internal*	Atomic Dependencies	Delete/Delete/Read	
Short *internal* Default Full Default Plus *internal* Full Plus *internal*	Entity Types and Subtypes referenced by State Transitions	Access	Short
Short *internal* Default Full Default Plus *internal* Full Plus *internal*	Entity Types and Subtypes referenced by Views or Expected Effects	Access	Short
Default Full Default Plus *internal* Full Plus *internal*	Events	Access	Default
Short *internal* Default Full Default Plus *internal* Full Plus *internal*	Expected Effects	Delete/Delete/Read	
Default Full Default Plus *internal* Full Plus *internal*	External Objects	Access	Default
Default Default Plus *internal*	Child Functions and Processes	Delete/Modify/Access	Default Plus
Full	Child Functions and Processes	Delete/Delete/Read	Full Plus
Full Plus *internal*	Child Functions and Processes	Delete/Modify/Access	Full Plus

Function	Object for all subset types	Protection	Expands
Short *internal* Default Full Default Plus *internal* Full Plus *internal*	Parent Functions	Access	Short
Short *internal* Default Full Default Plus *internal* Full Plus *internal*	Script Slot View Definitions	Delete/Delete/Read	
Short *internal* Default Full Default Plus *internal* Full Plus *internal*	Views	Delete/Modify/Access	
Short *internal* Default Full Default Plus *internal* Full Plus *internal*	Work Attribute Sets referenced by views	Access	Short

Subsetting Expansion Table - I

This section describes the subsetting expansion tables starting with alphabet I.

Implementation Logic (Non-Selectable)

For these Implementation Logic expansions, the expanded objects for System Test are granted protection based on whether the scoping object is Delete, Modify, or Access:

Implementation Logic	Object for System Test	Protection	Expands
Default *internal*	TD Action Blocks which implement the included Implementation Logics	Read	Default
Default *internal*	Bind Package Default	Delete/Delete/Read	

Implementation Logic	Object for System Test	Protection	Expands
Default *internal*	DBRM	Delete/Delete/Read	
Default *internal*	Implementation Logics from which the included Implementation Usages are called	Read	Default
Default *internal*	Called Implementation Usages	Read	
Default *internal*	Execution Unit which contains the Implementation Logic	Access	Default

Interface Type

This section describes interface type expansions for design and unit test table and system test table.

Design Table

For these Interface Type expansions, the expanded objects for Design are granted protection based on whether the scoping object is Delete, Modify, or Access:

Interface Type	Object for Design	Protection	Expands
Short Default	Action Blocks for Attributes with default or derivation algorithms	Delete/Modify/Access	Default
Default	Owned Action Blocks	Access	Short
Full	Owned Action Blocks	Delete/Modify/Access	Default
Short Default	TD Action Block	Delete/Modify/Access	
Short Default	Aliases	Delete/Delete/Read	
Short Default Full	Attributes and Foreign Key Attributes	Delete/Modify/Access	
Short Default Full	Attribute Relationship Usages	Delete/Delete/Read	
Short Default	Classifiers	Delete/Delete/Read	

Interface Type	Object for Design	Protection	Expands
Default	Contents	Delete/Delete/Read	
Short Default	Dialect Text for Prompt for Values and Prompts	Delete/Delete/Read	
Short Default	Entity State Transitions, and changes for the scoped entity and its subtypes	Delete/Delete/Read	
Default	Entity Type included Contents are used by	Access	Short
Short Default Full	Parent Entities of Attributes from which Foreign Key Attributes are derived	Access	Short
Default	Related Entity Types	Access	Short
Short	Target Entity Types (for identifying relationships)	Access	Short
Short Default	Identifiers	Delete/Delete/Read	
Short Default	Implementation Unit for TD Action Blocks	Delete/Modify/Access	
Default	Mutually Exclusives	Delete/Delete/Read	
Short Default	Partitioning	Delete/Modify/Access	
Short Default	Permitted Values	Delete/Modify/Access	
Short Default	Prompts	Delete/Modify/Access	
Short Default	Prompt for Values	Delete/Modify/Access	
Short Default	Record implementing the Entity (included only if the requested protection for the scope identity was Modify or Delete)	Read	Short
Short Default Full	Relationships for included Attribute Relationship Usages	Access	

Interface Type	Object for Design	Protection	Expands
Short	Relationships (All relationships for scoped Interface Types are included, if the target Entity has not been scoped the relationship is included only if it is identifying)	The lesser of the source or target entity's protection (Special 1)	
Default	Relationships (All relationships for scoped and related Entity Types are included)	The lesser of the source or target entity's protection (Special 1)	
Short Default	Parent Subject Area	Access	Parent
Short Default	Subtypes	Delete/Modify/Access	
Default	Owned Transaction Operations	Access	Short
Full	Owned Transaction Operations	Delete/Modify/Access	Default
Short, Default	Interface type model scoped by interface type	Delete/Modify/Access	Default
Full	Interface type model scoped by interface type	Delete/Modify/Access	Full

Unit Test Table

For these Interface Type expansions, the expanded objects for Unit Test are granted protection based on whether the scoping object is Delete, Modify, or Access:

Interface Type	Object for Unit	Protection	Expands
Short Default	Action Blocks for Attributes with default or derivation algorithms	Delete/Modify/Access	Default
Default	Owned Action Blocks	Access	Short
Short Default	TD Action Block	Delete/Modify/Access	
Short Default	Aliases	Delete/Delete/Read	
Short Default	Attributes and Foreign Key Attributes	Delete/Modify/Access	
Short Default	Classifiers	Delete/Delete/Read	

Interface Type	Object for Unit	Protection	Expands
Default	Contents	Delete/Delete/Read	
Short Default	Data Table implementing the Entity	Read	Short
Short Default	Dialect Text for Prompt for Values and Prompts	Delete/Delete/Read	
Short Default	Entity State Transitions, and changes for the scoped entity and its subtypes	Delete/Delete/Read	
Default	Entity Type included Contents are used by	Access	Short
Default	Related Entity Types	Access	Short
Short	Target Entity Types (for identifying relationships)	Access	Short
Short Default	Identifiers	Delete/Delete/Read	
Default	Mutually Exclusives	Delete/Delete/Read	
Short Default	Partitioning	Delete/Modify/Access	
Short Default	Permitted Values	Delete/Modify/Access	
Short Default	Prompt for Values	Delete/Modify/Access	
Short Default	Prompts	Delete/Modify/Access	
Short	Relationships (All relationships for scoped Interface Types are included, if the target Entity has not been scoped the relationship is added only if it is identifying)	The lesser of the source or target entity's protection (Special 1)	
Default	Relationships (All relationships for related Entity Types are included)	The lesser of the source or target entity's protection (Special 1)	
Short Default	Parent Subject Area	Access	
Short Default	Subtypes	Delete/Modify/Access	

