



The IDE's Object Editor and Class Grid

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Topics

- What are the Object Editor and the Class Grid?
- When are they useful?
- How to create them?
- How to customize them?
- Tools like the class interface editor.

The examples come from

www.franz.com/support/documentation/current/doc/cg/cg-object-editor-and-class-grid.htm

The code is in

`<allegro-directory>/examples/cg/object-editors-and-class-grids.cl`



The object-editor and class-grid display class instances and slot values

- Created originally as an interface to AllegroCache databases (www.franz.com/products/allegrocache/) but can be used with any class
- We use the example of a set of medical patients



Here is the class-grid

We see slot names across the top and each row is an instance:

Class-Grid-Example								
	First Name	Family Name	Access	Birth Date	Unpaid Balance	Friendly?	Fave Color	Best Friend
1	Sarah	Somebody		1963/01/15	34.89	<input checked="" type="checkbox"/>	Blue	Anybody, Andy
2	Andy	Anybody		1971/03/02	.09	<input type="checkbox"/>	Yellow	Loom, Alice
3	Alice	Loom		1967/05/17	729.95	<input type="checkbox"/>	Blue	Nurble, Helen
4	Helen	Nurble		1959/04/29	8844.22	<input checked="" type="checkbox"/>	Red	Nurby, Bill
5	Bill	Nurby		1948/04/29	42000.03	<input checked="" type="checkbox"/>	Red	Piggledy, Higgledy
6	Higgledy	Piggledy		1968/06/12	123.45	<input type="checkbox"/>	Blue	Noof, Oof
7	Oof	Noof		1958/02/15	3600.00	<input type="checkbox"/>	Red	Somebody, Sarah



Here is the object-editor

We have the same slots as in the class-grid plus a prescriptions slot:

Test

First Previous Next Last Select Search

First Name Fave Color

Family Name Static Note

Access Best Friend

Birth Date Friend's Bday

Unpaid Balance

Friendly?

Prescriptions

	Medication	Num Refills	Drug Price	Drug Warnings
1	Dynamicine	0	299.00	May increase free time to kill.
2	Objectifin	0	29.95	Sometimes leads to modularity.
3	Franzeril	0	1.95	May give Bill Gates a headache.
4	Lispitol	1	23.89	Associated with computer addiction

Create Delete

Save Revert New Delete Commit Rollback



Both tools display instances of a class

- A selected subset of the slots are displayed
- The class-grid is simple and quick, but does not easily display complex slot values (such as class instances which themselves have multiple slots)
- The object-editor, by using widgets to display slot values, is more complicated and powerful
- Both tools can serve as user interfaces to data



The Class Interface Editor

- The Class Interface Editor is a dialog you can use when designing a form
- It works either with a Class Grid on a form or with an object-editor form
- It facilitates selecting the slots of interest and deciding how they will be displayed on the dialog associated with the form

