

TIBCO® Object Service Broker

Managing Deployment

Software Release 6.0
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Preface

TIBCO® Object Service Broker is an application development environment and integration broker that bridges legacy and non-legacy applications and data.

This manual provides the basic information required to submit, maintain, and manage promotion requests in order to deploy changes to TIBCO Object Service Broker systems.

Topics

- [Related Documentation, page xiv](#)
- [Typographical Conventions, page xix](#)
- [Connecting with TIBCO Resources, page xxii](#)

Related Documentation

This section lists documentation resources you may find useful.

TIBCO Object Service Broker Documentation

The following documents form the TIBCO Object Service Broker documentation set:

Fundamental Information

The following manuals provide fundamental information about TIBCO Object Service Broker:

- *TIBCO Object Service Broker Getting Started* Provides the basic concepts and principles of TIBCO Object Service Broker and introduces its components and capabilities. It also describes how to use the default developer's workbench and includes a basic tutorial of how to build an application using the product. A product glossary is also included in the manual.
- *TIBCO Object Service Broker Messages with Identifiers* Provides a listing of the TIBCO Object Service Broker messages that are issued with alphanumeric identifiers. The description of each message includes the source and explanation of the message and recommended action to take.
- *TIBCO Object Service Broker Messages without Identifiers* Provides a listing of the TIBCO Object Service Broker messages that are issued without a message identifier. These messages use the percent symbol (%) or the number symbol (#) to represent such variable information as a rules name or the number of occurrences in a table. The description of each message includes the source and explanation of the message and recommended action to take.
- *TIBCO Object Service Broker Quick Reference* Presents summary information for use in the TIBCO Object Service Broker application development environment.
- *TIBCO Object Service Broker Shareable Tools* Lists and describes the TIBCO Object Service Broker shareable tools. Shareable tools are programs supplied with TIBCO Object Service Broker that facilitate rules language programming and application development.
- *TIBCO Object Service Broker Release Notes* Read the release notes for a list of new and changed features. This document also contains lists of known issues and closed issues for this release.

Application Development and Management

The following manuals provide information about application development and management:

- *TIBCO Object Service Broker Application Administration* Provides information required to administer the TIBCO Object Service Broker application development environment. It describes how to use the administrator's workbench, set up the development environment, and optimize access to the database. It also describes how to manage the Pagestore, which is the native TIBCO Object Service Broker data store.
- *TIBCO Object Service Broker Managing Data* Describes how to define, manipulate, and manage data required for a TIBCO Object Service Broker application.
- *TIBCO Object Service Broker Managing External Data* Describes the TIBCO Object Service Broker interface to external files (not data in external databases) and describes how to define TIBCO Object Service Broker tables based on these files and how to access their data.
- *TIBCO Object Service Broker National Language Support* Provides information about implementing the National Language Support in a TIBCO Object Service Broker environment.
- *TIBCO Object Service Broker Object Integration Gateway* Provides information about installing and using the Object Integration Gateway which is the interface for TIBCO Object Service Broker to XML, J2EE, .NET and COM.
- *TIBCO Object Service Broker for Open Systems External Environments* Provides information on interfacing TIBCO Object Service Broker with the Windows and Solaris environments. It includes how to use SDK (C/C++) and SDK (Java) to access TIBCO Object Service Broker data, how to interface to TIBCO Enterprise Messaging Service (EMS), how to use the TIBCO Service Gateway for WMQ, how to use the Adapter for JDBC-ODBC, and how to access programs written in external programming languages from within TIBCO Object Service Broker.
- *TIBCO Object Service Broker for z/OS External Environments* Provides information on interfacing TIBCO Object Service Broker to various external environments within a TIBCO Object Service Broker z/OS environment. It also includes information on how to access TIBCO Object Service Broker from different terminal managers, how to write programs in external programming languages to access TIBCO Object Service Broker data, how to interface to TIBCO Enterprise Messaging Service (EMS), how to use the TIBCO Service Gateway for WMQ, and how to access programs written in external programming languages from within TIBCO Object Service Broker.

- *TIBCO Object Service Broker Parameters* Lists the TIBCO Object Service Broker Execution Environment and Data Object Broker parameters and describes their usage.
- *TIBCO Object Service Broker Programming in Rules* Explains how to use the TIBCO Object Service Broker rules language to create and modify application code. The rules language is the programming language used to access the TIBCO Object Service Broker database and create applications. The manual also explains how to edit, execute, and debug rules.
- *TIBCO Object Service Broker Managing Deployment* Describes how to submit, maintain, and manage promotion requests in the TIBCO Object Service Broker application development environment.
- *TIBCO Object Service Broker Defining Reports* Explains how to create both simple and complex reports using the reporting tools provided with TIBCO Object Service Broker. It explains how to create reports with simple features using the Report Generator and how to create reports with more complex features using the Report Definer.
- *TIBCO Object Service Broker Managing Security* Describes how to set up, use, and administer the security required for an TIBCO Object Service Broker application development environment.
- *TIBCO Object Service Broker Defining Screens and Menus* Provides the basic information to define screens, screen tables, and menus using TIBCO Object Service Broker facilities.
- *TIBCO Service Gateway for Files SDK* Describes how to use the SDK provided with the TIBCO Service Gateway for Files to create applications to access Adabas, CA Datacom, and VSAM LDS data.

System Administration on the z/OS Platform

The following manuals describe system administration on the z/OS platform:

- *TIBCO Object Service Broker for z/OS Installing and Operating* Describes how to install, migrate, update, maintain, and operate TIBCO Object Service Broker in a z/OS environment. It also describes the Execution Environment and Data Object Broker parameters used by TIBCO Object Service Broker.
- *TIBCO Object Service Broker for z/OS Managing Backup and Recovery* Explains the backup and recovery features of OSB for z/OS. It describes the key components of TIBCO Object Service Broker systems and describes how you can back up your data and recover from errors. You can use this information, along with assistance from TIBCO Support, to develop the best customized solution for your unique backup and recovery requirements.

- *TIBCO Object Service Broker for z/OS Monitoring Performance* Explains how to obtain and analyze performance statistics using TIBCO Object Service Broker tools and SMF records
- *TIBCO Object Service Broker for z/OS Utilities* Contains an alphabetically ordered listing of TIBCO Object Service Broker utilities for z/OS systems. These are TIBCO Object Service Broker administrator utilities that are typically run with JCL.

System Administration on Open Systems

The following manuals describe system administration on open systems such as Windows or UNIX:

- *TIBCO Object Service Broker for Open Systems Installing and Operating* Describes how to install, migrate, update, maintain, and operate TIBCO Object Service Broker in Windows and Solaris environments.
- *TIBCO Object Service Broker for Open Systems Managing Backup and Recovery* Explains the backup and recovery features of TIBCO Object Service Broker for Open Systems. It describes the key components of a TIBCO Object Service Broker system and describes how to back up your data and recover from errors. Use this information to develop a customized solution for your unique backup and recovery requirements.
- *TIBCO Object Service Broker for Open Systems Utilities* Contains an alphabetically ordered listing of TIBCO Object Service Broker utilities for Windows and Solaris systems. These TIBCO Object Service Broker administrator utilities are typically executed from the command line.

External Database Gateways

The following manuals describe external database gateways:

- *TIBCO Service Gateway for DB2 Installing and Operating* Describes the TIBCO Object Service Broker interface to DB2 data. Using this interface, you can access external DB2 data and define TIBCO Object Service Broker tables based on this data.
- *TIBCO Service Gateway for IDMS/DB Installing and Operating* Describes the TIBCO Object Service Broker interface to CA-IDMS data. Using this interface, you can access external CA-IDMS data and define TIBCO Object Service Broker tables based on this data.
- *TIBCO Service Gateway for IMS/DB Installing and Operating* Describes the TIBCO Object Service Broker interface to IMS/DB and DB2 data. Using this interface, you can access external IMS data and define TIBCO Object Service Broker tables based on it.

- *TIBCO Service Gateway for ODBC and for Oracle Installing and Operating*
Describes the TIBCO Object Service Broker ODBC Gateway and the TIBCO Object Service Broker Oracle Gateway interfaces to external DBMS data. Using this interface, you can access external DBMS data and define TIBCO Object Service Broker tables based on this data.

Typographical Conventions

The following typographical conventions are used in this manual.

Table 1 General Typographical Conventions

Convention	Use
<i>TIBCO_HOME</i> <i>OSB_HOME</i>	<p>By default, all TIBCO products are installed into a folder referenced in the documentation as <i>TIBCO_HOME</i>.</p> <p>On open systems, TIBCO Object Service Broker installs by default into a directory within <i>TIBCO_HOME</i>. This directory is referenced in documentation as <i>OSB_HOME</i>. The default value of <i>OSB_HOME</i> depends on the operating system. For example on Windows systems, the default value is C:\tibco\OSB. Similarly, all TIBCO Service Gateways on open systems install by default into a directory in <i>TIBCO_HOME</i>. For example on Windows systems, the default value is C:\tibco\OSBgateways\6.0.</p> <p>On z/OS, no default installation directories exist.</p>
code font	<p>Code font identifies commands, code examples, filenames, pathnames, and output displayed in a command window. For example:</p> <p>Use MyCommand to start the foo process.</p>
bold code font	<p>Bold code font is used in the following ways:</p> <ul style="list-style-type: none"> • In procedures, to indicate what a user types. For example: Type admin. • In large code samples, to indicate the parts of the sample that are of particular interest. • In command syntax, to indicate the default parameter for a command. For example, if no parameter is specified, MyCommand is enabled: MyCommand [enable disable]
<i>italic font</i>	<p>Italic font is used in the following ways:</p> <ul style="list-style-type: none"> • To indicate a document title. For example: See <i>TIBCO ActiveMatrix BusinessWorks Concepts</i>. • To introduce new terms. For example: A portal page may contain several portlets. <i>Portlets</i> are mini-applications that run in a portal. • To indicate a variable in a command or code syntax that you must replace. For example: MyCommand <i>PathName</i>

Table 1 General Typographical Conventions (Cont'd)




Convention	Use
Key combinations	<p>Key name separated by a plus sign indicate keys pressed simultaneously. For example: Ctrl+C.</p> <p>Key names separated by a comma and space indicate keys pressed one after the other. For example: Esc, Ctrl+Q.</p>
	The note icon indicates information that is of special interest or importance, for example, an additional action required only in certain circumstances.
	The tip icon indicates an idea that could be useful, for example, a way to apply the information provided in the current section to achieve a specific result.
	The warning icon indicates the potential for a damaging situation, for example, data loss or corruption if certain steps are taken or not taken.

Table 2 Syntax Typographical Conventions

Convention	Use
[]	<p>An optional item in a command or code syntax.</p> <p>For example:</p> <p>MyCommand [optional_parameter] required_parameter</p>
	<p>A logical OR that separates multiple items of which only one may be chosen.</p> <p>For example, you can select only one of the following parameters:</p> <p>MyCommand para1 param2 param3</p>

Table 2 Syntax Typographical Conventions

Convention	Use
{ }	<p>A logical group of items in a command. Other syntax notations may appear within each logical group.</p> <p>For example, the following command requires two parameters, which can be either the pair param1 and param2, or the pair param3 and param4.</p> <pre>MyCommand {param1 param2} {param3 param4}</pre> <p>In the next example, the command requires two parameters. The first parameter can be either param1 or param2 and the second can be either param3 or param4:</p> <pre>MyCommand {param1 param2} {param3 param4}</pre> <p>In the next example, the command can accept either two or three parameters. The first parameter must be param1. You can optionally include param2 as the second parameter. And the last parameter is either param3 or param4.</p> <pre>MyCommand param1 [param2] {param3 param4}</pre>

Connecting with TIBCO Resources

How to Join TIBCOCommunity

TIBCOCommunity is an online destination for TIBCO customers, partners, and resident experts, a place to share and access the collective experience of the TIBCO community. TIBCOCommunity offers forums, blogs, and access to a variety of resources. To register, go to <http://www.tibcommunity.com>.

How to Access All TIBCO Documentation

You can access TIBCO documentation here:

<http://docs.tibco.com>

How to Contact TIBCO Support

For comments or problems with this manual or the software it addresses, please contact TIBCO Support as follows.

- For an overview of TIBCO Support, and information about getting started with TIBCO Support, visit this site:

<http://www.tibco.com/services/support>

- If you already have a valid maintenance or support contract, visit this site:

<https://support.tibco.com>

Entry to this site requires a user name and password. If you do not have a user name, you can request one.

Chapter 1

Introduction to Administration of Promotions

This chapter introduces the administration of promotions. Promotion is the term used to refer to deployment in TIBCO Object Service Broker.

Topics

- [Administrative Responsibilities, page 2](#)
- [Types of Promotion Administration, page 4](#)
- [Promoting Change Requests: An Overview, page 6](#)
- [Promotions: Interactive or Batch, page 8](#)
- [Assessing The Impact of Promotions on Users, page 9](#)
- [Security Issues, page 10](#)

Administrative Responsibilities

The responsibilities of a promotions administrator cover several areas:

- Setting up and maintaining the Promotions system
- Managing change requests
- Promoting change requests to source and external target systems

This chapter introduces the functions performed by a promotions administrator in these areas. The last section discusses security issues and describes how you can be enabled to perform promotion administration tasks.

Setting Up and Maintaining the Promotions System

The framework of your Promotion system should provide optimum functionality. To achieve this functionality the following must be addressed:

- Promotion environment default parameters
- Backup considerations
- Change request categories
- Type of processing: batch or online

Most of these considerations are addressed during the initial setup of your promotion system and can be changed later to improve system performance. Depending on the parameter being changed, some restrictions apply.

Managing Change Requests

A TIBCO Object Service Broker user with borrower's rights can initiate a promotion by preparing and submitting a change request. When submitted, the status of the change request changes to (P) pending. This status change marks its turnover from an application developer to a promotions administrator.

As promotions administrator, you are provided with all the promotion administration functions required for managing a change request from the time that it takes on the pending status. These functions deal with the control and tracking of changes made to application systems based on TIBCO Object Service Broker.

Applying Change Requests to Source and External Target Systems

The Promotion system provides facilities for managing changes in one or more TIBCO Object Service Broker systems. A change request can be promoted in the system where it was created, the source system, and in a number of other external target systems.

Types of Promotion Administration

Where a change request was created, where it is being managed, and where it is being applied dictate the type of promotion administration you perform. There are three perspectives or types of promotion administration:

- Source
- Target
- Remote

Depending on the type of promotion administration being performed, you must also allow for other factors such as environment access rights, backup requirements, and external access permissions.

Source Promotion Administration

Accepting a newly submitted change request and managing it in the same TIBCO Object Service Broker system where it was created is known as source promotion administration.

For more information on source promotions, refer to [Chapter 3, Source Promotions, on page 25](#).

Target Promotion Administration

Using one of two file-transfer methods, change requests can also be managed in TIBCO Object Service Broker systems other than the system where they were created. The first method, target promotion administration, consists of:

- Bringing a change request extracted from a source system into the target system
- Managing that change request within the target system

Example

A developer creates change requests in a version of TIBCO Object Service Broker for other than the z/OS platform, and these changes must be applied in TIBCO Object Service Broker on the z/OS platform. Using source promotion administration functions in the version for other than z/OS, the change request information is written to external files. The files are then transferred to the z/OS platform and managed in that system using target promotion administration functions.

For more information on target promotions, refer to [Chapter 4, Target Promotions, on page 45](#).

Remote Promotion Administration

The second file-transfer method is a data communication connection between the source and target systems. Remote promotion administration is based on the TIBCO Object Service Broker distributed data facilities that use the data communications alternative. Except for its use of networking facilities, remote promotion administration offers functionality similar to source and target promotion administration.

For details on remote promotions, refer to [Chapter 5, Remote Promotions, on page 63](#).

Promoting Change Requests: An Overview

A change request can be promoted in the system where it was created, the source system, and in a number of external target systems. Depending on the promotion administration perspective, promoting a change request can have up to three phases:

Phase One	Validate—performed only when promoting to an external target.
Phase Two	Backup.
Phase Three	Apply.

Status Codes

As a change request progresses from creation to application in one or more TIBCO Object Service Broker systems, it can take on various status codes. These codes could differ across the various systems where the change request is used. For more information on the meaning of these codes, refer to [Appendix C, Status Codes of Change Requests, on page 191](#).

Promotion Phase One: Validate

The Promotion system performs this validation step when you promote within either the target promotion administration or the remote promotion administration function sets. This step checks the validity of the disposition of objects in a change request. For more information on dispositions, refer to [Chapter 4, Target Promotions, on page 45](#).

Promotion Phase Two: Backup

Phase 2 backs up objects so that the change request can be backed out, if necessary.

By default, the Promotion system takes a backup before applying change requests. A backup is essentially an image of object definitions and TIBCO Object Service Broker data involved in a change request. This image, taken before the actual promotion of a change request, can be used at a later time if you want to back out a promoted change request.

For details on altering backup parameters, refer to [Chapter 3, Source Promotions, on page 25](#).

Promotion Phase Three: Apply

Phase 3 performs the actual promotion of the change request. This phase executes the add, modify, and delete operations and runs execution-time rules.

The following events occur during the application of the change request. As indicated, some events take place only in specific promotion modes.

- New or modified rules take effect in the installation library.
- Rules for deletion are removed from the installation library, along with all other objects.
- Table data and definitions are applied to the MetaStor (target promotion only).
- Promotion rights to all associated objects are released (source promotion only).
- The rule marked for execution is invoked and then deleted.

Sequence of Promotions

In a source system, change request numbers are assigned in ascending sequence, indicating creation sequence. The sequence of application, however, is not necessarily the same as the creation sequence. If there are potential interactions among change requests, the order of their application could be critical to their promotion as a set. Developers who create change requests and administrators who perform the promotions must coordinate and agree on the promotion sequence.

Promotions: Interactive or Batch

There are three commands that you can issue to promote a change request:

- **APPLY**
- **PROMOTE IMMEDIATE**
- **BATCH APPLY**

The **APPLY** and **PROMOTE IMMEDIATE** commands perform the promotion interactively. This means that the changes take effect as you execute those functions from your TIBCO Object Service Broker terminal. The source promotion administration function set uses the **PROMOTE IMMEDIATE** command; the target and remote promotion administration function sets use the **APPLY** command.

Promotion: Batch Mode

Use the **BATCH APPLY** command to submit a batch job that performs the promotion. While the job submission happens immediately, the time of its execution depends on conditions particular to the TIBCO Object Service Broker system where you are working. The actual promotion of the changes is deferred until the job executes. A batch job can be used to apply either a source or target promotion.

Promotion: Invoked from Rules

You can use your own TIBCO Object Service Broker rules to initiate promotions. Two entry rules are available: one for source system promotions and the other for target system promotions. Refer to [Chapter 3, Source Promotions, on page 25](#), and [Chapter 4, Target Promotions, on page 45](#) for information on initiating promotions on source and target systems.

Assessing The Impact of Promotions on Users

Promotions and backing out change requests can change the behavior of one or many of your application systems. Before promoting change requests, ensure you have a thorough understanding of the impact of the changes on users currently signed on to the TIBCO Object Service Broker system.

Impact of Promotions

It is usually not desirable to make changes to application systems while users of those systems are logged in to TIBCO Object Service Broker. If some users are logged in, some promotions cannot complete correctly. For example, if a user is accessing a table that you want to promote, the promotion could fail due to locking problems. You should log out or suspend all impacted users. The warning message at the bottom of the Change Request Management menu screen informs you of the number of users logged in to the system.

Managing User Access

Manage user access to TIBCO Object Service Broker by selecting the appropriate option from the Change Request Management menu:

- Display Users Logged On
- Suspend All Level 1 Users Access
- Restore All Level 1 Users Access

For more details on these options, refer to [Appendix A, User Access, on page 185](#).

Security Issues

To administer promotions and manage change requests as a promotions administrator, your status must be one of the following:

- System administrator who, by definition, can administer promotions
- Promotions administrator who is not a system administrator and for whom the object set @MANAGE_REQUESTS is enabled

With the @MANAGE_REQUESTS object set enabled, you can invoke the promotion administration functions. Enabling the @MANAGE_REQUESTS object set also prohibits other users from accessing the system and installation libraries, using the **UNLOAD** and **LOAD** tools, and initiating promotions.

Access Permissions

Enabling an object set results in the loss of access permissions that are assigned directly to user IDs and groups (and not through another enabled object set). To compensate for this, the following object sets should be enabled specifically for users who need access to the libraries and utilities:

@PREPARE_REQUEST	For developers who prepare and submit change requests.
@ALL	For the group ALL, so that all users can read and execute rules in the system and installation libraries.
@UNLOAD/@LOAD	For users who perform the tasks associated with these utilities.

To apply and back out a change request, your user ID must have access permissions to all the objects included in that change request. For example, unless you have ownership privileges to an object, you cannot apply a change request that calls for its deletion. Only the object’s owner or the owner’s security administrator can apply the change request successfully.

Before attempting to apply a change request, the Promotion system ensures that you, the promotions administrator, meet all security requirements.



Access permissions must also be set for object types introduced on a system as a result of a target or remote promotion. For more information, refer to [Chapter 2, Preparing For Promotions](#), on page 13.

See Also *TIBCO Object Service Broker Managing Security* for details on enabling object sets.
 TIBCO Object Service Broker Shareable Tools about the LOAD and UNLOAD tools.

Chapter 2 **Preparing For Promotions**

This chapter describes how to prepare for promotions.

Topics

- [System Requirements, page 14](#)
- [@PROM_CONSTANTS Table, page 16](#)
- [@PROM_BACKUPDS Table, page 20](#)
- [@PROM_NSEC_DEF Table, page 21](#)
- [Customizing Batch Processing JCL, page 24](#)

System Requirements

To ensure the optimum functionality for your Promotions system, you must address the following:

- Promotion environment default parameters
- Backup considerations
- Method of processing
- External access permissions
- Change Request categories

Keep these considerations in mind each time you apply a promotion. To accommodate a particular situation, you could need to change some of these parameters.

Establishing Promotion Environment Default Parameters

You must establish certain environment parameters for your Promotion system before you can apply a promotion. These include:

- Environment access rights
- File naming and data set allocation
- Promotion rules libraries
- Promotion message logs

Values for these parameters are set in the @PROM_CONSTANTS table. For more information on this table, refer to [@PROM_CONSTANTS Table on page 16](#).

Addressing Backup Considerations

The Promotion system uses a different set of files to hold, as backup copies, the original definitions and data of objects that are included in a change request. The naming conventions for these backup files are contained in the @PROM_BACKUPDS table. For more information on this table, refer to [@PROM_BACKUPDS Table on page 20](#).

Setting External Access Permissions

Target or remote promotions can result in new objects being created on the receiving system. You must pre-set default access permissions for these new objects to address potential security concerns. If these permissions are not pre-set, invalid default values can be inherited from the receiving system.

Default values are set in the @PROM_NSEC_DEF table. For more information on this table, refer to [@PROM_NSEC_DEF Table on page 21](#).

Establishing Change Request Categories

When submitting a change request, developers must indicate the type of change request by assigning it a category, for example, enhancement or product defect. The TIBCO Object Service Broker system provides several pre-set category values in the CHG_CATEGORIES table. You can add to and modify this list at any time to suit your environment.

@PROM_CONSTANTS Table

Use the @PROM_CONSTANTS table to set up the promotion environment (file allocation parameters, rights restrictions, and library names). Edit the table in the Single Occurrence Editor. There should be an occurrence for each TIBCO Object Service Broker location or node name used in the promotion system.

