

Encounter Form Development Made Easy



How anyone can build customized content for their practice

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GE Healthcare Collective Knowledge User Summit

Sept 22-25, 2004

CLINICAL INFORMATION SYSTEMS

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Basic Development Concepts

- Understanding items
- Designing layout
- Creating connections
- Opening forms from the KnowledgeBank
- Creating new forms
- Copying items between forms
- Using buttons



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Before Starting

- What information do you need?
- What information will you want later?
- Look at other examples (Knowledgebank or User Group site)
- Can you modify an existing form?

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Getting Started

- Select a form name which will give user an idea what the form contains
- Logician Path is where form will be stored in the EMR

Form Information

Form Name:

Form Description:

Logician Path:

Translation:

Output to: Chart note Variable Container/Server

Variable Name:

Register as container: Register as server:

Section Label:

Chart Note Font:

Suppression block behavior: Suppress item only Suppress block


Screen Size: Small Medium Large

Chart Note Emphasis: Labels Values None

Spacing: Vertical: Horizontal:

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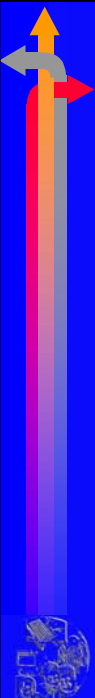


Working With Items

- Choose items to present and store information
- Item placement is tied to note translation
- Optimizing layout

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Item Types – Display

- Heading – Creates bold label in note
- Text – Gives “static” information to the user
- Data Display – Gives “dynamic” information to the user
- Flowsheet View – Shows historical data

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Item Types - Input

- Edit Field - Allows user to type information
- Multi-line Edit - As above, but larger field and allows newline / quicktext / templates
- Dropdown - Similar to edit field, but also allows predefined options
- Check box - Yes/No type input
- Radio buttons – Select one of multiple choices
- List box – Select multiple predefined choices

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Item Types - Layout

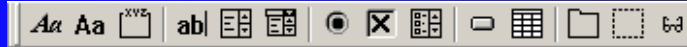
- Page – Creates a tab/page to display more information to user
- Section – Groups information together
- Visibility region – Allows items to be shown / hidden based on an expression

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Adding Items

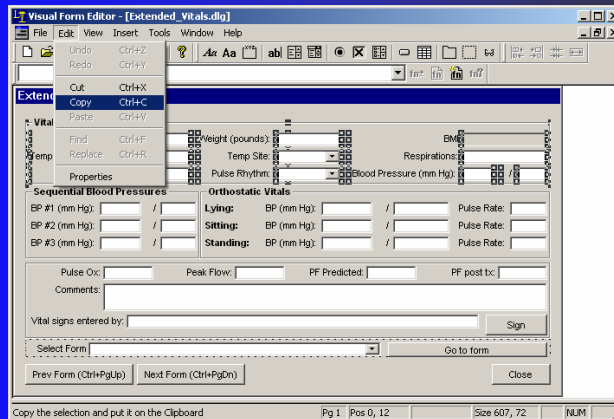
- Select item type from the Insert menu
- Click the appropriate symbol on the toolbar

