TIBCO iProcess® Workspace (Windows)

Manager's Guide

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Contents

Overview of TIBCO iProcess Workspace (Windows) Manager’s Guide

This section discusses the administrative tasks that can be done from iProcess client and server. It then provides a brief overview of the common tasks involved when managing iProcess Workspace (Windows).

Note: Tasks that need to be performed directly on TIBCO iProcess® Engine are described in *TIBCO iProcess Engine Administrator’s Guide*.

Overview of This Guide

This guide describes the tasks involved to administer the clients such as managing users, cases and work queues. It also describes how to use the TIBCO iProcess Administrator utility, which is a graphical utility that can be used on any client to perform common administration functions on TIBCO iProcess® Engine.

For information about administering TIBCO iProcess Engine such as starting and stopping the server, managing server processes and running command line utilities, see *TIBCO iProcess Engine Administrator’s Guide*.

Monitoring Cases

One of the major tasks to managing the client system is to keep iProcess cases being processed as quickly as possible. There are various tools you can use to monitor the throughput of cases so that you can take actions to prevent system bottlenecks.

Managing Cases

You can view cases for a procedure, find a particular case, close and purge cases and view audit trails for a case using the Case Administration tool.

For more information, see Administering Cases.

Managing Users

TIBCO iProcess Administrator enables you to quickly add new users to the iProcess system, create groups of users and specify role names instead of individual user names.

For more information, see Managing iProcess Users.

Managing Lists and Tables

TIBCO iProcess Administrator enables you to create lists and tables for commonly used data using the Table and List Managers.

See Managing iProcess Lists, for information about managing lists, and Managing iProcess Tables for managing tables.

Changing Client Preference Settings

You can change client settings such as hiding the login dialog, changing the default language and specifying the RPC number range to use.

For more information, see Using iProcess Preference Editor.

Administering Cases

This section describes how to administer cases of a procedure using the Case Administration tool, which is available in TIBCO iProcess Workspace (Windows).

The Case Administration tool can operate in two modes: *view only* or *full administration*. Full Administration enables you to purge and close cases but View Only does not. This setting is defined when TIBCO iProcess Workspace (Windows) is installed.

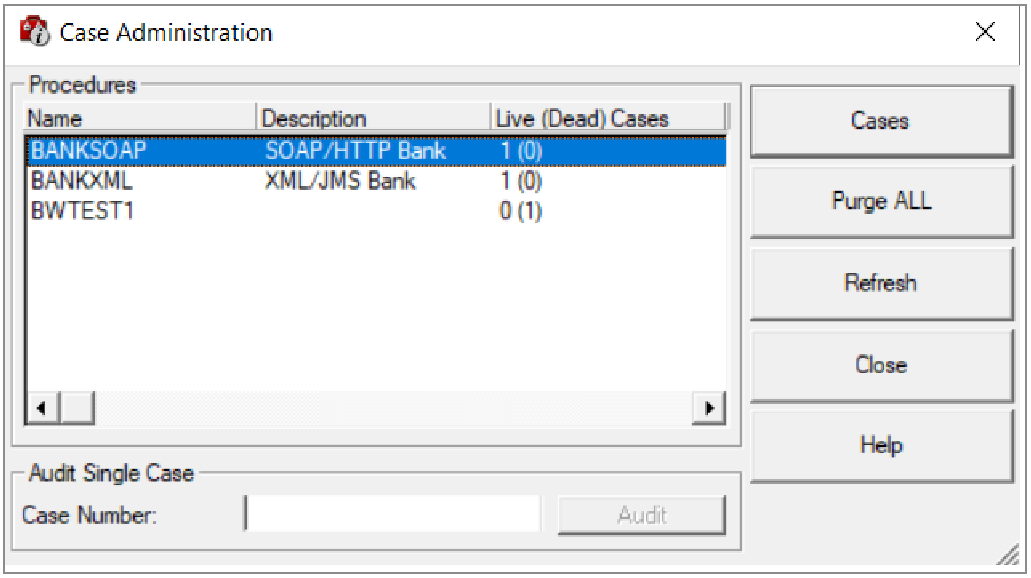
Note: On a default installation you will only have the Case Administration tool in your Work Queue Manager window if you have a `MENUNAME` attribute of `MANAGER`, `PRODEF` or `ADMIN` and the client was installed with full administration options. You can only close and purge cases if you have a `MENUNAME` of `ADMIN`.

Starting the Case Administration Tool

To start the Case Administration tool, perform the following steps:

1. Click the **Case Administration** tool from the Work Queue Manager window. You can also click **Case Administration** from the **Tools** menu.

   The Case Administration procedure selection dialog box is displayed and lists the available procedures.



You can only see a procedure in this dialog box if:

- it has been given Case Administration access in the procedure definition,
- you have logged in as an *iProcess Administrator* user,
- you are the owner of the procedure,
- cases have been started.

> **Note:** Sub-procedures do not appear in the list.

To use the Case Administration dialog box, perform the following steps:

1. Select the procedure you are interested in.
2. Perform one of the following actions:
   - Click **Viewing Cases for a Selected Procedure** , to view the list of cases for the currently selected procedure.
   - Click **Purging Cases**, to purge all cases of the currently selected procedure.
   - Enter the case number in the Case Number field and click **Auditing a Single Case Using the Case Number** , to view the audit trail for a case. (If you do not know the case number, click **Viewing Cases for a Selected Procedure** instead.)
   - Click **Refresh**, to refresh the list of procedures.

Viewing Cases for a Selected Procedure

To view all the cases for a selected procedure, perform the following steps:

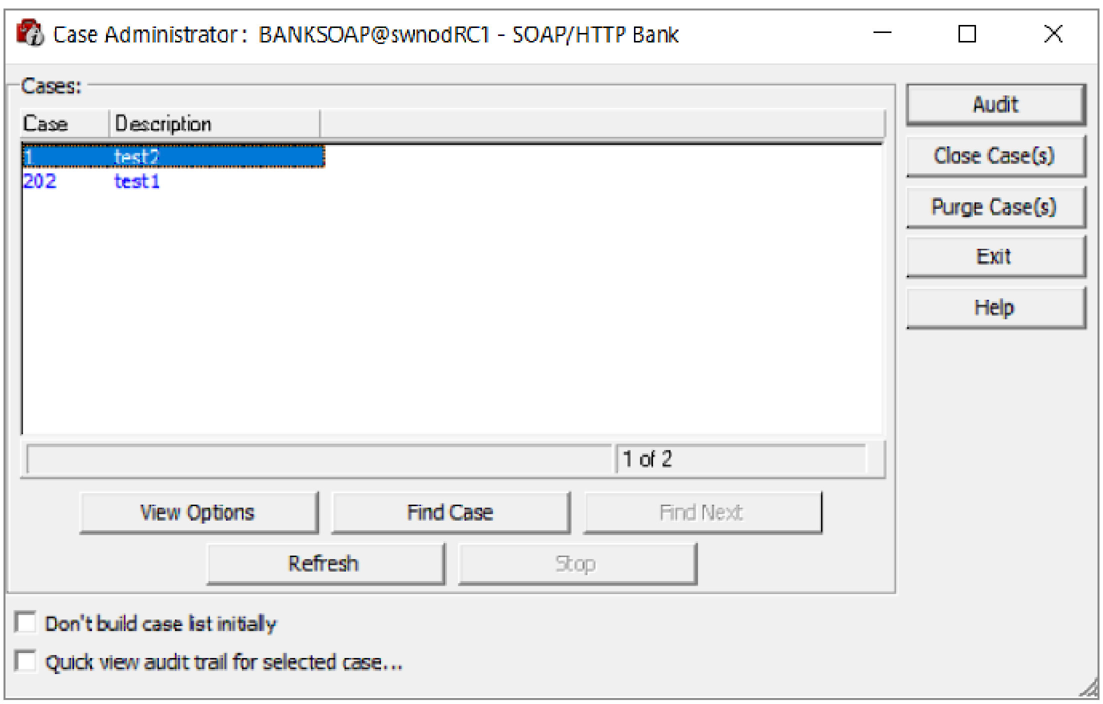
1. Select the procedure in the Case Administration procedure selection dialog.
2. Click **Cases** or double-click the procedure.

   The Case Administrator : *proc@node* dialog box is displayed and lists the cases of that procedure.

   Case list entries are color coded. Blue indicates that a case is live. Black (or the color defined by your system display settings for window text) indicates a terminated case.

If you cannot see cases that you expect to see, check to see if:

- the filter is set. If the Cases heading at the top is appended with `(FILTERED)`, the list is being Setting Up Case View Options (Filtering) .
- the Controlling the Initial Case List Display check box is selected. Click **Refresh** to display the list of cases.



To use the Case Administrator dialog box, perform the following steps:

1. Select the case (or cases) you are interested in.

2. Perform one of the following actions:

   — Click **Viewing an Audit Trail for a Selected Case** , to display the audit trail for the selected case.

   — Click **Closing Cases** , to close the selected case(s).

   — Alternatively, check the **Using the Audit Trail Quick View** check box, to expand the Case Administrator dialog box to show a detailed log for the selected case.

   — Click **Purging Cases**, to purge the selected case(s).

   — Click **Setting Up Case View Options (Filtering)** , to customize the display of the case list and set up a case filter.

   — Click **Finding One or More Cases** , to find a specific case or range of cases, using various search criteria.

   — Click **Refresh**, to refresh the list of cases.

Controlling the Initial Case List Display

By default, when you display the Case Administrator : *proc@node* dialog box for a procedure, all the cases for that procedure are listed. It can take some time to build this list if there are a large number of cases.

If you want to avoid this delay, select the **Don’t Build Case List Initially** check box. When this check box is selected, when you *next* open the Case Administrator : *proc@node* dialog box for a procedure, no cases are listed. To list cases, you must perform one of the following actions:

- click **Refresh**, or
- set up a case view filter (by clicking **View Options** - see the following section).

> **Note:** Selecting this check box has no effect on the current case listing. It only takes effect when you next open the Case Administrator : *proc@node* dialog box.

Setting Up Case View Options (Filtering)

You can customize the display of the case list and set up a case filter by clicking **View Options** from the Case Administrator : *proc@node* dialog box and using the Case List View Options dialog box.

Use the **Include only cases** section to set up a case filter. You can filter on case number, case description, addressee, case start and termination date and case status. Enter whatever criteria you want to filter on.

Use the **Information to display** box to choose what information is displayed for each case, such as who started it, the start date and the termination date. Highlight the column entries you want to appear in the case list.

Click **OK** when you are satisfied with your filter and display criteria.

Customizing the Case List View

You can choose what information is displayed for each case such as who started it, the start date and the termination date.

In the **Information To Display** box, highlight the column entries you want to appear in the case list and click **OK**.

Setting Up a Case View Filter

You can customize which cases are displayed by setting up a filter to restrict the cases displayed. For example, you can specify a range of case numbers to be displayed or you can choose to view only live cases. A case must match ALL of the criteria for it to be displayed in the Case Administrator : *proc@node* dialog box. See Setting Up Case View Options (Filtering) to see the filter options available.

Enter the required filter criteria and click **OK**. The list of cases matching the criteria set is built and displayed in the Case Administrator : *proc@node* dialog box.

> **Note:** The **Cases** group box text has `(FILTERED)` appended to the title if the case list is being filtered.

Finding One or More Cases

If you have a large number of cases, you can quickly find a specific case or range of cases to view in the Case Administrator : *proc@node* dialog box. On the Find Case dialog box, you can find a case using any of the following search criteria:

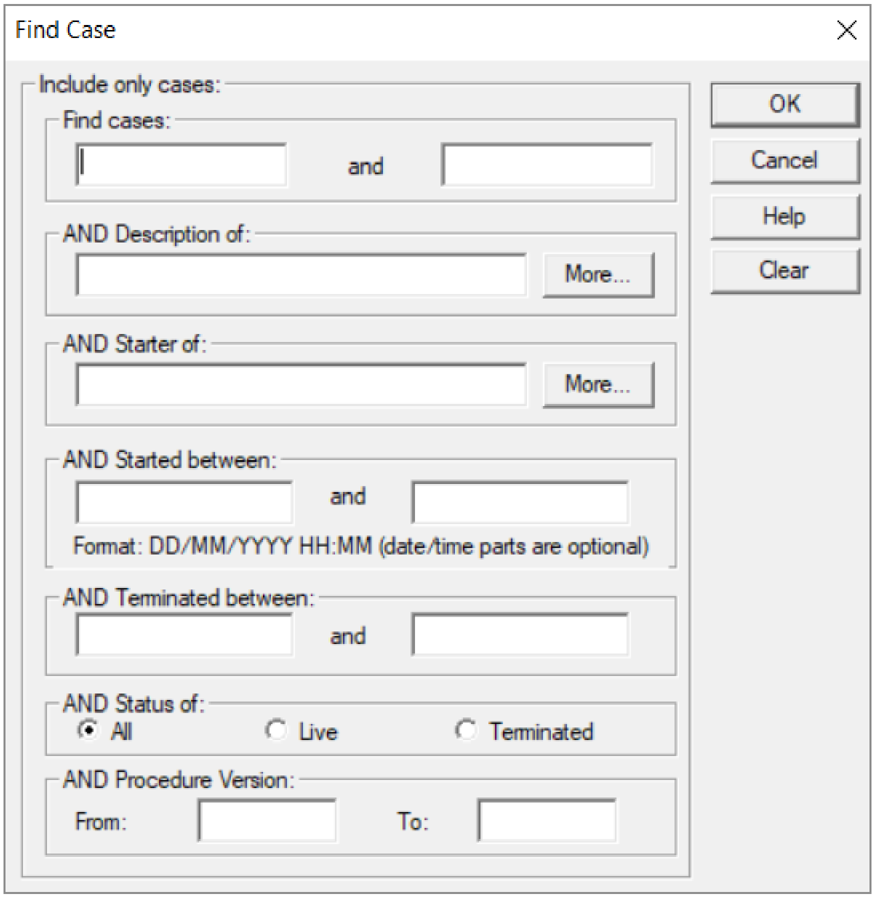
- Case number
- Case description
- Case starter
- Date when case was started or terminated
- Case status: All, Live or Terminated.
- Procedure version: All cases from one procedure version to another, for example, from version 1 to version 2 or version 1.3 to version 2.

Tip: The search starts from the currently selected item in the Case dialog and searches down the list. When it reaches the end, it will start at the top of the list.

To find a case, perform the following steps:

1. Click **Find Case** from the Case Administrator : *proc@node* dialog box.

   The Find Case dialog box is displayed.



2. Set up your search criteria and click **OK**.

   The Case dialog box is displayed and the first instance of any matching case is highlighted in the case list. Click the **Find Next** button after performing a find to search for the next occurrence of a case matching your search criteria.

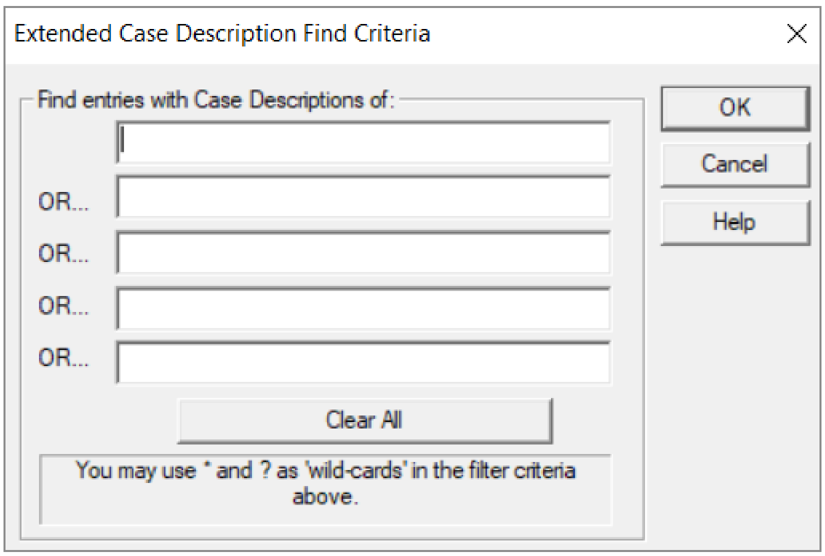
Extended Filter and Find Criteria

On the following dialog boxes, you can specify multiple instances of the same type of criteria to filter or search on, by clicking the appropriate **More** button in the dialog box.

Dialog	Extended Criteria dialog available for
Setting Up Case View Options (Filtering)	Case Description, Case Starter

Dialog	Extended Criteria dialog available for
Finding One or More Cases	Case Description, Case Starter
Filtering Audit Trail Entries	User Name, Step Name, Step Description

For example, if you click **More** (in the AND Description Of section of the Find Case dialog), the Extended Case Description Find Criteria dialog box is displayed. On this dialog box, you can refine your search criteria to match any of up to five different Case Description strings.



Viewing an Audit Trail for a Selected Case

You can view a detailed audit trail for any case to see how a case is progressing or has progressed. An audit trail is a predefined iProcess report that provides a detailed log of all transactions for an individual case of a procedure. You can view an audit trail for a case of a procedure using any of the following methods:

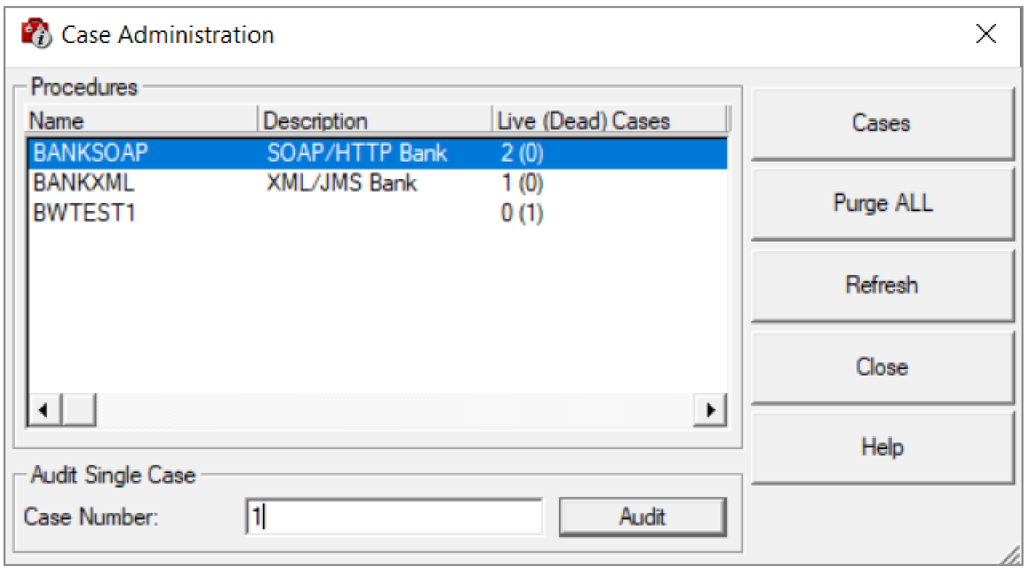
- Audit a single case using the case number. See Auditing a Single Case Using the Case Number .
- Use the Audit Trail Quick View option. See Using the Audit Trail Quick View .
- Use the Audit Trail window. See Using the Audit Trail Window.

For an explanation of the messages that are displayed in your audit trail, see "Appendix D Understanding Audit Trail Messages" in *TIBCO iProcess Engine Administrator's Guide*.

Auditing a Single Case Using the Case Number

You can quickly view the audit trail for a case in the Case Administration dialog box if you know the case number.

In the Case Administration dialog box, enter the case number in the **Case Number** field and click **Audit**.