Sample Occurrence NODE123AA of @PROM_CONSTANTS

```

                                --- SINGLE OCCURRENCE EDITOR ---
EDITING TABLE      : @PROM_CONSTANTS
TABLE TYPE         : TDS
COMMAND ==>
-----

NODENAME           : NODE123AA
CH_PREFIX          : HURQA.CH
SUFFIX             : .UPGRADE
RESTRICT_RIGHTS    : U
EXE_LIB            : VXPX
DEV_LIB            : SITE
ALLOC_DATASET      :
SAVE_APPLY_LOG      : N
SAVE_BACKOUT_LOG    : N
SAVE_EXTRACT_LOG    : N
SAVE_REFRESH_LOG    : N

PFKEYS: 1=HELP 2=DOCUMENTATION 3=SAVE 12=CANCEL 13=PRINT 22=DELETE
```

Explanations of the various environment parameters follow.

Nodename

Type a valid TIBCO Object Service Broker location or source node name in the **Nodename** field. This location has a specific set of promotion environment parameters.

Environment Access Rights

You must identify the type of user access rights allowed on the TIBCO Object Service Broker location in question. Access rights can be set as restricted or non-restricted.

A restrictive environment is appropriate if only one person (user-restrictive) or one group (group-restrictive) is responsible for an object at any given time. Promotion rights are enforced by the tools used to define objects (such as the Table Definer) and edit data (such as the Table Editor). If a developer uses these tools, no one else can modify the object in question as only the developer has rights.¹

You could decide to set up restrictive rights at first and then switch over to non-restrictive, or vice-versa.

RESTRICT_RIGHTS Field

Valid values are U, G, and S:

Value	Type of Right	Explanation
U	User-restrictive	If the developer has the rights on a screen, report, table, table instance, or other object, no one else can modify that object.
G	Group-restrictive	In a group-restrictive environment, promotion rights are associated with a library name. The security permissions for a library define the promotions group. If the developer has access to a particular library, they are a member of the promotions group for that library. All members of the promotions group share the rights to the objects associated with that library.
S	Non-restrictive	Although one developer has rights to an object, other developers can modify that same object and save their changes. However, they are warned that the promotion rights are held by someone else.

For more information about promotion rights and environment access, refer to [Promotion Environment and User Access Considerations on page 104](#).

1. Rules differ from other objects in terms of rights and access to modify objects. Refer to [Chapter 9, Promotion Rights, on page 101](#) for more information.

File Naming Conventions and Data Set Allocation

The Promotion system uses the following file naming parameters when using external files to store objects associated with each change request: **CH_PREFIX**, **SUFFIX**, and **ALLOC_DATASET**. If the Promotion system operates across multiple systems, these naming parameters must be identical on all systems.

Be aware of any file naming restrictions that apply to the platform where you are operating. For example, in z/OS, data set qualifiers cannot be longer than eight characters and cannot start with a number.

If you are doing external backups or extractions, the qualifiers on the files named in this occurrence of the @PROM_CONSTANTS table should be appropriate to the requirements of the external security system. In particular, the external ID of the administrator (regardless of the level) must have read and write access to the external files used by the Promotion system.

CH_PREFIX

This field contains the leading filename qualifiers for files that are to hold change requests. On non-z/OS platforms, it is used to create the directory name.

SUFFIX

This field contains the trailing portion of the names for files that are to hold change requests.

The file or data set name is derived by concatenating the value of **CH_PREFIX**, the change request number, and the contents of the **SUFFIX** field. For example, the data set name for change request number of 1539 would be:

USR40.CH1539.UPGRADE



Periods (.) are required on a z/OS platform.

The values of **CH_PREFIX** and **SUFFIX** are used only when change requests originate from **NODENAME**. If **NODENAME** is not used as a source of change requests, these two fields can contain nulls.

ALLOC_DATASET

Type Y or N in this field to indicate whether data set pre-allocation is required. This is applicable only where extractions are done for target promotions. A z/OS platform must be set to Y; platforms other than z/OS must be set to N.

Promotion Rules Libraries

EXE_LIB

Specify the library in the target system that is to hold rules specified for execution at the time of the promotion.

DEV_LIB

Specify the library that is to receive the rules that a change request includes. This would be the installation rules library that is, by default, SITE. Rules marked for deletion in a change request are removed from the specified library, along with rules extracted for a consolidated change.

Promotion Message Logs

The Promotion system uses the settings in the fields below to identify which (if any) messages to save in @PROM_LOGS. These messages are used by the Query Promotions Information option.

SAVE_APPLY_LOG	To save all apply logs, set to Y; otherwise, set to N.
SAVE_EXTRACT_LOG	To save all extract logs, set to Y; otherwise, set to N.
SAVE_BACKOUT_LOG	To save all backout logs, set to Y; otherwise, set to N.
SAVE_REFRESH_LOG	To save all refresh logs, set to Y; otherwise, set to N.

PTF Maintenance and the @PROM_CONSTANTS Table

Before you can apply maintenance updates (PTFs) to your TIBCO Object Service Broker system, an entry in the @PROM_CONSTANTS table is required. This required occurrence is shipped with each system.

See Also

TIBCO Object Service Broker for z/OS Installing and Operating or *TIBCO Object Service Broker for Open Systems Installing and Operating* for your operating environment for more information about maintenance updates and the @PROM_CONSTANTS table.

@PROM_BACKUPDS Table

The Promotion system uses a different set of files to hold, as backup copies, the original definitions and data of objects involved in a change request. The naming parameters for these backup files are specified in the @PROM_BACKUPDS table.

To facilitate the administration of multiple target TIBCO Object Service Broker systems residing on the same operating platform, the @PROM_BACKUPDS table is parameterized by DEST_NODE (value is the target node name). Each target can also receive change requests from multiple sources, since the table uses the name specified in SOURCE_NODE as the key field.

Customizing the @PROM_BACKUPDS Table

To customize this table, use the Single Occurrence Editor as illustrated below. Use of the CH_PREFIX, SUFFIX, and ALLOC_DATASET fields is the same as described in @PROM_CONSTANTS Table on page 16.

```

                                --- SINGLE OCCURRENCE EDITOR ---
EDITING TABLE      : @PROM_BACKUPDS
TABLE TYPE          : TDS
COMMAND ==>
-----

SOURCE_NODE         : TORONTODEV4
BK_PREFIX           : HURPROM.BK
SUFFIX              : .TORDEV4
ALLOC_DATASET       : Y

PFKEYS: 1=HELP 2=DOCUMENTATION 3=END 12=CANCEL 13=PRINT 22=DELETE
```

Data Parameter

Although not visible in the above example, the single data parameter for this table, DEST_NODE, is the location name of the destination (target) system.

@PROM_NSEC_DEF Table

When new objects are introduced as a result of a target or remote promotion, the access permissions assigned to those objects use default values pre-specified in the @PROM_NSEC_DEF table. This table is parameterized by source node name; therefore, the default parameters vary for different change requests depending on their source.

Object Types

Ensure that your system has one occurrence in @PROM_NSEC_DEF for each of the object types eligible for promotion. A list of eligible objects can be obtained by browsing the table @PROM_OBJTYPES or pressing PF1 in the Object Type field of the Query Promotion Information screen.

Customizing the @PROM_NSEC_DEF Table

To customize this table, use the Single Occurrence Editor. The following example illustrates an occurrence for screen objects in the @PROM_NSEC_DEF table.

```

          --- SINGLE OCCURRENCE EDITOR ---
EDITING TABLE : @PROM_NSEC_DEF
TABLE TYPE    : TDS
COMMAND ==>

-----
OBJECT_TYPE   : SCREEN
READ          : N
INSERT        : N
REPLACE       : N
DELETE        : N
DEFINE_VIEW   : N
DEFINE_PRMTBL : N
MODIFY_DEFN   : N
VIEW_DEFN     : Y
DISPLAY       : Y
PRINT         : N
AUTHOR        : WORLDINC
MODIFIER       : NULL
CLASSIFICATION : 1
OWNER         : CORPSYS
LOG_ACCESSES  : N

PFKEYS: 1=HELP 2=DOCUMENTATION 3=END 12=CANCEL 13=PRINT 22=DELETE

```

Field Values

The parameter fields are described as follows:

OBJECT_TYPE	Must be an object type eligible for promotion. Refer to @PROM_NSEC_DEF Table on page 21 for a list of valid object types.
READ	Specifies if users have read access to an object type. Applies to table data only. Valid values are Y (access) or N (no access).
INSERT	Specifies if users have insert access to an object type. Applies to table data only. Valid values are Y (access) or N (no access).
REPLACE	Specifies if users have replace access to an object type. Applies to table data only. Valid values are Y (access) or N (no access).
DELETE	Specifies if users have delete access to an object type. Applies to table data only. Valid values are Y (access) or N (no access).
DEFINE_VIEW	Specifies if users can define subview (SUB) tables, and calculation (CLC) tables. Applies to table definition only. Valid values are Y (yes) or N (no).
DEFINE_PRMTBL	Specifies if users can define parameter (PRM) tables. Applies to table definition only. Valid values are Y (yes) or N (no).
MODIFY_DEFN	Specifies if users can modify the definitions of an object type. Applies to table, screen, and report definitions. Valid values are Y (yes) or N (no).
VIEW_DEFN	Specifies if users can view the definitions of an object type. Applies to table, screen, and report definitions. Valid values are Y (yes) or N (no).
DISPLAY	Specifies if users are able to display screens. Valid values are Y (yes) or N (no).
PRINT	Specifies if users can print reports. Valid values are Y (yes) or N (no).

AUTHOR	<p>Specifies the default value for the creator of the object type. If this field has a null value, that is, it is blank, the same value carried over from the source system is used in the target. This also applies to the creation date.</p> <p>If the value is the NULL literal, the author and creation date attributes of an object are set to blanks or nulls. Any other value is used as the author attribute and the creation date is set to the current date.</p>
MODIFIER	<p>Specifies the default value for the modifier of the object type. The two values null and literal NULL are the same as in the AUTHOR field.</p>
CLASSIFICATION	<p>Specifies the security level of the object type. Type one of the following levels:</p> <p>1 – All users with clearance of 1 or greater can access the object.</p> <p>7 – Only users with clearance of 7 can access the object.</p>
OWNER	<p>Specifies the default value for the owner of the object type. This is the creator of the object and an individual user ID is expected. The information in this field is used for security purposes.</p>
LOG_ACCESSES	<p>Specifies if user accesses to the object type are recorded. Applies only to tables. Valid values are Y (yes) or N (no); N is the default. N is recommended. With Y, every access to the table in question is recorded in the audit log.</p>

See Also *TIBCO Object Service Broker Managing Security* for more detail on references to security issues and log accesses.

Customizing Batch Processing JCL

If you plan to use the batch processing facilities of the Promotion system, consider modifying the sample JCL contained in instances of the @SCHEDULEMODEL. Alternatively, you can use sample JCL which is provided in the JCL data set. You must ensure that the names of the TIBCO Object Service Broker LOAD libraries used in your system are customized.

Verifying the @SCHEDULEMODEL Table

Before using the batch processing facilities of the promotion system, verify the following instances of the @SCHEDULEMODEL table:

@SCHEDULEMODEL (operating_system,APPLY_PROM)	Applies a change request in the source system.
@SCHEDULEMODEL (operating_system,APPLY_CHANGE)	Applies a change request to the target system in batch mode.
@SCHEDULEMODEL (operating_system,PROM_ALLOC)	Allocates data sets used by the Promotion system: applicable only to z/OS.

These instances should have been customized when your TIBCO Object Service Broker system was installed. Combined with the parameters set in the @PROM_CONSTANTS table, they provide your Promotion system with the necessary information for batch processing. Refer to [Appendix D, Sample JCL for Batch Processing, on page 193](#) for samples of the @SCHEDULEMODEL instances.

Sample JCL

Sample JCL, which is described below, is available in the JCL data set. This JCL can be used as an alternative to the batch processing options on the Promotions screens:

APPLYTGT	Applies a change request to the target system in batch mode.
APPLYSRC	Applies a change request in the source system.
ALLOCPRM	Allocates data sets used by the Promotion system.

Chapter 3 **Source Promotions**

This chapter describes source promotions.

Topics

- [Source Promotion Administration, page 26](#)
- [Reviewing and Accepting Change Requests, page 29](#)
- [Managing Accepted Change Requests, page 31](#)
- [Altering Backup Parameters, page 34](#)
- [Extracting Change Requests For Target Promotions, page 36](#)
- [Promoting Change Requests, page 38](#)
- [Managing Promoted Requests, page 39](#)
- [Consolidating Change Requests, page 41](#)

Source Promotion Administration

This chapter deals specifically with *source* promotion administration, which consists of accepting, managing, and applying change requests in the same TIBCO Object Service Broker system where they were originally submitted.

Administering source promotions involves:

1. Reviewing and accepting change requests
2. Managing and preparing accepted requests for promotion
3. Applying accepted requests
4. Completing post-promotion activities

For further information, refer to [Chapter 6, Postpromotion Activities](#), on [page 81](#).

Accessing the Source Promotion System

Use one of the following methods to invoke the Change Request Management menu shown below. This menu provides access to all source promotion administration functions.

- From the administrator workbench, select the item:
PS Source Promotion Admin ==>

- From any workbench, and in browse mode, execute the [MANAGE_REQUESTS](#) tool.

Change Request Management

Date: 25/02/00

- _ Manage Pending Requests
- _ Manage Accepted Requests
- _ Manage Promoted Requests
- _ Query Promotion Information

- _ Display Users Logged On
- _ Suspend All Level 1 Users Access
- _ Restore All Level 1 Users Access

PFKEYS: 3=EXIT 12=EXIT

Warning: There are 33 additional users on the system

Query Promotion Information

The Query Promotion Information function provides information on change request activities. It is accessible from both the developer and administrator workbenches:

Workbench	Menu Item
Developer	PM Promotion
Administrator	PM Promotion
Administrator	PS Source Promotion Administration
Administrator	PT Target Promotion Administration
Administrator	PR Remote Promotion Administration

The Query Promotion Information option shows which change requests include given objects and which change requests were manipulated by given users. For more information, refer to [Chapter 14, Queries for Information on Promotions, on page 173](#).

With the Query Promotion Information option, you can list change requests that include certain object types that were manipulated by given users.

Reviewing and Accepting Change Requests

After confirming that the change request meets all necessary requirements, you, as promotions administrator, can accept the change request in preparation for promotion. When it is accepted, the change request is available to be promoted and its status changes from *pending* to *accepted*. Also, it can no longer be modified by its creator. Accepting a change request does not cause the application changes defined in it to take effect.

Considerations

You should review every change request before accepting it. As administrator, you should verify that the change request is in order. Some considerations are:

- What is the impact of promoting this change request?
- Are all appropriate objects included?
- Is there an issue with rights?
- Does the documentation meet established standards?

Manage Pending Requests Screen

Select the Manage Pending Requests menu option from the Change Request Management menu to display a screen similar to the following. This screen displays all change requests available for acceptance.



They have a status code of P (pending). For more information on change request status codes, refer to [Appendix C, Status Codes of Change Requests, on page 191](#).

Manage Pending Requests					
Command ==>			Scroll P		
REQUEST#	STATUS	REQUESTOR	CATEGORY	COMPONENT	
— 5461	P	USR20	BUG FIX	MISC	
— 5460	P	USR20	CODE IMPROVEMENT	SEARCH UTILITIES	
— 5459	P	USR30	CODE IMPROVEMENT	MISCELLANEOUS	
— 5458	P	USR30	NEW FEATURE	TABLE EDITOR	

A-Accept P-Print V-View
PFKEYS: 12=EXIT 13=PRINT 3=END 5=FIND NEXT 9=RECALL

Command Line and PF Keys

You can use any of the Object Manager primary commands to vary the displayed list. Refer to *TIBCO Object Service Broker Getting Started* for more information on standard primary commands and PF key usage.

Available Actions

Within this screen you can perform the following actions:

Action	Line Command	Description
View	V	View the details of the change request.
Print	P	Print the details of the change request.
Accept	A	Accept the change request—status code changes to A.

Managing Accepted Change Requests

Managing change requests involves more than promotion. Additional tasks that could be required are:

- Returning the change request for further revision
- Allocating data sets
- Altering the backup parameters

For more information, refer to [Altering Backup Parameters on page 34](#).

- Extracting change requests

For more information, refer to [Extracting Change Requests For Target Promotions on page 36](#).

- Applying change requests

For more information, refer to [Promoting Change Requests on page 38](#).

You must consider the preparation requirements for each change request that is eligible for promotion.

Manage Accepted Requests Screen

When you select the Manage Accepted Requests option from the Change Request Management menu, a screen similar to the following one appears. This screen displays change requests that are accepted and not yet promoted.

Manage Accepted Requests					
Command ==>			Scroll P		
	REQUEST#	STATUS	REQUESTOR	CATEGORY	COMPONENT
—	5252	X	USR30	BUG FIX	REPORT DEFINER
—	5262	X	USR30	BUG FIX	REPORT DEFINER
—	5308	X	USR30	BUG FIX	REPORT DEFINER
—	5370	X	USR30	BUG FIX	REPORT DEFINER
—	5400	X	RFS20	BUG FIX	IDMS
—	5432	A	USR30	CODE IMPROVEMENT	DB2 GATEWAY
—	5448	A	RFS20	CODE IMPROVEMENT	DOCUMENTATION
—	5451	A	USR40	INTERFACE CHANGE	MISCELLANEOUS
A-Alloc B-Batch I-Prom Imd K-Backup P-Print U-Unaccept V-View X-Extract					
PFKEYS: 12=EXIT 13=PRINT 3=END 5=FIND NEXT 9=RECALL					

The various line commands available on this screen and their use are explained in the remaining sections of this chapter.

Command Line and PF Keys

You can use any of the Object Manager primary commands to vary the displayed list. Refer to *TIBCO Object Service Broker Getting Started* for more information on standard primary commands and PF key usage.

Returning the Change Request For Revision

When you unaccept a change request, you return it to the control of its creator. If applicable, the change request can be re-submitted after the problem or situation is resolved.

Procedure

To return a change request to its developer, type **U** (unaccept) and press Enter at the command line. The status of the change request becomes U (unaccepted).

Allocating Data Sets (z/OS Platform)

If you are running TIBCO Object Service Broker on a z/OS platform, you must allocate your data sets before promoting your change requests. This must be done *before* you use any of the following functions:

- Extract
- Backup
- Promote (interactive or batch)

Procedure

To allocate your files, type **A** (alloc) and press Enter at the command line. The status of the change request remains unchanged.

Other Management Commands

You can use two additional commands in your management of accepted change requests. These are:

P	Print the details of the change request.
V	View the change request.

These commands do not affect the status of the change request.

Altering Backup Parameters

You can alter backup behavior for TIBCO Object Service Broker data associated with a change request by disabling the automatic backup for TDS tables. Altering the backup parameters of a change request does not change its status.

Guidelines

If the change request contains a rule to execute, complete a system backup of all components that are affected. If there is any doubt over what is affected, back up the entire MetaStor.



Without a backup, you *cannot* back out table data changes resulting from a promotion.

Auxiliary Backup Parameters

To alter the backup parameters, type **κ** (backup) in the Managing Accepted Requests screen and press Enter at the command line.

This action displays a screen similar to the following illustration. This screen lists table instances in a change request whose pre-promotion data should be backed up before the change request is applied.

Options for source/target backup of data tables					
Table	Parameters	Disp	Extract	Source Backup	Target Backup
@SERVERMSGCNTL	@HURON	MOD	0	Y	Y

PFKEYS: 3=SAVE BACKUP OPT 12=PREVIOUS SCREEN

Procedure

Values in the **Source Backup** and **Target Backup** fields determine the backup action of the Promotion system when it applies the change request. Set the value according to the following:

Value	Backup Action
Y	The table instance is copied to backup files before the requested data deletion or modification is done at promotion time.
N	No backup is taken.



Set the **Target Backup** field *before* extracting the change request in the source system so the setting is carried over to take effect in the target system. You can also alter the indicator in the target system.

Extracting Change Requests For Target Promotions

If you intend to include the change request as part of a target promotion, you must extract it. When you extract change requests, you put the change request definition, its objects, and other control information together into external files. You can then transmit these files to one or more target systems via a communication network or using physical media such as diskettes. For more information, refer to [Chapter 4, Target Promotions, on page 45](#).

Requirements

You *must* extract change requests:

- In their source system
- After allocating data sets (z/OS platform only)
- After making any changes to the backup parameters for those change requests
- Before promoting the change requests as either a source or remote promotion

Procedure

To extract a change request, type **x** (extract) in the Managing Accepted Requests screen and press Enter at the command line. Extracting a change request results in a status code of X (extracted).

Source and Disposition of Extracted Objects

The source and disposition of extracted objects depends on how they came to exist on the system, as shown below:

	Via a Consolidated Change Request		Individually Selected Objects
	Extract File Exists	Extract File Not Found	
Rules Retrieved From:	Extract file	Installation library (development library)	Local library that holds the promotion rights

	Via a Consolidated Change Request		Individually Selected Objects
	Extract File Exists	Extract File Not Found	
Non-rule Objects Retrieved From:	Extract file	MetaStor	MetaStor
Dispositions Determined From:	Dispositions on original CR	Dispositions on original CR	@SYSTEM tables ^a

a. There is an @SYSTEM_*objecttype* table for each eligible object type except rules. There is also an @SYSTEM_PARMSETS table for the table instances of a table.

For more information about object dispositions, refer to [Chapter 4, Target Promotions, on page 45](#).

Promoting Change Requests

After completing the necessary preparations, you can promote change requests by applying them either immediately or as a batch job.

Managing Impact To Users

Before applying any change requests, you must consider how users who are currently logged in to the system are affected. For more information, refer to [Chapter 1, Introduction to Administration of Promotions, on page 1](#).

Applying Change Requests

Type in one of these line commands in the Managing Accepted Requests screen:

-
- | | |
|----------|---|
| B | Submit a batch job to promote this change request. This results in a status of J (batch job submitted). For more information on this process, refer to Chapter 1, Introduction to Administration of Promotions, on page 1 . |
| <hr/> | |
| I | Immediately promote the change request. The resulting status is C (completed). Refer to Chapter 1, Introduction to Administration of Promotions, on page 1 for more information on the promotion process. |
-

Initiating Source Promotions from Rules

In addition to applying change requests interactively and in batch mode, you can also initiate promotions from your own TIBCO Object Service Broker rules. To initiate a promotion within the source system, invoke the rule `APPLY_PROM(srclocn, change#)`. The two arguments are the source node name and the number of the accepted change request to be promoted.

Promotion Log

Whenever change requests are promoted, the Promotion system provides a log of its activities. These logs are kept only if the appropriate settings are set in the `@PROM_CONSTANTS` table. Review any warning and error messages associated with each promotion request. All messages are documented in *TIBCO Object Service Broker Messages With Identifiers*.

Saved promotion logs are also available via Query Promotion Information.

Managing Promoted Requests

Managing Promoted Requests Screen

After promoting change requests, you can view them, print them, or back them out. To do any of these management tasks, select the Manage Promoted Requests option from the Change Request Management menu. A screen similar to the following appears.

