

# **InSight**

## **Graphical User Interface**

### **Design Guidelines**

June 2001

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## **1.0 Introduction**

This standard is designed to assist software programmers in creating a graphically unique and consistent interface for the InSight Program. It follows recognized Java look and feel standards and uses themes to create a unique program 'flavor'. All conventions described in this standard are based on the standards described in the book: Java Look and Feel Design Guidelines(JLFDG), from Sun Microsystems.

Where the finer details of the InSight design scheme are identical to those described in the Java look and feel book, references are made throughout this document to the appropriate pages or sections in the book, these references are shown in brackets like this: (Ref;P101), all other references are made to other sections in this document.

### **1.1 Dimension Information**

All graphical elements and layout information are measured in pixels, all typographic elements are measured in points. One pixel and one point are both equal to 1/72”

## **2.0 General Guidelines**

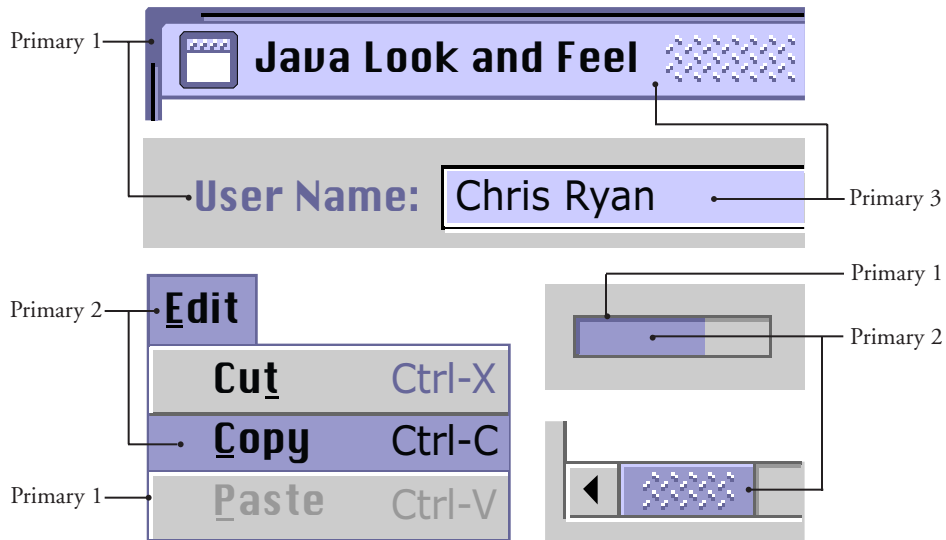
### **2.1 The Display Grid**

The InSight interface uses a standard perceived 6 x 6 pixel display grid for laying out all elements. The actual distance will be set at either 5 or 6 pixels depending on the colour of the elements edges. Elements that have a highlighted edge will have an increased perceived distance between it and the adjacent element and will therefore need only a 5 pixel space ( Ref: Between-Component Padding and Spacing Guidelines, page 48, and specific spacing details on pages 143, 151, 156 and 154 ).