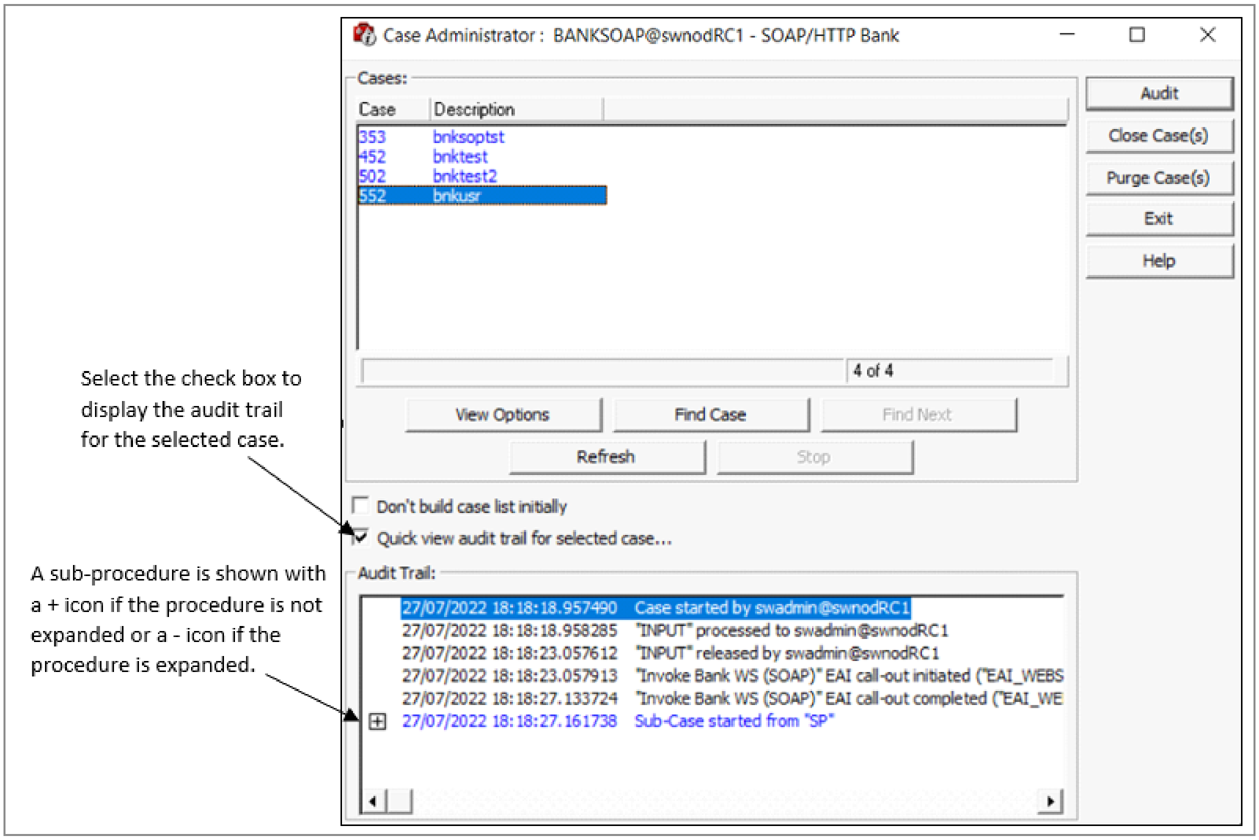
The Audit Trail Case dialog box is displayed showing the detailed log for that particular case.

Using the Audit Trail Quick View

While viewing the list of cases in the Case Administrator : *proc@node* dialog box, you can choose to view the audit trail for a case in the same dialog box.

1. Select the case you want to see the log for.
2. Check the **Quick View Audit Trail For Selected Case** check box.

   The dialog box expands to show a detailed log for the selected case. The log displays main procedures and sub-procedures. If you keep the check box selected, you can select other cases and the audit trail is displayed in the Quick View window.

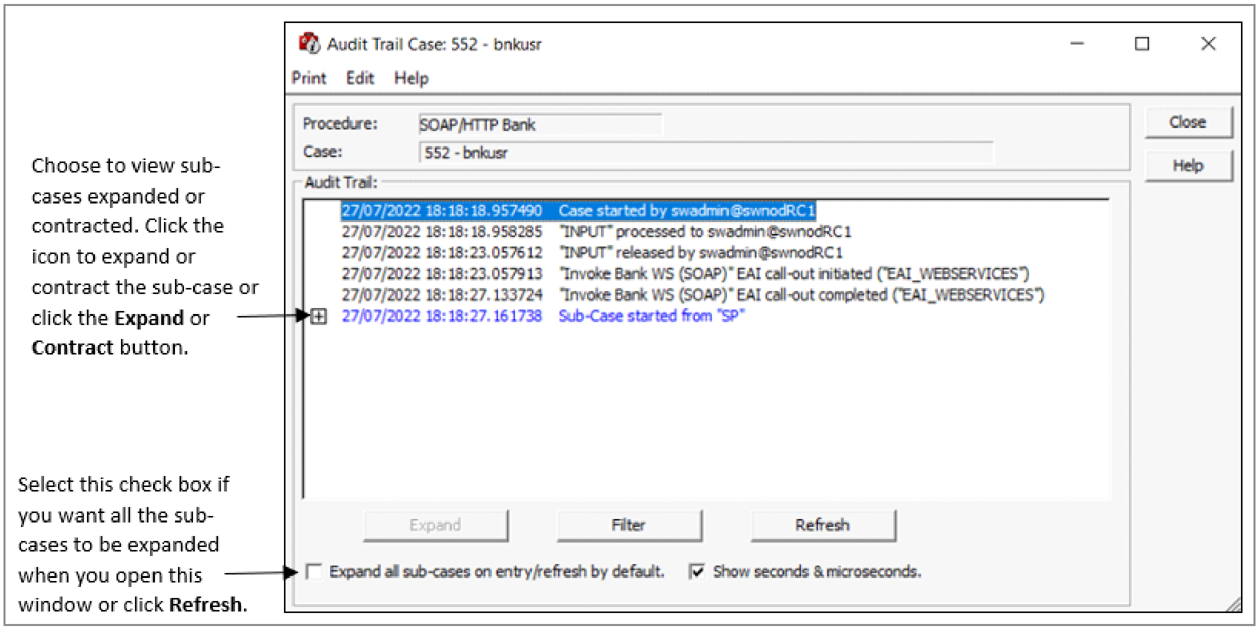


Using the Audit Trail Window

You can also display the audit trail for a case in a separate window. In the Audit Trail Case window, you can set filtering options for displaying cases. To display the audit trail for a case in the Audit Trail Case window, perform the following steps:

1. In the Case Administration procedure selection dialog box, double-click the procedure.
2. Select the case in the Case Administrator : *proc@node* dialog box and click **Audit**.

   The Audit Trail Case window is displayed. An example is shown below.



Administering Audit Trails

The following audit trail operations are only available from the Audit Trail Case window. You cannot perform these operations from the Audit Trail Quick View dialog box.

- Filtering Audit Trail Entries
- Setting Audit Trail Filter Options
- Printing the Audit Trail
- Copying the Audit Trail
- Viewing Multiple Audit Trails
- Closing the Audit Trail

Filtering Audit Trail Entries

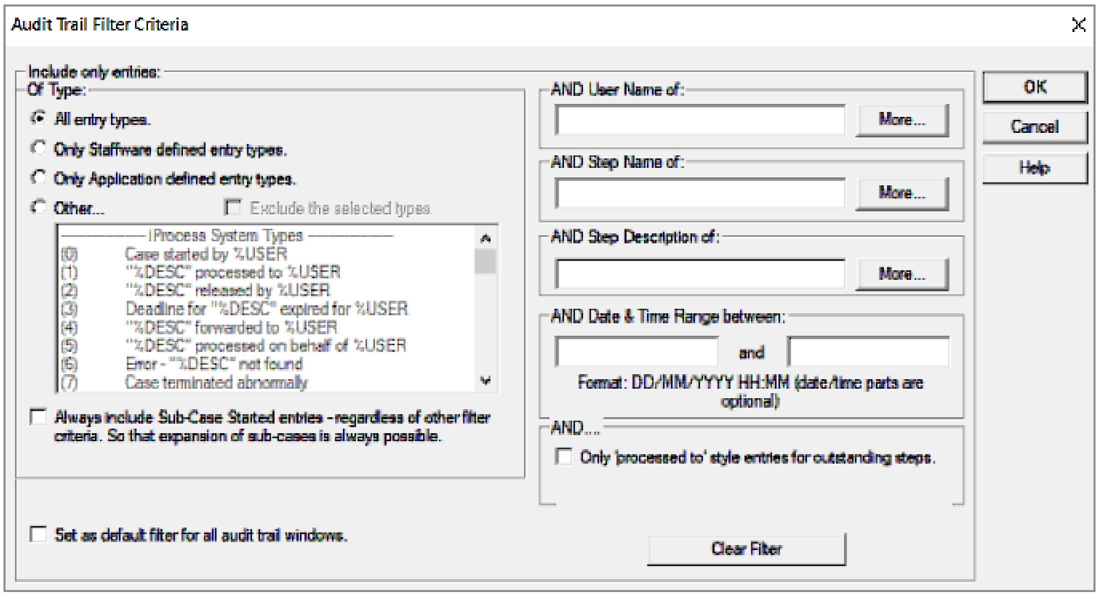
You can set up detailed filters so that you only display the audit trail entries you want to see. For example, you can set the filter to display only those entries that have a specific username and date and time range.

Tip: If you select the **Set As Default Filter For All Audit Trail Windows** check box, all your settings are used by default whenever you view an audit trail window.

To define the audit trail filter, perform the following steps:

1. From the Audit Trail Case window, click **Filter**.

   The Audit Trail Filter Criteria dialog box is displayed.

2. Set up your filter options and click **OK**. See Setting Audit Trail Filter Options.

3. Select the **Set As Default Filter For All Audit Trail Entries** check box if you want to use this filter for all subsequent audit trail reports.

   The Audit Trail window is refreshed and displays only the audit trail entries you have specified in your filter.

Setting Audit Trail Filter Options

The following table explains each filter option you can use. An audit trail entry needs to match all of the filter criteria to be displayed in the audit trail list.

Option	Description
All entry types:	Default option that displays both iProcess and application defined entry types.
Only iProcess defined entry types:	Includes only the audit trail entries for the standard iProcess system types (type numbers are <=255)
Only Application defined types:	Includes only the custom application defined entries (numbers are >=256).
Other:	When this option is selected, the list of available audit trail entry type messages and the Exclude The Selected Types check box are selected. You can select multiple entries by using the Shift or Ctrl keys with the mouse. If you check the check box, the selected entry types are excluded.
Always include Sub-Case started entries regardless of other filter criteria so that expansion of sub-cases is always possible:	Includes all sub-case started entries regardless of whether they meet other filter criteria. This enables you to always see and expand sub-case started entries as they might contain entries that do meet the filter criteria.
AND User Name of:	Include a username if you only want entries with that username to display. Click **More** to specify up to five more usernames. The usernames are separated by OR statements, which means that the filter criteria is met if any of the names are found. You can use the wild card characters `*` and `?` in this field.
AND Step Name of:	Include a step name if you want the audit entries to match a step name.
AND Step Description of:	Include a step description if you want the audit entries to match a step description name.
AND Date & Time Range between:	You can also specify that the audit entries must fall between a certain date or time. The range is inclusive of the From and To fields.

Option	Description
AND... Only processed to style entries for outstanding steps:	Select this check box so that audit trail entries must also be one of the “processed to” types for steps that are currently outstanding. The Processed to types are: 1. processed to... 2. forwarded to... 3. redirected to... 4. resent to... 5. Sub-case started...
Set as default filter for all audit trail windows:	Select this check box if you want the filter criteria to apply to all the audit trail windows. For example, if you next view the audit trail in the quick view window, the filter settings will still be applied.
Clear **Filter**:	Click this button to clear all the fields and remove the filter criteria.

Printing the Audit Trail

To print the audit trail, click **Print** > **Print** from the Audit Trail Case window.

This option prints the entire audit trail for the displayed case (including lines not currently shown in the window).

To change printers or printer options, perform the following steps:

1. Click **Print** > **Printer Setup**.
2. Select the printer that you want to print on.
3. Click **Properties** to change printer options.
4. Select the options you want and click **OK**.
5. Click **OK** to print.

Copying the Audit Trail

To copy the audit trail to the Clipboard, click **Edit > Copy All**.

This copies the entire audit trail for the displayed case to the Clipboard (including lines not currently shown in the window), enabling it to be Pasted into another application, such as a text editor.

Viewing Multiple Audit Trails

To view another audit trail for the same procedure, perform the following step:

- Change focus to the Case Administrator : *proc@node* dialog box (which is still on the screen but could be behind other windows), and select another case. View the audit trail using the Quick View window or the Audit Trail Case window.

To view an audit trail for a different procedure, perform the following step:

- Click the **Case Administration** tool from the Work Queue Manager window again. You can then select the procedure, then the new case before viewing the new audit trail.

Closing the Audit Trail

To close the audit trail, click **Close**.

You are returned to the Case Administration dialog box.

Closing Cases

You can close one or more cases of a live procedure so that they are stopped. A request is sent to TIBCO iProcess Engine to close the case(s).

> **Note:** Any work items associated with the case have a red cross on them in the user’s work queue until the work queue is refreshed, when the work item is removed.

To close one or more cases of a procedure, perform the following steps:

1. In the Case Administrator : *proc@node* dialog box, select the case or multiple cases from the case list.
2. Click the **Close Case(s)** button.
3. You are prompted before the case is closed. Click the **Yes** button to close the case, or click the **No** button to return to the Case Administration dialog box.

Purging Cases

Warning: If you are purging large amounts of case data, TIBCO recommends that you use swutil PURGE. Using the Case Administration tool from TIBCO iProcess Workspace (Windows) to perform a purge means that the purge takes longer to complete and TIBCO iProcess Workspace (Windows) is locked while the purge is being performed. For more information on using the `swutil PURGE` command, see "Purging Cases" in *TIBCO iProcess swutil and swbatch Reference Guide*.

You can remove dead cases and any associated case data, such as memos from TIBCO iProcess Engine. To purge one or more cases of a procedure, perform the following steps:

1. In the Case Administrator : *proc@node* dialog box, select the case or multiple cases from the case list.
2. Click the **Purge Case(s)** button.
3. You are prompted before the case is purged. Click the **Yes** button to purge the selected case(s) or the **No** button to return to the Case Administration dialog.

You can click **Refresh** to update the case list and see when TIBCO iProcess Engine has purged the cases.

Note: You can purge all cases of a procedure in one go using the Case Administration utility. In the Case Administration procedure selection dialog box, select a procedure and click the **Purge ALL** button. This purges all cases associated with the selected procedure. You are prompted to confirm this is what you want to do before the operation is completed. Selecting this option removes the procedure from the audit trail list.

Using TIBCO iProcess Administrator

TIBCO iProcess Administrator enables you to administer any TIBCO iProcess® Engine in a network from any client where TIBCO iProcess Administrator is installed. This makes it much easier to administer an entire iProcess system in a consistent manner.

Note:

- You can run multiple TIBCO iProcess Administrator sessions on the same client at the same time, but each session must be logged in to a different server.
- Multiple TIBCO iProcess Administrator sessions (running on different clients) can be logged into the same server at the same time, but cannot use the same Administrator tool at the same time. For more information, see Moving System Information.

Starting TIBCO iProcess Administrator

You can start a TIBCO iProcess Administrator session in one of the following ways:

- Starting from an Existing iProcess Session
- Starting from the Windows Desktop

Starting from an Existing iProcess Session

To start TIBCO iProcess Administrator from an existing iProcess session, perform one of the following steps:

- In the Work Queue Manager window, click the **TIBCO iProcess Administrator** toolbar button, or choose **TIBCO iProcess Administrator** from the Tools menu.
- In the Tools window, double-click the **TIBCO iProcess Administrator** icon.

Note: You can only have an icon or toolbar button for the iProcess Administrator if:

- You have a `MENUNAME` attribute of `ADMIN`. For more information, see Setting Pre-defined Attributes.
- The iProcess Engine's `staffico` file contains an appropriate entry for TIBCO iProcess Administrator in the `[ADMIN]` section. For more information, see "Using the iProcess Engine Configuration Files" in *TIBCO iProcess Engine Administrator's Guide*.
- The client is configured to display either extra tools and/or the Tools window. You can change these settings using iProcess Preference Editor. For more information, see Using iProcess Preference Editor.

Starting from the Windows Desktop

To start TIBCO iProcess Administrator directly from the Windows desktop, perform the following steps:

1. Click **Start**, point to **Programs** and then to the **iProcess** submenu. (By default this is called TIBCO iProcess Workspace (Windows).)
2. Click **TIBCO iProcess Administrator**.

Logging In to TIBCO iProcess Administrator

After you have started TIBCO iProcess Administrator, the Login For System Administration dialog box is displayed.

1. Select the **iProcess Engine** server you want to administer from the Server: drop-down list.

   If the iProcess Engine server you want to login to is not listed, click **Browse**. The Browse iProcess Engines dialog is displayed, which enables you to select the iProcess Engine servers that are included in your drop down list. See The Browse iProcess Engines Dialog.
2. Type your username in the User box.

You must log in either as an iProcess Administrator user, or as another user who has the `MENUNAME` attribute `ADMIN`.

3. If a Password box is displayed, type in your password. The password is not displayed as you type it; asterisks appear instead.

> **Note:** The Password box is only shown if login passwords are enabled on the iProcess Engine server. If this setting is changed, you may have to refresh this dialog box by clicking Browse. For more information, see The Browse iProcess Engines Dialog.

4. Click **OK**.

The Browse iProcess Engines Dialog

The Browse iProcess Engines dialog enables you to select the iProcess Engines servers that are included in the drop-down list in the Login For System Administration dialog box.

A list of iProcess Engine servers is displayed with the following details:

- iProcess Engine servers that are already available from your drop-down list, *whether or not they are currently active*. These are highlighted in blue. Click an **iProcess Engine** server to remove it from your drop-down list.
- iProcess Engine servers that are active on your network but are not currently available from your drop-down list. These are not highlighted. Click an iProcess Engine server to add it to your drop-down list.

> **Note:** The dialog box only displays iProcess Engines which have an RPC service number in the client's defined RPC socket browser range. You can set this range using the iProcess Preference Editor - for more information, see Using iProcess Preference Editor.

The following information is displayed about each server.

Column	Description
Server	Name of the computer on which this iProcess Engine server is installed.