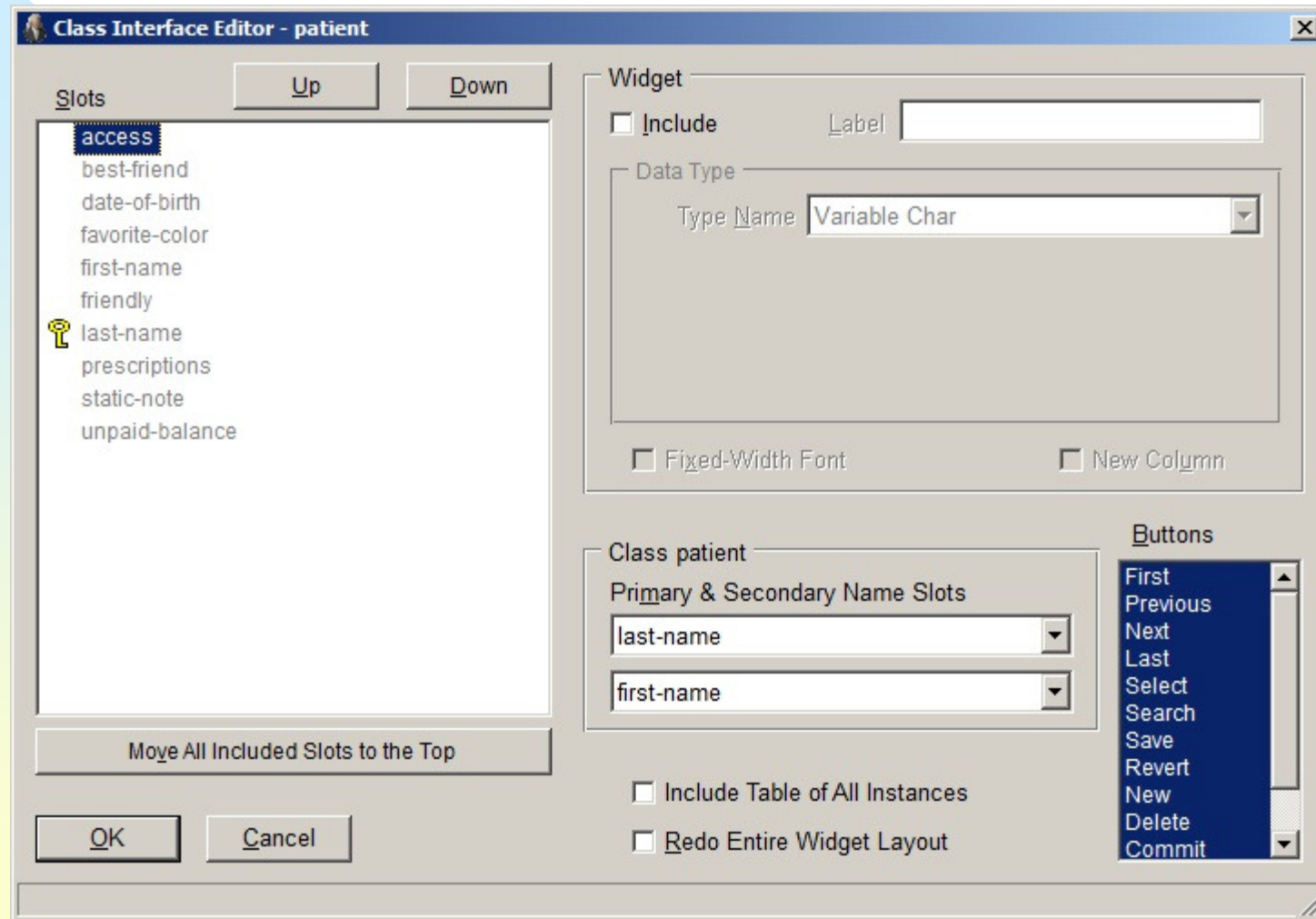


The Class Interface Editor works on forms in projects

- The project system is the IDE's application builder
- Windows and dialogs in projects are designed using forms
- The Class Interface Editor assists when designing a form
- If you do not use the project system, you must create class-grids and object-editors programmatically, mimicking example code



The Class Interface Editor





Edited-slots property

A key property when creating either tool is the edited-slots property. It specifies which slots to display and how they should be displayed:

```
:edited-slots
'((date-of-birth
  :edited-type (:date :yyyy/mm/dd)
  :label "Birth Date")
 (favorite-color
  :edited-type (:single-choice (:red :green :blue :yellow))
  :on-print capitalize-object
  :label "Fave Color")
 (best-friend
  :edited-type (:class-instance patient)
  :width 140)
 ; ; ...
 )
```



When are these tools useful?

These tools provide dialogs which display information about class instances.

They are suitable for providing an interface to a set of data.

They have a standard model for display and so can be created quickly and easily.

You can control content and appearance and also editability, so good for user information and user input.



How to create class-grids and object-editors

- Mimic the code in the examples
- Use the Class Interface Editor dialog



Dialog customization options

- A class-grid is a grid-widget so grid-widget options work for it (except column-sections and row-sections are computed and should not be modified)
- Standard dialog properties work for both the object-editor and the class-grid



