

Quick Start Guide

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INTRODUCTION

Using This Tutorial

This tutorial provides a basic introduction to NeoData. We recommend that you follow the lessons in order, which may take 1-2 hours, depending on your familiarity with the program.

Finding Information

Here are some tips to help you use this tutorial. Use the method that works best for you.

- View the tutorial in sequence using the table of contents. Click the **Contents** tab, then click the **plus sign** next to a **chapter**  to see its contents. Click each **page**  to view the corresponding topic in the right-hand pane.
- Find information using the online index. Click the **Index** tab, scroll through the keyword list, and then double-click the keyword. When you double-click a keyword, the corresponding topic appears in the right-hand pane.
- Locate every occurrence of a word or phrase in the tutorial by clicking the **Search** tab and then typing the word. When the list of topics displays, double-click the topic title you want to display. The corresponding topic appears in the right-hand pane.

Printing the Tutorial

To print topics in this tutorial, click the **Print** button on the toolbar.

In the **Print Topics** dialog, select either **Print the selected topic** or **Print the selected heading and all subtopics**. If you choose the latter option, all pages in the selected table of contents book will be printed.

Getting More Help

While this tutorial shows you how to use many of NeoData's features, you may have questions about additional features while using the program. You will find information about further sources of help in the [Getting Help](#) topic.

Overview of NeoData

The **NeoData NICU Patient Data System** is a multiuser application which allows clinical users to generate major NICU patient-related medical documents, including:

- Admission notes.
- Progress notes.
- Discharge summaries.
- Report sheets for rounds.
- TPN and other daily fluid orders.

NeoData runs on standard PC-compatible computer hardware using the **Microsoft Windows** operating systems. The application may be used on a single stand-alone computer, or in a multi-user

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configuration over a network with the data files stored on a central file server to accommodate multiple data entry workstations.

The system stores data in a **Microsoft Access** or **Microsoft SQL Server** database. A variety of data queries can be performed from within NeoData, and Access or SQL Server can be used to perform more complex queries as needed.

NeoData is designed so that all data entry may be performed by the NICU medical staff on workstations located in the NICU area. Documents are printed immediately upon completion of data entry, signed, and placed directly in the patient chart. These tasks are performed as part of the daily patient care routine, in precisely the same manner as if notes were handwritten. This approach requires no dictation, filling out of forms, or involvement of clerical staff.

The NeoData system provides a number of benefits, including:

- Increased legibility.
- Consistent terminology and document format.
- Compilation of detailed patient data for analysis.
- Improved tracking of data and management plans.
- Support for the Vermont Oxford Network database.
- Significant time savings.

Getting Started

This tutorial is intended to give you a quick introduction to the program. Please note the following:

- You may try out the program features discussed here while working through the tutorial; it will remain on your desktop so you may return to it easily.
- Remember that there is much more to NeoData than can be presented in this short tutorial. The next topic, [Getting Help](#), will show you where to find more information.

Getting Help

You will find help information on NeoData in the following locations:

- The **Help Document**.
- The **Keyboard Help** dialog box.
- The **Field Information** dialog box.

Help Document

The Help Document discusses all aspects of the NeoData program in detail. It may be accessed in one of several ways:

- Pressing the **<F1>** key from anywhere within the program.
- Selecting the **Help | Contents** menu option to display the Help Document Contents.
- Selecting the **Help | Index** menu option to display the Help Document Index.

Keyboard Help Dialog Box

The **Keyboard Help** dialog box displays most of the editing and navigation **keystrokes** available within NeoData. It can be displayed by selecting the **Help | Keyboard Help** menu option. If you wish, you can leave the dialog box on the screen for reference while you return work in other NeoData screens.

Field Information Dialog Box

The **Field Information** dialog box lists a variety of information about the current data field. It can be displayed by right-clicking on any data entry field and selecting the **Field Information** option from the Popup Help Menu.

Using NeoData

NeoData is designed to roughly simulate the course of a newly admitted patient in an NICU:

- **Upon admission**, the baby is evaluated, information is collected, initial plans are determined, and an admission summary is placed on the chart.
- **Each day**, serial evaluations are performed, patient information is tracked and updated, management decisions are made, and daily patient documentation is produced.
- **At discharge**, the accumulated information for the hospitalization is reviewed and finalized, and a discharge summary is placed on the chart.