Interface Type	Object for Unit	Protection	Expands
Default	Owned Transaction Operations	Access	Short
Short, Default	Interface type model scoped by interface type	Delete/Modify/Access	Default
Full	Interface type model scoped by interface type	Delete/Modify/Access	Full

System Test Table

For these Interface Type expansions, the expanded objects for System Test are granted protection based on whether the scoping object is Delete, Modify, or Access:

Interface Type	Object for System Test	Protection	Expands
Short Default	Action Blocks for Attributes with default or derivation algorithms	Delete/Modify/Access	Default
Default	Owned Action Blocks	Access	Short
Short Default	TD Action Block	Delete/Modify/Access	Default
Short Default	Aliases	Delete/Delete/Read	
Short Default	Attributes and Foreign Key Attributes	Delete/Modify/Access	
Short Default	Classifiers	Delete/Delete/Read	
Default	Contents	Delete/Delete/Read	
Short Default	Data Table implementing the Entity	Read	Short
Short Default	Dialect Text for Prompt for Values and Prompts	Delete/Delete/Read	
Short Default	Entity State Transitions for the scoped entity and its subtypes	Delete/Delete/Read	
Default	Entity Type included Contents are used by	Access	Short
Default	Related Entity Types	Access	Default
Short	Target Entity Types (for identifying relationships)	Access	Default

Interface Type	Object for System Test	Protection	Expands
Short Default	Identifiers	Delete/Delete/Read	
Default	Mutually Exclusives	Delete/Delete/Read	
Short Default	Partitioning	Delete/Modify/Access	
Short Default	Permitted Values	Delete/Modify/Access	
Short Default	Prompts	Delete/Modify/Access	
Short Default	Prompt for Values	Delete/Modify/Access	
Short	Relationships (All relationships for scoped Interface Types are included, if the target Entity has not been scoped the relationship is added only if it is identifying)	The lesser of the source or target entity's protection (Special 1)	
Default	Relationships (All relationships for related Entity Types are included)	The lesser of the source or target entity's protection (Special 1)	
Short Default	Parent Subject Area	Access	Parent
Short Default	Subtypes	Delete/Modify/Access	
Default	Owned Transaction Operations	Access	Short
Short, Default	Interface type model scoped by interface type	Delete/Modify/Access	Default
Full	Interface type model scoped by interface type	Delete/Modify/Access	Full

Interface Type Model

For these Interface Type Model expansions, the expanded objects for all subset types are granted protection based on whether the scoping object is Delete, Modify, or Access:

Interface Type Model	Object for all subset types	Protection	Expands
Default Full	Art Objects	Delete/Delete/Read	
Default	Parent Entity Types of referenced Relationships, Subtypes and Partitionings	Access	Short
Full	Parent Entity Types of referenced Relationships, Subtypes and Partitionings	Delete/Modify/Access	Default
Default	Referenced Entity Types	Access	Short
Full	Referenced Entity Types	Delete/Modify/Access	Default
Default	Referenced Partitionings	Access	
Full	Referenced Partitionings	Delete/Modify/Access	
Default	Referenced Relationships	Access	
Full	Referenced Relationships	Delete/Modify/Access	
Default	Referenced Subtypes	Access	
Default	Scoping Interface Type	Access	Short
Full	Scoping Interface Type	Delete/Modify/Access	Default
Full	Referenced Subtypes	Delete/Modify/Access	

Appendix C: CSE Subsetting Expansion Tables L Through Z

The expansion tables let you see what objects will be included when you expand a subset. They also show what protection and expansion each object that is included will have.

This section contains the following topics:

Subsetting Expansion Table - L

This section describes the subsetting expansion tables starting with alphabet L.

Link Table

This section describes link table expansions for design and unit test table and system test table.

Design and Unit Test

For these Link Table expansions, the expanded objects for Design and Unit Test are granted protection based on whether the scoping object is Delete, Modify, or Access:

Link Table	Object for Design and Unit Test	Protection	Expands
Default	TD Action Blocks for from Constraints	Delete/Modify/Access	
Default	Columns (Data, Denormalized and Foreign Key)	Delete/Modify/Access	

Link Table	Object for Design and Unit Test	Protection	Expands
Default	from Constraints	Delete/Delete/Read	
Default	Target Data Tables of from Constraints	Access	Short
Default	Parent Database	Access	Short
Default	Data Sets for included Tablespace and Indexspace	Delete/Delete/Read	
Default	Extended Columns	Delete/Delete/Read	
Default	Extended Constraints for included Constraints	Delete/Delete/Read	
Default	Extended Indexes for included Indexes	Delete/Delete/Read	
Default	Extended Indexspaces for included Indexspaces	Delete/Delete/Read	
Default	Extended Tables	Delete/Delete/Read	
Default	Extended Tablespaces for included Tablespaces	Delete/Delete/Read	
Default	Indexes for the Link Table	Delete/Delete/Read	
Default	Indexspace for Indexes	Delete/Delete/Read	
Default	Storage Groups containing Data Stores included in the expansion	Access	Default
Default	Storage Groups holding Data Sets included in the expansion	Access	Default
Default	Tablespace for Link Table	Delete/Modify/Access	
Default	Tablespace referenced by Extended Indexspace Oracle	Access	
Default	Tablespace referenced by Extended Tables	Access	

System Test

For these Link Table expansions, the expanded objects for System Test are granted protection based on whether the scoping object is Delete, Modify, or Access:

Link Table	Object for System Test	Protection	Expands
Default	TD Action Blocks for from Constraints	Delete/Modify/Access	Default

Link Table	Object for System Test	Protection	Expands
Default	Columns (Data, Denormalized and Foreign Key)	Delete/Modify/Access	
Default	from Constraints	Delete/Delete/Read	
Default	Data Sets for included Tablespace and Indexspace	Delete/Delete/Read	
Default	Target Data Tables of from Constraints	Access	Short
Default	Parent Database	Access	Short
Default	Extended Constraints for included Constraints	Delete/Delete/Read	
Default	Extended Columns	Delete/Delete/Read	
Default	Extended Indexes for included Indexes	Delete/Delete/Read	
Default	Extended Indexspaces for included Indexspaces	Delete/Delete/Read	
Default	Extended Tables	Delete/Delete/Read	
Default	Extended Tablespaces for included Tablespaces	Delete/Delete/Read	
Default	Indexes for the Link Table	Delete/Delete/Read	
Default	Indexspace for Indexes	Delete/Delete/Read	
Default	Storage Groups containing Data Stores included in the expansion	Access	Default
Default	Tablespace for Link Table	Delete/Modify/Access	
Default	Tablespace referenced by Extended Indexspace Oracle	Access	
Default	Tablespace referenced by Extended Tables	Access	

Subsetting Expansion Table - N

This section describes the subsetting expansion tables starting with alphabet N.