Some special class-grid properties

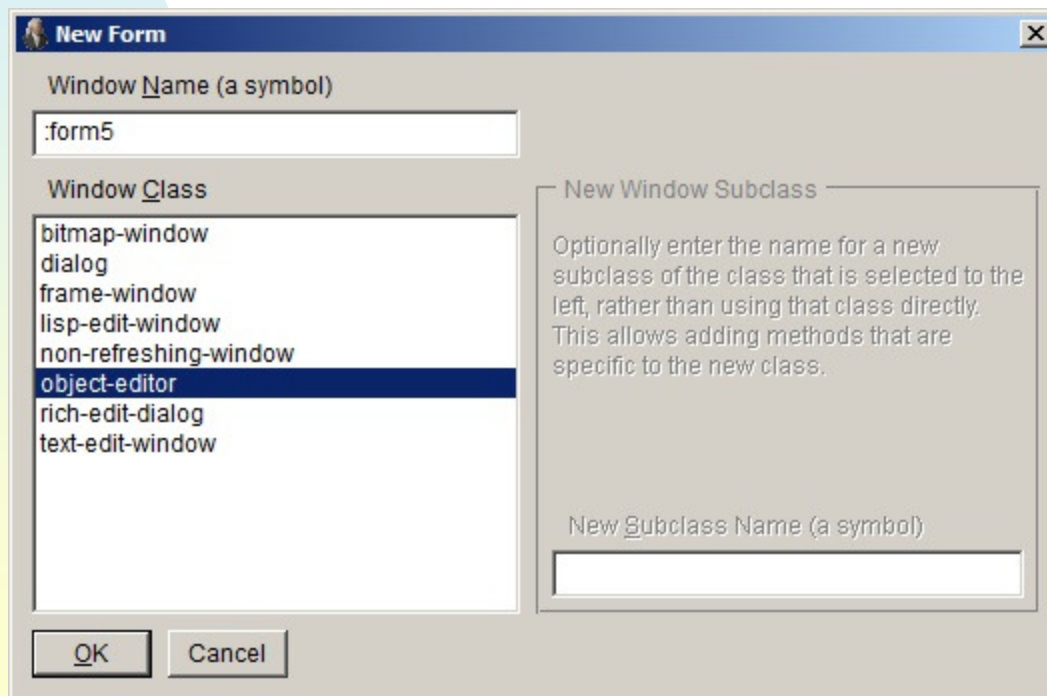
These special properties allow you to control certain row and column properties:

- row-header-font
- column-header-font
- body-row-height
- default-column-width
- row-header-width
- column-header-height
- row-header-justification
- row-header-value-type
- rows-are-movable
- rows-are-resizable
- rows-are-selectable



Displaying the Class Interface Editor

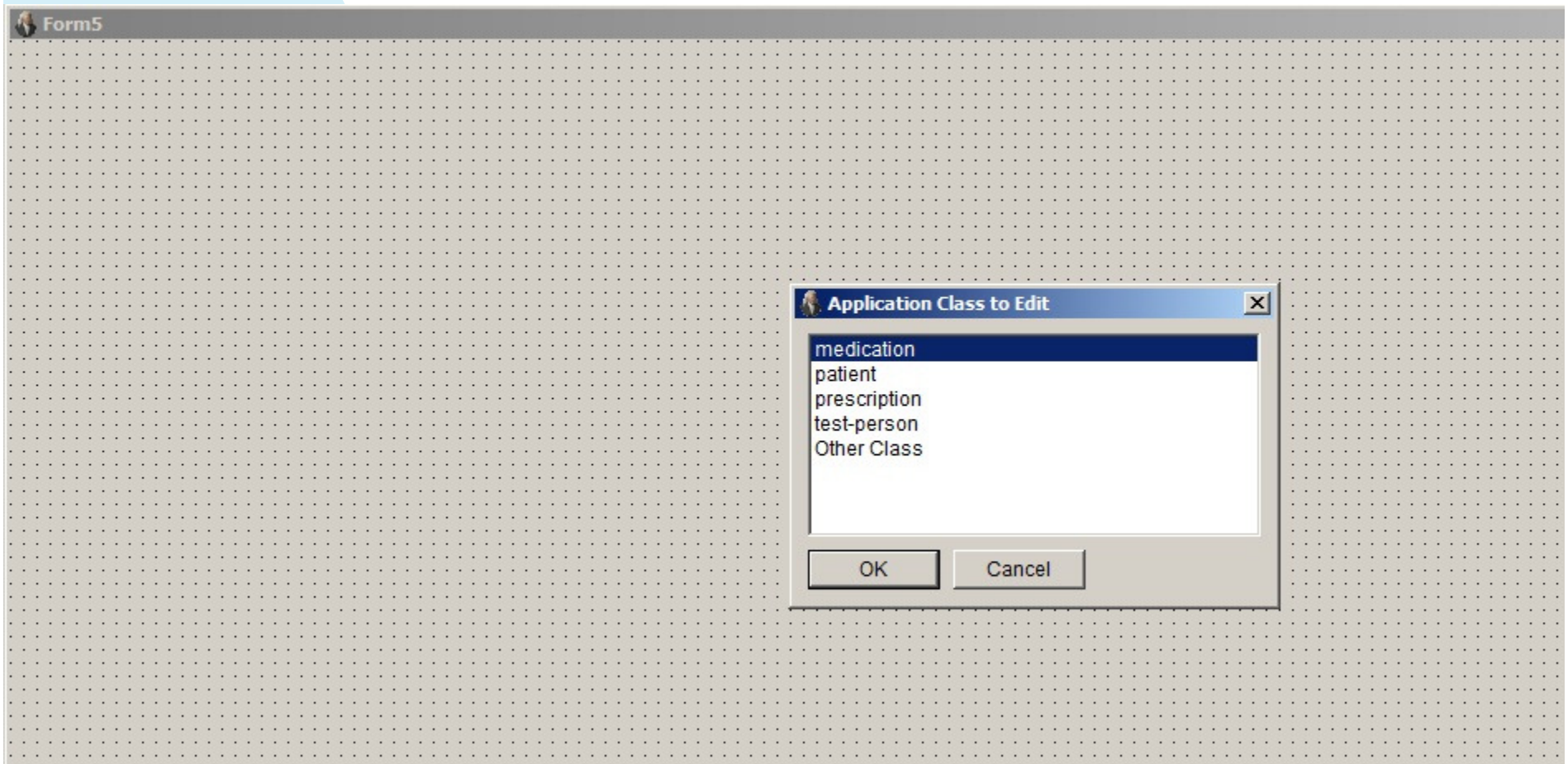
Create an *object-editor* dialog form or a regular *dialog* form on which you put a class-grid (File | New Form):