Admissions versus Patients

One of the potentially confusing aspects of computerized inpatient medical data systems is the distinction between **admission information** and **patient information**. Please note the following:

- A patient may have one or more admissions.
- Many aspects of a patient's medical history (diagnoses, lab results, etc.) may precede, span, or follow a given admission.
- Inpatient documentation tends to be oriented around an admission rather than a patient's entire history.

As a consequence, inpatient data can be, and often needs to be, viewed from various perspectives at different times or for different purposes. NeoData is primarily organized around admissions; however, where appropriate it also displays information which spans admissions. An example of this is the **Problems and Diagnoses Form**. All of a patient's problems, rather than just those for the current admission, may be viewed here, depending on certain user-selectable settings.

Daily Routine

Full use of NeoData's features results in a daily cycle which typically includes the following functions:

- **Entering lab results** as they become available.
- **Cloning data records** for the new day, typically shortly after midnight. Cloning is the process by which daily information for the previous day is copied into the new day's data fields.
- **Updating daily measurements** either one patient at a time or in **batch** form via the **Daily Measurements** option under the **Procedures Menu**.
- **Updating respiratory support settings** either one patient at a time or in batch form via the **Respiratory Support** option under the **Procedures Menu**.

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- **Updating fluid management information**, typically before rounds or shift check-outs.
- **Printing Report Sheets** when needed, typically before rounds or before shift check-outs.
- **Generating progress notes**.
- **Processing admissions and discharges** as they occur.

These functions can be performed to varying degrees and in various ways depending on the needs and inclinations of your NICU team. An important part of learning to use NeoData is developing the approaches which work best for your unit.

ORGANIZATION

Screen Layout

The NeoData screen is divided from top to bottom into 4 main areas:

Title Bar and Menu Bar

The **Title Bar** shows the program name and the **Menu Bar** displays the menu options defined for the program.

Button Bar

The **Button Bar**, located just below the Menu Bar, displays several sets of buttons and a panel showing the **currently selected patient admission**. The button groups include:

- The **Exit** button.
- A [Data Entry Mode](#) selection box
- The **Shortcuts** button.
- The **Insert** button (if the **Show Insert Button In Button Bar** configuration option is turned on).
- The **Macros** button (if the **Show Macros Button In Button Bar** configuration option is turned on).

The **Shortcuts** button displays a menu which lets you quickly performs various functions.

Data Entry Forms

The largest part of the NeoData screen is used to display, at any one time, either the [Select Patient Form](#) or one of the [Data Entry Forms](#). Along the left edge of the screen is the **Forms List**, which is used to select the desired form. The Select Patient Form is initially displayed when the program first starts.

Text/Lab Display Panel

The **Text/Lab Display Panel** is located at the bottom of the screen, and is used to display one of several types of information, depending on the **Display Mode** setting:

- Basic **patient information** (Display Mode set to **Off**).
- **Document text** as it will appear in a summary or progress note for the currently active **field group** (Display Mode set to **Text**).
- **Lab Results** (Display Mode set to one of the 6 lab settings).

The Display Mode may be set by selecting an option from the **Function** selection box to the right of the Display Panel.

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Organization of Forms

To allow efficient navigation, the NeoData data **fields** are organized into a system of **forms**. The data entry forms (see below) occupy most of width of the screen and extend vertically from the **Button Bar** to the **Text/Lab Display Panel**. When NeoData starts, the **Select Patient Form** is displayed.

Select Patient Form

Most operations in NeoData begin with the selection of a **patient admission** on which to work; this selection is performed using the **Select Patient Form**. Patient admissions may be selected in one of 2 ways:

- By selecting a patient from the [Current Patient List](#).
- By using the [Patient Search](#) feature to find a desired patient admission, either current or past.

Data Entry Forms

In addition to the **Select Patient Form**, there are 15 **Data Entry Forms** (unless forms have been added or removed). These may be displayed by clicking the respective entry in the **Forms List** along the left side of the screen. The default forms are listed here:

- **Preg:** Pregnancy Information Form
- **Birth:** Birth Information Form
- **Admit:** Admission Information Form
- **Exam:** Physical Exam Form
- **Resp:** Respiratory Support Form
- **Fluids:** Daily Fluids Form
- **Daily:** Other Daily Information Form
- **Track:** Tracking Information Form
- **Diags:** Problems and Diagnoses Form
- **XRy:** Radiology Studies Form
- **Lab1:** Lab Results 1 Form
- **Lab2:** Lab Results 2 Form
- **Disch:** Discharge Information Form
- **Dsumm:** Discharge Summary Form
- **Other:** Other Patient Information Form

All the forms from the **Physical Exam Form** through the **Lab Results 2 Form** are referred to as [Daily Information Forms](#). Because NeoData keeps track of this information on a daily basis, it is possible to refer back to any previous day's information during a given admission.