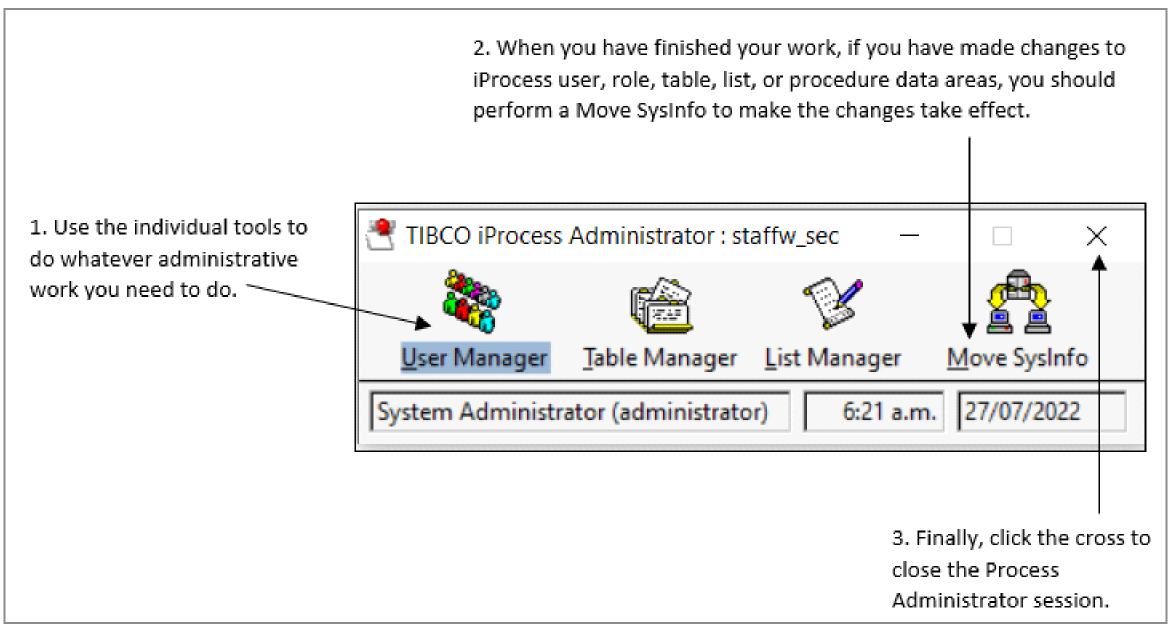
Column	Description
Service No.	RPC service number, which distinguishes between different iProcess Engines on the same machine.
Description	Node name and licensee name of this iProcess Engine server.

Modify the list of highlighted iProcess Engine servers until it matches your requirements, then click **OK** to return to the Login For System Administration dialog box.

Tip: To update your drop-down list so that it contains only the iProcess Engine servers that are currently active, deselect all iProcess Engines, click **OK**, then click **Browse** again.

Using TIBCO iProcess Administrator

When you have logged in (to your selected server), the main TIBCO iProcess Administrator window is displayed, showing the different tools that you can use:.



1. Use the individual tools to do whatever administrative work you need to do (see the following table).

2. When you have finished your work, if you have made changes to iProcess’s user, role, table, list, or procedure data areas, you should perform a Move SysInfo to make the changes take effect.
3. Finally, click the Close box to close the Process Administrator session.

The following table summarizes what you can do with the individual Administrator tools.

Select...	To...
Move SysInfo	Copy changes you have made to user, role, table, list or procedure data to iProcess’s live data area. See Moving System Information. You must do this before these changes take effect.
User Manager	Add, delete, modify, import and export information about iProcess users, groups, roles and attributes. See Managing iProcess Users.
Table Manager	Create, modify, import, and export iProcess tables. See Managing iProcess Tables.
List Manager	Create, modify, delete, import, and export iProcess lists. See Managing iProcess Lists.

Tip: You can only use one of the Administrator tools at a time. If you want to use a different tool, you must close the one you are currently using first.

Moving System Information

When you make changes to user, role, table, list, or procedure data, you must move the changes from iProcess’s temporary data area to its working data area before they take effect.

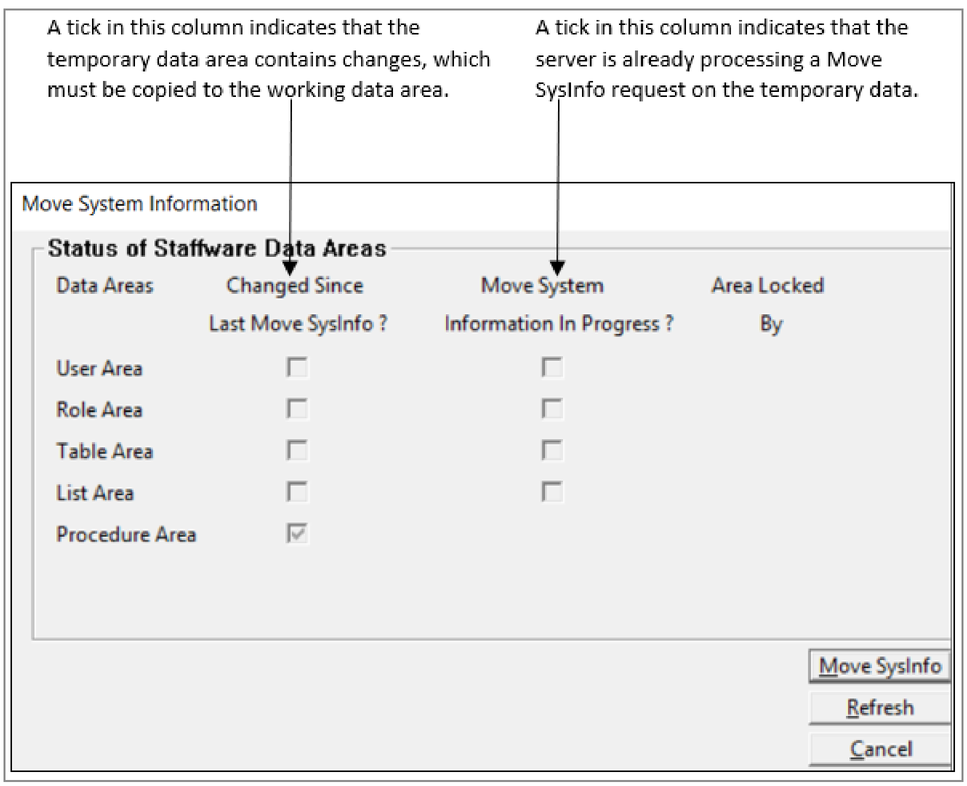
To move system information, perform the following steps:

1. Double-click the **Move SysInfo** icon in the main TIBCO iProcess Administrator window.

   The Move System Information dialog box is displayed:.

   — A tick in the Changed Since Last Move SysInfo? column indicates that the temporary data area contains changes which need to be copied to the working data area.

   — A tick in the Move System Information In Progress? column indicates that the server is already processing a Move SysInfo request on the temporary data.



Note: If another user is running the Administrator tool that controls a particular data area, the user's name is shown against that data area in the Area Locked By column. You cannot copy data from that area or use that tool until the named user has finished with it.

2. Click **Move SysInfo** to post a request to the server to update the working data area with the changes from the temporary data area.
3. Click **Refresh** to update the display and monitor the progress of the operation. The changes have been moved successfully when there are no items in either the Changed Since Last Move SysInfo or Move System Information In Progress columns are selected.
4. Click **Cancel** when you have finished to exit from the Move System Information dialog box.

Managing iProcess Users

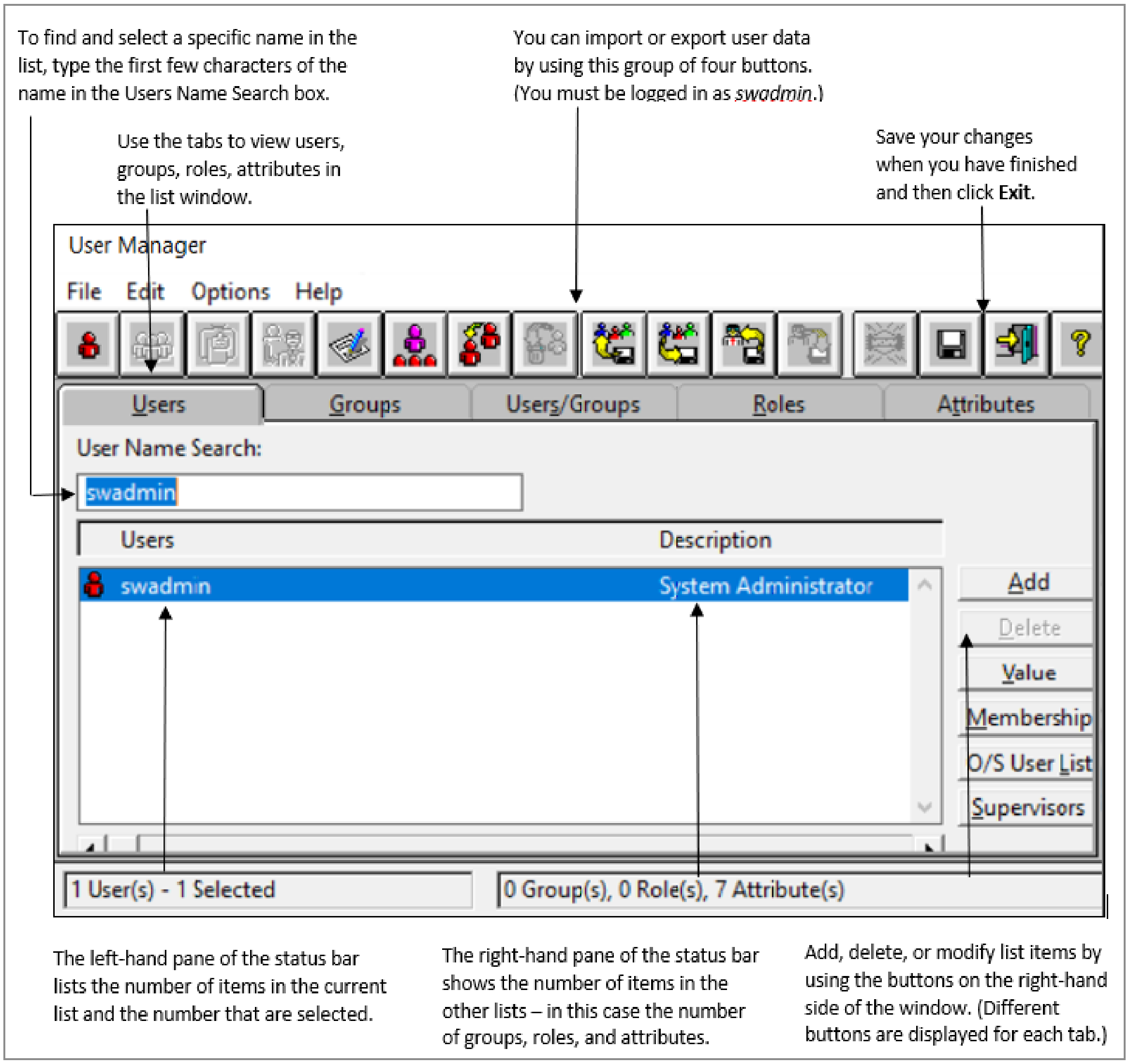
This section describes how you can manage users using User Manager.

Note: You can also use the *SWDIR*`\bin\swutil` command line utility to manage iProcess user information. For more information, see "Users and Groups" in *TIBCO iProcess swutil and swbatch Reference Guide*.

Starting User Manager

Double-click the **User Manager** icon in the main TIBCO iProcess Administrator window.

Figure 1: The User Manager window is displayed. Figure 2, How to Use User Manager outlines how you use the window to manage user data. How to Use User Manager



Expanding User Manager Lists

To expand (or populate) its user, group, and attribute lists, User Manager has to download the necessary data from iProcess Engine. On a large installation (for example, one with several thousand users) this can take several minutes. You can turn automatic list expansion on and off by choosing **Expand by Default** from the **Options** menu (and this setting is kept for the next time User Manager starts up). On a new installation, lists are initially expanded.

When the User Manager lists are not expanded:

- The following message is displayed in the right hand pane of the Status bar:
  `User Manager Lists are NOT Expanded`
- You cannot view or modify default user, group, or attribute data, although you can still add (and modify) new users, groups, or attributes.
- You can expand the lists by clicking **Expand Now from the Options** menu.

> **Tip:** If you want to see or modify existing user, group or attribute information you must expand the lists. However, if you simply wish to add new data - for example, to add five new users to the system, you may prefer to turn the **Expand By Default** option off.

Managing Users

The Users (or Users/Groups) tab displays the list of iProcess users. From this tab, you can perform the following actions:

- Add, copy, and delete users.
- Change the attribute values which are assigned to a user.
- Change the groups that a user belongs to.
- Change a user's supervisors.

> **Tip:** You can use the **Sort By** options on the **Options** menu to sort the list of users by name, by description or (**Users/Groups** tab only) by group membership.

Adding One or More Users

To add one or more users, perform the following steps:

1. Click the **Users** or **Users/Groups** tab.
2. Click **Possible iProcess User List**.

The Add New User dialog box is displayed. This dialog box lists the operating system users on the server who are not already iProcess users.

3. Click each user that you want to add as an iProcess user.

   The user is highlighted. (Click the user again if you want to remove the highlight.)

4. Click **Add**.

   The highlighted users are removed from the dialog box to a temporary list of users to be added as iProcess users. (This list is not visible.) You can now **Add** more users if you want to.

5. Click **OK**.

   The users you have added are moved from your temporary list, verified, and displayed in the Users list in the **Users** or **Users/Groups** tab. Each new user initially has default attribute values and is not a member of any groups.

User Manager verifies that each user is valid as it moves it from your temporary list. If it encounters an error (for example, a user name longer than iProcess's maximum of 24 characters), the Error Adding New User/group dialog box is displayed:

6. Click **OK** to dismiss the error dialog box.

7. Click **Cancel** to dismiss the Add New User dialog box.

Only users who have already been verified are added to the Users list. Click **Possible iProcess User List** and try again.

Tip: You can also add a new user by clicking **Add** (or **Add User** in the **Users/Groups** tab) and entering a username and description. Remember that an iProcess username must also be a valid operating system user name.

Copying a User

You can also create a new user by copying. You may find this useful if, for example, you need to add several users who have similar characteristics. You can add the first user, edit that user's attribute values and group memberships as required, and then create the other users by copying.

To copy a user, perform the following steps:

1. Select the user you want to copy.

2. Click **Edit > Copy**.

   The Copy To dialog box is displayed.

3. Enter a **Destination Name** to copy the user to. This name must be a valid operating system user name.

The new user is added to the list with the same values and group memberships as the original.

Deleting One or More Users

> **Note:** You cannot delete the iProcess Administrator user.

To delete one or more users, perform the following steps:

1. Click the **Users** or **Users/Groups** tab.
2. Select the user(s) you want to delete and click **Delete**.
3. A dialog box prompts you for confirmation. Click **Yes**.

The selected user(s) are removed from the list.

Changing a User’s Attribute Values

> **Note:** You cannot change the `DESCRIPTION` or `MENUNAME` value for the iProcess Administrator user.

To change a user’s attribute values, perform the following steps:

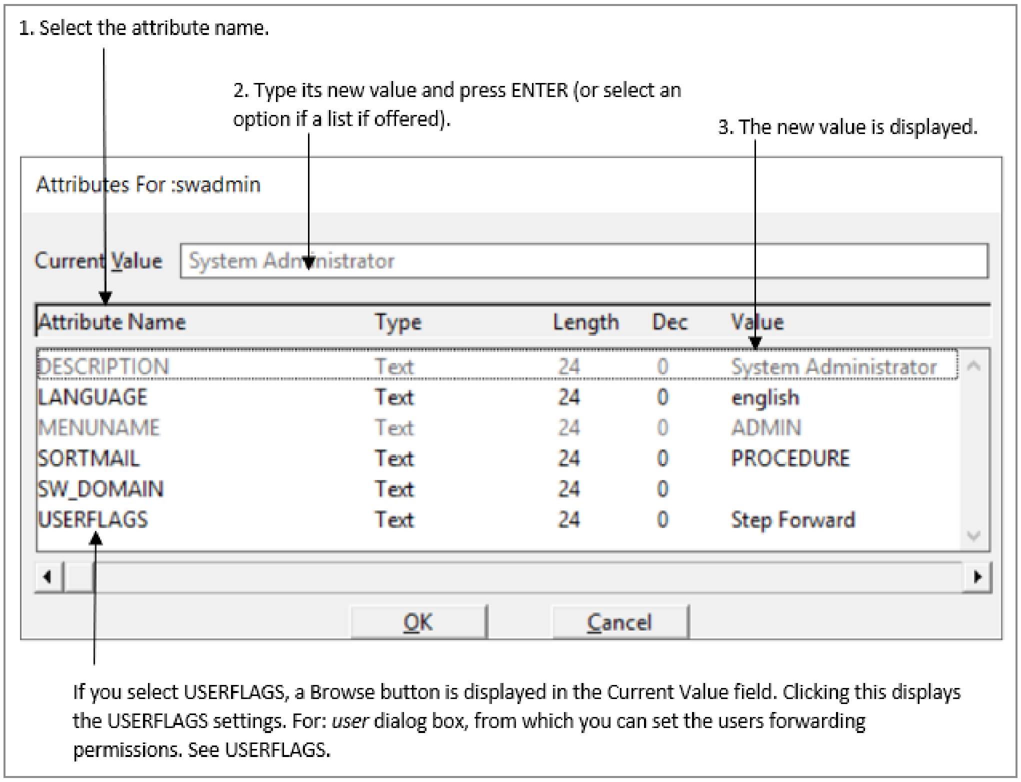
1. Click the **Users** or **Users/Groups** tab.
2. Select the user you want and click **Value**. The Attributes For : *username* dialog box is displayed.
3. Select the attribute name that you want to change from the list.

   If you select `USERFLAGS`, a Browse button is displayed in the **Current Value** field. Clicking this displays the USERFLAGS Settings For: *user* dialog box, from which you can set the user’s forwarding permissions.

4. Type its new value in the **Current Value** field and press ENTER (or select an option if a list is offered).

   The new value is displayed in the list.

5. Change each attribute you want to change as shown.



6. When you are happy with the user's attributes click **OK**.

For more information about Attributes, see Managing Attributes.

Changing a User's Group Membership

To change the groups that a user is a member of, perform the following steps:

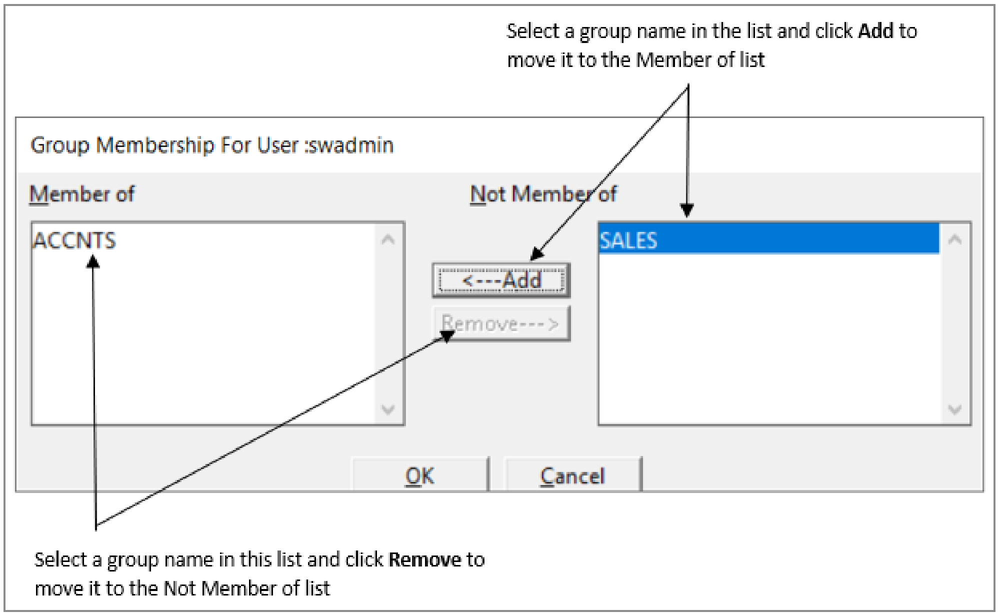
1. Click the **Users** or **Users/Groups** tab.

2. Select the user you want and click **Membership**.

   The Group Membership for User : *username* dialog box is displayed:.

