

System Configuration Guide

CareSuite 7.2 2nd Edition
Preop Manager
Anesthesia Manager, PACU Manager, Critical Care Manager

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1 Introduction

This manual describes the configuration of Preop Manager, Anesthesia Manager, PACU Manager and Critical Care Manager. You can customize each application and the contents of the clinical database to support the practices of individual departments or caregivers. CareSuite includes the following configuration and customization tools:

- Customize—for customizing application templates, workstation settings and Preop Manager.
- DB Editor—for working with items in the CareSuite database.
- ADTSpy—for configuring Census List windows for the different applications.
- Picis Configuration Editor—for setting certain parameters in configuration files and changing the language of the user interface (when localized language files are installed).
- Picis Security Manager—for maintaining application security in systems configured for perioperative integration with OR Manager.

Configuration is typically performed by an implementation specialist when the system is installed. However, a user with access to these tools can modify configuration settings at any time.

If you are upgrading to version 7.2 2nd Edition from a previous version, refer to the *Upgrade Guide*.

New Concepts in 7.2

- Perioperative integration: Anesthesia Manager, PACU Manager, Preop Manager and OR Manager share patient common data elements so that data entered in one application appears in other applications.

For more information, see the *Workstation User's Guide*.

- New type of workstation: In addition to the bedside workstation, a new type of workstation now exists—the *multibed* workstation. Multibed workstations are not associated with specific patient locations, but instead allow users full access to a group of patients in a department.

This type of workstation is appropriate for low-acuity recovery units, and clinician work and lounge areas. Users at these workstations can typically view and document data for all patients that are listed in the Census window. The bedside workstation type continues to be appropriate for patients in operating rooms and other high-acuity areas.

The workstation type is selected during installation. After installation, you will need to create an entry for each bed in the units served by multibed workstations.

- Access Type: This workstation setting determines what kind of access users have to remote patients. View/Chart allows charting; View-only allows viewing but no charting. Multibed workstations with View/Chart access replace Visual Care. This configuration is designed for doctors' lounges or ICU rounds rooms where remote charting and order entry are needed. Multibed workstations with View-only access may be situated at the front desk of an operating room department for viewing data for patients in different operation rooms. Bedside workstations with View/Chart access replace Remote View.

You configure a workstation's access type (View/Chart or View only) using Customize.

New Features in Customize

Customize allows you to implement new features in CareSuite 7.2. Use Customize to do the following:

- Set the type of access to the charts of patients admitted to bedside workstations.
- Configure advanced workstation settings (previously, this was done in VC Customize).
- Add trends to flowsheets.
- Create flowsheet sections that combine data from all care categories: medications, fluids, nursing care, scores, laboratory tasks and respiratory care.

- Designate frequently-used protocols for quick selection.
- Set the default starting time for protocols and custom orders.
- Oblige Preop Manager users to enter all required data before performing the final sign-off for an evaluation.
- Create a preoperative risk assessment form with custom criteria, findings with points, point ranges and recommendations.
- Create custom statuses for preoperative records.

New features in DB Editor

DB Editor allows you to configure new features for version 7.2 and 7.2 2nd Edition. The most important changes are as follows:

- Configure CareSuite for perioperative integration with OR Manager.
- You can create locations (beds) for use with multibed workstations.
- With new system rights, you can control the ability of users to edit events and real-time data, move and resize windows, and create printouts.
- You can now specify the rights needed to document each treatment, score and assessment. (Prior to CareSuite 7.2, you could only specify the rights needed to order such items.)
- You can configure CareSuite to maintain a record of all user access to patient data.
- You can now create and modify derived (calculated) real-time variables directly in the database.
- You can create special body system exams for use with risk assessment forms in Preop Manager.

Picis Security Manager

If your system is configured for perioperative integration with OR Manager, you would use Picis Security Manager to configure users, user groups and access rights.

Distributing Configuration Files

When you use Customize or ADT Spy, you work with local copies of template and other configuration files. Files at other workstations are not affected. After creating or modifying a file, you then need to distribute it to other workstations. Picis recommends that you use one or more “master” workstations to create the different configurations needed and then copy the appropriate files to other workstations in the unit as described in the table below. There are various ways to achieve this:

- With a number of master workstations, one for each configuration. This is the easiest way to create and maintain configurations, but you may not have the space or resources for this.
- With a single master workstation at which configurations are created one at a time and then either copied directly to the workstations concerned or placed in a shared network folder for later distribution.
- With virtual machine software, such as Microsoft Virtual PC, allowing all configurations to be created, stored and maintained in separate virtual machine instances on the same physical workstation.

Note that if more than one template will be available at a workstation, the device and real-time variable settings must be identical in all these templates.

The following tables show how to copy a configuration from the master workstation to production workstations. It is assumed that CareSuite 7.2 2nd Edition is installed on all workstations.

AT THE MASTER WORKSTATION	
Task	Tool
Copy device drivers to the folder C:/Picis/ClicknLink.	Windows Explorer
Copy all add-in applications to the folder C:/Picis/Addins.	Windows Explorer
Create screen layouts.	Anesthesia Manager, PACU Manager or Critical Care Manager (using a fictitious patient)

AT THE MASTER WORKSTATION

Task	Tool
Create macros and event sets.	Customize
Configure workstation settings.	
Create template(s).	
Configure Preop Manager if necessary.	
Configure census windows.	AdtSpy
Configure custom printouts.	See Printouts Guide.
Clean up configuration files	Right-click any configuration file and choose Clean up configuration files .

AT EACH PRODUCTION WORKSTATION

Task	Tool
Close all CareSuite applications.	
Make sure that the Config Editor process is not running.	Task Manager
Copy the C:/Picis folder from the master workstation.	Windows Explorer
Run the Picis Configuration wizard to reset the workstation location (in the DBAPI.PCS file).	Picis Configuration Wizard

2 Application Templates

About Templates

A patient's chart in CareSuite is based on the template selected at the start of the session. Templates determine the content and layout of the chart, as well as certain aspects of application behavior. By developing multiple templates, you can provide chart formats for different clinical environments, case types and clinician preferences.

Templates contain settings related to the following areas of the chart:

- Content and layout of the Demographics and Patient Summary modules.
For more information, see “Demographics” on page 58 and “Patient Summary” on page 49.
- Required data for every case.
For more information, see “Configure a Demographics section” on page 63 and “Configure required functional types and clinical priorities” on page 66.
- Preferences for application behavior when opening and closing the application, and starting and ending patient sessions.
For more information, see “Starting and Ending Sessions” on page 19.
- Ability of users to edit and delete different types of data.
“Preferences for Real-Time Data” on page 21.
- Custom flowsheets.
For more information, see “Flowsheets” on page 69.
- Format of the Fluid Balance window.
For more information, see “Fluid Balance Window” on page 46.
- Printouts.
For more information, see “Printouts” on page 25.

- Available features, accessories and add-ins in the application.
For more information, see “Add-Ins” on page 82 and “Timers” on page 80.
- Configuration of the toolbar, Vital Signs bar and Patient Information Band.
For more information, see “Patient Information Band” on page 27, “Vital Signs Bar” on page 38 and “Menu Commands and Toolbar Buttons” on page 86.
- Clinical content available to users for documenting patient care.
For more information, see “Protocols” on page 39 and “Events” on page 41.
- Screen layouts and macros.
For more information, see “Configure a screen layout as an add-in” on page 84 and “Configure a macro as an add-in” on page 83.

Templates, Sessions and Encounters

A session represents the period of time that a patient is admitted to a CareSuite location. A location could be an operating room or a bed in an ICU or PACU. One or more consecutive sessions (typically in different beds or rooms) in a department or care area constitutes an encounter. The patient's CareSuite record contains data from all encounters in the admission.

The system considers two sessions to be part of the same encounter when the templates used share the same encounter type. Templates for induction, intraoperative and postoperative care units might have an encounter type called *Perioperative*. Templates for different intensive care units (CVICU, SICU, MICU, PICU and NICU) might share one called *Critical Care*. Each hospital creates and names the encounter types it needs.

The time bar displays the encounter type and template name for each session to identify the clinical environment that corresponds to the data. Users can select an entire encounter when viewing fluid balance demographic data, and when creating printouts.

Encounter types have a property that classifies them as ICU-related or not ICU-related. This property affects two aspects of the application:

The *Common Choice* lists that contain the most commonly used diagnoses, procedures, medications and allergies for quick selection. CareSuite includes lists for perioperative, critical care and preoperative data. (You can edit lists with DB Editor. For more information, see “Working with Auxiliary Tables” on page 162.)

The encounter type also determines whether data collected during an encounter can be used to calculate the APACHE II score. This score requires data from the first 24 hours of a patient's stay in an intensive care unit. The score can only be calculated using data collected with a template classified as ICU-related; data collected with a non-ICU template during a session in an ICU cannot be used. (See “Encounter Types for Templates” on page 157.)

Note: If there is no patient admitted to a workstation, there will be no active template. For actions that may be performed while there is no patient, such as exiting the application, the template used is that which was used for the previously admitted patient.

Default Templates

CareSuite provides four sample templates: ICU, Neonatal ICU, General Anesthesia and PACU. These templates have been designed to cover the needs of the basic CareSuite environments within a hospital. The encounter types and ICU property used by these templates are as follows:

Name	Encounter Type	ICU Property
ICU	Critical Care Encounter	1
Neonatal ICU	Critical Care Encounter	1
General Anesthesia	OR Encounter	0
PACU	OR Encounter	0

The main features of these templates are as follows:

Flowsheets	The ICU, NICU and PACU templates include flowsheets for cardiologists, pulmonologists, neurologists, nephrologists, nurses and nutritionists. The General Anesthesia template includes flowsheets for anesthesiologists.
Macros	The General Anesthesia and PACU templates include macros for documenting key anesthesia events from the main toolbar.

Modules	The General Anesthesia template includes the Concurrency module. The General Anesthesia and PACU templates include the Preop Manager module and the Supervisory Anesthesia module (SAM).
Patient Summary	The ICU, NICU and PACU templates include the Patient Summary.

The differences between the default templates are reflected in their toolbars. (See “Toolbars and Icons” on page 223.)

Getting Started

Starting and Quitting Customize

You can create and edit templates using Customize. As part of CareSuite, this tool is typically available at all workstations. You must be a member of a user group with the system right *Customize Use* to open it. You should close the main application before modifying templates in Customize.

Start Customize

- 1 Click the **Start** button and then point to **Picis CareSuite**.
- 2 Point to the **Utilities** folder and then click **Customize**.
- 3 Enter a valid user name and password to log on to the system.

Quit Customize

- ◆ On the **File** menu, click **Exit**.

Creating Custom Templates

If you are installing CareSuite for the first time, Picis recommends that you do the following:

- Delete the sample templates that will not be used at your hospital.
- Customize the templates for the units that where CareSuite is installed.
- If a unit will use multiple templates, customize the corresponding default template and use it as a master for the rest. Keep the number of templates to a minimum to reduce maintenance and upgrade work.

Open a template for editing



- 1 Start Customize if necessary.

If Customize is already open, click the **Open** button, or on the **File** menu, click **Open**.

- 2 Click a template name on the list.

The **Prefix** box displays the file name prefix for the configuration file that contains template settings.

The **Encounter Type** box indicates the hospital environment in which the template will be used. Depending on where CareSuite is used, the list may include entries for perioperative, critical care and general wards.

For more information, see “Templates, Sessions and Encounters” on page 14.

The **Edit** button allows you to edit the names of the existing encounters and add new ones.

- 3 Click **Open**.

Create a new template

- 1 Start Customize if necessary.

The Open dialog box is displayed automatically. All new templates are based either on Picis default settings or an existing template. Picis recommends using an existing template.

- 2 To base the new template on an existing template, do the following:
 - ▶ Open the existing template and then use **Save As** command on the **File** menu to save it under a new name.
Customize will close the template and display the Open dialog box again.
 - ▶ Click **New**.
In **Description**, enter a name for the template. This name will be displayed on the time bar on flowsheets.
 - In **Prefix**, enter an abbreviation of up to five letters. This will be used as the file name prefix for template configuration files. It should be unique in the CareSuite system and should only contain alphanumeric characters (no dashes, underscores, spaces etc.)
 - In **Encounter Type**, select a care area with which to associate the template. This text will appear in parentheses before the template name in the time bar.
You can create a new entry or edit an existing one, by clicking **Edit**. (See “Encounter Types for Templates” on page 157.)
- 3 Click **OK**.
- 4 Click the template name and then click **Open** and proceed to customize the template.

Set the encounter type



- 1 Click the **Open** button.
Or, on the **File** menu, click **Open**.
- 2 Click a template name on the list.
- 3 In **Encounter Type**, select a care area with which to associate the template.
You can create a new entry or edit an existing one, by clicking **Edit**
- 4 Click **Open**.

Save a template



- ◆ Click the **Save** button.
Or, on the **File** menu, click **Save**.

Starting and Ending Sessions

You can configure the system to do the following when users start and end sessions:

- Require users to log on when starting a session.
- Close the application after each session.
- Prompt users for confirmation when exiting the application.
- Allow users to discontinue orders from the previous session when transferring a patient out of or into a room or bed.
- Apply or waive access right requirements when users discontinue orders during patient transfers.
- Open the Demographics window when transferring or discharging a patient. (This feature would typically be used in the OR to allow users to check that all required information has been documented. See *also* “Demographics” on page 58.)

Require a log-on to start a new session



- 1 Click the **Configuration Parameters** button.
Or, on the **Template** menu, click **Configuration Parameters** and then **Preferences**.
- 2 Select the **Log on required to start new session** check box.
- 3 Click **Close**.

Configure application to exit between patients



- 1 Click the **Configuration Parameters** button.
Or, on the **Template** menu, click **Configuration Parameters** and then **Preferences**.
- 2 Select the **Application closes between patients** check box.
Note: Picis recommends clearing this check box when implementing the system for CCOW compliance.
- 3 Click **Close**.

Prompt users for confirmation when quitting an application



- 1 Click the **Configuration Parameters** button.
Or, on the **Template** menu, click **Configuration Parameters** and then **Preferences**.
- 2 Select the **Prompt for confirmation when exiting application** check box.
- 3 Click **Close**.

Prompt users to discontinue orders when transferring a patient



- 1 Click the **Configuration Parameters** button.
Or, on the **Template** menu, click **Configuration Parameters** and then **Preferences**.
- 2 Set the system to prompt users to discontinue orders on a patient's chart when transferring a patient out of a location or in to another (or both):
 - ▶ To allow users to discontinue some or all orders when transferring the patient out of a bed or room, select the **Prompt to discontinue orders when transferring patient OUT** check box.
 - ▶ To allow users to discontinue some or all orders from the previous session when transferring a patient into a bed or room, select **Prompt to discontinue orders when transferring patient IN** check box.

- ▶ To allow users in this situation to discontinue only the orders for which they have appropriate access rights, select the **Apply access rights when discontinuing orders during patient transfers** check box. (Prescription rights may be required to discontinue an order. (See “Rights needed to discontinue orders” on page 103). With this option selected, some users may be unable to discontinue some orders.)
- 3 Click **Close**.

Display the Demographics window when ending a session



- 1 Click the **Configuration Parameters** button.
Or, on the **Template** menu, click **Configuration Parameters** and then **Preferences**.
- 2 Select the **Open Demographics on transfer/discharge** check box.
- 3 Click **Close**.

Configure the Home screen



- 1 Click the **Configuration Parameters** button.
Or, on the **Template** menu, click **Configuration Parameters** and then **Preferences**.
- 2 In **Home Screen**, select a screen layout. (Screen layouts are created in Anesthesia Manager, PACU Manager or Critical Care Manager using the **Save Screen As** command on the **Window** menu.)
- 3 Click **Close**.

Preferences for Real-Time Data

You can configure data editing parameters as follows:

- Allow users to edit data from devices. This option does not affect manual data entry for non-device variables.
- Allow users to edit real-time data after it has been validated. (The validation feature is typically used in critical care environments but not

perioperative ones. See *also* “Configuration Options for All Flowsheets” on page 70.)

- Change the color that identifies edited values on flowsheets. The default color is red. If users might confuse a red value with alert status, for example, you can use another color.
- Set the default status for alerts. Alerts identify values that are outside of configured alert limits for a variable.

Allow users to edit device data



- 1 Click the **Configuration Parameters** button.
Or, on the **Template** menu, click **Configuration Parameters** and then **Preferences**.
- 2 Select the **Device data can be edited** check box.
- 3 When you are finished setting data-editing parameters, click **Close**.

Allow users to edit validated real-time data



- 1 Click the **Configuration Parameters** button.
Or, on the **Template** menu, click **Configuration Parameters** and then **Preferences**.
- 2 Select the **Real-time data can be edited after validation** check box.
- 3 When you are finished setting data-editing parameters, click **Close**.

See *also* “Configuration Options for All Flowsheets” on page 70.

Set the color for edited real-time data



- 1 Click the **Configuration Parameters** button.
Or, on the **Template** menu, click **Configuration Parameters** and then **Preferences**.

- 2 In **Edited Data Color**, set the color for data that has been edited manually.
- 3 Click  to open a palette of colors.
- 4 Select a color.
- 5 Click **OK**.
- 6 When you are finished setting data-editing parameters, click **Close**.

Set the default status of alerts



- 1 Click the **Configuration Parameters** button.
Or, on the **Template** menu, click **Configuration Parameters** and then **Preferences**.
- 2 Select the **Alerts ON by default** check box.
- 3 Click **Close**.

Alerts are triggered when the data for a real-time variable is outside a predefined range. (See “Configure variable properties” on page 35.) Alert values appear outlined in red on flowsheets and highlighted in red on the Vital Signs bar. Users can turn alerts on and off during a session. The default setting determines the status at the start of a session.

Notes: Alerts in CareSuite are visible not audible. Users must also attend to alert warnings from devices when working with patients.

Shifts and Time Intervals

You can set a number of time-related parameters for the template:

- Real-Time Data Interval: The frequency for capturing device data automatically. A new column of device readings is added to the patient chart at this interval. Users can change the interval during a session (if the command is included in the template).
- Emergency Data Reserve: The number of hours of device data that are stored in a temporary buffer. Users can recover data from the buffer and add it during a session.

- Daily Shifts: The number of shifts, and the starting and ending time for each. This information is used in the Fluid Balance window and in the Patient Summary.

Set the real-time data interval



- 1 Click the **Configuration Parameters** button.
Or, on the **Template** menu, click **Configuration Parameters** and then click **Intervals and Shifts**.
- 2 In the **Real-Time Data Interval** box, select an interval. To set a custom interval, click the **Other** check box and enter an interval.
Recommended intervals:
ICU: 10–30 minutes
OR: 2–5 minutes
- 3 When you are finished setting time-related parameters, click **Close**.

Set the capacity of the emergency data reserve



- 1 Click the **Configuration Parameters** button.
Or, on the **Template** menu, click **Configuration Parameters** and then click **Intervals and Shifts**.
- 2 In the **Emergency Data Reserve** box, select the number of hours emergency data that you want to maintain in reserve.
- 3 When you are finished setting time-related parameters, click **Close**.

Configure the daily shift schedule



- 1 Click the **Configuration Parameters** button.
Or, on the **Template** menu, click **Configuration Parameters** and then click **Intervals and Shifts**.
- 2 Under **Daily Shifts**, select up to four shifts.

- 3 Enter the starting time of each shift based on a 24 hour clock. Shifts must be equal in length and the starting times must be entered in chronological order (the shift that includes midnight must be last).
- 4 When you are finished setting time-related parameters, click **Close**.

Printouts

Formats for printouts were developed and installed during implementation. Depending on the clinical environment you may need to configure the behavior of printouts as follows:

- Auto-Printouts: The application can print patient data automatically up to 15 times each day. This feature would typically be used in Critical Care Manager.
- Print on transfer/discharge: The application can open the Printout Loader window automatically when the user ends a session. This feature would typically be used in an Anesthesia Manager and PACU Manager.

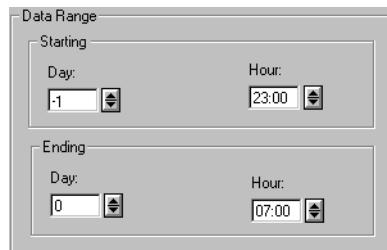
For more information, see the *Printouts Guide*.

Set up printouts for Critical Care Manager



- 1 Click the **Configuration Parameters** button.
Or, on the **Template** menu, click **Configuration Parameters** and then click **Auto-Printouts**.
- 2 Select **Automatic printouts**.
- 3 In **Printouts per Day**, select the number of printouts to output each day.
- 4 For each daily printout, set the following:
 - ▶ In **Printout No.**, select the number of the printout to configure.
 - ▶ In **Print Time**, set the printing time.
 - ▶ Under **Data Range**, set the starting and ending times for the range of data to print.
Each starting and ending point is defined in relation to the current day.
 - Day = 0: Range starts or ends within the current calendar day.
 - Day = -1: Range starts or ends within the previous calendar day.

For example, the following settings define a data range starting at 11:00 PM the previous day and ending at 7:00 AM the current day.



- ▶ In **Model**, select the printout type to use.
- ▶ Under **Output**, select the format for the printout. You can select a different output style for each printout no.
- ▶ (Select **To file** or **Both** to save an electronic record of each printout (most likely an Excel file or a PDF) to a predefined network folder.
For more information, see the *Printouts Guide*.

5 Click **Close**.

Print when transferring or discharging a patient



- 1 Click the **Configuration Parameters** button.
Or, on the **Template** menu, click **Configuration Parameters** and then click **Preferences**.
- 2 Select the **Print on transfer/discharge** check box.
- 3 Click **Close**.

Transfer or discharge patient after printing



- 1 Click the **Configuration Parameters** button.
Or, on the **Template** menu, click **Configuration Parameters** and then click **Preferences**.
- 2 Select the **Prompt to transfer/discharge after printout** check box.

- 3 Click **Close**.

Patient Information Band

The Patient Information Band appears at the top of the patient chart and contains basic patient information and the Precautions/Allergies box.

Heather Powitt	Medication allergies: Other allergies: Precautions:
Gender: Female, Wt: 55.0, Ht: 170.2, BSA: 1.63, LOS: 1 day(s)	

The bar can also include up to four status icons to the right of the Allergies/Precautions box:

Icon	Name	When outlined in red
	New Demogs/Labs data	Indicates when new demographic or laboratory data for the patient has been received. (From the hospital information system (HIS), laboratory link (LIS), OR Manager, or remotely from another workstation.)
	Care Beacon	The chart contains orders with pending tasks that need to be documented.
	New CareSuite Orders	New medication, fluid or nursing care orders have been added to the patient chart from a CareSuite workstation or order entry system. The red outline is removed from the icon when all new orders are acknowledged or when data is documented for them.
	New External Orders	New external orders that will not appear in CareSuite (such as laboratory orders) have been entered in an external order entry system. Users should check the order entry system. Note that this icon will not turn red for external orders that appear in CareSuite.

What you can configure

- Data elements (medication allergies, other allergies, precautions) to include in the Allergies/Precautions box.
- Status icons to include: Care Beacon, HIS, New CareSuite Orders and New External Orders.

Configure the Allergies/Precautions box



- 1 Click the **Configuration Parameters** button.
Or, on the **Template** menu, click **Configuration Parameters**, and then click **Allergies/Precautions Box**.
- 2 Under **Allergies and Precautions**, click the box next to a category to show items from that category in the Allergies/Precautions box.
- 3 Under **Allergies and Precautions**, click a category name and then click the up or down arrow to move it up or down on the list. The categories will be displayed in this order.
- 4 Click **Close**.

Note: Users can see all documented allergies and precautions in the Demographics window regardless of the configuration of the Allergies/Precautions box.

Add or remove the HIS icon

- 1 Navigate to the following directory using the Windows Explorer:
C:\Picis\Config\ChartPlus\RealTime
- 2 Double-click the real-time pcs file for the template you want to edit. (For example, the template for the default general anesthesia template is called ga_rt.pcs.)
The Picis Configuration Editor will open.
- 3 Under [Application], set the ShowHisLanIcon parameter to TRUE to show the icon, or to FALSE to hide it.
- 4 On the **File** menu, click **Exit**.

Add or remove the New Orders icon



- 1 Click the **Configuration Parameters** button.
Or, on the **Template** menu, click **Configuration Parameters** and then click **Preferences**.
- 2 Select the **Acknowledgement of new orders required** check box.
- 3 Click **Close**.

Add or remove the New External Orders icon

- 1 Navigate to the following directory using the Windows Explorer:
C:\Picis\Config\ChartPlus\RealTime
- 2 Double-click the real-time pcs file for the template you want to edit. (For example, the template for the default general anesthesia template is called ga_rt.pcs.)
The Picis Configuration Editor will open.
- 3 Under **[Application]**, set the **ShowGoToPOESAlert** parameter to **TRUE** to show the icon, or to **FALSE** to hide it.
- 4 On the **File** menu, click **Exit**.

Add or remove the Care Beacon



- 1 Click the **Configuration Parameters** button.
Or, on the **Template** menu, click **Configuration Parameters** and then click **Preferences**.
- 2 Select the **Display care beacon** check box.
- 3 Click **Close**.

Devices and Real-Time Variables

About Real-Time Variables

The term *real-time variable* in CareSuite refers to device-related and other physiologic parameters that appear on the standard flowsheet Real-Time Variables. Data is typically supplied by devices connected to the workstation. If not supplied by a device, data for a parameter can be entered manually. Heart Rate, for example, is typically supplied by a device while Patient Weight is entered manually. The Real-Time Variables flowsheet can contain up to 992 variables. Six variables from the flowsheet can appear on the optional Vital Signs bar.

Derived variables are real-time variables that obtain their data from calculations performed on data for other real-time variables. Calculations may use constants from the database or data from devices. You cannot enter data manually for these variables.

Real-time variables are sometimes also used for laboratory parameters, particularly items that are analyzed at the bedside, such as glucose and arterial blood gases. Picis recommends using real-time variables for laboratory data that will be entered manually by caregivers. (Laboratory components, the other type of laboratory data, are designed for use with a link to the laboratory system.)

Note that data from infusion pumps connected to the workstation is displayed with other fluid intake data.

Configuring Real-Time Variables

The Real-Time Variables wizard guides you through the process of configuring devices connected to the workstation. In the process, you also select the variables for the Real-Time Variables flowsheet and the Vital Signs bar.

You can modify an existing configuration by going to the corresponding wizard step and making needed changes. Variables selected using the wizard can be used when configuring custom flowsheets and trends.

Some steps involve hardware settings and others involve template settings:

- Hardware-related steps affect the system at the workstation level and therefore will be in effect for all sessions at the workstation thereafter. When you change a hardware setting while working in a template, you are changing it for all templates.
- Template-related steps are hardware-independent and affect the system at the template level. These settings can vary from template to template. When you change a hardware-independent setting, you are changing it only in the template you are working with.

Step	Task	Level
Devices and Ports	Assign device drivers to ports.	Workstation
Devices and Variables	Select variables from each device to include on the patient chart.	Workstation
Real-Time Variables flowsheet	Create and add any needed custom variables using wildcards. Add variables that require manual data entry. Add derived variables as necessary. Arrange the variables in the order in which you want them to appear on the patient chart. Set variable properties as necessary.	Template (however, if you remove a device variable in this step, it will be removed from all templates)
Flowsheet Preview	Review the list of variables.	Template
Vital Signs Bar	Select variables to appear on the Vital Signs bar. Configure supplementary information for the bar (fluid balance or patient weight, height and BSA).	Template

The process of selecting variables and assigning them to drivers is largely automatic:

- If you add a new driver to the system, all variables provided by the device are added to the chart (unless an existing driver already provides data).

- If the new driver can provide data for a derived variable or one that is configured for manual data entry, these variables will be assigned to the driver automatically.
- When more than one device can supply data for a variable, the variable is assigned automatically to the first device on the list (by port number).

For derived variables, you can take data from the driver, using the device formula for calculating values, or calculate data using the formula in the database. You can view the database formula while using the Real-Time Variables wizard.

Configure a device driver



- 1 Click the **Real-Time Variables** button.
Or, on the **Template** menu, click **Real-Time Variables**.
- 2 In the **Available Drivers** box, click a driver name to select it.
- 3 In the **Communication Ports** box, click the number of the port where the device is connected and then click **>>**.
(Click **<<** to remove a device driver.)
- 4 Click **Next >>** to select device variables for the patient chart.

Select variables for each device



- 1 Click the **Real-Time Variables** button.
Or, on the **Template** menu, click **Real-Time Variables**.
- 2 Click **Next >>** to go to the Devices and Variables dialog box.
- 3 The **Drivers and Variables** box shows the drivers configured for the workstation along with their port numbers. Double-clicking a driver name expands the list of variables that it can provide.
By default, the system selects all possible variables for new drivers added to the system, unless the variable is already associated with another driver.

A green check mark next to a variable name indicates that the variable is selected. The variable name appears in the **Selected Variables** box along with the name of the driver.

- 4 In the **Drivers and Variables** box, click a variable to select it or remove it. (If a device supports a derived variable, you may want to remove it in this step, and then select it in the next step, so that data for the variable is provided by the database. Click **Derived Variables** to see the formulas used by derived variables in the database.)
- 5 To select a different device for the variable do the following:
Click the variable name under the name of the assigned driver to remove it. Then click the variable name under the preferred driver.
Or, right-click the variable name in the **Selected Variables** box. Then point to **Assign Driver** and select the preferred driver.
- 6 Click **Next >>** to add manual and derived variables and adjust the order of variables on the list.

Select derived variables



- 1 Click the **Real-Time Variables** button.
Or, on the **Template** menu, click **Real-Time Variables**.
- 2 Click **Next >>** twice to go to the Real-Time Variables Flowsheet dialog box if necessary.
- 3 In the **Selected Variables** box, click the variable under the insertion point for the new variable. (The new variable will be added above the selected variable.)
- 4 In the **Click'n Link Library** box, double-click the derived variable you want to add.
Note: if you want a device to supply data for a derived variable, return to the previous step in the wizard and select the variable under the corresponding driver.
- 5 In the **Selected Variables** box, click the derived variable and then click **Properties**.
Change the properties of the variable if necessary. (See “Configure variable properties” on page 35). When you are finished, click **Close**.

- 6 Click **Close**.
- 7 Click **Next >>** to see a preview of the real-time variables list as it will appear on the Real-Time Variables flowsheet.

Select variables for manual entry



- 1 Click the **Real-Time Variables** button.
Or, on the **Template** menu, click **Real-Time Variables**.
- 2 Click **Next >>** twice to go to the Real-Time Variables Flowsheet dialog box if necessary.
- 3 In the **Selected Variables** box, click the variable under the insertion point for the new variable. The new variable will be added above the selected variable.
- 4 In the **Click'n Link Library** box, double-click the variable you want to add. (If you need to create a custom variable, choose an available “Wildcard Variable” (codes D01 through F9F).
Note: if you need to add a device variable, return to the previous wizard step and select the variable under its driver. Variables added in the current window cannot be linked to devices.
- 5 In the **Selected Variables** box, click the variable and then click **Properties**. View and change the properties of the variable if necessary. (See “Configure variable properties” on page 35). When you are finished, click **Close**.
- 6 Click **Next >>** to see a preview of the real-time variables list as it will appear on the Real-Time Variables flowsheet.

Note: For Intensive Care templates, make sure that the *Patient Weight* variable (code 505) is present.

Adjust the order of variables on the flowsheet



- 1** Click the **Real-Time Variables** button.
Or, on the **Template** menu, click **Real-Time Variables**.
- 2** Click **Next >>** twice to go to the Real-Time Variables Flowsheet dialog box if necessary.
- 3** In the **Selected Variables** box, click a variable and then click the up or down arrow to move it up or down on the list.
- 4** Click **Next >>** to see a preview of the real-time variables list as it will appear on the Real-Time Variables flowsheet.

Configure variable properties



- 1** Click the **Real-Time Variables** button.
Or, on the **Template** menu, click **Real-Time Variables**.
- 2** Click **Next >>** twice to go to the Real-Time Variables Flowsheet dialog box if necessary.
- 3** Click **Properties**.
- 4** In **Variable**, choose the variable you want to work with.
Set the properties.
- 5** Click **Close**

Variable Property *	Description
Copy Forward	Data for the variable will be entered manually and automatically repeated in succeeding columns until a new value is entered. (Although Customize allows you to do so, you should not set copy forward for device variables.)
Show copy-forward symbol	Determines whether or not a symbol appears with values for variables configured for copy-forward data entry. Only available if the Copy Forward box option is selected.

Mathematical Function	Allows you to select the method for representing device data. You can configure a variable to display data in one of the following ways: Average: average of all values received during the interval. Median: value which has an equal number of values above and below it (during the interval). Last Value: last value received during the interval For example, the user would see different values in the cell depending on the data type:	
	DATA RECEIVED DURING INTERVAL	4.0, 5.0, 6.0
	LAST VALUE	6.0
	AVERAGE	5.0
	MEDIAN (50% of the values are below this value and 50% are above)	5.0
Alert LOW and Alert HIGH	Limits that define the levels at which alerts are triggered.	
Artifact LOW and Artifact HIGH	Limits that allow you to reject data generated by electrical or mechanical interference. Artifact limits are also useful for filtering out zero values when a device is turned off during a session. Tip: You can use artifact limits to prevent data-entry errors by limiting the values that can be entered for a non-device variable. For example, in neonatal intensive care units, users are accustomed to documenting patient weight in grams. Picis handles all weights in kilograms. The rejection limits for Patient Weight can be set to discard values that are impossible for a newborn.	
Format	The format for the data as a number with up to three decimal places, or text.	