Navigation Diagram

For these Navigation Diagram expansions, the expanded objects for System Test are granted protection based on whether the scoping object is Delete, Modify, or Access:

Navigation Diagram	Object for System Test	Protection	Expands
Default Full	Window Usages and Procedure Step Window Usages	Delete/Delete/Read	
Default	Procedure Steps owning windows/dialogs used by the Navigation Diagram	Access	Short
Full	Procedure Steps owning windows/dialogs used by the Navigation Diagram	Shared Component	Short
Default	Procedure Steps directly used by the Navigation Diagram	Access	Short
Full	Procedure Steps directly used by the Navigation Diagram	Delete/Modify/Access	Short

Subsetting Expansion Table - O

This section describes the subsetting expansion tables starting with alphabet O.

Online Load Module

This section describes online load module expansions for design and unit test table and system test table.

Design and Unit Test Table

For these Online Load Module expansions, the expanded objects for Design and Unit Test are granted protection based on whether the scoping object is Delete, Modify, or Access:

Online Load Module	Object for Design and Unit Test	Protection	Expands
Short Default Full	Package List Entry	Delete/Delete/Read	
Short Default Full	Procedure Step Execution Usages	Delete/Delete/Read	
Short	Procedure Steps included in the Online Load Module	Delete/Modify/Access	Short
Default	Procedure Steps included in the Online Load Module	Delete/Modify/Access	Default
Full	Procedure Steps included in the Online Load Module	Delete/Modify/Access	Full
Short Default Full	Transaction codes used by the Online Load Module	Delete/Modify/Access	

System Test Table

For these Online Load Module expansions, the expanded objects for System Test are granted protection based on whether the scoping object is Delete, Modify, or Access:

Online Load Module	Object for System Test	Protection	Expands
Full 2 *internal*	Package List Entry	Delete/Delete/Read	
Full 2 *internal*	Procedure Step Execution Usages	Read	
Full 2 *internal*	Procedure Steps included in the Online Load Module	Read	Full
Full 2 *internal*	Transaction codes used by the Online Load Module	Access	

Operations Library

This section describes operations library expansions for design and unit test table and system test table.

Design and Unit Test Table

For these Operations Library expansions, the expanded objects for Design and Unit Test are granted protection based on whether the scoping object is Delete, Modify, or Access:

Operations Library	Object for Design and Unit Test	Protection	Expands
Short	Technical System	Access	Default
	Implementation Logic contained by the Operations Library	Delete/Modify/Access	Short
Default	Technical System	Access	Default
Default	Implementation Logic contained by the Operations Library	Delete/Modify/Access	Default
Full	Technical System	Access	Default
Full	Implementation Logic contained by the Operations Library	Delete/Modify/Access	Full

System Test Table

For these Operations Library expansions, the expanded objects for System Test are granted protection based on whether the scoping object is Delete, Modify, or Access:

Operations Library	Object for System Test	Protection	Expands
Full internal	Technical System	Access	Default
Full internal	Implementation Logic contained by the Operations Library	Delete/Modify/Access	Full

Organizational Unit

This section describes organizational unit expansions for design and unit test table and system test table.

Design and Unit Test Table

For these Organizational Unit expansions, the expanded objects for all subset types are granted protection based on whether the scoping object is Delete, Modify, or Access:

Organizational Unit	Object for all subset types	Protection	Expands
Short *internal* Default	Parent Organizational Unit	Access	Short
Default	Subordinate Organizational Units	Delete/Modify/Access	Default

Subsetting Expansion Table - P

This section describes the subsetting expansion tables starting with alphabet P.

Procedure

For these Procedure expansions, the expanded objects for all subset types are granted protection based on whether the scoping object is Delete, Modify, or Access:

Procedure	Object for all subset types	Protection	Expands
Short Default Full Parent *internal*	Business System containing Procedure	Access	Short
Short	Child Procedure Steps	Delete/Modify/Access	Short
Default	Child Procedure Steps	Delete/Modify/Access	Default
Full	Child Procedure Steps	Delete/Modify/Access	Full
Full	Process supported by Procedure	Access	Default
Short Default Full	Script Executions Procedure is modified or enabled by	Delete/Delete/Read	

Procedure Step

This section describes procedure step expansions for design and unit test table and system test table.

Design Table

For these Procedure Step expansions, the expanded objects for Design are granted protection based on whether the scoping object is Delete, Modify, or Access:

Procedure Step	Object for Design	Protection	Expands
Default Full	ASYNC response event usages	Delete/Delete/Read	
Short Default Full	Clear Screen and Dialog Flow Transaction codes, if the Procedure Step was scoped for DELETE or MODIFY	Access	
Short Default Full	Commands presented by Command Items	Access	Default
Short Default Full Short 2 *internal*	Commands set or set on return by included Dialog Flows	Access	Default
Short Default Full	Control and Disable States for Window Controls	Delete/Delete/Read	
Short Default Full	Custom Edit Patterns for Window Fields	Delete/Delete/Read	
Short Default Full	Custom Video Properties	Access	
Short Short 2 *internal*	Dialog Flows (If the Procedure Step on the other side has been expanded to)	Delete/Delete/Read	
Default	Dialog Flows the Procedure Step initiates	Delete/Delete/Read	

Procedure Step	Object for Design	Protection	Expands
Full	Dialog Flows to and from the Procedure Step	Delete/Delete/Read	
Short Default Full Short 2 *internal*	Exit States that include Dialog Flows, flow, or return on	Access	Default
Short Default Full	Execution Unit, if the Procedure Step was scoped for DELETE or MODIFY	Access	Short 2
Short Default Full	GUI Events	Delete/Delete/Read	
Short Default Full	HTML snippets associated with the window	Delete/Delete/Read	
Short Default Full	HTML link controls associated to the window	Delete/Delete/Read	
Short Default Full	Other HTML controls associated to the window	Delete/Delete/Read	
Short Default Full	Primary HTML frames	Delete/Delete/Read	
Short Default Full	Sub HTML frames	Delete/Delete/Read	
Short Default Full	HTML framesets associated to the window	Delete/Delete/Read	
Short Default Full Short 2 *internal*	Local Pfkeys	Delete/Delete/Read	

Procedure Step	Object for Design	Protection	Expands
Short Default Full	Mapping for Window Fields to views	Delete/Delete/Read	
Short Default Full	Presentation Style for Windows and Window Controls	Delete/Delete/Read	
Short Default Full Short 2 *internal* Parent *internal*	Parent Procedure	Access	Parent
Short Default	Procedure Step Action Block	Delete/Modify/Access	Default
Full	Procedure Step Action Block	Delete/Modify/Access	Full
Short 2 *internal*	Procedure Step Action Block	Access	Short
Short Default Full	Procedure Step Execution Usage, if the Procedure Step was scoped for DELETE or MODIFY	Delete/Delete/Read	
Default	Procedure Steps that are initiated by the scoped Procedure Step's Dialog Flows	Access	Short2
Full	All related Procedure Steps	Access	Short2
Default	Referenced Reusable Objects	Delete/Modify/Access	Default
Short Default Full	Screen	Delete/Modify/Access	Default
Short 2 *internal*	Screen	Access	Short
Short Default Full Short 2 *internal*	Script Capabilities	Delete/Delete/Read	