   — Select a group name in the Not Member Of list and click **Add** to move it to the **Member Of** list.

— Select a group name in the Member Of list and click **Remove** to move it to the **Not Member Of** list.



3. When you are happy with the user's group memberships, click **OK**.

Note:
An iProcess user can have access to a maximum of *32,767* work queues. If this number is exceeded the user cannot log in to iProcess. Users can access personal, group and test queues, either directly or by supervision or participation.

For more information, see How Many Work Queues Can an iProcess User Access?

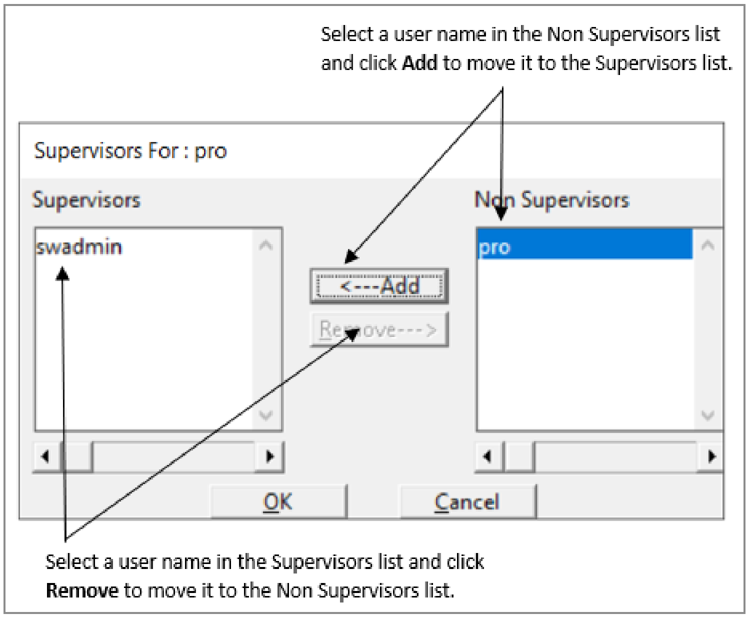
Changing a User's Supervisors

To change the list of users who can supervise this user's queue (the value of the user's `QSUPERVISORS` attribute.`QSUPERVISORS` attribute - see QSUPERVISORS):

1. Click the **Users** or **Users/Groups** tab.
2. Select the user you want and click **Supervisors**. The Supervisors For : *username* dialog box is displayed:.

— Select a user name in the Non Supervisors list and click **Add** to move it to the Supervisors list.

— Select a user name in the Supervisors list and click **Remove** to move it to the Non Supervisors list.



3. When you are happy with the user's supervisors, click **OK**.

Managing Groups

The **Groups** (or **Users/Groups)** tab displays the list of defined iProcess groups. From this tab, you can perform the following actions:

- Add, Copy, and Delete groups.
- Change the attribute values which are assigned to a group.
- Change the users that belong to a group.
- Change a group's supervisors.

Tip: You can use the **Sort By** options on the **Options** menu to sort the list of groups by name, by description or (**Users/Groups** tab only) by group membership.

Adding a New Group

To add a new group, perform the following steps:

1. Click the **Groups** or **Users/Groups** tab.
2. Click **Add** (or on **Add Group** in the Users/Groups tab).

   The Add New Group dialog box is displayed.
3. Enter the name of the new group (maximum of 24 characters) and click **OK**.

The group name is added to the list. The group initially has default attribute values and no members.

Copying a Group

You can also create new groups by copying. You may find this useful if, for example, you need to add several groups which have similar characteristics. You can add the first group, edit that group's attribute values and members as required, and then create the other groups by copying.

To copy a group, perform the following steps:

1. Select the group you want to copy.
2. Click **Edit > Copy**.

   The Copy To dialog box is displayed.
3. Enter a **Destination Name** to copy the group to.

The new group is added to the list with the same values and members as the original.

Deleting One or More Groups

To delete one or more groups, perform the following steps:

1. Click the **Groups** or **Users/Groups** tab.
2. Select the group(s) you want to delete and click **Delete**.
3. A dialog box is displayed prompting you for confirmation. Click **Yes**.

The selected group(s) are removed from the list.

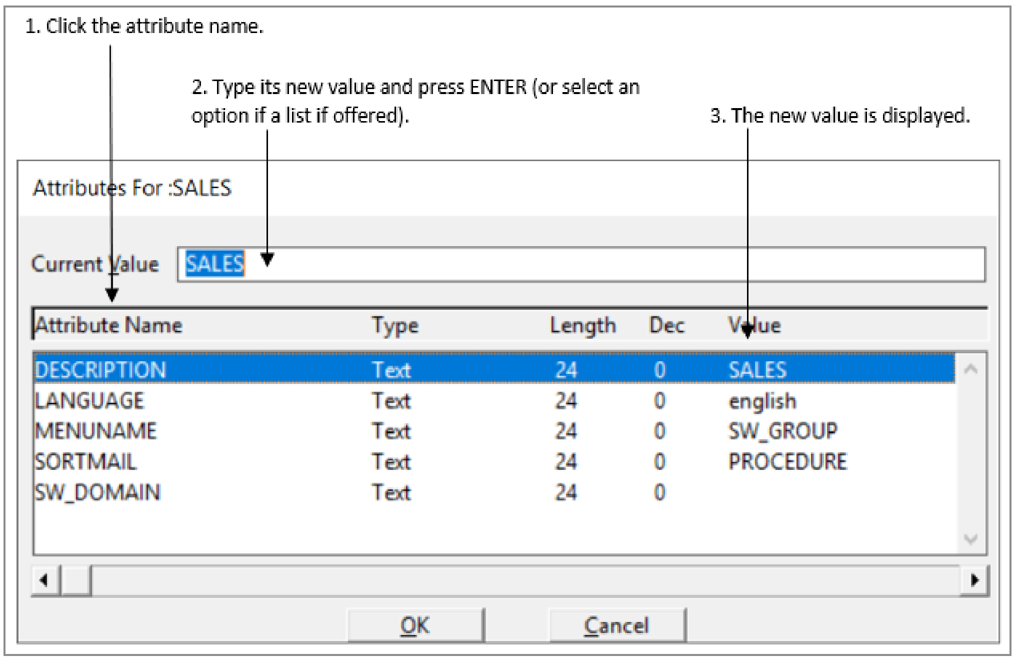
Changing a Group’s Attribute Values

Note: You cannot change the `MENUNAME` value for a group. It is always `SW_GROUP`.

To change a group’s attribute values (except for the `QSUPERVISORS attribute`), perform the following steps:

1. Click the **Groups** or **Users/Groups** tab.
2. Select the group you want and click **Value**. The Attributes For : *groupname* dialog box is displayed.
3. For each attribute you want to change:
   a. Click the attribute name in the list.
   b. Type its new value in the Current Value field and press ENTER (or select an option if a list is offered).

   The new value is displayed in the list.



4. When you are happy with the group’s attribute values, click **OK**.

For more information about Attributes, see Managing Attributes.

Changing a Group's Membership

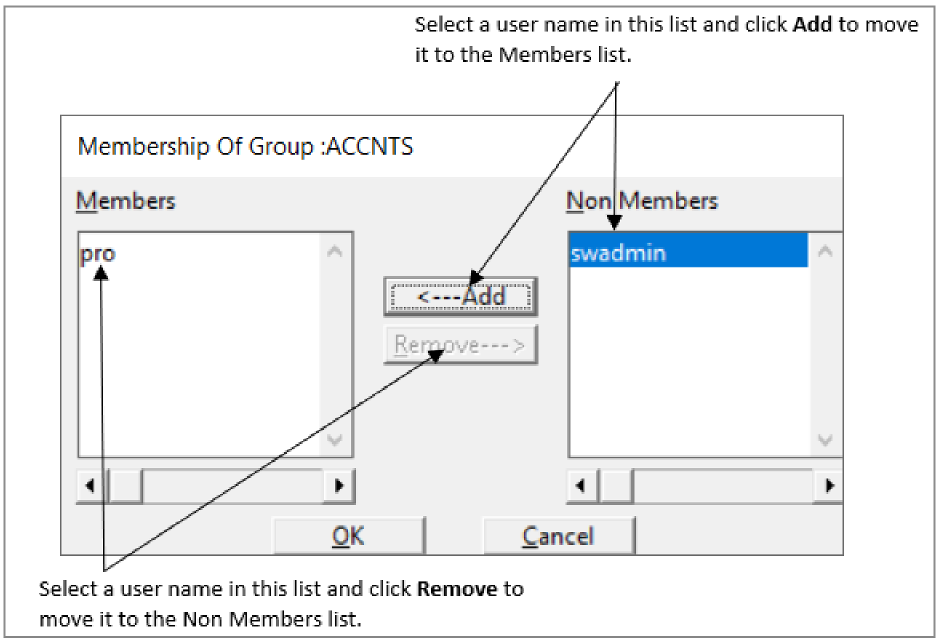
To change a group's membership, perform the following steps:

1. Click the **Groups** or **Users/Groups** tab.
2. Select the group you want and click **Membership**.

   The Membership Of Group: *groupname* dialog box is displayed:.

   — Select a user name in the **Non Members** list and click **Add** to move it to the Members list.

   — Select a user name in the **Members** list and click **Remove** to move it to the Non Members list.



3. When you are happy with the group's membership, click **OK**.

Note:
An iProcess user can have access to a maximum of *32,767* work queues. If this number is exceeded the user cannot log in to iProcess. Users can access personal, group and test queues, either directly or by supervision or participation.

For more information, see How Many Work Queues Can an iProcess User Access?

Changing a Group's Supervisors

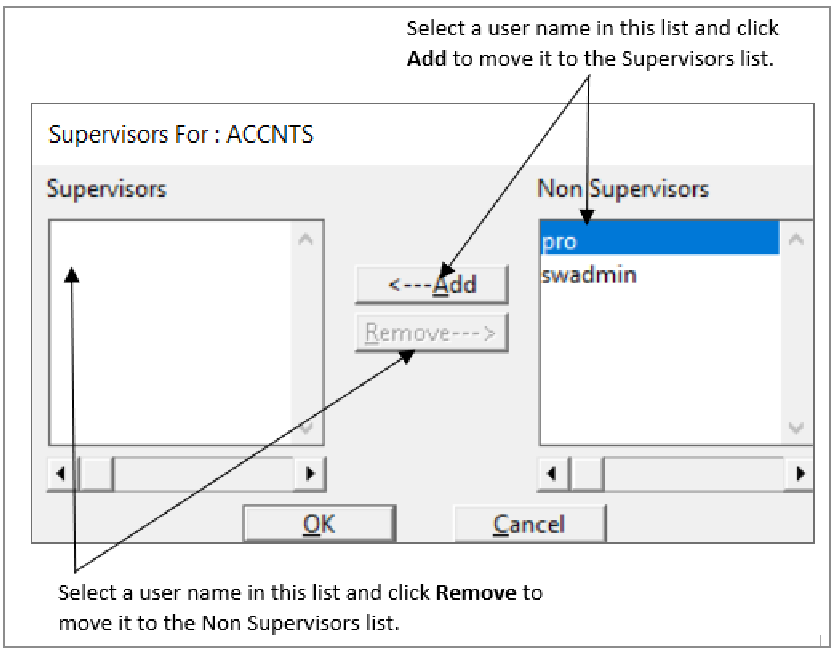
To change the list of who can supervise this group queue (the value of the group's QSUPERVISORS attribute), perform the following steps:

1. Click the **Groups** or **Users/Groups** tab.
2. Select the group you want and click **Supervisors**.

   The Supervisors For : *groupname* dialog box is displayed:.

   — Select a user name in the **Non Supervisors** list and click **Add** to move it to the Supervisors list.

   — Select a user name in the **Supervisors** list and click **Remove** to move it to the Non Supervisors list.



When you are happy with the group's supervisors, click **OK**.

Managing Roles

The **Roles** tab displays the list of defined iProcess roles and the users assigned to them. From this tab, you can perform the following actions:

- Add a New Role, Copy a Role, and Delete One or More Roles.

- Change the Role’s Assignment assigned to a role.

Adding a New Role

To add a new role:

1. Click the **Roles** tab.
2. Click **Add**.

   The Define New Role dialog is displayed.
3. Enter the name of the new role (up to a maximum of 15 characters).
4. Enter the name of an iProcess user to assign to this role.
5. Click **OK**.

The role is added to the list.

Copying a Role

You can also create new roles by copying. To copy a role, perform the following steps:

1. Click the role you want to copy.
2. Click **Edit > Copy**.

   The Copy To dialog box is displayed.
3. Enter a **Destination Name** to copy the role to.

The new role is added to the list with the same user assignment as the original.

Deleting One or More Roles

To delete one or more roles, perform the following steps:

1. Click the **Roles** tab.
2. Select the role(s) you want to delete and click **Delete**.
3. A dialog box is displayed prompting you for confirmation. Click **Yes**.

The selected role(s) are removed from the list.

Changing a Role's Assignment

To change the user who is assigned to a role or roles, perform the following steps:

1. Click the **Roles** tab.
2. Select the role(s) you want to change the assignment for and click **Change User**.

   The Set User for Role : *rolename* dialog box is displayed.
3. Enter the new iProcess username that you want to assign to the selected role(s) and click **OK**.

Managing Attributes

The **Attributes** tab displays the list of defined iProcess About iProcess Attributes . From this tab, you can perform the following actions:

- Add, copy, and delete attributes.
- Set User values for an attribute.

About iProcess Attributes

You can define attributes to represent any organizational identifier you want, such as employee number, purchasing authority and so on.

In addition, iProcess provides a number of system attributes for specific purposes:

- The following attributes are pre-defined for each iProcess user: `DESCRIPTION`, `LANGUAGE`, `MENUNAME`, `QSUPERVISORS`, `SORTMAIL`, `SW_DOMAIN`, and `USERFLAGS`. You can change the values of these attributes if you wish, but you cannot delete or modify them. For more information, see Setting Pre-defined Attributes.
- The following attributes are not pre-defined, but you can define them for users as you must.

Attribute	Purpose
Setting Work Queue Field	Provide Work Queue Manager users with

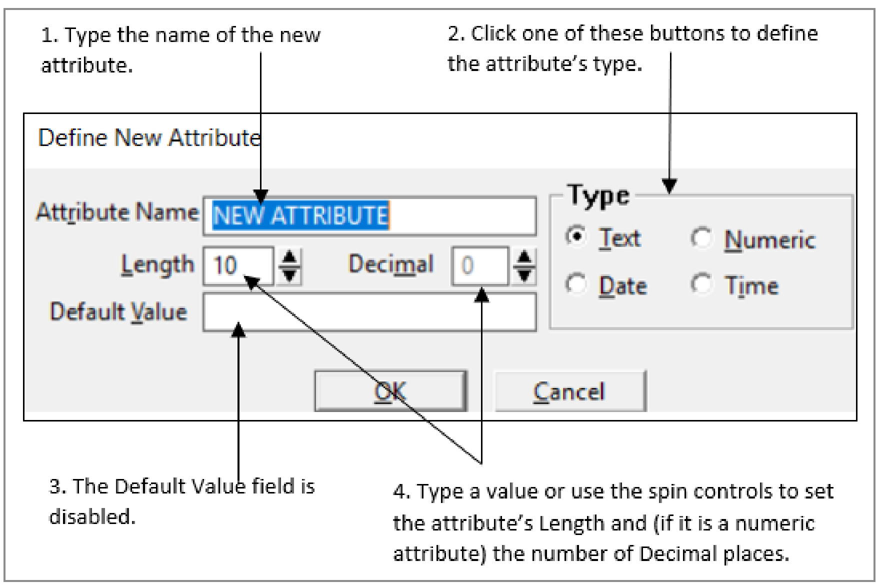
Attribute	Purpose
Identifiers	SW_QPARAM*n*.
Setting Urgent Priority Thresholds URGENTPRIORITY	Set the priority at which work items are marked as urgent in Work Queue Manager.
Defining When a Work Queue is Cached by the WIS Process WISCACHE	Determine when individual queues are cached by their controlling WIS processes.

Adding a New Attribute

To add a new attribute, perform the following steps:

1. Click the **Attributes** tab.
2. Click **Add**.

   The Add New Attribute dialog box is displayed.



3. Type the name of the new attribute in the **Attribute Name** field.

> **Note:** Do not create attribute names that end in the string _*XX*, where *XX* is a two digit number. This string is reserved for internal use by the iProcess Engine.

4. Click one of the **Type** buttons to define the attribute’s type.
5. Type a value or use the spin controls to set the attribute’s Length and (if it is a numeric attribute) the number of Decimal places.

   Attribute Length and Decimal values must be within the following limits:

Type	Length	Decimal
Text	1-255	0
Numeric	1-18	0-*n*, where *n* is Length -2, up to a maximum of 8 characters
Date	10	0
Time	5	0

6. Type a **Default Value** for the attribute. You can leave this field blank (no default value).
7. Click **OK** when you have finished. The new attribute is added to the list.

Note: The maximum length of the name of an attribute is 15 characters, except for attributes with a length of 25 or more, in which case the name cannot be more than 12 characters. (For consistency, you are recommended to use attribute names of 12 characters or less.)

Tip: You can also create new attributes by copying - select an attribute to copy, click **Edit > Copy** and enter the new attribute name. The new attribute is added to the list. No user values are set.

Deleting One or More Attributes

Note: You cannot delete the iProcess system attributes `DESCRIPTION`, `MENUNAME`, `SORTMAIL`, `LANGUAGE`, `QSUPERVISORS`, or `USERFLAGS`.

To delete one or more attributes, perform the following steps:

1. Click the **Attributes** tab.
2. Select the attribute(s) you want to delete and click **Delete**.
3. A dialog box is displayed prompting you for confirmation. Click **Yes**.

The selected attribute(s) are removed from the list.