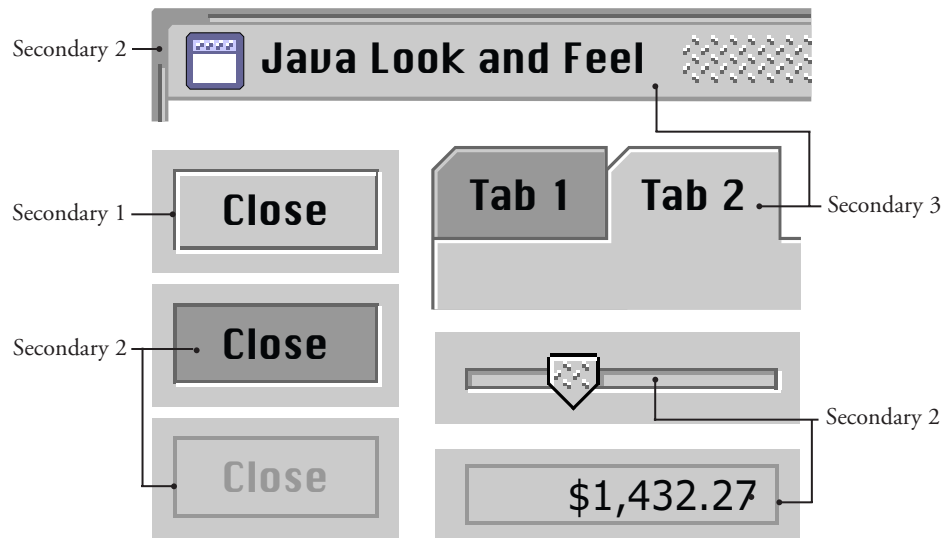
### 3.0 Color

The InSight interface uses the Java default colour theme. The specifications for the colors and their application in the program are described in this section ( Ref: Colors page 40 - 43 ).









#### 3.1 Primary Colors And Their Application



#### 3.2 Secondary Colors And Their Application



### 3.3 Color Specs And Where The Colors Are Used

	Name	Basic Drawing	3D Effect	Text
	Primary 1 RGB 51-102-153 Hex #336699	Active window borders	Shadows of selected elements	System text (e.g. labels)
	Primary 2 RGB 102/153/204 Hex #6699CC	Highlighting and selection (e.g. of menu titles and menu items); indication of keyboard focus	Shadows (colour)	
	Primary 3 RGB 153/204/255 Hex #99CCFF	Large colored areas (e.g. the active title bar)		Text selection
	Secondary 1 RGB 102-102-102 Hex #666666		Dark border for flush 3D style	
	Secondary 2 RGB 153-153-153 Hex #999999	Inactive window borders	Shadows; button mousedown menu items or labels)	Dimmed text (e.g. inactive)
	Secondary 3 RGB 204-204-204 Hex #CCCCCC	Canvas colour (that is, normal background colour); inactive title bar		
	Black RGB 000-000-000 Hex #000000			User text and control text ( incl. items such as menu titles
	White RGB 255-255-255 Hex #FFFFFF		Highlights	Background for user text area

## 4.0 Text

There are some issues that should be considered with regards to fonts and font sets. The JLFDG describes default font styles (Ref; P45 )that will automatically be applied to the host system's default font in order to maintain consistency and readability in the different situations where text is displayed. Themes can be used to redefine font typefaces, sizes, and styles that override the host system's default fonts and styles. Applying such a theme would mean that Klocwork Solutions would always know how the text will look throughout the inSight program, however there may be compelling technical or practical reasons that the Design Team is unaware of for not doing this. The decision to apply a theme or not will have to be made by Klocwork Solutions. Should Klocwork Solutions decide to use a theme to customize the fonts and styles the following theme has been defined for inSight and has been used in all the window and dialog box examples in this document.

### 4.1 inSight Fonts and the Font Theme

All inSight fonts come from either the Verdana or Arial typeface families. Type styles and sizes are as follows:

Type Style	Default Theme	Uses
Control	12-point bold	Buttons, checkboxes, menu titles, primary and secondary window titles
Small	10-point plain	Keyboard shortcuts in menus, tool tips, list and nav.pane titles, tool drop downs.
System	12-point plain	Tree view, tool tips, dialog box text, menu items.
User	12-point plain	Text fields and tables