Review the real-time variables list



- 1 Click the **Real-Time Variables** button.
Or, on the **Template** menu, click **Real-Time Variables**.
- 2 Click **Next >>** three times to go to the Flowsheet Preview window if necessary.
The preview shows details of the variables you have chosen for the Real-Time Variables flowsheet. You can sort the variables by any of the columns

in the preview window without changing the configured order. Use the **Restore** button to return to the configured order after sorting.

Click << **Previous** to return to previous steps to add, remove or move variables if needed.

- 3 Click **Next >>** to select variables for the Vital Signs bar. Or, if you are finished, click **Close**.

APACHE II Score

If you want to allow users to calculate a patient's APACHE II score, the following variables must be present in ALL templates that might be used during the first 24 hours of a patient's stay in the ICU:

- Heart Rate (C001)
- Mean Arterial Pressure (C012, 982, 985, 023, 015, 972)*
- Rectal Temperature (C057, 055, 050-054, 056)*
- Resp Rate Vent (C100, 080, 158)*
- FiO2 (C130, 12F)
- A-aDO₂ (C185), derived using this formula:
$$185 = (((X-47)*(\#130/100))-(\#202/0.8))-\#201$$
Where X is a constant set using Customize (its value is usually 747).
- PaCO₂ (C202), unless this data is provided by the lab component with DBOID 02600000000008000000.
- PaO₂ (C201), unless this data is provided by the lab component with DBOID 02600000000007000000.
- Arterial pH (C200), unless this data is provided by the lab component with DBOID 02600000000006000000.
- Hematocrit (C241), unless this data is provided by the lab component with DBOID 02600000000001000000.
- Serum Sodium (C242), unless this data is provided by the lab component with DBOID 02600000000002000000.
- Serum Potassium (C243), unless this data is provided by the lab component with DBOID 02600000000003000000.

- White Blood Cell Count (C248), unless this data is provided by the lab component with DBOID 026000000000005000000.
 - Serum Creatinine (C249), unless this data is provided by the lab component with DBOID 026000000000004000000.
- * For variables with more than one CNL code, the system looks in the template for each code in a predetermined order and uses the value from the first one found for the calculation.

Note that the Glasgow Coma RT score is also required.

Vital Signs Bar

The Vital Signs bar displays the most recent data for up to six real-time variables, highlighting in red any values that are within the alert range. The bar also shows the current Real-Time Data Interval at the top and, if configured, the patient's fluid balance. The fluid balance is useful in perioperative environments.

This accessory is only available at bedside workstations.

Choose what to display on the Vital Signs bar



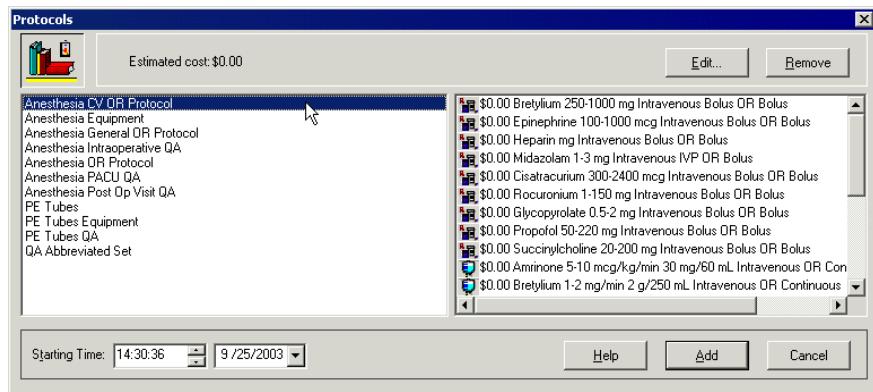
- 1 Click the **Real-Time Variables** button.
Or, on the **Template** menu, click **Real-Time Variables**.
- 2 Click **Next >>** four times to go the Vital Signs Bar dialog box if necessary.
- 3 In the **Chart Variables** box, double-click a variable to add it to the list. You can include up to six variables on the Vital Signs bar.
- 4 To remove a variable from the list, click it in the box on the right, and then click **<<**.
- 5 To remove all variables from the list, click **<<Remove All**.
- 6 Use the **Move** arrows to change the position of the variable on the Vital Signs bar.
- 7 Under **Bar Includes**, click **Fluid intake and output** to display the fluid balance at the bottom of the bar.

- 8 Click **Close**.

Main Chart Features

Protocols

A protocol is a predefined group of standard orders. Protocols can be associated with a template so that the orders are added to the patient chart automatically at the start of a session. Users will be able to add protocols during a session if the **Protocols** command on the **Orders** menu is configured. (See “Configure menus” on page 90.)



Protocols can include orders from any of the treatment categories in the database (Medications, Fluid Intake, Fluid Output, Laboratory Components, Respiratory, Assessments, QA Indicators, Equipment, Scores and Nursing Care).

You can associate up to three protocols with a template:

Default	Anesthesia Manager, PACU Manager, Critical Care Manager: Orders that will be added to every patient's chart at the start of a session. (When starting a session with a transfer patient, a user can choose to skip the default protocol to avoid duplicating items already on the chart from the last session.)
Equipment	Anesthesia Manager, PACU Manager: Items to display in the Equipment window for documenting the devices, instruments and supplies used in a surgical procedure.
QA Indicators	Anesthesia Manager, PACU Manager: Items to display in the QA Indicators window for documenting quality assurance criteria.

Medications, fluids, and laboratory components appear on the corresponding standard flowsheet. Items from these groups also appear on the custom flowsheets that have been configured for them. (See “Create or edit a tabular flowsheet section” on page 76).

Equipment lists appear in the Equipment window and quality assurance criteria appear in the QA Indicators window. Clinicians may want to see these items on flowsheet instead of, or in addition to, the specialized windows. By default, the system is configured to exclude items in the Equipment and Quality Assurance categories from flowsheets. To show these items on custom flowsheets, see “Equipment checklists on flowsheets” on page 108 and “Quality assurance criteria on flowsheets” on page 108.

Configure a default protocol



- 1 Click the **Protocols** button.
Or, on the **Template** menu, click **Protocols**.
- 2 In **Default Protocol**, select a protocol.
- 3 Click **Close**.

Configure items for the Equipment window



- 1 Click the **Protocols** button.
Or, on the **Template** menu, click **Protocols**.
- 2 In **Equipment**, select a protocol.
- 3 Click **Close**.

Configure items for the QA Indicators window



- 1 Click the **Protocols** button.
Or, on the **Template** menu, click **Protocols**.
- 2 In **QA Indicators**, select a protocol
- 3 Click **Close**.

Add one or more protocols to the library



- 1 Click the **Protocols** button.
Or, on the **Template** menu, click **Protocols**.
- 2 Click the **Library** tab.
- 3 In the **Available Protocols** box, select one or more protocols to add and then click **>>**.
To select a group of protocols, you can hold down the shift or control key while clicking. SHIFT allows you to make adjacent selections; CTRL allows you to select non-adjacent events.
- 4 Click **Close**.

Events

Events allow caregivers to record milestones in a session. Each template includes a library of events that are relevant to the environment or case type.

During a session, users select events from the library and add them to the events log.

Events are grouped in *event types* and *event sets* to make them easy to locate. *Event types* are groups of clinically-related events, such as those related to the patient's airway. *Event sets* are groups of events that are usually documented together during surgery.

The database contains the complete list of events and event types in the system. You can modify the event library for a template by choosing events from one or more event types, and by choosing the event sets to show. You can also add new events to the database. If you want to create new event types, see “Working with Auxiliary Tables” on page 162.

For information on creating event sets, see “Event Sets and Macros” on page 110. In addition to the content of the events library, you can configure the Events window in several other ways:

What you can configure

- Whether to show the date for each event in addition to the time.
For more information, see “Include the date in the Events log” on page 44.
- Whether users can delete events and, if so, whether this includes only their own events or also those documented by other users, and the time limit.
For more information, see “Allow users to delete events” on page 44
- Whether to require confirmation when a user deletes one event. (The system automatically prompts users for confirmation when they delete multiple events.)
For more information, see “Allow users to delete events” on page 44
- Which tab (Event Sets, All Events, Keyword Search) to display by default in the Event the Add Events window.
For more information, see “Set the default tab in the Add Events window” on page 45.
- The default event type in the Supervisory Anesthesia Module (SAM) window.
For more information, see “Select default supervisory event type” on page 46.
- Event sets and event macros.

For more information, see “Create or edit an event set” on page 111 and “Configure an event set as a macro” on page 111.

- Macro toolbar.

For more information, see “Configure a macro as an add-in” on page 83.

Add one or more events to the events library



- 1 Click the **Events** button.
Or, on the **Template** menu, click **Events**.
- 2 In **Type**, select the type of event(s) to add.
- 3 In the **Available Events** box, select one or more events to add and then click **>>**.
To select a group of events, you can hold down the shift or control key while clicking. SHIFT allows you to make adjacent selections; CTRL allows you to select non-adjacent events.
- 4 Repeat steps 3 and 4 to add events from other event types.
- 5 Click **Close**.

Tip: To see the event type for an event in the **Selected Events** box, hold the cursor over its name.

Create a new event and add it to the events library



- 1 Click the **Events** button.
Or, on the **Template** menu, click **Events**.
- 2 Click **New**.
- 3 In **Type**, select the type of event to create.
- 4 In the **Description** box, enter the event text.
- 5 Click **OK**.
- 6 Click **Close**.

Remove one or more events from the library



- 1 Click the **Events** button.
Or, on the **Template** menu, click **Events**.
- 2 In **Type**, select the type of event(s) to add.
- 3 In the **Selected Events** box, click one or more events to delete.
To select a group of events, you can hold down the shift or control key while clicking. SHIFT allows you to make adjacent selections; CTRL allows you to select non-adjacent events.
- 4 Click **Delete**.
To remove all events, click **Clear All**.
- 5 Click **Close**.

Required Settings: Do not delete the *Memo* system event from any template.

Include the date in the Events log



- 1 Click the **Events** button.
Or, on the **Template** menu, click **Events**.
- 2 Click **Show date in events log**.
- 3 Click **Close**.

Note: The date is less useful in perioperative environments where sessions generally last less than one day.

Allow users to delete events



- 1 Click the **Events** button.
Or on the **Template** menu, click **Events**.
- 2 To allow users to delete events that they themselves entered, click **Users can delete own events**.

- 3 To allow users to delete events that other users entered, click **Users can delete events entered by others**.
- 4 To prompt users for confirmation when deleting a single event, click **Prompt for confirmation when deleting events**.
- 5 To prevent deletion of events that occurred too far back in time, enter a value greater than 0 in **Time limit in hours for deleting events**. Note that this will prevent deletion of an event based on the time it occurred, not the time it was documented.
- 6 Click **Close**.

The Events window will include the **Delete** button if any of these options is selected.

Set the default tab in the Add Events window



- 1 Click the **Events** button.
Or on the **Template** menu, click **Events**.
- 2 In **Default Tab for Add Events window**, select a tab.
- 3 Click **Close**.

Add an event set to the library



- 1 Click the **Events** button.
Or on the **Template** menu, click **Events**.
- 2 Click the **Event Set** tab.
- 3 In the **Available Event Sets** box, select one or more event sets to add and then click **>>**.

To select a group of events, you can hold down the shift or control key while clicking. SHIFT allows you to make adjacent selections; CTRL allows you to select non-adjacent events.

(To create a new event set, click **New** then follow the instructions in the section “Event Sets and Macros” on page 110.)

- 4 Click **Close**.

Select default supervisory event type



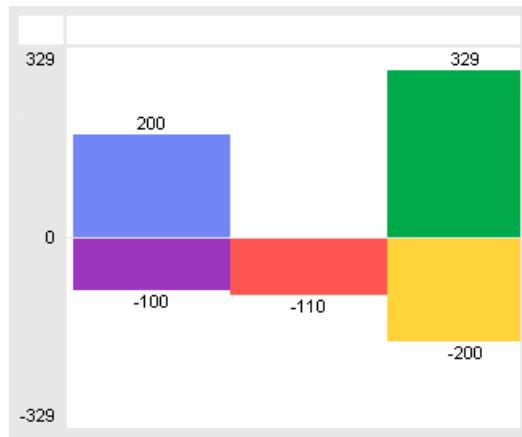
- 1 Click the **Events** button.
Or on the **Template** menu, click **Events**.
- 2 Click the **SAM** tab.
- 3 In **Default Event Type**, select an event type.
- 4 Click **Close**.

Fluid Balance Window

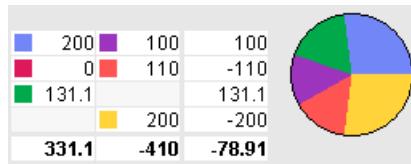
The Fluid Balance window shows total fluid intake and output graphically. You can choose from three formats:

- Bar graph with multiple time views (Shift, Day, Week, Admission and optionally, Session and Encounter). Users can scroll in all time views except Admission.

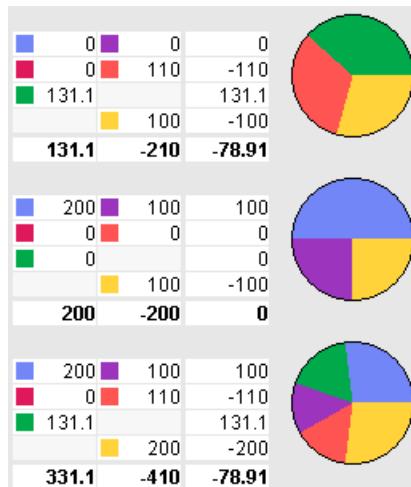
You can set the default time view and, for all time views except Admission, the time period (current or previous).



- Pie chart showing the overall balance for the admission and, optionally, for the encounter as well.



- A special version for cardiac bypass surgery is available with three pie charts: one for fluids documented by the anesthesiologist, another for fluids documented by the perfusionist, and a third for total intake and output.



For a fluid to appear on the bypass fluids pie chart, it must belong to a fluid family that is designated for bypass. You can configure any fluid family in the database for bypass. It's helpful to include the word "bypass" in the name of bypass fluids.

▼ Fluids IN
▶ Blood Products
▶ Blood Products (Bypass)
▶ Medication Infusions
▶ Medication Infusions (Bypass)
▶ Other Fluids
▶ Other Fluids (Bypass)
▼ Fluids OUT
▶ Blood Loss
▶ Blood Loss (Bypass)
▶ Other Fluid Loss
▶ Other Fluid Loss (Bypass)
▶ Urine
▶ Urine (Bypass)

Examples of bypass and non-bypass versions of typical fluid families on the Fluids flowsheet. Perfusionists document intake and output during bypass using the bypass entries.

If you cannot find suitable fluid families in the database, you can create them using DB Editor.

Configure the fluid balance window



- 1 Click the **Fluid Balance** button.
Or, on the **Template** menu, click **Fluid Balance**.
- 2 In **Format**, select the fluid balance type.
- 3 Click **Include all time views**, to add buttons for the “Session” and “Encounter” views (bar graphs) or for the “Encounter” view (pie charts).
- 4 For bar graphs, under **Default View**, select a default view from the following:
Shift, Day, Week, Session, Encounter or Admission.
Under **Default Viewing Period**, select a default time period.
The default time period can be the current period or the previous period for the chosen default view (for example, the current session or previous session, if session is chosen as the default view).
- 5 Click **Close**.

Configure bypass fluid families



- 1 Click the **Fluid Balance** button.
Or, on the **Template** menu, click **Fluid Balance**.
- 2 In **Format**, select **Triple pie chart**.
- 3 Click **Bypass fluids**.
- 4 Under **Available Fluids Families**, select the names of the families to use for documenting bypass fluid intake and output.
- 5 Click **>>**. The bypass families are added to the selection list.
- 6 To remove a family from the selection list, click its name in **Fluids Families for Bypass**. Then click **Delete**.
- 7 Click **Close**.

Patient Summary

The Patient Summary provides an overview of patient data from a particular time period to help clinicians monitor patient progress and communicate key information. Users can generate a summary whenever needed, for example at the start or end of a shift. Users can also add different types of notes to a report. If a suitable link is available, users can send streamlined reports to the Hospital Information System (HIS).

A summary can include the sections listed in the following table.

Section	Data Displayed
Allergies	Allergies documented in the Demographics window.
Notes	Notes entered by clinicians in the Patient Summary module.
Events	Events from either the selected viewing period or the last 12 hours, depending on user selection.
Data Tables	Predefined tables showing data for selected real-time variables and laboratory components.
Active Orders	Active fluids, medications and protocols.
Assessments and Scores	Results of nursing assessments and scores.
Fluid Balance	Fluid balance for the current shift, previous shift, current day, previous day and the entire admission.
Diagnoses and Procedures	Diagnoses and procedures documented in the Demographics window.

*What you
can configure*

- Sections to include in the report.
For more information, see “Configure sections for a report” on page 52.
- Tables for real-time data.
“Add a real-time data table” on page 53.
- Tables for laboratory results.
For more information, see “Add a laboratory table” on page 54.
- The order of data tables in a report.
For more information, see “Change the order of data tables” on page 55.
- Viewing periods that users can select when creating reports.
For more information, see “Configure viewing periods for the report” on page 51.
- Note types available to users.

For more information, see “Create or modify a note type” on page 204.

- You can allow users to send streamlined reports to the HIS and configure the different possible report types.

For more information, see “Create or modify a note type” on page 204.

Configure viewing periods for the report



- 1 Click the **Patient Summary** button.
Or, on the **Template** menu, click **Patient Summary**.
- 2 Click the **Viewing Periods** tab.
- 3 Under **Configure Viewing Periods for**, click **Current Report tab** or **Notes tab**.
- 4 In **Standard Periods**, click each viewing period you want to include and then click **>>**.
The **Standard Periods** box includes **Current shift**, **Previous shift**, **Current day** and **Previous day**. See “Configure the daily shift schedule” on page 24 for details of setting shift times.
The **<Starting date> to <Ending date>** viewing period allows users to define a custom viewing period.
- 5 To create a view period, do the following:
 - ▶ In the **Custom Period** box, enter a name for the viewing period.
 - ▶ In **Duration** enter the duration of the period in hours (up to 96).
 - ▶ Click **>>** to add the period to the **Selected Time Periods** box. Repeat this step for each custom period you want to add.
- 6 To remove a viewing period from the list, click it in **Selected Time Periods** and then click **<<**. (Note that you cannot remove the All Notes viewing period.)
- 7 Set the order of viewing periods for both the main report and notes:
 - ▶ In the **Selected Time Periods** box, click a time period.
 - ▶ Click the UP or DOWN arrow to move it to the new position.
- 8 Set the default time period:

- ▶ In the **Selected Time Periods** box, click a time period.
- ▶ Click **Set as Default**.

Or, in **Current Configuration**, under Current Report tab, click a viewing period.

- 9 When you are finished configuring the Patient Summary, click **Close**.

Configure sections for a report



- 1 Click the **Patient Summary** button.
Or, on the **Template** menu, click **Patient Summary**.
- 2 Choose the patient identification number to display on the report as follows:
 - ▶ In the **Current Configuration** box under **Heading and Number**, click an identification number.
- 3 Choose sections to include on the report:
 - ▶ In the **Current Configuration** box, under each corresponding heading, select the check box for each section to include.
 - ▶ Clear check boxes for sections you do not want to include.
- 4 Set the sort order for notes:
 - ▶ In the **Current Configuration** box, under **Notes**, click **Sort by date - ascending** to display notes from oldest to newest or click **Sort by date - descending** to display notes from newest to oldest.
- 5 Edit the title of a section or subsection:
 - ▶ In the **Current Configuration** box, select the title.
 - ▶ Click **Edit**.
 - ▶ Enter the new text.
 - ▶ Click **OK**.
- 6 Rearrange report sections:
 - ▶ In the **Current Configuration** box, select a title.
- 7 When you are finished configuring the Patient Summary, click **Close**.

Add a real-time data table



- 1 Click the **Patient Summary** button.
Or, on the **Template** menu, click **Patient Summary**.
- 2 Click the **Data Tables** tab and then click the **Real-Time** tab.
- 3 Click **New** to display a window for selecting variables for a new table.
- 4 When you are finished selecting variables, click **OK**.
The system creates a new table with the selected variables and adds it to the **Table ID** box with a default identification code (SRRT1, SRRT2, etc.).
- 5 With the table's new code highlighted in the **Table ID** box, enter a title for the real-time table in the **Title** box.
- 6 Configure the values to display for each variable as follows:
 - ▶ Click **Show lowest, highest and last values** to display the lowest, highest and most recent values received during the time period.
 - ▶ Click **Use reference variable** to display data for all variables based on the availability of data for a reference variable. The table will include a column for every available value for the reference variable. The reference variable does not have to be part of the table, although it usually is.
In **Reference Variable**, select the variable to use. Note that the reference variable is usually a sporadic or manually-entered variable.
- 7 To change the position of a variable on the table, select it in the box in the lower left corner and then click the Up or DOWN arrow.
- 8 When you are finished configuring the report, click **Close**.

Example of a table that uses a reference variable:

Use reference variable activated.

Reference variable: Cardiac Output (CO)

Number of columns: 4

Other variables: Heart Rate (HR), Diastolic Blood Pressure (DBPA), Systolic

Blood Pressure (SBPA), Respiratory Rate (RR).

	07:40	09:30	11:20	13:18
• CO	3.92	5.80	4.62	5.12
• HR	122	98	112	100
• DBPA	88	90	92	90
• SBPA	152	142	155	151
• RR	22	18	18	19

Add a laboratory table



- 1 Click the **Patient Summary** button.
Or, on the **Template** menu, click **Patient Summary**.
- 2 Click the **Data Tables** tab and then click the **Laboratory** tab.
- 3 Click **New** to display a window for selecting analyses for a new table.
- 4 When you are finished selecting analyses, click **OK**.
The system creates a new table with the selected analyses and adds it to the **Table ID** box with a default identification code (SRLAB1, SRLAB2, etc.).
- 5 With the table's new code highlighted in the **Table ID** box, enter a title for the laboratory table in the **Title** box.
- 6 In the **Number of Columns** box, enter the number of results to display (up to eight). The table will show this number of results, if available, even if they were not collected in the time period covered by the report.
- 7 To change the position of an analysis on the table, select it in the box in the lower left corner and then click the Up or DOWN arrow.
- 8 When you are finished configuring the report, click **Close**.

Change the order of data tables



- 1 Click the **Patient Summary** button.
Or, on the **Template** menu, click **Patient Summary**.
- 2 Click the **Data Tables** tab
The tab shows the real-time data tables and laboratory tables configured for the Patient Summary.
- 3 On the **Layout** tab, click a table name and use the arrow buttons to move it up or down on the list.
- 4 To remove a configured table from the Patient Summary without deleting it, click the check box next to the table name. (Click the check box a second time to reinsert the table.)
- 5 Click **Close**.

Add or remove a parameter from a data table



- 1 Click the **Patient Summary** button.
Or, on the **Template** menu, click **Patient Summary**.
- 2 Click the **Real-Time** tab or the **Laboratory** tab.
- 3 In the **Table ID** box, select the code or title for the table you want to edit.
- 4 Click **Setup**.
- 5 In the **Available Variables** or **Available Analyses** box, select the parameters you want to add to the table. Then click **Add >>**.
- 6 In the **Selected Variables** or **Selected Analyses** box, select the parameters you want to remove from the table. Then click **<< Remove**.
- 7 Click **OK**.

Delete a table



- 1 Click the **Patient Summary** button.
Or, on the **Template** menu, click **Patient Summary**.
- 2 Click the **Real-Time** tab or the **Laboratory** tab.
- 3 In the **Table ID** box, select the code or name for the table you want to delete.
- 4 Click **Delete**.
- 5 Click **Close**.

Configure the patient summary for export to the HIS

- 1 Navigate to the following directory using the Windows Explorer:
`C:\Picis\Config\ChartPlus`
- 2 Double-click the file *PPExport.pcs*.
The Picis Configuration Editor will open.
- 3 Under **[General]**, set the **EXPORTREPORTON** parameter to **TRUE**.
This will add the **Export Report** command to the Preop Manager window.
- 4 Add a new section for each report type that you want.
Sections should consist of the following elements:
 - i. A section header in the format **[EXPORTREPORTX]**
where X=1, 2, 3 etc. (Report types will appear in this order in Preop Manager.)
 - ii. A line that reads "**CAPTION=STR:X**"
where X=the name of the report type as the user will see it
 - iii. The following seven lines:
CHARTDATAON=BOO:
(real-time data tables and laboratory data tables)
FBALANCEON=BOO:
(fluid balance information)

PROTOCOLSON=BOO:
(medications, fluids and active protocols)
DIAGPROCON=BOO:
(diagnoses and procedures)
NOTESON=BOO:
(patient summary notes)
EVENTSON=BOO:
(events)
ASSMSCORESON=BOO:
(assessments and scores)

For each section that you want to appear in the report, you should add the word `TRUE` at the end of the corresponding line; otherwise, add the word `FALSE`.

For example, this report type will only export events:

```
[EXPORTREPORT1]  
CAPTION=STR:Export only events  
CHARTDATAON=BOO:FALSE  
FBALANCEON=BOO:FALSE  
PROTOCOLSON=BOO:FALSE  
DIAGPROCON=BOO:FALSE  
NOTESON=BOO:FALSE  
EVENTSON=BOO:TRUE  
ASSMSCORESON=BOO:FALSE
```

- 5 On the **File** menu, click **Exit**.

Medication Summary

The Medication Summary shows all medication doses administered in a time period and the total dose for each medication. Available time periods include the last 4, 8, 12 or 24 hours, the current encounter and the entire admission.

*What you
can configure*

- The default sort order for the list of medications.
- The default time period for which to display data.

- How to display total doses for medications ordered with a dose based on body weight (only a row for the final administered dose or this with an another row showing the total per kilogram/pound).

Configure the Medications Summary



- 1 Click the **Medication Summary** button.
Or, on the **Template** menu, click **Medication Summary**.
- 2 In the **Sort Medications by** box, select a default sorting criteria for the medication list:
 - ▶ **Medication name** to sort medications alphabetically by their names.
 - ▶ **Administration time** to sort medications chronologically by the first dose.
 - ▶ **Family name** to sort medications alphabetically by the name of the family to which they belong. The name of the family will be included in the display if you select this option.
- 3 In the **Default Viewing Period** box, select the viewing period to display by default.
- 4 To include an extra row for medications that were ordered with a dose based on patient weight, select **Include calculated values for weight-based doses**. The first row for the medication will show values per unit of body weight; the extra row will show calculated values using the weight documented for the patient.
If you do not select this option, the summary window will display only the weight-based values.
- 5 Click **Close**.

Demographics

You can configure the Demographics window with the Demographics Editor in Customize. To use the Demographics Editor, you must belong to a user group with the system right *PIF Configure*. Once created, a configuration can be used in other templates by exporting and importing it.

The Demographics window can include up to 12 sections with the following types of data:

Section	Possible Content	Application
Patient Identification	Up to three patient identification numbers Up to three admission numbers Account number Current location Patient name (first, middle and last) Address (street, city, state, country and zip code), Phone Email Admission type Date of birth Age (not editable) Age at admission Gender Marital status Religion Ethnic group Mother's maiden name VIP status	All
General Information	Blood type Body surface area Ambulatory status Admission weight in kilograms Admission weight in pounds Admission weight in pounds and ounces Admission height in centimeters Admission height in inches Admission height in feet and inches	All
Allergies and Precautions	Medication allergies Other allergies Precautions	Anesthesia/ PACU Manager
Billing Information	Insurance company Policy number, Policy type (primary or secondary) Comments	All

Section	Possible Content	Application
Emergency Contact(s)	Person to contact in case of emergency Relationship to the patient Telephone Email address Availability as a blood donor Blood type Comments	All
OR Information	Patient's ASA type	Anesthesia Manager PACU Manager
Anesthesia Times	Times based on the following events: Anesthesia start time Anesthesia end time Total anesthesia time Surgery start time Surgery end time Total surgery time	Anesthesia/PACU Manager
Medical Team	For each clinician who participates in a procedure: Clinician name Attending Type Clinical roles in the case	Anesthesia/PACU Manager
Diagnoses, Procedures, Chief Complaints	Chief medical complaint Diagnoses based on ICD codes Procedures based on CPT codes	Anesthesia/PACU Manager
Notes	A section for free-text comments.	All
Hospital Information	Admission date LOS (length of stay) Critical Care Manager Hospital LOS (length of stay in the hospital) Anesthesia/PACU Manager	All

Section	Possible Content	Application
Key Events	List of events that must be documented for every case: Milestone events (defined sequence) Required events (no defined sequence) Required event types (one event from each required) Data is used by Case Check to identify missing events and invalid data (milestone events out of sequence).	Anesthesia/ PACU Manager

*What you
can configure*

- The sections, subsections and data elements to include and their order.
- The headings, subheadings and labels for data elements within sections.
- The read-only status of each subsection and element.
- The items required for completing a case. (Required items are highlighted in the Demographics window until the user enters data for them.)
- The time limit for completing documentation after the end of the encounter. (After this period only users with the “PIF Summary Unlock” right can edit data.)
- The order of the patient’s first, middle and last names.

(Additional configuration options specific to CaseCheck are described in “CaseCheck” on page 113.)

Before configuring the Demographics window, it is helpful to plan the window content; consider the information you want to display and how you want to see it. Reducing extra text allows more room for data. This is especially true in sections that have subheadings.

The following example shows a section with all possible subheadings and labels:

Allergies and Precautions	
Medication Allergies	
● Medication Allergy Penicillin Reaction Rash Last Reaction >1 year ago	Comments Patient not sure when reaction occurred
● Medication Allergy Sulfa Reaction Rash Last Reaction >5 years ago	Comments
Other Allergies	
● Allergy Bee Stings Reaction Anaphylaxis Last Reaction >5 years ago	Comments Reaction was life-threatening
● Allergy Dust Reaction Anaphylaxis Last Reaction >1 year ago	Comments
Precautions	
● Precaution Smoker	
● Precaution Difficult Airway	

The next example shows the same section with subheadings, but without some labels:

Allergies and Precautions	
Medication Allergies	
● Penicillin Reaction Rash Last Reaction >1 year ago	Comments Patient not sure when reaction occurred
● Sulfa Reaction Rash Last Reaction >1 year ago	Comments
Other Allergies	
● Bee Stings Reaction Anaphylaxis Last Reaction >5 years ago	Comments Reaction was life-threatening
● Dust Reaction Anaphylaxis Last Reaction >1 year ago	Comments
Precautions	
● Smoker	
● Difficult Airway	

This example shows the same section with labels, but without subheadings:

Allergies and Precautions
<ul style="list-style-type: none"> ● <u>Medication Allergy</u> Penicillin Rash >1 year ago Patient not sure when reaction occurred ● <u>Medication Allergy</u> Sulfa Rash >5 years ago ● <u>Other Allergy</u> Bee Stings Anaphylaxis >5 years ago Reaction was life-threatening ● <u>Other Allergy</u> Dust Anaphylaxis >1 year ago ● <u>Precaution</u> Smoker ● <u>Precaution</u> Difficult Airway

Select sections for the Demographics window

- 1 Click the **Demographics Editor** button.
Or on the **Template** menu, click **Demographics Editor**.
The window displays a list of sections that can be included in the Demographics summary pane.
- 2 To display a section in the summary, select the **Include** check box.
- 3 To change the heading of a section, select it and then click **Edit**. Enter a new name and click **OK**.
- 4 To change the position of a section, select its heading and click an arrow button as many times as necessary.
- 5 When you are finished selecting sections for the Demographics window, click **Close**.

Configure a Demographics section



- 1 Click the **Demographics Editor** button.
Or on the **Template** menu, click **Demographics Editor**.
- 2 To change the name of a section, select it and then click **Edit**. Enter a new name and click **OK**.
- 3 Select a section heading and then click **Setup**.
Or double-click a section heading.

The editor window displays a list of subheadings and items that can be included in the section. The current configuration of each element is indicated by check boxes in the **Include**, **Read-Only** and **Hide Title** and **Required** columns.

- 4 To display a data element in the section, select the **Include** check box.
- 5 To prevent users from changing data for an element, select the **Read-Only** check box.

Some elements are always read-only because data is entered by the system. These items appear in gray (such as the current location and the patient age). Consider making an element read-only if its data will always be received from the hospital information system (HIS).
- 6 To omit a subheading or item label, select the **Hide Title** check box.

Consider hiding text for items that can be recognized without any identifying text, such as the patient's name.
- 7 To specify that an item be required for case completion, select the **Required** check box.
- 8 When you are finished configuring the section, click **Close**.
- 9 When you are finished configuring the Demographics window, click **Close**.