Manage Promoted Requests				Scroll P
Command ==>				
REQUEST#	STATUS	REQUESTOR	CATEGORY	COMPONENT
—	5166 C	USR90	INTERFACE CHANGE	EXT. ROUTINES
—	5165 C	USR40	BUG FIX	DEFINE_OBJECTSET
—	5164 C	USR50	BUG FIX	TABLE DEFINER
—	5163 C	USR40	BUG FIX	DATACOM GATEWAY
—	5162 C	USR10	NEW FEATURE	ODBC ADAPTER
—	5161 C	USR10	INTERFACE CHANGE	PROMOTION UTIL
—	5160 C	USR20	CODE IMPROVEMENT	ADABAS GATEWAY
—	5159 C	USR00	NEW FEATURE	ODBC ENGINE
—	5158 C	USR00	NEW FEATURE	REPORT GENERATOR
—	5157 C	USR10	BUG FIX	PROMOTION UTIL
—	5156 C	USR50	BUG FIX	TABLE DEFINER
—	5154 C	USR20	NEW FEATURE	TABLE ACCESS
—	5153 C	USR10	INTERFACE CHANGE	PROMPTING
—	5152 C	USR20	CODE IMPROVEMENT	ADABAS GATEWAY
—	5151 C	USR40	INTERFACE CHANGE	COPYDEFN
—	5150 C	USR40	BUG FIX	DBA\$DELDEFN
B-Backout P-Print V-View				
PFKEYS: 12=EXIT 13=PRINT 3=END 5=FIND NEXT 9=RECALL				

Command Line and PF Keys

You can use any of the Object Manager primary commands to vary the displayed list. Refer to *TIBCO Object Service Broker Getting Started* for more information on standard primary commands and PF key usage.

Line Commands

The following line commands are available from this screen:

B	Back out the promoted change request to restore associated objects to their state prior to the promotion. Refer to Chapter 7, Promotion Backouts, on page 87 for more information.
P	Print the change request.
V	View the change request.

Consolidating Change Requests

Change requests can be consolidated into one single request for easier management. Change requests to be included in the consolidation must have already been applied on the current (source or target) system, that is, have a status of C (complete) or L (loaded).

Change requests that include rules to execute cannot be consolidated.



You must adhere to prerequisites and dependencies between changes to avoid potential problems such as data loss or incorrect processing that can seriously compromise your system.

Accessing the Source Nodes for Change Requests Screen

When you press PF6 on the Request Promotion of a Change screen, a Source Nodes for Change Requests screen similar to the one shown here appears. This screen lists the source node locations whose change requests can be selected as elements of a new consolidated change request.

Source Nodes for Change Requests		
Command ==>		Scroll P
SRCLOC		

_	DDBSDCALP50A	
_	DDBSDCH30SRV	
_	DDBSDCSGT20B	
_	DDBSDCTRUST	
_	DDBSDCTTRUSTC	
_	DDBSDCTTRUST40	
_	F32	
_	FSRV	
S-Select		
PFKEYS: 12=EXIT 13=PRINT 3=END 5=FIND NEXT 9=RECALL		

Procedure

After selecting the appropriate source node location, press Enter to move to the Change Requests Containing Objects to be Promoted screen.

From this screen, requests can be included or excluded from the consolidated change request.

Change Requests Containing Objects to be Promoted				Scroll P
Command ==>				
REQUEST#	STATUS	COMPONENT	SUMMARY*	
-----	-----	-----	-----	
— 4251		TABLE DEFINER	Implement common func Valid_Parm,_Even	
— 4618		TABLE DEFINER	VSM/EXP/IMP - Incorporate @XXXfields i	
— 4716		TABLE DEFINER	Implement common functions for table d	
— 4957		SCREEN DEFINER	Allow >80 fields and Increase characte	
E-Exclude I-Include V-View				
PFKEYS: 12=EXIT 13=PRINT 3=END 5=FIND NEXT 9=RECALL				

Fields

The following fields are used to include or exclude objects from a consolidated change request:

REQUEST#	Displays the request number.
STATUS	Displays the status of the change request as it relates to a consolidated change request. It shows INCL for included or remains blank for excluded.
COMPONENT	The name specified in the change request that reflects the name of the application.
SUMMARY	Change request summary line description.

Available Actions

You can perform the following actions by using line commands:

E	Exclude a change request from the consolidated change request.
I	Include a change request in the consolidated change request.
V	View the details of the change request.

Chapter 4 **Target Promotions**

This chapter describes how to administer promotions on a target system.

Topics

- [Target Promotions Administration, page 46](#)
- [Identifying Change Requests and Their Source, page 48](#)
- [Managing Change Requests On The Target System, page 51](#)
- [Applying Change Requests To The Target System, page 53](#)
- [Considerations When Applying Target Promotions, page 56](#)
- [Disposition of Objects, page 58](#)
- [Promoting From Release 6.0.0 to Release 5.0.0, page 60](#)

Target Promotions Administration

Target promotions consist of applying change requests to a TIBCO Object Service Broker system that is not the system where the change request originated.

The management of these change requests involves some source promotion administration. The following activities are done on the system where the request originated:

1. Reviewing and accepting the request
2. Allocating data sets
3. Gathering together (extracting) the related request information and files for conveyance to another system

The change request is then loaded onto the target system and promoted.

Configuration Requirements

The applicable nodes must be configured identically in the @PROM_CONSTANTS table on both the source and target systems. For more information on setting up this table, refer to [Chapter 2, Preparing For Promotions, on page 13](#).

Procedural Overview

Specifically in target promotions administration, change requests are made available in the target system in external files created in the source system.

Target promotions involve:

- Extracting the change requests in the source system
- Identifying change requests and their source in the target system
- Altering the backup parameters if necessary
- Allocating data sets if necessary
- Applying the change requests
- Completing post-promotion activities



You can manage change requests across different systems without the use of extracted files. For more information, refer to [Chapter 5, Remote Promotions, on page 63](#).

Extracting Change Requests in the Source System

Before making your change requests available in another system, you must extract them in their source system. When you extract change requests, a copy of all change request information, object definitions, data, and other control information is combined into external files.

You can extract change requests in the source system by accessing one of the source promotion administration functions and using the **x** (Extract) command. Refer to [Chapter 3, Source Promotions, on page 25](#) for more information on this process.

If the source and target TIBCO Object Service Broker systems are in different operating environments (for example, the source system is on a workstation, and the target is on a z/OS system), you must also transfer the files across the two platforms. If you use FTP, transfer the files using binary mode with the z/OS FTP LOCSITE subcommand with NORDW parameter specified. Then use the S6BBRFRU z/OS batch utility to reformat the files after transferring them from Windows or Solaris, or before transferring them from z/OS.

Consolidated Requests

To simplify target promotion administration, create a promotion request that contains a number of individual change requests. This leaves only the one request to manage. For information on creating a consolidated request, refer to [Chapter 3, Source Promotions, on page 25](#).

See Also *TIBCO Object Service Broker for z/OS Utilities* for detailed information about using S6BBRFRU.

Identifying Change Requests and Their Source

Before you can actively manage your target promotions, you must complete the following tasks:

- [Access the Target Promotion Administration Menu, page 48](#)
- [Identify the source system of the change requests \(the system from which the change requests are originating\), page 49](#)
- [Select a range of change request numbers to be loaded into the target system, page 49](#)

Task A Access the Target Promotion Administration Menu

The Target Promotion Administration menu gives you access to all target promotion administration functions. To invoke this menu, select the Target Promotion Admin option from the TIBCO Object Service Broker administrator’s workbench:

PT Target Promotion Admin ==>

The Manage Change Requests screen appears:

Manage Change Requests from DDCSDCELO50A		Date: 27/02/00
	Load Change Requests	
	From Change # 0	To Change # 0
<input type="checkbox"/> Apply Requests		
<input type="checkbox"/> Backout Requests		
<input type="checkbox"/> Query Promotion Information		
 <input type="checkbox"/> Display Users Logged On		
<input type="checkbox"/> Suspend All Level 1 Users Access		
<input type="checkbox"/> Restore All Level 1 Users Access		
 PFKEYS: 3=EXIT 12=EXIT		
Warning: There are 33 additional users on the system		

Query Promotion Information

The Query Promotion Information option provides information on change request activities. It shows which change requests include given objects and which were manipulated by given users. For more information about this option, refer to [Chapter 14, Queries for Information on Promotions, on page 173](#).

Task B Identify the source system of the change requests (the system from which the change requests are originating)

The change requests that you are managing with the target promotion administration functions could originate from a number of different source systems. Before you select a function from the Target Promotion Administration menu, you must identify the source system for those change requests.

Method of Identification

Enter the source system's node name in the appropriate field of the menu screen. In the following example, NODE1 is the node name:

Manage Change Requests from NODE1

If you want to manage change requests from various source systems, you can manage them in sets according to their source node names. Switch from one source node name to the next by returning to the menu.

Task C Select a range of change request numbers to be loaded into the target system

Use the **Load Change Requests** field in the menu screen to enter the range of change request numbers you want to load.

Loading New Change Requests

If you specify change request numbers other than zero, for example, From Change # 843 To Change # 897, the Target Promotion system looks for extract files that correspond to the change request range (there is one extract data set per change request). The Target Promotion system then accesses the range of these data sets according to the range of numbers you entered. When information is loaded for these change requests, they become known to the target system.

Accessing Change Requests Already Loaded

If you leave the range values at zero, no new change request information is loaded. However, change requests already known to the target system are made available. A change request is known to the target system if either of the following applies:

- The change request was the object of a previous apply or back out function in the target system.
- The change request was explicitly loaded into the target system by previous specification of **Load Change Requests** range numbers.

Managing Change Requests On The Target System

After extracting your change requests and loading them into your target system, you can do any of the following activities:

- Alter the backup parameters
- Review the change requests
- Apply the change requests

Apply Requests Screen

When you select the Apply Requests option from the Target Promotion Administration menu, a screen similar to the following example appears. This screen displays change requests that can be managed in the target system.

Command ==>				Scroll P	
	REQUEST#	STATUS	REQUESTOR	CATEGORY	COMPONENT
—	5638	X	USR30	BUG FIX	SECURITY
—	5639	X	USR10	INTERFACE CHANGE	PROMOTION UTIL
—	5640	X	USR50	BUG FIX	TABLE DEFINER
—	5642	X	USR20	BUG FIX	ADABAS GATEWAY
—	5643	X	USR00	BUG FIX	UPGRADE
—	5644	X	USR51	BUG FIX	TABLE DEFINER
—	5645	X	USR90	BUG FIX	RULE EDITOR
—	5647	X	USR10	BUG FIX	PROMOTION UTIL
—	5648	X	USR10	BUG FIX	OBJECT MANAGER
—	5649	X	USR30	BUG FIX	PROMOTION UTIL
—	5650	X	USR10	BUG FIX	PROMOTION UTIL
—	5651	X	USR40	INTERFACE CHANGE	APPLICATION
—	5652	X	USR40	INTERFACE CHANGE	USER OBJECT
A-Apply B-Batch K-Backup P-Print R-Refresh Disp V-View					
PFKEYS: 12=EXIT 13=PRINT 3=END 5=FIND NEXT 9=RECALL					

Command Line and PF Keys

You can use any of the Object Manager primary commands to vary the displayed list. Refer to *TIBCO Object Service Broker Getting Started* for more information on standard primary commands and PF key usage.

Altering the Backup Parameters

Altering backup parameters applies to the TDS data that are affected by the change request. For information about backups, refer to [Chapter 1, Introduction to Administration of Promotions, on page 1](#).

Procedure

To alter the backup parameters for the change request you selected, in the Apply Requests screen type **K** (backup) and press Enter at the command line.

Refer to [Chapter 3, Source Promotions, on page 25](#) for details on this process.



Without a backup, you *cannot* back out changes to table data due to a promotion.

Reviewing Loaded Change Requests

There are two commands provided to help you review change requests. These are:

P	Print the details of the change request.
V	View the change request.

These commands do not affect the status of the change request.

Applying Change Requests To The Target System

You can apply change requests interactively or as a batch job. In either case, you must consider the potential issues that can develop during target promotions. For more information, refer to [Considerations When Applying Target Promotions on page 56](#) and [Disposition of Objects on page 58](#).

Managing Impact To Users

Promotions and backing out of change requests can change the behavior of one or many of your applications. For more information, refer to [Chapter 1, Introduction to Administration of Promotions, on page 1](#).

Sequence of Events

When you apply change requests on a target system the following process is initiated:

1. Change requests are validated for correct target disposition.

This check ensures that objects marked as new are in fact new and objects to be modified or deleted do actually exist. If validation is successful, the change request status is set to V (verified). If the validation is unsuccessful, the promotion fails and you get an error message. For more information on object dispositions, refer to [Disposition of Objects on page 58](#).
2. Objects and data to be modified or deleted are backed up on the target system.

When a back up is completed, the change request status is set to S (saved).
3. Change requests are applied. You are prompted for target segment numbers for all new TDS tables.

Applying Change Requests

To apply change requests, enter one of the following line commands in the Apply Change Requests screen:

- | | |
|----------|--|
| A | Apply (or promote) the change request. The resulting status is L (loaded). |
| B | Submit a batch job to promote this change request. This results in a change request status of J (job submitted). For more information on batch processing, refer to Chapter 1, Introduction to Administration of Promotions, on page 1 and Chapter 2, Preparing For Promotions, on page 13 . |



All object sets that are to be modified by the target promotion must be disabled. Deviation from this requirement could result in *serious security complications*.

Segment Number Prompt

When you issue the **A** line command to apply a change request interactively, the Promotion system prompts you to confirm the Apply request and to enter target segment numbers for new TDS tables. If no value is entered, the default is segment 0.

Establishing the Segment Number

The Promotion system performs the following sequence of checks to establish the segment number:

1. Checks for a valid segment number supplied at the prompt and applies the new tables to that segment.
If this fails, it performs check number 2.
2. Checks the unloaded source segment and preserves the segment number for the target apply.
If this fails, it performs check number 3.
3. Applies the new tables to the default—segment 0 (the MetaStor).

If you inadvertently created tables in segment 0, change the segment number immediately using the [MOV TAB](#) tool. You can also use the Table Definer from the administrator’s workbench.

See Also *TIBCO Object Service Broker Managing Data* for details about the Table Definer.
 TIBCO Object Service Broker Shareable Tools for details about the [MOV TAB](#) tool.

Promotion Log

When change requests are promoted, the Promotion system provides a log of its activities. Review any warning and error messages associated with each promotion request. All messages are documented in *TIBCO Object Service Broker Messages With Identifiers*.

Saved logs are also available via Query Promotion Information.

Initiating Target Promotions from Rules

In addition to applying change requests interactively and in batch mode, you can initiate promotions using your own TIBCO Object Service Broker rules. For instance, you can decide to automate the promotion process by creating your own application to manage it.

To initiate the promotion of a change request in a target system other than its source, invoke the APPLY_CHANGE rule as in the following example:

```
APPLY_CHANGE(srclocn, change#, tds_segment,)
```

Rules Arguments

The arguments for the APPLY_CHANGE rule are defined as follows:

<i>srclocn</i>	Node name of the source system for that change request
<i>change#</i>	Number of the accepted change request that is to be promoted
<i>tds_segment</i>	Segment number into which new TDS tables are loaded

Considerations When Applying Target Promotions

Secondary Indexes

Secondary indexes built on the source system are not carried over to the target system. If secondary index changes exist as a result of the promotion, consider rebuilding the secondary indexes on the target system.

See Also *TIBCO Object Service Broker Application Administion* for details on rebuilding secondary indexes.

Bound Tables and Screens

If any TDS table or screen is bound (that is, the session memory copy is in use for the rest of the session), the Promotion system issues a warning message that the object is unbound. The Promotion system then requests that you restart the Execution Environment and apply the change request again. Unbinding the objects prior to applying the change prevents these warning messages. Two tools are available to assist with this, @PROMUNBINDOBS and @PROMBINDOBS.

@PROMUNBINDOBS and @PROMBINDOBS Tools

You can use the @PROMUNBINDOBS tool prior to applying a change or series of changes to unbind a set of objects. You can specify ALL, INSTALLATION or SYSTEM as the scope of the change. You must restart the Execution Environment after running this tool. After applying the change requests run @PROMBINDOBS to rebind the objects and then restart the Execution Environment.

See Also *TIBCO Object Service Broker Shareable Tools* for details about these tools.

Restarting the Execution Environment

To restart the Execution environment, perform one of the following procedures:

Type of Execution Environment	Procedure
Single-User	Restart the TIBCO Object Service Broker session by logging out and logging back in to the system.
Multi-User	Shut down and start up the Execution Environment.

After restarting the Execution Environment, re-apply the change request.

Security Considerations

Tables modified by a promotion keep the security attributes they had before the promotion. When a promotion creates new protectable objects (screens, reports, and tables) in the target system, they are assigned default classification level and discretionary security attributes according to the settings in the @PROM_NSEC_DEF table. For more information on the @PROM_NSEC_DEF table, refer to [Chapter 2, Preparing For Promotions, on page 13](#). When the promotion is completed, you can use the TIBCO Object Service Broker Security system to grant access to specific objects.

See Also *TIBCO Object Service Broker Managing Security* for details about granting security access.

Disposition of Objects

The disposition of an object refers to the action of the change request on the object in the target system (that is, whether the object is designated for creation, replacement, or deletion). The following table lists valid dispositions of an object:

Disposition	Explanation
NEW (new)	The object does not exist in the target system and is to be created.
MOD (modify)	The object exists and the change request contains information for altering the object in the target system.
DEL (delete)	The existing object is to be deleted.
DELOCC (delete occurrences)	Existing occurrences of the table or table instance are to be deleted.

The disposition of an object is set when its change request is submitted.

Disposition Inconsistencies

The disposition of an object is based on the knowledge the source system has of the existence or nonexistence of the object in the target system.

The source system MetaStor keeps this information. An error in the validation phase of a promotion can mean that this information in the source system is inconsistent with the actual state of the object in the target system. Messages indicating a disposition inconsistency include the following:

```
OBJECT obj_name WITH DISPOSITION MOD IS NOT PART OF SYSTEM
OBJECT obj_name WITH DISPOSITION NEW ALREADY EXISTS
```

Re-aligning A Disposition

You can realign a disposition mismatch in your source system by adopting the disposition of the object as it exists on the target system.

Procedure

At the command line in the Apply Change Requests screen:

1. Type in **R** (Refresh Disposition).

2. Press Enter.
3. Press PF22 to confirm any changes.

You can view changes using PF2.

For more information on realigning dispositions, refer to [Appendix B, Consistency of Disposition Across Systems, on page 187](#).

Alternate Method of Realignment

An alternate method of realigning a disposition mismatch is to regenerate the appropriate system tables. This ensures that the information retained by the source system about the target system is correct. The procedure is described in [Appendix B, Consistency of Disposition Across Systems, on page 187](#).

Initiation of a Refresh Disposition From Rules

In addition to applying a refresh disposition interactively, you can apply it from within TIBCO Object Service Broker rules. To initiate a refresh disposition from within a rule, invoke the REFRESH_DISPOSN rule as follows:

```
REFRESH_DISPOSN(srclocn, change#, destlocn)
```

The arguments for this rule are as follows:

<i>srclocn</i>	The node name of the change request's source system
<i>change#</i>	The number of the change request to which the refresh disposition is to be applied
<i>destlocn</i>	The node name of the change request's target system

Promoting From Release 6.0.0 to Release 5.0.0

With TIBCO Object Service Broker Release 6.0.0, you can promote objects from the 6.0.0 environment to a 5.0.0 environment. Development proceeds on the newer system while production continues on the older one until you upgrade the production system to Release 6.0.0.

You promote a DB2 table definition from a 6.0.0 environment to a 5.0.0 environment or one that was extracted from 5.0.0 to 6.0.0 with the local library S6B50DB2.

Extraction of Changes

To extract changes in Release 5.0.0 format for the first time, follow these steps:



Perform this procedure only if your changes include DB2 tables.

1. Execute the rule `DEFINE_OBJLIST(@MNG_ACCEPTED)`.
2. Set the Search value for Extract to L.
3. Press PF3 to save the extraction.
4. From the workbench, set Library to S6B50DB2 and BROWSE to Y.
5. Execute the rule `MANAGE_REQUESTS`.

For subsequent extractions, perform steps 4 and 5 only.

If the changes contain DB2 tables with the Release 6.0.0 features and are, therefore, no longer compatible with 5.0.0, the Extract reports on the incompatibilities and the extraction does *not* occur.

Promotion of Changes

To promote changes that were extracted in Release 5.0.0 format to Release 6.0.0 for the first time, follow these steps:



Perform this procedure only if your changes include DB2 tables.

1. Execute the rule `DEFINE_OBJLIST(@APPLY_REQUEST)`.
2. Set the Search value for Apply to L.
3. Press PF3 to save the promotion.
4. From the workbench, set Library to S6B50DB2, BROWSE to Y.
5. Execute the rule `MANAGE_APPLY`.

For subsequent promotions, perform steps 4 and 5 only.

Chapter 5 Remote Promotions

This chapter describes how to administer promotions remotely.

Topics

- [Remote Promotions Overview, page 64](#)
- [Setting Up the Remote Promotions Environment, page 66](#)
- [Identifying Source and Location, page 68](#)
- [Reviewing and Accepting Change Requests, page 70](#)
- [Managing Accepted Change Requests, page 72](#)
- [Promoting Change Requests, page 75](#)
- [Considerations When Applying Remote Promotions, page 77](#)
- [Managing Promoted Requests, page 79](#)

Remote Promotions Overview

You use remote promotion administration to promote change requests in an external target system or across multiple target systems, without the use of extracted files. Promotions can be done from any node to any node.

In this context, the Promotion system moves change request information directly and instantaneously between source and target systems. Instead of an interface that uses external files, data transfer between systems is via the TIBCO Object Service Broker distributed data facility. This facility is a prerequisite to the remote promotion administration function set.

This chapter covers the following topics:

- Setting up the remote promotions environment
- Administering remote promotions

Procedural Overview

Remote promotions involve:

- Identifying change request parameters in the target system
- Reviewing and accepting change requests
- Altering backup parameters if necessary
- Allocating data sets if necessary
- Applying change requests
- Completing post promotion activities

Promotion Administration and Distributed Data

When promoting across several TIBCO Object Service Broker systems, you can use either target administration or remote administration to promote to the required locations.

The differences between the two types of administration are:

	Source and Target Promotion Administration	Remote Promotion Administration
File Transfer	You must transfer the extract file manually	All necessary data is automatically transferred via the TIBCO Object Service Broker distributed data facility.
Order of Promotion	You can promote in any order, although it is advantageous to promote on the source system last to ensure that borrowing rights are held throughout the promotion. For more information about borrowing rights, refer to Chapter 9, Promotion Rights , on page 101	You must perform the last promotion on the TIBCO Object Service Broker system where the promotion was submitted (that is, the source system).
Administration	You must log in at the node where the promotion is to occur.	You can administer promotions from either the source node or the target node.
Location Parameter	You can promote table data across multiple systems without a location parameter.	If you are promoting data, the table definition must include a location parameter.
Executable Rules	You can include a rule to execute as part of a target promotion.	You cannot specify rules to execute as part of a remote promotion.



All object sets that are modified by the target promotion must be disabled to avoid serious security complications.

Setting Up the Remote Promotions Environment

Ensure your systems are properly configured for remote promotions. Because remote promotion generates several layers of nested transactions, there must be at least six peer servers available for each user that is involved with the remote promotion.

Configuration Requirements

Remote promotions require that each node must be configured with the necessary table entries. At the node where you are administering promotions, you must specify:

- An entry in the @PROM_CONSTANTS table for each node where you are administering promotions
- A table instance in @PROM_BACKUPDS for each node where you are applying promotions

Each table instance must contain an entry for each node where a promotion can originate.

Example

The following example uses two nodes called LONDON and CHICAGO. If promotions are submitted at LONDON and administered remotely at CHICAGO, the CHICAGO node would require the following table entries for promotions to be possible at both nodes:

@PROM_CONSTANTS	One entry for LONDON, one entry for CHICAGO.	Identifies source node.
@PROM_BACKUPDS ('LONDON')	One entry for source node LONDON.	Identifies the backup data set used for source promotion.

@PROM_BACKUPDS ('CHICAGO')	One entry for source node LONDON.	Identifies the backup data set used for target promotion.
@PROM_NSEC_DEF ('LONDON')	One entry for each object type being promoted.	Identifies the security setting for each object type promoted from source node.