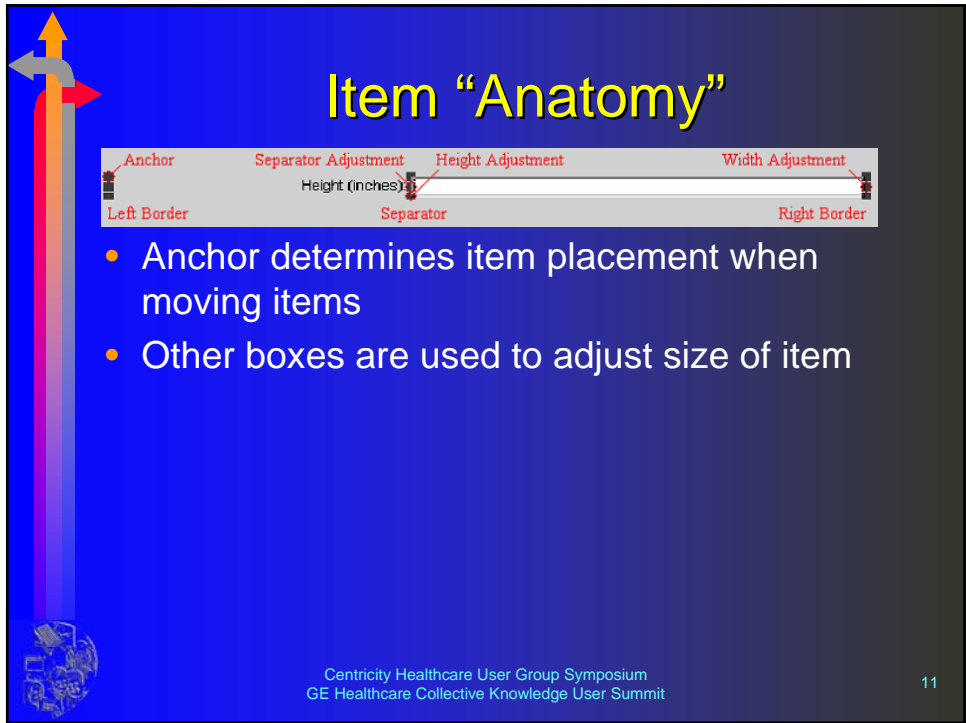


- Items added after currently selected item or at end of form

Copying Items

- Copy/Paste items from another form to reuse



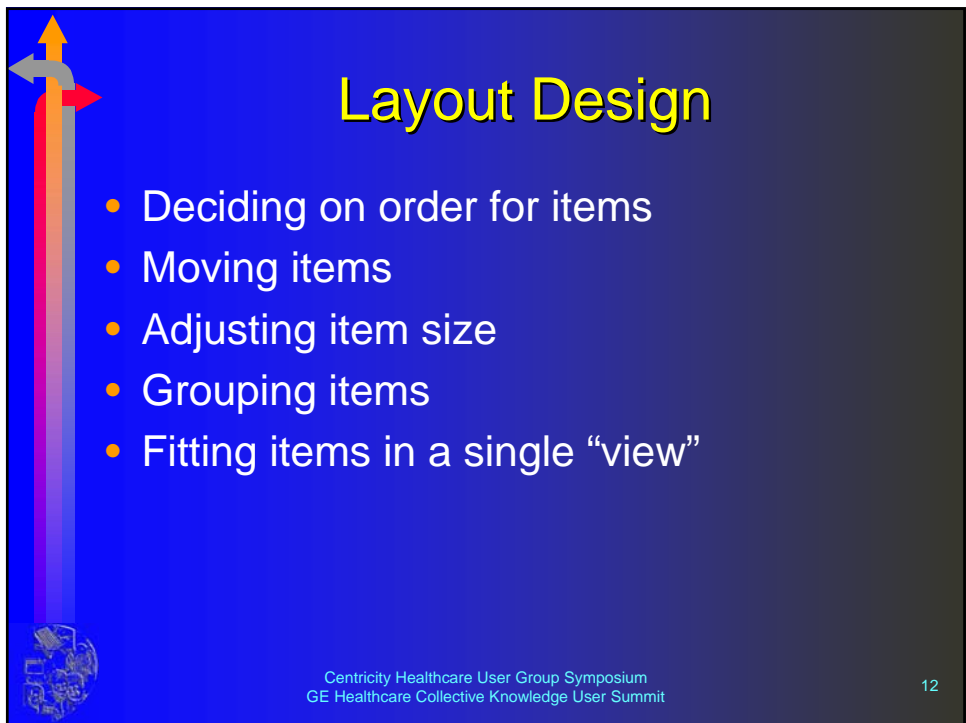


Item "Anatomy"

- Anchor determines item placement when moving items
- Other boxes are used to adjust size of item