Note: The  symbol identifies subheadings and the  symbol data elements.

Configure required events



- 1 Click the **Demographics Editor** button.

Or on the **Template** menu, click **Demographics Editor**.
- 2 Select the Key Events section heading and then click **Setup**.

Or double-click the Key Events section heading.
- 3 Click **Key Events.Other events**: can be documented in any order.

Required event types: at least one in each type must be documented.

- 4 Under **Milestone Events**, select the events that must be documented in the specified order. For example *Anesthesia start* would logically occur before *Anesthesia end*.
 - ▶ In the **Type** box, select an event type (or select All Events).
 - ▶ In the **Events** box, select the required events from the chosen event type. Then click **>>** to move them to the **Selected Events** box on the right.
 - ▶ To set the order of milestone events, click an event in the **Selected Events** box and use the arrow buttons to move it up or down on the list.
- 5 Under **Other Events**, select the events that can be documented in any order.
 - ▶ in the **Type** box, select an event type (or select All Events).
 - ▶ In the **Events** box, select the required events. Then click **>>** to move them to the **Selected Events** box on the right.
- 6 Under **Required Event Types**, select the types from which at least one event must be documented.
 - ▶ In the **Type** box, select the required event types. Then click **>>** to move them to the **Selected Categories** box on the right.
- 7 To remove a selected event or event type, click it in the relevant box on the right, and then click **<<**.
- 8 When you are finished selecting events, click **Close**.
- 9 When you are finished configuring the section, click **Close**.
- 10 When you are finished configuring the Demographics window, click **Close**.

Configure medical team roles

- 1 Click the **Demographics Editor** button.
Or on the **Template** menu, click **Demographics Editor**.
- 2 Select the Medical Team section heading and then click **Setup**.
Or double-click the Medical Team section heading.
- 3 Click **Roles**.

- 4 In the **Clinical Roles** box, under **Default**, click the clinical roles to show by default in the Medical Team form.
- 5 In the **Clinical Roles** box, under **Required**, click the clinical roles that must be documented for every case.
- 6 When you are finished configuring medical roles, click **Close**.
- 7 When you are finished configuring the section, click **Close**.
- 8 When you are finished configuring the Demographics window, click **Close**.

Configure required functional types and clinical priorities

- 1 Click the **Demographics Editor** button.
Or on the **Template** menu, click **Demographics Editor**.
- 2 Select the Diagnoses, Procedures and Chief Complaints section heading and then click **Setup**.
Or double-click the Diagnoses, Procedures and Chief Complaints section heading.
- 3 Click **Diagnoses**.
In the **Functional Types** box, click the functional types of diagnoses that must be documented for every case.
For each selected functional type, click the *Clinical Priorities* that a user must document for every case (if any).
Click **Close**.
- 4 Click **Procedures**.
In the **Functional Types** box, click the functional types of procedures that must be documented for every case.
For each selected functional type, click the clinical priorities that a user must document for every case (if any).
Click **Close**.
- 5 When you are finished configuring the section, click **Close**.
- 6 When you are finished configuring the Demographics window, click **Close**.

Import a Demographics configuration



- 1 Click the **Demographics Editor** button.
Or on the **Template** menu, click **Demographics Editor**.
- 2 Click **Import**.
- 3 Select a template from which to import settings for the Demographics window and then click **OK**.
- 4 Click **Close**.
- 5 When you are finished configuring the section, click **Close**.
- 6 When you are finished configuring the Demographics window, click **Close**.

Export a demographics configuration



- 1 Click the **Demographics Editor** button.
Or on the **Tools** menu, click **Demographics Editor**.
- 2 Click **Export**.
- 3 Select the template(s) to which you want to export the demographics configuration and then click **OK**.

To select more than one template, you can hold down the SHIFT or CTRL key while clicking. SHIFT allows you to make adjacent selections; CTRL allows you to make non-adjacent selections.
- 4 Click **Close**.
- 5 When you are finished configuring the section, click **Close**.
- 6 When you are finished configuring the Demographics window, click **Close**.

Set the time limit for completing documentation



- 1 Click the **Demographics Editor** button.
Or on the **Template** menu, click **Demographics Editor**.
- 2 Click **Options**.

- 3 In the **Limit (in hours) for completing documentation** box, select the time limit for completing the case record.

The default time period is 48 hours. Caregivers have this many hours to complete documentation in the Demographics window for the encounter after a transfer or discharge. After this time all sections will be locked. (Users with the Demogs Summary Unlock system right can override the lock.)

- 4 When you are finished setting options, click **Close**.
- 5 When you are finished configuring the Demographics window, click **Close**.

Notes:

Unlike other demographics settings, this option affects the entire workstation, it is not related to the template being edited.

The setting also affects the ability to modify these same sections using Preop Manager. For reasons related to this, Picis recommends that sites using perioperative integration do not restrict the time available for completing documentation.

Set the format of the patient name



- 1 Click the **Demographics Editor** button.
Or on the **Template** menu, click **Demographics Editor**.
- 2 Click **Options**.
- 3 Under **Name format**, click **First Middle Last; Last, First Middle**, or **Last Middle, First**.
- 4 When you are finished setting options, click **Close**.
- 5 When you are finished configuring the Demographics window, click **Close**.

Notes:

Unlike other demographics settings, this option affects the entire workstation, it is not related to the template being edited.

Flowsheets

About Flowsheets

Templates can contain up to 40 flowsheets. The first four are standard and each shows all available data for one of the four basic data types:

- Real-Time Variables: All real-time variables selected for the patient chart.
- Medications: All medications ordered or documented for the patient.
- Fluids: All fluids ordered or documented for the patient.
- Laboratory Results: All laboratory components. Can also include any laboratory components that are configured as real-time variables. Does not show orders for laboratory and diagnostic tests.

Standard flowsheets cannot be deleted. You can customize their content by adding or removing real-time scores (Glasgow Coma and APACHE II); for all flowsheets except Real-Time Variables, you can add or remove individual real-time variables. You can also set basic properties like the title and default viewing resolution for standard flowsheets.

In addition to the four standard flowsheets, a template can include up to 36 custom flowsheets. Each flowsheet can have up to four sections that display data in tabular format or as trends. Custom flowsheets can include parameters from the four basic types (real-time variables, medications, fluids and laboratory components) plus the following additional types:

- Assessments
- Scores
- Nursing Care
- Respiratory
- Laboratory and Diagnostic Tests
- Equipment
- QA Indicators

Used primarily in perioperative environments, equipment and QA indicators may be displayed in specialized windows, on flowsheets or both. To display either or both on flowsheets, you must set the following configuration options in

Advanced Settings, Assessmt zone, DISPLAY section: Show Equipment Assessments = 1 and Show QA Assessments = 1.

Real-time variables and other types of data on flowsheets configured for flowsheets behave differently:

- You can only include variables that have already been selected using the Real-Time Variables wizard.
- When you configure a section with any other type of data, items only appear on the flowsheet if they are added to the chart. These parameters may be added to the chart in a default protocol or by users during a session.

Flowsheet names automatically appear on the **Flowsheets** menu and on the Navigation bar. (In CareSuite 7.2, the toolbar cannot be configured with buttons for flowsheets.)

Configuration Options for All Flowsheets

Certain configuration options apply to all flowsheets. These include the following:

Available viewing resolutions	These appear in the box labeled Resolution in the upper left corner of all flowsheets. You can configure up to 17 resolutions ranging from 10 seconds to 24 hours. Each flowsheet has a default viewing resolution. (Note that the "1day x 24" viewing resolution will not be available in any flowsheet that includes real-time variables.)
Position of the current time column	Position of the current time column with respect to the right edge of the flowsheet. (By default, the current time column is the last column.)
Rows for cumulative output on flowsheets	You can display two rows for cumulative fluids: the top row for a running total for an item; the second row for the partial amounts corresponding to each running total.

Format for medication and fluid labels	You can configure flowsheets to show short or long order labels for medications and fluids. Short labels show the treatment name and its dose or rate. Long labels include all details related to the prescription such as dilution, diluent fluid, form, site and schedule. (If you choose short labels, the user can still see the long label by placing the cursor over the order name.)
Dose information for infusing medications	You can configure medication rows to display the medication dose or the pump rate. Users can switch between the two or display both during a session. Picis recommends displaying the medication dose by default.
Subheadings	You can configure the flowsheets to display subheadings by default. Subheadings in medication and fluid sections are the family names for the individual items. In the laboratory section, they are the analysis names. If subheadings are not displayed, items are listed in alphabetical order (except for laboratory components, which may have a sort order configured for them). Users can show or hide subheading rows during a session.
Canceled or discontinued orders	You can configure flowsheets to hide canceled orders, discontinued orders, or both by default.
Data validation	You can configure the flowsheets to allow users to validate real-time values. A validated value is one that has been reviewed and signed by a user. This feature is designed for intensive care units. (See also “Allow users to edit validated real-time data” on page 18.)

Configure available flowsheet resolutions



- 1 Click the **Flowsheets** button.
Or, on the **Template** menu, click **Flowsheets**.
- 2 Click **Options**. (It does not matter which flowsheet is selected because options apply to all flowsheets.)
- 3 In the **Available Resolutions** box, select the resolutions to include and click **>>** to move them to the **Selected Resolutions** box.

To remove a resolution select it in the **Selected Resolutions** box and click <<.

- 4 When you are finished configuring viewing resolutions, click **Close**.
- 5 When you are finished customizing flowsheets, click **Close**.

Configure the position of the current time column



- 1 Click the **Flowsheets** button.
Or, on the **Template** menu, click **Flowsheets**.
- 2 Click **Options**. (It does not matter which flowsheet is selected because options apply to all flowsheets.)
- 3 In **Position of current time column from right**, select a number (1 = last column).
- 4 Click **Close**.
- 5 When you are finished customizing flowsheets, click **Close**.

Configure the option to validate real-time data



- 1 Click the **Flowsheets** button.
Or, on the **Template** menu, click **Flowsheets**.
- 2 Click **Options**. (It does not matter which flowsheet is selected because options apply to all flowsheets.)
- 3 Click **Enable data validation** to allow users to validate real-time data, or clear the box to prohibit validation.
- 4 Click **Close**.
- 5 When you are finished customizing flowsheets, click **Close**.

Show total or incremental values for cumulative fluid output



- 1 Click the **Flowsheets** button.
Or, on the **Template** menu, click **Flowsheets**.
- 2 Click **Options**. (It does not matter which flowsheet is selected because options apply to all flowsheets.)
- 3 Click **Display incremental values for cumulative fluid output** to show incremental values, or clear the check box to show total values.
- 4 Click **Close**.
- 5 When you are finished customizing flowsheets, click **Close**.

Configure how orders are displayed



- 1 Click the **Flowsheets** button.
Or, on the **Template** menu, click **Flowsheets**.
- 2 Click **Options**. (It does not matter which flowsheet is selected because options apply to all flowsheets.)
- 3 Click **Show complete prescription on flowsheet** to show long labels, or clear the check box if you want to show short labels.
- 4 Click **Close**.
- 5 When you are finished customizing flowsheets, click **Close**.

Configure drip dose display



- 1 Click the **Flowsheets** button.
Or, on the **Template** menu, click **Flowsheets**.
- 2 Click **Options**. (It does not matter which flowsheet is selected because options apply to all flowsheets.)
- 3 Click **Show medication dose for drips** to display the dose for drips, or clear the check box to show the pump rate instead.
- 4 Click **Close**.

- 5 When you are finished customizing flowsheets, click **Close**.

Configure row filters



- 1 Click the **Flowsheets** button.
Or, on the **Template** menu, click **Flowsheets**.
- 2 Click **Options**. (It does not matter which flowsheet is selected because options apply to all flowsheets.)
- 3 Set the default filters by clicking or clearing the following check boxes:
 - ▶ **Show subheadings by default**
 - ▶ **Hide discontinued orders by default**
 - ▶ **Hide canceled orders by default**
- 4 Click **Close**.
- 5 When you are finished customizing flowsheets, click **Close**.

Creating and Modifying Flowsheets

You can modify basic features of standard flowsheets, such as the resolution and default behavior. You can also modify existing custom flowsheets and create new ones. For custom flowsheets, you can also configure the menu command and flowsheet sections. Flowsheet sections can show data in tabular form or as trends.

Create a custom flowsheet and set basic properties



- 1 Click the **Flowsheets** button.
Or, on the **Template** menu, click **Flowsheets**.
- 2 Click **New**.
- 3 In the **Title** box, enter the name you want to use to identify the flowsheet in Customize.

- 4 In the **Command** box, enter the text to appear on the **Flowsheets** menu. It is a good practice to use the same text as in the **Title** box.
You can include a keyboard shortcut by entering an ampersand (&) before one of the letters in the title. This letter will be underlined in the command and users can select the flowsheet by pressing ALT + the letter.
- 5 In the **Default Resolution** box, select the viewing resolution to apply by default.
- 6 Select the **Freeze flowsheet (no Auto-scrolling) by default** check box if you do not want the flowsheet to auto-scroll when it is opened.
- 7 Select the **Show only rows with data by default** check box if you want the flowsheet to hide unused rows.
- 8 When you are finished customizing the flowsheet, click **Close**.

Modify basic properties of a standard or custom flowsheet



- 1 Click the **Flowsheets** button.
Or, on the **Template** menu, click **Flowsheets**.
- 2 Select a flowsheet and then click **Edit**.
- 3 In the **Title** box, enter the name you want to use to identify the flowsheet in Customize.
- 4 In the **Command** box, enter the text to appear on the **Flowsheets** menu. It is a good practice to use the same text as in the **Title** box.
You can include a keyboard shortcut by entering an ampersand (&) before one of the letters in the title. This letter will be underlined in the command and users can select the flowsheet by pressing ALT + the letter.
- 5 In the **Default Resolution** box, select the viewing resolution to apply by default.
- 6 Select the **Freeze flowsheet (no Auto-scrolling) by default** check box if you do not want the flowsheet to auto-scroll when it is opened.
- 7 Select the **Show only rows with data by default** check box if you want the flowsheet to hide unused rows.
- 8 When you are finished customizing flowsheets, click **Close**.

Create or edit a tabular flowsheet section

- 1 With a custom flowsheet selected in the main flowsheet configuration window, click **Setup**.
- 2 Click **New Section** to create a new section.
Click a section name and then click **Setup** to edit an existing section.
- 3 In the **Title** box, enter a title for the section. (This text will appear in the section header.)
- 4 In the **Available Real-Time Variables** box, select the variables to include and then click **Add >>** to move them to the **Selected Variables** box.
- 5 In the **Available items to choose** box, double-click a data type to expand or collapse it.
(Further groups/items can be added from the same data type or from another data type.)
- 6 Select a group or an individual item to include and then click **Add >>** to move the selection to the **Selected Items** box.
- 7 Click **Apache II Score** if you want to include this score.
- 8 Click **Glasgow Coma Score** if you want to include this score.
- 9 Click **OK**.
- 10 When you are finished configuring flowsheet sections, click **Close**.
- 11 When you are finished customizing flowsheets, click **OK**.

Note: In most cases, you should add families rather than individual medications or fluids for two reasons. First, if you add the family, the custom flowsheet will display any medication/fluid of that type that is ordered during the session. Second, this strategy makes updating templates easier. If new items are added to existing families in the database, you will not need to add them to templates later. You should only add medications or fluids individually when you do not want one or more from the same family to appear on the flowsheet.

Create or edit a trend section on a flowsheet

- 1 With a custom flowsheet selected in the main flowsheet configuration window, click **Setup**.
- 2 Click **Trends** to add a new trend section.
- 3 In the **Section Title** box, enter a title for the trend section. (This text will appear in the section header.)
- 4 In the **Available Trends** box, select a trend to add it to the section.
To create or edit a trend before adding it, see “Create or edit a trend for use in any flowsheet” on page 77.
(To delete a trend, select its name in the **Available Trends** box, and then click **Delete**.)
- 5 Click **Close**.
- 6 When you are finished configuring flowsheet sections, click **OK**.
- 7 Click **Close**.

Create or edit a trend for use in any flowsheet



- 1 Click the **Trends button**.
Or, on the **Template** menu, click **Trends**.
You can also click the **Trends** button in the Flowsheet Setup window.
- 2 Open a trend:
To create a new trend, click **New**.
To open an existing trend, select its name in the **Available Trends** box and then click **Setup**.
- 3 In the **Title** box, enter the name of the trend. (This text only appears in the list of trends in Customize.)
- 4 If you want an overall y-axis for all trends, under **Options**, set the axis range in the **From** and **To** boxes. This axis will be applied to all parameters that do not have an independent y-axis defined.

- 5 If you want the y-axis to adjust automatically to the data received, click **Auto-scale**. Users can switch between this view and the predefined scale while viewing the trend.
- 6 To display grid lines by default, click the **Grid lines** check box. Users can show and hide the grid while viewing the trend.
- 7 Add up to six parameters to the trend. For each parameter:
 - ▶ Under **Source**, select the type of data. Then click  and select an item. (For medications and fluids, enter an appropriate unit of measure.)
 - ▶ Under **Label**, you can edit the abbreviated name for a medication, fluid or laboratory component. (For real-time variables, the label is a property of the variable.)

Label text is displayed in the trend legend.
 - ▶ Under **Color**, click  and select a color for the parameter.
 - ▶ Under **Style**, select a type of graph: bar, line, scatter.

You can use any type of graph for real-time variables.

You can use line or scatter for medications, fluids and laboratory parameters.
 - ▶ Under **Marker**, select a character if you are configuring a scatter graph. For line graphs markers are optional.
 - ▶ To display the value for each data point, click the **Value** check box.
 - ▶ If the typical range of values for a parameter is not compatible with the overall y-axis (vertical), create a separate y-axis for the parameter. Click the **Y-Axis** check box and enter the range for the axis in the **From** and **To** boxes. A trend can have up to three independent axes (in addition to the overall axis).
- 8 When you are finished configuring the trend, click **OK**.

Delete a flowsheet section

- 1 With a custom flowsheet selected in the main flowsheet configuration window, click **Setup**.
- 2 In **Flowsheet Sections**, click a section name and then **Delete**.
- 3 Click **Close**.

Delete a trend



- 1 Click the **Trends button**.
Or, on the **Template** menu, click **Trends**.
You can also click the **Trends** button in the Flowsheet Setup window.
In the **Available Trends** box, click the name of the trend you want to delete.
- 2 Click **Delete**.
- 3 Click **Close**.

Rearrange sections on a custom flowsheet

- 1 With a custom flowsheet selected in the main flowsheet configuration window, click **Setup**.
- 2 In **Flowsheet Sections**, click a section name and then click the up or down arrow to move it to a new position.
- 3 Click **Close**.
- 4 When you are finished configuring flowsheet sections, click **OK**.
- 5 Click **Close**.

Change the order of flowsheets in the application

- 1 Click the **Flowsheets** button.
Or, on the **Template** menu, click **Flowsheets**.
- 2 Select a flowsheet that you want to move.
- 3 Click the arrow buttons to move the flowsheet up or down on the list.
- 4 When you are finished configuring the flowsheet list, click **Close**.

Delete a custom flowsheet

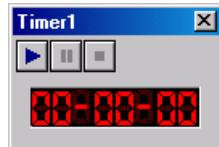


- 1 Click the **Flowsheets** button.
Or, on the **Template** menu, click **Flowsheets**.
- 2 Select a flowsheet and then click **Delete**.

Other Windows and Accessories

Timers

You can include up to 10 stopwatches on the optional **Timers** menu. Users can start the first three using the function keys F10, F11 and F12). Buttons for opening timers can be included on the main toolbar. (See “Add buttons to the toolbar” on page 91).



Create a timer



- 1 Click the **Timers** button
Or, on the **Template** menu, click **Timers**.
A list of timers associated with the template is displayed.
- 2 Click **New**.
- 3 In **Window Title**, enter a name for the timer. This text will appear in the title bar of the timer window.
- 4 In **Menu Command**, enter the command to appear on the **Timers** menu.
You should make the command the same as the timer window title to help users remember which command controls each timer.
- 5 Click **OK**.
- 6 The new timer appears on the list. A function key (F10-F12) is automatically assigned to the first three timers on the list. Users can choose the command or press the function key to start or stop the timer.
- 7 When you are finished configuring timers, click **Close**.

Change a timer window title and/or command



- 1 Click the **Timers** button
Or, on the **Template** menu, click **Timers**.
A list of timers associated with the template is displayed.
- 2 Select a timer to modify.
- 3 Click **Edit**.
- 4 In **Window Title**, edit the window title if necessary.
- 5 In **Menu Command**, edit the command if necessary.
- 6 Click **OK**.
- 7 When you are finished configuring timers, click **Close**.

Remove a timer

- 1 Click the **Timers** button

Or, on the **Template** menu, click **Timers**.

A list of timers associated with the template is displayed.

- 2 Click **Clear All** to remove all timers.
- 3 Select a timer and then click **Delete** to remove a specific timer.
- 4 When you are finished configuring timers, click **Close**.

Add-Ins

You can integrate different types of add-ins with the patient chart to extend application functionality. Several types of add-ins can be configured in a template:

- Macros add one or more events to the Events log in a single step. Macros are often used in operating room templates to add events for anesthesia milestones. You can create macros using the Macro Editor in Customize. (See “Configure an event set as a macro” on page 111).
- Programs are third-party or custom software and can be installed on the workstation or on a network computer. An add-in program may or may not be associated with the patient record in the database.
- Screen layouts are predefined arrangements of application windows that create special views of patient data. Caregivers can apply layouts during a session to change views rapidly.

Add-Ins are available from the following application menus:

- Macros appear on the **Macros** menu.
- Programs appear on the **Add-Ins** menu.
- Screen layouts appear on the **Screen Layout** menu.

The **Add-Ins** and **Macros** menus are displayed automatically if add-ins of their type are configured. (The **Screen Layout** menu is always present.) Once configured, program add-ins can also be included on the main toolbar and macros can be added to the macro toolbar. Buttons on the macrobar are often configured to appear pressed in after they have been used.

Note that you can configure the Concurrency module as an add-in.
(Concurrency.exe is located in the C:\Picis\AddIns folder.)

Configure a macro as an add-in



- 1** Click the **Add-Ins** button.
Or, on the **Template** menu, click **Add-Ins**.
- 2** Click the **Macros** tab.
- 3** Click **New**.
- 4** In **Add-In Type**, click **Macro**.
- 5** Select a macro to add from the macro list box. (To create a new macro, click **New** then follow the instructions in the section “Configure an event set as a macro” on page 111.)
- 6** In **Menu Command**, enter a command name to appear on the **Macros** menu.
- 7** In **Shortcut Key**, enter a letter from the command name, to be used as a shortcut to select the command with the keyboard (optional).
- 8** To add the macro to the macro toolbar, select the **Toolbar Icon** check box, then click **Icon** and select an icon.
- 9** To make the button appear pressed in after use, click **Depressed appearance after use**.
You may want to use this option for macros that execute one-time actions. It causes the button to appear pressed in after it has been used once, showing users that the action has been performed. (The button can be clicked again.) The option is useful for macros that record events that are milestones in a process, such as “Start of Anesthesia.”
- 10** Click **OK**.
- 11** Use the **Move** arrows to change the position of the macro commands on the **Macros** menu. (The corresponding buttons on the macro toolbar appear in the same order.)
- 12** When you are finished configuring add-ins, click **Close**.

Note: To see macro buttons in the application you must include the macrobar

in the template. (See “Menu Commands and Toolbar Buttons” on page 86.)

Configure an external application as an add-in



- 1 Click the **Add-Ins** button.
Or, on the **Template** menu, click **Add-Ins**.
- 2 Click **New**.
- 3 In **Add-In Type**, click **Program**.
- 4 Click to find the file you want. Note that the file name must have the extension “exe.”
- 5 In the **Menu Command** box, enter the text to appear on the **Add-Ins** menu. You should make the command the same as the application name to help users remember which command controls which add-in.
- 6 In **Shortcut Key**, enter a letter from the command name, to be used as a shortcut to select the command with the keyboard (optional).
- 7 If the application is designed to add data to the patient record, click **Append patient DBOID and admission DBOID after add-in**. Contact your technical services provider if you are not sure.
Otherwise leave this check box cleared, as some applications (those that accept certain command line modifiers) will not be able to interpret the appended information and will therefore not run correctly.
- 8 Click **OK**.
- 9 When you are finished configuring add-ins, click **Close**.

Note: You can configure the Concurrency module as an add-in. (Concurrency.exe is located in the C:\Picis\AddIns folder.)

Configure a screen layout as an add-in



- 1 Click the **Add-Ins** button.
Or, on the **Template** menu, click **Add-Ins**.

- 2** Click **New**.
- 3** In **Add-In Type**, click **Screen Layout**.
- 4** Select a screen layout to add from the screen layout list box.
- 5** In **Menu Command**, enter a command name to appear on the **Screen Layout** menu.
- 6** In **Shortcut Key**, enter a character to be used as a shortcut to activate the command (optional).
- 7** Click **OK**.
- 8** When you are finished configuring add-ins, click **Close**.

Note: To create a new screen layout, first start Anesthesia Manager, PACU Manager or Critical Care Manager with a fictitious patient and arrange the screen as wanted. Then click **Save Screen As** on the **Screen Layouts** menu and give the layout a name. The layout will then be available when configuring add-ins with Customize.

Modify the properties of an add-in



- 1** Click the **Add-Ins** button.
Or, on the **Template** menu, click **Add-Ins**.
The dialog box shows all the add-ins currently configured for the patient chart.
- 2** Click the name of the add-in you want to modify.
- 3** To change properties such as the command name or the shortcut key, click **Edit** and make the necessary changes.
- 4** To change the position of an add-in on its menu, click an arrow to move it up or down on the list. Add-ins appear in the same order in the application. Note that the list will be easier to read if you group add-ins by their type.
- 5** When you are finished configuring add-ins, click **Close**.

Menu Commands and Toolbar Buttons

Menus contain commands for all functions and windows configured in the template. Buttons for key functions can be included on the main toolbar. You can customize both menus and toolbars.

The following list of commands can be used as a guide to specific functionality that you can configure in the template.

Menu/Command	Description	Application/Workstation Type
File-ADT Menu		
Log On/Off	Allows users to log on to and off of the system. Always the first button on the toolbar. Cannot be removed from menu or toolbar.	All
Close Patient	Closes the patient record without ending the session.	Multibed only
View Remote Patient	Opens the Census window for selecting a record to view in the Remote Access module. Selected record can be for an active, transferred or discharged patient.	Critical Care/PACU Manager Bedside only
Select Patient	Opens the Census window. Allows users at multibed workstations to switch to a different patient. Cannot be removed.	Multibed only
Transfer Patient	Closes the patient's record, ends the session at that patient location, but does not end the CareSuite admission.	All
Discharge Patient	Closes the patient's record, ends the session and ends the CareSuite admission.	All
Link Record	Opens the census window showing any preadmissions related to the admitted patient.	All
Printouts	Opens a window for starting a printout.	All
Exit	Closes the application without ending the session. Cannot be removed.	All
Insert/View Menu		
Refresh	Not recommended for production workstations.	None
Events	Opens the Events window where users can work with documented events and add new events.	All
Add Events	Opens the Add Events window.	All

S.A.M.	Opens the Supervisory Anesthesia Module.	Anesthesia/ PACU Manager
Fluid Balance	Opens the Fluid Balance window.	All
Patient Summary	Opens the Patient Summary module.	All
Pending Medications	Opens the Pending Medications window.	PACU Critical Care Manager
QA Indicators	Opens the QA Indicators window with a list of quality assurance criteria. Items in the window can be displayed on flowsheets in addition to, or instead of, in this window.	Anesthesia/ PACU Manager
Equipment	Opens the Equipment window for documenting equipment, instruments and supplies used in a case. Items in the window can be displayed on flowsheets in addition to, or instead of, in this window.	Anesthesia/ PACU Manager
Demographics Menu		
Summary	Opens the main Demographics window showing all configured sections and documented data. Users can open individual sections from the navigation bar. Demographics menu also lists all sections configured for the window for direct access.	All
Flowsheets Menu		
Real-Time Variables, Medications, Fluids, Laboratory	Displays the respective flowsheets. Any configured flowsheet can be included on this menu. If a command for a flowsheet is not configured, users can open it from the Navigation bar.	All
Configuration Menu		
Real-Time Data Interval	Allows users to change the frequency of data capture from devices.	Bedside only
Snapshot	Adds a column with the most recent device data. Not displayed at multibed workstations or when viewing remote bedside patients from other bedside workstations	Bedside only
Emergency Data	Allows users to add high-resolution device data from the past to the patient chart.	Bedside only

Standby	Stops communication with devices temporarily.	Bedside only
Devices	Allows users to change the device-driver configuration during a session.	Bedside only
Orders Menu		
Single Order	Allows users to add a custom order to a patient's chart. Without this command, users can only add standard orders using a shortcut menu (by right-clicking the flowsheet).	All
Urgent (Stat) Order	Allows users to document a single, urgent intervention without having to add the order and document the action separately.	All
Protocols	Allows users to add protocols to a patient's chart.	All
Extend	Allows users to extend orders if they are needed for longer than originally prescribed.	All
Cancel/Discontinue	Allows users to cancel/discontinue multiple orders at one time. Without this command, users can only cancel/discontinue orders individually from the Document an Action dialog box.	All
Screen Layouts Menu		
Home Screen	Applies the Home screen configured in the template.	All
Save Screen As	Allows users with appropriate access rights to save new screen layouts. Not recommended for production workstations.	All
Apply Screen Layout	Allows users to apply screen layouts by selecting from the complete list of configured layouts.	All
Custom layout names	Screen layouts that are configured as add-ins appear on the menu and can be included on the toolbar. If a commands for a layout is not configured, users can apply it using the Apply Screen Layout command.	All
Timers Menu		
Timer 1, Timer 2, Timer 3	Commands for opening custom timers.	Anesthesia Manager

Window Menu		
Unit Census	Shows or hides the Unit Census containing a list of other active patients. Recommended for multibed workstations. At multibed workstations, selecting a patient in the Unit Census opens that patient's record, closing the current patient record if any. At bedside workstations, the same action opens the selected patient's record in the Remote Access module.	All, especially multibed
Toolbar	Shows or hides the main toolbar.	All
Macrobar	Shows or hides the Macrobar.	All
Navigation Bar	Shows or hides the Navigation bar which allows users to open flowsheets and sections of the Demographics window quickly. Note that if you do not include this bar, any flowsheets that are not available on the Flowsheets menu will be inaccessible.	All
Vital Signs Bar	Shows or hides the Vital Signs bar. Not displayed at multibed workstations or when viewing remote bedside patients from other bedside workstations.	Bedside only
Patient Information Band	Shows or hides the Patient Information Band at the top of the patient chart.	All
Large Icons	Switches between large and small icons on the main toolbar and Macrobar.	All
Help Menu		
Contents and Index	Opens online help module. Cannot be removed.	All
About Anesthesia/ PACU/ Critical Care Manager	Displays copyright information, application version and the name of the template in use. Cannot be removed	All

For most commands, you can add a corresponding button to the toolbar. The toolbar can include up to 23 elements including separators. Buttons for macros that are configured as add-ins appear on the macrobar, which can include up to 23 buttons.

CareSuite includes a library of icons for standard functions and common add-ins. You can assign any icon from the library to a toolbar button, however Picis recommends using icons for the functions for which they were designed.

Note: The Macrobar will fit next to the main toolbar horizontally, with each showing a single row of buttons, with different combinations of buttons and separators. The table shows some sample combinations:

Main Toolbar		Macrobar	
Buttons	Separators	Buttons	Separators
17	4	6	0
20	3	3	0
23	0	1	0

Both bars can be displayed vertically and with multiple rows of buttons.

Configure menus



- 1 Click the **Menus and Toolbar** button.

Or, on the **Template** menu, click **Menus and Toolbar**.

The pane on the left displays menu headings and all possible commands for each menu. The symbol next to a command name indicates its current status:

- Function is always available as a command (it cannot be removed). You can create a toolbar button for it.
- Function is not available on command or toolbar.
- Function is available as a command.
- Function is available as a command and toolbar button.

- 2 Double-click an entry to select or clear it.
- 3 After selecting a command, you can assign a button to it on the main toolbar. Select the command in the left pane then click **>>**. The button will appear at the bottom of the pane on the right. (See also “Add buttons to the toolbar” on page 91.)

- 4 When you are finished choosing commands, click **Close**.

Notes: The Log On/Off button and commands appear automatically and cannot be removed or modified.

The **Select Patient** command is only available at multibed workstations. Similarly, the **View Remote Patient** command is only available at bedside workstations.

Add buttons to the toolbar



- 1 Click the **Menus and Toolbar** button.
Or, on the **Template** menu, click **Menus and Toolbar**.
- 2 The left side shows the available menus and their commands. The symbol next to a command indicates that it has been selected to appear on the toolbar. The right side shows only the commands that have been selected for the toolbar.
- 3 On the left side, select the command you want to add to the toolbar as a button and then click **>>**.
- 4 In **Tooltip**, enter the text to appear when the pointer is left over the button.
- 5 Click **Browse** to select an icon for the button. Do not select the same icon for more than one button.
- 6 Click **OK**.
- 7 When you are finished configuring the toolbar, click **Close**.