Procedure Step	Object for Design	Protection	Expands
Short Default Full Short 2 *internal*	Script Executions	Delete/Delete/Read	
Short Default Full	Script Capabilities	Delete/Delete/Read	
Default Full	Supported Transaction Operations, if the Procedure Step was scoped for DELETE or MODIFY	Delete/Modify/Access	Default
Short Default Full Short 2 *internal*	Unformatted Input	Delete/Delete/Read	
Short Short 2 *internal*	View matching (For flows and returns between Procedure Steps) (Procedure Step is included if Dialog Flow is included)	Delete/Delete/Read	
Default Full	View matching (For flows and returns between Procedure Steps)	Delete/Delete/Read	
Short Default Full Short 2 *internal*	Windows (Default and Non-default)	Access	
Short Default Full	Window Controls	Delete/Delete/Read	
Default	Customization of Window Control in referenced Reusable Object	Delete/Delete/Read	
Short Default Full	Web Operations defined for the Procedure Step	Delete/Modify/Access	

Unit Test Table

For these Procedure Step expansions, the expanded objects for Unit Test are granted protection based on whether the scoping object is Delete, Modify, or Access:

Procedure Step	Object for Unit Test	Protection	Expands
Default Full	ASYNC response event usages	Delete/Delete/Read	
Short Default Full	Clear Screen and Dialog Flow Transaction codes	Access	
Short Default Full	Commands presented by Command Items	Access	Default
Short Default Full Short2 *internal*	Commands set or set on return by included Dialog Flows	Access	Default
Short Default Full	Control and Disable States for Window Controls	Delete/Delete/Read	
Short Default Full	Custom Edit Patterns for Window Fields	Delete/Delete/Read	
Short Short2 *internal*	Dialog Flows included if the Procedure Step on the other side has been expanded to	Delete/Delete/Read	
Default	Dialog Flows the Procedure Step initiates	Delete/Delete/Read	
Full	All Dialog Flows to and from the Procedure Step	Delete/Delete/Read	
Short Default Full	Execution Unit	Access	Short 2

Procedure Step	Object for Unit Test	Protection	Expands
Short Default Full Short2 *internal*	Exit States that include Dialog Flows, flow, or return on	Access	Default
Short Default Full	HTML snippets associated to the window	Delete/Delete/Read	
Short Default Full	HTML link controls associated to the window	Delete/Delete/Read	
Short Default Full	Other HTML controls associated to the window	Delete/Delete/Read	
Short Default Full	Primary HTML frames	Delete/Delete/Read	
Short Default Full	Sub HTML frames	Delete/Delete/Read	
Short Default Full	HTML framesets associated to the window	Delete/Delete/Read	
Short Default Full	GUI Events	Delete/Delete/Read	
Short Default Full Short2 *Internal*	Local PFkeys	Delete/Delete/Read	
Short Default Full	Mappings for Window Fields to views	Delete/Delete/Read	

Procedure Step	Object for Unit Test	Protection	Expands
Short Default Full	Presentation Style for Windows and Window Controls	Delete/Delete/Read	
Short Default Full Short2 *Internal* Parent *internal*	Parent Procedure	Access	Parent
Short Default	Procedure Step Action Block	Delete/Modify/Access	Default
Full	Procedure Step Action Block	Delete/Modify/Access	Full
Short2 *internal*	Procedure Step Action Block	Access	Short
Short Default Full	Procedure Step Execution Usage	Delete/Delete/Read	
Default	Procedure Steps that are initiated by the scoped Procedure Step's Dialog Flows	Access	Short 2
Full	All related Procedure Steps	Access	Short 2
Default	Referenced Reusable Objects	Delete/Modify/Access	Default
Short Default Full	Screen	Delete/Modify/Access	Default
Short2 *internal*	Screen	Access	Short
Short Default Full Short2 *internal*	Script Capabilities	Delete/Delete/Read	
Short Default Full Short2 *internal*	Script Executions	Delete/Delete/Read	

Procedure Step	Object for Unit Test	Protection	Expands
Default Full	Supported Transaction Operations	Access	Default
Short Default Full Short2 *Internal*	Unformatted Input	Delete/Delete/Read	
Short Default Full Short2 *internal*	View Matching (for flows and returns between Procedure Steps)	Delete/Delete/Read	
Short Default Full Short2 *Internal*	Windows (Default and Non-default)	Delete/Modify/Access	
Short Default Full	Window Controls	Delete/Delete/Read	
Default	Customization of Window Control in referenced Reusable Object	Delete/Delete/Read	
Short Default Full	Web Operations defined for the Procedure Step	Delete/Modify/Access	

System Test Table

For these Procedure Step expansions, the expanded objects for System Test are granted protection based on whether the scoping object is Delete, Modify, or Access:

Procedure Step	Object for System Test	Protection	Expands
Default Full	ASYNC response event usages	Delete/Delete/Read	
Short Default Full	Clear Screen and Dialog Flow Trancodes	Access	

Procedure Step	Object for System Test	Protection	Expands
Short Default Full	Commands presented by Command Items	Access	Default
Short Default Full Short 2 *internal*	Commands set or set on return by included Dialog Flows	Access	Default
Short Default Full	Control and Disable States for Window Controls	Delete/Delete/Read	
Short Default Full	Custom Edit Patterns for Window Fields	Delete/Delete/Read	
Short Short 2 *internal*	Dialog Flows (Included if the Procedure Step on the other side has been expanded to)	Delete/Delete/Read	
Default	Dialog Flows the Procedure Step initiates	Delete/Delete/Read	
Full	All Dialog Flows to and from the Procedure Step	Delete/Delete/Read	
Short Default Full	Execution Unit	Access	Full 2
Short 2 *internal*	Execution Unit	Access	Short 2
Short 2 *internal*	Parent Execution Unit of neighborhood Procedure Steps	Access	Short 2
Short Default Full Short 2 *internal*	Exit States that include Dialog Flows, flow, or return on	Access	Default
Short Default Full	HTML snippets associated to the window	Delete/Delete/Read	