If you also want to administer promotions from the LONDON node, the LONDON node would require the exact same entries as the CHICAGO node above.

Customizing @SCHEDULEMODEL

In z/OS, nodes must have the @SCHEDULEMODEL('MVS','PROM_ALLOC') member customized on each node where promotions are administered, unless data set allocation is done outside TIBCO Object Service Broker. If you are doing batch promotions, other members of @SCHEDULEMODEL are also required.

Customizing @PROM_BACKUPDS

A backup file is allocated for each table instance of @PROM_BACKUPDS that has an entry with the promotion's source node as the primary key. Another backup file is allocated for a copy of the promotion based on the entry in @PROM_CONSTANTS that has the promotion's source node as the primary key.

Setting the ALLOC_DATASET Field

In environments where files do not need to be pre-allocated (that is, Windows and Solaris), set the value of the **ALLOC_DATASET** field to N. The promotion step to allocate data sets ignores any table entries where **ALLOC_DATASET=N**.

Identifying Source and Location

Accessing the Remote Promotion System

Use one of the following methods to invoke the Remote Promotion Administration menu shown below. This menu provides access to all remote promotion administration functions.

- From the administrator’s workbench, select the item:
PR Remote Promotion Admin ==>
- From any workbench, and in browse mode, execute the [RMANAGE_REQUESTS](#) tool.

The following menu appears:

```
Manage Change from NODENAME1           on Location NODENAME2      Date: 28/02/00

      _ Manage Pending Requests
      _ Manage Accepted Requests
      _ Manage Promoted Requests
      _ Query Promotion Information

      _ Display Users Logged On
      _ Suspend All Level 1 Users Access
      _ Restore All Level 1 Users Access

PFKEYS: 3=EXIT 12=EXIT
Warning: There are 33 additional users on the system
```

Identifying the Source System and Change Request Location

From the Remote Promotion Administration menu, identify the source system and change request location by entering their respective node names, as in:

Manage Change from LONDON at Location LONDON

An explanation of the fields is as follows:

Manage Change from	Enter the name of the node from which the change request originated.
on Location	Enter the node name where you want to query the status of promotions.

Administration Limits

- If the node name in the **on Location** field is the same as the node name in the **Manage Change from** field, you can fully administer all promotions that are submitted.
- If the two locations are different, you cannot fully administer promotions. In this configuration you are limited to one of the following actions:
 - a. You can query the status of any Remote system specified in the on Location field. Put the name of the system where the change request originated from in the Manage Change from field.
 - b. When running Remote Promotions Administration on a remote system you can back-out promotions on that remote system only by specifying the system name in the on Location field. Put the name of the system where the change request originated from in the Manage Change from field.

Query Promotion Information

The Query Promotion Information option provides information on change request activities. It shows which change requests include given objects and which were manipulated by given users. For more information about this option, refer to [Chapter 14, Queries for Information on Promotions, on page 173](#).

Reviewing and Accepting Change Requests

Remote promotions require that you accept pending requests that were submitted for promotion. For more information on reviewing and accepting pending requests, refer to [Chapter 3, Source Promotions, on page 25](#).

Managing Pending Requests Screen

When you select the Manage Pending Requests option from the Remote Promotions menu, a screen similar to the one below appears.

Manage Pending Requests					
Command ==>					Scroll P
	REQUEST#	STATUS	REQUESTOR	CATEGORY	COMPONENT
	-----	-----	-----	-----	-----
-	5471	P	LLM14	BUG FIX	SECURITY
-	5469	P	RET27	BUG FIX	COPY_DEFN
-	5467	P	RMC51	BUG FIX	PROMOTION UTIL
-	5466	P	PNA22	BUG FIX	TABLE DEFINER
-	5457	P	SFG39	CODE IMPROVEMENT	MISC
A-Accept P-Print V-View					
PFKEYS: 12=EXIT 13=PRINT 3=END 5=FIND NEXT 9=RECALL					

Command Line and PF Keys

You can use any Object Manager primary commands to vary the displayed list. Refer to *TIBCO Object Service Broker Getting Started* for more information on standard primary commands and PF key usage.

Available Actions

In this screen you can perform the following actions:

- | | |
|----------|--|
| A | Accept the change request. This changes a change request's status to A (accepted). |
| P | Print the change request. Status of the change request is unaffected. |
| V | View the change request. Status of the change request is unaffected. |

Managing Accepted Change Requests

Managing change requests involves more than promotion. The following are additional tasks that could be required:

- Returning the change request for further revision
- Allocating data sets
- Altering the backup parameters

For more information, refer to [Chapter 3, Source Promotions, on page 25](#).

- Applying change requests

For more information, refer to [Promoting Change Requests on page 75](#).

You must consider the preparation requirements for each change request that is eligible for promotion.

Managing Accepted Requests

When you select the Manage Accepted Requests option from the Remote Promotions menu, a screen similar to the one below appears.

Manage Accepted Requests					Scroll P
Command ==>	REQUEST#	STATUS	REQUESTOR	CATEGORY	COMPONENT
—	5262	X	USR30	BUG FIX	REPORT DEFINER
—	5308	X	USR30	BUG FIX	REPORT DEFINER
—	5370	X	USR30	BUG FIX	REPORT DEFINER
—	5400	X	USR00	BUG FIX	IDMS
—	5432	A	USR30	CODE IMPROVEMENT	DB2 GATEWAY
—	5448	A	USR00	CODE IMPROVEMENT	DOCUMENTATION
—	5455	X	USR12	INTERFACE CHANGE	NONE
—	5456	X	USR00	CODE IMPROVEMENT	PROMOTION UTIL
—	5458	A	USR30	NEW FEATURE	TABLE EDITOR
—	5459	X	USR30	CODE IMPROVEMENT	MISCELLANEOUS
—	5460	A	USR20	CODE IMPROVEMENT	SEARCH UTILITIES
—	5461	X	USR20	BUG FIX	MISC
—	5462	X	USR10	BUG FIX	PROMOTION UTIL
—	5464	X	USR00	BUG FIX	UPGRADE
—	5465	X	USR00	BUG FIX	UPGRADE
A-Apply K-Backup P-Print R-Refresh Disp S-Alloc U-Unaccept V-View					
PFKEYS: 12=EXIT 13=PRINT 3=END 5=FIND NEXT 9=RECALL					

The various line commands available on this screen and their use are explained in the remaining sections of this chapter.

Command Line and PF Keys

You can use any Object Manager primary commands to vary the displayed list. Refer to *TIBCO Object Service Broker Getting Started* for more information on standard primary commands and PF key usage.

Returning the Change Request for Revision

When you unaccept a change request, you return it to the control of its creator. If applicable, the change request can be re-submitted when the problem or situation is resolved.

Procedure

To return a change request to its developer, type **U** (unaccept) and press Enter at the command line. The status of the change request becomes U (unaccepted).

Allocating Data Sets (z/OS Platform)

If you are running TIBCO Object Service Broker on a z/OS platform, you must allocate your data sets before promoting your change requests. This must be done before you use any of the following functions:

- Extract
- Backup
- Promote (interactive or batch)

Procedure

To allocate your files, type **S** (allocate) and press Enter at the command line. The status of the change request remains unchanged.

Altering Backup Parameters

Altering the backup parameters affects the TDS data to be impacted by the change request. For general information about backups, refer to [Chapter 2, Preparing For Promotions, on page 13](#).

Procedure

To alter the backup parameters for the change request you selected, type **k** (backup) and press Enter at the command line. Refer to [Chapter 3, Source Promotions, on page 25](#) for details on this process.



Without a backup, you *cannot* back out changes to table data due to a promotion.

Other Management Commands

You can use two additional commands in your management of accepted change requests:

-
- p** Print the details of the change request. The status of the change request is unaffected.
-
- v** View the change request. The status of the change request is unaffected.
-

Promoting Change Requests

After completing the necessary preparations, you can promote the change requests by applying them immediately. Remote promotions cannot be applied as a batch job.

Managing Impact to Users

Before applying any change requests, consider how users currently logged in are affected. For further information, refer to [Chapter 1, Introduction to Administration of Promotions, on page 1](#).

Applying Change Requests

To apply a change request, type **A** (apply) and press Enter at the command line in the Managing Accepted Requests screen.

If the change request is being applied in its source system, its status changes to C (completed). If the change request is being applied to a system other than its source system, its status changes to L (loaded). For more information about the phases of a promotion, refer to [Chapter 1, Introduction to Administration of Promotions, on page 1](#).



You must disable all object sets that are modified by the remote promotion to avoid severe security complications.

Target Node and Segment Number Prompt

When you issue the **A** line command to apply a change request interactively, the Promotion system prompts you to confirm the request. When you confirm the request, the system prompts for the target node, and the target segment numbers for new TDS tables.



Do *not* enter an invalid TDS segment number. This causes non-system tables to reside in segment 0, which you should reserve exclusively for the MetaStor. If you inadvertently create tables in segment 0, change the segment number immediately using the [MOV TAB](#) tool. You can also change the segment number using the DT Define Table option on your administrator's workbench.

Disposition Mismatches

Should a disposition mismatch occur, you must reset the disposition of the object being promoted to that of the target system. For more information on dispositions, refer to [Chapter 4, Target Promotions, on page 45](#).

Promotion Log

When change requests are promoted, the Promotion system provides a promotion log of its activities. These logs are kept only if the appropriate settings are set in the @PROM_CONSTANTS table. Review any warning and error messages associated with each promotion request.

Saved logs are also available via Query Promotion Information.

See Also *TIBCO Object Service Broker Shareable Tools* for details on the [MOV TAB](#) tool.
TIBCO Object Service Broker Messages With Identifiers for an explanation of warning and error messages.

Considerations When Applying Remote Promotions

Secondary Indexes

Secondary indexes built on the source system are not carried over to the system where the promotion is applied: consider rebuilding them.

Bound Tables and Screens

If any TDS table or screen is bound (that is, the session memory copy—not the MetaStor copy of its definition—is in use for the rest of the session), the Promotion system issues a warning message and requests that you restart the Execution Environment and apply the change request again. Unbinding the objects prior to applying the change prevents these messages. Two tools are available to assist with this, @PROMUNBINDOBS and @PROMBINDOBS.

@PROMUNBINDOBS and @PROMBINDOBS Tools

You can use the @PROMUNBINDOBS tool prior to applying a change or series of changes to unbind a set of objects. You can specify ALL, INSTALLATION or SYSTEM as the scope of the change. You must restart the Execution Environment after running this tool. After applying the change requests run @PROMBINDOBS to rebind the objects and then restart the Execution Environment.

See Also *TIBCO Object Service Broker Shareable Tools* for more information about these tools.

Restarting the Execution Environment

To restart the Execution Environment, perform one of the following procedures:

Type of Execution Environment	Procedure
Single-user	Restart the TIBCO Object Service Broker session by logging out and logging back in to the system.
Multi-user	Shut down and start up the Execution Environment.

After restarting the Execution Environment, re-apply the change request.

Security Considerations

Tables modified by a promotion keep the security attributes they had before the promotion. When a promotion creates a new table in the target system, the new table's classification defaults to the value of CLASSIFICATION in the @PROM_NSEC_DEF table. For more information about the @PROM_NSEC_DEF table, refer to [Chapter 2, Preparing For Promotions, on page 13](#).

After a promotion, use the TIBCO Object Service Broker Security System to grant access to specific objects.

See Also *TIBCO Object Service Broker Application Administration* for more information on building secondary indexes.

TIBCO Object Service Broker Managing Security for more information on granting security access to objects.

Managing Promoted Requests

Managing Promoted Requests Screen

To manage change requests after they are promoted, select the Manage Promoted Requests option from the Remote Promotion Administration menu. A screen similar to the following one appears:

Manage Promoted Requests				Scroll P
Command ==>				
REQUEST#	STATUS	REQUESTOR	CATEGORY	COMPONENT
—	5166 C	USR90	INTERFACE CHANGE	EXT. ROUTINES
—	5165 C	USR40	BUG FIX	DEFINE_OBJECTSET
—	5164 C	USR50	BUG FIX	TABLE DEFINER
—	5163 C	USR40	BUG FIX	DATACOM GATEWAY
—	5161 C	USR10	INTERFACE CHANGE	PROMOTION UTIL
—	5160 C	USR20	CODE IMPROVEMENT	ADABAS GATEWAY
—	5158 C	USR00	NEW FEATURE	REPORT GENERATOR
—	5157 C	USR10	BUG FIX	PROMOTION UTIL
—	5156 C	USR50	BUG FIX	TABLE DEFINER
—	5154 C	USR20	NEW FEATURE	TABLE ACCESS
—	5153 C	USR10	INTERFACE CHANGE	PROMPTING
—	5152 C	USR20	CODE IMPROVEMENT	ADABAS GATEWAY
—	5151 C	USR40	INTERFACE CHANGE	COPYDEFN
—	5150 C	USR40	BUG FIX	DBA\$DELDEFN
B-Backout P-Print V-View				
PFKEYS: 12=EXIT 13=PRINT 3=END 5=FIND NEXT 9=RECALL				

Command Line and PF Keys

You can use any of the Object Manager primary commands to vary the displayed list. Refer to *TIBCO Object Service Broker Getting Started* for more information on standard primary commands and PF key usage.

Line Commands

These line commands are available from the Manage Promoted Requests screen:

B	Back out the promoted change request to restore associated objects to their state prior to the promotion. Refer to Chapter 7, Promotion Backouts , on page 87 for more information.
P	Print the change request. The status of the change request remains unchanged.
V	View the change request. The status of the change request remains unchanged.

Chapter 6 **Postpromotion Activities**

This chapter describes the activities that must take place after a promotion.

Topics

- [Managing Promoted Requests, page 82](#)
- [Postpromotion Tasks, page 84](#)
- [REFMAKER Tool, page 85](#)

Managing Promoted Requests

When a change request is successfully applied, its status changes to C (completed). in the source system and L (Loaded) in the target system. You can review or, if necessary, back out these completed requests with the Manage Promoted Requests option.

Each completed promotion is added to the list of promoted requests. You cannot remove requests from the list after they are promoted; therefore, you have a continuous record of all modifications and improvements made to your system. However, if a promotion is backed out, it is removed from the list.



The Manage Promoted Requests option is not included on the Target Promotion Administration menu: however, the Target Promotions Administration menu does have an option for backing out promotions. For more information, refer to [Chapter 7, Promotion Backouts, on page 87](#).

Managing Promoted Requests Screen

To manage change requests after they are promoted, invoke the Change Request Management menu and select the option Manage Promoted Requests. A screen similar to the following one appears.

Manage Promoted Requests					Scroll P
Command ==>					
REQUEST#	STATUS	REQUESTOR	CATEGORY	COMPONENT	
—	5402 C	USR40	BUG FIX	REPORT GENERATOR	
—	5399 C	USR00	BUG FIX	HOST LANGUAGE IF	
—	5398 C	USR40	BUG FIX	REPORT GENERATOR	
—	5397 C	USR40	BUG FIX	MENU DEFINER	
—	5396 C	USR10	INTERFACE CHANGE	PROMOTION UTIL	
—	5393 C	USR20	BUG FIX	ADABAS GATEWAY	
—	5392 C	USR00	BUG FIX	HOST LANGUAGE IF	
—	5391 C	USR50	BUG FIX	TABLE DEFINER	
—	5390 C	USR40	CODE IMPROVEMENT	MISC	
—	5387 C	USR01	BUG FIX	GLOBAL FIELDS	
—	5385 C	USR50	BUG FIX	TABLE DEFINER	
—	5384 C	USR20	CODE IMPROVEMENT	REPORT GENERATOR	
—	5383 C	USR40	CODE IMPROVEMENT	OBJECT MODEL	
—	5382 C	USR00	CODE IMPROVEMENT	IMS GATEWAY	
B-Backout P-Print V-View					
PFKEYS: 12=EXIT 13=PRINT 3=END 5=FIND NEXT 9=RECALL					

Command Line and PF Keys

You can use any of the Object Manager primary commands to vary the displayed list. Refer to *TIBCO Object Service Broker Getting Started* for more information on standard primary commands and PF key usage.

Line Commands

The following line commands are available on this screen:

-
- | | |
|----------|---|
| B | Back out the promoted change request to restore objects to their state prior to promotion. Refer to Chapter 7, Promotion Backouts, on page 87 for more information. |
|----------|---|
-
- | | |
|----------|---------------------------|
| P | Print the change request. |
|----------|---------------------------|
-
- | | |
|----------|--------------------------|
| V | View the change request. |
|----------|--------------------------|
-

Postpromotion Tasks

After completing your promotions, you must address the following issues:

- Rebinding rules
- Updating global cross references



After promotion of a DB2 table definition, consider resetting the server ID for that table in the production environment where it was promoted. To do this, use the [CHANGE_SERVERID](#) tool.

Rebinding Rules

To rebind rules in the installation library, perform the instructions appropriate to your operating environment:

CICS and Native Execution Environments	Recycle the CICS region or the Native Execution Environment region after a promotion to rebind the rules in the installation library.
Windows and Solaris versions of TIBCO Object Service Broker	Shut down and restart the Data Object Broker.

Updating Global Cross References

After every promotion, you should update the global cross references used by the [SEARCH](#) and [CROSSREFSEARCH](#) tools. Do this by executing the [REFMAKER](#) tool. If possible, run [REFMAKER](#) in batch mode at a time when no users are logged in to the system. For more information on the [REFMAKER](#) tool and updating global cross references, refer to [REFMAKER Tool on page 85](#).

See Also *TIBCO Service Gateway for DB2 Installing and Operating* for more information about DB2 table definitions and resetting server IDs with the [CHANGE_SERVERID](#) tool.

TIBCO Object Service Broker Shareable Tools for more information on tools.

TIBCO Object Service Broker Application Administion for more details about rebinding rules.

REFMAKER Tool

The [REFMAKER](#) tool builds the @CROSSREFERENCE table. The [SEARCH](#) and [CROSSREFSEARCH](#) tools use this table to answer queries about rules callers, table access, signals, exception handlers, and local declarations. To gather all this information for the cross-reference table, [REFMAKER](#) de-translates rules.

You should run [REFMAKER](#) after every promotion to keep the cross-reference index current.

Running REFMAKER in Batch Mode

If you plan to run [REFMAKER](#) in batch mode, all users should be suspended from the system.

Access Permissions

To run the [REFMAKER](#) tool, you must have these access permissions:

- VIEW_DEFN access for every object in the system
- Replace access for occurrences in the @SEARCHLIBRARY table
- Delete access to the @CROSSREFERENCE table

Invoking REFMAKER

To invoke the [REFMAKER](#) tool, you can do one of the following:

- From the administrator's workbench, position your cursor beside the XR Global Crossref Build option and type the name of the library to be indexed.
- From any workbench, go to the EX execute option and execute the [REFMAKER](#) tool with the name of the library to be indexed.

The current cross reference index for the library specified is deleted and a new one is built. The library name is stored in the @SEARCHLIBRARY table for use later with the [SEARCH](#) tool.

See Also *TIBCO Object Service Broker Shareable Tools* for more information about the [REFMAKER](#), [CROSSREFSEARCH](#), and [SEARCH](#) tools.

Chapter 7 **Promotion Backouts**

This chapter describes how to back out from a promotion.

Topics

- [Backouts, page 88](#)
- [Backout Considerations, page 89](#)
- [Backing Out Source Promotions, page 91](#)
- [Backing Out Target Promotions, page 93](#)
- [Backing Out Remote Promotions, page 96](#)

Backouts

Backing out a change request should be considered only as a last resort. If possible, correct the problem by immediately fixing and re-promoting the object. However, your course of action depends on the nature and severity of the problem, the scope of the original change request, the effects of its promotion, and what was backed up prior to applying that promotion.

Backout Impact on Users

The backout of change requests can change the behavior of one or many of your application systems. When backing out change requests, you must have a thorough understanding of the impact of the changes on users currently signed on to the TIBCO Object Service Broker system.

It is usually not desirable to make changes to application systems while users of those applications are signed on to TIBCO Object Service Broker. If you have users logged in, promotions could not complete correctly. For example, if a user is accessing a table that you want to promote, the promotion could fail due to locking problems. Procedures to help you coordinate promotions with user activity are provided in [Appendix A, User Access, on page 185](#).

Sequence of Backouts

Backing out a change request can be a complex operation, especially if other change requests are dependent on the ones you want to back out. Like the sequence of promotions, the backout sequence is a matter that must be coordinated between change request creators and those who promote the change requests.

Backout Considerations

Impact to Developers

Regardless of the type of promotion done (source, target, or remote), complications can arise if other developers obtained promotion rights on the affected objects and made modifications that now are lost.

Restoring Promotion Rights

When backing out a promotion, the Promotion system attempts to restore promotion rights as they were immediately before the promotion. If someone else currently has promotion rights on a rule, the Promotion system saves the rule in the specified backout library without restoring the original promotion rights. The backout function also issues a warning message to inform you that the rights have changed.

Table Definitions

Provided that a parameter value (PRM) table exists for the table definition when it is promoted, you can back out changes involving a parameterized TDS table. If the PRM table existed at the time of promotion and was deleted afterward, you must define it using the Table Definer before proceeding with the backout process.

Effects of Executed Rules

If the change request contained a rule to execute, the backout function does not reverse the resulting effects of this rule. To reverse these effects, restore the affected data from the backup made prior to promotion of the change request.

Access Permissions

The security clearance level of restored objects defaults to the level of the promotions administrator. If you are backing out a delete request to restore an object, you must restore that object's security access permission settings.

Restoring Rules

Rules comprising a change request remain in their source local library when the change request is submitted. After a backout, the rules are not automatically restored to the original local library unless you specify the local library name on the segment prompt screen at the time of backout. If you use the default backout library, copy the rules from the backout library and restore the promotion rights.

For information on backout procedures, refer to [Backing Out Source Promotions on page 91](#), [Backing Out Target Promotions on page 93](#), and [Backing Out Remote Promotions on page 96](#).

@PROM_BACKUPDS Table

If you change the parameters in the @PROM_BACKUPDS table after initial setup and are backing out a change request, the parameter values must be the same as they were when the change request was backed up and applied. For more information about the @PROM_BACKUPDS table, refer to [Chapter 2, Preparing For Promotions, on page 13](#).

See Also *TIBCO Object Service Broker Managing Data* for more information on defining tables.

TIBCO Object Service Broker Managing Security for more information about access permissions.

Backing Out Source Promotions

If you want to undo application changes introduced by a change request, the backout function restores the associated objects in the source system to their state before the promotion.



If the change request contains a rule to execute, the backout function does not reverse the resulting effects. Depending on the effect of your rule to execute, if any, you must ensure that you have a backup of the MetaStor or of the appropriate tables, and then restore the affected data from the backup made prior to promotion of the change request.

User Access

Before you back out a promotion, ensure that users who can access objects in the affected change requests are logged out of the system. To maintain integrity in your system, all users should be logged out of the system. You should also prevent other users from logging in by selecting the option Suspend User Access from the Change Request Management menu.

Procedure

To back out the affected change request, select the option Manage Promoted Requests from the Change Request Management menu and complete the following steps:

1. Type **B** in the line command field beside the change request you want to back out.
2. Press Enter.
Confirm with PF22.

3. Type the name of the backout library.

The default library name is PR#*nnnn*, where *nnnn* is the change request number. You can restore the rules directly to the requestor's library by specifying the library name in this field. All available promotion rights are also obtained for that library. For non-rule objects with rights set to User, the promotion rights defer back to the developer who created the original change. If promotion rights are set to Group, the rights for non-rule objects revert back to the originating group library.

4. Type the TDS segment to which the objects should be restored.

If you enter an invalid segment number, the Promotion system attempts to restore objects on the segment from which they were unloaded. If this fails, objects are restored on segment 0.

