

Encounter Form Development Made Easy



How anyone can build customized
content for their practice

Basic Development Concepts

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



Can you build forms?

We have been up with Logician only 16 wks. I started your demo last wk and in the first 2 hours had completed the form below which includes most all of the different functions. I was extremely pleased. It was virtually self-explanatory "Out of the Box" Without instruction. I look forward to speaking with your rep at the Orlando conference next week. I would be happy to share examples of forms a neophyte computer user can create quickly.

Marshall D. Kelley, M.D.



Vital Signs-Pediatric-PANDA: Levi Johnson

Vital Signs	
Standard	Metric
Enter weight: <input type="text"/> lb <input type="text"/> oz	Weight: <input type="text"/> kg
Height: <input type="text"/> in	Height: <input type="text"/> cm
Head circumference: <input type="text"/> in	Head circumference: <input type="text"/> cm
Temperature: <input type="text"/> degF <input type="text"/> degC	Temperature site: <input type="text"/>
Pulse rate: <input type="text"/>	Pulse rhythm: <input type="text"/>
Blood pressure: <input type="text"/> / <input type="text"/> mm Hg	Respirations: <input type="text"/>
	Respirations (after Tx): <input type="text"/>
	O2 Saturation: <input type="text"/> %
	O2 Sat (after Tx): <input type="text"/> %

HT Checked Check only if height is the same as previous value

Add metrics to note Only show metrics in note.

Calculations Body Mass Index: Add BMI to note Body Surface Area (m2): Add BSA to note

Other Tests	Urinalysis	ALL CHEM NORMAL
Hemoccult: <input type="radio"/> negative <input type="radio"/> positive	Specific: <input type="text"/> 1.030	pH: <input type="text"/> 5.0
VISUAL ACUITY	Gravity: <input type="text"/> 1.025	<input type="text"/> 6.0
Right: <input type="radio"/> 20/20 <input type="radio"/> 20/25 <input type="radio"/> 20/30 <input type="radio"/> 20/40 <input type="radio"/> 20/50 <input type="radio"/> 20/70	<input type="text"/> 1.020	<input type="text"/> 6.5
Left: <input type="radio"/> 20/20 <input type="radio"/> 20/25 <input type="radio"/> 20/30 <input type="radio"/> 20/40 <input type="radio"/> 20/50 <input type="radio"/> 20/70	<input type="text"/> 1.015	<input type="text"/> 7.0
Both: <input type="radio"/> 20/20 <input type="radio"/> 20/25 <input type="radio"/> 20/30 <input type="radio"/> 20/40 <input type="radio"/> 20/50 <input type="radio"/> 20/70	<input type="text"/> 1.010	<input type="text"/> 7.5
Colorblindness: <input type="radio"/> Pass <input type="radio"/> Fail	<input type="text"/> 1.005	<input type="text"/> 8.0
Comments: <input type="text"/>	<input type="text"/> 1.000	<input type="text"/> 8.5
HEARING TEST by OAE	Glucose: <input type="text"/>	Bilirubin: <input type="text"/>
Right: <input type="radio"/> Pass <input type="radio"/> Refer	Ketones: <input type="text"/>	Protein: <input type="text"/>
Left: <input type="radio"/> Pass <input type="radio"/> Refer	Nitrite: <input type="text"/>	Blood: <input type="text"/>
	Leukocytes: <input type="text"/>	Urobilinogen: <input type="text"/>

HEARING TEST			
Right Ear		Left Ear	
Right 500 (Hz)	Right 1000 (Hz)	Left 500 (Hz)	Left 1000 (Hz)
<input type="checkbox"/> 25 db Pass	<input type="checkbox"/> 25 db Pass	<input type="checkbox"/> 25 db Pass	<input type="checkbox"/> 25 db Pass
<input type="checkbox"/> 35 db Pass	<input type="checkbox"/> 35 db Pass	<input type="checkbox"/> 35 db Pass	<input type="checkbox"/> 35 db Pass
<input type="checkbox"/> 25 db Fail	<input type="checkbox"/> 25 db Fail	<input type="checkbox"/> 25 db Fail	<input type="checkbox"/> 25 db Fail
<input type="checkbox"/> 35 db Fail	<input type="checkbox"/> 35 db Fail	<input type="checkbox"/> 35 db Fail	<input type="checkbox"/> 35 db Fail
Right 2000 (Hz)	Right 4000 (Hz)	Left 2000 (Hz)	Left 4000 (Hz)
<input type="checkbox"/> 25 db Pass	<input type="checkbox"/> 25 db Pass	<input type="checkbox"/> 25 db Pass	<input type="checkbox"/> 25 db Pass
<input type="checkbox"/> 35 db Pass	<input type="checkbox"/> 35 db Pass	<input type="checkbox"/> 35 db Pass	<input type="checkbox"/> 35 db Pass
<input type="checkbox"/> 25 db Fail	<input type="checkbox"/> 25 db Fail	<input type="checkbox"/> 25 db Fail	<input type="checkbox"/> 25 db Fail
<input type="checkbox"/> 35 db Fail	<input type="checkbox"/> 35 db Fail	<input type="checkbox"/> 35 db Fail	<input type="checkbox"/> 35 db Fail

Assessed by:

Prev Form (Ctrl+PgUp) Next Form (Ctrl+PgDn) Close



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?



