

Pug Challenge Americas 2014

GUI for .Net, All Wet? Not Yet!

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GUI for .Net, All Wet? Not Yet!

Disclaimer

The content of this presentation does not necessarily reflect the views of The Pug Challenge, Progress Software Corporation, you the audience or anybody else for that matter.

Who Am I?

- Progress Experience
 - Progress Technology Since 1995
 - Joined Progress Software Corp. in 1997
 - Professional Services
 - Development - ADM Group
 - IT Group
 - Specialized in N-Tier Architecture Since 1999
 - Started Intui-Tech, Inc in 2006

Agenda

- Trivia and Prizes
- Who's In The Room?
- The Path To GUI.Net – The Final Saga
- Why Native Controls
- How you can build your controls
- Integration To A ProDataSet Framework
- Discussion (*time permitting*)
 - What are your Stories?
 - More Prizes?

Before We Get Started

Trivia and Prizes!

What Television Personality was famous for the phrase...?

“As I was saying...”

Who was...?

Jack Paar

The second host of **The Tonight Show** (1957–62)



Who Are You?

I really wanna know....

What is your Progress Experience?

The Path To GUI.Net

The Final Saga

- 2010/2011 Began GUI for .Net Framework
 - Delivered Presentations
 - Bravepoint VI
 - Pug Challenge
- Beginning of 2011 New Client For Framework
 - Effort never began
 - But What happened?

The Path To GUI.Net

But What happened?

- Browser Based Apps for Tablets
 - They want browser
 - We want browser
 - We all want browser
 - It's The Future!
- Then The Search Began
- Who am I to question?

The Path To GUI.Net

But What happened?

- Committed – browser solution by 2011 end
 - Myself and others sought out solutions
- End of 2012
 - Still no solution
 - I move on
- I continue the quest

The Path To GUI.Net

My Independent Browser Effort

- June 2013 New Client
 - SaaS Model
 - Needs App Rewrite
 - What Should The UI Be?
 - Browser Still Seems Like a Good Idea
- The Quest Continues

The Path To GUI.Net

My Independent Browser Effort

– Browser Solution Criteria

- Must work as a Enterprise (Not Just Mobile App)
- Must snap on to existing backend framework
 - 1 Single Proxy accessing the entire application
 - Uses XML/JSON INPUT/OUTPUT signature
- Fewer Tiers are better
 - AppServer and/or WebSpeed, WebServer? Tomcat?, Javascript, java
- How Future Proof? – THIS IS A BIG Commitment
- Ease for less experienced developers
- **Time To Market**

The Path To GUI.Net

My Independent Browser Effort

YES!!!!!! What about **GWT**? (Google Web Toolkit)

- Great WYSIWYG (java based)
- Generates the javascript for you
- Eclipse IDE Support
- Nice compliment to Progress

The Path To GUI.Net

My Independent Browser Effort

NO to **GWT**☹ (for now)

- Attended GWT Conference Dec 2013
- Everything that's Good
 - No more Support?
 - No New Development

The Path To GUI.Net

What about **GUI For .Net**? (Progress)

- Not Browser Based but...
 - Tablets are changing – Can we Still use Windows?
 - Windows for business aren't going away any time soon
 - Work as a Enterprise
 - Fewer Tiers are Better!
 - Easily Snaps On To Current Framework
 - Future Proof? Probably
 - Ease for less experienced developers
 - Time To Market – **YES!**

The Path To GUI.Net

2011 I delivered a **GUI For .Net** right here.

Did any of you attend?

Well...

As I was saying...

Why Native Controls?

- Future Proof
 - Building off Windows Directly
 - Less potential to build yourself into a corner
 - It's Yours to Change If You need to
- Easier To Develop with? Probably
- Documentation is Plentiful

Why Native Controls?

- Documentation is Plentiful
 - On Line
 - knowledgebase.progress.com,
community.progress.com
 - microsoft.com
 - other community groups like stackoverflow.com
 - The PEG

Why Native Controls?

Always Create Your Control

Even if you think it not necessary.

You may want to change it later for the entire application.

```
CLASS gui.ITechControls.Button.Base INHERITS System.Windows.Forms.Button:
```

One More Thing....