5. Press Enter.

Confirm with PF22.

6. Restore user access.

After backing out the affected change request, restore access by selecting the Restore User Access option from the Change Request Management menu.

Backing Out Multiple Change Requests

Start with the most recent change request and work backwards. Check the message log for discrepancies between the change request you are backing out and others submitted since then.

Backing Out Target Promotions

Target promotions can be backed out and associated objects restored to their state prior to the promotion.



If the change request contains a rule to execute, the backout function does not reverse the resulting effects. Depending on the effect of your rule to execute, if any, you must ensure that you have a backup of the MetaStor or of the appropriate tables, and then restore the affected data from the backup made prior to promotion of the change request.

User Access

Before backing out a promotion, ensure that users who can access objects in the affected change requests are logged out of the system. To maintain integrity in your system, all users should be logged out of the system. You should also prevent other users from logging in by selecting the option Suspend User Access from the Change Request Management menu.

Backout Requests Screen

When you select the menu option Backout Requests from the Target Promotion Administration menu, a screen similar to the following appears:

Backout Requests				
Command ==>			Scroll P	
REQUEST#	STATUS	REQUESTOR	CATEGORY	COMPONENT
— 1812	L	EGHM2	CODE IMPROVEMENT	INVENTORY
— 1811	L	SALLY	NEW FEATURE	AD HOC REPORTS
— 1808	L	FRM410	NEW FEATURE	PC SUPPORT
— 1806	L	SALLY	NEW FEATURE	AR AGEING
— 1805	L	EGHM2	CODE IMPROVEMENT	INVENTORY
— 1804	L	TPOOL9	NEW FEATURE	FIXED ASSETS
— 1803	L	BRUCE1	NEW FEATURE	LICENSING
— 1801	L	RFS00	NEW FEATURE	LICENSING
— 1799	L	SALLY	NEW FEATURE	LICENSING
— 1796	L	DDN12	NEW FEATURE	LICENSING
— 1789	L	SALLY	NEW FEATURE	RENTALS
— 1788	L	SALLY	CODE IMPROVEMENT	RENTALS
— 1787	L	SALLY	NEW FEATURE	RENTALS
— 1786	L	SALLY	NEW FEATURE	RENTALS
— 1782	L	ODJ00	NEW FEATURE	CAFETERIA CHITS
— 1781	L	EGHM2	CODE IMPROVEMENT	CLAIMS TRACKING
B-Backout P-Print V-View				
PFKEYS: 12=EXIT 13=PRINT 3=END 5=FIND NEXT 9=RECALL				

Command Line and PF Keys

You can use any of the Object Manager primary commands to vary the displayed list. Refer to *TIBCO Object Service Broker Getting Started* for more information on standard primary commands and PF key usage.

Backing Out Applied Change Requests

To back out the affected change requests, complete the following steps:

1. Select the option Manage Promoted Requests from the Change Request Management menu.
2. Type **B** in the line command field beside the change request you want to back out.
3. Press Enter.
Confirm with PF22.

4. Restore user access.

After backing out the affected change request, restore user access to the system by selecting the Restore Level 1 Users Access option from the Manage Change Requests menu.

Backing Out Multiple Change Requests

Start with the most recent change request and work backwards. Check the message log for discrepancies between the change request you are backing out and others submitted since then.

Backing Out Remote Promotions

In a remote situation, regardless of how the promotion was originally done, perform the backout on the same machine where you want to back out the change.

General Procedure

The following describes a general procedure:

1. Ensure that the backup files are on the node from which you want to back out the change.

If they are not, move them over.

2. Do the backout from this same node.

Log in to the node if necessary.

Refer to [Backing Out Source Promotions on page 91](#) for considerations in a source promotion and [Backing Out Target Promotions on page 93](#) for information on these issues in a target promotion.

Chapter 8

Overview of the Developer's Role

This chapter describes the role of a developer in promotions.

Topics

- [The Developer's Perspective, page 98](#)
- [Promotion Roles, page 100](#)

The Developer's Perspective

As an application developer, you can use the Promotion system to do the following:

- Obtain promotion rights on an object to ensure that no one else can promote changes affecting that object while you are working on it
- Create a change request to identify all the objects to be promoted as a group
- Submit a change request to promote the specified objects on the TIBCO Object Service Broker development system or another system

What is a Change Request?

A change request lists the objects intended for promotion. In the case of data tables, the change request can also include actual data in addition to table definitions.

Developer's Responsibilities

The developer is responsible for the following:

- Creating change requests
- Ensuring all the appropriate components of the change are included
- Obtaining rights to those components
- Creating the appropriate documentation
- Submitting change requests
- Managing change requests
- Monitoring change requests after they are submitted for promotion

Administration Requirements

You must be defined as a borrower in your User Profile to manage and submit change requests. If this is not done, you cannot obtain rights to an object if they are available and, therefore, you cannot submit change requests for promotion. Only your system administrator or a security administrator with appropriate authorization can define you as a borrower.

You must also have security access or belong to a group that has security permissions for the objects you want to modify. For more information on security permissions, refer to [Security Permissions Required on page 102](#).

Effects of Promoting a Change Request

When a change request is promoted, the following actions occur:

- Object definitions and any table data in the change request are applied to the receiving TIBCO Object Service Broker system. Rules usually go into the installation library.

The receiving system for a promotion could be the system where the change request originated or another TIBCO Object Service Broker system, regardless of the operating environment.

- Objects that are marked deleted are deleted.
- Optionally, a rule to execute that is part of the change request is automatically executed by the Promotion system. After execution, the rule is deleted.

Promotion Roles

You, as an application developer, and your promotion administrator each play a role in promoting objects. A common scenario is illustrated below:

1. You obtain promotion rights on objects. For more information, refer to [Chapter 11, Completion and Submission of Change Requests, on page 123](#).
2. You prepare a change request by invoking the Promotion system.

This preparation process essentially consists of describing the change request and identifying the objects included in the change. Refer to [Chapter 10, Creating a Change Request, on page 113](#) and [Chapter 11, Completion and Submission of Change Requests, on page 123](#) for more information.

3. You submit the change request. For more information, refer to [Chapter 11, Completion and Submission of Change Requests, on page 123](#).
4. Your promotion administrator views, accepts, or unaccepts the change request.

Refer to [Chapter 3, Source Promotions, on page 25](#) for more information on this process.

5. Your promotion administrator applies the accepted change request, causing the promotion of its objects.

Your promotion administrator could also choose to apply the change request to a separate or remote TIBCO Object Service Broker system. For more information, refer to [Chapter 3, Source Promotions, on page 25](#), [Chapter 4, Target Promotions, on page 45](#), and [Chapter 5, Remote Promotions, on page 63](#).

Optionally, your promotion administrator can consolidate a number of change requests¹ into a single change request before promoting it. Refer to [Chapter 11, Completion and Submission of Change Requests, on page 123](#) and [Chapter 4, Target Promotions, on page 45](#) for more information.

6. When the change request is promoted to the source system, all promotion rights associated with the request are automatically reset.

1. The change requests considered for inclusion in a consolidated change request must have already been individually promoted and have the status of C (completed).

Chapter 9 **Promotion Rights**

This chapter describes the promotion rights.

Topics

- [Promotion Rights, page 102](#)
- [Promotion Environment and User Access Considerations, page 104](#)
- [Obtaining Promotion Rights to a Rule, page 106](#)
- [Obtaining Promotion Rights to Screens and Reports, page 108](#)
- [Obtaining Promotion Rights to Tables, page 109](#)
- [Promotion Rights to Compound Objects, page 111](#)

Promotion Rights

This chapter explains the concept of promotion rights. It provides information on how to obtain them as you develop applications and discusses how the promotion rights that you hold affect other application developers.

Security Permissions Required

To obtain promotion rights, you must have security access to the object in question. There are two factors that determine if you have access:

- The type of user access rights (user-restrictive, group-restrictive, or non-restrictive) set up for your environment. For further information, refer to [Promotion Environment and User Access Considerations on page 104](#).
- The security permissions for each rules library.

The security permissions for each rules library dictate the users or groups who can access that library. You, or the group you belong to, must have security permission to access the library containing the rule you want to modify. Without security permission, you cannot gain access. To obtain security permission to a library, contact your system administrator. For more information about security permissions, refer to *TIBCO Object Service Broker Managing Security*.

Obtaining Promotion Rights

If you have promotion capabilities set up for your user ID, you automatically obtain the promotion rights to an object when you create or modify it (except for objects created with the Report Generator). Promotion rights are also referred to as *borrower's rights*.

Releasing Promotion Rights

Promotion rights are released automatically after the promotion of an object to the source system. However, you can release rights to an object without promoting it. Refer to [Chapter 13, Management of Promotion Rights, on page 155](#) for more information.

Promotion Rights and TIBCO Object Service Broker Tools

In a restrictive environment, promotion rights are enforced by the tools you use to define objects. Promotion rights are also enforced by the tools you use to edit data—the editors for rules, tables, and occurrences. Provided these tools are used to create and edit an object, no one else can modify the object to which you have rights. Rules are the only exception. For more information on rules and promotion rights, refer to [Obtaining Promotion Rights to a Rule on page 106](#).



Other tools, such as the clear and copy tools, are not affected by promotion rights and permit another user to clear and copy tables and object definitions.

Obstacles to Obtaining Promotion Rights

There are several conditions that can prevent you from obtaining the promotion rights to an object. They are:

- Your user ID is not set up with promotion capabilities. Check the BORROWER parameter in your user profile and call your system administrator.
- You or your group do not have access permission to the rules library.
- When working with group rights, someone else from another group to which you do not belong has the promotion rights to that object.
- In a restrictive case, another user already holds the rights to the object.
- The object is part of a change request submitted and not yet promoted.



If your system administrator set up a non-restrictive promotion environment, you can modify objects without promotion rights; however, you should do so in consultation with the holder of the promotion rights.

Promotion Rights of Objects

The way you obtain promotion rights differs slightly depending upon the nature of the object you intend to promote. This chapter contains sections describing how to obtain promotion rights on:

- Rules
- Screens and reports
- Tables
- Compound objects
- Object sets

Promotion Environment and User Access Considerations

The effect your promotions rights have on user access depends on the type of promotions environment your system administrator set up:

- User-restrictive
- Group-restrictive
- Non-restrictive



In terms of rights and access to modify objects, rules differ from other objects. Refer to [Obtaining Promotion Rights to a Rule on page 106](#).

User-restrictive Environment

In a user-restrictive environment, if you have the rights on a screen, report, table, table instance, or any other object, no one else can modify that object.

Group-restrictive Environment

In a group-restrictive promotion environment, promotion rights are associated with a library name. The security permissions for a library define the promotions group. If you have access to a particular library, you are a member of the promotions group for that library. You and the other members of the promotions group share the rights to the objects associated with that library.

Members of a promotions group must have their library current on the workbench to modify objects whose rights are associated with that library. If a member of the group modifies an object for which promotion rights are not assigned, those rights are then associated with the current library. Other members of the promotions group for that library can then further modify that object.

Non-restrictive Environment

In a non-restrictive promotions environment, other users can modify the object to which you have rights.

Environment Recommendations

A restrictive environment is appropriate if only one person (user-restrictive) or one group (group-restrictive) is responsible for an object at any given time. It ensures that if a developer or group of developers hold the promotion rights to an object, no one else can make changes to it.

Effect on User Access

When others edit an object in a non-restrictive environment, they are warned that you hold the promotion rights and are still allowed to save their changes. In a restrictive environment, they are prevented from saving their changes unless they are working in a group-restrictive environment and are members of the same group as you.

Identifying Your Type of Environment

To know whether your system is set up with a restrictive or non-restrictive promotion environment, contact your system administrator. Alternatively, you can execute the MR Manage Rights option on your developer's workbench and check the setting in the **Type of rights** field. To run this option, your user profile must have Borrower set to Y.

Restricting Access to an Object

If you want to restrict access to an object while you are working on it, you can do so through the TIBCO Object Service Broker security system.

Effect of Change Request Status

When an object is part of a pending change request, the rights are held by the system. No one can modify that object until its promotion, when promotion rights are released. However, the original holder of the promotion rights can roll back the change request as long as the change request status is I (incomplete) or P (pending). A promotions administrator can also unaccept change requests with a status of A (accepted) or X (extracted).

After the change request is promoted, the promotions administrator can back it out. The rights are returned to the holder and modifications can be made before re-submitting the change request.

See Also [Invoking the Promotion Rights Management Tools on page 157](#) for details on the `MANAGE_RIGHTS` tool, and *TIBCO Object Service Broker Managing Security* for details on restricting access to objects on your user profile.

Obtaining Promotion Rights to a Rule

TIBCO Object Service Broker stores rules in a three-tiered library system. The three libraries are:

Local	Users each have their own local library that contains rules they created, copied, or modified for their own use. Provided they have the proper access, users can access each other's local library by changing the library field on the workbench.
Installation	The installation library contains rules available to all users of a particular installation. The content of this library is controlled by the TIBCO Object Service Broker system administrator. It is usually referred to as the SITE library.
System	The system library contains rules shipped as part of the TIBCO Object Service Broker system. It is usually referred to as the COMMON library.

The rights you obtain on rules *apply to the library to which you save the rules*. They are not transferred automatically (for example, if you copy a rule to another library, the rights are not transferred). To transfer rights from one library to another, execute the MR Manage Rights option from the developer's workbench as described in [Chapter 13, Management of Promotion Rights, on page 155](#).

Effect of Adding or Modifying Rules

If you want to add a new rule or modify an existing rule in the installation library, edit the rule and save it to your local library. By saving the rule to your local library, you automatically obtain the promotion rights on that rule.



TIBCO Object Service Broker warns you if promotion rights are held by someone else. If the rule you are saving is a new rule, the warning means that someone else has a rule with exactly the same name. Even if you cannot obtain the promotion rights, you can still save the rule to your local library but you cannot promote it later.

Obtaining Promotion Rights Automatically

If all three of the following conditions are true, the rights to a rule are obtained automatically if:

- It does not already exist in a library
- It is created using the Rule Editor or copied from the installation library or from the system library
- Rights to the rule are available

In addition, when a developer includes a rule in a change request, the rights are obtained with the execution of the `P` line command. For more information, refer to [Chapter 13, Management of Promotion Rights, on page 155](#). In all other cases, a developer must explicitly use `MANAGE_RIGHTS` to obtain available rights on a rule.

Deleting Rules

If you want to delete an existing rule from the installation library, you must first obtain promotion rights to it. To obtain the rights, edit the rule and save it to your local library. You do not have to make any changes to it. You can then delete the rule through a change request.

See Also *TIBCO Object Service Broker Programming in Rules* for more information about rules libraries.

[Invoking the Promotion Rights Management Tools on page 157](#) for more information on the `MANAGE_RIGHTS` tool.

Obtaining Promotion Rights to Screens and Reports

To obtain the rights on a screen or report, invoke the Screen Definer or Report Definer with the name of the object and save it. Normally, you obtain the rights automatically when you modify the object; you do not have to make any modifications to obtain the rights. If someone else has promotion rights on that object, a warning message indicates that the rights are held by someone else and that you cannot promote it.

How to Obtain Rights to Screens and Reports

You obtain rights to screen and report objects as described below.

Screen definitions	When you invoke the Screen Definer and save a screen, you automatically obtain rights on the screen definition, the function keys, and the help associated with that screen.
Screen tables	Paint and save each screen table that you need.
Report definitions	Invoke the Report Definer with the report definition name and save it.
Report tables	Paint and save each report table that you need.

The Report Generator and Rights Assignment

There are no rights assigned to objects created with the Report Generator (reports, rules, and report tables). These can be claimed (that is, saved) using a definer tool. The first time that one of these objects is saved, the promotion rights are assigned to the saver or group. Alternately, the rights can be obtained using the [MANAGE_RIGHTS](#) tool. For more information, refer to [Chapter 13, Management of Promotion Rights, on page 155](#).



After saving a report in the Report Definer, you can no longer open it in the Report Generator. If you want to get rights on a report started in the Report Generator without changing it, use the [MANAGE_RIGHTS](#) tool.

Obtaining Promotion Rights to Tables

Types of Promotion Rights

There are two types of promotion rights to tables:

Definition Rights	The right to promote table definitions. They can be obtained for any type of table.
Data Rights	The right to promote table data or occurrences of table instances, for TDS tables only.

Definition Rights

With definition rights, only you or another member of your group can change the definition of the table. Any changes you make affect people who access the table on that TIBCO Object Service Broker system, even before the table is promoted. When the table is promoted, only the definition is promoted and the rights are released.

Obtaining Definition Rights

You obtain definition rights by invoking the Table Definer with the definition name and saving the definition.



The rights to the table definition are held separately and independently of the rights to the data.

Data Rights

With data rights, only you or another member of your group can change the occurrences of the table. If the table is parameterized, only you or another group member can make changes to that table instance. Any changes you make affect people who access that table instance or table, even before the occurrences are promoted.

Obtaining Data Rights

You can obtain data rights for a TDS table by editing the object using the Table Editor and saving it, provided that:

- No one has data rights on the same table instance if the table is parameterized
- No one obtained data rights on the whole table if the table is unparameterized

A warning message is issued if you try to promote the data and someone else holds the definition rights. This is because the definition could have been modified to be incompatible with the target system. When objects are promoted in a source system the rights are released. In a target or remote promotion, no rights are involved.

Promotion Restrictions

You cannot promote system-supplied or shared tables; locking problems could result and some tables are used by the promotion system itself. To identify these tables, use the Browse Tables option from the developer's workbench to browse the @SHARED_TABLES and the @PROM_SYS_TBLS tables.

When you define a table, the data is promotable by default. When you select a table to include in a change request, you can specify whether the table definition should be non-promotable. Refer to [Selecting Tables for a Change Request on page 129](#) for more information.

Promotion Rights to Compound Objects

What Are Compound Objects?

Compound objects are comprised of more than one object. For example, a screen has its own definition, which includes one or more screen tables, a report has one or more report tables, and an object set has a variety of component objects.

Obtaining Promotion Rights to Compound Objects

You can obtain the promotion rights to a compound object, but holding the right to a compound object is not the same as having the rights to the individual components. If you have the promotion rights to a compound object, you hold the rights to the compound object definition. However, this does not give you the rights to the child objects that make up that compound object. You must still obtain these rights separately.

Refer to [Managing Child Rights for Screens, Reports, and Object Sets on page 136](#) for more information.

Chapter 10 **Creating a Change Request**

This chapter describes how to create a change request.

Topics

- [Invoking the Promotion System, page 114](#)
- [Creating a Change Request, page 116](#)
- [Create or change the description of the change request, page 117](#)
- [Identify the object types to be promoted, page 119](#)
- [Save the incomplete change request for future completion, if necessary, page 121](#)

Invoking the Promotion System

Methods of Invoking the Promotion System

There are two ways to invoke the Promotion system:

- Position your cursor beside the PM Promotion option on the workbench and press Enter.
- Directly invoke the Promotion system.

Directly Invoking the Promotion System

To directly invoke the promotion system, complete the following steps:

1. Set the Browse flag at the top of the workbench to Y.
2. Type PROM_MAIN beside the EX Execute Rule option on the workbench or move the cursor down to the command line and type EX PROM_MAIN.
3. Press Enter.

Promotion Utility Menu

Either of the two methods described above displays the Promotion Utility menu shown here:

```

                                Promotion Utility

Rule Library: USR40
    _ Request A New Promotion
    _ Manage Incomplete/Pending Requests
    _ Query Promotion Information

PFKEYS: 3=EXIT 12=EXIT ENTER=SELECT
```

Rule Library Field

The **Rule Library** field displays the name of your current local library. Your rules are promoted from this library to the installation library. This is a display only field. To change this library, return to the workbench and change the library to another valid library name to which you have access, and then re-enter the Promotion system.

The Promotion system always uses the library named in this field, regardless of the library associated with object sets.

Promotion Utility Menu

The Promotion Utility menu contains the following three options:

- Request A New Promotion

This option is used to create a new change request. For more information on this option, refer to [Creating a Change Request on page 116](#).

- Manage Incomplete/Pending Requests

For more information, refer to [Chapter 12, Management of Change Requests, on page 143](#).

- Query Promotion Information

For more information, refer to [Chapter 14, Queries for Information on Promotions, on page 173](#).

Command Line and PF Keys

Where the screen display shows a list of items, you can use any of the Object Manager primary commands to vary the displayed list. Refer to *TIBCO Object Service Broker Getting Started* for more information on standard primary commands and PF key usage.

Creating a Change Request

By creating a change request you are, in effect, requesting a new promotion. The process involves the following tasks:

- [Create or change the description of the change request, page 117](#)
- [Identify the object types to be promoted, page 119](#)
- [Save the incomplete change request for future completion, if necessary, page 121](#)
- [Submitting the Change Request For Promotion, page 141](#)

You perform these activities through the Request Promotion of a Change screen.

Accessing the Request Promotion of a Change Screen

To create a change request, position your cursor beside the option Request A New Promotion on the Promotion Utility menu and press Enter. The following screen illustrates the Request Promotion of a Change screen:

Request Promotion of a Change

Change# : 5463

Requestor : USER7

Component : MONTHLY REPORTS

Category : NEW FEATURE

PRT Option: N

Req#'s

Coreq#'s

Coreq Node

Summary:

This is the first implementation of this feature

Detailed Description

PFKEYS: 3=SAVE INCOMPLETE 12=CANCEL 4=SUBMIT 5=SEL OBJS 6=SEL CHG REQ

The fields of the Request Promotion of a Change screen are described in [Create or change the description of the change request](#) below.

Task A Create or change the description of the change request

Overview

In this step, you identify and describe the change request.

Screen Fields Of The Request Promotion of a Change Screen

An explanation of the screen fields follows. Type information into the fields as described.

Change#	Displays the system generated identifier for this change request.
Requestor	Displays the user ID of the person requesting the change. In a group rights environment, displays the current library name. This field is protected and cannot be changed.
Component	Required field. Type in the name of the application your change request affects. For example, if you want to make changes to an application that manages employee data and you commonly call this application PERSONNEL, type PERSONNEL in this field. All values are accepted, since this field documents the change request.
Category	Required field. Type in the category, if known. To display valid category names, press PF1. The entry in this field can be used in queries to collect change requests by a specific feature of category.
PRT Option	<div>The following print options are available:</div> <div><div>C</div><div>Print change request only.</div></div> <div><div>N</div><div>Do not print the change request.</div></div> <div><div>O</div><div>Print change request and any included objects.</div></div> <div>The default specification is N.</div>
Summary	Required field. Type in a brief (one line) description of the change request.

Req#'s	Optional field. Type in the number or code of the requirements specification ^a related to the change. Use this field for documentation purposes only; no validation is performed.
Coreq#'s	Optional field. Type in the change request numbers that must precede or accompany this one. Use this field for documentation purposes only; no validation is performed.
Coreq Node	Optional field. Type in the node name that identifies the TIBCO Object Service Broker system from which the Coreq# originates. No validation is performed.
Detailed Description	Optional field. Type in specific information about the change you are requesting.

a. This can be a project number or anything else that gives a context for the existence of this Change Request.

Proceeding to the Next Step

After completing the description, you can begin identifying or consolidating objects:

- Press PF5 to identify objects for promotion.
For more information, refer to [Identify the object types to be promoted on page 119](#).
- Press PF6 to consolidate change requests for onward promotion.
For more information, refer to [Consolidating Change Requests on page 41](#).

Task B Identify the object types to be promoted

Access the Object Promotion Utility Screen

Press PF5 to display the Object Promotion Utility screen.