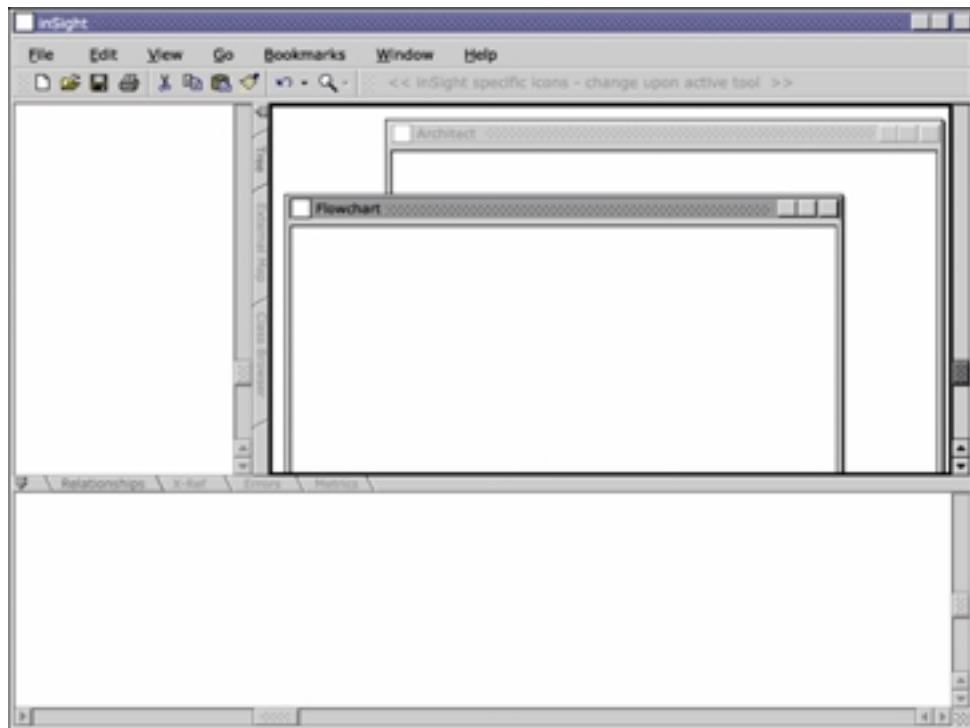
note: do not use Courier as display font, Verdana or Arial should be substituted

## 5.0 Graphical Elements - Windows

The windows use colour sparingly. Only the header bar on the tri-split window, dialogue boxes and tool palettes use the InSight primary colors(indicating that these windows belong to the InSight program), everything else except for the colour in standard icons is modeled in shades of gray or black. This leaves more scope for the use and recognition of colored elements inside the panes.

The windows have a drag texture styled specifically for the InSight program, it is based on a steel grid pattern and is intended to reflect the 'construction' or utility aspect of the program This is one of the primary visual cues that identifies the program, it is used to indicate places where graphic elements can be dragged using the cursor.

### 1. Tri-split window with the Architect/Flowchart pane active



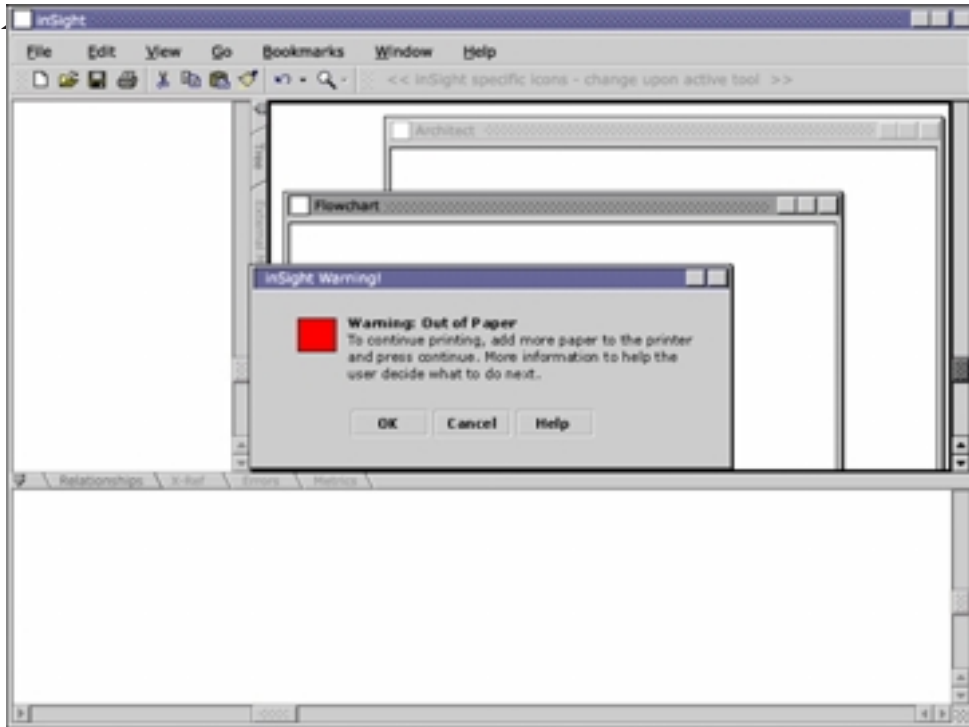
Within the tri-split window only one pane can be active at a time. The active pane is indicated by a strong black outline around the inside edge of the pane and full contrast graphic elements such as text and scroll handles etc.the other panes and their graphic tools are grayed out showing that they are unavailable. Graphics that are unavailable still convey certain information such as the last tab settings which can be identified by slightly darker text and enhanced tab modeling. When re-activating a tabbed pane, the last active tab will become active again.