Current Patient List

The **Current Patient List** is displayed in the **Patient List data grid** located on the **Select Patient Form**. This is an **ordered** list of all the patients currently admitted to the NICU. You may maintain the list in any order which suits your needs. The list order determines the sequence of patients in the **Report Sheets**; otherwise it is not of major importance.

When a patient is first admitted, the program adds an entry for the new admission to the end of the list. You may reorganize patients in the list at any time. When a patient is discharged, you should remove the patient from the list. At the top of the Patient List data grid there are several buttons which allow you to perform the necessary functions.

Insert

On occasion, you may need to restore a patient to the Current Patient List after the patient has been removed from list. The **Insert** button is only visible if the Patient List is showing the results of a [Patient Search](#).

To insert a patient into the Current Patient List:

1. Select an admission using the **Patient Search** feature.
2. Highlight the desired admission.
3. Click the **Insert** button. The admission will be added to the end of the Current Patient List.

Move

The **Move** button displays a dialog box which asks for the bed number of the patient entry to be moved and the bed number to move it to. You can also use **Drag and Drop** to move a patient from one position to another within the Current Patient List.

Remove

You may remove a patient from the list by highlighting the appropriate entry and clicking the **Remove** button. **This operation does not delete any patient information from the database**; it simply removes the entry from the **Current Patient List**. The patient admission can always be found using the [Patient Search](#) feature, and can be reinserted into the list if necessary.

Refresh

The **Refresh** button reloads the Patient List from the database file and, if the Current Patients are showing, renumbers the list sequentially. This feature should be needed only infrequently, when you think that the list might have become corrupted or the bed numbers have gotten out of order. The list is automatically refreshed every few minutes.

Other

The Other button displays a pop-up menu with the following options:

- **Print:** The Print option will create a printout of the information in the grid.
- **Sort Alphabetically:** The Sort Alphabetically option causes the Current Patient List to be sorted alphabetically by **Last Name**.
- **Sort By Service:** The Sort By Service option causes the Current Patient List to be sorted by **Service**. This option is available only if the **Multiple Services** feature is turned on (see below).

Patient Search

NeoData allows you to work with data for only one patient at a time. You will usually be working with current inpatients, but at times you will need to refer to information on discharged patients. The **Patient Search** fields on the right side of the **Select Patient Form** allows you to select patient admissions which may no longer be in the [Current Patient List](#).

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To search for a patient admission:

1. In the **Patient Search** fields, enter one or more items of information that match the admission you are searching for. The **Last Name**, **First Name**, **Med Rec ID**, and **Admission ID** fields will accept partial matches (e.g., "Sm" in the **Last Name** field will match all patients whose last name begins with "Sm").
2. To search for patients born, admitted, or discharged on a specific date, enter the date in the respective field and leave the associated **To** field blank. To search for a range of dates, enter the starting date in the respective field and the ending date in the associated **To** field.
3. If you wish to restrict your search to **multiple births**, **readmissions**, and/or **current inpatients**, turn on the respective checkbox. If you use the **Current Inpatients** checkbox, you can also enter a date to find inpatients for a prior date.
4. Click the **Search** button. All patient admissions matching the information you have entered will be displayed in the Patient List.

Note: If you leave all the search criteria blank, you will get a list of **all** patients in the database.

The **Clear** button will blank out all the search fields and will redisplay the Current Patient List.

Organization of Fields

Fields and Field Groups

On each form, **data entry fields** are organized into **field groups**. A field group is either a **data grid** or a group of text boxes enclosed in a **data frame**.

You may move forward or backward between fields with the **<Tab>** and **<Shift-Tab>** keys, and forward or backward between field groups with the **<Shift-F6>** and **<Shift-F5>** keys.

Text Fields

Text fields are always ready for data input. Simply navigate to the field and begin typing.

Data Grids

When you navigate to a data grid, it will initially be in **navigation mode**. In navigation mode, the horizontal cursor keys (**<Left>**, **<Right>**, etc.) move the active grid cell left or right. Any of the following actions will cause either the grid cell to enter **edit mode**:

- **Click** on the cell.
- Press the **<F2>** key.
- Press the **<Backspace>** key (one character will be deleted).
- Press the **<Ctrl-D>** key (the field will be blanked out).
- Begin typing any other characters (the characters will be added to the current field entry).