Object Promotion Utility

Borrower: USER7

Library: USER7

_ RULE

_ OBJECTSET

_ PAGELET

_ XMLFIELDMAP

_ TABLE

_ GLOBALFIELD

_ TRAN

_ WEBSERVICEPROD

_ SCREEN

_ MENU

_ TAGLETFIELDMAP


_ REPORT

_ TAGLET

_ XMLDOC

Type S against object types & press Enter

PFKEYS: 3=EXIT 12=EXIT ENTER=SELECT 5=MANAGE RIGHTS

- 
- The object types shown on the screen are the types that are eligible for promotion.
 - Refer to [Promotions and Compound Objects on page 132](#) for more information on how to promote compound objects.

Select an Object Type for Promotion

This screen lists the object types that can be included in a change request. Before you can identify a specific object, you must first select the object type. After selecting one or more object types, press Enter. You are then presented with the appropriate selection screen for the object type. For more information on selecting objects, refer to [Chapter 11, Completion and Submission of Change Requests, on page 123](#).



To be eligible for promotion, an object must have documentation and you or other group members must have promotion rights to it. While in the process of creating a change request, you can access objects for the purpose of adding or editing documentation.

PF Keys For the Object Promotion Utility Screen

The following PF keys are available:

PF3	Exit and return to the previous screen.
PF5	Manage rights. Displays a selection filter for promotion rights search. For more information, refer to Setting a Promotion Rights Filter Before Selecting Objects below.
PF12	Exit and return to the previous screen.
Enter	Select the object type.

Setting a Promotion Rights Filter Before Selecting Objects

The selection filter appears in the middle of the Object Promotion Utility screen. With this filter, you can further restrict the display of the objects selected by name, unit, and author. You can also input another attribute on the last line to fine tune your selection.

Accessing the Selection Filter

Press PF5 at the Object Promotion Utility screen to access the selection filter shown here:

Show self rights: Y Show avail rights: N Show other rights: N

+-- Selection Specification for promotion rights search -----+

Attribute	Op	Value	
NAME	_____	_____	&
UNIT	_____	_____	&
AUTHOR	_____	_____	&
_____	_____	_____	

+-----+

Fields of The Filter

Show self rights:	When set to Y, the display includes all selected objects to which the requestor holds rights. When set to N, it excludes these objects from the display.
Show avail rights:	When set to Y, the display includes all selected objects to which no one holds rights. When set to N, these objects are excluded from the display.
Show other rights:	When set to Y, the display includes all selected objects to which others hold rights. When set to N, these objects are excluded from the display.

Task C Save the incomplete change request for future completion, if necessary

Incomplete Change Requests

Pressing PF3 saves the information entered so far, including the change request description and any objects you select. For information on selecting objects to include in the change request, refer to [Chapter 11, Completion and Submission of Change Requests, on page 123](#).

The change request is saved with a status of I (incomplete). While the request is incomplete, you continue to hold the promotion rights to all objects that you included in it. You can access the request to make further changes, but with an incomplete status it cannot be promoted.

[Chapter 12, Management of Change Requests, on page 143](#) describes how to manage change requests after their initial creation.

Completion and Submission of Change Requests

This chapter describes how to complete and submit a change request.

Topics

- [Overview, page 124](#)
- [Selecting Rules for a Change Request, page 125](#)
- [Selecting Tables for a Change Request, page 129](#)
- [Selecting Compound Objects, page 132](#)
- [Managing Child Rights for Screens, Reports, and Object Sets, page 136](#)
- [Selecting Global Fields, page 139](#)
- [Submitting the Change Request For Promotion, page 141](#)

Overview

Change Request Development

After creating a basic change request definition, you must select an object type and objects to be promoted in that change request.

In addition to building the change request, you can do the following:

- Save the incomplete change request for future completion.
- Select other change requests to be consolidated for target and/or remote promotion.
- Submit the completed change request for promotion.

You perform these activities in the Request Promotion of a Change screen.

Continuing Work on the Change Request

To do more work on a change request, proceed in one of two ways:

- If this is a new change request, continue by selecting the object type and then the objects in the Request A New Promotion option on the Promotion Utility menu. For more information, refer to [Chapter 10, Creating a Change Request, on page 113](#).
- If this is an existing change request with a status of incomplete, continue by selecting the Manage Incomplete/Pending Requests option from the Promotion Utility menu. For more information on this process, refer to [Chapter 12, Management of Change Requests, on page 143](#).

Selecting Rules for a Change Request

Accessing the Rules to be Promoted/Deleted Screen

When identifying your object type, select RULE from the Object Promotion Utility screen. A screen appears similar to the following. Use this screen to select the rules you want to include in the change request.

Rules to be Promoted/Deleted							Scroll P	
Command ==>		NAME	DOC	STATUS	ENT	BORROWER	UNIT	SUMMARY*
		-----				-----		-----
—	AUDIT_P_FNDSTRT	Y				USR50	NEWSEC	Find the select
—	AUDITLOG_REPORT2	Y				USR50	NEWSEC	set accesslog re
—	GEN_TABDEF	Y				USR50	DEFDT	Entry rule for g
—	MAXROWLEN99	Y				USR50	DEFTAB	return maximum r

C-ClearStatus D-Delete E-EditDoc P-Promote T-ToggleEntry X-RuleToExecute
PFKEYS: 12=EXIT 13=PRINT 3=END 5=FIND NEXT 9=RECALL

Fields of the Rules to be Promoted/Deleted Screen

An explanation of the fields on the screen follows:

NAME	Displays the names of the rules in the selected local library. The entries in this column reflect the results of the setting in the rights-based filter in the Object Promotion Utility screen.
DOC	Indicates whether the documentation is currently present. Valid values are Y or N.

STATUS	Displays the status of the rule as it relates to the change request:
BLANK	The rule is not included in the change request.
PROM	The rule is selected for promotion.
DEL	The rule selected is to be deleted from the installation library by the Promotion system.
EXEC	The rule is to be executed at promotion time.
ENT	Indicates whether the rule is an entry rule. The entry rule is the first rule to be executed for a set of rules.
BORROWER	Name of the local library for rules. The entries in this column reflect the results of the setting in the right-based filter in the Object Promotion Utility screen. If the field is empty, the rights are available.
UNIT	Displays the unit to which the rule belongs. It is extracted from the documentation for the rule.
SUMMARY	Displays the summary line of the rule's documentation. Add or alter the documentation directly from this screen by using the E line command.

Requirements for Rules to Execute

The following conditions apply to rules selected for execution at the time of the promotion:

- One of the rules to execute must be identified as the entry rule.
- The entry rule cannot have arguments.
- Only the one entry rule is automatically invoked by the Promotion system. If the change request contains other rules to execute, the entry rule must invoke them.
- Rules marked EXEC are deleted after their execution.

If any of the rules you designate to execute at promotion time affect objects that are not part of the same change request, you should also promote those objects if you want them backed up prior to the promotion.

Available Actions

At the Rules to be Promoted/Deleted screen, you can perform the following actions by using the available line commands:

Action	Line Command	Comment
Remove a rule from the change request.	C	Clears any entry in the STATUS column.
Delete a rule.	D ^a	Selects this rule for deletion at promotion time.
Add or edit documentation for a rule.	E ^a	A rule must have documentation to be eligible for promotion.
Select a rule for promotion.	P ^a	
Toggle the value of the ENTRY field between Y and N.	T	A value of Y indicates the rules is considered to be the entry rule.
Select a rule for automatic execution when the change request is promoted.	X ^a	A copy of this rule is carried with the change request to the target system. That copy does not remain after promotion time.

a. Enables the automatic obtaining of rights. Refer to [Obtaining Available Rights](#) below.

Obtaining Available Rights

The **D**, **E**, **P**, and **X** line commands enable you to obtain the rights to objects if they are not currently held by others. There are two scenarios where this can happen.

Scenario 1: The Rights are Available

The rights are available (that is, BORROWER = null). If you apply any of the above commands and then promote, the following occurs:

- You obtain the rights to those objects that are available.
- The objects obtain the status of PROM (selected for promotion).

Scenario 2: The Rights are not Available

The rights are not available (that is, they are held by someone else). If group rights are being enforced and you are also a member of the group, you can also select objects belonging to other members of your group in your promotion.

Selecting Tables for a Change Request

Accessing the Table Screen

When identifying your object type, select TABLE from the Object Promotion Utility screen. A screen similar to the one below appears. Use this screen to select the tables you want to include in the change request.

Command ==>		Table to be Promoted/Deleted				Scroll P	
	NAME	DOC	STATUS	EXT	BORROWER	PARMS	*
-	\$EMP_DPARM	N		D	BRUCE1		P
-	DEPUSER	N		D	BRUCE1		T
-	DEPUSER	N		O	SALLY		T
-	#ED_DEPARTMENTS	Y		O			T
-	#ED_DEPARTMENTS	Y		D			T
-	#ED_EMPLOYEES	Y		O			T
-	#ED_EMPLOYEES	Y		D			T

C-ClearStatus D-Delete E-EditDoc P-Promote T-ToggleProm X-Expand
 PFKEYS: 12=EXIT 13=PRINT 3=END 5=FIND NEXT 9=RECALL

Fields of the Table to be Promoted/Deleted Screen

An explanation of the fields on the screen follows:

NAME	Displays the names of the tables you can select for inclusion in this change request. The entries in this column reflect the results of the setting in the rights-based filter in the Object Promotion Utility screen.
DOC	Indicates whether the documentation is currently present. Valid values are Y or N.

STATUS	<p>Displays the status of the table as it relates to the change request:</p> <p>BLANK – The table is not included in the change request.</p> <p>PROM – The table is to be promoted.</p> <p>DEL – The table is to be deleted at promotion time.</p>
EXT	<p>Indicates which part of a table is extracted if the line is selected for promotion:</p> <p>O – Promote data occurrences of this table. For a parameterized table, parameter values of the table instance are they appear in the PARMS column if a borrower is specified. Otherwise, the expand function displays the parameter values.</p> <p>D – Promote the definition of this table.</p> <p>EXT = O is applicable only to TDS tables.</p>
BORROWER	<p>Depending on how your Promotions system is set up, this could be either a personal logon ID, a library name, or a system ID. The entries in this column reflect the results of the setting in the rights-based filter in the Object Promotion Utility screen.</p>
PARMS	<p>Displays the values of a table's parameters to identify the specific instance for you to select for promotion.</p>
TYPE	<p>Displays the type of table (for example, TDS, TEM, or PRM).</p>
PROM	<p>Applicable to TDS table definitions only; the values are:</p> <p>Y – If you want data to be promoted by subsequent change requests, leave PROM set to Y. Instructs the Promotion system to allow the subsequent promotion of data occurrences of the table after this change request is promoted.</p> <p>N – If you do not want data to be promotable after this change request is promoted, set PROM to N. After this change request is promoted, you cannot obtain promotion rights on data occurrences of this table; therefore, table data is not promotable.</p> <p>You can toggle the value of PROM between Y and N using the line command T, for ToggleProm.</p>

UNIT	Displays the unit to which the table belongs. It is extracted from the documentation for the table.
SUMMARY	Displays the summary line of the table's documentation. You can add or alter the documentation directly from this screen by using the line command E (for more information, refer to Available Actions below).

Available Actions

In the Table to be Promoted/Deleted screen, you can perform the following actions by using line commands:

Action	Line Command	Comment
Clear the status of the table.	C	
Delete a table.	D	Selects this table for deletion at promotion time.
Add or edit documentation for a table.	E	Editing done directly from this screen.
Select a table for promotion.	P	If circumstances allow, can also obtain rights to the table selected.
Toggle the value of the PROM field between Y and N.	T	Value of flag dictates whether table definition can be promoted again after initial promotion.
Expand the compound object.	X	Can manage rights on child objects at this level.

Selecting Compound Objects

Screens, reports, menus, and object sets are some examples of compound objects. A screen, for example, depends on screen tables to function. Reports are similar to screens, except that a report has report tables as its components.

Promotions and Compound Objects

The Promotion system recognizes that compound objects are made up of component (child) objects. When you submit a compound object for promotion, the system also promotes those of its components to which you have promotion rights. In general, the inclusion of components is subject to security access and promotion rights.

Principles of Compound Objects

The following conditions apply to compound objects:

- The inclusion is done automatically when you save a change request, either for submission or for saving as an incomplete change request.

At the time the change request is saved, the system determines what the components are and includes them individually in the change request. In a change request involving a compound object, the system can include only those component objects to which you have promotion rights.

- If the object set being promoted has rules residing in multiple libraries, only the rules that exist in the rules library specified as your current local library are included in the promotion provided you have the rights to those rules. For more information about specifying local libraries, refer to [Invoking the Promotion System on page 114](#).
- When included in a change request, components are regarded as individual objects, that is, if the parent object is rolled back, the child object is not affected.
- To promote a compound object and exclude one or more child objects, you invoke the **Expand** command and release the promotion rights to the components (child objects) you do not want to include. Child objects can also be added by invoking this command and obtaining the promotion rights to those child objects. This command is only supported for some compound objects.

Accessing the Object Type's Selection Screen

When you select any of the compound object types from the Request Promotion of a Change screen, a selection screen similar to the one shown below appears. Use this screen to select the objects you want to include in the change request.

Reports to be Promoted/Deleted					Scroll P	
Command ==>	NAME	DOC	STATUS	BORROWER	UNIT	SUMMARY*
—	MONTHLY_EXPENSE	N		USR50	DOC	
—	@APPLICATION	Y		USR40	APPLDEF	Screen showing all o
—	@APPLOBJTYPE1	Y		USR40	APPLDEF	Screen showing type
—	@APPLOBJTYPE2	Y		USR40	APPLDEF	Screen showing type
—	@APPLPRINT	Y		USR40	APPLDEF	Screen for applicati

C-ClearStatus D-Delete E-EditDoc P-Promote X-Expand
PFKEYS: 12=EXIT 13=PRINT 3=END 5=FIND NEXT 9=RECALL

Fields on the Selection Screen

An explanation of the fields on the screen follows:

NAME	Displays the names of the objects you can select for inclusion in this change request. The entries in this column reflect the results of the setting in the rights-based filter in the Object Promotion Utility screen.
DOC	Indicates whether the change request documentation is currently present. Valid values are Y or N.

STATUS	Displays the status of the object as it relates to the change request:	
	BLANK	The object is not included in the change request.
	PROM	The object is included in the change request for promotion.
	DEL	The object is to be deleted by the Promotion system.
BORROWER	Depending on how your Promotions system is set up, this could be either a personal logon ID, a library name, or a system ID. The entries in this column reflect the results of the setting in the rights-based filter in the Object Promotion Utility screen.	
UNIT	Displays the unit to which the object belongs. It is extracted from the documentation for the object.	
SUMMARY	Displays the summary line of the object’s documentation. You can add or alter the documentation directly from this screen by using the E line command (refer to Available Actions below).	

Available Actions

In this screen, you can perform the following actions by using line commands:

Action	Line Command	Comment
Clear the status of the object.	C	
Delete an object.	D	Selects this object for deletion at promotion time.
Add or edit documentation for an object.	E	Editing done directly from the documentation screen.

Action	Line Command	Comment
Include an object in the change request for promotion.	P	If circumstances allow, can also obtain rights to the object selected if those rights are available.
Expand the compound object.	X	Displays a new screen that lists all the child objects for the selected parent object.

Managing Child Rights for Screens, Reports, and Object Sets

You can obtain or release the child rights for screens, reports, and object sets that are part of a change request.

Accessing the Manage Child Rights Screen

Use the **x** (expand) line command against a compound object in the selection screens previously described to display a Manage Child Rights screen similar to the following:

Manage Child Rights for Object: MONTHLY_EXPENSE Type: REPORT					
Command ==>					Scroll P
	NAME	BORROWER	UNIT	OBJTYPE	EXT PARS
	-----	-----	-----	-----	-----
-	ACCT_FOOTER	USR40	DOC	RPTTBL	D
-	DEPT_EXPENSE	USR40	DOC	RPTTBL	D
-	HUR_TITLE		ACC	RPTTBL	D
-	MONTH_NUMBER_DF		DOC	RPTTBL	D
O-Obtain R-Release X-Expand					
PFKEYS: 12=EXIT 13=PRINT 3=END 5=FIND NEXT 9=RECALL					

Function of the Manage Child Rights Screen

This screen lists all the child objects for the selected parent screen, report, or object set. The list of screens and reports contains only one type of object—screen tables or report tables. Object sets, on the other hand, can contain many types of objects. As a result, every field on the screen does not apply to every object type.

Header Portion Fields

An explanation of the fields in the header portion follows:

Manage Child Rights for Object	Name of the object that is expanded on the previous screen.
Type	Type of the object that is expanded on the previous screen.

Body Portion Fields

An explanation of the fields in the body portion follows:

NAME	The name of the object that is contained in the parent object.
BORROWER	The borrower, if any, of the named object. The entries in this column reflect the results of the setting in the rights-based filter in the Object Promotion Utility screen.
UNIT	The unit of the named object.
OBJTYPE	The type of the named object.
EXT	This field indicates whether the named object applies to the definition or to occurrences of the table (for tables only).
PARMS	The table instances that are part of the object set (for parameterized tables only).
SUMMARY	Description of the named object.

Available Actions

In this screen, you can perform the following actions by using line commands:

Action	Line Command	Comment
Obtain rights on the selected object.	O	
Release rights on the selected object.	R	
Expand the selected object.	X	The command calls this same screen for the newly expanded object if it is a screen, report, or object set. If it is a table, the table is expanded to the table instances that are part of the parent object.

Selecting Global Fields

Accessing the Global Fields to be Promoted/Deleted Screen

When you select a global field from the Object Promotion Utility screen, a screen similar to the one below appears. Use this screen to select the global fields for your promotion.

Command ==>		Global Fields to be Promoted/Deleted				Scroll P
	NAME	DOC	STATUS	BORROWER	UNIT	SUMMARY*
—	BINARY_NUMBER	N			USR	
—	BMAK	N			USR	
—	BODY	N			USR	
—	BORROWER	N			ADMIN	
—	BOTTOMMARGIN	N			USR	
—	BREAK#	N			USR	
—	CALLING_RULE	N			FIND	
—	CATEGORY	N			ADMIN	
—	CHANGE#	N			ADMIN	
—	CLASSIFICATION	N			USR	
—	CLEARANCE	N			USR	
—	COMMENT	N			PROCESS	
—	COMPONENT	N			PROCESS	
—	COMPONENT_NAME	N			USR	
—	CONUFOFF	N			SERVER	
—	CONVSATR	N			SERVER	

C-ClearStatus D-Delete E-EditDoc P-Promote
 PFKEYS: 12=EXIT 13=PRINT 3=END 5=FIND NEXT 9=RECALL

Fields of the Global Fields to be Promoted/Deleted Screen

The fields on this screen are identical to the ones on the screen for selecting screens, reports, menus, and object sets. Refer to [Fields on the Selection Screen on page 133](#) for a description of these fields.

Available Actions

In this screen, you can perform the following actions by using line commands:

Action	Line Command	Comment
Clear the status of the object.	C	
Delete the object.	D	Marks this object for deletion when the change request is promoted.
Add or edit documentation for an object.	E	Editing done directly from the documentation screen.
Include this object in the change request for promotion.	P	If circumstances allow, can also obtain or transfer rights if those rights are available.

Submitting the Change Request For Promotion

Requirements

To successfully submit a change request, the following requirements must be met:

- You must specify at least one object to promote or delete.
- You cannot specify only a rule (called a rule to execute) that is run at promotion time (that is, a rule marked with an X on the Rules to be Promoted/Deleted screen).
- When you specify a rule for deletion, it must already exist in the installation library.
- When you specify any other object to delete, it must already be a system object (that is, it must have been promoted previously).

How to Submit a Change Request

Press PF4 from the Request Promotion of a Change screen to submit a change request. When you submit the change request, you receive a message confirming its pending status. The rules to be promoted are left in the local library during this period and are protected by rights from changes or deletion. This enables further testing with them (but not development).

After the rules are promoted, they are moved from the local library to the installation (that is, SITE) library.

Object Rights in Consolidated Requests

When submitting a consolidated change request, the system attempts on your behalf to obtain the rights to all the objects that are part of the consolidated request. A message notifies which object rights are not available. You cannot submit these objects until you have obtained the rights.

Chapter 12 **Management of Change Requests**

This chapter describes how to manage change requests.

Topics

- [Overview, page 144](#)
- [Viewing a Change Request, page 147](#)
- [Managing an Incomplete Change Request, page 149](#)
- [Managing a Pending or Unaccepted Change Request, page 151](#)

Overview

Status Code Indicators

This chapter explains how you can manage your own change requests, provided they have one of the following three status codes:

- I—incomplete

You did some work on this change request without actually submitting it for promotion.

- P—pending

You completed your work on this change request and actually submitted it for promotion; however, it has not been acted upon by the promotion administrator.

- U—unaccepted

You submitted this change request. The promotion administrator who accepted the request for the process of promotion withdrew its accepted status and returned the request to you.

Options for Managing Change Requests

You can manage these change requests in the following ways:

- Continue adding objects or making changes to the change requests
- Roll back incomplete change requests
- Roll back previously submitted change requests
- View the description and components of change requests, that is, the object lists
- Print the details of change requests

Accessing Change Requests—Manage Incomplete/Pending Requests Screen

To access your change requests, complete the following steps:

1. Invoke the Promotion system.

Use either method described in [Chapter 10, Creating a Change Request, on page 113](#).

- 2. Position your cursor beside the Manage Incomplete/Pending Requests option on the main menu.
- 3. Press Enter.

The Manage Incomplete/Pending Requests screen, illustrated below, lists all your submitted requests that have not yet been promoted. Their status would be any of: P (pending), I (incomplete), or U (unaccepted). The following example illustrates this screen:

Manage Incomplete/Pending Requests					Scroll P
Command ==>					
CHANGE#	STATUS	COMPONENT	CATEGORY	SUMMARY*	
-----	-----	-----	-----	-----	
— 1698	I	CREDIT SCORING	INTERFACE CHANGE	CHANGES APPLICATION	
— 1669	P	HR WEEKLY RPTS	NEW FEATURE - PROD	REFRESHES BENEFITS	
— 1652	U	HR WEEKLY RPTS	NEW FEATURE - TRNG	LAST SET OF CHANGES	

C-Continue P-Print R-Rollback V-View
PFKEYS: 12=EXIT 13=PRINT 3=END 5=FIND NEXT 9=RECALL

Available Actions

At the Manage Incomplete/Pending Requests screen, you can perform the following actions by using line commands:

Action	Line Command	Comment
Continue working on the change request.	C	<p>For a change request whose status is I (incomplete), refer to Managing an Incomplete Change Request on page 149.</p> <p>For a change request whose status is P or U (pending or unaccepted), refer to Managing a Pending or Unaccepted Change Request on page 151.</p>
Print the change request.	P	Prints the details of the change request.
Roll back the change request	R	<p>If the status is incomplete, a rollback deletes the change request. Refer to Managing an Incomplete Change Request on page 149.</p> <p>Rolling back a pending or unaccepted change request either takes it back to the incomplete status or deletes it altogether.</p>
View the details of a change request.	V	Displays screen is shown in Viewing a Change Request on page 147 .



If one of your change requests is accepted and then unaccepted (that is, it has a status of U), make the necessary changes and resubmit it to make it pending.

Viewing a Change Request

Accessing the View A Change Request Screen

When you enter the **V** line command against a change request, the screen displays the details for that change request, as shown below.

```

                                View A Change Request
Change#       : 1652                               Req#'s       Coreq#'s  Coreq Node
Requestor    : PROJMR2                             -----
Component    : HR WEEKLY RPTS
Category     : NEW FEATURE - TRNG
  
```

Summary: LAST SET OF CHANGES FOR HR STAFF TRAINING SESSIONS STARTING MARCH 23.