Note: Before configuring buttons for the toolbar, make sure that all needed add-ins and timers are configured.

Edit the properties of buttons on the toolbar



- 1 Click the **Menus and Toolbar** button.
Or, on the **Template** menu, click **Menus and Toolbar**.
- 2 On the right side of the window, select the button and then click **Edit**.

- 3** Edit the properties, if necessary (See “Add buttons to the toolbar” on page 91).
- 4** Click **OK**.
- 5** When you are finished configuring the toolbar, click **Close**.

Remove buttons from the toolbar



- 1** Click the **Menus and Toolbar** button.
Or, on the **Template** menu, click **Menus and Toolbar**.
- 2** On the right side of the window, select the button you want to remove.
- 3** Click **Remove**.
- 4** Click **OK**.
- 5** When you are finished configuring the toolbar, click **Close**.

Rearrange buttons on the toolbar



- 1** Click the **Menus and Toolbar** button.
Or, on the **Template** menu, click **Menus and Toolbar**.
- 2** On the right side select the button you want to move.

3 Workstation Configuration

About Workstation Settings

Workstation settings determine aspects of application behavior that are identical for every session, independent of the template used. Although Customize provides access to over 1000 configuration parameters, this manual only provides information about the ones you are likely to need in normal use. If you have questions about other parameters, contact your Picis representative.

Besides the configuration of Anesthesia Manager, PACU Manager and Critical Care Manager, this section of the manual also describes the configuration of Preop Manager, which does not use templates.

To start Customize, see “Starting and Quitting Customize” on page 16. Follow the instructions to start the application and then click **Open** with any template highlighted. Note that although you must open a template to set workstation parameters, these settings are not stored in the template itself. They affect the behavior of the system regardless of which template was open during configuration and which template a user chooses for a session.

Using Customize, you can configure the items like the following:

- Access to remote patients
 - “Set the type of access to remote patients” on page 95
- Automatic log off time
 - “Set automatic log off interval” on page 96
- Screen display when no user is logged on
 - For more information, see “Hide patient data after user log off” on page 97
- Time-related parameters for orders
 - “Early documentation limit” on page 98
 - “Order extension period” on page 99
 - “Extend order time limit” on page 99

- “Documentation limit for finished orders” on page 99
- “Time limit for documenting tasks” on page 100
- “Default starting time for orders added during a session” on page 100
- “Rounded starting time for orders” on page 101
- “Session start time as the default starting time for orders” on page 101
- “Default time for documenting a task” on page 102
- Fluid and medication parameters
 - “IV base solution volumes” on page 103
 - “Required ID number for blood bags” on page 103
 - “Decimal places in doses and volumes” on page 104
 - “Number of digits for rounding flowsheet values” on page 104
 - “Doses outside reference range” on page 104
 - “Modification of doses in medication and fluid orders” on page 98
- Performance options related to the database
 - “Frequency of database access” on page 109
 - “Screen refresh rate/scroll speed” on page 110
- Prompts and messages displayed to users
 - “Prompt users for confirmation” on page 105
 - “Acknowledge completion of tasks” on page 106
 - “Assessments multi-selection symbol” on page 107
- Parameters related to assessments, QA Indicators and equipment items.
 - “Assessments multi-selection symbol” on page 107
 - “Assessments box height” on page 106
 - “Assessments note symbol” on page 107
 - “Quality assurance criteria on flowsheets” on page 108
- Event sets and event macros
 - “Create or edit an event set” on page 111
 - “Configure an event set as a macro” on page 111

Workstation Settings

You can configure the following basic workstation parameters:

- The type of access to remote patients.
“Set the type of access to remote patients” on page 95
- Automatic Log Off: The period of time that the application remains in a logged on state when the system is idle (no user input). After this period, a user will need to log on before working with the chart. (Note that the automatic log off period is set separately for Preop Manager. You should make sure that the setting is the same for all applications.)
“Set automatic log off interval” on page 96
(For Preop Manager, see “Set the automatic log off interval” on page 133)
- Screen display when no user is logged on. This setting affects Anesthesia Manager, PACU Manager, Critical Care Manager and Preop Manager.
- CCOW options
These options are not currently used. (Including the “Remote Access for non-local bedside patients” option.)

Set the type of access to remote patients

- 1 On the **Workstation** menu, click **Basic Settings**.
- 2 In **Remote Patient Access**, select the type of access to remote patients. The effect of this setting depends on whether you are configuring a bedside or multibed workstation:

Workstation Type	Access Type	Result
Bedside	View Only	Full access to the patient at the local bedside workstation; view-only access to all other patients.

Workstation Type	Access Type	Result
Bedside	View/Chart	Full access to the patient at the local bedside workstation; full access to all multibed patients and those admitted to locations with bedside workstations.
Multibed	View Only	Full access to patients admitted in multibed units; view-only access to all bedside patients.
Multibed	View/Chart	Full access to patients admitted to multibed units; full access to all bedside workstations.

Note that users only have access to patients that are listed in the Census window. Queries for the Census types in Census windows define the patients that are available at a workstation.

- 3 Click **Close**.

Set automatic log off interval

- 1 On the **Workstation** menu, click **Basic Settings**.
- 2 In the **Automatic Log Off** box, select an interval.
To prevent the system from logging off automatically, set this to zero.
- 3 When you are finished setting time-related parameters, click **Close**.
Make sure to use the same value as used for Preop Manager. (See “Set the automatic log off interval” on page 133.)

Configure the Log On dialog box

- 1 Navigate to the folder C:\Picis\Config\DBAPI using the Windows Explorer and double-click the file DBAPI.pcs.
- 2 Set the **ShowUserNameInLogOn** parameter as follows:
0: to provide a blank text box for user names; the typed user name will appear as asterisks

1: to provide a drop-down list box for user names; the selected user name will appear normally

2: to provide a blank text box for user names; the typed user name will appear normally

- 3 On the **File** menu, click **Save** then **Exit**.

Hide patient data after user log off

- 1 On the **Workstation** menu, click **Basic Settings**.
- 2 Select the **Hide patient data when no user is logged on** check box.
- 3 Click **Close**.

Advanced Settings

The Advanced Settings window contains parameters that should only be changed by someone with a thorough knowledge of the system. The window provides access to hundreds of settings, the majority of which never require changes. This manual describes the settings are most commonly used. For help configuring other parameters, please contact your technical support representative.

Warning: Although you are able to change text in the application interface using Advanced Settings, Picis recommends against doing so. **Customized text is not preserved during product upgrades.** In addition it should be remembered that documentation refers to standard menu, command and control names; changes may be confusing to users and complicate product support.

Open the Advanced Settings editor



- 1 Click the **Advanced Settings** button.
- 2 Or, on the **Workstation** menu, click **Advanced Settings**.

Modify a setting

- 1 Select the **Zone** and **Section** containing the entry.
- 2 Select the entry and click **Edit**, or double-click the entry.
- 3 Modify the entry and click **OK**.
- 4 When you are finished modifying settings, click **Close**.

Modification of doses in medication and fluid orders

Super, CONFIGURATION, ShowModifyOrderAccess = 1

Determines whether users can alter the ordered dose of a medication or fluid on a flowsheet. If this option is active, the shortcut menu (displayed by right-clicking a medication or fluid name on a flowsheet) will include the **Modify Order** command.

Values

1 = Users can modify doses

0 = Users cannot modify doses

Early documentation limit

Super, CONFIGURATION, Future Time = 2

Determines how long in advance of its scheduled time a user can document a task.

Values

Time in hours

Order extension period

Super, REPEATORDERSDLG, HoursExtended = 24

Determines the period of time by which orders are extended. Orders are extended by either this fixed period or by the duration of the original order, whichever is shorter.

Values

Length of time in hours (Maximum = 720 hours [30 days])

Extend order time limit

Super, REPEATORDERSDLG, HoursUsedToFilterOrdersToExtend = 12

Determines how long before or after its scheduled ending time a user can extend an order.

Values

Length of time in hours (0 = orders cannot be extended.)

Note: To prevent users from accidentally extending an order twice, Picis recommends that you use a value that is less than the Extend Order Time Limit be less than or equal to half the Order Extension Period.

Documentation limit for finished orders

Super, CONFIGURATION, TimeToValidateFinishedOrder = 4

Time limit for entering data after the end of a PRN order. The end is the scheduled end or the time at which it was discontinued.

Values

Length of time in hours

Time limit for documenting tasks

Super, CONFIGURATION, AutoReScheduleTime = 60

If a scheduled task is documented late, the system prompts the user to shift the remaining tasks to later times or maintain the original times. This setting defines how long after the scheduled time users can document tasks without the prompt appearing.

The default setting of 60 minutes is intended for users that document tasks as they perform them and is especially relevant for medications.

The value should be increased if caregivers tend to document actions more than one hour after performing them; for example, if all orders are documented at the end of the shift, an appropriate setting would be 480 minutes (8 hours). Set the interval even higher if users will never reschedule when documenting late.

Values

Length of time in minutes

Default starting time for orders added during a session

Super, SCHEDULE, INITIME = -1

Determines the default starting time for orders added manually using the **Single Order** and **Protocols** commands on the **Orders** menu. Users can manually change the starting time if needed.

Values

-1 = Time orders are added

0–23 = A time based on the 24-hour clock

Related parameters

If the value is set to -1, the system will also apply the following parameter:
Round_To_Minutes.

Notes

Anesthesia Manager and PACU Manager: If UseCaseStartingTime is not used, the recommended setting would be -1 since users tend to add medications and fluids to the chart as they administer them (rather than “ordering” the items for administration later).

Critical Care Manager: Typically the starting time for orders is set to coincide with an established time for administering medications in the unit.

Rounded starting time for orders

`Super, SCHEDULE, Round_To_Minutes = 1`

If the IniTime parameter is set to -1, the Round_To_Minutes parameter will also be applied. It determines whether the system uses the exact time (in hours, minutes and seconds) or rounds the time down to the nearest multiple of the parameter value.

Typical settings include 1, 5, 10, 30 and 60 minutes. For example, if the parameter is set to 10, the default starting time of 10:47:30 would be rounded down to the nearest multiple of 10, or 10:40.

Values

0 = Exact time in hours, minutes and seconds

1–60 = Multiple in minutes to which the default starting time is rounded

Related parameter

This parameter has no effect if IniTime is set to 0-23.

Session start time as the default starting time for orders

`Super, CONFIGURATION, UseCaseStartingTime = 0`

Determines the default starting time of standard orders added during a session. Standard orders are added using the **Add Item** command on the shortcut (displayed by right-clicking a heading on the flowsheet) is the start of the session.

When this parameter is active, the **Starting Time** control in the order dialog box displays the starting time of the session (in hours, minutes and seconds). When it is disabled, the default starting for standard orders is the exact time they are added (in hours, minutes and seconds).

Values

0 = Time order is added

1 = Starting time of the session

Default time for documenting a task

Viewer, CONSTANTS, Show_Current_Time_Click= 1

Determines the default administration time supplied in the Document a Task dialog box when a user clicks a scheduled task. This can be the scheduled time for the task or the current time when the task marker was clicked.

Use the scheduled time if users document their work at the end of a shift. Use the current time if users document tasks as they perform them.

Values

0 = Scheduled time

1 = Current time

Memo for manual extensions of continuous V fluid orders

Super, CONFIGURATION, ShowContinuousInExtendWindow = 0

Continuous orders have no fixed end point after documentation starts; users can continue to enter data indefinitely. For this reason, continuous orders are normally not included in the Extend Orders dialog box. This parameter allows you to include these orders in the dialog box so that users can validate their continuation. Extending such an order will add an automatic memo to the order.

Values

0 = Continuous IV fluid orders cannot be extended (they will not be listed in the Extend Order dialog box)

1 = Continuous IV fluid orders can be extended

Rights needed to discontinue orders

Super, CONFIGURATION, PrescriptionRightsNeededToDiscontinue = 0

Determines the access rights required to discontinue an order. By default, users can discontinue an order if they have rights to document it. Changing the setting requires users to have the same rights as they would need to order the item. (See also “Prompt users to discontinue orders when transferring a patient” on page 20.)

Values

0 = Validation rights required to discontinue orders

1 = Prescription rights required to discontinue orders

IV base solution volumes

Fluids, CONFIGURATION, IVBaseSolutions = 50|100|250|500|1000|2000

Determines the default base solution volumes that are available in the dialog box when documenting IV fluids.

Values

Series of volumes in mL separated by vertical bars (|)

Required ID number for blood bags

Fluids, CONFIGURATION, IsBloodBagIdCompulsory = 0

Values

0 = Not required

1 = Required

Decimal places in doses and volumes

SUPER, CONFIGURATION, MaximumDecimalsInDescriptions = 4

Determines the number of decimal places that can be entered in a dialog box control when prescribing or documenting medication or fluid orders. The parameter affects medication doses, fluid volumes and pump rates. The system will display up to the number indicated, excluding trailing zeros.

Values

A number representing the decimal places

Number of digits for rounding flowsheet values

SUPER, CONFIGURATION, MaximumRepresentedDigits = 4

Determines the number of digits to which values in flowsheet cells are rounded.

Values

A number representing the number of digits

Doses outside reference range

Super, CONFIGURATION, UseRangeAsReferenceOnly = 1

The minimum and maximum doses specified in standard orders for medications and fluids can serve as reference values or limits. If the system is configured to use ordered doses as limits, users will not be able to document values outside this range. If it is configured to use them as reference values, the system will

identify values that are outside of the range but will allow users to document them.

Values

0 = Doses and volumes are fixed limits

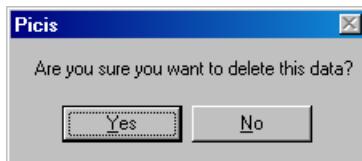
1 = Doses and volumes are reference values only

Prompt users for confirmation

Super, CONFIGURATION, AllowAskConfirmationMessages = 1

Determines whether users must confirm their actions after completing certain tasks.

This parameter also controls prompts for fluid and medication administration.



The confirmation messages for the following actions can be suppressed:

- Creating treatments, standard orders, protocols, or schedules.
- Deleting protocols, schedules, or standard orders.
- Editing or renaming protocols.
- Prescribing an order or protocol.
- Removing orders from a protocol.
- Discontinuing orders.
- Copying orders.
- Validating multiple orders.
- Editing or undoing a validation.

Values

0 = No confirmation prompts

1 = Confirmation prompts

Acknowledge completion of tasks

Super, CONFIGURATION, AllowCommunicateSuccessMessages = 1

Determines whether a message is displayed after certain tasks are successfully completed with Db Editor.



Success messages can be suppressed in the following situations:

- When creating a treatment, protocol, or standard order
- When editing a protocol

Values

0 = No completion messages

1 = Completion messages

Show or hide the daylight savings time (DST) message

Super, CONFIGURATION, HideDSTPrescriptionMsg = 0

Determines whether an information message is displayed whenever a user prescribes or extends an order that coincides with a clock change.

0 = Show DST messages

1 = Hide DST messages

Assessments box height

Assessmnt, DISPLAY, Number of Items = 30

Determines how many response options can be displayed in the Assessments, QA Indicators and the Equipment dialog boxes. Increasing the number of items increases the height of the box (users will have to scroll to see assessment items that do not fit).

Values

Number of items (maximum = 40)

Assessments multi-selection symbol

Assessment, DISPLAY, MultiSelectionSymbol = **

Determines the flowsheet symbol used to indicate that more than one option has been selected in the Assessments, QA Indicators and the Equipment dialog boxes.

Value

Any character(s)

Assessments note symbol

Assessment, DISPLAY, Note Symbol = *

Determines the flowsheet symbol used to indicate that a note has been entered in the Assessments, QA Indicators and the Equipment dialog boxes.

Values

Any character

Barometric pressure for APACHE II

APACHE, CONFIGURATION, Barometric = 747

The APACHE II score is based on various parameters, including the average barometric pressure. If your hospital is located in a region with an average

barometric pressure that is different than the worldwide average at sea-level (747mm Hg), you should set the appropriate value.

Values

Local barometric pressure in mm Hg

Note: This setting does not affect derived real-time variables (such as A-aDO₂) that are calculated using the local barometric pressure; the barometric pressure value for derived real-time variables must be entered directly in the relevant formula in the Click'n Link database table. (See “Derived Variables” on page 191.)

[Equipment checklists on flowsheets](#)

```
Assessmt, DISPLAY,  
Show Equipment Assessments = 0
```

Determines whether or not equipment items can appear on the flowsheets.

Values

0 = Equipment items cannot appear on flowsheets
1 = Equipment items can appear on flowsheets

[Quality assurance criteria on flowsheets](#)

```
Assessmt, DISPLAY, Show QA Assessments = 0
```

Determines whether or not QA Indicators can appear on the flowsheets. (This parameter does not affect the QA Indicators window.)

Values

0 = QA Indicators cannot appear on flowsheets
1 = QA Indicators can appear on flowsheets

Performance Options Related to the Database

These parameters control how the application interacts with the Picis database. The default values for these settings are configured for maximum performance—so that the application reads data from the server as infrequently as possible. However, if the network connection is lost frequently, it may be necessary to increase the database interaction so that each workstation has enough data to work offline effectively.

Frequency of database access

`Super, CONFIGURATION, CacheRefreshProbability = 0.0001`

Determines the frequency with which the workstation automatically retrieves data from the main database.

The local workstation stores certain database tables in local memory after retrieving them from the main database the first time they are needed. New information in the main database is detected using PIMS, so that it can subsequently be retrieved by the workstation. In addition, the workstation automatically retrieves new information from time to time in case there is a problem with PIMS. The CacheRefreshProbability parameter determines how often this occurs.

The parameter is expressed as the ratio of queries to data retrievals. With the highest possible ratio, 1:1, the workstation retrieves new data from the main database every time the application needs data. With the default ratio of 1:0.0001, the workstation retrieves new data from the main database once for every 10000 queries.

This setting has little effect on performance under normal conditions because the system communicates changes to the content of the main database to local workstations immediately.

Sample Values

1 = Data refreshed once for every query (recommended setting when working with DB Editor)

0.1 = Data refreshed once for every 10 queries

0.0001 = Data refreshed once for every 10000 queries (recommended setting for normal use)

Screen refresh rate/scroll speed

Super, CONFIGURATION, ReadSingleTmInterval = 1

Determines whether the application reads all orders on the chart during screen refreshes, or just those corresponding to the current time view.

Screen refreshes are faster when the system only needs to read a subset of the order list, but scrolling is slower because any change to the time view requires the system to read a new group of orders from the database.

Values

0 = System reads all scheduled orders during screen refreshes

1 = System only reads schedules from shown interval

Other Workstation Settings

Event Sets and Macros

Event sets are groups of events that are typically documented together during surgery. They are often used in operating room templates to document surgical milestones that are required for all patients, such as *Start of anesthesia*. Users can add an event set to the patient chart by choosing it in the Add Events window or running a macro.

You create event sets and event macros in the Event Sets and Macros window. Event sets and macros are independent of the template; once created, they can be included in any template. (See “Configure a macro as an add-in” on page 83.)

The process for creating an event macro is the same as for creating an event set. You can configure a macro to perform an action, such as executing a menu

command or applying a screen layout, after adding the events. And you can configure a macro as an add-in with a button on the Macrobar.

Note: if a supervisor event is included in an event set, it will only be added to the Events Log if the event set is added to the patient chart by a user with the “Sam View and Use” system right.

Create or edit an event set

- 1 On the **Workstation** menu, click **Event Sets and Macros**.
- 2 Click **New**, and enter a name for the event set.
Or, select an event set to edit from the **Available Event Sets** box.
- 3 In the **Type** box, select an event type. Then select one or more events in the **Available Events** box and click **>>**.
- 4 Use the **Move** arrows to move a highlighted event in the **Selected Events** box to a new position. Events will be listed in this order in the Events Library.
- 5 Click **Save**.
- 6 When you are finished creating event sets and event macros, click **Close**.

Configure an event set as a macro

- 1 On the **Workstation** menu, click **Event Sets and Macros**.
In the **Available Event Sets** box, select an event set.
- 2 Click **Next >**.
- 3 If you want the macro to allow users to enter a date and time for the events, click **Prompt for date/time when running macro**.
- 4 You can configure the macro to perform an action after inserting the events:
To apply a screen layout, click **Apply screen layout** and select a predefined screen layout from the list.
To execute a command, click **Execute command** and select a command from the list. (Note: commands are only executed if they also appear on

the corresponding menu. See “Menu Commands and Toolbar Buttons” on page 86.)

- 5 Click **Save**.
- 6 When you are finished creating event sets and macros, click **Close**.

Delete an event set or macro

- 1 On the **Workstation** menu, click **Event Sets and Macros**.
- 2 In the **Available Event Sets** box, select the event set/macro you want to delete.
- 3 Click **Delete**.
- 4 Click **Close**.

Device Communication Failures

Occasionally a CareSuite application will stop receiving device data during a session. This can occur because of problems with device connectivity or system configuration, or an internal error in the application. You can configure the system to notify users after a certain period with no new data from one or more devices. The application will display a warning identifying the port number and driver for each problematic device and can also send an e-mail message to support staff for help resolving the problem.

Configure the system for device communication failures

- 1 On the **Workstation** menu, click **Device Data Interruptions**.
- 2 In the **Intervals without data** box, enter the number of data collection intervals to wait before displaying a warning message in the application. This parameter determines how long the system waits to alert users after it stops receiving data from devices. The delay is based on the **Real-Time Data Interval** (frequency of automatic data collection). To calculate the length of the delay in minutes, multiply the **Real-Time Data Interval** by the value of this parameter.

Examples using an **Intervals without data** setting of 2:

If the **Real-Time Data Interval** is 1 minute, the delay would be 2 minutes.

If the **Real-Time Data Interval** is 5 minutes, the delay would be 10 minutes.

- 3 In the **Message to display in application** box, you can edit the text of the message that users will see. (Note: do not press ENTER when typing the text; any text after the ENTER will not appear when the message is shown.)
- 4 If you want the system to notify support staff automatically by e-mail, do the following:
 - ▶ Click **Send e-mail notification**.
 - ▶ In **Seconds before automatic e-mail notification**, enter the delay before the system sends an e-mail message automatically.

This parameter determines how long the system waits to send the e-mail message after displaying the alert message. Users can either send the message manually from the alert message window or wait for the system to send the message. Users can cancel a message when prompted to confirm the action.
 - ▶ For each person who should receive a notification, click **New** and then enter the person's e-mail address.
- 5 When you are finished, click **Close**.

CaseCheck

Most configuration for CaseCheck can be performed using Customize (See “Demographics” on page 58). However, certain parameters require you to edit configuration files using the Picis Configuration Editor.

- You can configure CaseCheck to log the user off when a patient record is closed.
- You can hide the **Print** button to prevent users from printing data.

Configure CaseCheck to log off when closing a record

- 1 Navigate to the folder C:\Picis\Config\ChartPlus using the Windows Explorer and double-click the file CaseCheck.pcs.
- 2 Set the **LogoffAfterClosingPatient** parameter to *TRUE*.
- 3 On the **File** menu, click **Save** then **Exit**.

Hide the Print button in CaseCheck

- 1 Navigate to the folder C:\Picis\Config\ChartPlus using the Windows Explorer and double-click the file CaseCheck.pcs.
- 2 Set the **ShowPrintScreenButton** parameter to *FALSE*.
- 3 On the **File** menu, click **Save** then **Exit**.

CareBar

The Picis Carebar gives users easy access to CareSuite and related applications from a toolbar on the Windows desktop. The bar can include up to 12 buttons. For each button, you can configure an application, the position on the toolbar, an icon for the button and tooltip text. You can also set the size of the bar and its position on the screen. You can configure Windows to display the CareBar at startup.



Sample OR CareBar

Start the CareBar automatically

- 1 Click **Start**, and then point to **Settings**.
- 2 Click **Taskbar**, and then click the **Start Menu Programs** tab.
- 3 Click **Add**, and then click **Browse**.

- 4 Navigate to the following directory using the Windows Explorer:
C:\Picis\CareBar.
- 5 Double-click the file CareBar.exe.
- 6 Click **Next**, and then double-click the Startup folder.
- 7 Type the name that you want to see on the **Startup** menu, and then click **Finish**.
- 8 If Windows prompts you to choose an icon, click one, and then click **Finish**.

Add an application to the CareBar

- 1 On the CareBar, click .
- 2 Click the **Applications** tab.
- 3 Click **Add App**.
- 4 In **Title Bar String**, select an application to add to the CareBar.
- 5 In **Tool Tip Text**, enter the application name. This text will be displayed when the pointer is placed over the button.
- 6 In **EXE File Name**, enter the path and file name for the application.
- 7 In **EXE Arguments**, enter any switches or parameters needed by the application.
- 8 To display the default application icon on the bar, click **Use EXE Bitmap**.
- 9 To use a different icon, enter the path and file name for the graphic in **Bitmap File**.
- 10 Click **OK**.

Remove an application from the CareBar

- 1 On the CareBar, click .
- 1 Click the **Applications** tab.
- 2 Select an application from the list.
- 3 Click **Delete App**.

Change the screen position of the CareBar

- 1 On the CareBar, click .
- 1 Click the **Options** tab.
- 2 Under **CareBar Screen Position**, click **Top Left**, **Top Right**, **Bottom Left**, or **Bottom Right**.

Change the size of buttons on the CareBar

- 1 On the CareBar, click .
- 1 Click the **Options** tab.
- 2 Under **Icon Size**, click **Small** or **Regular**.

Census Windows

Overview

Picis provides a set of sample census windows for selecting patients in Anesthesia Manager, PACU Manager, Critical Care Manager, Preop Manager,

CaseCheck and the Printout Loader. The windows classify patients by admission status and allow users to display different patient groups. Selected patient records can be opened to document preoperative data, start a session, view data, or complete case documentation.

A window typically allows a user to select from different groups of patients, such as the following:

- Transfer patients: Patients who have been transferred from one bed and are awaiting admission to another.
- Discharged patients: Patients who have been discharged from the Picis system because they have left the hospital or been transferred to a non-Picis unit. These patients can be readmitted or viewed.
- Admitted patients: Patients currently admitted to beds. These patients can be viewed but cannot be admitted to a workstation.

Census List			
Census Type:			
<input type="button" value="Transfer Patients"/>			
Patient ID	First Name	Last Name	
001132178034712003010	Elizabeth	Anderson	
001132449612376004010	John	Andrews	
001133416558735007010	Phillip	Armstrong	
001133417895207007010	Steven	Cusak	

You configure census windows using AdtSpy, as described next.

ADTSpy

If you belong to a user group with the “Diagnostic Tools Use” right, you can use ADTSpy to configure census windows for Anesthesia Manager, PACU Manager, Critical Care Manager, Preop Manager, CaseCheck and Printouts.

Before customizing a census window, you should consider the following issues:

- The types of patients users will need access to and which type will be used most frequently (for example, multibed, bedside, HIS, active, transferred, and discharged).
- Whether Picis receives patient data from the HIS or from user entry.

- What patient information should accompany the name (for example, Patient ID, room or bed number, attending physician, hospital department or unit name, diagnosis or procedure name, patient age).
- Desired sort order for the patient list (for example, last name, Patient ID, room or bed number, attending physician).
- ADT functions needed at the workstation (create new patients, import patients from the HIS, start a session with an existing patient, open a record for viewing only, transfer a patient, discharge a patient). Picis recommends omitting the Transfer and Discharge functions from census windows at bedside workstations to prevent users from ending sessions at other workstations. These functions would typically only be available at supervisor and multibed workstations.

Start ADTSpy and open a census window

- 1 Navigate to the C:\Picis\Diagnostics\ folder using the Windows Explorer.
- 2 Double-click the file **AdtSpy.exe**.
- 3 Click the **C** button at the top of the window.
Or, on the **Census List** menu, click **Configure**.
- 4 In the **World** box, click the Picis “configuration world” that contains the census window. Then click the window name in the **Zone** box.
- 5 Click **OK**.

Application	World	Zone
Anesthesia Manager, PACU Manager and Critical Care Manager (local patient selection from a bedside workstation)	DBAPI	AdmCensus
Anesthesia Manager, PACU Manager and Critical Care Manager (remote patient selection from a bedside workstation)	DBAPI	CncTCensus

Anesthesia Manager, PACU Manager and Critical Care Manager (patient selection from a multibed workstation)	DBAPI	AdmCensusMB
Preop Manager	PREOP	PreopCensus
CaseCheck	DBAPI	CaseCheckCensus
Printouts	DBAPI	PrnCensus
AdtSpy	DBAPI	AdtCensus

Creating Queries for the Patient Groups

Each patient group is associated with an SQL query that defines the selection criteria and the information to retrieve for each patient. The query for the most frequently used patient group can be configured as the default.

You must create an SQL statement for each patient group that will be available to users. There is no limit to the number of patient groups that can be created, but each window must have at least one.

An SQL statement defines the selection criteria for patients and the information to retrieve for them. The easiest way to create an SQL statement is to copy an existing query and modify it, or import a query from another census window. Do not attempt to write an SQL statement yourself unless you are a database administrator with extensive knowledge of Picis database structure.

A query can retrieve a list of patients (one row per patient) or of Picis sessions for patients (with one row for each session):

- If the census window will be used for starting active sessions with patients (admitting them to a bed) the list should display one row per patient. The first field in the SQL statement must be the PATIENTDBOID or ADMISSIONDBOID. This applies to the AdmCensus census window.
- If the census window will be used for selecting patient sessions to view (without an admission to the current workstation), the list should display one row for each Picis session. The first field in the SQL statement must be the ADMISSIONDBOID. This applies to the census window at a bedside workstation when viewing remote patients (CncTCensus) and to the census window at a multibed workstation (AdtCensus).

The first field in the SQL statement is used for record identification purposes only and is not displayed on the patient list. The statement must include fields for all of the columns on the census list in the same order from left to right.

Create a new query

- 1 Click **New**.
- 2 In the **Titles** box, enter a name for the patient group. This text will be displayed in the **Census Type** box in the window.
- 3 If you want to apply the new query by default, select the **Default Query** check box.
- 4 Click **OK**.
- 5 In the **SQL Statement** box, write a SELECT statement that returns the desired information.

Remember that the patient list will display query results for database fields in the same order, from left to right, as they are defined in the statement (excluding the PATIENTDBOID or ADMISSIONDBOID field). For example, if the first field in the statement is the LAST NAME, the first column of the patient list will show this data.

Edit a query

- 1 In the **Titles** box, click a query name and then click **Edit**.
Or, double-click the query name.
- 2 In the **SQL Statement** box, edit the query to change the selection and grouping criteria, fields for patient and admission information, order of the columns, or the sort order for the list.
Remember that the patient list will display query results for database fields in the same order, from left to right, as they are defined in the statement (excluding the PATIENTDBOID or ADMISSIONDBOID field). For example, if the first field in the statement is the LAST NAME, the first column of the patient list will show this data.

Copy a query

- 1 In the **Titles** box, click a query name.
- 2 Click **Copy**.
- 3 Enter a name for the patient group. This text will be displayed in the **Census Type** box in the window.
- 4 If you want to apply the new query by default, select the **Default Query** check box.
- 5 Click **OK**.

Import a query

- 1 Click **Import**.
- 2 In the **World** box, click the Picis “configuration world” that contains the census window with the query you want to import. Then click the window name in the **Zone** box.
- 3 Select a query and click **OK**. The query will be imported.
- 4 Click **OK**.

Rename a query

- 1 In the **Titles** box, click a query name and then click **Edit**. Or, double-click the query name.
- 2 In the **Title** box, edit the query name. This text will be displayed in the **Census Type** box in the window.
- 3 Click **OK**.

Configure a query to be applied by default

- 1 In the **Titles** box, click the name of the query you want to apply by default and then click **Edit**.
Or, double-click the query name.
- 2 Select the **Default Query** check box.
- 3 Click **OK**.

Delete a query

- 1 In the **Titles** box, click the name of the query you want to delete.
- 2 Click **Delete**. The query will be deleted.
- 3 Click **OK**.

Customizing the Patient List

The patient list displays the query results in a multi-column list. To configure this part of the census window, you will do the following:

- For each query, create a column for each field that will be displayed in the query results. (The first field in the SQL statement is used for record identification purposes only and is not displayed on the patient list.)
- Enter the text for each column heading.
- Set the width of each column.

Set up a patient list

- 1 In the **Titles** box, click the name of the patient group.
- 2 Click the **New** button next to the **Columns** box.
- 3 In **Column Header**, enter the text to display above the column.
- 4 In **Column Width**, enter the width of the column in pixels.

- 5 Click **OK**.
- 6 Click **Test** to preview the results as often as you like. If you want to change the column header or adjust the width, click the column name and then click **Edit**.

Columns must be listed in the same order as the corresponding fields in the SQL statement.

Change the position of a column

- 1 In the **Titles** box, click the name of the patient group.
- 2 In the **Columns** box, click the name of the column.
- 3 Click the **Down** or **Up** button to move the column to a new position.