Procedure Step	Object for System Test	Protection	Expands
Short Default Full	HTML link controls associated to the window	Delete/Delete/Read	
Short Default Full	Other HTML controls associated to the window	Delete/Delete/Read	
Short Default Full	Primary HTML frames	Delete/Delete/Read	
Short Default Full	Sub HTML frames	Delete/Delete/Read	
Short Default Full	HTML framesets associated to the window	Delete/Delete/Read	
Short Default Full	GUI Events	Delete/Delete/Read	
Short Default Full Short 2 *internal*	Local PFkeys	Delete/Delete/Read	
Short Default Full	Mappings for Window Fields to views	Delete/Delete/Read	
Short Default Full	Presentation Style for Windows and Window Controls	Delete/Delete/Read	
Short Default Full Short 2 *internal* Parent *internal*	Parent Procedure	Access	Parent

Procedure Step	Object for System Test	Protection	Expands
Short Default	Procedure Step Action Block	Delete/Modify/Access	Default
Full	Procedure Step Action Block	Delete/Modify/Access	Full
Short 2 *internal*	Procedure Step Action Block	Access	Short
Short Default Full	Procedure Step Execution Unit	Delete/Delete/Read	
Default	Procedure Steps that are initiated by the scoped Procedure Step's Dialog Flows	Access	Short 2
Full	All related Procedure Steps	Access	Short 2
Default	Referenced Reusable Objects	Delete/Modify/Access	Default
Short Default Full	Screen	Delete/Modify/Access	Default
Short 2 *internal*	Screen	Access	Short
Short Default Full Short 2 *internal*	Script Capabilities	Delete/Delete/Read	
Short Default Full Short 2 *internal*	Script Executions	Delete/Delete/Read	
Default Full	Supported Transaction Operations	Access	Default
Short Default Full Short 2 *internal*	Unformatted Input	Delete/Delete/Read	

Procedure Step	Object for System Test	Protection	Expands
Short Default Full Short 2 *internal*	View matching - for flows and returns between Procedure Steps	Delete/Delete/Read	
Short Default Full Short 2 *internal*	Windows - Default and Non-default	Delete/Modify/Access	
Short Default Full	Window Controls	Delete/Delete/Read	
Default	Customization of Window Control in referenced Reusable Object	Delete/Delete/Read	
Short Default Full	Web Operations defined for the Procedure Step	Delete/Modify/Access	

Process

For these Process expansions, the expanded objects for all subset types are granted protection based on whether the scoping object is Delete, Modify, or Access:

Process	Object for all subset types	Protection	Expands
Short 2 *internal* Default Default Plus *internal*	Elementary Process Action Block	Access	Short
Full Full Plus *internal*	Elementary Process Action Block	Delete/Modify/Access	Full
Default Plus *internal* Full Plus *internal*	Atomic Dependencies	Delete/Delete/Read	

Process	Object for all subset types	Protection	Expands
Default Full Default Plus *internal* Full Plus *internal*	Business System the Process is in the scope of	Access	Short
Short 2 *internal* Default Full Default Plus *internal* Full Plus *internal*	Entity Types and Subtypes referenced by State Transitions	Access	Short
Short 2 *internal* Default Full Default Plus *internal* Full Plus *internal*	Entity Types and Subtypes referenced by Views or Expected Effects	Access	Short
Default Full Default Plus *internal* Full Plus *internal*	Events	Access	Default
Short 2 *internal* Default Full Default Plus *internal*	Expected Effects	Delete/Delete/Read	
Full Plus *internal*	Expected Effects	Delete/Modify/Access	
Default Full Default Plus *internal* Full Plus *internal*	External Objects	Access	Default

Process	Object for all subset types	Protection	Expands
Short 2 *internal* Default Full Default Plus *internal* Full Plus *internal*	Parent Functions and Processes	Access	Short
Default Default Plus *internal*	Child Functions and Processes	Delete/Modify/Access	Default Plus
Full Full Plus *internal*	Child Functions and Processes	Delete/Modify/Access	Full Plus
Short 2 *internal* Default Full Default Plus *internal* Full Plus *internal*	Script Slot View Definitions	Delete/Delete/Read	
Short 2 *internal* Default Full Default Plus *internal* Full Plus *internal*	Views	Delete/Modify/Access	
Short 2 *internal* Default Full Default Plus *internal* Full Plus *internal*	Work Attribute Sets referenced by views	Access	Short

Subsetting Expansion Table - R

This section describes the subsetting expansion tables starting with alphabet R.

Reusable Object

For these Reusable Object expansions, the expanded objects for all subset types are granted protection based on whether the scoping object is Delete, Modify, or Access:

Reusable Object	Object for all subset types	Protection	Expands
Default	Used Action Blocks	Access	Short
Full	Used Action Blocks	Access	Full
Default Full	Action Statements	Delete/Delete/Read	
Default Full	Application Events	Access	
Default Full	Bind Package Default	Delete/Delete/Read	
Default Full	Referenced Commands	Access	Default
Default Full	Control and Disable States for Window Controls	Delete/Delete/Read	
Default Full	Custom Edit Patterns for Window Fields	Delete/Delete/Read	
Default Full	DBRM	Delete/Delete/Read	
Default Full	Entities/ subtypes referenced by views.	Access	Short
Default Full	Referenced Exit States	Access	Default
Default Full	GUI Events	Delete/Delete/Read	
Default Full	GUI Event Handlers	Access	
Default Full	Implementation unit	Delete/Delete/Read	
Default Full	Presentation Style for Reusable Object and Window Controls	Delete/Delete/Read	

Reusable Object	Object for all subset types	Protection	Expands
Default Full	RDB Table Usage	Delete/Delete/Read	
Default Full	Referenced Reusable Object	Access	Default
Default Full	Supertype Reusable Object	Access	Default
Default Full	Views	Delete/Modify/Access	
Default Full	View matching between Action Block and used Action Block	Access	
Default Full	Window Controls	Delete/Delete/Read	
Default Full	Customization of Window Control in referenced Reusable Object	Delete/Delete/Read	
Default Full	Work sets referenced by views.	Access	Default

Subsetting Expansion Table - S

This section describes the subsetting expansion tables starting with alphabet S.

Screen

For these Screen expansions, the expanded objects for all subset types are granted protection based on whether the scoping object is Delete, Modify, or Access:

Screen	Object for all subset types	Protection	Expands
Default	Custom Edit Patterns used by Screen Variable Occurrences	Delete/Delete/Read	
Default	Dialect Text for Custom Edit Patterns and Screen Literals	Delete/Delete/Read	
Default	Implementation Screen	Delete/Delete/Read	

Screen	Object for all subset types	Protection	Expands
Default	Procedure Step the Screen is contained in	Access	Short 2
Default	Screen items (Literals, Variables...)	Delete/Delete/Read	
Default	Templates used by Screen	Access	Default

Scroll Amount Value

For these Scroll Amount Value expansions, the expanded objects for all subset types are granted protection based on whether the scoping object is Delete, Modify, or Access:

Scroll Amount Value	Object for all subset types	Protection	Expands
Default	Dialect Text for Scroll Amount Value	Delete/Delete/Read	

Specification Type

This section describes specification type expansions for design and unit test table and system test table.