## 5.1 Size Standards for Windows

Interface: maximized upon opening regardless of screen size

Nav pane: default 200 pixels wide upon opening

List pane: default 200 pixels tall upon opening



## 6.0 Graphical Elements - Dialog Boxes

The following details describe the standards that should be used for inSight (Refer to chapter 8: Dialog Boxes.).

InSight should use standard JLF alert dialogs (Ref:P.122) . These will be easy to implement and have been considered in the design of the rest of the dialog boxes so that all dialogs have a similar look and feel. Small dialog boxes similar to alert boxes, (i.e. Find dialog box, or login dialog box) and progress bars etc. can be built using the guidelines in this document.

This document provides a system for constructing larger dialog boxes that may contain many elements and notes situations where deviation from the preferred standards might occur and how to handle those situations.

The design grid and the construction system are tools that set goals and guidelines, technicians building dialogs should make every effort to work within those guidelines. If there is a layout situation that does not appear to be covered by these guidelines the technician must use good judgment to adapt the intent

### **General guidelines for dialog boxes**

- Dialog boxes should be built as secondary windows so that they use the platform's native window, this allows them to move outside the multiple document interface (MDI) of the tri-split window (Ref:P112).
- Always use the form "Application Name:Title" for the title in the title bar of the dialog box (see other basic principals that should be followed,(Ref:P 113)

## **6.1 The Design Grid**

A design grid helps to organize the elements in a dialog box and by using it a consistent look and feel will be maintained throughout the interface. The inSight design grid differs slightly from the standard grid described in the JLFDG,(Ref:P.49 and 50).

### **The outside border space**

The outside borders or margins (top, bottom, left and right spacing provided between the window frame and any element inside the dialog) for the inSight grid are the same as those described in the JLFDG(Ref;P115); 12pxls at the top and left border, and 11pxls actual(12pxls perceived) at the bottom and right border.

## **6.2 The Division of Horizontal Space**

### **Columns**

The division of horizontal space in the inSight grid is determined by the components that will be arranged in the dialog box. There are two types of components, titles, and elements, each have distinct rules for determining the column width and for the fixed amount of space between columns.

### **Titles and Title Columns**

Titles are used to identify an element or a group of elements. They are most frequently located in the first column of the dialog, but occasionally are located elsewhere where they identify a small group or subgroup of elements.

The basic rules for titles are:

- Titles are always set in a bold font (see fonts, section 4)
- Titles always use headline capitalization (Ref;P46 ).
- Titles are colored with the primary 1 colour (see colors, section 3.1)
- Titles are always aligned flush to the right side of the title column panel and they are always separated from the next column to the right by a space of 8pxls, this keeps the elements close to the title that they belong to.