Popup Field Descriptions

If you leave the **mouse pointer** over a data entry field for a few moments, a **popup field description** will be displayed. This text will disappear as soon as the mouse pointer is moved. The text used is the field's **Description** property, which can be set in the **Field Parameters Form**.

Navigation

Various menu, mouse, and keyboard commands are available to navigate among NeoData's **forms**, **field groups**, and **fields**.

Forms and Index Tabs

- A form may be selected by clicking on its respective entry in the Forms List.
- The **<Shift-F5>** and **<Shift-F6>** keys move backward or forward between forms.
- The **<Esc>** key will return you from any of the **Data Entry Forms** to the **Select Patient Form**.
- The **<Enter>** key will take you from the **Select Patient Form** to the most recently used **Data Entry Form**.
- The **<F7>** and **<F8>** keys move to the previous or next patient in the [Current Patient List](#).

Field Groups

- You can move to a given field group by clicking on any text box or grid cell within the group.
- The **<F5>** and **<F6>** keys cycle backward or forward between field groups.

Fields

- The **<Tab>** key moves from one field to the next.
- The **<Shift-Tab>** key moves from a field to the previous field.

Data Grids

- The **<Left>**, **<Right>**, **<Home>**, and **<End>** keys move the cursor left or right **within the grid cell** when the grid is in edit mode.
- The **<Left>**, **<Right>**, **<Home>**, and **<End>** keys move the grid highlight left or right **between cells** when the grid is **not** in edit mode.
- The **<Up>**, **<Down>**, **<PgUp>**, **<PgDn>** keys move the grid highlight up or down **between rows** whether or not the grid is in edit mode.

Daily Information Forms

Daily information refers to the data items which need to be recorded on a daily basis. The forms which contain these data fields are referred to as **Daily Information Forms**. These include:

- **Physical Exam Form**
- **Respiratory Support Form**
- **Daily Fluids Form**
- **Other Daily Information Form**
- **Tracking Information Form**
- **Problems and Diagnoses Form**
- **Radiology Studies Form**
- **Lab Results 1 Form**

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- **Lab Results 2 Form**

Note that **only** the **text fields** on these forms are daily information fields; data such as **Blood Gases** and **IV Fluids** are entered on an item-by-item basis in separate data grids. However, **all** the data on these forms, including those in the data grids, will change to reflect the **currently selected date** (see below) when you step back through the previous days' information.

Currently Selected Date

When viewing one of these forms, you may refer back to any day during the currently selected patient admission. The **Date Panel** on the **Button Bar** displays the **currently selected date** for the daily information; if you are viewing the current day, it is displayed in blue; if you are viewing a previous day, it is displayed in red. Daily information for prior days should not be changed unless you are correcting a known error.

To move backward or forward in time:

- Click the **Date** button on the Date Panel or press the **<Shift-F9>** key to jump to a specific date.
- Click the  button on the Date Panel or press the **<Shift-F7>** key to move back one day.
- Click the  button on the Date Panel or press the **<Shift-F8>** key to move forward one day.
- Click the  button on the Date Panel or press the **<Ctrl-F7>** key to move to the first day of the current admission.
- Click the  button on the Date Panel or press the **<Ctrl-F8>** key to move to the last day of the current admission.

If no daily information data record exists for a given day, you may create one by clicking the **Date** button and entering the desired date. If the date is not found, the program will ask if you would like to create one.

Cloning Daily Information

Cloning is the process by which a new progress note (i.e., **Daily Information**) is created for one or more patients for a new day or for a prior date. Cloning for a given patient may occur in one of several ways:

- Data for all patients in the **Current Patient List** may be cloned for the new day in a single **batch** operation. This operation is invoked from the **Clone Submenu** with the **Procedures | Clone | Clone All Patients** option, and is typically performed just after midnight.
- Data for an individual patient may be cloned for the new day. This operation is invoked from the **Clone Submenu** with the **Procedures | Clone | Clone Current Patient** option.
- Data for an individual patient may be cloned for a **prior date**. This operation is invoked from the **Clone Submenu** with the **Procedures | Clone | Clone Prior Date** option, and is intended primarily to fill in missing patient information.
- If the **Manual Clone Only** configuration option is turned **off**, cloning of data for a specific patient will occur when one of the patient's **Daily Information Forms** is displayed for the first time on a given day.