Delete a column

- 1 In the **Titles** box, click the name of the patient group.
- 2 In the **Columns** box, click the name of the column.
- 3 Click **Delete**.

Customizing Buttons and Other Controls

Buttons for up to 11 ADT functions can be included in a census window. Census windows for CareSuite applications typically have buttons for a few basic functions. Census windows for system diagnostics, such as the AdtSpy census window, may include buttons for all of the major functions.

You can also customize the following elements in the census window:

- Text displayed in the title bar of the window
- Text label above the Census Type list box
- Text of the Close button
- Standard ADT functions

Add a button to a window

- 1 Under **Buttons**, click **Add**.
- 2 In **Button ID**, click the button identifier for the button you want to add.
- 3 In **Label**, enter the text to display on the button.
- 4 To configure the button as the default button for the window, select the **Default Button** check box.
The default button can be activated in the census window by pressing **Enter**.
- 5 Click **OK**.

See “Button Reference” on page 127 for information about the functions associated with each button.

Edit button text

- 1 Under **Buttons**, click the button name in the **Button ID** column.
- 2 Click **Edit**.
- 3 In **Label**, edit the text to display on the button.
- 4 To configure the button as the default button for the window, select the **Default Button** check box.
The default button can be activated in the census window by pressing **Enter**.
- 5 Click **OK**.

Change the order of buttons in the window

- 1 Under **Buttons**, click the button name in the **Button ID** column.
- 2 Click **Up** or **Down** to move the button to a new position on the list.
Buttons are displayed in the same order in the census window.

Delete a button from a window

- 1 Under **Buttons**, click the button name in the **Button ID** column.
- 2 Click **Delete**.

Customize text in the Census window

- 1 In **Census List Caption**, enter the text to be displayed in the title bar of the Census List window.
- 2 In **Census Type Label**, enter the text label for the Census Type list box.
- 3 In **Cancel Button Label**, enter the text label for the Cancel button.

Testing and Saving Configured Census Windows

You can preview the census window while working. This allows you to verify that queries run successfully, that fields and columns match up, and that text will be clear to users.

Once you are satisfied with a window, you can save it. You can also save a window under a different name to replace another census window.

Test the configuration

- 1 Click the name of a patient group by selecting its name in the **Census Type** box.
- 2 Click **Test**.

Note: Each patient group has a patient list. Remember to check the list for each group when testing a census window.

Save the window configuration

- ◆ If you are finished configuring the window, click **OK**.
The configuration is saved automatically.
If you want to save the changes without closing the window, click **Apply**.

Save the window for use with a different application

- 1 After you are finished configuring the window, click **Save As**.
- 2 In the **World** box, click the appropriate Picis “configuration world” for the application. Then click the window name in the **Zone** box. (For a list of census windows, see “Start ADTSpy and open a census window” on page 118.)
- 3 Click **OK**.

Button Reference

Button Identifier & Suggested Text	Description
NewPatientButton “New Patient...”	Creates a new record and admits the patient to the workstation.
NewPreAdmitted “New Patient...”	Creates a new record and sets the patient’s admission status to “Preadmitted.”
AdmitPatientButton “Start Selected Patient”	Admits the selected patient to the workstation.
PreAdmitButton “Start Selected Patient”	Starts a preadmission session with the selected patient.
TransferPatientButton “Transfer”	Ends the patient’s session and changes the patient’s admission status to “Transfer.”
DischargePatientButton “Discharge”	Ends the patient session and discharges the patient from the Picis system.
GetPatientButton “Open Chart”	Opens a patient record without changing the patient’s admission status.
RefreshButton “Refresh”	Refreshes the list for the selected patient group.

Three of the buttons listed in the selection window are not supported in the current version of CareSuite: ReopenPatientButton, ReopenPreAdmittedPatientButton and ConnectButton.

Preop Manager

Customize contains a section for configuring the preoperative evaluation in Preop Manager. You should do this after using DB Editor to create content in the database corresponding to forms for medical histories, physical examinations, risk assessments and anesthesia plans. For more information, see “Preop Manager” on page 206.

You can configure the following aspects of Preop Manager in Customize:

- The sections to include and their titles.

- “Select forms to include and configure their order” on page 129
- “Change a form title” on page 130
- Required data.
 - “Configure required diagnoses and procedures” on page 131
 - “Configure required data in the physical examination section” on page 132
 - “Configure required data in the physical examination section” on page 132
 - “Configure required data in the medical history section” on page 132
- Whether users are obliged to complete all required sections before performing a final sign-off.
 - “Prevent final signoff when required data missing” on page 132
- Whether the following sections are locked after the patient is discharged:
 - ◆ Current Medications
 - ◆ Surgical History
 - ◆ Record Status
 - ◆ Preop Instructions
 - ◆ Risk Assessments
 - ◆ Physical Exam
 - ◆ Anesthesia Plan
 - ◆ Tests & Results
 - ◆ Review of Systems
- “Lock sections after a patient discharge” on page 132. (Note that sections shared with the Demographics module can also be locked as a result of another setting. See “Set the time limit for completing documentation” on page 67.)
- Period of inactivity before the application logs off automatically.
 - “Set the automatic log off interval” on page 133
- Add-in applications that can be opened from Preop Manager.
 - “Configure an add-in application” on page 134
- The labels for items in the sections containing demographic data.
 - “Configure fields for demographic sections” on page 130
- The identification number to display in the Preop Manager title bar (PTID1, PTID2, PTID3, ACCOUNTNUMBER, ADMID1, ADMID2, or ADMID3).

“Choose the patient identification number to display” on page 131

- How far back from the pre-admission date to show laboratory data for.
“Configure laboratory data” on page 133
- The sections for which data can be copied forward to the next evaluation.
(This feature is only available for the Current Medications, Review of Systems and Physical Exam sections.)
“Configure the copy forward feature” on page 133

Preop Manager configuration settings are independent of templates.

Open the Preop Manager configuration window

- 1 Start Customize. (See (“Starting and Quitting Customize” on page 16.)
- 2 Next to **Preop Manager Configuration**, click **Open**.

Select forms to include and configure their order

- 1 Click the **Basic Configuration** tab.
The current configuration is shown in the **Selected Sections** box.
- 2 To add a section to the summary, in the **Available Sections** box, click the section label, and then click **>>**.
- 3 To remove a section from the summary, in the **Selected Sections** box, click the section label, and then click **<<**.
- 4 Use the arrows to move a highlighted section in the **Selected Sections** box to a new position. Sections will be shown in this order on the Preop Manager summary.
- 5 When you are finished configuring Preop Manager, click **Close**.

Change a form title

- 1 Click the **Basic Configuration** tab.
- 2 In the **Selected Sections** box, click the name of the section you want to edit.
- 3 Click **Edit** to open a dialog box showing the existing title.
- 4 In the **Section Title** box, enter the new text
- 5 Click **OK**.
- 6 When you are finished configuring Preop Manager, click **Close**.

Configure fields for demographic sections

- 1 Click the **Basic Configuration** tab.
- 2 In the **Selected Sections** box, click the name of the section you want to edit.
- 3 Click **Setup** to open a window showing all possible data elements for the section.
- 4 In the **Name** column, click the name of a field you want to configure:
 - ▶ To include the field in the section, select the **Include** check box.
To remove the field, clear the check box.
 - ▶ To configure the field to display data but not permit data entry, select the **Read-Only** check box.
To allow data entry, clear the check box.
 - ▶ To display the field data but not include a field label, select the **Hide Title** check box.
To display a label before the data, clear the check box.
 - ▶ To require users to document the item, select the **Required** check box.
To make the field optional, clear the check box.
 - ▶ To change the field label, click the **Edit** button, enter the new text and click **OK**.

Configure required diagnoses and procedures

- 1 Click the **Basic Configuration** tab.
- 2 In the **Selected Sections** box, click the section that contains diagnoses and procedures.
- 3 In the **Functional Types** box, click the functional types of diagnoses or procedures that must be documented for every case.
- 4 For each selected functional type, click the *Clinical Priorities* that a user must document for every case (if any).
- 5 Under each selected type, select the check box for

Choose the patient identification number to display

- 1 Click the **General Settings** tab.
- 2 In **Patient ID Source**, select a source (database field) to use as the patient identifier in the Preop Manager title bar.
- 3 When you are finished configuring Preop Manager, click **Close**.

Configure required data in the anesthesia plan section

- 1 Click the **Basic Configuration** tab.
- 2 To require users to document the patient's ASA type, select the **ASA type required** check box.
- 3 In **Selected Sections**, click the name of the anesthesia plan section.
- 4 Click **Setup**.
- 5 In **Required Subsections**, select the check boxes next to the subsections that must be completed for every patient.
- 6 When you are finished configuring Preop Manager, click **Close**.

Configure required data in the physical examination section

- 1 Click the **Basic Configuration** tab.
- 2 In **Selected Sections**, click the name of the physical examination section.
- 3 When you are finished configuring Preop Manager, click **Close**.
- 4 In **Required Subsections**, select the check boxes next to the subsections that must be completed for every patient.
- 5 Click **Close**.

Configure required data in the medical history section

- 1 Click the **Basic Configuration** tab.
- 2 In **Selected Sections**, click the name of the medical history section.
- 3 Click **Setup**.
- 4 In **Required Subsections**, select the check boxes next to the subsections that must be completed for every patient.
- 5 When you are finished configuring Preop Manager, click **Close**.

Prevent final signoff when required data missing

- 1 Click the **Basic Configuration** tab.
- 2 Select the **All required data must be entered before final signoff** check box.
- 3 When you are finished configuring Preop Manager, click **Close**.

Lock sections after a patient discharge

- 1 Click the **Basic Configuration** tab.
- 2 Select the **Lock sections on patient discharge** check box.

- 3 When you are finished configuring Preop Manager, click **Close**.

Note: Picis recommends that sites using perioperative integration allow editing of preop records for discharged patients.

Configure laboratory data

- 1 Click the **General Settings** tab.
- 2 In **Days of laboratory data to display**, select how far back from the pre-admission date to show PCM laboratory data for.
- 3 When you are finished configuring Preop Manager, click **Close**.

Configure the copy forward feature

- 1 Click the **Copy Forward** tab.
- 2 Click **Current Medications**, to allow data from this section to be copied forward to the next evaluation.
- 3 Click **Review of Systems**, to allow data from this section to be copied forward to the next evaluation.
- 4 Click **Physical Exam**, to allow data from this section to be copied forward to the next evaluation.
- 5 When you are finished configuring Preop Manager, click **Close**.

Set the automatic log off interval

- 1 Click the **Basic Configuration** tab.
- 2 In **Automatic log off**, enter an interval in hours, minutes and seconds for a user to remain logged on when the application is idle.
- 3 When you are finished configuring Preop Manager, click **Close**.

Make sure to use the same value as used for Anesthesia Manager, PACU Manager and Critical Care Manager. (See “Set automatic log off interval” on page 96.)

Configure an add-in application

- 1 Click the **General Settings** tab.
- 2 Under Add-In Configuration, do the following:
 - ▶ In **Location**, enter the path to and name of the executable file.
 - ▶ Select a graphic for the toolbar button and click **OK**.
 - ▶ Select the **Toolbar Icon** check box and then click **Browse**.
 - ▶ In **Tooltip**, enter the text to display when the user holds the cursor over the toolbar button.
- 3 When you are finished configuring Preop Manager, click **Close**.

Customize the preoperative instructions printout

- 1 Open the following file in Microsoft Word or another text editor:
C:\Picis\cVal\Resources\PREOPINST.htm
- 2 The document will combine standard text with dynamic data from a patient's evaluation. Rewrite the standard text as needed. Use the following variables for dynamic data:
#PATIENT-NAME#: First and last name as shown in the header of the preoperative summary.
#PATIENT-ID#: Patient identification number displayed in the header of the preoperative summary.
#PLANNED-PROCEDURES#: Procedures documented in the form for diagnoses and procedures
#DATE-OF-SURGERY#: Surgery date displayed in the demographics form.
#PATIENT-INSTRUCTIONS#: Instructions for the patient selected in the preoperative instructions form.

#PREOP-MEDICATIONS#: Instructions regarding medications selected in the current medications form.

- 3 Save the file.

Provide a toolbar button for printing preoperative instructions

- 1 Click the **General Settings** tab.
- 2 Click **Include Patient Printout button**.
- 3 When you are finished configuring Preop Manager, click **Close**.

4 DB Editor and System Configuration

DB Editor and System Configuration

The CareSuite database contains all of the clinical content and many configuration parameters for Preop Manager, Anesthesia Manager, PACU Manager and Critical Care Manager. Each hospital creates a custom database during implementation. DB Editor provides access to certain database tables and parameters after installation of the software.

All hospitals will use DB Editor to work with the following items:

- Flowsheet content including real-time variables, medications, fluids, care activities, scores, nursing assessments.
- Content for the perioperative QA Indicators and Equipment windows.
- Events.
- Standard orders, protocols and schedules for orders.
- Content for user selections in Demographics and Preop Manager windows; plus lists of the most frequently used diagnoses, procedures and allergies for quick selection.
- Content for preoperative evaluations.
- Hospital department names.
- CareSuite workstation and bed locations.
- Configuration parameters related to audit trails.

If the hospital's system includes OR Manager, DB Editor allows you to configure the system for perioperative integration with that application. Note that if configured for perioperative integration, Picis Security Manager is used for setting parameters related to application security and users.

If the hospital will use only CareSuite clinical modules (Preop Manager, Anesthesia Manager, PACU Manager and/or Critical Care Manager) but not OR Manager, DB Editor is used to manage application access and security:

- Staff members and user accounts.
- Passwords and password behavior.
- Access rights for applications, functionality and clinical content.
- User groups.

DB Editor and New Features in 7.2

DB Editor allows you to implement new features in CareSuite 7.2:

- If you have installed Anesthesia Manager and OR Manager, you can configure these applications to work together.
- If you are configuring a multibed unit, you can create patient locations (beds).
- Set parameters related to audit trails.
- Set properties of real-time variables in the database, including formulas for derived variables.

If CareSuite is not configured for perioperative integration with OR Manager, use Picis Security Manager, you can also use DB Editor to do the following:

- Assign new system rights to user groups to control access to the following actions: editing events, editing real-time data, moving and resizing application windows and making printouts.
- Configure access rights for documenting specific medications, fluids, scores, assessments and other treatments. (Previously you could only configure the rights for ordering these items.)
- Set password expiration parameters.

Starting and Quitting DB Editor

Unlike Customize, you can use DB Editor while Anesthesia, PACU or Critical Care Manager is running; this allows you to see new content immediately.

You must have the system right *DB Editor* to work with this application. In addition, you need specific access rights to work with different types of database content:

Database content	System right needed to edit content
Clinical content	Orders Supervisor Options
Users, user groups, prescription / validation rights	User Accounts Maintenance

Important: Only a database administrator with extensive knowledge of the Picis system should use DB Editor. Changes made using this tool affect the behavior of the entire Picis system immediately. Any unwanted changes must be reversed manually.

When working with DB Editor, you are advised to set the CacheRefreshProbability to 1 using Customize, as described in the section “Frequency of database access” on page 109. Restore the parameter to its normal setting when you are finished using DB Editor.

Start DB Editor

- 1 Click the **Start** button and then point to **Picis CareSuite**. Point to the **Utilities** folder and then click **DB Editor**.
- 2 Enter a valid user name and password to log on to the system.

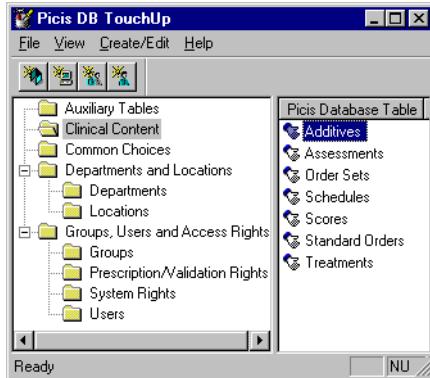
Quit DB Editor

- ◆ Click **Exit**.

Changes are saved automatically.

DB Editor Interface

The left side of the application window shows folders containing items that can be modified. The right side of the window shows the contents of the selected folder. Double-clicking an item on the right side of the window starts a wizard or opens a table for editing the item.



DB Editor divides database content in five main folders:

- **Auxiliary Tables:** Standard items that a user selects from lists when entering information in application dialog boxes and custom forms.
- **Clinical Content:** Entries related to care activities that can be documented for a patient. These include medications, fluids, assessments and scores, protocols, and all components associated with them.
- **Clinical Roles:** Possible functions that a medical team member can perform in a surgical procedure and the attending types associated with each type.
- **Common Choices:** Lists of the diagnoses, procedures, medications and allergies that are used most frequently in different care areas. Dialog boxes present a short list with only these items for quick selection. Users can “drill down” to search for less frequently used items if needed.
- **Departments and Locations:** Hospital departments that use the Picis system, and locations that represent specific workstations or beds.
- **Groups, Users and Access Rights:** Picis user groups, users, system rights and prescription/validation rights. If your system is configured for

perioperative integration with OR Manager, this folder will not be present.
(For more information, see “Perioperative Integration” on page 156.)

The toolbar at the top of the window provides shortcuts to common procedures.

Access Rights and Users

The tool required for configuring system users, user groups and access rights depends on the type of CareSuite installation you have:

- If Anesthesia Manager is configured for perioperative integration with OR Manager, users and access rights for both applications are handled in Picis Security Manager.

For more information, see “Configure the system for perioperative integration” on page 156 and the documentation for Picis Security Manager.

- If Anesthesia Manager is not configured for perioperative integration, these functions are handled in DB Editor.

For more information, see “Configure the system for non-integrated operation” on page 157.

Access Rights

Two types of access rights exist in CareSuite:

Rights associated with application functionality are called system rights and are part of the software; you cannot create new system rights or delete existing ones.

Rights associated with clinical content are called Prescription/Validation rights. A group of predefined rights are provided with CareSuite; you can create new rights using DB Editor. As their name implies, these rights control access to treatments and orders in the database.

Each treatment and order in the database has two prescription/validation rights associated with it:

- One for prescribing (adding one or more scheduled tasks to the patient chart)
- One for documenting completion of a task related to the order

You can use Prescription/Validation rights in two ways:

- To limit access to treatments in order to prevent some users from being able to work with them.
- To associate specific treatments with certain types of clinicians in order to hide all other treatments for these clinicians.

System Rights

The following system rights can be granted to user groups:

System right	What you can do with this right
Anesthesia Manager View	Start the relevant application. (The right “Clinical Modules Use (Careman)” is needed to use the application once started.)
Critical Care Manager View	
PACU Manager View	
CaseCheck	Start CaseCheck and access all functionality.

System right	What you can do with this right (Continued)
Clinical Modules Use (Careman)	<p>Access all data and functionality in Anesthesia Manager, Critical Care Manager and PACU Manager except the following, for which additional rights are needed:</p> <ul style="list-style-type: none"> Patient Summary. Demographics Window. (patient chart) Printouts. Device configuration. Ability to edit and delete certain events and real-time data. SAM module. Ability to document APACHE II and Glasgow Coma Scores. Concurrency module. Ability to link to preadmissions. Ability to create and edit certain clinical database content via the Orders menu. Ability to move and resize windows.
Concurrency	Use the Concurrency module and access all functionality.
Customize	Start Customize and access all functionality.
DB Editor	Start and use DB Editor (users must also have the right "Orders Supervisor Options" to work with items in the Clinical Content folder and the right "User Accounts Maintenance" to work with items in the Groups, Users and Access Rights folder).
Demogs <window name> edit	Enter or modify data in the relevant Demographics window.
Demogs <window name> view	View data in the relevant Demographics window.
Demogs Configure	Use the Demographics Editor in Anesthesia Manager, PACU Manager or Critical Care Manager.
Demogs Print	Print the Demographics window.
Demogs Summary Unlock	Unlock the Demographics summary for an encounter.
Diagnostic Tools	Start and use the Picis diagnostic utilities.
Edit Devices	Configure devices from within Anesthesia Manager, PACU Manager or Critical Care Manager.
Edit Events	<p>Add, modify or delete events for:</p> <ul style="list-style-type: none"> - a remote patient when the access type is "View/Chart". - a patient with transfer or discharged status

System right	What you can do with this right (Continued)
Edit RTD	Add, modify or delete real-time data for: - a patient in transfer or discharged status - a remote patient when the access type is "View/Chart".
HospiAudit Supervisor Options	Not used in current versions. Maintained for backwards compatibility.
HospiAudit Use	Not used in current versions. Maintained for backwards compatibility.
IntelliNotes Supervisor Options	Not used. Maintained for backwards compatibility.
Link to Preadmission	In Anesthesia Manager, PACU Manager and Critical Care Manager, link an admission to a preadmission. In Preop Manager, link an "admission" to a preadmission even if the patient is in transfer or has been discharged.
Orders Supervisor Options	Create and edit treatments, schedules, standard orders, protocols and other clinical database content.
Patient Summary Add Notes	Add notes in the "Add Notes" tab of the Patient Summary.
Patient Summary Save Reports	Save Patient Summary reports.
Patient Summary View	View and print the Summary view of the Patient Summary.
Preop Manager Use	Start Preop Manager. (Additional rights are needed to view and edit data.)
Preop <window name> edit	Enter or edit data in the relevant Preop Manager window.
Preop <window name> view	View data in the relevant Preop Manager window.
Preop Summary (Home Screen) audit	View and print the Summary view of a patient evaluation in Preop Manager.
Preop Summary (Home Screen) view	View and print the audit view of a patient evaluation in Preop Manager.
Preop Supervisor	Not used. Reserved for future versions.

System right	What you can do with this right (Continued)
Printouts	Start and use the Printout Loader. This right is needed when creating printouts directly by starting the Printout Loader or when printing from Anesthesia Manager, PACU Manager or Critical Care Manager. It is not needed for printing the Demographics window, Patient Summary or Preop Manager Summary.
QuickQuery	Start and use QuickQuery.
RT Scores	Document the Glasgow Coma and APACHE II scores.
SAM view and use	Use the Supervisory Anesthesia Module.
User Accounts Maintenance	Access the “Groups, Users and Access Rights” folder in DB Editor.
Windows Control	Move and resize windows in Anesthesia Manager, PACU Manager and Critical Care Manager.

How Prescription/Validation rights work

Prescription/validation rights allow you to control who can add and document different items on a patient chart. These rights reflect the needs of different types of users and hospital policies and procedures. Rights are assigned to treatments and standard orders.

Rights are also assigned to user groups. Users in a group can work with all database items that share the same prescription/validation rights. Users only see the items to which they have access when ordering. This allows you to limit access to items and filter them so that specialists see only the ones that they need.

For example, to allow only doctors to add any standard narcotic order to a patient chart but allow both doctors and nurses to document its administration, the following rights structure could be used:

- A prescription/validation right called “Narcotics, order” and another called “Narcotics, document.”
- Standard orders for all narcotics with the Order Access set to “Narcotics, order” and the Validation Access set to “Narcotics, document.”
- A user group called “Doctors” with the prescription/validation right “Narcotics, order.” All doctors are members of this user group.

- A user group called “Nurses” with the prescription/validation right “Narcotics, document.” All nurses are members of this user group.

Standard Order	
Morphine 5-35mg Intravenous Bolus or PRN	
Order access: Narcotics, prescribe	Validation Access: Narcotics, document

The **Narcotics, prescribe** right is needed to order morphine.
The **Narcotics, document** right is needed to document that morphine has been given.

Groups	P/V Rights
Doctors	Narcotics, prescribe Narcotics, document
Nurses	Narcotics, document

A doctor can order morphine for a patient and can document that it has been given. A nurse can only document that morphine has been given.

CareSuite includes a set of default rights. Custom rights are created in the priming phase and assigned to treatments and standard orders before the database is generated. New rights can be added to an installed database using DB Editor.

View Prescription/validation rights

- ◆ To see the list of existing rights do the following:
 - ▶ In the **Groups, Users and Access Rights** folder, open the **Prescription/Validation Rights** subfolder. All prescription and validation rights are displayed on the right side of the window.
- ◆ To view the rights associated with a treatment, do the following:
 - ▶ In the **Auxiliary Tables** folder, double-click **Treatment**.

Create a new Prescription/validation right

- 1** On the **Create/Edit** menu, click **Prescription/Validation Rights**.
- 2** Click **New**.
- 3** Enter a name for the prescription/validation right.
- 4** Click **OK**.

You can now assign this right to user groups and to new treatments and standard orders.

CareSuite Users

If you are installing the system for the first time, user names will have been entered during the priming phase. After installation, you can use DB Editor to create groups for these users and assign system and Prescription/Validation rights to the groups. You can also use DB Editor for maintenance tasks such as adding and deleting users, resetting passwords and modifying user groups.

Create a new user



- 1** Click .
Or, on the **Create/Edit** menu, click **User Profiles**.
- 2** Enter the following information:
User's first and last names. (You must not leave either of these blank.)
User Name: Any unique combination of numbers or letters, to log on to the system.
Initials: The user's initials identify the person adding an item to the Events Log.
User ID and Other User ID (optional): Identification numbers, such as the social security number or any other number the hospital associates with a staff member. You must enter at least one user ID.
Staff Type: Select an entry from the staff classification list.

Select **Active** to indicate that the user is currently authorized to use the system.

- 3 To define professional categories for the user, select an attending type in the **Available Attending Types** list and click **>>** to add it to the **Selected Attending Types** list. To select more than one user, you can hold down the SHIFT or CTRL key while clicking. SHIFT allows you to make adjacent selections; CTRL allows you to select non-adjacent users.
To remove an attending type from the list, in **Selected Attending Types**, click the attending type. Then click **<<**.
- 4 To add the user to groups, select a group in the **Available User Groups** list and click **>>**.
- 5 To create a password for the user, click **Set Password**, enter and confirm the new password, then click **OK**.
- 6 Click **OK**.

Modify a user profile

- 1 In the **Groups, Users and Access Rights** folder, open the **Users** subfolder. All users are displayed on the right side of the window.

- 2 Double-click the user you want to modify.

- 3 Enter the following information:

User's first and last names.

User Name: Any unique combination of numbers or letters, to log on to the system.

Initials: The user's initials identify the person adding an item to the Events Log.

User ID and **Other User ID (optional):** Identification numbers, such as the social security number or any other number the hospital associates with a staff member. You must enter at least one user ID.

Staff Type: Select an entry from the staff classification list.

Select **Active** to indicate that the user is currently authorized to use the system.

- 4 To define professional categories for the user, select an attending type in the **Available Attending Types** list and click >> to add it to the **Selected Attending Types** list. To select more than one user, you can hold down the SHIFT or CTRL key while clicking. SHIFT allows you to make adjacent selections; CTRL allows you to select non-adjacent users.
To remove an attending type from the list, in **Selected Attending Types**, click the attending type. Then click <<.
- 5 To add the user to groups, select a group in the **Available User Groups** list and click >>.
- 6 Click **OK**.

Reset a user's password

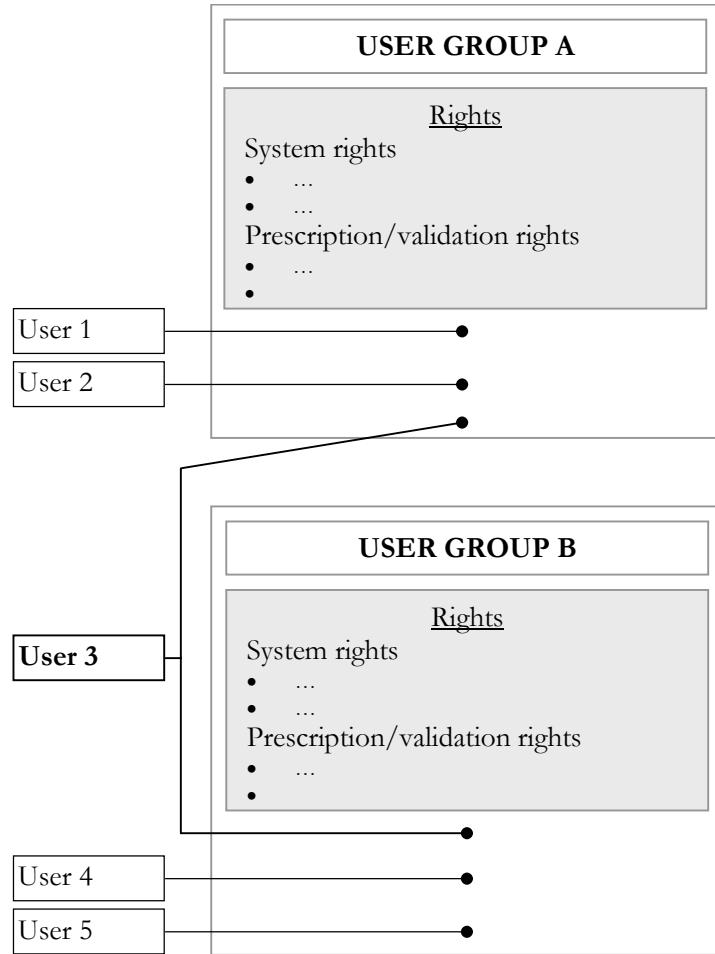
- 1 In the **Groups, Users and Access Rights** folder, open the **Users** subfolder. All users are displayed on the right side of the window.
- 2 Double-click the user you want to modify.
- 3 Click **Set Password**.
- 4 To assign a new password to the user, enter it in the **New Password** and **Confirm New Password** boxes.
To let the user enter a new password at the next log on, leave these controls blank.
- 5 Click **OK**.

Delete a user

- 1 In the **Groups, Users and Access Rights** folder, open the **Users** subfolder. All users are displayed on the right side of the window.
- 2 Double-click the user you want to remove.
- 3 Clear the **Active** check box. (Users cannot be permanently erased from the system.)
- 4 Click **OK**.

User Groups

Users acquire their access rights from the groups they belong to. A user can belong to more than one group.



A user can belong to more than one user group. User 3 belongs to both user group A and user group B, and thus has the rights of both groups.

Create a user group and assign rights to it



- 1 Click the **User Groups** button.
Or, on the **Create/Edit** menu, click **User Groups**.
- 2 In **Group Name**, enter a name for the group.
- 3 To add a user to the group, in **Picis Users**, click a user.
- 4 Click **>>** to add the selected user to the group.
To select more than one user, you can hold down the SHIFT or CTRL key while clicking. SHIFT allows you to make adjacent selections; CTRL allows you to select non-adjacent users.
To remove a user from the group, in **Group Members**, click a user. Then click **<<**.
- 5 In **Available System Rights**, click the system rights groups that you want to give to the user group. Then click **>>**.
- 6 In **Available Prescription/Validation Rights**, click the prescription and validation rights groups that you want to give to the user group. Then click **>>**.
- 7 Click **OK**.

Modify a user group

- 1 In the **Groups, Users and Access Rights** folder, open the **Groups** subfolder.
All user groups are displayed on the right side of the window.
- 2 Double-click the user group you want to modify.
- 3 In **Group Name**, edit the name for the group if necessary.
- 4 To add a user to the group, in **Picis Users**, click a user.
Click **>>** to add the selected user to the group.
To remove a user from the group, in **Group Members**, click a user. Then click **<<**.
To select more than one user, you can hold down the SHIFT or CTRL key while clicking. SHIFT allows you to make adjacent selections; CTRL allows you to select non-adjacent users.

- 5 In **Available System Rights**, click the system rights groups that you want to give to the user group. Then click **>>**.
- 6 In **Available Prescription/Validation Rights**, click the prescription and validation rights groups that you want to give to the user group. Then click **>>**.
- 7 Click **OK**.

Remove a user group

- 1 In the **Groups, Users and Access Rights** folder, open the **Groups** subfolder. All user groups are displayed on the right side of the window.
- 2 Double-click the user group you want to remove.
- 3 Clear the **Active** check box. (User groups cannot be permanently deleted from the system.)
- 4 Click **OK**.

Clinical Roles

Anesthesia and PACU Manager users typically need to document who performed certain key functions in a case. The Attending Type classifies staff members by their medical specialties. A staff member with a particular Attending Type can play different roles in a specific procedure. For example, a surgeon might fill any of the following roles: Primary Surgeon, Scheduled Surgeon, Surgical Resident. In CareSuite, these are known as Clinical Roles.

If your hospital does not use OR Manager, you can perform the following tasks using DB Editor:

“Create a new clinical role” on page 153

“Modify the attending types associated with a clinical role” on page 153

“Delete a clinical role” on page 153

If your system is configured for perioperative integration with OR Manager, you will perform these tasks using Picis Security Manager.

Create a new clinical role



- 1 Click the **Clinical Roles** button.
Or, on the **Create/Edit** menu, click **Clinical Role**.
- 2 In the **Description** box, enter the name of the role.
- 3 In the **Available Attending Types** box, click the types that can perform the role in a procedure. Then click **>>**.
- 4 Click **OK**.

Modify the attending types associated with a clinical role



- 1 Click the **Clinical Roles** button.
Or, on the **Create/Edit** menu, click **Clinical Role**.
- 2 In the **Description** box, enter the name of the role.
- 3 In the **Available Attending Types** box, click the types that you want to associate with the role. Then click **>>**.
- 4 In the **Selected Attending Types** box, click the types that you want to disassociate from the role. Then click **<<**.
- 5 Click **OK**.