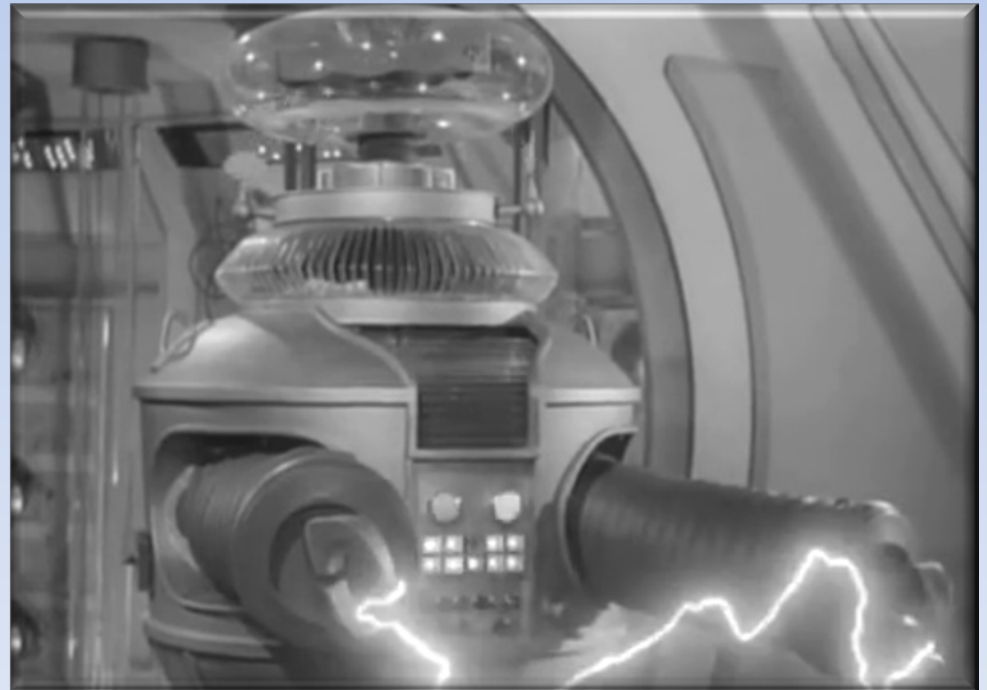


Why Native Controls?

Embedding Images Not Recommended

Setting a background image, button image in the property sheet makes for bloated deployed and it difficult to change later on.
... and leave the RESX behind.

Quick Demo



Why Native Controls?

Embedding Images Not Recommended

***.Button.Base**

```
METHOD PUBLIC VOID ImageFile(INPUT pchrImage AS CHARACTER ):  
    DEFINE VARIABLE imgBase AS System.Drawing.Image NO-UNDO.  
    imgBase = System.Drawing.Image:FromFile(pchrImage).  
    THIS-OBJECT:IMAGE = imgBase.    RETURN.  
END METHOD.
```

***.Button.btnAdd**

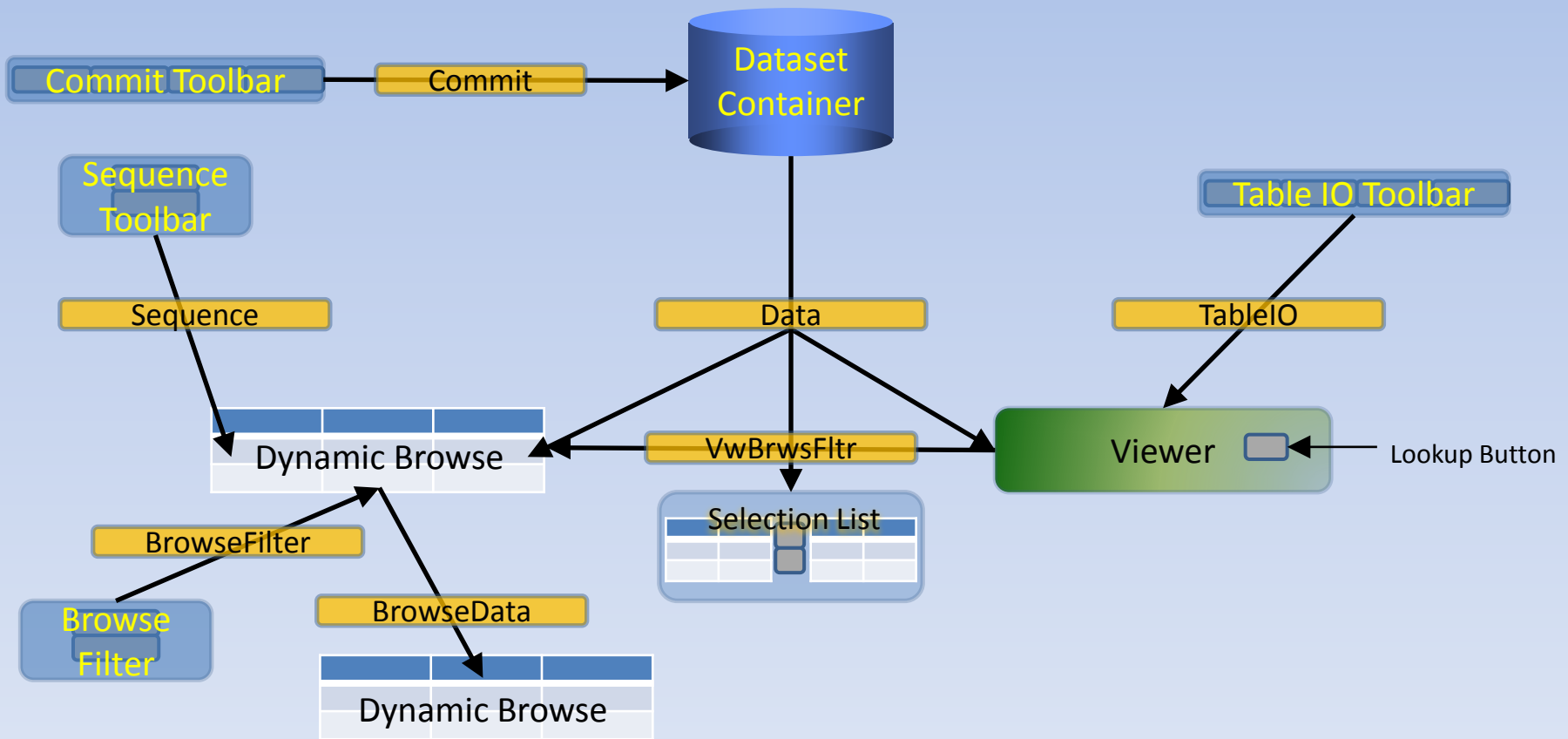
```
METHOD PUBLIC VOID ItechInitialize():  
    THIS-OBJECT:Button:ImageFile('img/Add.gif').
```