Copying Daily Information from Day to Day

The **Daily Information** involved in the cloning process includes the following groups of data items:

- Daily measurements

- Vital signs
- Physical exam
- Respiratory support settings
- Apnea and bradycardia incidence
- IV lipids
- Feedings
- NaCl and KCl supplements
- Other fluid information
- Other daily information
- Tracking information
- Discharge planning
- The **Status**, **Comments**, and **Plans** text fields associated with problems and diagnoses

These items correspond to specific **field groups** on the Daily Information Forms. Whenever a new progress note is created for a given patient, some of the field entries are copied, or **cloned**, from the previous day's data record (if any). By default, the following field groups are cloned:

- Daily measurements
- Physical exam
- The most recent apnea and bradycardia episodes
- Respiratory support settings
- Other fluid information
- Other daily information
- Tracking information
- Discharge planning
- Diagnosis-related text fields

Any of the other groups may be cloned if desired; these features are controlled by configuration options found on the **General Configuration Form**.

Daily measurements are always cloned, but in a specific manner. If a weight is present for the previous day, its value is copied to the **Prev Weight** field in the new data record. The new daily **Weight**, **Length**, and **Head Circ** fields are left blank.

DATA ENTRY

Data Types

The **data type** of a field is the type of information which the field will accept; a given field will accept only one type of data. The various data types are listed here.

Text Fields

Text fields accept any text input. They can be either **single-line** or **multi-line**.

- **Single-line text fields** typically are limited to between 2 and 50 characters; they will scroll horizontally as necessary.
- **Multi-line text fields** can hold more lines of text than can be displayed at one time, and will scroll vertically as necessary.

List Fields

List fields are similar to text fields in that they accept text input, but they have a **drop-down list** associated with them. This list appears whenever the given field is active. You may type directly into the field's text box, or you may select an entry (or multiple entries, in the case of **multi-line** list fields) from the list. For further information, see the [List Fields](#) topic.

Numeric Fields

Numeric fields may be either **integer** or **decimal**; integer fields will not accept a decimal point. Most decimal fields will accept a limited number (typically from 1 to 3) numerals after the decimal point.

Note: Lab results of **zero** should be entered as zero and should not be left blank.

Date Fields

Date fields will display dates in the format specified by the workstation's Windows configuration (**month/day/year**, **day/month/year**, etc.).

The current date can be entered with the **<Shift-D>** key. The date may be incremented or decremented by one day with the **<Plus>** (**<+>**) or **<Minus>** (**<->**) keys.

Time Fields

Time fields will display times in **military** format (hhmm).

The current time can be entered with the **<Shift-T>** key. The time may be incremented or decremented by one hour with the **<Plus>** (**<+>**) or **<Minus>** (**<->**) keys.

Yes/No Fields

Yes/No fields will accept only values **'Yes'** or **'No'**. These values can be entered with the **<Y>** or **<N>** keys. You can also toggle between 'Yes' and 'No' with the **<Space>** key.

List Fields

List fields are used extensively throughout the NeoData program. The list associated with a list field is displayed in a **list box** directly above or below the field's text box. The lists themselves may be customized by the **System Administrator** to adapt the program to your institution's needs.

A list field's text box will accept one or more lines of text, referred to as **field entries**. The field's list box displays the **list entries** available for transfer to the text box.

Scrolling the List

If the entire list cannot be displayed at one time, a **scroll bar** will be displayed at the right of the list box. The list can be scrolled by clicking on the scroll bar.

The **highlighted list selection** may be changed by clicking on the desired list entry, or it may be scrolled using any of the following keys:

- **<Ctrl-Up>** Moves the list's highlight bar up one entry.
- **<Ctrl-Down>** Moves the list's highlight bar down one entry.
- **<Ctrl-PgUp>** Moves the list's highlight bar up one screenfull.
- **<Ctrl-PgDn>** Moves the list's highlight bar down one screenfull.
- **<Ctrl-Home>** Moves the list's highlight bar to the first entry in the list.
- **<Ctrl-End>** Moves the list's highlight bar to the last entry in the list.

List Field Types

A given list field is linked to its associated list in one of 3 ways, corresponding to the **RestrictToList** setting for the field:

- **No:** Any text string may be entered into the field; field entries are **not** required to match a list entry.
- **Warn:** Any text string may be entered, but the program will **warn** you if your field entry does not match any list entry.
- **Yes:** A field entry **must** match a list entry; the program will not accept an entry which does not have a match in the list.