If titles appear somewhere else in the dialog box other than the left hand column, they follow the same rules as elements, the title aligns flush right in the column to the left of the element that it identifies, being separated by the

element column space of 12pxls (see the Print dialog skeleton on page 11, 'Copies' section of the dialog)

- The default width of a title column, and the one which is preferred, is 70pxls. As often as possible try to make titles fit this width. The minimum width for a title column is 60pxls. Here are a couple of situations where the title column might be enlarged or shortened:

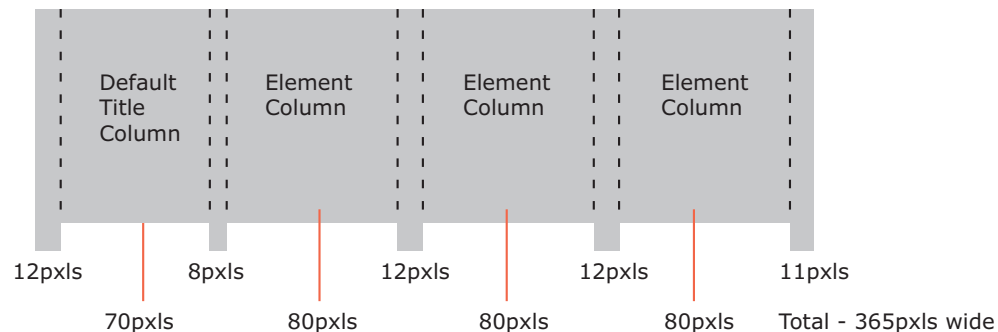
1/ If there is a row of very short titles (or the dialog contains only one short title) make the title column the minimum width, 60pxls.

2/ If there is a title (or a number of titles) that are just a few characters wider than 70pxls the column can be widened to accommodate the longest title, BUT a title should not get too long (more than 100pxls). If a title needs to be longer than the title column can accommodate it can run above a component but this is not advised, first consider shortening the title or dividing the title into a primary and secondary description, i.e. in the 'Dump to file' dialog currently used in the inSight program, 'Enter' is a title that can be applied to more than one of the dialog elements, it would be a primary title and would appear in a 60pxl title column. 'Path or folder name', and 'file name' would be secondary titles positioned in a component column adjacent to their graphic components.

### Elements and Element Columns

Elements are any components which are not titles. Checkboxes, radio buttons, and any other small graphic element and the name of that element are handled as a single graphic component, the graphic and the name will be spaced a standard 5 actual (6 perceived) pxls apart. The entire component (name and graphic) will be positioned flush left in an element column. Elements are arranged in columns determined by their size.

#### 3. Default and preferred columns and horizontal spacing.



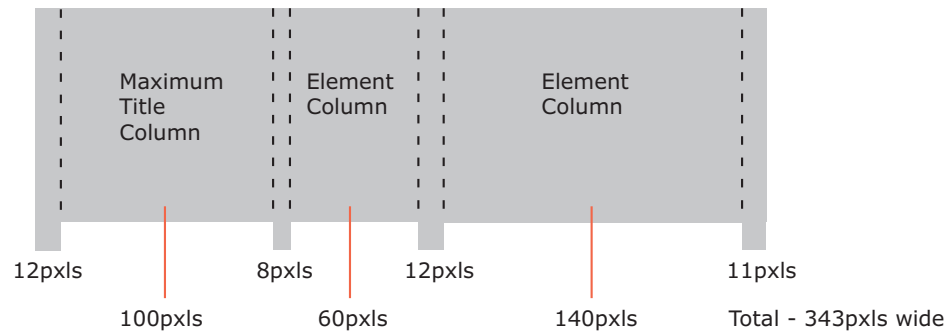
The basic rules for arranging elements are:

- Columns of elements are separated by a 12pxls space.
- Graphics (radio buttons etc.) and their names are always separated from each other by a 5 actual (6 perceived) pxl space. Each graphic and name unit is

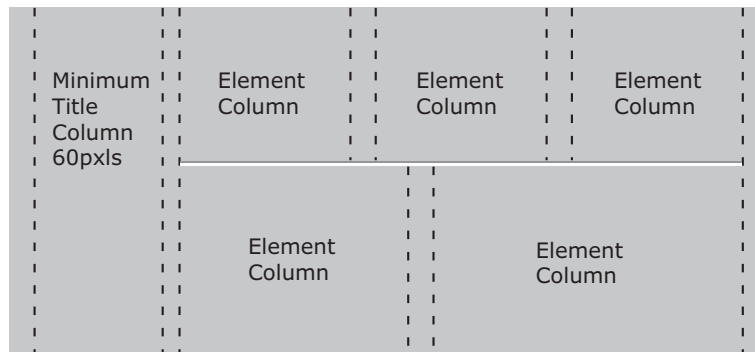
separated by a 12pxl space (see the Print dialog skeleton on page 11, the Print Range page number fields are separated by a 12pxl space).