Design Table

For these Specification Type expansions, the expanded objects for Design are granted protection based on whether the scoping object is Delete, Modify, or Access:

Specification Type	Object for Design	Protection	Expands
Short Default	Action Blocks for Attributes with default or derivation algorithms	Delete/Modify/Access	Default
Default	Owned Action Blocks	Access	Short
Full	Owned Action Blocks	Delete/Modify/Access	Default
Short Default	TD Action Block	Delete/Modify/Access	

Specification Type	Object for Design	Protection	Expands
Short Default	Aliases	Delete/Delete/Read	
Short Default Full	Attributes and Foreign Key Attributes	Delete/Modify/Access	
Short Default Full	Attribute Relationship Usages	Delete/Delete/Read	
Short Default	Classifiers	Delete/Delete/Read	
Default	Contents	Delete/Delete/Read	
Short Default	Dialect Text for Prompt for Values and Prompts	Delete/Delete/Read	
Short Default	Entity State Transitions, and changes for the scoped entity and its subtypes	Delete/Delete/Read	
Default	Entity Type included Contents are used by	Access	Short
Short Default Full	Parent Entities of Attributes from which Foreign Key Attributes are derived	Access	Short
Default	Related Entity Types	Access	Short
Short	Target Entity Types (for identifying relationships)	Access	Short
Short Default	Identifiers	Delete/Delete/Read	
Short Default	Implementation Unit for TD Action Blocks	Delete/Modify/Access	
Default	Mutually Exclusives	Delete/Delete/Read	
Short Default	Partitioning	Delete/Modify/Access	
Short Default	Permitted Values	Delete/Modify/Access	

Specification Type	Object for Design	Protection	Expands
Short Default	Prompts	Delete/Modify/Access	
Short Default	Prompt for Values	Delete/Modify/Access	
Short Default	Record implementing the Entity (included only if the requested protection for the scope identity was Modify or Delete)	Read	Short
Short Default Full	Relationships for included Attribute Relationship Usages	Access	
Short	Relationships (All relationships for scoped Specification Types are included, if the target Entity has not been scoped the relationship is included only if it is identifying)	The lesser of the source or target entity's protection (Special 1)	
Default	Relationships (All relationships for scoped and related Entity Types are included)	The lesser of the source or target entity's protection (Special 1)	
Short Default	Parent Subject Area	Access	Parent
Short Default	Subtypes	Delete/Modify/Access	
Default	Owned Transaction Operations	Access	Short
Full	Owned Transaction Operations	Delete/Modify/Access	Default

Unit Test Table

For these Specification Type expansions, the expanded objects for Unit Test are granted protection based on whether the scoping object is Delete, Modify, or Access:

Specification Type	Object for Unit Test	Protection	Expands
Short Default	Action Blocks for Attributes with default or derivation algorithms	Delete/Modify/Access	Default

Specification Type	Object for Unit Test	Protection	Expands
Default	Owned Action Blocks	Access	Short
Short Default	TD Action Block	Delete/Modify/Access	
Short Default	Aliases	Delete/Delete/Read	
Short Default	Attributes and Foreign Key Attributes	Delete/Modify/Access	
Short Default	Classifiers	Delete/Delete/Read	
Default	Contents	Delete/Delete/Read	
Short Default	Data Table implementing the Entity	Read	Short
Short Default	Dialect Text for Prompt for Values and Prompts	Delete/Delete/Read	
Short Default	Entity State Transitions, and changes for the scoped entity and its subtypes	Delete/Delete/Read	
Default	Entity Type included Contents are used by	Access	Short
Default	related Entity Types	Access	Short
Short	Target Entity Types (for identifying relationships)	Access	Short
Short Default	Identifiers	Delete/Delete/Read	
Default	Mutually Exclusives	Delete/Delete/Read	
Short Default	Partitioning	Delete/Modify/Access	
Short Default	Permitted Values	Delete/Modify/Access	
Short Default	Prompt for Values	Delete/Modify/Access	

Specification Type	Object for Unit Test	Protection	Expands
Short Default	Prompts	Delete/Modify/Access	
Short	Relationships (All relationships for scoped Specification Types are included, if the target Entity has not been scoped the relationship is added only if it is identifying)	The lesser of the source or target entity's protection (Special 1)	
Default	Relationships (All relationships for related Entity Types are included)	The lesser of the source or target entity's protection (Special 1)	
Short Default	Parent Subject Area	Access	
Short Default	Subtypes	Delete/Modify/Access	
Default	Owned Transaction Operations	Access	Short

System Test Table

For these Specification Type expansions, the expanded objects for System Test are granted protection based on whether the scoping object is Delete, Modify, or Access:

Specification Type	Object for System Test	Protection	Expands
Short Default	Action Blocks for Attributes with default or derivation algorithms	Delete/Modify/Access	Default
Default	Owned Action Blocks	Access	Short
Short Default	TD Action Block	Delete/Modify/Access	Default
Short Default	Aliases	Delete/Delete/Read	
Short Default	Attributes and Foreign Key Attributes	Delete/Modify/Access	
Short Default	Classifiers	Delete/Delete/Read	

Specification Type	Object for System Test	Protection	Expands
Default	Contents	Delete/Delete/Read	
Short Default	Data Table implementing the Entity	Read	Short
Short Default	Dialect Text for Prompt for Values and Prompts	Delete/Delete/Read	
Short Default	Entity State Transitions for the scoped entity and its subtypes	Delete/Delete/Read	
Default	Entity Type included Contents are used by	Access	Short
Default	Related Entity Types	Access	Default
Short	Target Entity Types (for identifying relationships)	Access	Default
Short Default	Identifiers	Delete/Delete/Read	
Default	Mutually Exclusives	Delete/Delete/Read	
Short Default	Partitioning	Delete/Modify/ Access	
Short Default	Permitted Values	Delete/Modify/ Access	
Short Default	Prompts	Delete/Modify/ Access	
Short Default	Prompt for Values	Delete/Modify/ Access	
Short	Relationships (All relationships for scoped Specification Types are included, if the target Entity has not been scoped the relationship is added only if it is identifying)	The lesser of the source or target entity's protection (Special 1)	
Default	Relationships (All relationships for related Entity Types are included)	The lesser of the source or target entity's protection (Special 1)	
Short Default	Parent Subject Area	Access	Parent

Specification Type	Object for System Test	Protection	Expands
Short Default	Subtypes	Delete/Modify/Access	
Default	Owned Transaction Operations	Access	Short

Storage Group

For these Storage Group expansions, the expanded objects for all subset types are granted protection based on whether the scoping object is Delete, Modify, or Access:

Storage Group	Object for all subset types	Protection	Expands
Default	DASD Volumes used by Storage Group	Delete/Delete/Read	

Subject Area

For these Subject Area expansions, the expanded objects for all subset types are granted protection based on whether the scoping object is Delete, Modify, or Access:

Storage Group	Object for all subset types	Protection	Expands
Short	Entity Types	Delete/Modify/Access	Short
Default	Entity Types	Delete/Modify/Access	Default
Short Default Parent *internal*	Parent Subject Area	Access	Parent
Short	Child Subject Areas	Delete/Modify/Access	Short
Default	Child Subject Areas	Delete/Modify/Access	Default

System Def Matrix

If Business Function/Entity Type matrix has been scoped with MODIFY or DELETE protection, functions will get MODIFY protection. If Elementary Process/Entity Type matrix has been scoped with MODIFY or DELETE protection, processes will get MODIFY protection.