In addition, list fields may be **single-line** or **multi-line**. Single-line fields accept only one entry, while multi-line fields accept multiple entries, each on a separate line. Lines (entries) must be separated by **line breaks**, which are entered by pressing the **<Enter>** key.

List Field Data Entry

- In **multi-line list fields**, any number of phrases may be entered; the text box will scroll down as needed. Most fields are limited to either 255 or approximately 32000 characters.
- A list entry may be transferred to the field's text box by **double-clicking** on the list entry or by pressing the **<Ctrl-Enter>** key when the desired list entry is highlighted.
- List fields have an **AutoExpand** feature. If you type a **partial** field entry and then move to another line or field, the program will find the first match in the list and will replace the partial field entry with the full list entry.

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- If you **double-click** on a field entry, the entire entry will be **selected** (highlighted), and can be quickly deleted with the **<Delete>** key. Similarly, if you press **<Ctrl-Delete>**, the current field entry will be selected.
- Certain list entries, primarily those associated with the **Physical Exam** and **Plans** data fields, allow you to add modifiers to the basic word or phrase in the list. This is accomplished via a small **Phrase Builder** dialog box which pops up automatically when you select one of these entries from a list.

Note: that the **Phrase Builder** feature is invoked only when you insert a new field entry from the list by double-clicking on a list entry or by pressing the **<Ctrl-Enter>** key. When a partial field entry is expanded by the **AutoExpand** feature, the **Phrase Builder** feature is **not** invoked.

- To allow correct grammatical construction of sentences in documents, it is important that the correct **parts of speech** be entered as phrases in list fields. For a discussion of the grammatical usage of list fields, see the **Parts of Speech** topic.

Hiding The List

Since in some cases the list of an active list field can cover other information on the screen, you can hide the list in one of two ways:

- The **<Alt-Up>** and **<Alt-Down>** key combinations will toggle the list on and off **for the active field only**.
- Clicking anywhere on the **background** of the active field's **field group** will toggle the list off **temporarily**. If you click on or type into the field, or if you move to a different list field, the list will reappear. If you click on the background a second time, the list will also reappear.

Data Entry Mode

In some cases, the program needs to behave differently depending on whether you are preparing an admission summary, a progress note, or a discharge summary. So that the program knows which task you are performing, you should set the **Data Entry Mode** appropriately. This is **particularly** important when entering a newly admitted patient. The current Data Entry Mode can be set from the **View Menu** or by using Data Entry Mode **selection box** on the **Button Bar**.

There are 4 **Standard** data entry modes:

- **All Forms:** The program assumes a **progress note** is being prepared.
- **Progress Note:** The program assumes a **progress note** is being prepared.
- **Admission:** The program assumes an **admission summary** is being prepared.
- **Discharge:** The program assumes a **discharge summary** is being prepared.

Some **Data Entry Forms** are **hidden** when a given data entry mode is selected (with the exception of the All Forms mode). In addition to the 4 Standard modes, you may define up to 4 **Custom** modes. See the **Data Entry Modes** section of the General Configuration Form for these settings.

Note: The **Data Entry Mode** setting has no effect on printing of documents; any document will print correctly regardless of the setting.

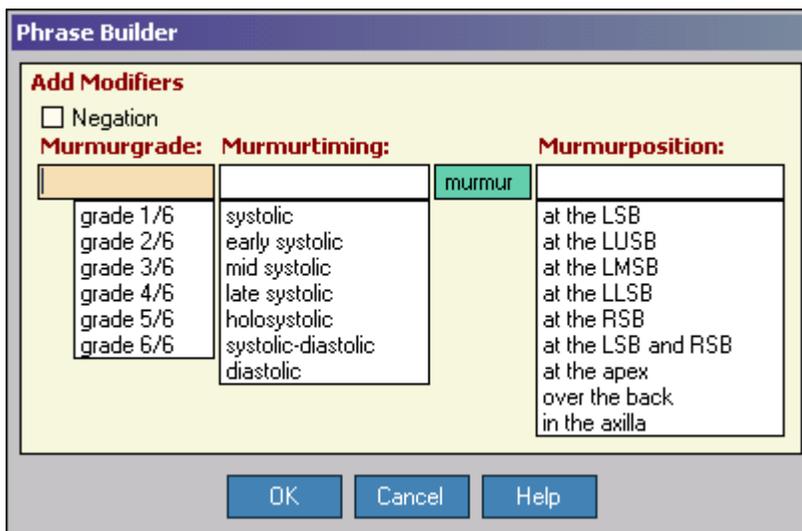
Phrase Builder

List fields are one of the major NeoData **data types** and are used extensively in many of the **Data Entry Forms**. A list pops up directly above or below the field's text box when you move to that field, allowing you to select a word or phrase from the list rather than having to type it.