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Layout Design

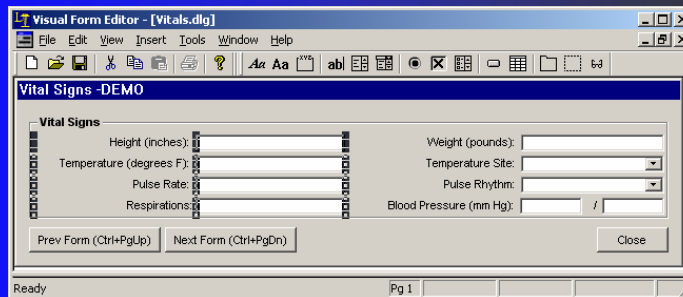
- Deciding on order for items
- Moving items
- Adjusting item size
- Grouping items
- Fitting items in a single "view"

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Selecting items

- Selected items by clicking with the left mouse button
- Select multiple items by using the Ctrl key

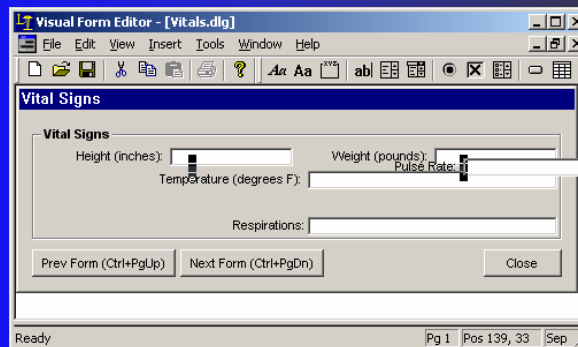


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Moving Items

- Click selected item(s) with left mouse button and drag (placement based on anchor)

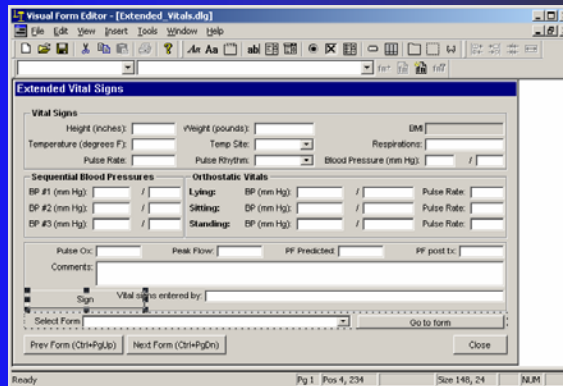


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Sizing Items

- Click and drag “sizing rectangles” of selected item with left mouse button

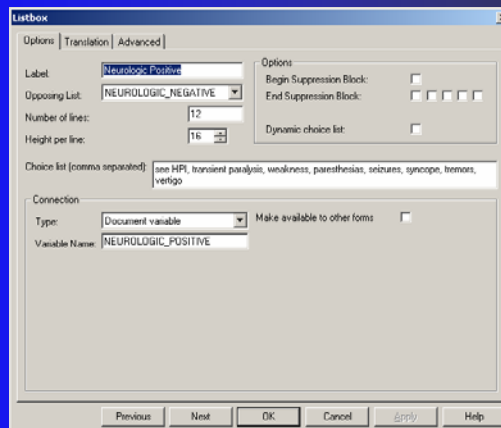


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Editing Items

- Double-click an item to edit its properties



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Selecting Data Item Connections

- Data items can be connected to Observation Terms or DOCUMENT Variables
- DOCUMENT variables are stored only until the update is signed
- Observation Terms are stored in the database after the update is signed and can be used later (e.g. for reporting)

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Implementing Data Validation

- Enforce a valid range for numeric data entry
- Available through Advanced Options tab
- Provide a warning or prevent invalid data entry
- Applies to all efforts to enter data in the update (not just within the form)

Data Validation

Numeric Validation: None Warning Force Use of Numeric Mask Recommended

Range Validation: None Warning Force

Range Minimum: Range Maximum: Units:

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Working With Buttons

- Common button uses include:
 - Setting values for data items
 - Opening Medication, Problem or Order clinical lists for modification
 - Adding another form to the current update
 - Performing calculations