For these System Def Matrix expansions, the expanded objects for all subset types are granted protection based on whether the scoping object is Delete, Modify, or Access:

System Def Matrix	Object for all subset types	Protection	Expands
Short *internal*	System Def Object Classes	Delete/Modify/Access	Short
Default	Current Business Systems referenced on the X or Y axis of the matrix where Access/Read protection was requested for the matrix	Access	Full
Default	Current Business Systems referenced on the X or Y axis of the matrix, where Delete/Modify protection was requested for the matrix	Access	Full Plus
Default	Matrix Cell Values	Delete/Delete/Read	
Default	Matrix usages	Delete/Delete/Read	
Default	System Def Object Classes	Delete/Modify/Access	Default

System Def Object Class

Scoping a System Def Object Class causes all occurrences of the selected System Supplied Object Class to be included and expanded as shown in Appendix E, System Defined Object Class. The occurrences that will be included in the download are not displayable as expanded object occurrences.

For these System Def Object Class expansions, the expanded objects for all subset types are granted protection based on whether the scoping object is Delete, Modify, or Access:

System Def Object Class	Object for all subset types	Protection	Expands
Default	Aggregate Objects (for System Def Object Classes)	Access	
Short *internal* Default	System Defined objects	Delete/Modify/Access	Default

System Work Attr Set

For these System Work Attr Set expansions, the expanded objects for all subset types are granted protection based on whether the scoping object is Delete, Modify, or Access:

System Work Attr Set	Object for all subset types	Protection	Expands
Short Default	Attributes	Delete/Modify/Access	
Short Default	Dialect Text for Prompt for Values and Prompts	Delete/Delete/Read	
Short Default	Permitted Values	Delete/Modify/Access	
Short Default	Prompt for Values	Delete/Modify/Access	
Short Default	Prompts	Delete/Modify/Access	
Default	Owned Transaction Operations	Access	Short

Subsetting Expansion Table - T

This section describes the subsetting expansion tables starting with alphabet T.

TD Action Block (Non-Selectable)

For these TD Action Block expansions, the expanded objects for all subset types are granted protection based on whether the scoping object is Delete, Modify, or Access:

TD Action Block	Object for all subset types	Protection	Expands
Default	Entity Types owning Relationship	Read	Default
Default *Internal*	Entity owning TD Action Block	Read	Short

TD Action Block	Object for all subset types	Protection	Expands
Default *Internal*	Implementation Unit	Delete/Modify/Access	Default
Default *Internal*	Linkage owning TD Action Block	Read	
Default *Internal*	Relationship implemented by Linkage	Read	

Tech Design Default

For these Tech Design Default expansions, the expanded objects for all subset types are granted protection based on whether the scoping object is Delete, Modify, or Access:

Tech Design Default	Object for all subset types	Protection	Expands
Default	Bind Package Default	Delete/Delete/Read	
Default	Extended Technical Design Defaults	Delete/Delete/Read	
Default	Package List Entry	Delete/Delete/Read	

Template

Scoping on a Template with default expansion does not download the Screens used by the Template. If you modify a Template scoped with default expansion you may get overlapping fields.

For these Template expansions, the expanded objects for all subset types are granted protection based on whether the scoping object is Delete, Modify, or Access:

Template	Object for all subset types	Protection	Expands
Default Full	Business System containing Template	Access	Short
Default Full	Dialect Text for Screen Literals	Delete/Delete/Read	
Default Full	Screen items (Literals ...)	Delete/Delete/Read	

Template	Object for all subset types	Protection	Expands
Full	Screens that use the scoped Template	Access	Default
Full	Templates that use the scoped Template	Access	Full
Default Full	Templates used by scoped Template	Access	Default

Transaction Operation

For these Transaction Operation expansions, the expanded objects for all subset types are granted protection based on whether the scoping object is Delete, Modify, or Access:

Transaction Operation	Object for all subset types	Protection	Expands
Short *internal* Default	Referenced Commands	Access	Default
Short *internal* Default	Constraints	Delete/Delete/Read	
Short *internal* Default	Owning Entity	Access	Short
Short *internal* Default	External Parameters	Delete/Delete/Read	
Short *internal*	Supporting Procedure Step	Access	Short2
Default	Supporting Procedure Step	Access	Short
Short *internal*	Delegated to Trans Operation	Access	Short
Default	Delegated to Trans Operation	Access	Default

TYPEMAP

For these Transaction Operation expansions, the expanded objects for all subset types are granted protection based on whether the scoping object is Delete, Modify, or Access:

Transaction Operation	Object for all subset types	Protection	Expands
Default	Owned correspondences	Delete/Delete/Read	
Default	Target Attributes	Delete/Delete/Read	
Default	Forward Mapped action blocks	Delete/Modify/Access	Default
Default	Backward Mapped action blocks	Delete/Modify/Access	Default

Subsetting Expansion Table - U

This section describes the subsetting expansion tables starting with alphabet U.

User Def Matrix

For these User Def Matrix expansions, the expanded objects for all subset types are granted protection based on whether the scoping object is Delete, Modify, or Access:

User Def Matrix	Object for all subset types	Protection	Expands
Default	Current Business Systems referenced on the X or Y axis of the matrix, where Access / Read protection was requested for the matrix	Access	Full
Default	Current Business Systems referenced on the X or Y axis of the matrix, where Delete / Modify protection was requested for the matrix	Access	Full Plus
Default	Matrix Cell Values	Delete/Delete/Read	
Default	Matrix usages	Delete/Delete/Read	
Short *internal*	User Defined Object Classes	Delete/Modify/Access	Short

User Def Matrix	Object for all subset types	Protection	Expands
Default	User Defined Object Classes	Delete/Modify/Access	Default

User Def Object Class

If Business Function/Entity Type matrix has been scoped with MODIFY or DELETE protection, functions will get MODIFY protection. If Elementary Process/Entity Type matrix has been scoped with MODIFY or DELETE protection, processes will get MODIFY protection. For these User Def Object Class expansions, the expanded objects for all subset types are granted protection based on whether the scoping object is Delete, Modify, or Access:

User Def Object Class	Object for all subset types	Protection	Expands
Default	Aggregate Objects (for System defined object classes)	Access	*
Short *internal* Default	User defined objects	Delete/Modify/ Access	Default

Note: For more information, see the "CSE Subsetting Expansion Tables: L-W" chapter in this guide.