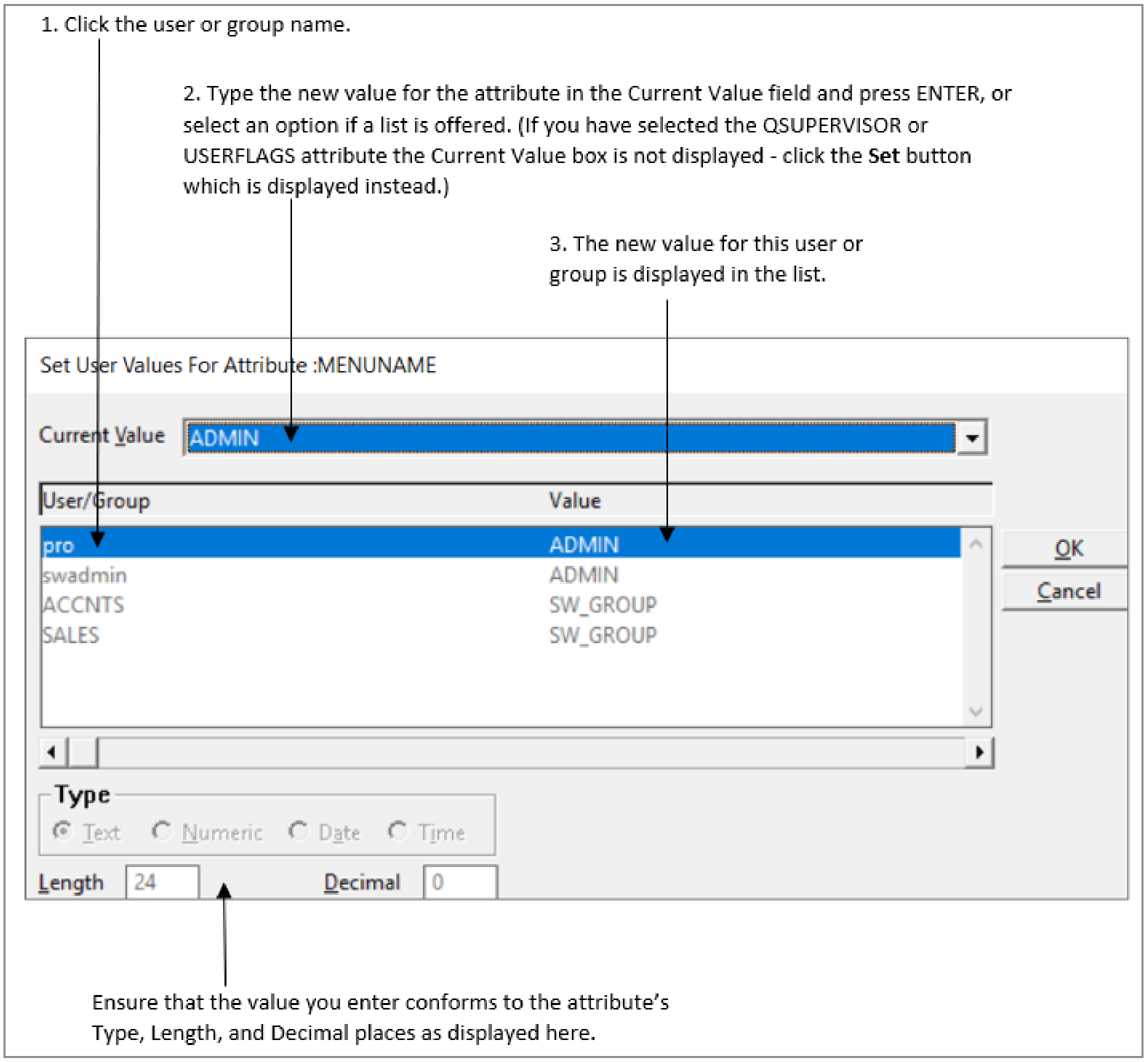
Setting User Values for an Attribute

To set user values for an attribute, perform the following steps:

1. Click the **Attributes** tab.
2. Select the attribute you want and click **Value**.

   The Set User Values For Attribute : *name* dialog box is displayed.
3. Change the value of the attribute for each user or group that you want to:.
   a. Click the user or group name in the list.
   b. Type the new value for the attribute in the Current Value field and press ENTER, or select an option if a list is offered. (If you have selected the `QSUPERVISOR` or `USERFLAGS` attribute the **Current Value** box is not displayed - click the **Set** button which is displayed instead.)
   c. Ensure that the value you enter conforms to the attribute’s **Type**, **Length**, and **Decimal** places as displayed.

   The new value for this user or group is displayed in the list.



4. When you are happy with these attribute values, click **OK**.

Setting Pre-defined Attributes

The following attributes are pre-defined for every iProcess user. You can change the value of these attributes, but you cannot delete or modify the attributes themselves.

Attribute	Description
DESCRIPTION	A longer version of the user name or some other descriptive text. Values for this attribute need not be unique.

Attribute	Description
	Note: You cannot change the value of this attribute for the iProcess Administrator user.
LANGUAGE	Defines the user's current language (for example, English or French) for screen messages and menus.
MENUNAME	Determines what tools are available to an iProcess user. Each user must have one of the following values: • USER for ordinary users. The user can access work queues and start cases. This is the default value. • MANAGER for managers and supervisors. The user can access work queues, start cases and perform case administration. • PRODEF for procedure definers. The user can access work queues, start cases, perform case administration and define iProcess procedures. • ADMIN for system administrators. The user has access to all iProcess tools. **Note:** You cannot change the value of this attribute for the iProcess Administrator user.
QSUPERVISORS	Identifies the users who are allowed to supervise a queue. (Supervisors can give other users access to the queue and redirect work items to a different queue. See "Managing Participant Records" in *TIBCO iProcess Workspace (Windows) User's Guide* for more information.) See Changing a User's Supervisors.
SORTMAIL	Determines the sequence in which work items will be displayed in the user's work queues. Each user must have one of the following values: • PROCEDURE Work items appear in Case Reference number sequence. (This is the default.) • ASCENDING ARRIVAL Work items are listed in their arrival

Attribute	Description
	sequence; that is oldest followed by newest. • DESCENDING ARRIVAL Work items are listed in their reverse arrival sequence; that is, newest followed by oldest. • ASCENDING DEADLINE Work items with deadlines (expired, first to expire, last to expire) followed by Work items with no deadlines. • DESCENDING DEADLINE Work items with no deadlines followed by Work items with deadlines (last to expire, first to expire, expired).
SW_DOMAIN	Defines the location where a user's password should be validated when they log on to the iProcess Engine server. See Defining Where a User's Password Should be Validated.
USERFLAGS	Determines what work items the user is allowed to forward in Work Queue Manager. Each user must have one of the following values: • Step Forward The user is allowed to forward a work item only if the step's Forward permission has been set by the procedure definer. • Forward None The user is not allowed to forward any work item, even if the step's Forward permission has been set by the procedure definer. • Forward Any The user is allowed to forward any work item, even if the step's Forward permission has not been set by the procedure definer. See Changing a User's Attribute Values.

Setting Work Queue Field Identifiers

iProcess provides four work queue fields SW_QPARAM*n* (where *n* is 1 to 4), which procedure definers can use to define application specific data in procedures, and to make that data available to users in Work Queue Manager.

By default, in Work Queue Manager, these work queue fields are referred to in column headings and dialog boxes using the identifier WQ Parameter*n*. You can redefine these identifiers to make them more meaningful to users using the attributes `QPARAMn_DESC`.

For example, a company has a mortgage application procedure which uses the `SW_QPARAM1` field to store Customer Name. To ensure that all users with access to this procedure see this data with the `Customer Name` identifier rather than `WQ Parameter1`, you must perform the following steps:

1. Define the `QPARAM1_DESC` attribute.
2. Give `QPARAM1_DESC` the value `Customer Name` for all users and groups who have access to the procedure.

For more information about the use of work queue fields, see "Using Work Queue Parameters Fields" in *TIBCO iProcess Modeler Advanced Design*.

Tip: You can also redefine the default WQ Parameter*n* identifiers, which are defined in message `0043` of the *SWDIR*`\etc\language.lng\staff.mes` file. The four identifiers are separated by ‘\’ characters in this message.

Setting Urgent Priority Thresholds

In Work Queue Manager, work items with a priority value lower than a defined threshold value (10 by default) are marked as urgent.

You can define the `URGENTPRIORITY` attribute to set this threshold value as required for individual queues:

1. Define the `URGENTPRIORITY` attribute.
2. Set `URGENTPRIORITY` to whatever value you want to use as the urgent threshold for each user or group queue.

Note: If you set or change the value of the `URGENTPRIORITY` attribute, you need to restart the iProcess Engine before the new value takes effect.

For more information about work item priorities, see "Using Work Item Priorities and Escalation" in *TIBCO iProcess Modeler Advanced Design*.

Tip: You can also redefine the default priority value for urgent work items for all queues by editing the WQS_URGENTPRIORITY entry in the WQS section of the *SWDIR*\etc\staffcfg file. See "Tuning the iProcess Engine Using staffcfg Parameters" in *TIBCO iProcess Engine Administrator's Guide*.

Defining When a Work Queue is Cached by the WIS Process

You can define the WISCACHE attribute to determine when individual queues are cached by their controlling WIS processes. To do this, perform the following steps:

1. Define the WISCACHE attribute. This should have a Type of Text, with a Length of 4.
2. Set WISCACHE to 1 for each queue that you want to be cached when its controlling WIS process starts up.

For more information about how to control when work queues are cached, see "Configuring When WIS Processes Cache Their Queues" in *TIBCO iProcess Engine Administrator's Guide*.

Defining Where a User's Password Should be Validated

You can use the SW_DOMAIN attribute to define the machine or domain where a user's password should be validated when they try to log in to iProcess Engine.

When a user logs in to iProcess Engine that:

- is running on a Windows machine that is either a member of a domain or a domain controller, *and*
- has password checking on login enabled,

iProcess Engine uses a search path to determine the machine or domain it should use to validate the user's password. See the description of the LOGON_OS_LOCATION process attribute in the "Administering Process Attributes" section of *TIBCO iProcess Engine Administrator's Guide* for more information about this search path.

If you set the SW_DOMAIN attribute for a user, iProcess Engine uses the SW_DOMAIN location instead of the location defined in the search path.

You should set SW_DOMAIN for a user if you cannot guarantee that the iProcess Engine server's search path will return the correct location to validate the user's password against. For example, if user accounts with the same name exist in two or more trusted domains, you cannot guarantee which domain iProcess Engine will check first, and so pick the account information from. Consequently, a user's login attempt may fail because the password is validated against the wrong domain account.

Set a user's SW_DOMAIN value to the name of the machine or domain that you want iProcess Engine to use when validating the user's password.

Importing and Exporting User Data

You can use User Manager to export and import user data in Control File format. (See "The CDQP Control File" in *TIBCO iProcess swutil and swbatch Reference Guide* for more information about Control File format.)

Note:

- You must be logged in as an i Process Administrator user to be able to import or export user data.
- User data is exported directly from and imported directly to iProcess's working data area (*SWDIR*\sysinfo). Consequently, you should make sure that the contents of the temporary data area (*SWDIR*\tsys) are synchronized with the contents of the working data area *before* you export or import user data. This prevents the possibility of user data being lost or overwritten.

Tip: You can check this by looking at the Changed Since Last Move SysInfo column in the Move System Information dialog. See Moving System Information.

If you do attempt to import or export user data when the working and data areas are not synchronized, a warning dialog is displayed, advising you to perform a Move SysInfo.

To import or export user data, use the following buttons:

Button	Description
	To export the set of users, groups and attributes defined in iProcess's working data area (the *SWDIR*`\sysinfo` directory) to an external file.
	To import the set of users, groups and attributes defined in an external file to iProcess's working data area (the *SWDIR*`\sysinfo` directory). **Note:** The attribute names to be imported cannot end in the string _*XX*, where *XX* is a two digit number. This string is reserved for internal use by the iProcess Engine.
	To export the set of roles defined in iProcess's working data area (the *SWDIR*`\sysinfo` directory) to an external file.
	To import the set of roles defined in an external file to iProcess's working data area (the *SWDIR*`\sysinfo` directory).

Managing iProcess Lists

The List Manager tool enables you to create and maintain iProcess lists. Lists are simply sets of values which procedure definers can use as a shortcut for validating fields.

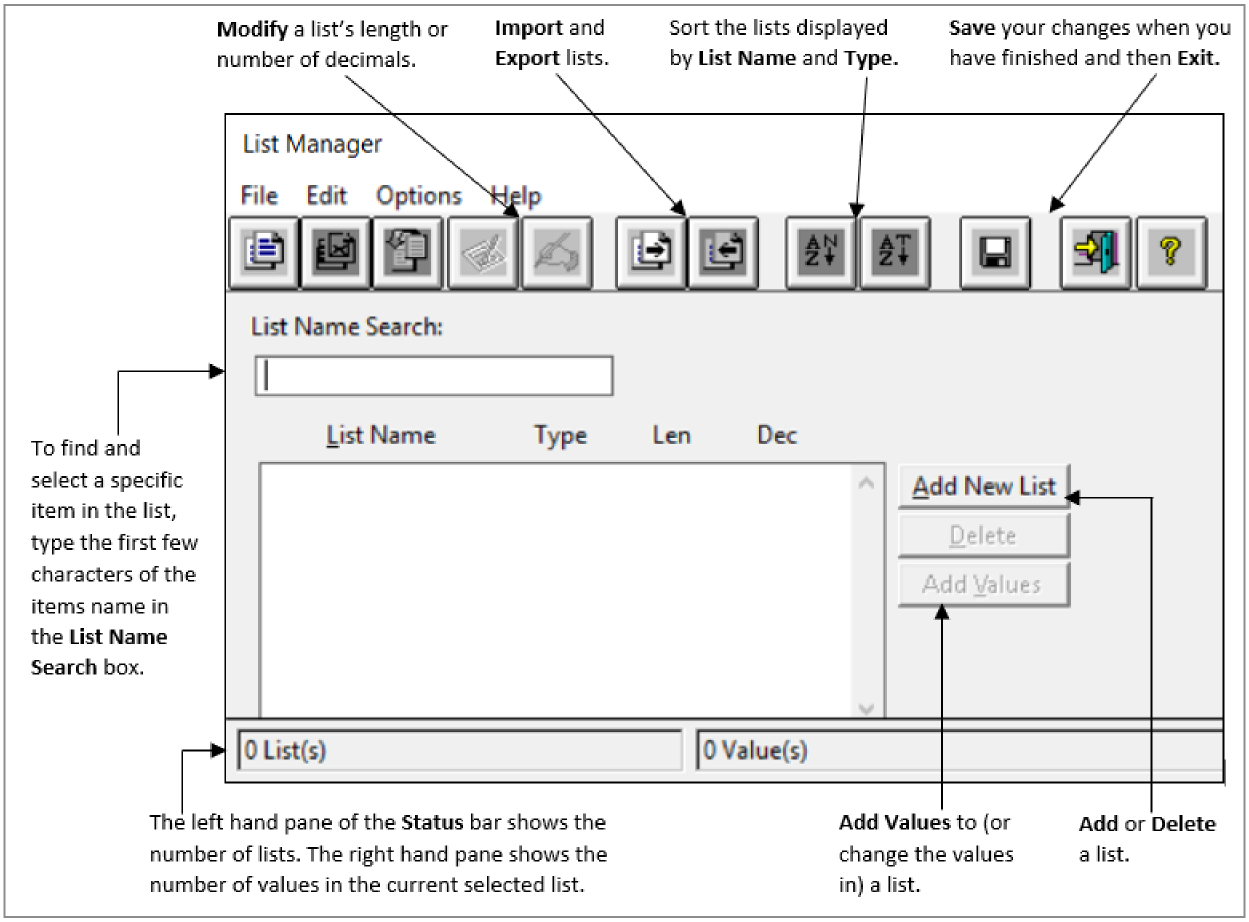
This section describes how to use the List Manager to perform the following tasks.

Starting List Manager

Double-click the **List Manager** icon in the main TIBCO iProcess Administrator window.

The List Manager window is displayed. Figure 1, How to Use List Manager outlines how you can use the window to create and maintain lists.

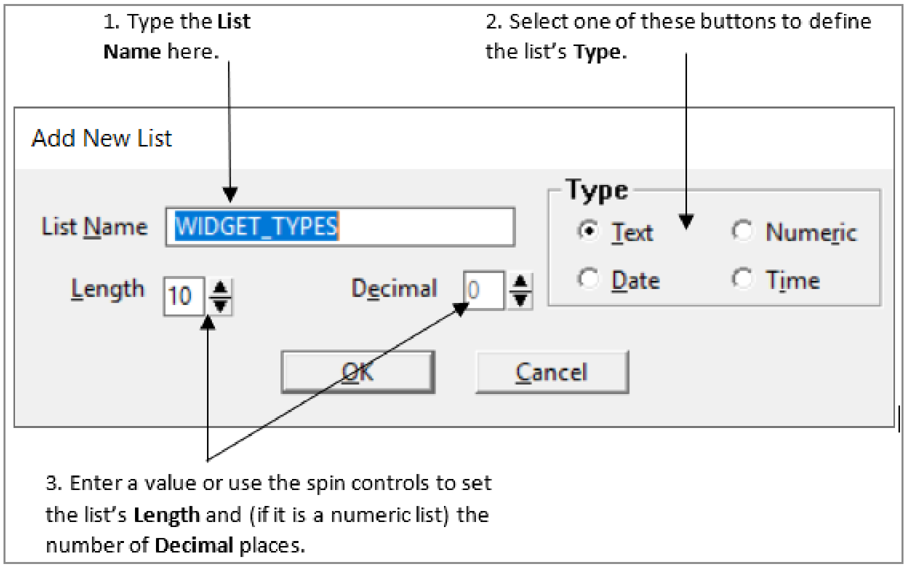
Figure 2: How to Use List Manager



Creating a New List

To create a new list, perform the following steps:

1. Click **Add New List**. The Add New List dialog box is displayed.



2. Type the name of the list in the **List Name** field.
3. Select one of the **Type** buttons to define the list's type.
4. Enter a value or use the spin controls to set the list's Length and (if it is a numeric list) the number of Decimal places.

   List Length and Decimal values must be within the following limits:

Type	Length	Decimal
Text	1-30	0
Numeric	1-18	0-*n*, where *n* is Length -2
Date	10	0
Time	5	0

5. Click **OK** when you have finished. The new list is added to the display. You can now add values to it. See Changing Values in a List.

Modifying a List

You can modify a list's length or number of decimal places (if appropriate) at any time. To do this, perform the following steps:

1. Select the list you want to modify and click .

   The Edit List Attribute dialog is displayed. This dialog is identical to the Add New List dialog described earlier, except that you cannot change the list type.

2. Change the list length or number of decimal places as required, then click **OK**.

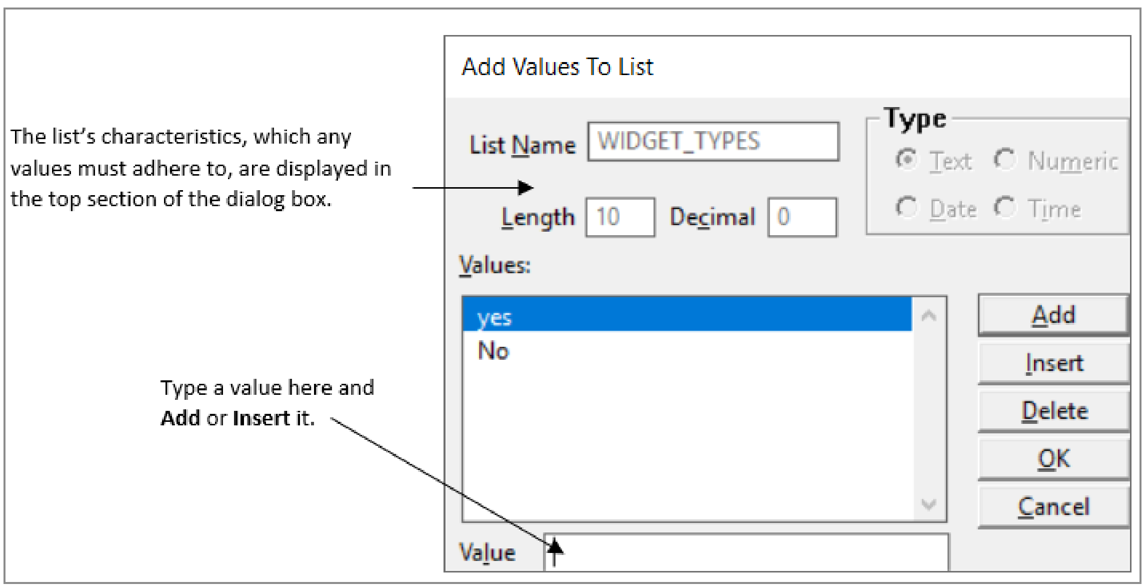
> **Note:** You must log out and log back in again to TIBCO iProcess Workspace (Windows) before the changes you have made to the list are visible.

Changing Values in a List

When you have created a list you can add values to it and delete values from it:

1. Select the list you want to change and click **Add Values**. The Add Values To List dialog box is displayed.

   The list's characteristics, which any values must adhere to, are displayed in the top section of the dialog box.