List Entries with Modifiers

Lists entries can be as short as single words or as long as complex phrases. Some lists are potentially quite long, as in the case of the lists for physical findings or for Xray descriptions. Such lists can become unmanageable if each possible variation of a basic term is included ('mildly decreased air exchange', 'moderately decreased air exchange', etc.). To keep these lists of reasonable length so that you can find a desired entry more quickly, NeoData allows **modifiers** to be invisibly embedded within the basic list entry. When such an entry is selected from a list, these modifiers can be added to the phrase in a second step, using the **Phrase Builder** dialog box.

When a list entry with one or more associated modifiers is selected from a list, the **Phrase Builder** dialog box will pop up:



In this example, the primary list (**Respiratory Physical Findings**) includes the entry '**air exchange**'. Embedded within this list entry are modifiers for severity, quality of breath sounds, and side. In the Phrase Builder, a text box is displayed for each modifier along with its associated list. You may select a modifier entry from each of the modifier lists displayed, and these modifiers will automatically replace their respective labels.

To use the Phrase Builder:

1. Select an entry from a list. If the list includes modifiers, the Phrase Builder will pop up.
2. Select any appropriate modifiers from the modifier list or lists. You may select from all, some, or none of the modifier lists. To change the modifier, simply select another entry from the respective list.
3. If appropriate, turn on the **Negation** checkbox to convert the phrase to a negative (e.g., '**no infiltrates**').
4. Press the **<Enter>** key or click the **OK** button. The **Phrase Builder** dialog box will disappear and your phrase will be inserted in the field's text box.
5. If desired, edit the phrase manually.

HOW TO

New Patient

The first step in processing a new admission is to enter the primary identifying information for the patient and the admission. This is done with the **New Patient Form**.

To create a new patient:

1. Select the **New Patient** option from the **Procedures** menu. This will display the **New Patient Form**.
2. Fill in the requested information. All items are required except for the **First Name**.
3. If the patient is the product of a **multiple birth**, fill in the appropriate letter (A, B, etc.) in the **Twin** field. Otherwise, leave the **Twin** field blank.
4. Leave the **Add to Current Patient List** checkbox turned on unless you **do not** want the admission inserted into the [Current Patient List](#).
5. Click the **OK** button.

The program will check your entries and ask you to confirm that the information is correct. If it is, the program will add the patient/admission information to the data file and return you to the [Select Patient Form](#) with the new admission identified as the **currently selected patient admission**.

To abort the procedure, click the **Cancel** button. To display Help information, click the **Help** button.

Readmissions

If a patient has been discharged from your NICU and is now being readmitted, it is **crucial** that you identify this as a readmission; otherwise, the program will not be able to link together information from all admissions for the given patient. You **must** use the [Readmission Form](#) instead of the New Patient Form; see that topic for further information.

Changing Admission Information

With the exception of the **First Name** field, the information entered in the **New Patient Form** cannot normally be altered from any of the **Data Entry Forms**. NeoData is designed this way intentionally to prevent accidental changes to critical identifying data. These data items may be explicitly changed, however, by selecting the **Change Admission Information** option from the **Procedures Menu**.

Readmission

A readmission is a new admission for a patient who has previously been admitted to and discharged from your NICU one or more times. It is **crucial** that you identify the new admission as a readmission; otherwise, the program will not be able to link together information from all admissions for the given patient.

To create a readmission:

1. Select the **Readmission** option from the **Procedures Menu**. This will display the **Readmission Form**.

2. In the **New Admission** section, fill in the **admission-specific identifier** and the **Admit Date** for the **new** admission.
3. In the **Prior Admission** section, enter **either** the **patient identifier** for the patient **or** the **admission-specific identifier** for the **most recent previous admission**.
4. Leave the **Add to Current Patient List** checkbox turned on unless you **do not** want the admission inserted into the [Current Patient List](#).
5. Click the **OK** button.

The program will confirm that the previous patient identifiers are in the database and will retrieve the patient's name, sex, twin letter, and birth date. Consequently, you are only **required** to enter the new Admission ID and Admission Date. If the baby's name has changed, enter the new last name. The program will recognize the difference and will ask for further instructions as to how to process the **name change**.

Admission Summaries

Admission is obviously the entry point into the NeoData system for a new patient. For data entry purposes, the program is designed to handle a patient admission in the sequence shown below.