Displaying the Class Interface Editor 2

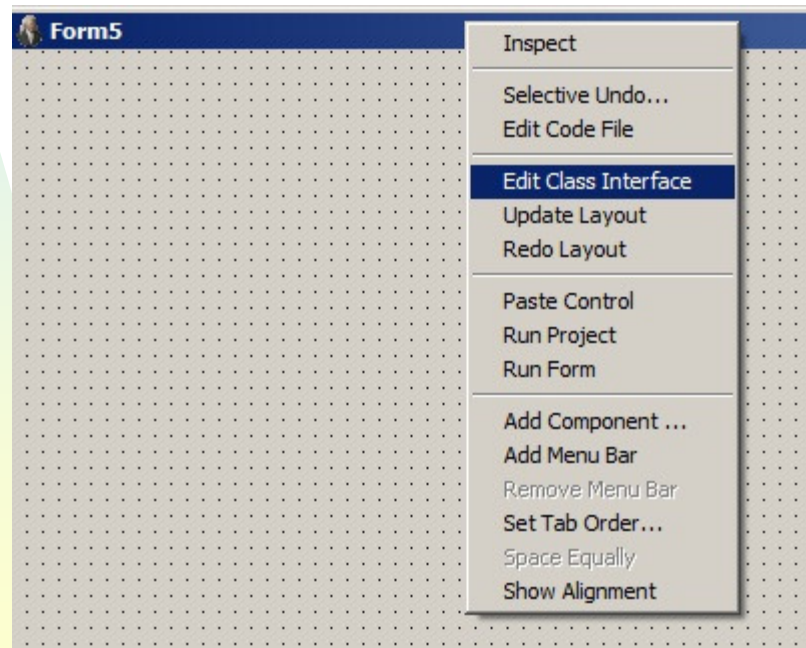
- For an object-editor, you are asked for a class to edit (choose patient for our example):