   If you want:

   — to add a value to the end of the list, type the value in the Value field and click **Add**. The value is added to the end of the list.

- to insert a value into the list after a particular value, select the value. Then type the value in the Value field and click **Insert**. The new value is inserted after the selected value.
- to delete a value, select it and then click **Delete**. The value is removed from the list.

Tip: If you want to change a value you must delete it first, and then add or insert it again.

2. Click **OK** when you have finished.

Note: You must log out and log back in again to TIBCO iProcess Workspace (Windows) before the changes you have made to the list are visible.

Deleting a List

To delete a list, perform the following steps:

1. Select the list you want to delete.
2. Click **Delete**.

The list is removed from the display.

Importing and Exporting Lists

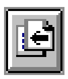
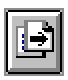
You can use List Manager to export and import iProcess lists.

Lists are exported directly from and imported directly to iProcess's working data area (*SWDIR*`\sysinfo`). Consequently, you should make sure that the contents of the temporary data area (*SWDIR*`\tsys`) are synchronized with the contents of the working data area *before* you export or import lists. This prevents the possibility of lists being lost or overwritten.

Tip: You can check this by looking at the Changed Since Last Move SysInfo column in the Move System Information dialog. See Moving System Information.

If you do attempt to import or export lists when the working and data areas are not synchronized, a warning dialog is displayed, advising you to perform a Move SysInfo.

To import or export tables, use the following buttons:

Button	Description
	To export the lists defined in iProcess's working data area (the *SWDIR*`\sysinfo` directory) to an external file.
	To import the lists defined in an external file to iProcess's working data area (the *SWDIR*`\sysinfo` directory).

Note: You must log out and log back in again to TIBCO iProcess Workspace (Windows) before the list are visible.

Copying Lists

You can also create a new list by copying an existing one:

1. Select the list you want to copy and click .
2. Enter a new list name to copy the information to.

The new list is added to the list with the same characteristics and values as the original.

Managing iProcess Tables

This section describes how to use Table Manager to create and maintain iProcess tables.

> **Note:** iProcess tables should not be confused with database tables that are used for storing iProcess data.

iProcess Tables

iProcess uses tables as a way to store commonly used information for easy retrieval by procedure users. A single table record can contain a multitude of associated fields, all of which have values that can automatically be entered into form fields.

There are two aspects of a table: the table structure and the table values. The table structure defines what kind of values the table can hold by specifying the number, name, type, and length of its fields. For example, a table structure called `NAMEADDRESS` might be defined as follows:

Field Name	Type	Length
`NAME`	Text	30
`STREET`	Text	30
`CITY`	Text	30
`COUNTY`	Text	10
`POST`	Text	9

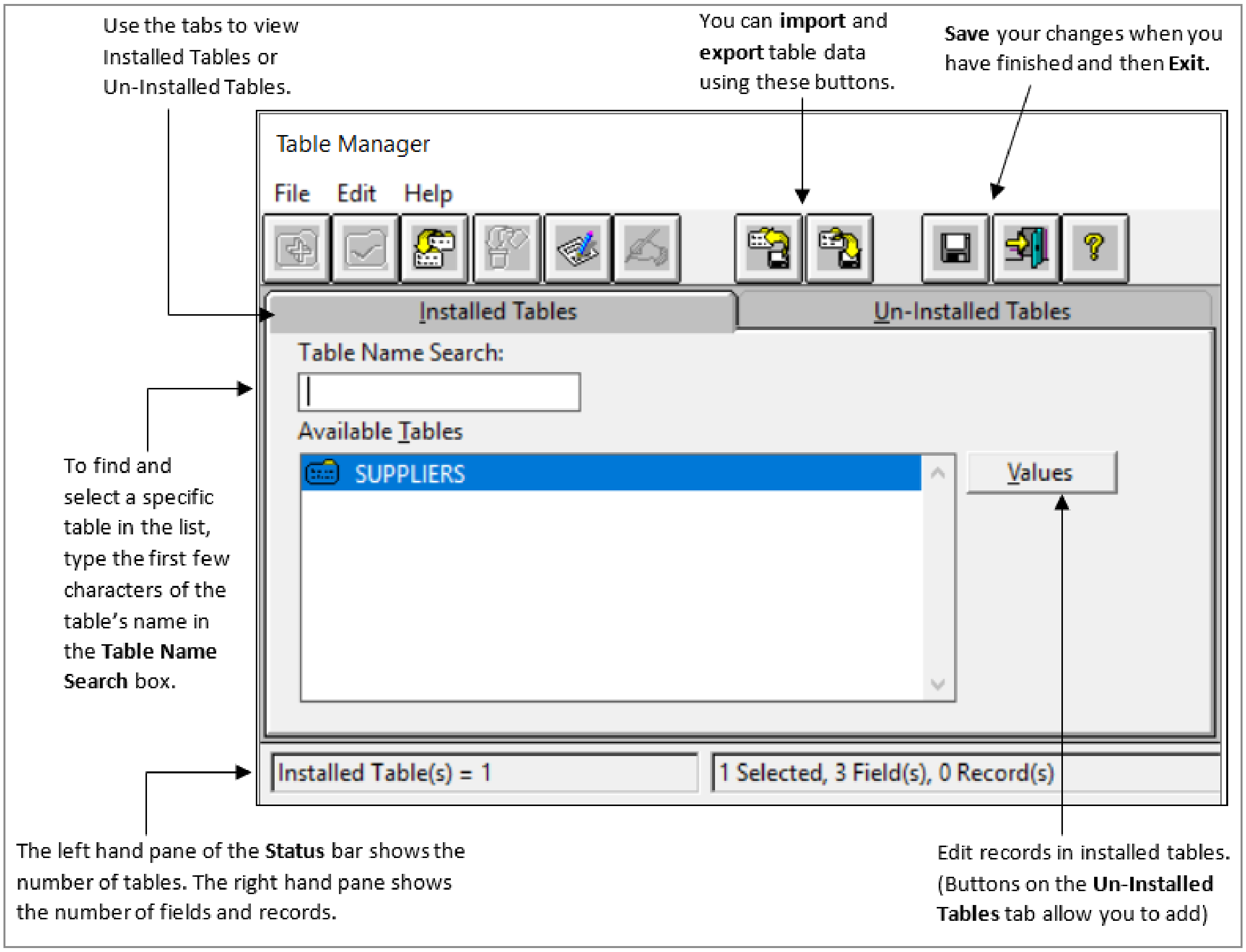
The first field name in the structure is the *key* field, which is used to differentiate records uniquely in the table. In the previous example, `NAME` is a better selection for key field than `POST`, because many companies or individuals are likely to have the same postal code but few are likely to have exactly the same name.

Starting Table Manager

To start Table Manager, double-click the **Table Manager** icon in the main TIBCO iProcess Administrator window.

The Table Manager window is displayed. How to Use Table Manager outlines how you use the window to work with iProcess tables.

Figure 3: How to Use Table Manager



Creating a Table

To create an iProcess table and make it available for use by procedure definers and users you must:

1. Create the table structure. See Creating a New Table Structure.

2. Install the table. See Installing a Table.

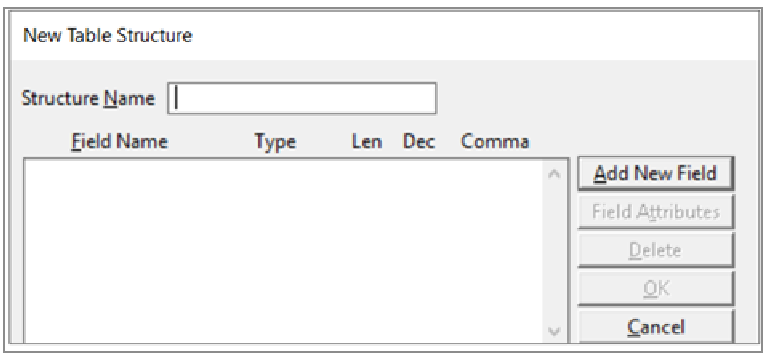
Note: Before installing a table you *must* make certain that the structure is correct, because once a table has been installed its structure cannot be modified or deleted.

3. Add data records to the table. See Modifying a Table Structure.

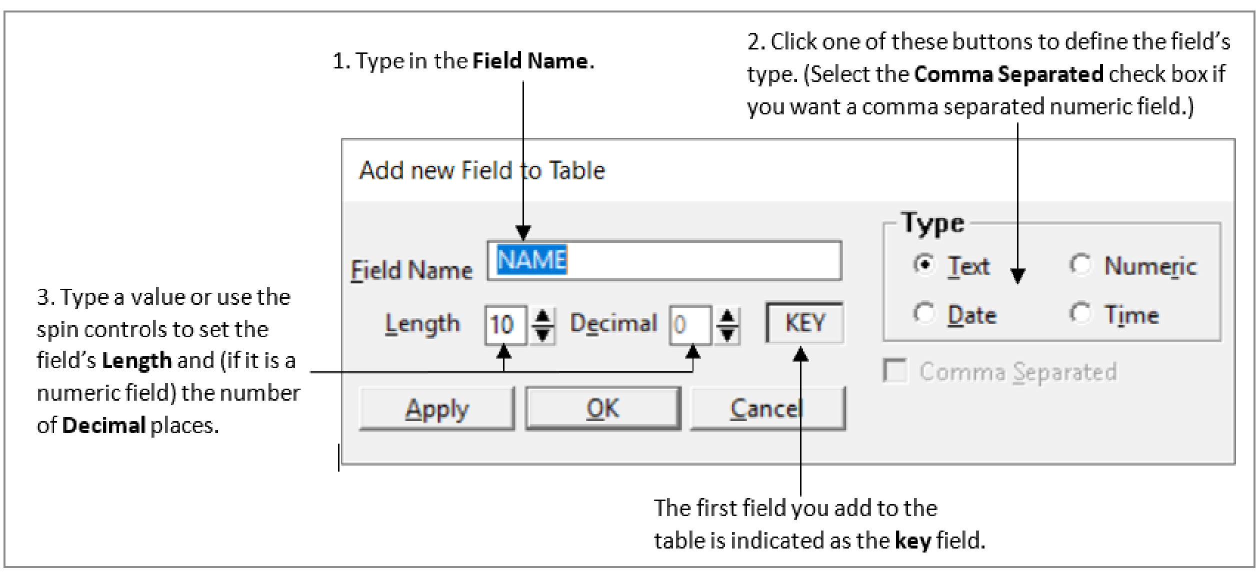
Creating a New Table Structure

To create a new table structure, perform the following steps:

1. Click the **Un-installed Tables** tab.
2. Click **Add**. The New Table Structure dialog box is displayed.



3. Click **Add New Field**. The Add New Field To Table dialog box is displayed.



4. Type in the **Field Name**.

> **Note:** The first field you add to the table is indicated as the **key** field.

5. Click one of the **Type** buttons to define the field's type. (Select the **Comma Separated** box if you want a comma separated numeric field.)
6. Type a value or use the spin controls to set the field's Length and (if it is a numeric field) the number of Decimal places.

   Field Length and Decimal values must be within the following limits:

Type	Length	Decimal
`Text`	1-30	0
`Numeric`	1-18	0-*n*, where *n* is Length -2
`Date`	10	0
`Time`	5	0

7. Define the field as required. Then:
   — if you want to define another field, click **Apply**. The dialog box is cleared, allowing you to define another field.
   — if this is the last field you want to define, click **OK**. You are returned to the New Table Structure dialog box, which shows all the fields you have defined.
8. Click **OK**. The new table structure is displayed in the list of Un-Installed Tables.

Installing a Table

You must install a table to make it available to procedure definers and users:

1. Select the table structure(s) you wish to install.

Tip: Click **Modify** to review a table structure you are about to install and make sure that it is correct. If you want to change anything see Modifying a Table Structure for more information. You cannot use Table Manager to modify or delete a table structure once you have installed it.

2. Click **Install**.

The table(s) are moved from the Un-installed Tables list to the Installed Tables list. You can now add records to the table(s). See Modifying Data in Installed Tables.

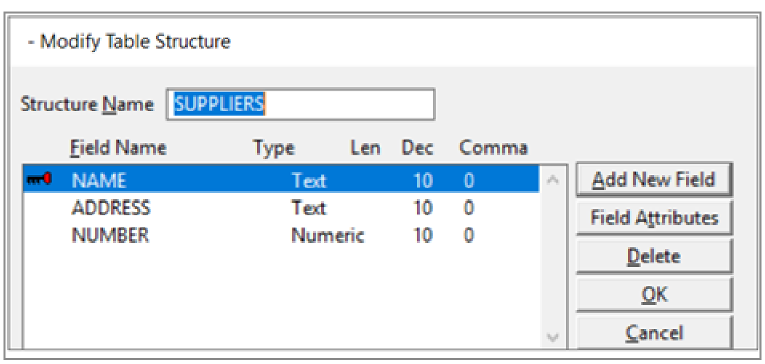
Note:
The table(s) are not actually installed until you **Save** your changes (see Starting Table Manager). You can, therefore, still abandon the installation by clicking **Exit** from Table Manager without saving. If you do this, however, you will lose all the changes you made in this Table Manager session.

You cannot modify or delete a table structure once you have installed the table.

Modifying a Table Structure

To modify a table structure, perform the following steps:

1. Click the **Un-installed Tables** tab.
2. Select the table structure you wish to modify.
3. Click **Modify**. The Modify Table Structure dialog box is displayed, showing the details of the fields which are currently defined.



If you want:

- — Creating a New Table Structure (see Creating a New Table Structure) is displayed.
- — to redefine the attributes of a particular field, select it and then click **Field Attributes**. The Edit Table Field dialog is displayed, which you use in the same way as the Add New Field To Table dialog (see Creating a New Table Structure).
- — to delete a field, select it and then click **Delete**. The field is removed from the list.

4. Click **OK** when you are happy with the table structure.

Deleting a Table Structure

To delete a table structure, perform the following steps:

1. Click the **Un-installed Tables** tab.
2. Select the table structure(s) you want to delete.
3. Click **Delete**.

The table(s) are removed from the list of tables.

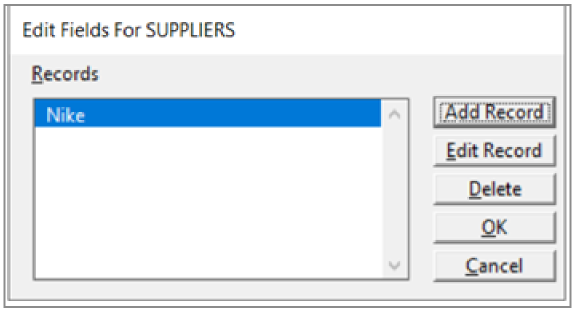
Note: You can only delete an Un-installed table in this way. (To delete an installed table you must use the `swutil` utility, which is described in *TIBCO iProcess Engine Administrator's Guide*.)

Modifying Data in Installed Tables

Once you have installed a table you can Adding Records to a Table to it, or Editing or Deleting a Record. You cannot delete the table or modify its structure.

Adding Records to a Table

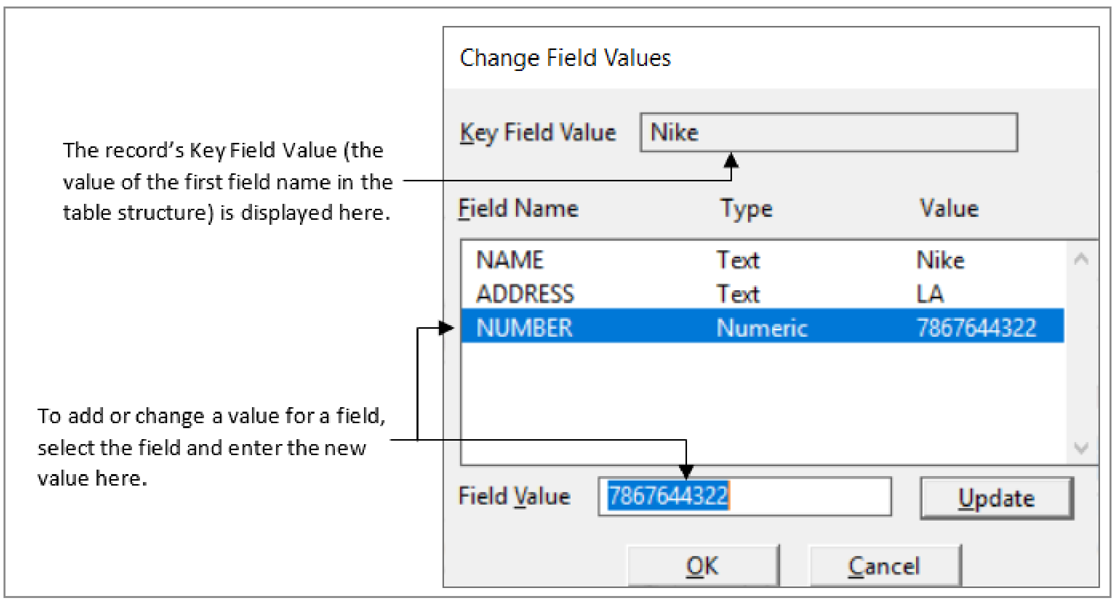
1. Click the **Installed Tables** tab.
2. Select the table you want to add a record to and click **Values**. The **Edit Fields For** *Tablename* dialog box is displayed.



3. Click **Add Record**. The **Change Field Values** dialog box is displayed.

   The record's Key Field Value (the value of the first field name in the table structure) is displayed in the **Field Value** field.

   To add or change a value for a field, select the field in the list, then enter the new value in the Field Value field.



4. Click **OK** when you have finished entering field values for this record.
5. The Edit Fields For *Tablename* dialog box is displayed, showing the key field value of the record you have added.

   Click **OK** when you have finished.

Editing or Deleting a Record

Once a table is installed you can edit or delete its records:

1. Select the table you want to work on and click **Values**.

2. The Edit Fields For *Tablename* dialog is displayed, showing the key field value of each record currently defined (if any) for this table. If you want:
   - to edit a record, select it and click **Edit Record**.The Change Field Values dialog is displayed. Edit the record’s field values as required.
   - to delete a record, select it and click **Delete**. The record is removed from the list.
3. Click **OK** when you have finished.

Importing and Exporting Tables

You can use Table Manager to export and import iProcess tables.

Tables are exported directly from and imported directly to iProcess’s working data area (*SWDIR*`\sysinfo`). Consequently, you should make sure that the contents of the temporary data area (*SWDIR*`\tsys`) are synchronized with the contents of the working data area *before* you export or import tables. This prevents the possibility of tables being lost or overwritten.

> **Tip:** You can check this by looking at the Changed Since Last Move SysInfo column in the Move System Information dialog. See Moving System Information.

If you do attempt to import or export tables when the working and data areas are not synchronized, a warning dialog is displayed, advising you to perform a Move SysInfo.

To import or export tables, use the following buttons:

Button	Description
	To export the tables defined in iProcess’s working data area (the *SWDIR*`\sysinfo` directory) to an external file.
	To import the tables defined in an external file to iProcess’s working data area (the *SWDIR*`\sysinfo` directory).

Copying Tables

Note: Before copying an installed table, make certain that it has the exact structure you need, because you will not be able to use Table Manager to change or delete it after you have copied it. (To delete an installed table you must use the `swutil` utility, which is described in *TIBCO iProcess Engine Administrator’s Guide*.)

You can also create a new table by copying an existing one:

1. Select the table you want to copy and click . The Table Copy dialog is displayed.

   Enter a new **Table Name** to copy the information to.