SETVALUES Buttons

- Set the value of multiple data items in the form
- Dropdown lists common Choices
- Double-click a row to view / edit expression in larger view

Type	Label	Connection	Value
Dropdown...	External...	EX INSP NOSE	
Action But...	Normal	SETVALUES	
Dropdown...	Otoscopic:	OTOSCOPY	
Action But...	Normal	SETVALUES	
Dropdown...	Hearing:	HEARING ASMT	
Action But...	Normal	SETVALUES	
Dropdown...	Nasal:	NOSE EXAM	normal mucosa, septum, turbinates
Dropdown...	Sinus:	SINUSES EXAM	perforated septum
Action But...	Normal	SETVALUES	deviated septum
Dropdown...	Dental:	DENT.GUMS	polyps

Using Buttons to Edit Clinical Lists

- RUNPROCESS buttons can automatically add common medications, problems or orders to the clinical lists

Options | Translation | Advanced

Label: Tobacco abuse

Height per line: 24

Options:
Begin Suppression Block:
End Suppression Block:

Connection:
Type: RUNPROCESS

MEL_ADD_PROBLEM("dx of", "Tobacco abuse", "ICD-305.1", str(_TODAYSDATE), "", "")

Symbol | Observation | Function | MEL Medication | MEL Problem | MEL Order

Previous | Next | OK | Cancel | Apply | Help

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Add Medication

- Enter information to create a MEL expression
- Fields can be linked to other items in the form
- Medication names / DDID numbers pulled from database

Add Medication

Name: LISINAPRIL 10 MG TABS | 28360 Select

Instructions:
1 by mouth daily

Quantity: 30 Refills: 2

Duration (days):

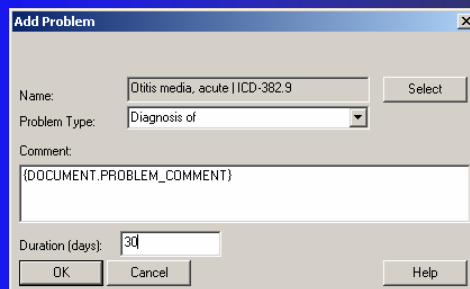
OK | Cancel | Help

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Add Problem

- Enter information to create a MEL expression
- Fields can be linked to other items in the form
- Problems / codes pulled from the database



Add Problem

Name: Otitis media, acute IICD:382.9

Problem Type: Diagnosis of

Comment:
{DOCUMENT.PROBLEM_COMMENT}

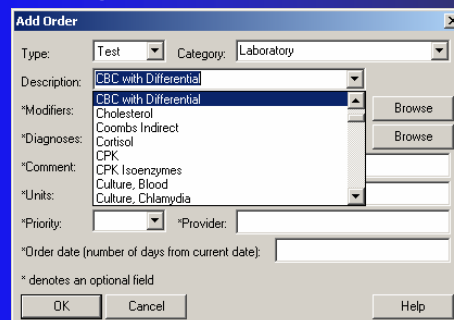
Duration (days): 30

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Add Order

- Enter information to create a MEL expression
- Fields can be linked to other items in the form
- Orders / Diagnoses pulled from the database



Add Order

Type: Test Category: Laboratory

Description: CBC with Differential

*Modifiers: Cholesterol
Coombs Indirect
Control

*Diagnoses: CPK

*Comment: CPK Isoenzymes

*Units: Culture, Blood


*Priority: *Provider:

*Order date (number of days from current date):

* denotes an optional field

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Shortcuts

- Using the shift key when moving an item will force it to be placed to the right of the item the anchor is over
- Up and down arrows move through items on the page
- Ctrl + Up arrow moves to the group an item is contained in (row, section, visibility region)

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Shortcuts (Continued)

- Pressing F1 when the cursor is on a Standard MEL (e.g. str()) will bring up an explanation of that function)
- “Opposing list boxes” prevent user from selecting same option for positive/negative
- Aligning items through the Tools menu
- All items on a line can also be made the same size through Tools menu

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