Detailed Description

page 1

There are only two changes here:

1. The MAIN MENU screen now shows the time of day at the bottom line.
2. One rule has been altered to reflect the latest policy regarding overtime computation for statutory holidays falling on Sundays.

PFKEYS: 3=EXIT 12=EXIT 4=LIST RULES

Refer to [Chapter 10, Creating a Change Request, on page 113](#) for an explanation of each screen field.

Viewing the List of Rules

To view the rules included in a change request, press PF4. This list of rules is the first list of objects you can view, followed by tables, other object types, and then change requests.

Explanations of Fields

The **RULE**, **UNIT**, and **SUMMARY** fields describing each object are the same as if you were submitting a change request. The **DISP** field indicates the disposition of the object from the perspective of this particular change request. Possible values of this field are explained in the following table. For general information about object dispositions, refer to [Disposition of Objects on page 58](#).

Value	Explanation
DEL	The object is to be deleted.
DELOCC	This applies to table data occurrences only; the occurrences are to be deleted.
EXEC	This applies to rules only; the rule is to be executed at promotion time.
MISSING	This applies to objects that do not exist on the system. The object either is deleted or was not loaded in through a target promotion.
MOD	The object is to be modified.
NEW	The object is new (that is, it has never been promoted).

Viewing the Lists of Tables and Other Objects

To view the list of tables and other objects in the change request, start by viewing the list of rules. Refer to [Viewing the List of Rules on page 147](#) for more information. Press PF4 to display the list of tables. From the screen that lists the tables, press PF4 again to display another list with all the other objects. For a description of each field in the object list, refer to [Chapter 11, Completion and Submission of Change Requests, on page 123](#).

Managing an Incomplete Change Request

There are two options when managing incomplete change requests. You can do either of the following:

- Continue to work on the change request, adding to and removing from its list of objects. You can then submit the change request or save the description.
- Roll back the change request to delete it from the system.

Continuing Work on the Change Request

To continue work on an incomplete change request, use the Manage Incomplete/Pending Requests screen, shown in [Accessing Change Requests–Manage Incomplete/Pending Requests Screen on page 144](#). Type **C** in the line command field beside the change request and press Enter. A screen similar to the one shown below appears:

Manage Incomplete Change Request

Change#	: 1652	Req#'s	Coreq#'s	Coreq Node
Requestor	: PROJMG2	-----	-----	-----
Component	: HR WEEKLY RPTS			
Category	: NEW FEATURE - TRNG			
PRT Detail	: N			

Summary: LAST SET OF CHANGES FOR HR STAFF TRAINING SESSIONS STARTING MARCH 23.

Detailed Description

page 1

There are only two changes here:

1. The MAIN MENU screen now shows the time of day at the bottom line.
2. One rule has been altered to reflect the latest policy regarding overtime computation for statutory holidays falling on Sundays.

PFKEYS: 12=CANCEL 3=SAVE INCOMPLETE 4=SUBMIT 5=SEL OBJS 6=SEL CHG REQ

From this screen, you can change the description and save it again, you can identify more objects for inclusion in the change request as described in [Chapter 11, Completion and Submission of Change Requests, on page 123](#), or you can submit it for promotion.

Rolling Back the Change Request

To roll back an incomplete change request, complete the following steps:

1. Access the Manage Incomplete/Pending Requests screen.

This screen is shown in [Accessing Change Requests–Manage Incomplete/Pending Requests Screen on page 144](#).

2. Type the **R** line command beside the change request you want to roll back.
3. Press Enter.

You confirm the deletion of the change request on a subsequent screen by pressing PF3.

Managing a Pending or Unaccepted Change Request

To manage a pending or unaccepted change request, the following function combinations are available in the Manage Incomplete/Pending Requests screen:

Continue and Save Description	To change only the description and leave the change request status as pending
Continue and Submit	To add objects to or remove objects from the change request, putting the status into pending
Rollback but Save as Incomplete	To roll back the change request to an incomplete status
Rollback	To delete the change request from the system

Continuing With a Change Request

You initiate the first two functions by typing the **C** line command on the Manage Incomplete/Pending Requests screen, shown in [Accessing Change Requests–Manage Incomplete/Pending Requests Screen on page 144](#). You can then make changes to the description and select objects to be added to the change request using the following PF keys:

PF3	Saves any changes made to the description. New objects selected or deleted are ignored.
PF4	Saves changes to the description and adds or deletes selected objects.
PF12	Cancels any changes and exits.

Rolling Back a Change Request

To remove a change request from pending status, type **R** in the line command field beside the change request and press Enter. The rollback screen is similar to the one used to create a change request. A sample illustration of the rollback screen follows.

Rollback Pending Change Request

Change# : 1652

Requestor : PROJMgr2

Component : HR WEEKLY RPTS

Category : NEW FEATURE - TRNG

Save Incomplete: Y

Req#'s

Coreq#'s

Coreq Node

Summary: LAST SET OF CHANGES FOR HR STAFF TRAINING SESSIONS STARTING MARCH 23.

Detailed Description

page 1

There are only two changes here:

1. The MAIN MENU screen now shows the time of day at the bottom line.

2. One rule has been altered to reflect the latest policy regarding overtime computation for statutory holidays falling on Sundays.

PFKEYS: 3=ROLLBACK 12=CANCEL 4=LIST RULES

To Roll Back a Change Request

To roll back a pending or unaccepted change request, enter one of the following values in the **Save Incomplete** field and press PF3:

Value	Explanation
Y	Rolls back the change request to an incomplete status. Objects in the request can then be edited by the submitter of the request. Objects cannot be edited when the change request has a status of pending.
N	Deletes the change request from the system.

Impact to Promotion Rights

When you roll back a change request, the promotion rights are restored as they were before you submitted the change request.

Viewing the List of Objects

Before you roll back the change request, you can view a list of the objects included in the change request. The fields that describe the objects are the same as if you were submitting a change request. Refer to [Viewing a Change Request on page 147](#).

Chapter 13 **Management of Promotion Rights**

This chapter describes how to manage promotion rights.

Topics

- [Overview, page 156](#)
- [Invoking the Promotion Rights Management Tools, page 157](#)
- [Managing Promotion Rights to Objects, page 161](#)
- [Managing Promotion Rights to Rules, page 166](#)
- [Managing Promotion Rights to Tables, page 167](#)

Overview

Developer's Control Over Promotion Rights

As a TIBCO Object Service Broker developer, you can perform the following functions on promotion rights:

- *Obtain* promotion rights (provided that you are defined as a borrower in your user profile)
- *Release* promotion rights you hold, leaving them available for others to obtain
- *Transfer* promotion rights you hold to others

In user-restrictive and non-restrictive environments, promotion rights to all TIBCO Object Service Broker application objects (except rules—promotion rights to rules are always attributed to a library) belong only to individual user IDs. In group-restrictive environments, the promotion rights to all TIBCO Object Service Broker application objects are held by libraries.

For table objects, the rights to the definition are held separately and independently of the rights to the data. Rights to the data in different table instances (parameter instances) can be held by different groups or user IDs.

Invoking the Promotion Rights Management Tools

Available Tools

Two tools are available for the management of promotion rights:

- Developers can execute [MANAGE_RIGHTS](#), use the MR (Manage Rights) option from the workbench, or use the PF5 key when selecting objects for a change request (developers must have borrower rights to use the MR option).
- System administrators and other users who have access to the @ADMIN_RIGHTS object set can execute [ADMIN_RIGHTS](#) or use the PA workbench option.

Using the Tools

The tools are similar, except that you can use [ADMIN_RIGHTS](#) to change the **LIBRARY** and **BORROWER** fields.

From this workbench	Execute this rule	Or select this option
Developer	MANAGE_RIGHTS	MR (Manage Rights)
Administrator	ADMIN_RIGHTS	PA (Promotion Rights Menu)

Manage Promotion Rights Utility

When you execute either tool, a Manage Promotion Rights Utility screen appears. Within this screen you can:

- Specify a selection for promotions rights search
- Transfer object rights automatically
- Change the Access Rights for your system

An illustration of the Manage Promotion Rights Utility screen follows.

Manage Promotion Rights Utility

Borrower: USR40

Library: USR40

Type of rights: U

Show self rights: Y

Show available rights: N

Show other rights: N

+-- Selection Specification for promotion rights search -----+

Attribute	Op	Value	
NAME			&
UNIT			&
AUTHOR			&

+-----+

Type S against object types & press Enter

- RULE	- TABLE	- SCREEN	- REPORT
- OBJECTSET	- GLOBALFIELD	- MENU	- TAGLET
- PAGELET	- TRAN	- TAGLETFIELDMAP	- XMLDOC
- XMLFIELDMAP	- WEBSERVICEPROD		

PFKEYS: 3=EXIT 12=EXIT ENTER=SELECT



The object types shown on the screen are the types that are eligible for promotion.

Header Portion Fields

Borrower and Library Fields

Depending on your environment, the **BORROWER** field is set to your user ID or library, and the **LIBRARY** field is set to the local rules library indicated on your workbench. If you are a developer, both of these screen fields are protected and cannot be changed. If you are using the [ADMIN_RIGHTS](#) system administrator tool, you can change either or both fields.

Administering Promotion Rights for Another User

To administer promotion rights on behalf of another user, enter the appropriate user ID and library name in the **BORROWER** field. All subsequent promotion rights management after this change are for that borrower. In the case of rules, promotion rights are attributed to the library that you specify.

Type of Rights Field

This field identifies the current rights mode for managing object rights. Its initial value is obtained from the entry made in the **RESTRICT_RIGHTS** field of the **@PROM_CONSTANTS** table by the promotion administrator. The possible entries in this field are S (non-restrictive), G (group-restrictive), or U (user-restrictive).

Selection Specification

The object types are listed at the bottom of the screen and can be selected by typing **S** next to the object type in question.

As a borrower, there could be long lists of objects with promotion rights available to you. You can specify selection criteria and thus show only the promotion rights for objects that match the criteria. The criteria you specify are in effect for each object type that you select in the lower part of the screen.

Filtering the Selection Criteria

The Manage Promotion Rights Utility screen contains three fields that provide a rights-based filter. This filter affects the display of the object types you select from the bottom of the screen.

When you enter Y in this field:	The results of your selection include:
Show self rights	All selected objects to which you hold the rights. The setting in the Type of rights field above clarifies whether the rights in effect are those of a user ID or a group.
Show available rights	All selected objects whose rights are currently not held by anyone.
Show other rights	All selected objects to which others hold the rights.

These settings can be combined in different ways.

Transferring Rights Automatically

TIBCO Object Service Broker can be made to automatically transfer rights to a given user, if you operate under group rights and have **Show other rights** turned on. Someone who is a member of more than one group—say A and B—and currently operating in library A can select for promotion an object that belongs to group B. Because the requestor is also a member of group B, TIBCO Object Service Broker transfers the rights from Group B to the current library name. This can also be used to release rights and transfer them to others.

Changing the Access Rights for Your System

The **Type of rights** field plays a pivotal role when converting from one type of rights to another. In fact, the only time that this field's default setting is ever altered is when you are changing how your system restricts rights and what it restricts.

Complete the following steps to change the type of rights for your system¹:

1. Use the Table Editor to set the RESTRICT_RIGHTS field in @PROM_CONSTANTS to the new type of rights (that is, the kind being changed to).
2. Set the Type of rights field to reflect the old kind of rights (that is, the one being changed from).
3. Select the objects for which you want to change the type of rights.
4. Use the transfer line command (T) to transfer the rights.

If you are moving the rights to a group, use the appropriate library name; if you are moving the rights to an individual, use the appropriate user ID.

After the rights to all the objects have been transferred, subsequent promotion rights are governed by the new setting in the @PROM_CONSTANTS table.

1. This does not apply to rules, as the borrower is always a library.

Managing Promotion Rights to Objects

The Manage Rights screen differs slightly for some object types. This section describes features of the Manage Rights screen that are common to most object types. The remaining sections of this chapter describe additional features specific to rules and tables.

Accessing the Manage Rights Screen

To display the screen for managing promotion rights to specific objects, make the appropriate selection from the Manage Promotion Rights Utility screen. A sample screen for managing promotion rights of screens is shown here:

Manage Rights on Screens			
Command ==>			Scroll P
NAME	BORROWER	UNIT	SUMMARY*
MODEL		SMG	The model from which other sess
OBJECT_DOC		DOC	SCREEN FOR DOCUMENTING OBJECTS.
PAINT_FILL		SCRPN	COPY FIELD DEFINITIONS FOR A SC
PAINTER		SCRPN	Paint/modify screen field attri
PARM_QUERY		XRF	
PRTBLSCRN		PRT	INPUT OF TABLE PRINT AND JOIN D
SEARCHSCRN2		FIND	Main screen for the search util
SETUPSCREEN		DOC	Accept page layout for a text s

O-Obtain P-ObtainAll R-Release S-ReleaseAll T-Transfer U-TransferAll
PFKEYS: 12=EXIT 13=PRINT 3=END 5=FIND NEXT 9=RECALL

The objects that appear on this list can be limited by previously specified selection criteria. For more information, refer to [Invoking the Promotion Rights Management Tools on page 157](#).

Command Line and PF Keys

You can use any of the Object Manager primary commands to vary the displayed list. Refer to *TIBCO Object Service Broker Getting Started* for more information on primary commands and PF key usage.

NAME, BORROWER, UNIT, and SUMMARY Fields

The Manage Rights screen lists objects whose promotion rights you can or cannot manage:

NAME	Identifies each object.
BORROWER	Identifies who owns the promotion rights on the object.
UNIT and SUMMARY	Attributes extracted from the object documentation.

Available Actions

In this screen, you can perform the following actions by using line commands:

Action	Line Command
Obtain the promotion rights to the object.	O
Obtain the promotion rights to the object and its associated component objects. ^a	P
Release the promotion rights to the object.	R
Release the promotion rights to the object and its associated component objects. ^a	S
Transfer the promotion rights of the object. In the case of a rule, its promotion rights are transferable to another library, not another user ID. Refer to Managing Promotion Rights to Objects on page 161 .	T
Transfer the promotion rights to the object and its associated component objects. ^a	U

a. A compound object is one that is, by the nature of its object type, made up of parent and child objects. For example, a screen is a compound object with its component objects being screen tables. Other compound objects are reports, menus, and object sets. These actions are available for only some compound objects.

The use of a particular line command could be inappropriate depending on the current state of the promotion rights to the object.

Status Reports from **OBTAIN ALL, RELEASE ALL, TRANSFER ALL**

The following line commands operate on compound objects:

P	ObtainAll
S	ReleaseAll
U	TransferAll

The result of the command could be different for each of the multiple objects affected. For example, while the command **ObtainAll** can normally obtain the rights to all the component objects, the rights to some component objects could be unobtainable.

Command Results

A report is produced after execution of any of these commands. The report shows the resulting promotion rights status of the components of compound objects. It can be accessed from the message log pressing PF2.

Sample Report

The screen below contains a sample status report following the use of the **P** (ObtainAll) line command on a screen. It confirms the successful acquisition of promotion rights to the screen itself, as well as to each of its component screen tables.

```

----- INFORMATION LOG -----
COMMAND ===>                                SCROLL ===> P
Rights for SCREEN PRRSKWSEARCH and its children being obtained
**** Beginning obtain all rights for object "PRRSKWSEARCH" ****
Rights for "PRRSKWSEARCH" type "SCREEN" obtained
Rights for "PRRSKWDETAIL" type "SCRTBL" obtained
Rights for "PRRSKWFOOTER" type "SCRTBL" obtained
Rights for "PRRSKWHEADER" type "SCRTBL" obtained
Rights for "PRRSKWSUMMLST" type "SCRTBL" obtained
**** Obtain all rights completed ****

```

PFKEYS: 2=NEXT LOG 3=EXIT 5=REPEAT 12=EXIT 13=PRINT



If you do more than one **P**, **S**, or **U** line command at the same time, you see only the report of the *last* operation.

Prompting for the TRANSFER Line Command

When you use the **T** or **U** line command, you must specify to whom the promotion rights are to be transferred. For each object with the **transfer** line command, a screen similar to the one shown below appears, prompting for this information:

To complete this command:

NAME	BORROWER	UNIT	SUMMARY*
T QUEUE_DEF	USR40	BATCH	batch queue definition screen

Enter parameter(s): Transfer Screen Rights to Borrower

TRANSFER_TO ==> USR50

PFKEYS: ENTER=PROCESS 3=PROCESS 12=CANCEL

Responses

- For all object types other than rules, enter the receiving user ID (or group ID or system ID) in the **TRANSFER_TO** field.
- For a rule, enter the library to which you intend to transfer the promotion rights. This rule must exist in the library before you can successfully transfer rights.

Managing Promotion Rights to Rules

Manage Promotion Rights to Rules Screen

Following is an illustration of the promotion rights management screen specific to rules. Notice the addition of the **ENT** field.

Manage Rights on Rules					
Command ==>			Scroll P		
	NAME	BORROWER	UNIT	ENT	SUMMARY*
<hr/>					
_	BINDPROMOBJ	USR40	USR		
_	CHG_MSG_FILE	USR30	USR		CHANGE MESSAGE CLASS FROM DE
_	DOMAL	MAL30	QAA	Y	DO MAL CLEANUP
<hr/>					
O-Obtain R-Release T-Transfer					
PFKEYS: 12=EXIT 13=PRINT 3=END 5=FIND NEXT 9=RECALL					

ENT Field

In addition to the **NAME**, **BORROWER**, **UNIT**, and **SUMMARY** fields described in [Managing Promotion Rights to Objects on page 161](#), this screen has an **ENT** field that serves as an additional descriptor to the rule. A value of Y indicates that the rule is an entry rule.

Managing Promotion Rights to Tables

Manage Rights to Tables Screen

This example illustrates the promotion rights management screen specific to tables:

Manage Rights on Tables					Scroll P
NAME	BORROWER	UNIT	TYPE	EXT	PARMS*
— CUST	USR40	USR	IMS	D	
— CUST_TITLE	USR40	USR	SCR	D	
— CUSTBODY	USR40	USR	SCR	D	
— CUSTCOOP	USR30	USR	DAT	D	
— CUSTD	USR50	USR	DAT	D	
— CUSTDATA	USR30	USR	DAT	D	
— CUSTDS	USR30	USR	TDS	D	
— CUSTDS	USR50	USR	TDS	O	
— CUSTFOOT	USR20	USR	SCR	D	
— CUSTHEAD	USR40	USR	SCR	D	
— CUSTOMER_BODY	USR30	USR	SCR	D	
— CUSTOMER_TA	USR40	USR	TDS	D	
— CUSTOMER_TA	USR500	USR	TDS	O	
— CUSTOMER_TA1	USR50	USR	TDS	D	
— CUSTOMER_TITLE	USR20	USR	SCR	D	
— CUSTOMERS	USR40	USR	TDS	D	

O-Obtain R-Release T-Transfer X-Expand
 PFKEYS: 12=EXIT 13=PRINT 3=END 5=END 9=RECALL

TYPE, EXT, and PARMS Fields

In addition to the **NAME**, **BORROWER**, **UNIT**, and **SUMMARY** fields described in [Managing Promotion Rights to Objects on page 161](#), this screen has the following fields:

TYPE	The type of table (for example, TDS, SCR, or RPT) appears as a further descriptor to the table.
EXT	The value of this field indicates whether the entry pertains to a table’s definition (D) or a set of occurrences (O).
PARMS	The value of the table instance (if parameterized).



For most objects, promotion rights are associated only with the object’s definition. In addition to their definitions, some tables also have data associated with them. Specifically for TDS tables, promotion rights are maintained for the definition as well as for their occurrences. A table of type TDS can, therefore, appear more than once on the promotion rights management screen. One entry shows the promotion right to its definition; the other entries pertain to promotion rights to table instances.

In a parameterized table, a table instance is the set of rows that have a common set of parameter values. A non-parameterized table has only one table instance that includes all its data rows.

The EXPAND Line Command

Available occurrence promotion rights to instances of a parameterized table appear as only a single entry on the Manage Rights screen for tables. To obtain rights to specific instances, use the **x** line command to show the individual instances of the table.

Example

In the following illustration, the Manage Rights on Tables screen shows that rights are currently available for the first instances of the displayed tables. Rights are also held on other instances. Before the available rights can be obtained, the instances of the table must be identified.

Manage Rights on Tables						Scroll P
Command ==>	NAME	BORROWER	UNIT	TYPE	EXT	PARMS*
_	#ED_DEPARTMENTS		EDUC	TDS	O	
_	#ED_DEPARTMENTS		EDUC	TDS	D	
_	#ED_EMPLOYEES		EDUC	TDS	O	
_	#ED_EMPLOYEES		EDUC	TDS	D	
_	@#TABLENAMES		UNLOADUI	TDS	D	
X	@@SERVERPARMS		DIC	TDS	O	
_	@@SERVERPARMS		DIC	TDS	D	

O-Obtain R-Release T-Transfer X-Expand
PFKEYS: 12=EXIT 13=PRINT 3=END 5=FIND NEXT 9=RECALL

Values in the PARM Field

Entries indicating a borrower show table instances in the **PARM** field of the screen. Entries that do not indicate a borrower do not show the table (parameter) instances unless expanded.

Issuing the X (Expand) Line Command

When you issue the **X** line command, a subsequent screen displays the available data rights for the selected table instance.

When concatenated parameters exceed the display width, an asterisk (*) indicates that the rest of the field display is truncated. If this occurs, you can issue the **S** line command to display the full view of the parameters, up to 127 characters.

Command ==>		Available Data Rights		Scroll P	
NAME		PARMS			
S	LONGPARMS	AAAAAAAAAAAA*,BBBBBBBBBBBB*,CCCCCCCCCCC*,DDDDDDDDDD*			
_	LONGPARMS	AAAAAAAAAAAA*,BBBBBBBBBBBB*,CCCCCCCCCCC*,DDDDDDDDDD*			
_	LONGPARMS	AAAAAAAAAAAA*,BBBBBBBBBBBB*,CCCCCCCCCCC*,DDDDDDDDDD*			
_	LONGPARMS	AAAAAAAAAAAA*,BBBBBBBBBBBB*,CCCCCCCCCCC*,DDDDDDDDDD*			
_	LONGPARMS	AAAAAAAAAAAA*,BBBBBBBBBBBB*,CCCCCCCCCCC*,DDDDDDDDDD*			

O-Obtain S-See Parm Values

PFKEYS: 12=EXIT 13=PRINT 3=END 5=FIND NEXT 9=RECALL

10:05:19 OK

Line Commands

You can use the following line commands on this screen:

O	Obtain the promotion rights to the data occurrences in a table instance.
S	See the parameter values expanded to full view (127 characters).

The See Parm Values Line Command

When you issue the **S** line command from the Available Data Rights screen, an Expanded Parameter Values screen appears, similar to the following:

Expanded parameter instances of table: LONGPARMS

Summary: This is an example of a table with long parameters

PARM1: AAAAAAAAAAAAAAAAAAAAAA

PARM2: BBBBBBBBBBBBBBBBBBBBBB

PARM3: CCCCCCCCCCCCCCCCCCCC

PARM4: DDDDDDDDDDDDDDDDDDD01

PFKEYS: 3=EXIT 12=EXIT

This screen can display up to 127 characters for each parameter.

Chapter 14 **Queries for Information on Promotions**

This chapter describes how to query for information on promotions.