User Defined Object

For these User Def Object Class expansions, the expanded objects for all subset types are granted protection based on whether the scoping object is Delete, Modify, or Access:

User Def Object Class	Object for all subset types	Protection	Expands
Default	Parent User Defined Object Class	Access	Short

Subsetting Expansion Table - W

This section describes the subsetting expansion tables starting with alphabet W.

Web Service Definition

For these Web Service Definition expansions, the expanded objects for all subset types are granted protection based on whether the scoping object is Delete, Modify, or Access:

Web Service Definition	Object for all Subset Types	Protection	Expands
Short Default Full	Owning Business System	Access	Short
Short Default Full	Web Services included in the Web Service Definition	Delete/Modify/Access	
Short	Procedure Steps included in the Web Service	Delete/Modify/Access	Short
Default	Procedure Steps included in the Web Service	Delete/Modify/Access	Default
Full	Procedure Steps included in the Web Service	Delete/Modify/Access	Full

Window Load Module

This section describes Window Load Module expansions for design and unit test table and system test table.

Design & Unit Test Table

For these Window Load Module expansions, the expanded objects for Design and Unit Test are granted protection based on whether the scoping object is Delete, Modify, or Access:

Window Load Module	Object for Design and Unit Test	Protection	Expands
Short Default Full	Package List Entry	Delete/Delete/Read	

Window Load Module	Object for Design and Unit Test	Protection	Expands
Short Default Full	Procedure Step Execution Usages	Delete/Delete/Read	
Short	Procedure Steps included in the Window Load Module	Delete/Modify/Access	Short
Default	Procedure Steps included in the Window Load Module	Delete/Modify/Access	Default
Full	Procedure Steps included in the Window Load Module	Delete/Modify/Access	Full
Short Default Full	Transaction codes used by the Window Load Module	Delete/Modify/Access	

System Test Table

For these Window Load Module expansions, the expanded objects for System Test are granted protection based on whether the scoping object is Delete, Modify, or Access:

Window Load Module	Object for System Test	Protection	Expands
Full 2 *internal*	Package List Entry	Delete/Delete/Read	
Full 2 *internal*	Procedure Step Execution Usages	Read	
Full 2 *internal*	Procedure Steps included in the Window Load Module	Read	Full
Full 2 *internal*	Transaction codes used by the Window Load Module	Access	

Work Attribute Set

For these Work Attribute Set expansions, the expanded objects for all subset types are granted protection based on whether the scoping object is Delete, Modify, or Access:

Work Attribute Set	Object for all subset types	Protection	Expands
Short Default	Attributes	Delete/Modify/Access	
Short Default	Dialect Text for Prompt for Values and Prompts	Delete/Delete/Read	
Short Default	Permitted Values	Delete/Modify/Access	
Short Default	Prompt for Values	Delete/Modify/Access	
Short Default	Prompts	Delete/Modify/Access	
Default	Owned Transaction Operations	Access	Short

Subsetting Expansion Table - Z

This section describes the subsetting expansion tables starting with alphabet Z.

z/OS Library

For these z/OS Library expansions, the expanded objects for all subset types are granted protection based on whether the scoping object is Delete, Modify, or Access:

z/OS Library	Object for all Subset Types	Protection	Expands
Short Default Full	Owning Business System	Access	Default
Short	Action Blocks included in the z/OS Library	Delete/Modify/Access	Short
Default	Action Blocks included in the z/OS Library	Delete/Modify/Access	Default

z/OS Library	Object for all Subset Types	Protection	Expands
Full	Action Blocks included in the z/OS Library	Delete/Modify/Access	Full

Appendix D: System Defined Object Class

This appendix describes scoping of an object type from the system defined object class.

This section contains the following topics:

Scoping Object Type (see page 165)

Scoping Object Type

Scoping an object type from the SYSTEM DEF OBJECT CLASS causes all objects of the selected type to be included in the expansion.

For example, if you select System Supplied Object Class BUSINESS_SYSTEM and click Add to add this class to the Selected Object List, then Save and Exit, all Business System objects for the model will be included in the subset. The resulting expansion for the target Business Systems will be Short and the protection will be Access.

All object types receive Access Protection. Protection is labeled P. A means Access. Expansion is labeled E. Expansion options include D for Default, S for Short.

System Defined Object Class

The following table lists the scoped system defined object classes and the related scoping object type (if any):

Scoped System Defined Object Class	P	E	Related Scoping Object Type (if any)
ACTIVITY_CLUSTER	A	D	ACTIVITY CLUSTER
BAA_ACTION_BLOCK	A	S	ACTION BLOCK (BAA)
BSD_ACTION_BLOCK	A	S	ACTION BLOCK (BSD)
BUSINESS_AREA	A	D	BUSINESS AREA
BUSINESS_GOAL	A	D	GOAL
BUSINESS_OBJECTIVE	A	D	OBJECTIVE

Scoped System Defined Object Class	P	E	Related Scoping Object Type (if any)
BUSINESS_SYSTEM	A	S	BUSINESS SYSTEM
COMPUTING/ COMMUNICATION_FACILITY	A	D	FACILITY
CRITICAL_SUCCESS_FACTOR	A	D	CRIT SUCCESS FACTOR
CURRENT_BUSINESS_SYSTEM	A	D	CURRENT INFO SYSTEM
CURRENT_DATA_BASE_OR_STORE	A	D	CURRENT DATA STORE
DATABASE_DATA_STRUCTURE	A	S	DATABASE
DATA_CLUSTER_(NAT_DATA_STORE)	A	D	DATA CLUSTER
EVENT	A	D	EVENT
EXIT_STATE	A	D	EXIT STATE
EXTERNAL_OBJECT	A	D	EXTERNAL OBJECT
FUNCTION_DEFINITION	A	S	FUNCTION
HIGHEST_LVL_ANALYSIS_ENTITY_ TYPE	A	D	ENTITY TYPE
HW/SW_ENVIRONMENT	A	D	ENVIRONMENT
INFO._NEED_CATEGORY	A		
INFORMATION_NEED	A	D	INFORMATION NEED
LOCATION_OF_BUSINESS_ASSETS	A	D	LOCATION
ORGANIZATIONAL_UNIT	A	D	ORGANIZATIONAL UNIT
PERFORMANCE_MEASURE	A	D	PERFORMANCE MEASURE
PROCESS_DEFINITION	A	S	PROCESS
STRATEGY	A	D	STRATEGY
SUBJECT_AREA	A	S	SUBJECT AREA
TACTIC	A	D	TACTIC

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