Delete a clinical role



- 1 Click the **Clinical Roles** button.
Or, on the **Create/Edit** menu, click **Clinical Role**.
- 2 Clear the **Active** check box.
- 3 Click **OK**.

Hospital Departments and Patient Locations

Workstations, Locations and Departments

DB Editor allows you to work with patient locations and hospital departments. Locations are entries in the database that correspond to rooms or beds for patients and CareSuite workstations. Each workstation and patient location is associated with a department. Hospital departments were created during the priming phase.

Entries for bedside and multibed workstations are added to the LOCATIONS table in the database automatically during software setup. There are three types of locations:

- A *bedside workstation* is both a workstation and a patient location. The workstation can be used to admit only to this location.
- A *multibed workstation* is a workstation but not a patient locations; multibed workstations allow caregivers to work with multiple patients who are admitted to multibed locations.
- A *multibed patient location* is a patient location without a workstation. Users select a patient location when admitting a patient in a multibed unit.

After implementation, you can use DB Editor to enter patient locations for multibed workstations, and modify and delete items.

Create a department

- 1 Click .

Or, on the **Create/Edit** menu, click **Departments**.

- 2 Click **New**.
- 3 Enter the department name and click **OK**.

Modify a department



- 1 Click .
- Or, on the **Create/Edit** menu, click **Departments**.
- 2 Double-click the department name to change.
- 3 Enter a new name.
- 4 Click **OK**.

Create a patient location for a multibed unit

- 1 On the **Create/Edit** menu, click **Locations**.
- 2 In **Description**, enter the name of the bed location, such as “PACU Bed 001.” Descriptions should not be repeated within a department.
Note that the description only serves to help database administrators and DB Editor users identify the location—it does not appear in the application.
- 3 In **Initials**, enter a short version of the bed name, such as “001.” The initials identify the bed in the Unit Census and the ADT window.
- 4 In **Location Type**, click **Location for patient admission**.
Note that this type of location does not have a computer name.
- 5 Click **Next**.
- 6 Select a department.
- 7 Click **Next**.
- 8 Confirm the information and click **Finish**.

Modify a location

- 1 In the **Departments and Locations** folder, open the **Locations** subfolder.
- 2 Double-click the location to change.
- 3 Edit the information as necessary.

- 4 Click **Next**.
- 5 Select a new department if necessary.
- 6 Click **Next**.
- 7 Confirm the information and click **Finish**.

Perioperative Integration

If your hospital uses both Anesthesia Manager or PACU Manager with OR Manager, certain parameters must be set to allow the applications to work together. When perioperative integration is configured, Preop Manager, OR Manager and Anesthesia and PACU Manager will share certain data such as:

- Demographics
- Diagnoses and planned procedures
- Anesthesiologist and surgeon name
- Allergies and precautions
- Surgery date
- Milestone events

Configure the system for perioperative integration

- 1 In the **Auxiliary Tables** folder, double-click **Configuration Parameters**.
- 2 In the **Value** column, click the cell next to **Periop Integration**.
- 3 Enter 1.
- 4 Press ENTER.
- 5 Click **Close**.

Configure the system for non-integrated operation

- 1 In the **Auxiliary Tables** folder, double-click **Configuration Parameters**.
- 2 In the **Value** column, click the cell next to **Periop Integration**.
- 3 Enter 0.
- 4 Press ENTER.
- 5 Click **Close**.

Encounter Types for Templates

Templates are classified by their encounter type. Templates for induction, intraoperative and postoperative care units might have an encounter type called *Perioperative*. Templates for different intensive care units (CVICU, SICU, MICU, PICU and NICU) might share one called *Critical Care*. Each hospital creates and names the encounter types it needs.

Encounter types appear on the ENVIRONMENTTYPEGROUPS table. They consist of two forms of the name (Description and Label) and a property called “ICU.” If the ICU property is set to 1, the encounter type is intensive care. If this property is set to 0, the encounter type is not intensive care. (The ICU property determines whether a hospital unit is an intensive care unit for the purpose of calculating the APACHE II score.)

The encounter type name is displayed in application interfaces as follows:

- The **Description** appears in Customize and in the Printout Loader dialog box.
- The **Label** appears in the application (in the time bar, trends and the Fluid Balance window).

Most hospitals will need only the default encounter types provided with CareSuite 7.2. You can modify their names and, if needed, create new types. You cannot delete entries from this table.

Create or modify an encounter type

- 1 In the **Auxiliary Tables** folder, double-click **Environment Type Groups**.
- 2 To create a new encounter type, click **Add** and then **OK**.
To change an existing type, click the cell containing the text or property that you want to modify.
- 3 Under **Description**, enter or change the name of the encounter type, and then press ENTER.
- 4 Under **Label**, enter or modify the label for the encounter type, and then press ENTER.
- 5 Under **ICU**, enter 1 if the encounter type is for use in intensive care. If it is not, enter 0.
- 6 When you are finished creating and modifying encounter types, click **Close**.

Change the encounter type for a template

- 1 In the **Auxiliary Tables** folder, double-click **Environment Types**.
- 2 Locate the template name on the list.
- 3 In the **Group** column, select the new encounter type for the template.

Audit Trails

CareSuite creates audit trails of major user actions based on the log on. You can configure CareSuite to create a more extensive audit trail to help comply with HIPAA requirements for protecting patient data. In addition, users will be warned when opening the charts of “VIP” patients that their actions will be recorded in the audit trail.

The settings affect all CareSuite applications and apply to all departments in the hospital. By default, the audit trail is enabled and confirmation prompts are not shown.

Configure the type of audit trail

- 1 In the **Auxiliary Tables** folder, double-click **Configuration Parameters**.
- 2 In the **Value** column, click the cell next to the **Disable creation of System Events Audit Trail** option.
- 3 Enter **0** for a complete audit trail.
Enter **1** for a limited audit trail that will not record the following user actions:
 - ▶ View census list
 - ▶ Successful or unsuccessful user log on
 - ▶ User log off
 - ▶ Start and end of an interruption in device data reception
 - ▶ Warning message about device data interruption
 - ▶ Successful or unsuccessful automatic or manual e-mail message about device data interruption
 - ▶ Open patient record
 - ▶ Printout
- 4 Press ENTER.

Configure the audit trail warning for users

- 1 In the **Auxiliary Tables** folder, double-click **Configuration Parameters**.
- 2 In the **Value** column, click the cell next to **Show warning message for patient access**.
- 3 Enter N, A or V as follows:
N to not display a warning
A to show the warning when users opens any patient chart
V to show the warning only when users opens a “VIP” patient chart. (See “Demographics” on page 58).
- 4 Press ENTER.

The message will be displayed whenever a user opens the record of a VIP

patient.

Password Expiration

You can configure CareSuite so that user passwords expire after a specified number of days. Another parameter allows you to configure the advance notice users will receive of password expiration.

For sites using perioperative integration with OR Manager, password expiration options are set using Picis Security Manager. (Settings in DB Editor are ignored.)

Set the password expiration period

- 1 In the **Auxiliary Tables** folder, double-click **Configuration Parameters**.
- 2 In the **Value** column, click the cell next to **Password expiration period in days**.
- 3 Enter the duration of user passwords in days. Passwords will expire after this period. (A value of “0” means that passwords never expire.)
- 4 Press ENTER.

Set the advance notice for password expiration

- 1 In the **Auxiliary Tables** folder, double-click **Configuration Parameters**.
- 2 In the **Value** column, click the cell next to **Show warning message x days before password expires**.
- 3 Enter the number of days notice given to a user before their password expires. (A value of “0” means that no notice is given.)
- 4 Press ENTER.

5 DB Editor and Clinical Content

Content for Flowsheets

This section covers database content that appears in application windows. For information on starting and using DB Editor, the configuration tool for modifying database content, see the following sections:

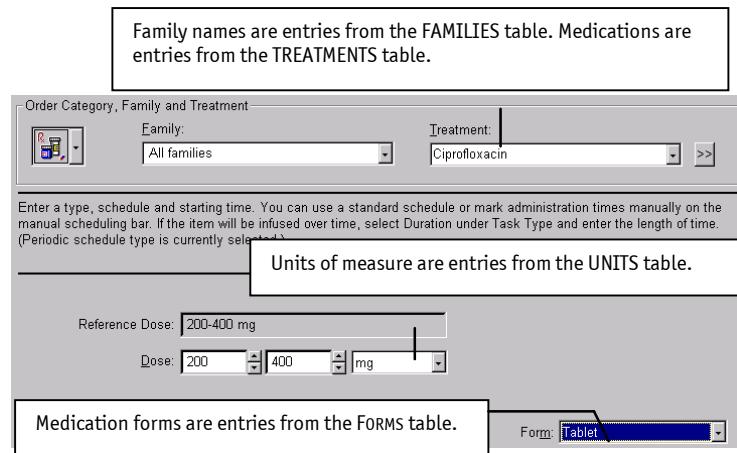
“Starting and Quitting DB Editor” on page 138

“DB Editor Interface” on page 140

The CareSuite database provides all of the items that users select when documenting patient care on flowsheets. The database is created during the priming phase of implementation, during which clinicians identify the content needed in their units. You can use DB Editor to add new content and edit existing content.

All items on flowsheets, except laboratory analyses, are listed on the TREATMENT table. New items can be created using the Treatment wizard in the Clinical Content folder. Once created, you can edit the name, change access rights and remove the item from applications. You can set the sort order of items in the

Assessments and Equipment categories to control how they are listed in application windows.



This dialog box displays custom content from the database.

Working with Auxiliary Tables

The Auxiliary tables section provides access to certain database tables for working with their content. All of these tables were populated using the Priming Tool before installation of the software, or by sending test data from other information systems during implementation. DB Editor lets you add new items, edit existing ones, and, some cases, disable unneeded items.

Tables with an **Index** column allow you to control the order in which items appear in the application. Items appear in ascending order of their index value. (To set the sort order for laboratory items, see “Sort order for analyses and components” on page 172.)

If some items in a table are indexed and others not, the manner in which items appear in the application differs between Preop Manager on the one hand and Anesthesia, PACU and Critical Care Manager on the other. In Preop Manager, items that are not indexed are shown alphabetically at the top of windows and the indexed items are shown below. By contrast, in Anesthesia Manager (etc)

indexed items are shown at the top of windows and the non-indexed items are shown below.

Add an entry to a table

- 1 In the **Auxiliary Tables** folder, double-click the name of the table.
- 2 Click **Add**.
- 3 Click a cell and type the new item. Click **ENTER** to save the new cell data. (You must do this before you can select another cell.) Complete all columns in the row.

Some tables include columns with entries from other tables. For example, the **UNITS** table includes a column that links each entry to an item on the **UNITTYPES** table. Information is entered in these columns by selecting from a drop-down list that appears when you click the cell.
- 4 When you are finished adding entries, click **Close**.

Modify an entry on a table

- 1 In the **Auxiliary Tables** folder, double-click the name of the table.
- 2 Click a cell to edit.
- 3 To replace the existing entry, enter new text. To edit the entry, press **F2** and edit the text. To cancel either operation, click **ESC**.
- 4 Click **Close**.

Delete an entry from a table

- 1 In the **Auxiliary Tables** folder, double-click the name of the table.
- 2 Select the entry to delete.
- 3 Click **Delete**.

Note: In some tables, you can disable entries without deleting them. These tables include a column labeled **Inactive**. Selecting **Inactive** removes the entry

from applications. Clearing the check box restores them. Items on tables can also be deleted, but this action is permanent.

Disable an entry to remove it from applications

- 1 In the **Auxiliary Tables** folder, double-click the name of the table.
- 2 Select an entry to disable.
- 3 Select the check box in the **Inactive** column.
Not all tables have this column.
- 4 Click **Close**.

Note: In some tables, you can disable entries without deleting them. These tables include a column labeled **Inactive**. Selecting **Inactive** removes the entry from applications. Clearing the check box restores them. Items on tables can also be deleted, but this action is permanent.

Auxiliary tables associated with flowsheet content

TABLE	CONTENT
Analyses	Laboratory analyses for the “Enter/Edit Laboratory Results” window.
Assessment Items	Items for each assessment.
Real-Time Variables	Real-time variable descriptions, labels, comments and units. Formulas for derived variables. (Existing entries can be modified, but new entries cannot be added.)
Components (Laboratory)	Laboratory components for the “Enter/Edit Laboratory Results” window.

TABLE	CONTENT (Continued)
Environment Type Groups	<p>Types of encounters that can comprise a patient admission. Typically these are the names of care areas in the hospital (perioperative, critical care). Text appears in time bar of flowsheets to identify the encounter corresponding to data. The ICU property affects the “common choices” available and the ability to calculate the APACHE II score.</p> <p>“Common Choices for Diagnoses, Procedures and Allergies” on page 200</p> <p>“Create or modify an encounter type” on page 158</p>
Environment Types	<p>Template name, prefix and encounter type. Typically these are the names of hospital units within care areas or clinical environments. Data is added to this table automatically when a template is created in Customize. Text appears in time bar of flowsheets to identify the session corresponding to data.</p>
Family	<p>Treatment families and their categories. New entries are added using a wizard in the Clinical Content section of DB Editor and cannot be edited or deleted from the Auxiliary Table. The only data that can be edited is the Index property that allows you to determine the order of families in dialog boxes and on flowsheets.</p>
Laboratory Data Status	<p>Status descriptions for laboratory test results in the Laboratory Summary window. Only used when CareSuite is linked to a hospital laboratory system. Data typically supplied by the laboratory system.</p>
Laboratory Sources	<p>Sources for laboratory test results in the Laboratory Summary window. For example, “blood.” Only used when CareSuite is linked to a hospital laboratory system. Data typically supplied by the laboratory system.</p>
Part Components	<p>Table that links the Components and Parts tables. (A part could be a group of components used in one or more analyses. In practice, parts and the analysis are the same.)</p>

TABLE	CONTENT (Continued)
Parts	Table that links the Analyses and Components tables. Part names are typically identical to Analysis names. The part name is not used anywhere else in CareSuite.
Treatment	Treatment names for medications, fluids, laboratory tasks, assessments, scores, QA indicators, equipment lists, nursing care activities, and respiratory care. Data is entered using a wizard in the Clinical Content section of DB Editor. You can modify entries and change the Prescription/Validation rights associated with them but you cannot add new ones. You can remove entries from the system by selecting the Inactive check box.

Note that the TREATMENTS auxiliary table allows you to edit treatments that already exist. You can use this table to change a treatment's name and/or the rights associated with it. You cannot use this table to create a treatment or to change the category a treatment belongs to (Fluid In, Medication etc.).

"Delete an entry from a table" on page 163

Medication and Fluid Treatments

Entries for documenting medications and fluids make up a large part of the TREATMENT table:

- Medication treatments include all oral, topical, inhaled and infused drugs, except those that are delivered in drips. The table does not include medications available for documenting current medications in Preop Manager or medication allergies.
- Fluids include all items that affect a patient's fluid balance: drips, blood products, colloids and crystalloids, products for enteral and parenteral nutrition. Fluids also include items for documenting fluid loss, such as urine, fluids from drains and blood.
- Additives are special treatments that are available only for creating admixtures with items in the IV Fluids category. Additives cannot be administered alone or with other types of fluids. Examples of typical additives include electrolytes, vitamins, minerals and certain medications.

Create a medication

- 1 In the **Clinical Content** folder, double-click **Treatments**.
- 2 In **Order Category**, click Medications and then click **Next >** to go to the next step in the wizard.
- 3 In **Family**, enter a new family name or select an existing family for the medication.
- 4 In **Treatment**, enter the name of the medication.
(Take care not to enter any spaces at the end of the name.)
- 5 Set the access rights required to order and document the item:
 - ▶ In **Prescription Access**, select the Prescription/Validation right required to add, discontinue, cancel and extend the item.
 - ▶ In **Validation Access**, select the Prescription/Validation right required to document data about administration on a patient's chart.Rights assigned to treatments only affect custom orders based on those treatments. Standard orders are assigned their own rights.
- 6 Click **Save**.

Create a blood product, drip or other fluid

- 1 In the **Clinical Content** folder, double-click **Treatments**.
- 2 In **Order Category**, click Fluids IN and then click **Next >** to go to the next step in the wizard.
- 3 In **Behavior**, optionally, select one of the following:
 - Blood Products: for whole blood, plasma and blood derivatives.
 - Drips: for medications that will be infused continuously.
 - IV Fluids: for colloids, crystalloids, solutions for enteral and parenteral nutrition, base solutions for intravenous admixtures and fluids for oral intake.If you omit this step, the **Family** box below will show the entire list of fluid intake families. If you enter a behavior, the **Family** box will show only the relevant families.

- 4 In **Family**, enter a new family name or select an existing family for the fluid.
 - 5 In **Treatment**, enter the name of the fluid.
 - 6 Set the access rights required to order and document the item:
 - ▶ In **Prescription Access**, select the Prescription/Validation right required to add, discontinue, cancel and extend the item.
 - ▶ In **Validation Access**, select the Prescription/Validation right required to document data about administration on a patient's chart.
- Rights assigned to treatments only affect custom orders based on those treatments. Standard orders are assigned their own rights.
- 7 Click **Save**.

Create a bodily fluid entry for documenting output

- 1 In the **Clinical Content** folder, double-click **Treatments**.
 - 2 In **Order Category**, click FLUIDS OUT and then click **Next >** to go to the next step in the wizard.
 - 3 In **Behavior**, optionally, select one of the following:
 - BLOOD OUT: for sources of blood loss.
 - FLUIDS OUT: for other types of bodily fluids.
 - URINE: for urine and ultrafiltrate.If you omit this step, the **Family** box below will show the entire list of fluid output families. If you enter a behavior, the **Family** box will show only the relevant families.
 - 4 In **Family**, enter a new family name or select an existing family for the fluid.
 - 5 In **Treatment**, enter the name of the fluid.
 - 6 Set the access rights required to order and document the item:
 - ▶ In **Prescription Access**, select the Prescription/Validation right required to add, discontinue, cancel and extend the item.
 - ▶ In **Validation Access**, select the Prescription/Validation right required to document data about administration on a patient's chart.
- Rights assigned to treatments only affect custom orders based on those treatments. Standard orders are assigned their own rights.

- 7 Click **Save**.

Create a fluid additive

- 1 In the **Clinical Content** folder, double-click **Additives**.
- 2 Click **New**.
- 3 In **Additive**, enter the name of a new additive or select an existing one.
- 4 In **Dose**, enter the minimum and maximum doses and the corresponding unit of measure.
- 5 In **Default Concentration**, optionally, enter the default concentration as a percentage or part per million. Users can document other concentrations during a session.

This setting is used only when a user selects the **Include additives in volume** option when documenting a fluid containing the additive.

Note that the concentration refers to the additive dissolved in a solution that is added to the base fluid and not the concentration of the additive in the base fluid itself.

- 6 In **User Access**, select the prescription/validation right that a user must have in order to add the additive to a fluid.
- 7 Click **OK**.

Laboratory and Diagnostic Tests

CareSuite provides three types of flowsheet entries for laboratory work:

- Laboratory analyses and components: Analyses are the names of standard tests that include one or more components. The hospital's laboratory system typically provides data through a link. (If no link exists, users can enter results manually.) Data appears on flowsheets and can also be viewed in the Laboratory Summary window and included in the Patient Summary and printouts.

For example: *Chemistry 7, CBC, Liver Function Test*.

- Real-time variables: Items supplied by devices, such as blood gas analyzers, or analyzed within the unit are represented as real-time variables. If no device supplies data, users can enter data manually.

This type of configuration can also be used if CareSuite is not linked to the laboratory system to facilitate data entry. Data appears on flowsheets and can be included in the Patient Summary and printouts but does not appear in the Laboratory Summary.

For example: *Creatinine (Creat), Arterial O₂ saturation (Sat_A), Hematocrit (Hct), Serum potassium (Na_Ser)*.

- Diagnostic and laboratory activities: These describe tasks that caregivers can schedule for a patient. Once completed, the flowsheet reflects the time and caregiver that performed the task. Results for laboratory tests may be displayed as component results or real-time data.

For example: *Cardiac risk panel, CBC, cultures, X-rays, EKG, urinalysis, Pulmonary function test*.

Create a diagnostic or laboratory activity

- 1 In the **Clinical Content** folder, double-click **Treatments**.
- 2 In **Order Category**, click LABORATORY and then click **Next >** to go to the next step in the wizard.
- 3 In **Family**, enter a new family name or select an existing family for the item.
- 4 In **Treatment**, enter the name of the task.
- 5 Set the access rights required to order and document the item:
 - ▶ In **Prescription Access**, select the Prescription/Validation right required to add, discontinue, cancel and extend the item.
 - ▶ In **Validation Access**, select the Prescription/Validation right required to document data about administration on a patient's chart.Rights assigned to treatments only affect custom orders based on those treatments. Standard orders are assigned their own rights.
- 6 Click **Save**.

Items entered in this way allow users to schedule and document the completion

of tasks related to laboratory and diagnostic tests. The entries are not designed for documenting the results of tests.

Add a new analysis name to the database

- 1 Click **Auxiliary Tables** on the left side of the main window in DB Editor.
- 2 Double-click **Analyses** on the list of database tables on the right side of the main window.
- 3 Click the **Add** button to add a new row to the table.
- 4 On the new row, enter the name of the new analysis.
Example: *CBC*.
- 5 In the **Index** column, enter a number corresponding to the position of the item relative to others in the section and then press ENTER.
Tip: Include a zero before single-digit numbers (00, 01, 02...).
This step is optional. If you leave the index blank, sections will appear in the order they were entered.
- 6 Click **Close**.
- 7 Double-click **Parts** on the list of database tables on the right side of the main window.
- 8 Click the **Add** button to add a new row to the table.
- 9 On the new row, enter the same name as you entered on the Analyses table.
Example: *CBC*.
- 10 On the same row, in the **Analysis** column, select the name you entered on the Analyses table.
Example: *CBC*.

Add laboratory components to the database

- 1 Click **Auxiliary Tables** on the left side of the main window in DB Editor.
- 2 Double-click **Components (Laboratory)** on the list of database tables on the right side of the main window.
- 3 Click the **Add** button and enter the name of a component on the new row.
Repeat this for each component in the analysis.
For example: *Red Blood Cells*.
- 4 When you are finished entering component names, click **Close**.

Add components to an analysis

- 1 Click **Auxiliary Tables** on the left side of the main window in DB Editor.
- 2 Double-click **Parts Components** on the list of database tables on the right side of the main window.
- 3 Click the **Add** button and select the name of the analysis in the Part column.
Example: *CBC*.
- 4 On the same row, click in the **Component** column and select the name of a component in the analysis.
For example: *Red Blood Cells*.
- 5 Continue adding new rows and selecting components until the analysis is complete.
- 6 Click **Close**.

Sort order for analyses and components

If CareSuite is linked to the laboratory information system, this system populates the database with analysis and component names automatically as it sends data. This typically takes place during testing of the link, during which

sample data is sent to CareSuite. Items will appear in alphabetical order on flowsheets unless they are indexed. Indexing must be done manually.

Indexing works as follows:

- When the list of indexed components is displayed with analysis names (**Show subheadings by default** option selected), the analysis names appear in the order determined by their indexes; their components will appear underneath in the order determined by their indexes.

When indexed components are displayed without analysis names (**Show subheadings by default** option cleared), they appear in the order determined by their indexes.

In both cases, items that do not have indexes are displayed in alphabetical order at the end of the list.

For example:

“Show subheadings” selected	“Show subheadings” cleared
> Laboratory Results > Hematology WBC ANC HBG > Chemistry Albumin > Urinalysis Urine-Na	Laboratory Results Urine-Na WBC ANC HBG Albumin

Analysis indexes: Hematology (1), Chemistry (2), Urinalysis (3).

Component indexes: Urine Na (1), WBC (10), ANC (11), HBG (12), Albumin (20)

- In the Laboratory Summary and the Enter Laboratory Data windows, the list of analyses always appears in alphabetical order. Components for the selected analysis appear in the order determined by their indexes.

Set indexes for laboratory analyses and components

- 1 Determine the laboratory components that should appear in a particular order on flowsheets.
- 2 Create a table in MS Word or MS Excel that lists the components with one column for their analysis name and another two for entering indexes for each.

For example:

Component	Index	Analysis	Index
pH	1	Arterial Blood Gases	1
pCO2	5	Arterial Blood Gases	
pO2	10	Arterial Blood Gases	
Na	15	Chemical 7	5
K	20	Chemical 7	
Ca	25	Chemical 7	
PTT	30	Coagulation	10
PT	35	Coagulation	

Index the components first and then the analyses.

Tip: It is a good idea to leave gaps in the component indexes in case a component needs to be inserted at a later date.

- 3 Send test data from the laboratory information system for these components before sending data for other components. This will make the components you need easy to find on database tables.
- 4 In DB Editor, add the index numbers in the COMPONENTS and ANALYSES auxiliary tables using the spreadsheet you created as a guide.

Other Types of Care

In PACU Manager and Critical Care Manager, clinicians may want to include nursing and respiratory therapy activities in the care plan. Caregivers are

alerted when required tasks are due and can document that they were performed. You can create new activities and edit existing entries on the TREATMENTS table in the Auxiliary Tables section.

Create a nursing care treatment

- 1 Click **Clinical Content** on the left side of the main window in DB Editor.
- 2 Double-click **Treatments** on the list on the right side of the main window.
- 3 In **Order Category**, select Nursing Care and then click **Next >** to go to the next step in the wizard.
- 4 In **Family**, enter a new family name or select an existing family for the item.
- 5 In **Treatment**, enter the name of the activity.
- 6 Set the access rights required to order and document the item:
 - ▶ In **Prescription Access**, select the Prescription/Validation right required to add, discontinue, cancel and extend the item.
 - ▶ In **Validation Access**, select the Prescription/Validation right required to document data about administration on a patient's chart.Rights assigned to treatments only affect custom orders based on those treatments. Standard orders are assigned their own rights.
- 7 Click **Save**.

Create a respiratory therapy treatment

- 1 Click **Clinical Content** on the left side of the main window in DB Editor.
- 2 Double-click **Treatments** on the list on the right side of the main window.
- 3 In **Order Category**, select Respiratory and then click **Next >** to go to the next step in the wizard.
- 4 In **Behavior**, optionally, click Respiratory Therapy.
If you omit this step, the **Family** box below will show the families of all respiratory items. If you select a behavior, the **Family** box will show only the relevant families.
- 5 In **Family**, enter a new family name or select an existing family for the item.

- 6 In **Treatment**, enter the name of the therapy.
 - 7 Set the access rights required to order and document the item:
 - ▶ In **Prescription Access**, select the Prescription/Validation right required to add, discontinue, cancel and extend the item.
 - ▶ In **Validation Access**, select the Prescription/Validation right required to document data about administration on a patient's chart.
- Rights assigned to treatments only affect custom orders based on those treatments. Standard orders are assigned their own rights.
- 8 Click **Save**.

Create a ventilator-related treatment

- 1 Click **Clinical Content** on the left side of the main window in DB Editor.
 - 2 Double-click **Treatments** on the list on the right side of the main window.
 - 3 In **Order Category**, select Respiratory and then click **Next >** to go to the next step in the wizard.
 - 4 In **Behavior**, optionally, select Ventilators.
If you omit this step, the **Family** box below will show the families of all respiratory items. If you select a behavior, the **Family** box will show only the relevant families.
 - 5 In **Family**, enter a new family name or select an existing family for the item.
 - 6 In **Treatment**, enter the name of the activity.
 - 7 Set the access rights required to order and document the item:
 - ▶ In **Prescription Access**, select the Prescription/Validation right required to add, discontinue, cancel and extend the item.
 - ▶ In **Validation Access**, select the Prescription/Validation right required to document data about administration on a patient's chart.
- Rights assigned to treatments only affect custom orders based on those treatments. Standard orders are assigned their own rights.
- 8 Click **Save**.

Checklists for Assessments, QA Indicators and Equipment

The checklist format is shared by three types of items:

- Nursing assessments for evaluating aspects of a patient's condition in critical care and post-anesthesia environment. Assessments are designed to appear on flowsheets.

Note: No standard flowsheet exists for this type of data; if users will document assessments, you must create a custom flowsheet and configure it to include assessments.

- QA Indicators collect data related to quality assurance requirements for surgery patients. These items are designed for a specialized window of the same name.

Note: To include an item in the QA Indicators window, it must be part of a default protocol configured for the template. Depending on the workstation configuration, QA Indicators may or may not appear on flowsheets.

- Equipment lists collect data about equipment and supplies used during the procedure. These items are designed for a specialized window of the same name.

Note: To include an item in the Equipment window, it must be part of a default protocol configured for the template. Depending on the workstation configuration, equipment lists may or may not appear on flowsheets.

After creating an checklist, you will need to define its content by adding items to the Assessment Items table. (See Assessment and equipment items cannot be deleted from the database.

Create an assessment

- 1 Click **Clinical Content** on the left side of the main window in DB Editor.
- 2 Double-click **Assessments** on the right side of the main window.
- 3 In **Order Category**, select **Assessments** and then click **Next >** to go to the next step in the wizard.
- 4 In Behavior, optionally, click Non-QA Assessment.

If you omit this step, the **Family** box below will show the families of nursing assessments and QA indicators. If you select a behavior, the **Family** box will show only the relevant families.

- 5 In **Family**, enter a new family name or select an existing family for the assessment.
- 6 In **Treatment**, enter the name of the assessment.
- 7 Set the access rights required to order and document the item:
 - ▶ In **Prescription Access**, select the Prescription/Validation right required to add, discontinue, cancel and extend the item.
 - ▶ In **Validation Access**, select the Prescription/Validation right required to document data about administration on a patient's chart.Rights assigned to treatments only affect custom orders based on those treatments. Standard orders are assigned their own rights.
- 8 Click **Next >** to go to the next wizard step.
- 9 For each checklist item, do the following:
 - ▶ In **Description**, enter the item name.
 - ▶ In **Code**, enter the abbreviation or code for the item.
 - ▶ Click **Add**.

Example:

Treatment: *Muscle Tone*

Checklist items: *Normal, Flaccid, Rigid*

Codes: *NOR, FLA, RIG*

Items will appear in the order in which you entered them. You can change the order by editing the index property in the ASSESSMENT ITEMS table. See “Edit a checklist (assessments, QA indicators, equipment)” on page 180.

Create a new QA indicator

- 1 Click **Clinical Content** on the left side of the main window in DB Editor.
- 2 Double-click **Assessments** on the right side of the main window.
- 3 In **Order Category**, select **Assessments** and then click **Next >** to go to the next step in the wizard.

- 4 In **Behavior**, optionally, click QA Assessment.
If you omit this step, the **Family** box below will show the families of nursing assessments and QA indicators. If you select a behavior, the **Family** box will show only the relevant families.
- 5 In **Family**, enter a new family name or select an existing family for the item.
- 6 In **Treatment**, enter the name of the item.
- 7 Set the access rights required to order and document the item:
 - ▶ In **Prescription Access**, select the Prescription/Validation right required to add, discontinue, cancel and extend the item.
 - ▶ In **Validation Access**, select the Prescription/Validation right required to document data about administration on a patient's chart.Rights assigned to treatments only affect custom orders based on those treatments. Standard orders are assigned their own rights.
- 8 Click **Next >** to go to the next wizard step.
- 9 For each checklist item, do the following:
 - ▶ In **Description**, enter the item name.
 - ▶ In **Code**, enter the abbreviation or code for the item.
 - ▶ Click **Add**.

Example:

Treatment: *Problems*

Checklist items: *None, Adverse drug reaction, Dental injury, Eye injury, Headache, Sore throat*

Items will appear in the order in which you entered them. You can change the order by editing the index property in the ASSESSMENT ITEMS table. See “Edit a checklist (assessments, QA indicators, equipment)” on page 180.

Create a new equipment list

- 1 Click **Clinical Content** on the left side of the main window in DB Editor.
- 2 Double-click **Assessments** on the right side of the main window.
- 3 In **Order Category**, select **Equipment** and then click **Next >** to go to the next step in the wizard.
- 4 In **Family**, enter a new family name or select an existing family for the item.

- 5 In **Treatment**, enter the name of the item.
 - 6 Set the access rights required to order and document the item:
 - ▶ In **Prescription Access**, select the Prescription/Validation right required to add, discontinue, cancel and extend the item.
 - ▶ In **Validation Access**, select the Prescription/Validation right required to document data about administration on a patient's chart.
- Rights assigned to treatments only affect custom orders based on those treatments. Standard orders are assigned their own rights.
- 7 Click **Next >** to go to the next wizard step.
 - 8 For each checklist item, do the following:
 - ▶ In **Description**, enter the item name.
 - ▶ In **Code**, enter the abbreviation or code for the item.
 - ▶ Click **Add**.

Example:

Treatment: *ASC Equipment*

Checklist items: *Capnography, EKG, Gas analyzer, NIBP, O2 analyzer, Pulse oximeter, Nerve Stimulator, BIS*

Items will appear in the order in which you entered them. You can change the order by editing the index property in the ASSESSMENT ITEMS table. See “Edit a checklist (assessments, QA indicators, equipment)” on page 180.