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:



Working With Items

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



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



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



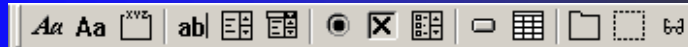
Item Types - Layout

- 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



Adding Items

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

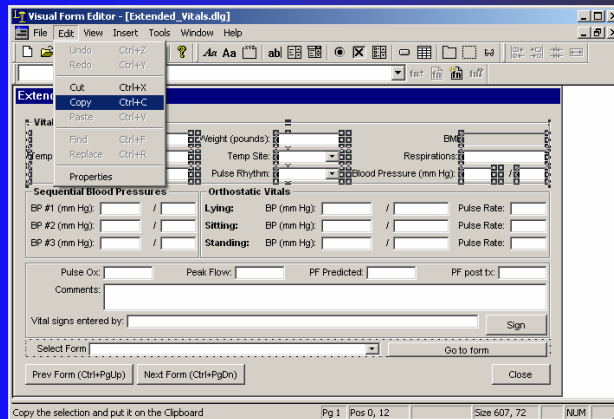


- Items added after currently selected item or at end of form

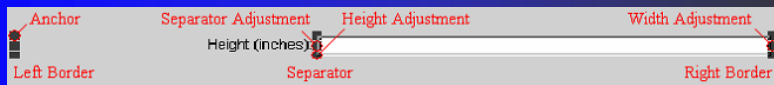


Copying Items

- 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



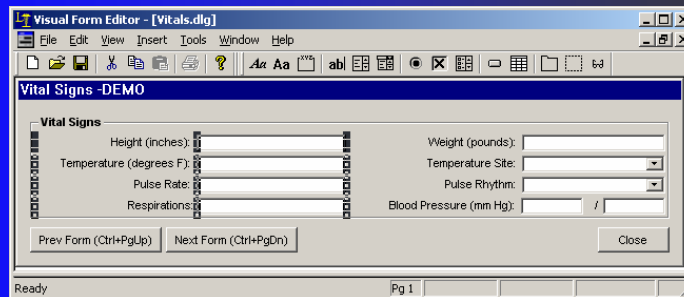
Layout Design

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



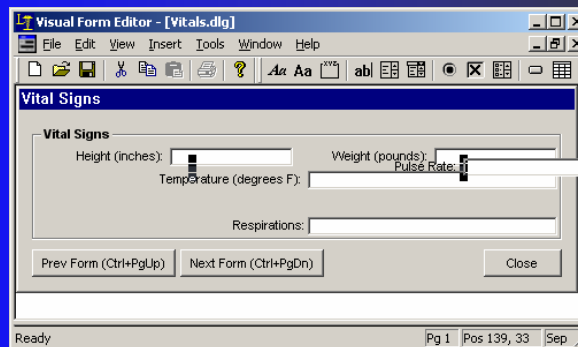
Selecting items

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



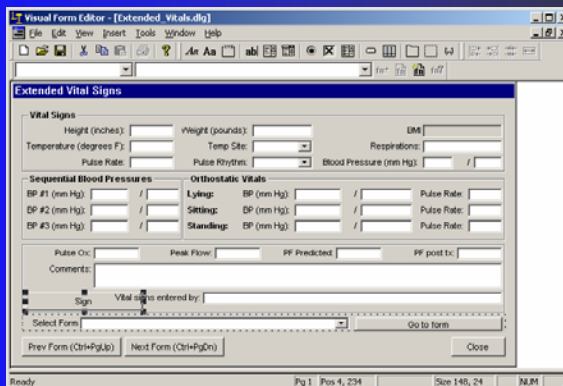
Moving Items

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



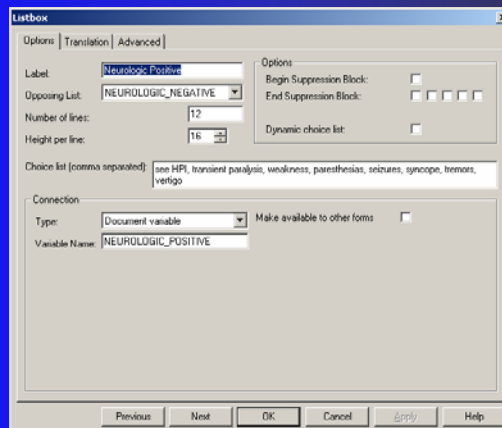
Sizing Items

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



Editing Items

- Double-click an item to edit its properties



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)



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:



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

Options | Translation | Advanced |

Label: Normal

Height per line: 18

Options:
Begin Suppression Block:
End Suppression Block:

Connection:
Type: SETVALUES

Existing values: Do not overwrite Always overwrite Append to

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

Previous Next OK Cancel Apply Help



Using Buttons to Edit Clinical Lists

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

The screenshot shows the 'Action Button' dialog box with the following details:

- Options | Translation | Advanced |
- Label: Tobacco abuse
- Options: Begin Suppression Block: End Suppression Block:
- Height per line: 24
- Connection: Type: RUNPROCESS
- MEL_ADD_PROBLEM("dx of", "Tobacco abuse", "ICD-305.1", str(_TODAYSDATE), "", "")
- Buttons: Symbol, Observation, Function, MEL Medication, MEL Problem, MEL Order
- Bottom buttons: Previous, Next, OK, Cancel, Apply, Help

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

The screenshot shows the 'Add Medication' dialog box with the following details:

- Name: LISINAPRIL 10 MG TABS | 28360
- Instructions: 1 by mouth daily
- Quantity: 30
- Refills: 2
- Duration (days):
- Buttons: OK, Cancel, Help

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 | ICD-382.9

Problem Type: Diagnosis of

Comment:
{DOCUMENT.PROBLEM_COMMENT}

Duration (days): 30

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
Culture, Chlamydia

*Priority: *Provider:

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

* denotes an optional field

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)



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