- Try wherever possible to arrange elements in columns of the same width (see diagram 3, previous page) by either dividing the total width of the element columns into equal parts or by making all the columns the same width as the largest column (but only if the columns are similar in width). If the columns are very different widths then arrange the column widths to suite the elements (diagram 4. below).
- Element columns within one section of a dialog box may be different from the element columns in another section of a dialog box as long as the sections are separated by a section break graphic (diagram 5. below).

4. Column example 1



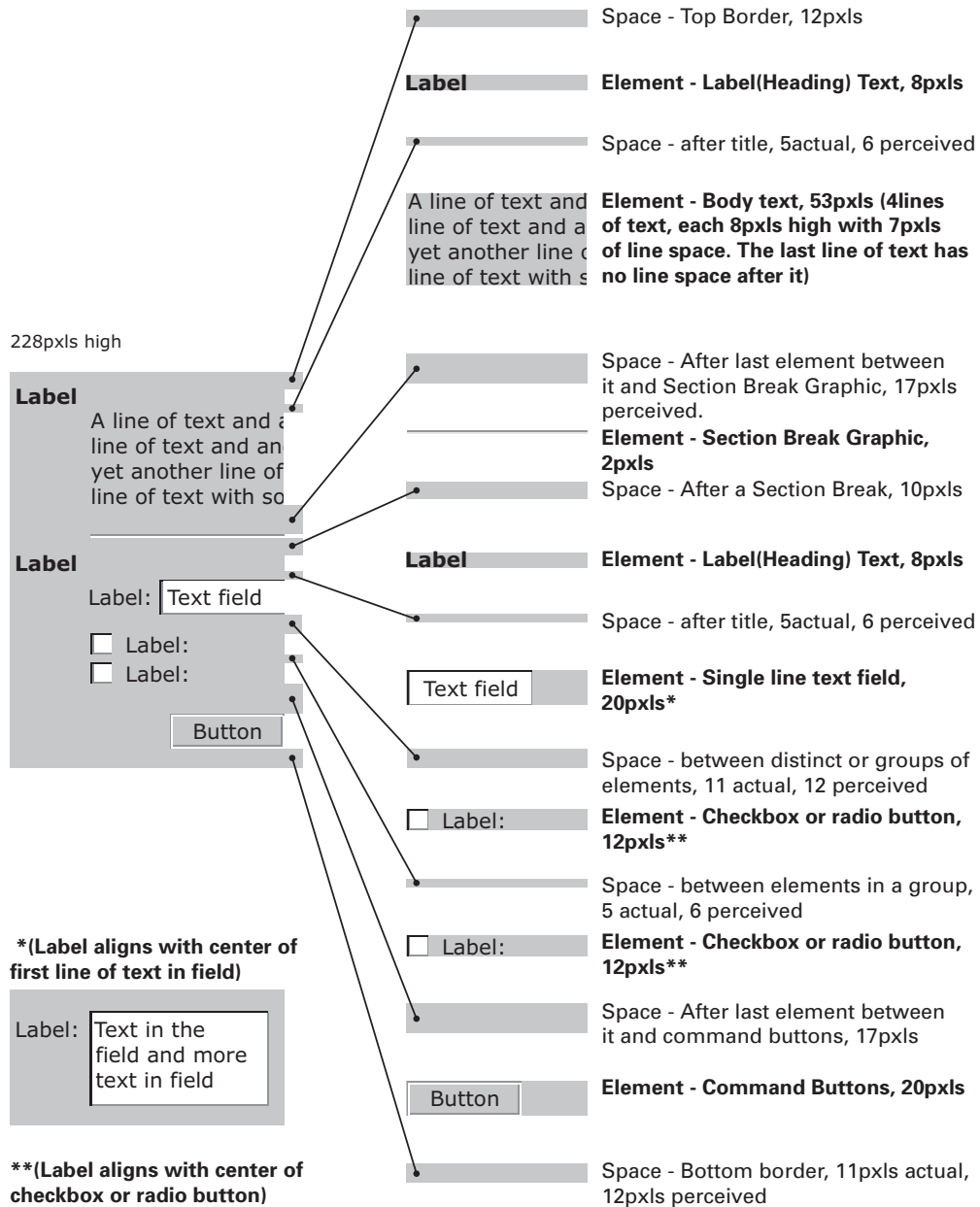
5. Column example 2



### 6.3 The Division of Vertical Space

Similar to the horizontal division of space in a dialog box, the vertical space is divided into horizontal sections. Sections contain either an element, or act as a spacer between elements. Element sections vary in size depending on the size of the element, space sections are always standard sizes determined by their located (see diagram 6. below).

#### 6. Exploded diagram of the division of vertical space



## 6.4 Examples of Common Dialogs

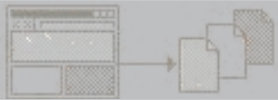
The following dialog box examples were built using the guidelines previously described. Construction was started at the top left corner and proceeded to the right and to the bottom, adjusting panel sizes as needed. Dialogs can also be built from the bottom up using the same method.

### Printer Dialog

The title column for this dialog was widened to accommodate the longest title; Print Frames. The column widths in the first two sections are the same, the column width in the third section has been adjusted to accommodate the radio button names.

#### 7. The Print dialog box


The screenshot shows a print dialog box with a light gray background and a vertical line separating the left and right columns. The sections are as follows:

- Printer:**
  - Name: [text input field]