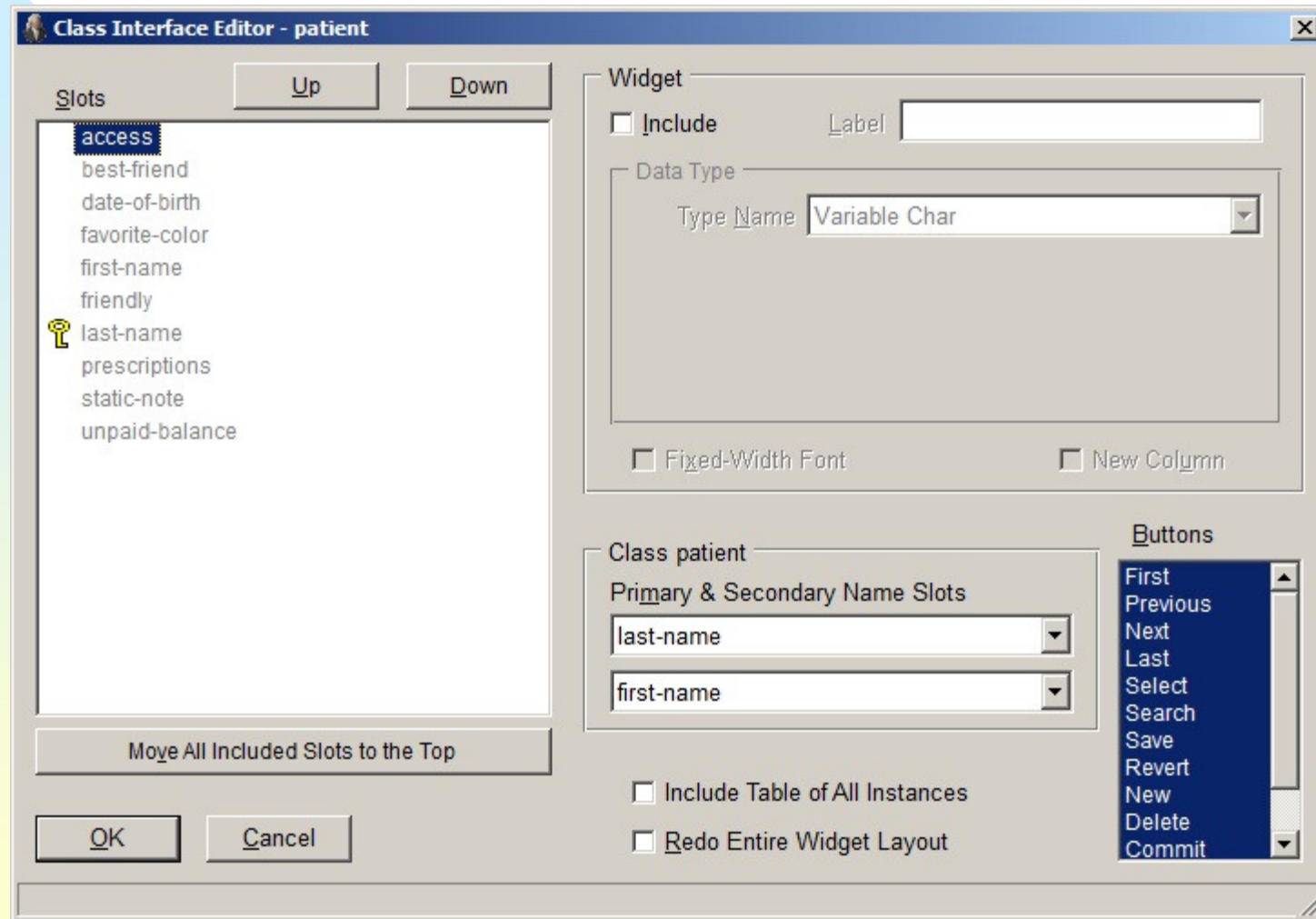
Displaying the Class Interface Editor 3

- Then choose Edit Class Interface from the right button menu:





The Class Interface Editor





The object-editor again

Test

First Previous Next Last Select Search

First Name Fave Color

Family Name Static Note

Access Best Friend

Birth Date Friend's Bday

Unpaid Balance

Friendly?

Prescriptions

	Medication	Num Refills	Drug Price	Drug Warnings
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Create Delete

Save Revert New Delete Commit Rollback

Not what editor on previous slide would create, but showing choices (buttons, etc.)