To create an admission summary for a new admission:

1. Create a [New Patient](#) or a [Readmission](#).
2. Set the [Data Entry Mode](#) to **Admission**.
3. Enter the maternal information into the **Pregnancy Information Form**.
4. Cycle through the remaining active **Data Entry Forms** from **Birth Information** to **Lab Results 1 & 2**, entering all appropriate information as you do so (you may move through the forms in any order).
5. Enter the admission diagnoses and all related information into the **Problems and Diagnoses Form**.
6. Print the admission summary by selecting the **File | Print | Admission Summary** menu option from the **Print Submenu** or by clicking on the **Shortcuts** button on the **Button Bar** and selecting **Print Admission Summary**.

Note: The **Data Entry Mode** does not have to be set to **Admission** just to print an admission summary.

Late-Night Admissions

Setting the **Data Entry Mode** to **Admission** when entering admission information is particularly important when admitting a patient close to midnight. If **Data Entry Mode** is set appropriately, the **currently selected date** for the [Daily Information Forms](#) will always be the currently selected patient's admission date, even if you are still entering data after midnight and the new patient's daily information has been [cloned](#). If not, you might fill in part of one or more Daily Information Forms for the admission, clone the patient's data, and enter the remainder of the admission daily information under the wrong day.

Also, when **Data Entry Mode** is set to **Admission**, all newly created **diagnoses, medications, and procedures** in the **Problems and Diagnoses Form** will be assigned a **Start Date** equal to the currently select patient's admission date.

Quick Start Guide

Progress Notes

Generating progress notes and tracking patient information within NeoData are processes which are closely interrelated. Data entry is ideally performed not just when you want to print a note, but throughout the day and night as lab results become available, respiratory support parameters are adjusted, fluid orders change, and thoughts about diagnoses are revised.

To create a progress note:

1. If not already done, [clone](#) the patient for the current day.
2. Set the [Data Entry Mode](#) to **Progress Note**.
3. Examine your patient and collect all charts and other information you may need.
4. Cycle through the active **Data Entry Forms** from **Physical Exam** to **Lab Results 1 & 2**, entering and updating all appropriate information as you do so.
5. Enter your plans for the new fluid orders in the **Daily Fluids Form** and the **Other Daily Information Form**. Print the **Fluids Orders** sheet if desired by clicking the **Print Orders** button on the **Daily Fluids Form**.
6. Update any pertinent data on the **Tracking Information Form**.
7. Step through each current problem and diagnosis on the **Problems and Diagnoses Form** and review carefully the status of each and all related information including comments, plans, medications and procedures. Resolve old problems and create new ones as needed.
8. Print the progress note by selecting the **File | Print | Progress Note** menu option from the **Print Submenu**, or by clicking on the **Shortcuts** button on the **Button Bar** and selecting **Print Progress Note**.

Note: The **Data Entry Mode** does not have to be set to **Progress Note** just to print a progress note.

Discharge Summaries

Discharge is the time to complete and review information for the entire patient admission. For data entry purposes, the program is designed to handle a patient discharge in the sequence shown below.

To create a discharge summary:

1. Set the [Data Entry Mode](#) to **Discharge**.
2. Cycle through the active **Data Entry Forms**, reviewing and correcting all previously entered information (you may move through the forms in any order, but they have been arranged in as logical an order as possible).
3. Carefully review the Diagnoses, Medications, and Procedures lists on the **Problems and Diagnoses Form**. You may wish to revise some of the diagnoses, add medications or procedures which were never entered, delete information such as duplicate problem entries, or combine groups of entries into single entries.
4. On the **Discharge Information Form**, fill in the **Discharge Type** and **Discharge Date** fields.
5. On the **Discharge Information Form** or the **Discharge Summary Form**, click the **Extract** button to generate summary information (the button on both forms performs the same operation).
6. Fill in the remaining information on the **Discharge Information Form**.
7. Carefully review and edit the tracking and summary data on the **Discharge Summary Form**.

8. Print the discharge summary by selecting the **File | Print | Discharge Summary** menu option from the **Print Submenu**, or by clicking on the **Shortcuts** button on the **Button Bar** and selecting **Print Discharge Summary**.

Note: The **Data Entry Mode** does not have to be set to **Discharge** just to print a discharge summary.

Interim Summaries

If you attempt to print a discharge summary when no discharge date has been entered, you will be given the option of printing an **Interim Summary**.

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