  - Status:
  - Type:
  - Where:
  - Comment:
  - Print to file
- Print Range:**
  - All
  - Pages
  - Selection
  - from: [1] to: [1]
- Copies:**
  - No. [1]
  - [1] [1] [2] [2] (representing page ranges)
  - Collate
- Print Frames:**
  - 
  - Print all linked docs.
  - Print table of links
  - As laid out on screen
  - Only the selected frame
  - All frames individually

At the bottom right, there are three buttons: [OK], [Cancel], and [Print].

The following page, diagram 8 shows the graphic skeleton of the vertical and horizontal sections that make up the print dialog box above.

8. Print dialog skeleton

<b>Printer</b>		
Name:	<input type="text"/>	<input type="text"/>
Status:		
Type:		
Where:		
Comment:		<input type="checkbox"/> Print to file
<b>Print Range</b>		<b>Copies</b>
<input checked="" type="radio"/> All	<input type="text"/>	No. <input type="text" value="1"/>
<input type="radio"/> Pages	<input type="text"/>	<input type="text" value="1"/> <input type="text" value="2"/>
<input type="radio"/> Selection	<input type="text"/>	<input type="text" value="1"/> <input type="text" value="2"/>
from: <input type="text" value="1"/>	to: <input type="text" value="1"/>	<input type="checkbox"/> Collate
<b>Print Frames</b>		
		<input type="radio"/> As laid out on screen
<input type="checkbox"/> Print all linked docs.		<input type="radio"/> Only the selected frame
<input type="checkbox"/> Print table of links		<input checked="" type="radio"/> All frames individually
		<input type="text"/>
		<input type="text"/>
		<input type="text"/>

**Find Dialog**

The title column for the Find dialog was made narrower because the title is short, it was set at 60pxls (the minimum size). Note that the command buttons in this dialog line up flush left in the second column similar to the JLFDG default alert boxes (Ref:P.122, Alert boxes)

9. Find dialog

<b>Find:</b>	<input type="text"/>
<input type="checkbox"/> Find	<input type="checkbox"/> Find Next
<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>