Topics

- [Types of Activity in the Promotion System, page 174](#)
- [Query Promotion Information: An Overview, page 177](#)
- [Summary of Query Activities, page 180](#)
- [Displaying Query Results, page 182](#)

Types of Activity in the Promotion System

The types of activity found in the Promotion system are described in this table:

Activity	Occurs When	Launched From This Screen	Potential Status Changes
Save	Saving an incomplete request: <ul style="list-style-type: none"> • A new request that is saved for the first time • A previously added request that was updated and saved • An unaccepted request that is updated and saved 	PM Request a New Promotion	(blank) to incomplete
		PM Manage Incomplete / Pending Requests	<ul style="list-style-type: none"> • Incomplete to incomplete • Unaccepted to unaccepted • Pending to pending
Submit	An incomplete, pending, unaccepted, or new change request is submitted.	PM Request a New Promotion	(blank) to pending
		PM Manage Incomplete / Pending Requests	<ul style="list-style-type: none"> • Incomplete to pending • Pending to pending • Unaccepted to pending
Rollback	An incomplete, pending, or unaccepted CR is rolled back. ^a	PM Manage Incomplete / Pending Requests	<ul style="list-style-type: none"> • Pending to incomplete • Incomplete to deleted • Unaccepted to incomplete
Accept	A change request is accepted.	<ul style="list-style-type: none"> • PS Manage Pending • PR Manage Pending 	Pending to accepted
Batch Job	A batch job is submitted to perform an apply, and a record with this activity is written to the audit file.	PS Manage Accepted	Accepted to job submitted (PS)
		PT Apply Requests	Extracted to job submitted (PT)

Activity	Occurs When	Launched From This Screen	Potential Status Changes
Apply	The change request is applied to the source system and this activity is written to the audit file.	PS Manage Accepted	<ul style="list-style-type: none"> Extracted to completed Accepted to completed
		A batch job (not a screen)	Job submitted to completed
		PR Manage Accepted ^b	Accepted to completed
Unaccept	A CR is sent back to the requestor to be corrected and resubmitted.	PS Manage Accepted	<ul style="list-style-type: none"> Accepted to unaccepted Extracted to unaccepted
		PR Manage Accepted	Accepted to unaccepted
Extract	A CR is extracted for a later apply to a target system. This activity is written to the audit file.	PS Manage Accepted	Accepted to extracted
Backout	A CR is backed out on the source or target system. This activity is written to the audit file.	Manage Promoted in PS, PT, or PR systems	<ul style="list-style-type: none"> Completed to backed out^c Loaded to backed out^d
Target Apply Phases 1-3	The Apply line command is chosen. This activity is written to the audit file.	<ul style="list-style-type: none"> PT Apply Requests PR Manage Accepted Requests (for target apply) 	<ol style="list-style-type: none"> Accepted or job submitted to verified Verified to saved Saved to loaded

a. It is possible for a rollback to be done that removes the request from @PROM_INFO. This can be done when the change request has status P, I, or U. In these cases, all audit log information is also removed.

b. If source and target systems are the same

c. PS, PR where source and target are the same

d. PT, PR when source and target are not the same



There are other activities that can be done on a change request that are not tracked. These include viewing or printing a change request at any level, saving backup options, or allocating data sets. Specific modifications to an incomplete change request are not recorded. The fact that an incomplete request was saved is captured but the details of the changes are not known.

Query Promotion Information: An Overview

The Query Promotion Information Function

The Query Promotion Information function is an interface for queries on change request activities.

How to Access the Query Promotion Information Function

This function is accessible from both the developer and administrator workbenches:

On This Workbench	Under This Menu Item
Developer	PM Promotion
Administrator	PM Promotion
Administrator	PS Source Promotion Administration
Administrator	PT Target Promotion Administration
Administrator	PR Remote Promotion Administration

Query Screen

The Query screen shows which change requests include given objects and which change requests were manipulated by given users. You can use the main Query screen to filter data to avoid searching all the change requests in the database. An example of this screen is illustrated below:

Date: 2000-02-17

Query Change Requests from NIAGARA_____ at Location TORONTO_____

Change Request:

Start Number _____

End Number _____

Category _____

Component _____

Current Status _

Object:

Type _____

Unit _____

Name _____

User:

Name _____

Activity:

Type _____

PFKEYS: 3=END 4=END NUMBER 5=CLEAR 12=EXIT ENTER=PROCESS QUERY

Query Screen Fields

None of the fields on the Main Query screen are required. The node name fields default to the current node; the rest of the fields default to all. The fields are as follows:

Query Change Requests from	The node from where the change requests to be queried originated (source). The default is the local node.
at Location	The node from where the status information for the change requests is obtained. The default is the local node.
Start Number	The request number where the search starts. This filter can be used to narrow the range of change requests that is searched. The default is 0.

End Number	The request number where the search ends. This filter can be used to narrow down the range of change requests that is searched. If this field is left blank, the range begins with the start number and ends with the highest change request number for the source node and location. Press PF4 at any time to populate this field based on the source node and location displayed on the screen.
Category	The list of change requests to be used for the query can also be filtered by the category on the change request. If none is specified, all categories are considered. Press PF1 to list valid values.
Components	The list of change requests to be used for the query can also be filtered by the component on the change request. If none is specified, all components are considered.
Current Status	The current status of the change request. This filter makes it possible to check all change requests that have a given status. Press PF1 to list valid values.
Object Type	The type of object against which the query is being made. If a value is entered, Name or Unit must be also filled in. Press PF1 to list valid values.
Object Unit	The unit against which the query is being made. This field is used together with the Object Type field in queries.
Object Name	The name of an object. Use this field if searching for all change requests that contain the name of an object. The object can be any object that can be added to a change request. If it is entered, the Object Type field must also be filled in.
User Name	<p>The name of a user. Use this field only when searching for change requests for which the given user has done some activity such as change request preparation or promotions administration. The query system recognizes only users active in any of the activities described below on its local node—not on any other node.</p> <p>The name of a library in a group rights environment could also appear when group rights are in effect.</p>
Activity Type	The Activity Type field can be used to limit the output of the query to only those change requests for which a specified activity was done. It can be used together with the User Name field to limit the output to change requests for which the activity was done by that user. Refer to the field-level help for valid activities.

Summary of Query Activities

Each query is initiated with the Enter key. No further selections can be made from these result screens, although you can use several line commands to see further subviews of the information being queried.

For a Listing of All	Type this on the Query Screen	To get this screen
Change Requests	Press Enter	View All Changes
CRs selected according to input in the Change Request area	Any other information in the Change Request area	Change Requests
CRs that contain the specified object ^a	Object name and type ^b	Change Requests for Object, User, and/or Activity
CRs with which the specified user is involved	User name ^c	
CRs with which the specified user is involved for a given object	User name Object name and type ^b	
Child change requests making up that consolidated request	Enter x at a consolidated change request	Change Requests in Group
Activities on a specified change request	Line command A (on any of the above screens)	Change Request Activity
Logs resulting from a given action on a CR	Line command v at CR Activity screen	Log View

- a. After a change request is selected, pressing PF4 displays additional screens.
- b. Repeatedly pressing PF4 from this screen leads to additional screens.
- c. Additional information can be given to limit the range of the search.

Query Screen PF Keys

The following PF keys are available for promotion rights management:

PF4	End number	Populate the Change Request End Number field based on the highest change request number currently in the system for the Source Node and the Location shown.
PF5	Clear	Clear the entire screen. This can be useful when doing subsequent queries with different filters.
Enter	Process query	Execute the query with the given data.

Query Screen Line Commands

These are the line commands available on the query screens:

A	Display the Change Requests Activity screen.
P	Print the selected change request.
V	Display the View Change Request screen.
X	Expand the change request (if the change request includes other change requests).

Line Commands

The Change Request Activity sub-screen has these line commands:

P	Print logs.
V	View logs.

Displaying Query Results

View All Changes Screen

The following example illustrates the View All Changes screen, which appears when you press Enter without making any entries on the query screen.

View All Changes					
Command ==>			Scroll P		
CHANGE#	STATUS	CATEGORY	COMPONENT	SUMMARY*	
— 276	C	NEW FEATURE	ABC PROMOTE	Add ability to modify	
— 275	C	NEW FEATURE	CALL SYSTEM	Ability to scan junct	
— 274	C	NEW FEATURE	PRS SYSTEM	Link for 1.17 and 1.1	
— 272	C	NEW FEATURE	TEST	this promotion is to	
— 271	C	NEW FEATURE	PTF SYSTEM	Allow users to enter	
— 270	C	BUG FIX	PROB REPORTING	Resolve missing submi	
— 269	C	BUG FIX	CALL SYSTEM	Status field check ne	
— 268	C	BUG FIX	PROB REPORTING	Correct residual prob	
— 267	C	CODE IMPROVEMENT	PR SYSTEM	Allow everyone the ca	
— 266	C	NEW FEATURE	PRODUCT SUPPORT	Call/PR Differences r	
— 265	C	BUG FIX	CALL SYSTEM	Promote fix to PR Fol	
— 264	C	CODE IMPROVEMENT	CALL SYSTEM	Fix bugs in change #2	
— 263	C	NEW FEATURE	CALL SYSTEM	modifications to call	
— 262	C	BUG FIX	ABCPROMOTE	Change PF4 action to	
— 261	C	CODE IMPROVEMENT	ABC PROMOTE	Include PR # in mail	
— 260	C	BUG FIX	DISTRIB	Company backlevel rep	
A-Activity P-Print V-View X-Expand					
PFKEYS: 12=EXIT 13=PRINT 3=END 5=FIND NEXT 9=RECALL					

Explanation of Fields

A description of the screen fields follows:

Change#	The number of the change request.
Status	The current status of the change request. This can be any status.
Category	The category of the change request. The category names are stored in the table CHG_CATEGORIES.

Component	The component name.
Summary	<div>A short description of the change request.</div> <div>As you add other conditions and filters to your queries, the results of these queries are presented on screens similar to the View All Changes screen.</div>

Finding Further Information from the View a Change Request Screen

You can display the View a Change Request screen from most of the query results screens by issuing the line command **v**. The View a Change Request screen presents summary information about a change request and also acts as an entry point to other information related to that change request.

At this screen:	When you use	TIBCO Object Service Broker displays this screen:
View a Change Request	PF4	Selected Rules
Selected Rules	PF4	Selected Tables
Selected Tables	PF4	Other Selected Objects
Other Selected Objects	PF4	Selected Change Requests

Press PF4/PF12 repeatedly to retrace your path through these screens.

Sample Promotion Queries

The following table provides a list of sample queries showing what information is requested and indicating how the screen should be used to get the desired output. All entries discussed in the table are made on the main Query Promotion Information screen.

Query	Action
Query activity on the local node for change requests originating on the local node.	You do not have to enter anything on the screen to get this information. Press Enter.
Query activity on the local node for all change requests that I submitted on the local node.	Type your login name into the User Name field, set the Activity Type field to SUBMIT and press Enter. The resulting screen shows all change request activity submitted under the entered login name.
List all activities on remote node for change requests that originated on the source node, have change request numbers between 1000 and 2000, and have the category New Feature.	Assuming that you are logged in to a system that is connected to the remote node, this query is possible. Type the source node name for FROM, and the remote node name for AT. Set the Start Number to 1000, and the End Number to 2000. Set the Category to NEW FEATURE.
List all change requests originating on the local node that are promoted on the local node and include the table @LIB_SECURITY.	Type C in the Current Status field, @LIB_SECURITY in the Object Name field, and table in the Object Type field.
List all change requests originating on the local node that show some activity on the local node by me.	Type your login ID in the User Name field and press Enter.

In each of the cases above, when the change request listing appears, use the A line command to see the activity on each change request.

Appendix A **User Access**

This appendix describes the considerations for user access to TIBCO Object Service Broker.

Topics

- [Managing User Access to TIBCO Object Service Broker, page 186](#)

Managing User Access to TIBCO Object Service Broker

It is often not desirable to make changes to application systems while users of those applications are signed on to TIBCO Object Service Broker. You have access to the functions described below for displaying, suspending, and restoring user access to your TIBCO Object Service Broker system. Use any of the following options on an administrator's workbench:

PS Source Promotion Admin ==>

PT Target Promotion Admin ==>

PR Remote Promotion Admin ==>

The screen displayed by each of these selections contains the Display Users Logged On option. The warning message at the bottom informs you of the number of users logged in to the system at the time of this display.

Displaying Users Logged In

To display a list of users currently logged in, position your cursor beside the Display Users Logged On option on the Change Request Management menu and press Enter.

Suspending All Level-1 User Access

To suspend all level-1 user access, select the Suspend All Level 1 Users Access option from the Change Request Management menu. This prevents additional level-1 users from logging in to your system while you are promoting or backing out a change request and allows current users to continue working.



The suspension of new logins remains in effect until you execute the function for restoring user access.

Appendix B **Consistency of Disposition Across Systems**

This appendix describes how to keep source and target systems consistent.

Topics

- [Keeping Source and Target Systems Consistent, page 188](#)

Keeping Source and Target Systems Consistent

Every TIBCO Object Service Broker Promotion source system has information in its own MetaStor on the presence or absence of objects in the target system. The Promotion system uses this knowledge of the target system when it marks the disposition of objects in a change request. *Disposition* refers to whether the object is designated for creation, replacement, or deletion in the target system.

Some intervention can cause this information in the source system to be inconsistent with the situation of objects in the target system. You can refresh the source system MetaStor by bringing in all the required information from the target system.

Aligning Disposition Mismatches

There are two methods to align disposition mismatches between systems in TIBCO Object Service Broker:

- Local
- Global

Local Method

This method is available during target and remote promotion administration. It affects only the objects in an individual change request, and aligns their disposition to that of the target system. It is activated by the **R** (Refresh Disp) line command, as discussed in [Chapter 4, Target Promotions, on page 45](#).

Global Method

The global method is more general and thorough, and affects all objects on the system. This method can be run only by a system administrator and only while no other users are logged in to the system. The procedure by platform is as follows:

z/OS Platform

1. Allocate a sequential data set with the following characteristics in your target system:
 - RECORD FORMAT—VB
 - LRECL—2250 or larger
2. Log in to the target TIBCO Object Service Broker system.

3. Run the GEN_SYS_TBLS rule to refresh the list of objects on the target system.
Pass the GEN_SYS_TBLS rule two arguments:
 - A unique table name to be used as a temporary table. This table is deleted after GEN_SYS_TBLS is run.
 - The name of the data set allocated in step 1.
4. Use one of the two following methods to ensure that the external file (allocated in 1 above) is accessible by the source TIBCO Object Service Broker system:
 - Copy the file across platforms.
 - Establish the availability via your data communication network if your facilities permit.
5. Log in to the source TIBCO Object Service Broker system.
6. Run the LOAD_SYS_TBLS rule and pass it the same data set name as defined in Step 1.
7. Unaccept any change request whose validation during the apply process failed due to invalid object dispositions.
8. Instruct application developers to resubmit those change requests to ensure that the refreshed object dispositions are used.



There is another method to correct change request validation failures. While on the target system, use the **R** line command (on the Manage Accepted Requests screen) to refresh the disposition to that of the target system. This action would replace steps 7 and 8. However, the promotions administrator should verify the cause of all disposition failures before taking this action.

Windows and Solaris Platforms

1. Log in to the target TIBCO Object Service Broker system.
2. Run the GEN_SYS_TBLS rule to refresh the list of objects on the target system.
Pass the GEN_SYS_TBLS rule two arguments:
 - A unique table name to be used as a temporary table. This table is deleted after GEN_SYS_TBLS is run.
 - The filename—the path is determined from your DSDIR session option.
3. Log in to the source TIBCO Object Service Broker system.
4. Run the LOAD_SYS_TBLS rule.
Pass it the same filename as defined in Step 3.

5. Unaccept any change requests whose validation during the apply process failed due to invalid object dispositions.
6. Instruct application developers to resubmit those change requests to ensure that the refreshed object dispositions are used.



There is another method to correct change request validation failures. While on the target system, use the **R** line command (on the Manage Accepted Requests screen) to refresh the disposition to that of the target system. This action would replace steps 5 and 6. However, the promotions administrator should verify the cause of all disposition failures before taking this action.

See Also *TIBCO Object Service Broker Parameters* for information about the DSDIR parameter.

Appendix C **Status Codes of Change Requests**

This appendix describes the status codes of change requests.

Topics

- [Change Request Status Codes, page 192](#)

Change Request Status Codes

This appendix provides a quick reference to the change request status codes. References are made here to the three phases of the target promotion or remote promotion batch-apply process. For more information, refer to [Chapter 4, Target Promotions, on page 45](#) and [Chapter 5, Remote Promotions, on page 63](#).

Status Codes

A	Accepted	Change request is accepted by the promotions administrator.
B	Backed Out	Change request was backed out.
C	Completed	Change request was successfully applied to source system.
G	Applied	Indicates to the target system the status (L) of change requests incorporated into a consolidated change request.
I	Incomplete	Change request is incomplete; it could have been rolled back and then saved as incomplete.
J	Job Submitted	Change request is selected to be applied in batch mode; the batch job is submitted.
L	Loaded	Change request was successfully applied from Phase 3 (promote) of a target promotion or remote promotion batch-apply.
P	Pending	Change request was submitted by an application developer and is awaiting acceptance by a promotions administrator.
S	Saved	Change request underwent Phase 2 (backup) of a target promotion or remote promotion batch-apply.
U	Unaccepted	Promotions administrator withdrew a previous acceptance of the change request. This makes the change request accessible again by whomever created it.
V	Verified	Change request underwent Phase 1 (verification) of a target promotion or remote promotion batch-apply.
X	Extracted	Change request is extracted from the source system to external files, in preparation for target promotion.

Appendix D **Sample JCL for Batch Processing**

This appendix describes a sample JCL for batch processing.

Topics

- [Sample JCL for Batch Processing, page 194](#)

Sample JCL for Batch Processing

This appendix includes samples of the three JCL members referenced in [Chapter 2, Preparing For Promotions, on page 13](#):

- @SCHEDULEMODEL (MVS, APPLY_CHANGE)
- @SCHEDULEMODEL (MVS, APPLY_PROM)
- @SCHEDULEMODEL, (MVS, PROM_ALLOC)

@SCHEDULEMODEL (MVS, APPLY_CHANGE)

```
BROWSING TABLE      :  @SCHEDULEMODEL(MVS,APPLY_CHANGE)
COMMAND ==>

NUMBER                                CARD                                SCROLL: P
-----
- 10 // {USERID} JOB ('{USERID}'),'APPLY CHANGE {USERID}',
- 20 //                                NOTIFY={USERID},
- 30 //                                MSGCLASS={CLASS},
- 40 //                                REGION=4096K,
- 50 //                                MSGLEVEL=(1,1),
- 60 //                                TIME=10
- 70 /*JOBPARM      SYSAFF=*
- 80 /*ROUTE        PRINT {PRINTDEST}
- 90 //OSB EXEC     PGM=S6BBATCH,REGION=4096K,
- 100 //HRNIN       DD *
- 110 {BROWSE},
- 120 {TEST},
- 130 CHARSET={CHARSET},
- 140 INSTLIB={INSTLIB},
- 150 MDL={MDL},
- 160 OFFLINE,
- 170 PASSWORD={PASSWORD}
- 180 RULE={RULE}({PARM}),
- 190 TDS={TDS},
- 200 USERID={USERID}
- 210 /*
- 220 //STEPLIB     DD DSN=$HLQNONV$. $INSTVER$.LOAD,DISP=SHR
- 230 //HRNEXTR     DD DSN=$HLQNONV$. $INSTVER$.LOAD,DISP=SHR
- 240 //HRNOUT      DD SYSOUT=( {CLASS}, {XWTR}, {FORM}, UCS={UCS}, FCB={FCB}),
- 250              COPIES={COPIES}
- 260 //SYSUDUMP    DD SYSOUT=( {CLASS}, {XWTR}, {FORM}, UCS={UCS}, FCB={FCB}),
- 270              HOLD=YES,
- 280              COPIES={COPIES}
- 290 //HRNPRNT     DD SYSOUT=( {CLASS}, {XWTR}, {FORM}, UCS={UCS}, FCB={FCB}),
- 300              COPIES={COPIES}

PFKEYS: 1=HELP 5=FIND NEXT 9=RECALL 18=EXCLUDE 13=PRINT 3=END 14=EXPAND
```


@SCHEDULEMODEL (MVS, APPLY_PROM)

BROWSING TABLE : @SCHEDULEMODEL(MVS,APPLY_PROM)
COMMAND ==>

SCROLL: P

NUMBER	CARD
10	// {USERID} JOB ('{USERID}'),'APPLY PROM {USERID}',
20	NOTIFY={USERID},
30	MSGCLASS={CLASS},
40	REGION=4096K,
50	MSGLEVEL=(1,1),
60	TIME=10
70	/*JOBPARM SYSAFF=*
80	/*ROUTE PRINT {PRINTDEST}
90	//HURON EXEC PGM=S6BBATCH,REGION=4096K,
100	//HRNIN DD *
110	{BROWSE},
120	{TEST},
130	CHARSET={CHARSET},
140	INSTLIB={INSTLIB},
150	MDL={MDL},
160	OFFLINE,
170	PASSWORD={PASSWORD}
180	RULE={RULE}({PARM}),
190	TDS={TDS},
200	USERID={USERID}
210	/*
220	//STEPLIB DD DSN=\$HLQNONV\$. \$INSTVER\$.LOAD,DISP=SHR
230	//HRNEXTR DD DSN=\$HLQNONV\$. \$INSTVER\$.LOAD,DISP=SHR
240	//HRNOUT DD SYSOUT=({CLASS},{XWTR},{FORM},UCS={UCS},FCB={FCB}),
250	COPIES={COPIES}
260	//SYSUDUMP DD SYSOUT=({CLASS},{XWTR},{FORM},UCS={UCS},FCB={FCB}),
270	HOLD=YES,
280	COPIES={COPIES}
290	//HRNPRNT DD SYSOUT=({CLASS},{XWTR},{FORM},UCS={UCS},FCB={FCB}),
300	COPIES={COPIES}

PFKEYS: 1=HELP 5=FIND NEXT 9=RECALL 18=EXCLUDE 13=PRINT 3=END 14=EXPAND

@SCHEDULEMODEL (MVS, PROM_ALLOC)

```
BROWSING TABLE      : @SCHEDULEMODEL(MVS,APPLY_ALLOC)
COMMAND ==>

NUMBER                                CARD                                SCROLL: P
-----
- 10 // {USERID}A JOB (' {USERID} '),
- 20 //      'PROM_ALLOC      ',
- 30 //      NOTIFY={USERID},
- 40 //      MSGCLASS={CLASS},
- 50 //      REGION=4096K,
- 60 //      MSGLEVEL=(1,1),
- 70 //      TIME=10
- 80 /*ROUTE      PRINT {PRINTDEST}
- 90 /*
- 100 //ALLOCAT PROC DSNAME=''
- 110 //ALLOCAT   EXEC PGM=IEFBR14
- 120 /*
- 130 //ALLOC1 DD DSN=&DSNAME,DISP=(NEW,CATLG),UNIT=SYSDA,
- 140 // DCB=(RECFM=VB,LRECL=2250,BLKSIZE=6160,DSORG=PO),
- 150 // SPACE=(TRK,(10,10,15)),VOL=SER=
- 160 // PEND
- 220 /*
- 230 /* START_PARM THE CHANGE NUMBER IS PASSED AUTOMATICALLY BELOW.
- 240 //ALLOCAT EXEC ALLOCAT,DSNAME='OSB.DV0000.UPGRADE' >MUST CONFORM
- 250 //ALLOCAT EXEC ALLOCAT,DSNAME='OSB.CH0000.UPGRADE' >TO TABLE
- 260 //ALLOCAT EXEC ALLOCAT,DSNAME='OSB.BK0000.UPGRADE' >@PROM_CONSTANTS
- 270 //ALLOCAT EXEC ALLOCAT,DSNAME='HUR20.BK3649.UPGRADE'

PFKEYS: 1=HELP 5=FIND NEXT 9=RECALL 18=EXCLUDE 13=PRINT 3=END 14=EXPAND
```

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