You choose which slots to include

- You select a slot from the list of the left (access is selected)
- You click on the **Include** check box
- You add information about what is displayed and how for that slot

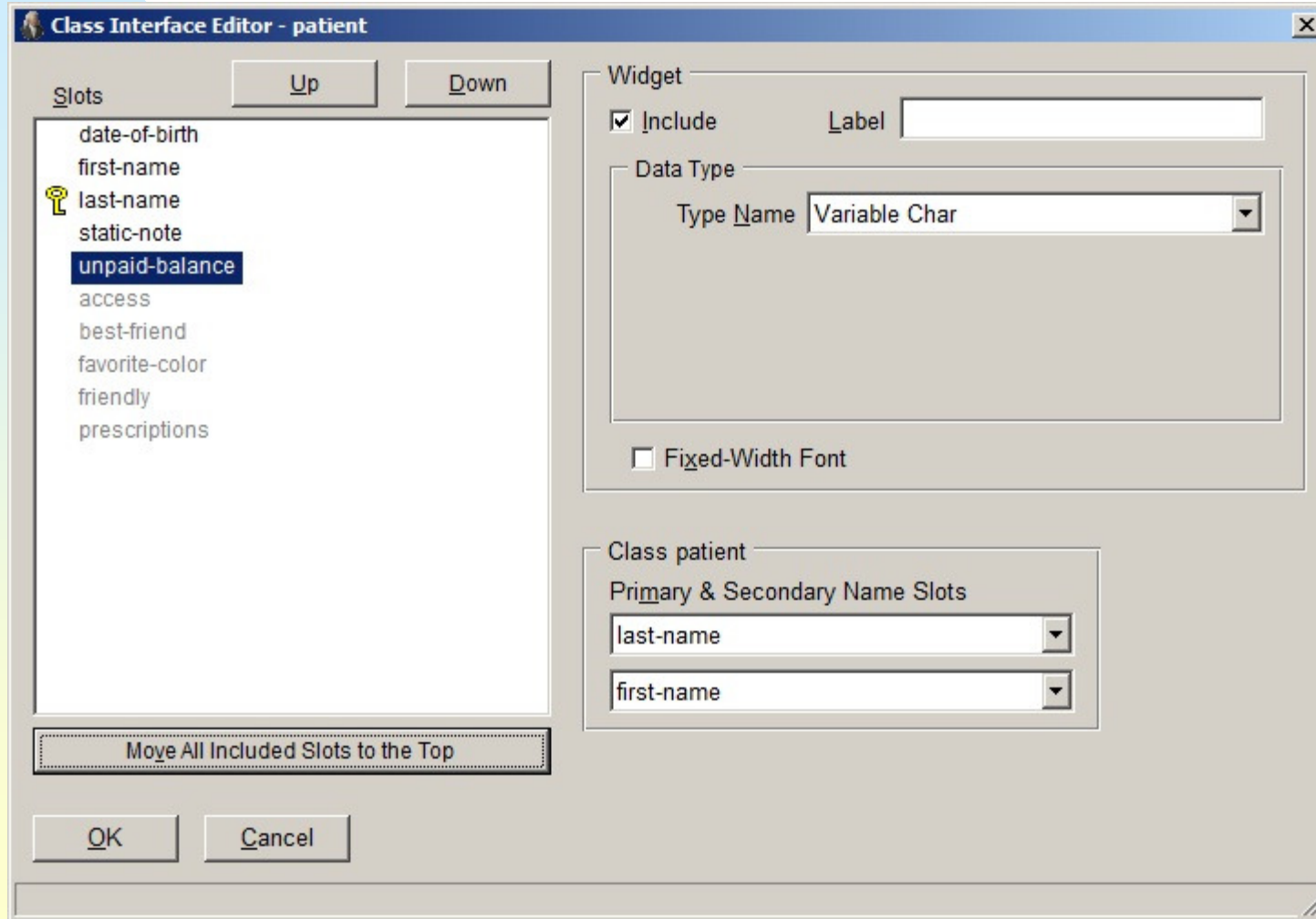


For a class-grid:

- You create a dialog form
- You add a class grid from the widget palette
- You specify the class to display
- Right click over the class grid to display the object editor



The Class Interface Editor for the class-grid has fewer options





Class-grid again

Again, just to show what the choices are, not what previous slide would produce:

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Documentation

- www.franz.com/support/documentation/current/doc/cg/cg-object-editor-and-class-grid.htm
- **Pages for class-grid and object-editor classes**
(www.franz.com/support/documentation/current/doc/classes/cg/class-grid.htm and www.franz.com/support/documentation/current/doc/classes/cg/object-editor.htm)
- **Page for Class Interface Editor**
(www.franz.com/support/documentation/current/doc/ide-menus-and-dialogs/class-interface-editor-dialog.htm)
- **Pages for properties of the classes**



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