If you are copying:

- an *un-installed* table, the new table is added to the Un-installed Tables list. The new table has the same structure as the original table.
- an *installed* table, the Copy Installed Table As *name* dialog is displayed. You can choose whether to copy the whole table or just the table structure:
  - Click **OK** to copy the whole table. The new table is added to the Installed Tables list, with the same status, structure and data as the original.
  - Click **Structure** to copy *only* the table structure. The new table is added to the Un-installed Tables list, with the same structure as the original table.

Note: If you copy an installed table which has no records it is automatically copied as a table structure and added to the **Un-installed Tables** list.

Reporting on Case Data

You can create a report on iProcess case data and then view the report using a third party data viewer application (or any program that can read CSV files). iProcess provides the Executive Information System (EIS) components so that you can create a case data report, which you can view in a third-party EIS viewer.

iProcess EIS Components

iProcess EIS include the following components:

- iProcess Case Data Extraction utility *SWDIR*`\util\swcdata`,
- EIS Report object(s) in a procedure definition,
- EIS Report tool(s) in a user's Tools window or Work Queue Manager,
- Third-party EIS Data Viewer (editor), and
- Third-party EIS Data Viewer (runtime).

Defining an iProcess EIS Report

To define an EIS report, perform the following steps:

1. Run some test cases on the procedure.
2. Edit the procedure with TIBCO iProcess Modeler and create an EIS Report object which determines the CSV file format and contents.

> **Note:** The next three steps may be done from within the EIS Report Object dialog.

3. Create a test CSV file.
4. Run the EIS Data Viewer (editor) to create the report format.

5. Run the EIS Data Viewer (runtime) to test the report.
6. Save the procedure.

   A procedure may have any number of EIS Report objects, producing different reports.
7. Ensure that the *SWDIR*`\etc\`*language*`.lng\staffico` file on the server contains the relevant entries (SWEIS).

Running an iProcess EIS Report

1. Ensure that an up-to-date version of the CSV file has been extracted with the iProcess Engine's *SWDIR*`\util\swcdata` utility. See EIS Case Data Extraction Utility.

   This may be done manually, or automatically as a batch job, for example overnight.
2. Log into iProcess and choose the EIS Reports tool (or one for a specific report if available) from Work Queue Manager or from the Tools window.
3. Choose the **Procedure** and **Report** from the dialog box if required.
4. View the report in EIS Data Viewer.

EIS Case Data Extraction Utility

This utility (*SWDIR*`\util\swcdata`) runs on the server to extract case data and then puts it into a CSV file, which can be viewed by any data viewer capable of reading CSV files. The data to be extracted, and the format to be output, may be defined in one of two ways:

- an EIS Report object created in the TIBCO iProcess Modeler window. This is the easiest way, and the report can then be run from the client Work Queue manager or Tools window.
- an ASCII command file created on the Server. See EIS Command File. This enables a system integrator to specify the extraction criteria without requiring access to iProcess Modeler. The CSV file can then be picked up by the data viewer to display the report.

Note: The extraction utility can be run automatically as a batch job, for example overnight, or manually. Also single cases or ranges of cases can be appended to an existing CSV file: see the following sections.

The `swcdata` command lines are as follows.

Only iProcess users with Case Administration access permission for the procedure (See "Controlling Access to Libraries and Procedures" in *TIBCO iProcess Modeler Procedure Management*), and the Procedure Owner and the System Administrator, can run this utility.

Command Line

To extract case data using an EIS Report object:

```
swcdata [ -L logfile ] [ -T locktimeout ]
-E procname EISobject [ fromcase-tocase ]
```

To extract case data using a Command File:

```
swcdata [ -L logfile ] [ -T locktimeout ]
procname comfile [ fromcase-tocase ]
```

where:

- -L *logfile* specifies the file path for error output (standard error, if omitted).
- -T *locktimeout* specifies the number of seconds to attempt to get a lock for extraction (60, if omitted) to the output file.
- *procname* is the procedure name, optionally followed by the procedure's host node in the form *proc@host*. (The server node is assumed, if *host* is omitted.)
- *EISobject* is the name of the EIS Report object.
- *comfile* is the pathname of the Command File.
- *fromcase-tocase* is an inclusive range of cases to extract and write to the CSV file, appending if the file exists. (If omitted all cases are extracted and written to a new file.)

Extracted File

The extracted file is placed in the *SWDIR*`\tsys\reports\`*host*`.n` folder where *host* is the procedure hostnode.

If a command file is used, the filename is as specified in the `SERVERFILE` command; if an EIS object is used, the file is in the same location with a name based on the EIS object name, but you usually do not need to know this as it is picked up automatically by the EIS Reports tool on the client.

Exit Codes

The following exit codes are returned:

Exit Code	Description
`0`	Success
`1`	Invalid command line
`2`	Invalid procedure name
`3`	Invalid host name
`4`	Invalid Command File/EIS Object
`5`	Invalid case range
`6`	Cannot access iProcess (no *SWDIR* variable set)
`7`	Cannot access case data files
`8`	Cannot write to CSV file
`9`	Invalid parameters in Command File/EIS Object
`10`	Cannot access procedure definition files

Exit Code	Description
11	Memory allocation error
12	No columns specified
13	User does not have case administration access permission
14	Error trying to check case administration permission
15	Cannot get lock on CSV file

EIS Command File

This is a file used to specify the case data to be extracted, and the format to be output to a CSV file for display by EIS Data Viewer.

It is used with the *SWDIR*`\util\swcdata` utility as an alternative to defining an EIS Report object.

It is an ASCII file consisting of lines of commands each consisting of a keyword separated by white space from parameters as shown in the following table. Most commands are optional and default as indicated. Keywords are case insensitive and the commands may be in any order in the file.

Command	Description/Valid Values
`TYPE CSV`	File output type: CSV is the only currently supported format and is the default.
`CASETYPE`	`ALL`, `TERMINATED` or `ACTIVE`.
`COLUMNS`	*This command is obligatory* and should be followed by a newline and then a list of the fieldnames to be extracted, one per line and terminated by a line consisting of a single tilde character (~). Any of the user-defined fields may be used plus certain special fields. See Special Fields for EIS Report Columns.

Command	Description/Valid Values
FIELDSEP	The string of characters to be used to separate each field item on a line (default is a comma). Leading white space is ignored (and the SPACE character is not allowed). The following special character sequences may be used: \r carriage return \n newline \t tab \f form feed \\ backslash
RECORDSEP	The string of characters to be used to separate each line of field items (corresponding to a Case). The default is \n (newline). Leading white space is ignored and the SPACE character is not allowed. The same special character sequences may be used as for the FIELDSEP command.
QUOTE	The character to be placed at each end of non-numeric fields. The default is the double quote, ".
HEADER	YES or NO: specifies whether to include the names of the fields to be extracted (as quoted strings) as the first line of the file (The default is YES).
SERVERFILE	The simple filename of the output CSV file. *This command is obligatory.* The file is placed in the *SWDIR*\tsys\reports*host*.n directory, where *host* is the procedure hostnode.
OWNER	The required owner of the CSV file. The default is the user who is running the utility.
PERMISSIONS	File permissions of the CSV file according to the UNIX convention, rwxrwxrwx with a: • – where a parameter is missing • r = readable • w = writable The first 3 characters refer to the owner, the second 3 the group and the last 3 all users. The default is the user default file permissions.

Special Fields for EIS Report Columns

The following special fields can be used in EIS columns:

Field	Description
SW_CASEDESC	Case Description
SW_CASENUM	Case Number (numeric)
SW_CASEREF	Case Reference in the form *pp-nn*
SW_DATE	Date of data extraction: *DD/MM/YYYY*
SW_DATETIME	Date and time of data extraction, separated by a space: *DD/MM/YYYY HH:MM*
SW_PRODESC	Procedure Description
SW_PRONAME	Procedure Name
SW_STARTER	Username of the case starter
SW_STEPDESC	EIS Report object description
SW_STEPNAME	EIS Report object name
SW_TIME	Time of data extraction: *HH:MM*

Using the Client swutil Utility

The `swutil` utility is a utility that you can run on your client computer, enabling you to start a case of a procedure or issue an event.

Note: `swutil` is located in the TIBCO iProcess Workspace (Windows) installation directory. You can run it whether or not you are logged into iProcess, but TIBCO iProcess Workspace (Windows) must be installed, and you must be a registered iProcess user.

Running swutil

The utility has no user interface. It takes all its parameters from a command line.

- You can run `swutil` from an iProcess form or field command or from an iProcess script, by entering the command line as the first parameter of the `WINRUN` function, and `5` as the second.

  See "Environment Functions" in *TIBCO iProcess Expressions and Functions Reference Guide* for more details of how to use iProcess functions.

- You can also enter the command line manually by clicking Start and then Run.

Errors are reported in a message box.

Note: `swutil` starts up a second utility called Utility Server that remains active until the client computer closes down (or you close it explicitly). This will make subsequent invocation of `swutil` faster. See Utility Server for more details.

Start a Case

To start a case of a procedure, enter the following command line:

```
swutil [pref] START [version] [/ssub-version] procname casedesc [datafile[startstep[delete]]]
```

where:

- *pref* is an optional parameter that specifies the configuration information set used, as in the client command line option (see Command Line).
- **version** (optional) specifies the version of the procedure that you want to start a case of. Specify *one* of the following flags:

Flag	Description
/r	Start a (live) case of the Released version.
/u	Start a (test) case of the Unreleased version.
/m	Start a (test) case of the Model version.
/v*X*.*Y*	Start a case of Version *X*.*Y*, where *X* is the major version number and *Y* is the minor version number.

If *version* is not specified, the following default precedence order is used to select the version to use:

Released > Unreleased > Model

Using a Released version starts a live case. Using an Unreleased or Model version starts a test case.

- /*ssub-version* (optional) specifies the precedence order to be used to select the version of any sub-procedure started by the case.

Value	Description
1	Released version only
2	Unreleased > Released version
3	Model > Released version

Value	Description
4	Unreleased > Model > Released version
5	Model > Unreleased > Released version

If the /s*sub-version* flag is not specified, the following default precedence order is used to select the version to use:

Released > Unreleased > Model

Using a Released version starts a live sub-case. Using an Unreleased or Model version starts a test sub-case.

Note: For more information about procedure versions, see "Using Version Control" in *TIBCO iProcess Modeler Procedure Management*.

- *procname* is the short name of the procedure, for example, `QUOTA`.

Note: The procedure must be a main procedure and not a sub-procedure.

- *casedesc* is the case description (maximum 24 characters), enclosed in double quotes if there are embedded spaces.
- *datafile* is optional, and is the full pathname of a file in ABOX format containing data for field initialization. (See "iProcess Commands" in *TIBCO iProcess Modeler Integration Techniques* for an explanation of the ABOX format.)

  To omit this parameter but allow further parameters on the command line, use a hyphen (–) instead.
- *startstep* is optional, and is the step at which to start the case. If omitted, the start step in the procedure definition is used.

  To omit this parameter but allow further parameters on the command line, use a hyphen (–) instead.
- *delete* is optional, and determines which files to delete after starting the case:

Value	Files to delete
`0`	Delete no files
`1`	Delete memo files
`4`	Delete *datafile*
`5`	Delete both memo files and *datafile*

If the delete parameter is omitted, `0` (delete no files) is assumed.

Note: You can only start a case with `swutil` if you are able to do so inside iProcess, so the procedure must either be owned by you, or released and with case start permission for you.

Issue an Event

Note: For general information on defining and using events, see the relevant sections of *TIBCO iProcess Modeler Integration Techniques*.

To issue an event for a procedure, enter the following command line:

```
swutil [pref] EVENT [-host] procname casenum event [datafile[-p] [delete]]
```

where:

- *pref* is an optional parameter that specifies the configuration information set used, as in the client command line option (see Command Line).
- *host* is an optional parameter that gives the name of the host node of the procedure, preceded directly by a hyphen (-). (If omitted, your own server node is assumed.)
- *procname* is the short name of the procedure, for example, `QUOTA`. This can be a main procedure or a sub-procedure.
- *casenum* is the case number, for example, `4`.

- *event* is the short name of the step you are issuing the event for, for example, `TREV`. (This may be a special event step, or an ordinary step.)
- *datafile* is optional and, if included, should be the full pathname of a text file in ABOX format containing new values for specified fields. See "iProcess Commands" in *TIBCO iProcess Modeler Integration Techniques* for an explanation of the ABOX format.)

  To omit this parameter but allow further parameters on the command line, use a hyphen (-) instead.
- `-p` is an optional flag and, if included, specifies that the new field values supplied in the *datafile* will also be copied to all outstanding work items.

  Note that:

  — Only the field values specified in the *datafile* are updated in the work item. All other field values are unchanged. This allows you to use `swutil EVENT` to selectively update data in a work item.

  — If a field value that is used as a CDQP parameter is specified in the *datafile*, the new value will be used to display, sort and filter in Work Queue Manager the next time the work queue is refreshed.

  — If a case has sub-cases, any field values specified in the *datafile* will be updated (recursively) in all sub-cases, via the appropriate field mappings defined by the step that initiated the case.

  Field values in sub-case fields can also be explicitly specified in the *datafile.* If a sub-case field value is updated explicitly in this way, that update takes precedence over any “cascaded” update (as described in the previous paragraph).

  — If the user has changed a field that is specified in the *datafile* and then kept the work item, that change is lost. The original modified value is overwritten by the value specified in the *datafile*.

  — If a work item is open when the event updates it, when the user tries to keep or release the work item they will receive an error message informing them that the work item has been updated elsewhere since they opened the work item. The keep or release operation is cancelled and any changes to field values made by the user are lost. Updates to field values made by the event are applied. (The user can then re-open the work item and make their changes again.)

  — Delayed release EAI steps will not have data updated, as there is no mechanism to transfer the updated data to the external system.

- *delete* is optional, and determines which files to delete after issuing the event:

Value	Files to delete
`0`	Delete no files
`1`	Delete memo files
`4`	Delete *datafile*
`5`	Delete both memo files and *datafile*

If the delete parameter is omitted, `0` (delete no files) is assumed.

Note: To issue an event, you must have Case Administration access permission for the procedure.

Utility Server

You can start Utility Server by calling `staffsrv.exe`, which is located in the client installation directory. It is a DDE server which is started up automatically by `swutil.exe`, or you can start it up separately with the following command line:

```
STAFFSRV.EXE [pref]
```

where *pref* is an optional parameter that specifies the configuration information set used, as in the client command line option. See Command Line.

Note: The server remains active until you close it explicitly. It will also close down if your system runs low on memory.

The server has a `STAFFSRV` service name , and two topics, `UTIL` and `CASESTART`:

- `UTIL` This topic enables you to run the same utility functions as `swutil` through a DDE link.

  Start Utility Server, then make a connection to the `STAFFSRV` service name and the `UTIL` topic. To run the function, issue an `EXECUTE` transaction with a command that is the same as the facility and parameters part of the `swutil` command lines described in the preceding sections.

- `CASESTART` This topic enables an application to start a case, with or without data, without having created an ABOX file.

  The topic string specifies the procedure name and description:

  `CASESTART` *procname@host casedesc*

  where:

  — *procname@host* is the name of the procedure; the host part is optional, and is joined to the procedure name by an `@` character.

  — *casedesc* is the case description (maximum 24 characters), enclosed in double quotes if there are embedded spaces.

  The only transaction available to this topic is `POKE`, which is used to start the case with data. The `POKE` item is the iProcess field name, and the data is the field value. An example follows using iProcess DDE functions:

```
DDEInitiate (chan, "staffsrv",
"casestart quota ""A case description""")
DDEPoke (chan, "coname", "Staffware plc", 5)
DDEPoke (chan, "sysreq", "Hardware", 5)
DDETerminate (chan)
```

Starting and Configuring iProcess From Command Line

The configuration of iProcess when it is started up is determined by two things:

- The command line parameters (if any), described in this appendix. See Command Line.
- Configuration information accessed through iProcess Preference Editor, described in Using iProcess Preference Editor.

Command Line

This, in conjunction with the preferences file, determines the configuration of iProcess when it is started up. The format is as follows:

```
STAFFW [pref] [tool]
```

- *pref* is an optional parameter which specifies the preference set used. If omitted, the default set is used.
- *tool* is an optional parameter which takes iProcess to a particular tool or function, rather than displaying the Work Queue Manager or the Tools window.

  The following *tool* options are currently available (provided you have authorization to use them according to your `MENUNAME` attribute). Most are explained in more detail in the sections dealing with the relevant functions.

Option	Description
CASESTART	Start a case. See Case Start Option.
RUNSTEP	Run a caseless form. See Caseless Forms Option.

Option	Description
OPENWQS OPENITEM	Open a work queue item. See Open Specific Work Item Option.
OPENWQS UPDATE	Update a work items list. See Update Work Items List Option.
UPDATEWORKQS	Force all work queues to be updated. (No effect if iProcess is not running.) **Note:** This option is supported to maintain compatibility with previous versions of iProcess.
OPENWQS FILTER	Set a filter on a work items list. See Set Filter Option.
AUDITTRAIL	Select an audit trail for a case of a procedure. See View Audit Trail Option.
AUDITCN	Displays the audit trail for a case of a procedure. This command should be used in preference to the AUDITTRAIL command.
LOGOUT	Log the user out of iProcess if it is running. **Note:** This must NOT be done from within iProcess, for example, with an iProcess command.

Note: If iProcess is already running, the current instance is used. If you are not already logged in to iProcess, the normal login dialog is displayed when you execute the command.

For example:

```
C:\>STAFFW MyPref CASESTART QUOTA “My case description”
```

This will use the MyPref preference set and invoke the case start dialog with procedure QUOTA and case description “My case description” already filled in. (Note the use of quotation marks to enable embedded spaces to be used in the description.)

Case Start Option

If iProcess is started with the following tool in the command line, you are taken directly to the Case Start dialog box:

```
CASESTART [[-host]procname[casedesc]]
```

where:

- *host* is the Procedure host node, preceded directly by a hyphen. (If omitted, your own server node is assumed.)
- *procname* is the name of the procedure that you want to start., which must be a released, main procedure. Unreleased procedures, test procedures or sub-procedures cannot be started using this option.
- *casedesc* is the case description.

Caseless Forms Option

If iProcess is started with the following tool in the command line, the Form window of the step referred to is opened and you can fill in the fields as usual, but no case is started and there is no further action on closing the form (apart from running the Release or Keep form command if any).

```
RUNSTEP procname stepname [datafile[delete]]
```

where:

- *procname* is the (short) procedure name, optionally followed by the host name of the procedure in the form *proc@host*.
- *stepname* is the step whose form is to be opened.
- *datafile* is an optional pathname of a file containing data to initialize specified fields.
- `delete` is an optional parameter which determines which files to delete after starting the caseless form. To include this parameter without a datafile, enter just a hyphen (-) as the latter.

See "Using Caseless Forms" in *TIBCO iProcess Modeler Integration Techniques* for full details of how to use caseless forms.

Open Specific Work Item Option

If iProcess is started with the following tool in the command line, the specified work item from the specified queue is opened:

```
OPENWQS OPENITEM [/options] queue args
```

where:

- *options* is one or more of the following:
  - — `A` (or `a`) to activate the Work Queue Manager window.
  - — `Q` (or `q`) to suppress the display of Work Queue Manager error dialogs.
  - — `S` (or `s`) to start the search for the specified work item from the first item in the work items list.
  - — `N` (or `n`) to select the work item that follows the specified work item in the work items list. The specified work item is found and opened first to ensure that a subsequent `OPENITEM` command does not open the same work item.