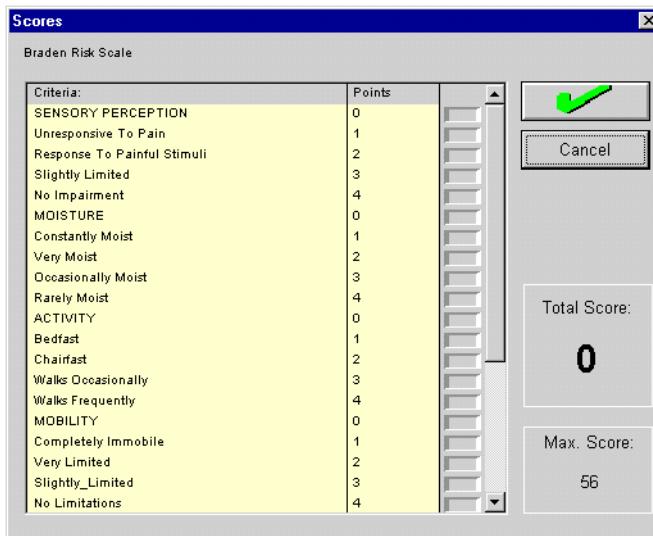
Edit a checklist (assessments, QA indicators, equipment)

- 1 Click **Auxiliary Tables** on the left side of the main window in DB Editor.
- 2 Double-click **Assessment Items** on the list of database tables on the right side of the main window.
- 3 To add a new item to the list, click the **Add** button and enter the name of an item on the new row. Then press ENTER.
To edit the name of an item, change the text in the **Description** column.
To change the order of items on the list, renumber them in the **Index** column.
If you want to delete an item, contact your database administrator.

- When you are finished entering checklist items, click **Close**.

Custom Scores

CareSuite provides two special scores for use in critical care environments: *APACHE II* and *Glasgow Coma Score*. These scores appear in windows designed for them. If your hospital uses standard Picis database content, your system may also have scores like TISS, APGAR, Aldrete, Braden Risk Scale. These scores appear in a generic score window. You can also create new scores that will appear in the generic score window. If you need to edit scoring criteria, see your database administrator.



Create a score

- Click **Clinical Content** on the left side of the main window in DB Editor.
- Double-click **Scores** on the list on the right side of the main window.
- In **Order Category**, select Scores and then click **Next >** to go to the next step in the wizard.
- In **Family**, enter a new family name or select an existing family for the item.

- 5 In **Treatment**, enter the name of the score.
- 6 Set the access rights required to order and document the item:
 - ▶ In **Prescription Access**, select the Prescription/Validation right required to add, discontinue, cancel and extend the item.
 - ▶ In **Validation Access**, select the Prescription/Validation right required to document data about administration on a patient's chart.

Rights assigned to treatments only affect custom orders based on those treatments. Standard orders are assigned their own rights.
- 7 Click **Next >** to go to the next wizard step.
- 8 For each scoring criteria, do the following:
 - ▶ In **Criteria**, enter the criteria name.
 - ▶ In the boxes to the right, enter the number of points associated with the criteria:
 - If the points represent an absolute value, click **Points**.
 - If users can enter a value between two values, click **Range**.
 - If the score has sections with headings, you can use criteria entries for the headings. Enter the heading name (in all capital letters to set it off from the rest) and enter 0 for the number of point.
 - ▶ Click **Add**.
- 9 When you are finished entering criteria, click **Save**.

Schedules for Orders

Schedules determine when and how items on the chart can be documented. They can be used to create standard orders and custom orders.

A schedule can indicate a specific time for administration (such as 7:00 AM), a frequency (such as every 4 hours) or the duration of a continuous activity (such as administration of a drip). It also indicates the length of time to remain active on the chart (such as for 72 hours).

You can create schedules to use with the four basic types of order:

- **Periodic-Absolute:** Concrete times for administering, plus a duration for the order. For example: *7:00 am and 7:00 pm for three days*.

- **Periodic-Relative:** Frequency for administering, plus a duration for the order. For example: *every four hours for 24 hours*.
 - **PRN:** Administration as necessary. The order may be unrestricted, or there may be a minimum interval between administration times. For example: *whenever necessary over the next 8 hours, but not more often than once every hour*.
- PRN orders are appropriate for optional actions or actions that cannot be scheduled.
- **Continuous:** Processes that are started and then take place steadily over a fixed period of time. For example: *over the next three hours*.

Note: Schedules for periodic relative and PRN orders are created in the same way; a user makes the choice between periodic and PRN when they select a schedule for the treatment.

Create a Periodic or PRN schedule

- 1 In the **Clinical Content** folder, double-click **Schedules**.
- 2 Click **New**.
- 3 In the **Description** box, enter the schedule name.
- 4 In the **Frequency** box, enter the specific administration times (absolute schedule) or the interval between tasks (relative schedule).
For **absolute** schedules, enter one or more administration times using whole numbers between 0 (midnight) and 23 (11:00 PM). Separate multiple times with commas. For example, an entry of 8,12,18 would place order markers at 8:00 AM, 12:00 noon and 6:00 PM on the chart.
For **relative** schedules, enter the interval between administration times in minutes. If the schedule is used with a Periodic order, red cells will appear on the chart at this interval. If the schedule is used with a PRN order, no actions will be marked on the chart; caregivers will be able to document actions as needed as often as permitted by the schedule.
- 5 In the **Duration** box, for all schedules except Periodic-Absolute, enter the length of time in hours that the item should remain on the chart.
For Periodic-Absolute schedules, enter a negative number to indicate the number of days that the item should remain on the chart. For example, an

entry of -3 combined with the previous example of 8, 12, 18 would create a schedule for 8:00 A.M., 12:00 A.M. and 6:00 P.M. every day for three days.

- 6 Click **Save**.
- 7 When you are finished creating schedules, click **Close**.

Create a Continuous schedule

- 1 In the **Clinical Content** folder, double-click **Schedules**.
- 2 Click **New**.
- 3 In the **Description** box, enter the schedule name.
- 4 In the **Frequency** box, enter -1.
- 5 In the **Duration** box, enter a length of time in hours.

This parameter determines how long an order with this schedule remains active on a flowsheet as indicated by starting and ending points.

Documentation must start between the two points. Once started, items remain active until stopped by a caregiver.

- 6 Click **Save**.
- 7 When you are finished creating schedules, click **Close**.

Delete a schedule

- 1 In the **Clinical Content** folder, double-click **Schedules**.
- 2 Select the schedule and click **Delete**.

Schedule Reference

Order Type	Frequency	Duration	Example
Periodic-Absolute	Times (based on 24h clock, separated by commas)	Total duration (Any negative integer to represent days)	At 7 AM and 7 PM for 24h <i>Freq. = 7, 19</i> <i>Duration = -1</i>
Periodic-Relative*	Frequency (minutes)	Total duration (hours)	Every 3h for 24h <i>Freq. = 180</i> <i>Duration = 24</i>
Unrestricted PRN* (Administration optional)	As often as necessary.	Total duration of order on chart (hours)	48-Hour Bolus <i>Freq = 0</i> <i>Duration = 48</i>
Restricted PRN* (Administration optional.)	As often as necessary, with a minimum interval (in minutes) between validations.	Total duration of order on chart (hours)	As often as every 4h for 48h <i>Freq. = 240</i> <i>Duration = 48</i>
Continuous	As often as necessary. Administration is optional.	Total duration of order (hours). Item will be shown on the chart for this period of time, but does not end until stopped.	Continuously for 48h <i>Freq. = -1</i> <i>Duration = 48</i>

Standard Orders

A standard order combines a treatment with a schedule and other administration information that can be added to the patient chart together (for example, “Acetaminophen, 500mg oral tablet, every six hours, if the patient is in pain”). Standard orders can be grouped in protocols to further automate the ordering process.

In the case of medications and fluids, the administration information includes the dose and may also indicate a form (for example tablet) and a route (for example oral). The dose may define an exact amount or a range.

Additionally, the order may state that a medication is diluted in a specified volume of a particular fluid. If such an order uses a periodic schedule, the duration of each administered dose may be included (for example, “every four hours for twenty minutes”). These orders are called *intermittent medication infusions*.

Create or modify a standard order

1 In the **Clinical Content** folder, double-click **Standard Orders**.

2 Click **New** to create a new standard order

Or, select an order and click **Edit**.

3 Follow the wizard instructions to enter the necessary information:

Order Category: Picis category for the treatment.

Family: Custom family for the treatment.

Treatment: Action to be performed.

Administration information: For treatments in the FLUIDS IN, and MEDICATIONS categories, this includes information like the dose, medication form and medication route. For MEDICATIONS, the administration information includes details of the fluid in which the medication is diluted (if any). For the RESPIRATORY category, it includes the ventilator settings or respiratory therapy options.

Schedule Type: **Periodic**, **PRN**, or **Continuous**. See the section “Schedules for Orders” on page 182, for an explanation of the three types. For IV fluids administered using a pump rate or for drips, only the continuos schedule type can be selected. For medication infusions, only the Periodic or PRN schedule types can be selected.

Standard Schedules: Library of custom schedules in the hospital database.

Task Type: **Bolus** or **Duration**. You can only select a duration for periodic orders. (The maximum duration possible is 48 hours). Continuous orders do not have a task type.

Condition (Optional): Any specific condition that should be met before the caregiver administers the order.

Memo (Optional): Any other information a user needs when administering the order.

Prescription Access: Prescription/validation right a user must have to order, discontinue, cancel or extend the standard order.

Validation Access: Prescription/validation right a user must have to validate (document administration of) the standard order.

Auto-Select Order: Option that causes the standard order to be selected automatically when a user selects the treatment in the Single Order dialog box.

4 Click **Finish**.

Note: You cannot modify a standard order after it has been included in a protocol. If you need to perform either of these actions, you must first remove it from all orders sets in which it appears.

Delete a standard order

1 In the **Clinical Content** folder, double-click **Standard Orders**.

Only orders that are not used in protocols will be displayed.

2 Select the order.

3 Click **Delete**.

Note: You cannot delete a standard order after it has been included in a protocol. If you need to perform either of these actions, you must first remove it from all orders sets in which it appears.

Auxiliary tables associated with standard orders

TABLE	CONTENT
Form Types	Classifications for forms in which medications can be administered. Not used elsewhere in CareSuite.
Forms	Drop-down list entries for forms in which medications can be administered. Available for selection when creating orders.
Route Types	Classifications for administration routes of medications and fluids. Used for filtering appropriate routes for different forms of medication.
Routes	Drop-down list entries for administration routes of medications and fluids. Used when creating orders.
Treatment	Names of medications, fluids, laboratory tasks, assessments, scores, QA indicators, equipment lists, nursing care activities, and respiratory care. Data is entered using a wizard in the Clinical Content section of DB Editor. You can modify entries and change the Prescription/Validation rights associated with them but you cannot add new ones. You can remove entries from the system by selecting the Inactive check box.
Unit Types	Classifications of units of measure for internal use.
Units	Drop-down list entries for units of measure used in medication and fluid orders and with real-time variables.

“Delete an entry from a table” on page 163

“Disable an entry to remove it from applications” on page 164

Protocols

Protocols are groups of standard orders that can be added to a patient chart together. Users can modify the protocols for different situations by editing and removing unneeded orders without changing the protocol in the database.

A default protocol is typically associated with a template to populate flowsheets automatically with basic orders at the start of a session.

See also “Configure a default protocol” on page 40.

Create a protocol

- 1** In the **Clinical Content** folder, double-click **Protocols**.
- 2** Click **New Set**.
- 3** In the left box, select a standard order and click **>>** to add it to the protocol.
- 4** When you are finished adding standard orders to the protocol, click **Save As**.
- 5** Enter a name for the protocol.
- 6** Click **OK**.
- 7** Click **Close**.
- 8** When you are finished creating protocols, click **Close**.

Modify a protocol

- 1** In the **Clinical Content** folder, double-click **Protocols**.
- 2** Select a protocol and click **Edit**.
- 3** To add an order to the set, select it in the left box and click **>>**. To remove an order from the set, select it in the right box and click **<<**.
- 4** When you are finished editing the set, click **OK**.
- 5** When you are finished creating protocols, click **Close**.

Delete a protocol

- 1** In the **Clinical Content** folder, double-click **Protocols**.
- 2** Select a protocol and click **Delete**.
- 3** When you are finished working with protocols, click **Close**.

Rename a protocol

- 1 In the **Clinical Content** folder, double-click **Protocols**.
- 2 Select a protocol and click **Rename**.
- 3 Enter the new name and click **OK**.
- 4 When you are finished working with protocols, click **Close**.

Real-Time Variables

Real-time variable are stored in the database. You cannot delete or add variables to this table with DB Editor; if you need a variable that is not in the table, contact your system administrator.

You can configure the label, full name, comment and units. Prior to CareSuite 7.2, these properties were defined in templates. Other properties such as “copy forward” behavior, math function, and alert and artifact limits are still configured in templates.

Set the properties of real-time variables

- 1 In the **Auxiliary Tables** folder, double-click **Real-Time Variables**.
 - 2 Locate the variable on the table and click the cell containing the property you want to customize.
 - 3 Press ENTER after making each change.
- ◆ Variable properties include the following:

Label	Abbreviation of up to six characters for the variable name. This will be the default abbreviation for trends.
Description	Full name of the variable. This will appear on flowsheets.
Comment	Optional additional information that can be viewed by users in the Variable Properties window. If a comment is included, the variable name will have a memo symbol beside it.

Unit	Optional unit of measure applicable to the data.
Formula	Formula for calculating data if the variable is derived.
Derived	Indicates that the variable is derived. See “Derived Variables” on page 191.

Derived Variables

A derived variable obtains its data from calculations performed on data from other real-time variables or database constants using a formula. For example, *Derived Mean Pulmonary Pressure* (dMPA) uses data from the variables *Pulmonary Diastolic Pressure* (DPp) and *Pulmonary Systolic Pressure* (SPp) as follows:

$$dMPA = DPp + (SPp - DPp)/3$$

Derived variables behave similarly to other real-time variables: data is added to flowsheet columns at the configured interval and included in snapshots and emergency data blocks.

Calculations use the most recent data available for the source variables and constants. To calculate data for a derived variable, the template must include all of the source variables. The CareSuite database includes approximately 50 derived variables. You can create new derived variables using wildcard variables.

Important: The sample formulas for derived variables in the Picis demo database are for demonstration purposes only. Picis assumes no responsibility for their accuracy. Review and test all formulas before using them in a production environment.

Formulas for derived variables

A formula can contain the following elements:

- Arguments: Real-time variables, represented by their Click'n Link codes or labels, and database constants.

Enclose variable labels in square brackets ([HR]). Precede Click'n Link codes with a pound symbol (#001). Real-time variable labels are case-sensitive.

CareSuite has three database constants: WEIGHT, HEIGHT and BSA (Body Surface Area). Data for WEIGHT and HEIGHT are entered by users on the demographics form; BSA is calculated internally using WEIGHT and HEIGHT.

- Numeric floating point constants: 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, -. A single period (.) will be interpreted as a decimal separator.
- Operators:

ARITHMETIC OPERATORS		
+	Addition	1 + 2
-	Subtraction Negation	2 - 1 -1
*	Multiplication	2 * 2
/	Division	1 / 2
^	Exponentiation	4 ^ 2
COMPARISON OPERATORS		
=	Equal to	[HR] = [PULSE]
>	Greater than	[HR] > [PULSE]
<	Less than	[HR] < [PULSE]
> =	Greater than or equal to	[HR] > = [PULSE]
< =	Less than or equal to	[HR] < = [PULSE]
< >	Not equal to	[HR] < > [PULSE]

- Functions:

IF	IF (<i>Condition</i> , <i>Value_If_True</i> , <i>Value_If_False</i>) Returns the value of the second or third argument, based on the value of <i>Condition</i> as follows: -If <i>Condition</i> is any value except for zero, <i>Value_If_True</i> is returned. -If <i>Condition</i> is equal to zero, <i>Value_If_False</i> is returned.
ISEMPTY	ISEMPTY (<i>Expression</i>) Returns 1 if <i>Expression</i> has an EMPTY value and 0 otherwise. See “Preventing errors with IF, ISERR and ISEMPTY” on page 194.
ISERR	ISERR (<i>Expression</i>) Returns 1 if the expression has an <i>ERROR</i> value and 0 otherwise. See “Preventing errors with IF, ISERR and ISEMPTY” on page 194.

Error returned by formulas

Formulas and expressions within formulas can return error values instead of data. If the entire formula returns an error value, the flowsheet cell will be left blank.

A formula or expression can return the following error values:

- **EMPTY:** Returned when a real-time variable or database constant that has no value is used as a function argument.

This occurs when a real-time variable used in the expression is not present on the flowsheet or when no data is available for it.

It also occurs when no value is available for a database constant used in the expression.
- **ERROR:** Returned when an invalid arithmetic operation occurs, such as division by zero or when a negative value is raised to a non-integer power.
- **INVALID:** Returned when the final result of a calculation is less than –9,999 or greater than 99,999.

Also returned when the absolute value of any expression in the formula is less than 1E–307 or greater than 9.99999999999999E307.

If an expression returns several types of error values, the error value having the highest priority will be displayed. Error values have the following priority, from highest to lowest:

INVALID

ERROR

EMPTY

Preventing errors with IF, ISERR and ISEMPY

The *ISERR* and *ISEMPY* functions can detect *ERROR* and *EMPTY* error values. The *IF* function can be combined with these functions to prevent the whole formula from returning an error.

For example, the following formula substitutes the value for *PULSE* whenever data is unavailable for the sporadic variable *PULSN1*:

```
IF ( ISEMPY ( [PULSN1] ), [PULSE], [PULSN1] )
```

Tip: You can use real-time variables that are not part of the patient chart as temporary values to simplify other formulas.

How expressions are evaluated

Expressions enclosed in parentheses will be evaluated before being used further in the formula.

- Spaces are ignored unless they appear in one of the following:
- Real-time variable labels
- Click'n Link codes
- Database constants
- Function names (for example *IF*)
- Operators (for example *< =*)

Operations are performed in the following order:

- Negation

- Exponentiation
- Multiplication and division
- Addition and subtraction
- Comparison

Operators having the same precedence, for example addition and subtraction, are evaluated from left to right.

Circular references in formulas

A formula cannot contain a circular reference.

For example:

HR = [PULSE]

PULSE = IF ([HR] > 80, [HR], [HR] ^ 1.02)

The first expression uses Pulse to obtain Heart Rate. The second expression uses Heart Rate to obtain Pulse. Neither of the expressions can be calculated.

A circular reference can involve more than two expressions:

A = 2 * B

B = 3 * C

C = 4 * A

The first expression uses B to obtain A. The second expression uses C to obtain B. The third expression uses C to obtain A. None of these expressions can be calculated.

Note: If a circular reference is present in the Real-Time Variables auxiliary table, you may not see any real-time variables at all in Customize or Anesthesia Manager/PACU Manager/Critical Care Manager. (DB Editor does not warn you if you have entered a circular reference.)

Sample formulas for derived variables

Example 1: HR vs PULSE

```
x = IF ([HR] > [PULSE], [HR], [PULSE])
```

If Heart Rate is greater than Pulse, then x equals Heart Rate; if not, x equals Pulse.

Example 2: Body Surface Area (BSA)

```
x = IF ( [Weight] < 10, [Weight] ^ 0.75 * 0.09224, IF ( [Weight] <= 29.99, [Weight] ^ 0.66 * 0.09837, IF ( ISEMPTY (HEIGHT), HEIGHT, [Weight] ^ 0.425 * HEIGHT ^ 0.725 * 0.007184) ) )
```

***Note that your hospital unit may use a different formula for BSA.**

If Weight is less than 10 kg, $x = (\text{Weight} ^ 0.75) * 0.09224$.

If Weight is less than 29.99 kg, $x = (\text{Weight} ^ 0.66) * 0.09837$.

Note that these expressions do not contradict each other because they are calculated from left to right and the second expression is only used if the first is false. The second expression really means “If Weight is between 10 kg and 29.99 kg.”

If Weight is greater than 29.99 kg, and a value of Height is not available, $x = \text{Height} = \text{null}$.

If Weight is greater than 29.99 kg, and a value of Height is available, $x = (\text{Weight} ^ 0.425) * (\text{Height} ^ 0.725) * 0.007184$.

Note that Weight appears in brackets because it is a real-time variable; Height does not because it is a database constant.

Example 3: Derived Patient Tidal Volume (dPTV)

```
dPTV = [RMVout] - ( [Vrate] * ( [TVset] / 1000 ) ) / ( [Rsp_m] - [Vrate] )
```

Configure a derived variable

- 1 Click **Auxiliary Tables** on the left side of the main window in DB Editor.
- 2 Double-click **Click'n Link Codes** on the list of database tables on the right side of the main window.
- 3 Locate the variable on the table. You can sort variables by any column by clicking a column heading.
- 4 In the **Formula** column, enter the formula for calculating data for the variable. Then press ENTER.
- 5 In the **Derived** column, select the check box.

The variable will appear in the Derived Variables window in Customize the next time you open that application.

Specialized Windows

Demographics

Content available for documenting patient demographics can be found in the Auxiliary Tables section.

TABLE	CONTENT
Admission Types	Drop-down list entries for the Demographics window (Patient Identification section).
Allergies	Entries for the “Other Allergies” table in the Demographics window (Allergies and Precautions section) and Preop Manager (Allergies section).
Allergy Types	Entries for the “Other Allergies” table in Preop Manager (Allergies section).
Ambulatory Status	Drop-down list entries for documenting the patient’s ambulatory status on arrival (General Information section).
ASA Types	Drop-down list entries for documenting the patient’s ASA class (OR Information section).

TABLE	CONTENT (Continued)
Attending Types	Drop-down list entries for the Demographics window (Medical Team section) and Preop Manager (Demographics section).
Blood Groups	Drop-down list entries for the Demographics window (General Information section and Emergency Contacts section) and Preop Manager (Demographics section).
Chief Complaints	Drop-down list entries for the Demographics window (Diagnoses and Procedures section).
Clinical Priorities	Drop-down list entries for the Demographics window (Diagnoses and Procedures section).
Configuration Parameters	Basic parameters for system behavior including settings that control perioperative integration, password expiration, audit trail and security for VIP patients.
Countries	Drop-down list entries for the Demographics window (Patient Identification section) and Preop Manager (Demographics section).
Diagnoses	Drop-down list entries for the Demographics window (Diagnoses and Procedures section).
Diagnosis Functional Types	Drop-down list entries for the Demographics window (Diagnoses and Procedures section).
Diagnosis Types	Drop-down list entries available when searching for diagnoses in the Demographics window (Diagnoses and Procedures section).
Ethnic Groups	Drop-down list entries for the Demographics window (General Information section) and Preop Manager (Demographics section).
Insurance Companies	Drop-down list entries for the Demographics window (Billing Information section) and Preop Manager (Demographics section).
Insurance Company Types	Drop-down list entries for the Demographics window (Billing Information section) and Preop Manager (Demographics section).
Kin Types	Drop-down list entries for the Demographics window (Emergency Contacts section) and Preop Manager (Demographics section).
Lateralities	Options for identifying the side of the body or of a body part affected by a procedure.

TABLE	CONTENT (Continued)
Maritals	Drop-down list entries for the Demographics window (Patient Identification section).
Medical Procedure Functional Types	Drop-down list entries for the Demographics window (Diagnoses and Procedures section).
Medical Procedure Types	Drop-down list entries available when searching for procedures in the Demographics window (Diagnoses and Procedures section).
Medical Procedures	Drop-down list entries for documenting the planned medical procedure (Diagnoses and Procedures section).
Periods	Drop-down list entries for the Demographics window (Allergies and Precautions section) and Preop Manager (Allergies section and Surgical History section). Entries are for documenting how long since the allergic reaction or past surgery.
Precautions	Risk factors and precautions required when treating the patient. Drop-down list entries for the Demographics window (Allergies and Precautions section).
Precautions Types	Types for locating precautions in the Precautions table Not used elsewhere in CareSuite.
Reaction Types	Types for locating items in the Reactions table. Not used elsewhere in CareSuite.
Reactions	Drop-down list entries for allergic reactions in the Demographics window (Allergies and Precautions section) and Preop Manager (Allergies section).
Religions	Drop-down list entries for the patient's religious affiliation in the Demographics window (Patient Identification section).
Route Types	Types for locating items in the Routes table. Not used elsewhere in CareSuite.
Routes	Administration routes for medications and fluids. Drop-down list entries available when creating orders. (Including standard orders created in DB Editor.)
Sexes	Drop-down list entries for patient gender in the Demographics window (General Information section) and Preop Manager (Demographics section).

TABLE	CONTENT (Continued)
Sites	Part of the body for indicating what part of the patient will treated in a medical procedure.
Staff Types	Drop-down list entries available when creating users in DB Editor. This information might also appear on printouts.

“Disable an entry to remove it from applications” on page 164

Common Choices for Diagnoses, Procedures and Allergies

Common choices are abbreviated lists of diagnoses, procedures and allergies that include the most frequently documented items in a particular care area. Common choice lists are associated with controls in the Demographics and Preop Manager windows. Items may be displayed in drop-down list controls or the upper half of the Search dialog box. Users can search the entire list in the database if a needed item is not found on a common choices list.

You can modify the contents of a list, but you cannot create new ones. The list displayed in a session depends on the template used with the patient.

Templates are classified by their encounter type as either ICU or non-ICU.

Critical Care Manager uses ICU templates and Anesthesia and PACU Manager use non-ICU templates. For , there is only one list.

Critical Care Manager:

- ICU - Diagnoses - Demographics
- ICU - Procedures - Demographics

(Used when the ICU property for the encounter type is set to 1.)

Anesthesia and PACU Manager:

- PERIOP - Diagnoses - Demographics
- PERIOP - Procedures - Demographics

(Used when the ICU property for the encounter type is set to 0.)

Preop Manager:

- PREOP - Diagnoses - Preop Manager Demographics
- PREOP - Medications - Preop Manager Medications

- PREOP - Procedures - Preop Manager Demographics
- PREOP - Procedures - Preop Manager Surgical History

All Applications:

- ALL - Medications - Medication Allergies

Note that Common Choices lists are originally empty. (They are not included in the “priming”.)

Copy an existing common choices list

- 1 In the **Common Choices** folder, double-click the name of the list you want to replace with the imported list.
- 2 Click **Import Common Choices**.
- 3 Select the list you want to copy.
- 4 Click **OK**.
Please note that this action cannot be undone. The items on the imported list will replace any items in the Common Choices box.
- 5 You can customize the list by adding and removing items, and changing their order.
- 6 To save the list and continue working, click **Apply**.
- 7 To print the list, click **Print**.
- 8 When you are finished, click **OK**.

Add items to a common choices list

- 1 In the **Common Choices** folder, double-click the name of the list you want to modify.
- 2 In the **Type** box, select a subgroup to display its items in the **Source** box.
You can limit the selection to items that contain specific text by entering the text in the **Containing Text** box and clicking **Find**.

- 3 In the **Source** box, click the check box next to each item you want to add to the **Common Choices** box. Items with a check mark are added automatically.
- 4 To save the list and continue working, click **Apply**.
- 5 To print the list, click **Print**.
- 6 When you are finished, click **OK**.

Change the order of common choices

- 1 In the **Common Choices** folder, double-click the name of the list you want to modify.
- 2 To change the position of an item on the list, click it in the **Common Choices** box and then click the  or  button.

Use the  or  buttons to move the item to the top or bottom of the list.
- 3 To sort the items in alphabetical order, click **ABC**.
- 4 To save the list and continue working, click **Apply**.
- 5 To print the list, click **Print**.
- 6 When you are finished, click **OK**.

Remove an item from a common choices list

- 1 In the **Common Choices** folder, double-click the name of the list you want to modify.
- 2 In the **Common Choices** folder, click the item that you want to remove.
- 3 Click <<**Remove**.
- 4 To save the list and continue working, click **Apply**.
- 5 To print the list, click **Print**.
- 6 When you are finished, click **OK**.

Events and SAM Windows

Although the database stores event names and the Events table is accessible using DB Editor, you should add new events with Customize. You can use DB Editor to edit, delete or configure the following properties of existing events:

- Events and event types. You can edit the names of events and event types in the corresponding Auxiliary Tables. Do not change the settings in the Event Categories column of the Event Types table.
You can delete individual events and entire event types by selecting the **Inactive** check box on a row.
- Symbols for events. When an event with a symbol is documented, the symbol appears in the time bar. The symbol can be any single character from the ISO Latin1 character set.
- Events for anesthesia supervisors. These events can only be documented by anesthesia supervisors. If a non-supervisor is administering anesthesia, the supervisor will typically enter these events using the Supervisory Anesthesia Module (SAM).

Create or modify an event symbol

- 1 In the **Auxiliary Tables** folder, double-click **Events**.
- 2 In the row corresponding to the event, enter the desired character in the **Symbol** column, and then press ENTER.
- 3 When you are finished creating and modifying events, click **Close**.

Designate an event for use in SAM

- 1 In the **Auxiliary Tables** folder, double-click **Events**.
- 2 In the row corresponding to the event, click **Supervisor**.
- 3 When you are finished, click **Close**.

Only members of a user group with the system right “SAM view and edit” will be able to document these events.

Auxiliary tables associated with events

TABLE	CONTENT
Event Types	Drop-down list entries for types of events in the Events window and the Event Sets and Macros window in Customize. Event types can be added, edited and deleted in DB Editor.
Events	Event entries available for selection in Customize. New entries are added in Customize. Existing entries can be edited and deleted in DB Editor.

“Disable an entry to remove it from applications” on page 164

Patient Summary

The Patient Summary is configured using the Customize tool. You can use DB Editor to create and configure types of notes that users can add to summary reports. You create note types by adding entries to the NOTETYPES table.

Sometimes clinicians prefer to exclude certain types of notes from the summary. These note types can be configured as hidden. Hidden notes appear only on the Notes tab. You can also configure certain note types to be temporary. After the patient discharge, the system retains these notes for a certain period of time and then deletes them. You can configure the period of time to retain the notes.

Once you have created a note type, you can define its content by creating note blocks on the NOTETYPEBLOCKS table. Note blocks are blank sections with headings that appear in a defined sequence.

Create or modify a note type

- 1 In the **Auxiliary Tables** folder, double-click **NoteTypes**.
- 2 To create a new note type, click **Add** and then **OK**.

To change an existing type, click the cell containing the text or property that you want to modify.

- 3 Under **Description**, enter or change the name of the note type, and then press ENTER.
- 4 Under **Index**, enter a number, and then press ENTER. The number determines the position of the note type in drop-down lists in the patient summary.
- 5 Click **IsHidden**, if you do not want notes based on this note type to be seen on the Current Report tab.
- 6 Click **IsDeletableAfterDischarge**, if you want notes based on this note type to be deleted after the patient is discharged. (Under **Days to delete after discharge**, enter a number, and then press ENTER, to set the number of days after discharge the notes should be deleted.)
- 7 When you are finished creating and modifying note types, click **Close**.

Add sections (note blocks) to a note type

- 1 In the **Auxiliary Tables** folder, double-click **NoteTypeBlocks**.
- 2 To create a new note block, click **Add** and then **OK**.
To change an existing block, click the cell containing the text or property that you want to modify.
- 3 Under **Description**, enter or change the name of the note block, and then press ENTER.
- 4 Under **NoteTypes**, select the note type in which you want to place the note block.
- 5 Under **Index**, enter a number, and then press ENTER. The number determines the position of the note block within the note type. (If there is only one note block in the note type, its index should be “1.”)
- 6 When you are finished creating and modifying note blocks, click **Close**.

Note: You cannot use the same note block in two or more note types; you must create separate note blocks for use with each note type, even if they have the same name (Description).

Auxiliary tables associated with the Patient Summary

TABLE	CONTENT
NoteTypeBlocks	Sections (blocks) for Patient Summary note types.
NoteTypes	Patient Summary note types.

“Disable an entry to remove it from applications” on page 164

Preop Manager

Content for certain windows in Preop Manager can be customized using DB Editor.

- **Allergies and Diagnoses and Procedures:** You can customize the “common choice” lists associated with diagnoses, procedures and allergies. These lists provide abbreviated selections of the items most commonly documented in the care area.

For further information, see “Common Choices for Diagnoses, Procedures and Allergies” on page 200.

- **Review of Systems:** Areas of a the patient’s medical history to be covered in the evaluation. Once created, new entries appear automatically in the corresponding window in Preop Manager. You can designate some sections as required for all patients.

For example: *Neurological; Cardiovascular; Anesthesia History; Family History; Alcohol, tobacco and drug use.*

For further information, see “Create a section in the medical history” on page 208 and “Add a finding to a medical history section” on page 209.

- **Physical Exam:** Body systems to be examined. Once created, new entries appear automatically in the corresponding window in . You can designate some sections as required for all patients.