  Performing a `FILTER` or `UPDATE` command will always set the currently selected item to be the first item in the list.

- *queue* is the queue to update the work items list for, specified as:

  name[@*node*][/t]

  The `/t` suffix should be used, if the queue is a test queue.

- *args* specifies the filter criteria which is used to find the work item to be opened.

  id=“*value*”

  - — *id* identifies the filter criteria. See Set Filter Option.
  - — *value* is the filter match string and can contain wild card characters. The double quotation marks are optional but must be used if the string contains spaces.

  If the first matching work item found is locked or not available then the search continues, until either a work item which can be opened is found or until the whole work items list has been searched.

  Unless the `/S` option is specified, the search starts from (and includes) the currently selected work item, and continues from the start of the list when it reaches the end.

Examples

> **Note:** The examples assume that you have added the Client directory (by default `c:\swclient`) to your path.

- Starting at the top of the `clerksq` work items list, this command opens the first unlocked work item which has a case description containing the string "`INV:1234`", without activating the work queue window:

  `C:\>`**`STAFFW OPENWQS OPENITEM /s clerksq cd=”*Inv:1234”`**

- Starting at (and including) the currently selected item, this command opens the first work item which has a case description containing the string "`INV:1234`". When the item is opened, the command selects the next item in the list so that repeating the command will not open the same item again.

  `C:\>`**`STAFFW OPENWQS OPENITEM /n clerksq cd=”*Inv:1234”`**

- Starting at the top of the `clerksq` work items list, this command opens the first unlocked work item which is new and urgent:

  `C:\>`**`STAFFW OPENWQS OPENITEM /s clerksq stat_all=nu`**

Update Work Items List Option

If iProcess is started with the following tool in the command line, the work items list for the specified queue is updated.

```
OPENWQS UPDATE [options] queue
```

where:

- *options* is either or both of the following:
  - `/A` to activate the Work Queue Manager window.
  - `/Q` to suppress the display of Work Queue Manager error dialogs.
- *queue* specifies which queue is to be updated.

  Use `ALL` to update all work items lists currently opened for this user, or specify an individual queue using the format:

  name[@*node*][/t]

  The `/t` suffix should be used if the queue is a test queue.

If the /A option is used with the ALL parameter the main Work Queue Manager window is activated.

Examples

Note: The examples assume that you have added the Client directory (by default c:\swclient) to your path.

- This command updates the work items list for the clerksq queue and activate its Work Queue Manager window:

  C:\>**STAFFW OPENWQS UPDATE /a clerksq**

- This command updates the work items lists in all of the Work Queue Manager windows, without activating any of them:

  C:\>**STAFFW OPENWQS UPDATE ALL**

Set Filter Option

If iProcess is started with the following tool in the command line, a filter is set on the work items list for the specified queue.

```
OPENWQS FILTER [/options] queue [args]
```

where:

- *options* is either or both of the following:
  - — A (or a) to activate the Work Queue Manager window.
  - — Q (or q) to suppress the display of Work Queue Manager error dialogs.
- *queue* is the queue to update the work items list for, specified as:

  name[@*node*][/t]

  The /t suffix should be used if the queue is a test queue.
- *args* specifies the filter to be set:
  - — if *args* is omitted any existing filter is cleared.
  - — if args is specified as DEFAULT then the filter is returned to the last filter specified by the user or to the default specified on iProcess Engine.

Otherwise, *args* must be specified as a number of arguments in the form:

id[_r]="*value*"

where:

— *value* is the filter match string and may contain wild card characters. The double quotation marks are optional but must be used if the string contains spaces.

— *id* must be one of the following case insensitive identifiers. The `_r` suffix is used if you want to use a range filter. See Range Filters for more information.

Identifier	Description
`ar`	Arrival date
`cd`	Case Description
`cn`	Case Number
`cr`	Case Reference (*procnum–casenum*)
`dl`	Deadline
d*n*	Case Data Queue Parameter (CDQP) *n*, where *n* is the unique *filter identifier* for the required CDQP. **Note:** The CDQP filter identifier can be obtained by using the `swutil QINFO EXPORT` command on iProcess Engine. See "Case Data Queue Parameters" in *TIBCO iProcess swutil and swbatch Reference Guide* for more information.
`fd`	Form Description
`fn`	Form Name
`pd`	Procedure Description
`ph`	Procedure Hostname
`pn`	Procedure Name

Identifier	Description
pr	Priority
qp*n*	Work Queue Field *n*, where *n* is 1,2 3 or 4.
stat_all=*flags*	Includes work items which have all of the specified status *flags* set. *flags* can be any combination of characters as specified under the stat_any=*flags* parameter.
stat_any=*flags*	Includes work items which have any of the specified status *flags* set. *flags* can be any combination of the following characters: ‘n’ - new (unopened) ‘u’ - urgent ‘d’ - deadline set ‘x’ - deadline expired ‘f’ - forwardable ‘r’ - releasable direct from queue

Range Filters

If you want to specify a range filter, *args* must be specified slightly differently, as:

```
id_r="[rangeType];fromVal1[~toVal1][;fromVal2...]"
```

where:

- *rangeType* specifies how the given ranges should be evaluated. It applies only to the cd, d*n* and qp*n* identifiers, and must be one of the following characters (case insensitive).

Character	Description
a	Text (ASCII) lexical range

Character	Description
`r`	Numeric (Real) range
`d`	Date range. `SW_DATE` can be used in place of the date value and is evaluated as `TODAY`.
`t`	Time range. `SW_TIME` can be used in place of the date value and is evaluated as `NOW`.
`c`	Data and time range. The date and time components must be separated by a space. `SW_DATE` and `SW_TIME` can be used.

- *fromVal1* and *toVal1* are the start and end values, respectively, for the first range. If no end value is specified, the start value will be textually pattern matched, (as if for a non-range filter). Up to 5 ranges can be specified.

The double quotation marks are optional but must be used if the string contains spaces.

Examples

> **Note:** The examples assume that you have added the Client directory (by default `c:\swclient`) to your path.

- This command sets a filter on the `clerksq` queue to include any item with procedure name `INVOICE` which also has the "`INV:1234`" string in the case description:

  `C:\>`**`STAFFW OPENWQS FILTER /a clerksq pn=INVOICE cd=”*Inv:1234”`**

- This command sets a filter on the `clerksq` queue to include any item which is either `New` or `Urgent` or both:

  `C:\>`**`STAFFW OPENWQS FILTER /a clerksq stat_any=nu`**

- This command sets a filter on the `clerksq` queue to include any item which is `new`, `urgent` and has a `deadline`:

  `C:\>`**`STAFFW OPENWQS FILTER /a clerksq stat_all=nud`**

The following pair of examples demonstrate the use of range filters.

- This command sets a filter on the `clerksq` queue to include any item for the `INVOICE` procedure, which has a priority that is *either*:

— between `1` and `10` (inclusive), or

— `100`, or

— between `20` and `40` (inclusive), or

— any 3-digit number beginning with `9`.

```
C:\>STAFFW OPENWQS FILTER /a clerksq pn="INVOICE" pr_r=";1~10;100;20-40;9??"
```

- This command sets a filter on the `clerksq` queue to include any item where:

— the first CDQP parameter mapped to the queue is the string "`London`".

— the second CDQP parameter mapped to the queue is in the range `1.50` to `100.00` (evaluated as a numeric range):

```
C:\>STAFFW OPENWQS FILTER /a clerksq d1="London" d2_r="R;1.50~100.00"
```

View Audit Trail Option

You can view the audit trail of a selected case using the following command line:

```
STAFFW AUDITCN procedure[@hostnode] casenum
```

where:

- *procedure* is the name of the main procedure you want to examine the audit trail for. Sub-procedure audit trails are not available using this facility.
- *hostnode* is optional and can be used if the procedure is stored on a different node.
- *casenum* is the number of the particular case you want to examine.

The command will perform a login if the user is not yet logged into iProcess Engine. Alternatively, the command will request that the client already logged in displays the audit trail window.

You can also use an alternative command called `AUDITTRAIL`, but it is advisable to use `AUDITCN` where possible.

```
AUDITTRAIL [procname[casedesc]]
```

where:

- *procname* is the procedure name. If this is absent (or invalid), you are taken to the Procedure Selection dialog. Sub-procedure audit trails are not available using this facility.
- *casedesc* is a case description. If this is absent (or invalid), you are taken to the Case Selection dialog box.

If a valid procedure name and case description are included, you are taken directly to the audit trail for that case.

Using iProcess Preference Editor

This appendix describes how you can use iProcess Preference Editor to change certain preferences in TIBCO iProcess Workspace (Windows), such as hiding the login dialog or changing some of the client messages.

To use Preference Editor, perform the following steps:

1. Run **`Swpref.exe`** from the directory in which the client is installed (by default `c:\swclient`).

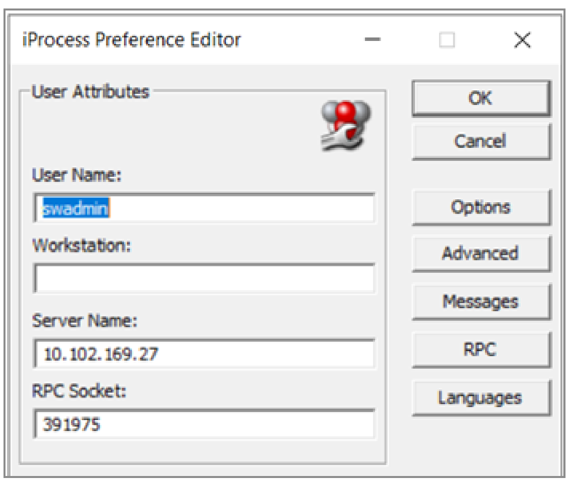
   If you run it from the command line, the syntax is as follows:

   `SWPREF` [*pref*]

   where *pref* is an optional parameter that specifies the preference set to be edited.

2. If you are taken to the Select Preferences dialog, choose the preference set that you wish to edit. (This will correspond to the argument on the client command line.)

3. You are taken to iProcess Preference Editor dialog box.

4. Check or change the options described in the following sections.

5. Click **OK** to save changes and exit Preference Editor.

User Attributes

The following information is displayed in the iProcess Preference Editor dialog box.

Option	Description
User Name	The user last chosen in the iProcess Login dialog box.
Workstation	Any text string to identify the client workstation.
Server Name	The computer name of the server host last chosen during login.
RPC Socket	The “RPC program number” last chosen during login.

Options

Click **Options** to display the Options dialog box.

Check the following check boxes as required, then click **OK** to save changes and exit the dialog box.

Check box	Description
Save Settings on Exit	Checks the Save Changes check box on the Exit iProcess dialog box.
Hide Login Dialog	Suppresses the Login and Exit dialogs (unless passwords are required on login).
Case Start Auto-Repeat	Causes the Case Start dialog to reappear after a successful case start.
Minimize Tools Window on Entry	Causes the Tools window to be minimized when iProcess is started.
Minimize Tools Window on Use	Causes the Tools window to be minimized once an option is chosen.

Check box	Description
Printer Default Font Settings	The Sample shows the current printer default font. Click Change Font to take you to the standard Font dialog.

Advanced

Click **Advanced** to display the Advanced Options dialog box.

Check the following check boxes as required, then click **OK** to save changes and exit the dialog.

Check box	Description
Hide Workqueue Windows	Do not show any work queues. (Selected by default.)
Display Button on Command Fields	Show all fields with Field Commands with an Open button, whether or not the field is Auto Open. (If not checked the button is suppressed for Auto Open fields *only*.) (Your system administrator may set this up for use with particular procedures.)
Hide Tools Window on Entry	Do not show Tools window. **Note:** This option is obsolete from Version 10.
No Extra Tools	Do not show Tools defined in *SWDIR*`\etc\`*language*`.lng\staffico` file in Work Queue Manager, for example, Case Start.
Display Time	The Tools window status area shows the system time from the Server.
Show Fields Padded	In forms, show fields padded with spaces if the field length is less than the field name. (For example, a numeric field with name ABCDE and length 2 will be shown padded with three spaces if this option is set.)

Check box	Description
Hide Main Banner	The iProcess banner is hidden on startup.
Hide iProcess Modeler Banner	The TIBCO iProcess Modeler banner is hidden on startup.
Highlight Next Item After Release	By default, the work item above the released one is highlighted. To highlight the work item below the released one, check this checkbox.
Disable Browse Button	Disable the Browse button in the iProcess Workspace (Windows) and iProcess Administrator login dialogs
Maximum Form Depth (lines)	The maximum initial form depth, in lines (by default, 34).
Cache Directory	Specify a new directory to store cached procedures. By default, cached procedures are stored in `\Documents and Settings\`*username*`\application data\staffware`.
Procedure Caching	Enables procedure caching. If procedure caching is set, every time a change is made to the procedure definition, iProcess copies an updated version of the procedure to the procedure cache directory. This means that when you open a work item, instead of TIBCO iProcess Workspace (Windows) having to retrieve this item from TIBCO iProcess Engine (across the network), the work item can be retrieved from your local machine, therefore improving performance. Procedure caching is set by default. To disable procedure caching, deselect the option. TIBCO recommends that procedure caching is enabled.

Messages

Click **Messages** to display the iProcess System Messages dialog box.

This dialog specifies certain messages displayed by iProcess. Select **Message Identifier** from the appropriate drop-down list and enter or edit the message in the text box below (up to 3 lines of about 40 characters).

Note: If a comfort message is omitted, iProcess will display the hourglass cursor instead while the event is being processed.

Make any changes you require, then click **OK** to save changes and exit the dialog box.

RPC

Click **RPC** to display the RPC Preferences dialog box.

Make any changes you require, then click **OK** to save changes and exit the dialog.

Option	Description
RPC Socket Browser Range	This specifies the range of RPC program numbers looked for by the login dialog Browse function. It should include all the iProcess Engines you are interested in, but if the range is too large, the browse operation may take a long time on a big network.
Timeout period (Secs)	Specifies the time in seconds to wait for a response from the iProcess RPC server process.
RPC Servers	This section contains the data obtained from the RPC Login dialog Browse function for iProcess Engines selected to be included in the drop-down list. It cannot be changed directly.

Note: To control whether or not iProcess Workspace (Windows) is able to access iProcess Engine, use the `RPC_BLOCK` attribute. For more information about how to configure this attribute, see "Administering Process Attributes" in *TIBCO iProcess Engine Administrator's Guide*.

Languages

Click **Languages** to display the iProcess Language Settings dialog box.

Make any changes you require, then click **OK** to save changes and exit the dialog box.

Option	Description
Language Settings	Select the iProcess product from the drop-down list and enter the **Help file** for online help and **Language Dll** for the main messages.

How Many Work Queues Can an iProcess User Access?

The total number of work queues a single iProcess user can have access to is *32,767*.

If the number of work queues an iProcess user has access to exceeds 32,767, the iProcess user is not able to log in to iProcess and the following error message is displayed:

```
Sal Queues Interface 'sal_queues_count()' returned fatal error -n.
Called by wqsess_lcreat_folder.

Abort WorkQ's?
```

where

is the total number of work queues.

This only affects the single user who has access to too many work queues. All other iProcess users will be able to log in to iProcess without any problems.

An iProcess user can have access to the following work queues:

- their **Personal Queue** which only they can access.
- any **Group Queues** that they are a member of.
- any **Test User Queues** or **Test Group Queues**, if the user is allowed to define procedures.

An iProcess user can also be given access to work queues in the following ways:

- by being a supervisor of a work queue.
- by being a participant of a work queue.

For example, the following table illustrates the total number of work queues a user called `swusr001` has access to.

Work Queues that swusr001 has access to:	
Personal Queue	`swusr001`
Group Queue	`group1`
Test User Queue	`swusr001`
Test Group Queue	`group1`
Supervisor of	`swusr002` `swusr003`
Participant of	`swusr002`
Total number of work queues that `swusr001` has access to:	7

From the example, you can see that the number of work queues a user can have access to can quickly increase if that user is a member of several groups and is a supervisor or participant of several queues.

This means it is important to plan in advance the number of work queues you want to create and how many supervisors and participants you are going to need. For example, if you want to create 17,000 work queues on your iProcess Engine, you could not make a single user both a supervisor and a participant of all 17,000 work queues. This is because that user would then have access to 34,000 work queues which would exceed the limit.

If you do want to create a large number of work queues and you want to have supervisors and participants for them, you would have to split them between more than one user. For example, if you had 17,000 work queues you could make:

- `swusr001` a participant of all 17,000 work queues
- `swusr002` a supervisor of all 17,000 work queues.

TIBCO Documentation and Support Services

For information about this product, you can read the documentation, contact TIBCO Support, and join TIBCO Community.

How to Access TIBCO Documentation

Documentation for TIBCO products is available on the TIBCO Product Documentation website, mainly in HTML and PDF formats.

The TIBCO Product Documentation website is updated frequently and is more current than any other documentation included with the product.

Product-Specific Documentation

The following documentation for this product is available on the TIBCO iProcess® Workspace (Windows) Product Documentation page:

- *TIBCO iProcess® Workspace (Windows) 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.

- *TIBCO iProcess® Workspace (Windows) Installation*

  Read this manual for instructions on site preparation and installation.

- *TIBCO iProcess Suite Documentation Library*

  This library contains all the manuals for TIBCO iProcessWorkspace (Windows), TIBCO iProcess® Modeler, and other TIBCO products in TIBCO iProcess Suite. The manuals for TIBCO iProcess® Workspace (Windows) and TIBCO iProcess® Modeler are the following:

  - *TIBCO iProcess Workspace (Windows) User Guide*
  - *TIBCO iProcess Modeler Getting Started*
  - *TIBCO iProcess Modeler Procedure Management*
  - *TIBCO iProcess Modeler Basic Design*

- *TIBCO iProcess Modeler Advanced Design*
- *TIBCO iProcess Modeler Integration Techniques*
- *TIBCO iProcess Expressions and Functions Reference Guide*
- *TIBCO iProcess Workspace (Windows) Manager's Guide*
- *TIBCO iProcess COM Plug-in User Guide*
- *TIBCO iProcess Database Plug-in User Guide*
- *TIBCO iProcess Email Plug-in User Guide*
- *TIBCO iProcess Script Plug-in User Guide*
- *TIBCO iProcess Plug-in SDK User Guide*

Other TIBCO Product Documentation

When working with TIBCO iProcess® Workspace (Windows), you may find it useful to read the documentation of the following TIBCO products:

- TIBCO ActiveMatrix BusinessWorks™
- TIBCO Business Studio™
- TIBCO Enterprise Message Service™
- TIBCO Hawk®
- TIBCO Rendezvous®

How to Contact TIBCO Support

Get an overview of TIBCO Support. You can contact TIBCO Support in the following ways:

- For accessing the Support Knowledge Base and getting personalized content about products you are interested in, visit the TIBCO Support website.
- For creating a Support case, you must have a valid maintenance or support contract with TIBCO. You also need a user name and password to log in to TIBCO Support website. If you do not have a user name, you can request one by clicking **Register** on the website.

How to Join TIBCO Community

TIBCO Community is the official channel for TIBCO customers, partners, and employee subject matter experts to share and access their collective experience. TIBCO Community offers access to Q&A forums, product wikis, and best practices. It also offers access to extensions, adapters, solution accelerators, and tools that extend and enable customers to gain full value from TIBCO products. In addition, users can submit and vote on feature requests from within the TIBCO Ideas Portal. For a free registration, go to TIBCO Community.

Legal and Third-Party Notices

This software may be available on multiple operating systems. However, not all operating system platforms for a specific software version are released at the same time. See the readme file for the availability of this software version on a specific operating system platform.