For example: *Airway and Neck, Pulmonary, Cardiovascular, Musculoskeletal, Skin.*

For further information, see “Create a section in the physical examination” on page 209 and “Create a finding for a physical examination section” on page 210.

- **Anesthesia Plan:** Techniques, equipment and issues to discuss with the patient. Once created, new entries appear automatically in the corresponding window in Preop Manager. You can designate some sections as required.

For example: *Anesthesia Technique, Additional Equipment, Risks Discussed with Patient.*

For further information, see “Create a section in the anesthesia plan” on page 216 and “Add a finding to an anesthesia plan section” on page 216.

- **Risk Assessments:** Lists of risk factors with possible findings for each. Each factor is associated with a number of points. The total score may include recommendations.

For example:

Risk factor *Ischemic Heart Disease*

Findings: *Pathologic Q waves; Angina stable; Angina unstable; Coronary artery disease; etc.*

The *Body System Exams* auxiliary table contains the names of the risk factors; the *Body System Exam Items* auxiliary table contains the findings for each factor.

For further information, see “Create a risk factor for a risk assessment” on page 212 and “Create a finding for a risk factor” on page 213.

- **Current Medications:** The status of a medication in the patient’s current regime of medication.

For example: *Active, Inactive, Unknown.*

The PREOP STATUSES (MEDICATIONS) auxiliary table supplies options for the **Status** column in this form.

For further information, see “Working with Auxiliary Tables” on page 162.

- **Preop Instructions:** Information given to patient on what to do in preparation for surgery. Once created, new entries appear automatically in the corresponding window in .

For example: *STOP eating solid food or drinking milk or non-clear juices 8 hours before your hospital arrival time.*

The PREOP INSTRUCTION TYPES auxiliary table supplies the types and the PREOP INSTRUCTIONS auxiliary table supplies options for this window.

For further information, see “Create a preoperative instruction” on page 217.

- **Evaluation Status:** List of possible statuses for an evaluation. Users set the status manually. The status is displayed at the top of the evaluation summary and can be used in queries in the Census window.
For example: *Ready for doctor, Needs follow-up, Ready for surgery, Surgery canceled.*
The RECORD STATUS auxiliary table supplies the statuses.
For further information, see “Create an evaluation status” on page 217.
- **Signatures:** Up to eight different types of signatures for caregivers responsible for completing or reviewing all or part of an evaluation. Certain types change the status of the entire evaluation to final. After a final signature, users can only enter addenda to an evaluation, but not change the data in most sections.
For example: *CRNA or Resident, Attending Review*
The SIGNOFF TYPES auxiliary table supplies options for this window.
For further information, see “Create a signature type for signing evaluations” on page 218.
- **Addenda:** Notes that caregivers can add to an evaluations, typically after it has been signed as final. Caregivers can enter free text or use standard comments.
For example: *Agree with the above assessment with the following exceptions: All available information reviewed; patient is ready for surgery.*
The COMMON TEXT auxiliary table contains all available standard comments.
For further information, see “Create a standard comment for addenda” on page 218.

Create a section in the medical history

- 1 Click **Auxiliary Tables** on the left side of the main window in DB Editor.
- 2 Double-click **Body System Exams** on the list of database tables on the right side of the main window.
- 3 Click the **Add** button to add a new row to the table.
- 4 Enter the name of the section and then press ENTER.

- 5 In the **Body System Exam Type** column select **Review of systems** and then press ENTER.
- 6 In the **Index** column, enter a number corresponding to the position of the section relative to others in the window and then press ENTER.
Tip: Include a zero before single-digit numbers (00, 01, 02...).
This step is optional. If you leave the index blank, sections will appear in the order they were entered.
- 7 When you are finished adding sections, click **Close**.

Add a finding to a medical history section

- 1 Click **Auxiliary Tables** on the left side of the main window in DB Editor.
- 2 Double-click **Body System Exam Items** on the list of database tables on the right side of the main window.
- 3 Click the **Add** button to add a new row to the table.
- 4 Enter the name of a review finding and then press ENTER.
- 5 In the **Body System Exam** column select the name of the corresponding section and then press ENTER.
- 6 In the **Index** column, enter a number corresponding to the position of the item relative to others in the section and then press ENTER.
Tip: Include a zero before single-digit numbers (00, 01, 02...).
This step is optional. If you leave the index blank, sections will appear in the order they were entered.
- 7 In the **Exam Assessments** column, select the appropriate status (Normal, Abnormal, Deferred) and then press ENTER.
- 8 When you are finished creating items, click **Close**.

Create a section in the physical examination

- 1 Click **Auxiliary Tables** on the left side of the main window in DB Editor.
- 2 Double-click **Body System Exams** on the list of database tables on the right side of the main window.

- 3 Click the **Add** button to add a new row to the table.
- 4 Enter the name of the section and then press ENTER.
- 5 In the **Body System Exam Type** column, select **Physical exam** and then ENTER.
- 6 In the **Index** column, enter a number corresponding to the position of the section relative to others in the window and then press ENTER.
Tip: Include a zero before single-digit numbers (00, 01, 02...).
This step is optional. If you leave the index blank, sections will appear in the order they were entered.
- 7 When you are finished adding section names, click **Close**.

Create a finding for a physical examination section

- 1 Click **Auxiliary Tables** on the left side of the main window in DB Editor.
- 2 Double-click **Body System Exam Items** on the list of database tables on the right side of the main window.
- 3 Click the **Add** button to add a new row to the table.
- 4 Enter the name of a review finding and then press ENTER.
- 5 In the **Body System Exam** column, select the name of the corresponding section and then press ENTER.
- 6 In the **Index** column, enter a number corresponding to the position of the item relative to others in the section and then press ENTER.
Tip: Include a zero before single-digit numbers (00, 01, 02...).
This step is optional. If you leave the index blank, sections will appear in the order they were entered.
- 7 In the **Exam Assessments** column, select the appropriate status (Normal, Abnormal, Deferred) and then press ENTER.
- 8 When you are finished creating items, click **Close**.

Create a risk assessment form

The procedure for creating a risk assessment form for Preop Manager is as follows:

- 1 Create a risk assessment type directly in the database. E.g Pulmonary Risk Assessment. (Note that the database already includes the type called Cardiac Risk Assessment.) In a later step, you will make a form for this risk assessment type.
See “Create a risk assessment type” on page 211 for more details.
- 2 In DB Editor, create risk factors for the risk assessment. E.g. Tobacco Use. Each risk factor will be a separate section on the form.
See “Create a risk factor for a risk assessment” on page 212 for more details.
- 3 In DB Editor, create findings for each risk factor E.g. No tobacco. Each finding will be a row within the form section.
See “Create a finding for a risk factor” on page 213 for more details.
- 4 (Optional) In DB Editor, create recommendations for a risk assessment score.
See “Create a recommendation for the total risk assessment score” on page 213 for more details.
- 5 Make a form for the risk assessment by editing the *evalconfig.pcs* file and the *evalconfig.usa* file.
See “Create a risk assessment form” on page 214 for more details.

Create a risk assessment type

By default, the only risk assessment type included in the initial database priming will be “Cardiac Risk Assessment”. To add a new risk assessment type after the database has been created, the database administrator must edit the relevant table directly using an appropriate tool, as follows:

- 1 In the database table *BODYSYSTEMEXAMTYPES*, add a new row.
- 2 You will see that one of the body system exam types has the description “Unknown”; copy the DBOID for this entry to the new exam type and

change the final digit to X, where X=1, 2, 3 etc. Do not use a value used by another exam type; the DBOID must be unique.

- 3 In the BODYSYSTEMEXAMTYPEDESC column, type a description for the new exam type (this will be seen in DB Editor).
- 4 In the ISDELETED column, type “F”.
- 5 In the ISRAF column, type “T”.

Create a risk factor for a risk assessment

- 1 Click **Auxiliary Tables** on the left side of the main window in DB Editor.
- 2 Double-click **Body System Exams** on the list of database tables on the right side of the main window.
- 3 Click the **Add** button to add a new row to the table.
- 4 Enter the name of the section and then press ENTER.
- 5 In the **Body System Exam Type** column, select a risk assessment type and then press ENTER.
- 6 In the **Index** column, enter a number corresponding to the position of the section relative to others in the window and then press ENTER.
Tip: Include a zero before single-digit numbers (00, 01, 02...).
This step is optional. If you leave the index blank, sections will appear in the order they were entered.
- 7 In the **Points** column, enter the score associated with the risk factor. The score is taken into account when at least one finding is documented for the risk factor. See also “Create a recommendation for the total risk assessment score” on page 213.
- 8 When you are finished adding section names, click **Close**.

Create a finding for a risk factor

- 1 Click **Auxiliary Tables** on the left side of the main window in DB Editor.
- 2 Double-click **Body System Exam Items** on the list of database tables on the right side of the main window.
- 3 Click the **Add** button to add a new row to the table.
- 4 In the **Description** column, enter the name of the finding and then press ENTER.
- 5 In the **Body System Exam** column, select the name of the corresponding section and then press ENTER.
- 6 In the **Index** column, enter a number corresponding to the position of the item relative to others in the section and then press ENTER.
Tip: Include a zero before single-digit numbers (00, 01, 02...).
This step is optional. If you leave the index blank, sections will appear in the order they were entered.
- 7 In the **Exam Assessments** column, select **Finding** and then press ENTER.
- 8 When you are finished creating findings, click **Close**.

Create a recommendation for the total risk assessment score

- 1 Click **Auxiliary Tables** on the left side of the main window in DB Editor.
- 2 Double-click **Body System Exam Items** on the list of database tables on the right side of the main window.
- 3 Click the **Add** button to add a new row to the table.
- 4 In the **Minimum** column, enter the lowest value in the score range for the recommendation and then press ENTER.
- 5 In the **Maximum** column, enter the highest value in the score range and then press ENTER.
- 6 In the **Recommendation** column, enter a recommendation of up to 255 characters and then press ENTER.
- 7 When you are finished creating recommendations, click **Close**.

The recommendation will be shown at the bottom of a form if the combined score for all risk factors (sections) on that form falls within the configured range.

Note that a recommendation applies to all risk assessments having the relevant score. To create an individual recommendation for each risk assessment, you must make sure the score for each risk factor is such that the combined score can only possibly apply to the assessment in question. For example, suppose you have two assessments, each with four risk factors: you give a score of 1 to each risk factor in the first assessment, giving a possible total score of 0, 1, 2, 3 or 4; you give a score of 10 to each risk factor in the second assessment, giving a possible total score of 0, 10, 20, 30 or 40. (The only score that can never be unique is 0.)

Create a risk assessment form

- 1 Navigate to the folder “C:\Picis\Config\eval” using the Windows Explorer.
- 2 Double-click the *eval/config.pcs* file.
The Picis Configuration Editor will open.
- 3 Add a new section for each risk assessment form that you want, using the following format:

```
[RAF-A]
Caption=STR:B
HelpCaption=STR:C
XML=STR:<ACTION><NAME>LOADFORM</
NAME><PARAMETERS><NAME>BodySystems.RAFForm</
NAME><PARAMETERS>D</PARAMETERS></PARAMETERS></ACTION>
ViewRight=STR: 021000000000999000000
UseRight=STR: 02100000000099800000
```

Where,

A is an arbitrary name used to identify the section in the configuration files.

B is the heading that will appear at the top of the risk assessment form.

C is the text shown when the cursor is moved over the form name

D is The DBOID for the risk assessment type. (See “Create a risk assessment type” on page 211.)

Example:

```
[RAF-PulmonaryRiskAssessment]
Caption=STR:PulmonaryRiskAssessment
HelpCaption=STR:PulmonaryRiskAssessmentStatusBarText
XML=STR:<ACTION><NAME>LOADFORM</
NAME><PARAMETERS><NAME>BodySystems.RAFForm</
NAME><PARAMETERS> 264000000000000000000000000000001</PARAMETERS></
PARAMETERS></ACTION>
ViewRight=STR: 021000000000999000000
UserRight=STR: 021000000000998000000
```

4 Configure the sections titled

`[@StringList#VerticalMenu1#AllowedMenuItems]` and
`[@StringList#VerticalMenu1#MenuItems]` by adding a new line at the bottom of each list corresponding to the risk assessments and updating the NumEntries value accordingly. For example,

```
NumEntries=INT:10
1=STR:ADDENDUM
...
10=STR:PULMONARYRISKASSESSMENT
```

5 Navigate to the folder “C:\Picis\Config\eval” using the Windows Explorer.

6 Double-click the *evalconfig.usa* file.

7 Under the [Captions] section, for each risk assessment enter a line as follows:

A=str:**B**

Where **A** is the name of the section in the *evalconfig.pcs* file and **B** is the form name you want to appear in Preop Manager. For example,

```
RAF-PulmonaryRiskAssessment=str:PulmonaryRiskAssessment
```

Create a section in the anesthesia plan

- 1 Click **Auxiliary Tables** on the left side of the main window in DB Editor.
- 2 Double-click **Anesthesia Plan Types** on the list of database tables on the right side of the main window.
- 3 Click the **Add** button to add a new row to the table.
- 4 Enter the name of the section and then press ENTER.
- 5 In the **Body System Exam Type** column, select **Physical exam** and then press ENTER.
- 6 When you are finished adding section names, click **Close**.

Add a finding to an anesthesia plan section

- 1 Click **Auxiliary Tables** on the left side of the main window in DB Editor.
- 2 Double-click **Anesthesia Plans** on the list of database tables on the right side of the main window.
- 3 Click the **Add** button to add a new row to the table.
- 4 Enter the name of the item and then press ENTER.
- 5 In the **Index** column, enter a number corresponding to the position of the item relative to others in the section and then press ENTER.
Tip: Include a zero before single-digit numbers (00, 01, 02...).
This step is optional. If you leave the index blank, sections will appear in the order they were entered.
- 6 In the **Anesthesia Plan Type** column, select the name of the corresponding section and then press ENTER.
- 7 When you are finished creating items, click **Close**.

Create a preoperative instruction type

- 1 Click **Auxiliary Tables** on the left side of the main window in DB Editor.
- 2 Double-click **Preop Instruction Types** on the list of database tables on the right side of the main window.
- 3 Click the **Add** button to add a new row to the table.
- 4 Enter the name of the type and then press ENTER.
- 5 When you are finished adding items click **Close**.

Create a preoperative instruction

- 1 Click **Auxiliary Tables** on the left side of the main window in DB Editor.
- 2 Double-click **Preop Instructions** on the list of database tables on the right side of the main window.
- 3 Click the **Add** button to add a new row to the table.
- 4 Enter the instruction and then press ENTER.
- 5 When you are finished adding instructions click **Close**.

Create an evaluation status

- 1 Click **Auxiliary Tables** on the left side of the main window in DB Editor.
- 2 Double-click **Record Status** on the list of database tables on the right side of the main window.
- 3 Click the **Add** button to add a new row to the table.
- 4 In the **Description** column, enter the instruction and then press ENTER.
- 5 When you are finished adding instructions click **Close**.

Create a signature type for signing evaluations

- 1 Click **Auxiliary Tables** on the left side of the main window in DB Editor.
- 2 Double-click **Signoff Types** on the list of database tables on the right side of the main window.
- 3 Click the **Add** button to add a new row to the table.
- 4 In the **Description** column, enter a status and then press ENTER.
- 5 In the **Index** column, enter a number corresponding to the position of the item relative to others in the dialog box and then press ENTER.
Tip: Include a zero before single-digit numbers (00, 01, 02...).
This step is optional. If you leave the index blank, sections will appear in the order they were entered.
- 6 When you are finished adding statuses click **Close**.

Note that no more than eight signature types should be configured.

Create a standard comment for addenda

- 1 Click **Auxiliary Tables** on the left side of the main window in DB Editor.
- 2 Double-click **Common Text** on the list of database tables on the right side of the main window.
- 3 Click the **Add** button to add a new row to the table.
- 4 Enter a standard comment in the **Description** column and then press ENTER.
- 5 In the **Comment** column, enter the text of a tooltip message to display for the item and then press ENTER.
- 6 In the **Index** column, enter a number corresponding to the position of the item relative to others on the list and then press ENTER.
Tip: Include a zero before single-digit numbers (00, 01, 02...).
This step is optional. If you leave the index blank, sections will appear in the order they were entered.
- 7 In the **Field** column, select ADDENDUMDESC and then press ENTER.

- 8** When you are finished adding comments click **Close**.

Auxiliary tables associated with Preop Manager

TABLE	CONTENT
Admission Types	Drop-down list entries in the Patient Identification section.
Airway Classes	Drop-down list entries that may appear in the Physical Exam section.
Allergies	Entries for the “Other Allergies” block in the Allergies section.
Allergy Types	Entries for the “Other Allergies” block Allergies section.
Ambulatory Status	Drop-down list entries General Information section.
Anesthesia Plan Types	Titles for the four “Anesthesia Checklists” in Preop Manager (Anesthesia Plan section).
Anesthesia Plans	Entries for the “Anesthesia Checklist” tables in Preop Manager form for documenting the anesthesia plan.
Anesthesia Types	Drop-down list entries for Preop Manager form for documenting the patient’s surgical history.
ASA Types	Drop-down list entries in the form for the anesthesia plan.
Attending Types	Drop-down list entries in the form for documenting the caregivers.
Blood Groups	Drop-down list entries in the form for documenting basic patient information..
Body System Exam Items	Entries for the “Findings” tables in the forms for documenting physical examinations, medical history and risk assessments.
Body System Exams	Entries for the Preop Manager forms for documenting physical examinations, medical history and risk assessments. (New exams only appear in Preop Manager when items are added for them in the Body System Exam Items table.)
Chief Complaints	Drop-down list entries in the Diagnoses and Procedures sections.

TABLE	CONTENT (Continued)
Clinical Priorities	Drop-down list entries to indicate relative importance of diagnoses and procedures among various in the Diagnoses and Procedures section.
Common Text	Drop-down list entries for predefined comments in Addenda section.
Complications	Drop-down list entries for complications in past surgeries in the Surgical History section.
Countries	Drop-down list entries for the Demographics window (Patient Identification section) and Preop Manager (Demographics section).
Current Medication Frequencies	Drop-down list entries for documenting medications being taken by patient at time of evaluation in the Current Medications section.
Preop Status (Medications)	Drop-down list entries for possible preoperative statuses for current medications.
Diagnoses	Drop-down list entries in the Diagnoses and Procedures section.
Diagnosis Functional Types	Drop-down list entries for indicating the origin of a diagnosis (admitting, preop, working, surgical) in the Diagnoses and Procedures section.
Diagnosis Types	Drop-down list entries for narrowing search criteria when searching for diagnoses in the Diagnoses and Procedures section.
Ethnic Groups	Drop-down list entries in the General Information section.
Insurance Companies	Drop-down list entries in the Insurance section.
Insurance Company Types	Drop-down list entries in the Insurance section.
Kin Types	Drop-down list entries for indicating the relationship of the emergency contact to the patient in the Emergency Contacts section.
Lateralities	Options for identifying the side of the body or body part affected by a procedure.
Maritals	Drop-down list entries for marital status in the Patient Identification section.

TABLE	CONTENT (Continued)
Medical Procedure Functional Types	Drop-down list entries for classifying medical procedures (preop, anesthetic, non-invasive surgical diagnostic) in the Diagnoses and Procedures section.
Medical Procedure Types	Drop-down list entries for narrowing search criteria when searching for procedures in the Diagnoses and Procedures section.
Medical Procedures	Drop-down list entries in the Diagnoses and Procedures section.
Medications	Drop-down list entries for documenting medication allergies in the Allergies section.
Order Test	Diagnostic tests in the Tests and Results section.
Periods	Drop-down list entries for the Demographics window (Allergies and Precautions section) and Preop Manager (Allergies section and Surgical History section). Entries are for documenting how long since the allergic reaction or past surgery.
Precautions	Drop-down list entries for documenting risk factors and precautions to be observed when treating the patient in the Allergies and Precautions section.
Precautions Types	Classifications that make precautions easier to find in DB Editor. Not used elsewhere in CareSuite.
Preop Instruction Types	Types of instructions that may be associated with a patient's preoperative record. (For example, instructions for nurses and instructions for patients.)
Preop Instructions	Predefined instructions that can be associated with a patient's preoperative record.
Preop Statuses	Predefined instructions to patient for current medications prior to surgery. (For example, continue taking or stop taking.)
Reaction Types	Classifications that make allergic reactions easier to find in DB Editor. Not used elsewhere in CareSuite.
Reactions	Drop-down list entries for the Demographics window (Allergies and Precautions section) Preop Manager (Allergies section).
Record Status	Drop-down list in the form for setting an evaluation's status.
Religions	Drop-down list entries for the Demographics window (Patient Identification section).

TABLE	CONTENT (Continued)
Risk Assessment Recommendations	Predefined recommendations associated with ranges of possible scores for a risk assessment. The text appears in the Risk Assessment form after completion of the assessment.
Route Types	Classifications that make administration routes easier to find in DB Editor. Not used elsewhere in CareSuite.
Sexes	Drop-down list entries for patient's gender in the General Information section.
Signoff Types	Entries for the Signature Type box Signatures section.
Sites	Part of the body that will be treated in a medical procedure.
Staff Types	Classifications that make precautions easier to find in DB Editor. This information may be used on printouts.

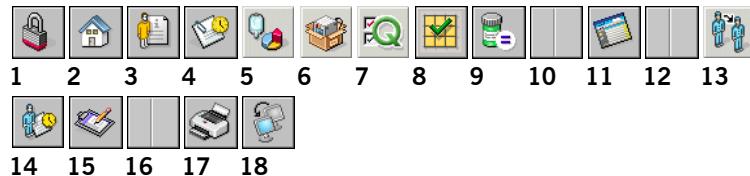
6 Appendix

Toolbars and Icons

This section describes the main toolbars for four of the sample templates and the library of available button icons.

Toolbars

Anesthesia Manager main toolbar



- 1** Log off / Log on
- 2** Home Screen
- 3** Demographics
- 4** Events
- 5** Fluid Balance (pie chart)
- 6** Equipment
- 7** QA Indicators
- 8** Real-Time Variables Summary
- 9** Medication Summary
- 10** Separator

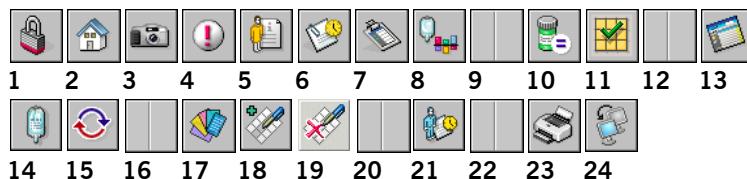
- 11** Anesthesia Summary (screen layout)
- 12** Separator
- 13** Concurrency module
- 14** SAM module
- 15** Preop Manager module
- 16** Separator
- 17** Print
- 18** View Remote Patient

Anesthesia Manager macrobar



- 1** Macro: Equipment Check
- 2** Macro: Anesthesia Start
- 3** Macro: Induction
- 4** Macro: Anesthesia Ready
- 5** Macro: Surgery Start
- 6** Macro: Surgery End
- 7** Macro: Anesthesia Emergence
- 8** Macro: Patient to PACU

PACU Manager main toolbar



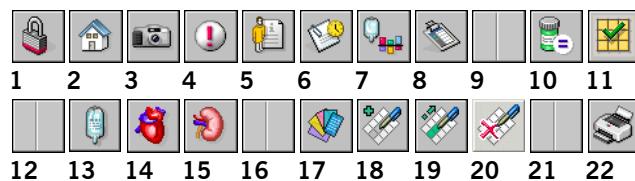
- 1** Log off / Log on
- 2** Home Screen
- 3** Snapshot
- 4** Emergency Data
- 5** Demographics
- 6** Events
- 7** Patient Summary
- 8** Fluid Balance (bar graph)
- 9** Separator
- 10** Medications Summary
- 11** Real-Time Variables Summary
- 12** Separator
- 13** Pain Documentation (screen layout)
- 14** All Fluids flowsheet
- 15** Anesthesia View (screen layout)
- 16** Separator
- 17** Protocols
- 18** Single order
- 19** Cancel/discontinue order
- 20** Separator
- 21** SAM module
- 22** Separator
- 23** Print
- 24** View Remote Patient

PACU Manager macrobar



- 1** Macro: PACU phase I admission
- 2** Macro: PACU to Floor
- 3** Macro: PACU to Home

Critical Care Manager toolbar



- 1** Log off / Log on
- 2** Home Screen
- 3** Snapshot
- 4** Insert Emergency Data
- 5** Demographics
- 6** Events
- 7** Fluid Balance (bar graph)
- 8** Patient Summary
- 9** Separator
- 10** Medication Summary
- 11** Real-Time Variables Flowsheet
- 12** Separator
- 13** All fluids flowsheet
- 14** Cardiologist's View (screen layout)
- 15** Nephrologist View (screen layout)
- 16** Separator
- 17** Protocols
- 18** Single order

- 19** Extend order
- 20** Cancel/discontinue order
- 21** Separator
- 22** Print

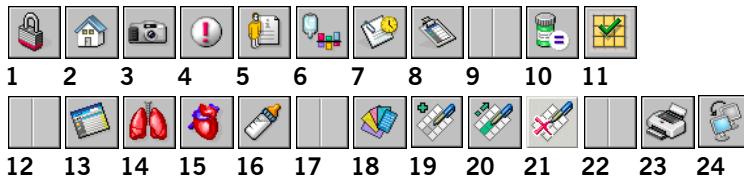
Critical Care Manager macrobar



1

- 1** Macro: CPR

Critical Care Manager Neonatal toolbar

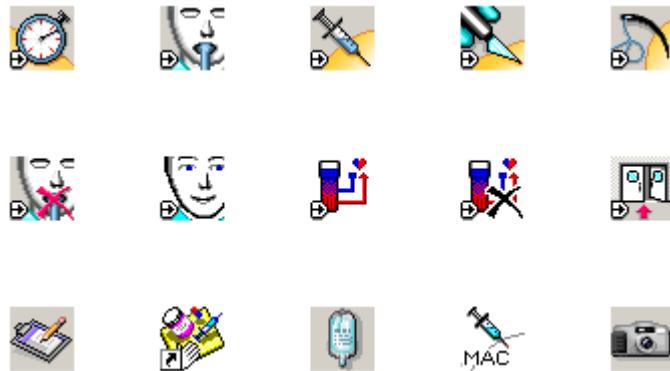


- 1** Log off / Log on
- 2** Home Screen
- 3** Snapshot
- 4** Insert Emergency Data
- 5** Demographics
- 6** Fluid Balance (bar graph)
- 7** Events
- 8** Patient Summary
- 9** Separator
- 10** Medication Summary
- 11** Real-Time Variables Summary
- 12** Separator

- [**13** NICU Flowsheet \(screen layout\)](#)
- [**14** Pulmonologist View \(screen layout\)](#)
- [**15** Cardiologist's View \(screen layout\)](#)
- [**16** Nutrition \(screen layout\)](#)
- [**17** Separator](#)
- [**18** Protocols](#)
- [**19** Single order](#)
- [**20** Extend order](#)
- [**21** Cancel/discontinue order](#)
- [**22** Separator](#)
- [**23** Print](#)
- [**24** View Remote Patient](#)

Icons

Picsis provides a library of icons for the main toolbar and macro toolbar:







You can add new icons to the library by placing graphic files in the folder *C:\Picis\ChartPlus\Resources*. Graphic files must have the following characteristics:

- They must be in bitmap format
- They must measure 32 x 32 pixels
- The background colour should be RGB 212 /208 /200 (so that it is transparent in the application)
- They must have a filename with the following format:

STRING_32x32.bmp

Where STRING is any valid Windows file name. In other words, spaces, hyphens and the underline character are permitted.

(Note: the “x” in “32x32” must be lower case. All other characters can be in any case.)

Valid examples:

100_MacroAnesthesiaStart_32x32.BMP

Thin arrow_32x32.bmp

QualityAssurance _32x32.bmp

Important: If you change the icon of a pre-set toolbar button in a sample template, certain graphics in the *Workstation User's Guide* will no longer reflect the actual toolbar arrangement in your hospital.

Internationalization

Overview

Picis provides international versions of all CareSuite applications. Configuration files for the major European languages are available on the CareSuite CD or from the Picis web page. Installing the language files will convert the applications for patient care and system configuration to the target language. Diagnostic tools are available in English only.

Some elements of the system still appear in English after installing the software and the language files and before creating or modifying templates. This is because the default templates are only available in English. In order to achieve a 100% localized installation, certain items in the default templates must be translated or removed.

You can switch between installed languages using the Picis Configuration Editor.

Change the interface language



- 1 Quit any open Picis applications.
- 2 Navigate to the C:\Picis\Diagnostics\ folder using the Windows Explorer.
- 3 Double-click the file **ConfigEditor.exe**.
- 4 In the Open Configuration Zone dialog box, click **Cancel**.
- 5 On the **ConfigurationAPI** menu, click **Edit settings (PCSUSER)**.
- 6 In **Language**, select the extension of the language you want (the relevant language files must already be installed).
- 7 Click **OK** and then on the **File** menu, click **Exit**.

Template Items to Translate

The following items correspond to parts of the patient chart that are defined in the sample customization templates:

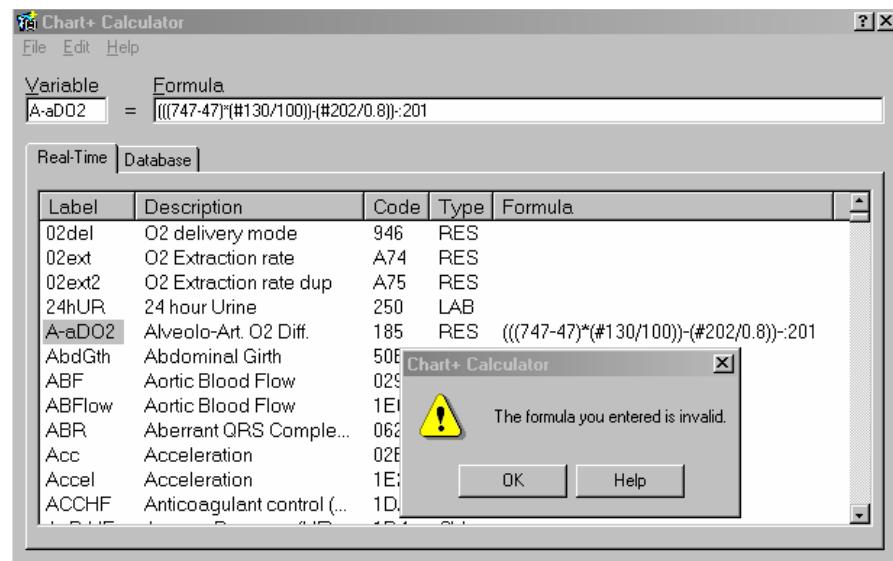
- Command names on the **Flowsheets** menu for custom flowsheets.
(Command names for the four standard flowsheets are part of the standard interface.)
See “Create a custom flowsheet and set basic properties” on page 74.
- Command names for custom screen layouts on the **Screen Layout** menu.
See “Configure a screen layout as an add-in” on page 84.
- All commands on the **Trends, Timers, Add-Ins** and **Macros** menus.
See “Create or edit a trend for use in any flowsheet” on page 77, “Change a timer window title and/or command” on page 81, “Configure a macro as an add-in” on page 83, and “Configure an external application as an add-in” on page 84.
- Tooltips for all buttons on the main toolbar.
See “Edit the properties of buttons on the toolbar” on page 91.
- Titles, section headings and description text for all flowsheets.
See “Create a custom flowsheet and set basic properties” on page 74, and “Create a custom flowsheet and set basic properties” on page 74.
- Trend titles and the labels for real-time variables in the legend.
See “Create or edit a trend for use in any flowsheet” on page 77.
- Timer names.
See “Change a timer window title and/or command” on page 81.
- Names of Note Types in the Patient Summary.
See “Create or modify a note type” on page 204.
- Printout for preoperative instructions in Preop Manager.
See “Customize the preoperative instructions printout” on page 134.

Formula Editor

The Formula Editor is a new standalone tool that allows users to check the syntax of formulas for calculated variables before entering them in DB Editor. (DB Editor does not include a syntax checker.)

- 1** Start DB Editor.
- 2** In an Explorer window, browse to the file *FormulaEditor.exe* in the installation package and double-click it.
- 3** On the **Real-Time** tab, select a variable.
- 4** Under **Formula**, type a formula for the selected variable, following the guidelines in “Derived Variables” on page 191 , and then click ENTER.

If the syntax is incorrect, a message such as the one below will be displayed:



- 5** Click **OK** to close the warning message, then correct the formula and click ENTER again. (You will not be able to enter a formula until the syntax is correct)
- 6** After successfully entering a formula, select it (by double-clicking in the **Formula** field) and copy it (using the right-click menu or Ctrl-C).

- 7 In DB Editor, open the CNL CODES auxiliary table, click in the **Formula** column of the row for the variable concerned, and then paste the formula (using the right-click menu or Ctrl-V).

Note that the Formula Editor allows you to enter formulas using either codes or labels depending on the setting of the command **Convert Arguments to** on the **Edit** menu. However, in order to copy a formula, you must use codes, not labels.

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