Integration ProDataSet Framework

- Started with existing ADM2 framework as a model
 - Pre-OERA
 - Prior to **SmartViewer** include files
 - Used **SmartFrame** as Viewer
 - Brought in Smart Viewer Later
 - Custom Property sheets

Integration ProDataSet Framework

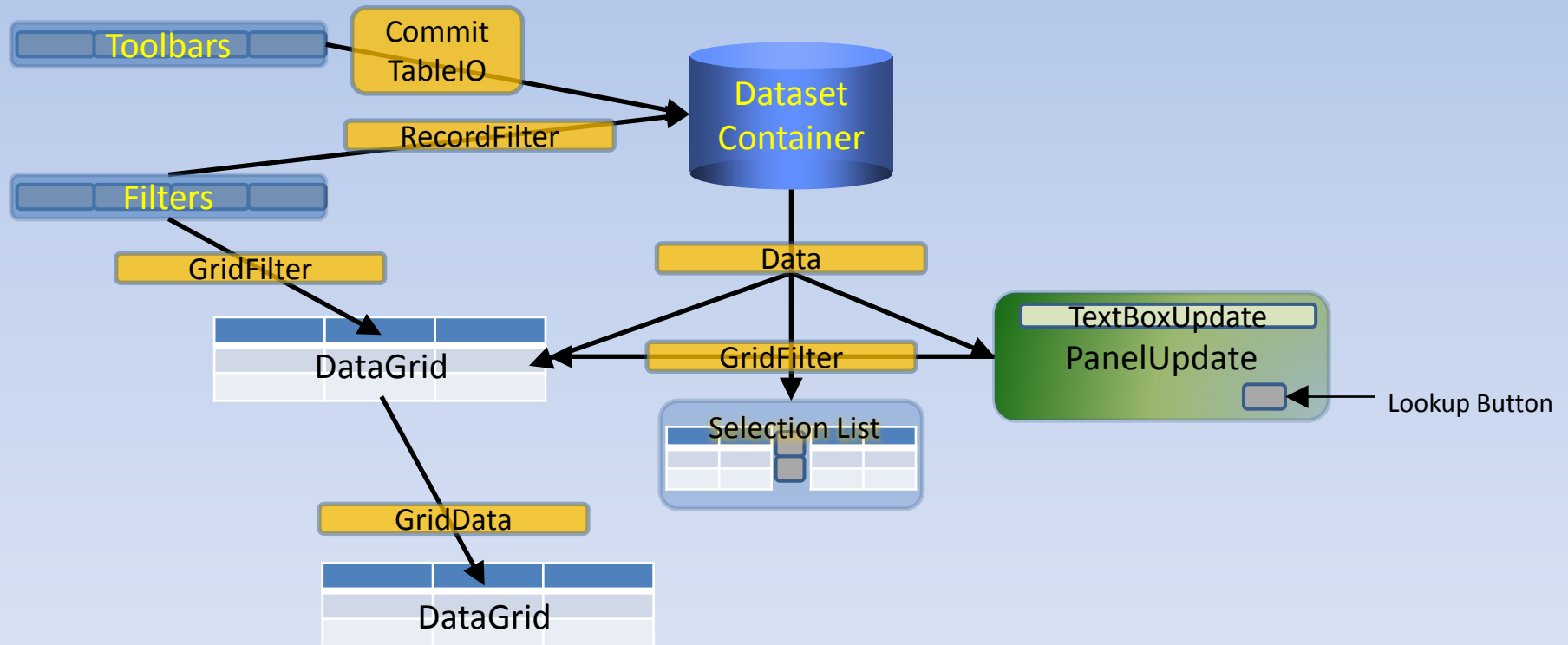
Intui-Tech ADM2 Object Model



Integration ProDataSet Framework

Intui-Tech GUI for .Net Object Model

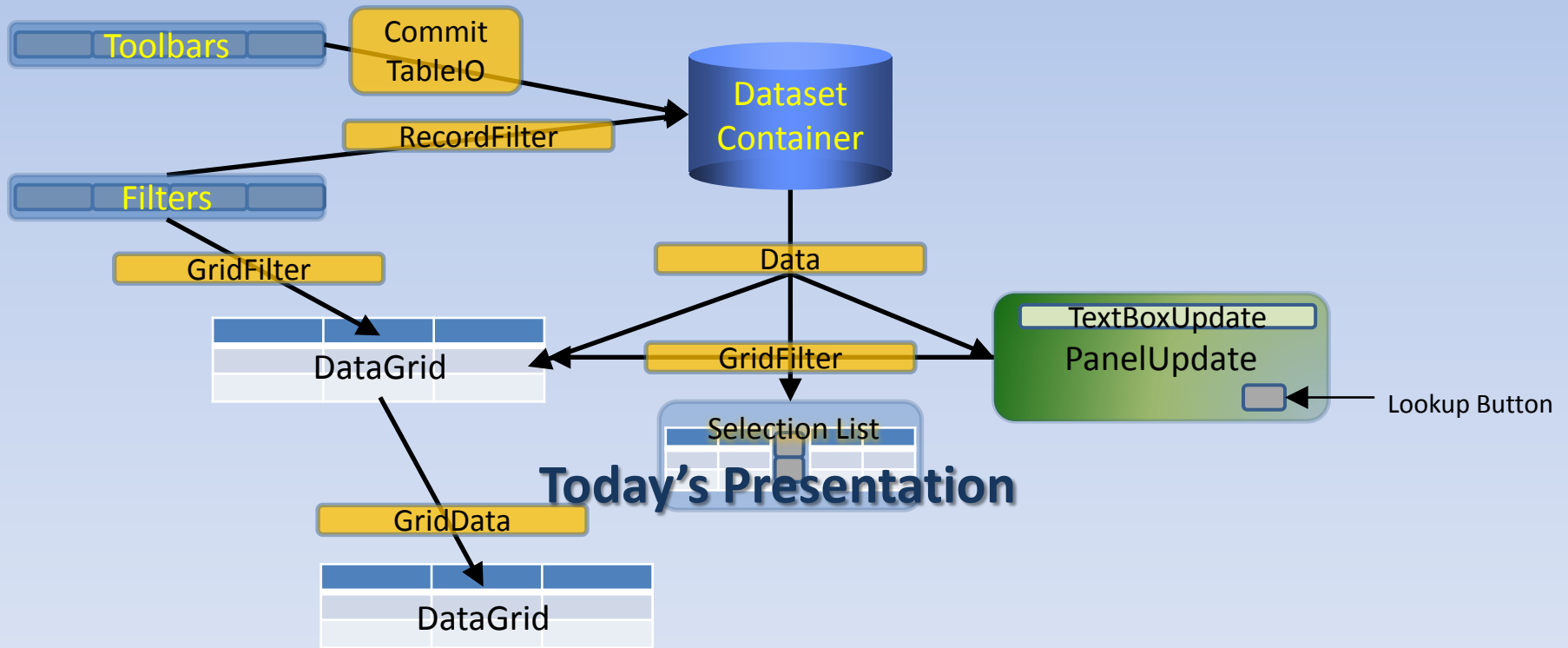
Design Time Relationships



Integration ProDataSet Framework

Intui-Tech GUI for .Net Object Model

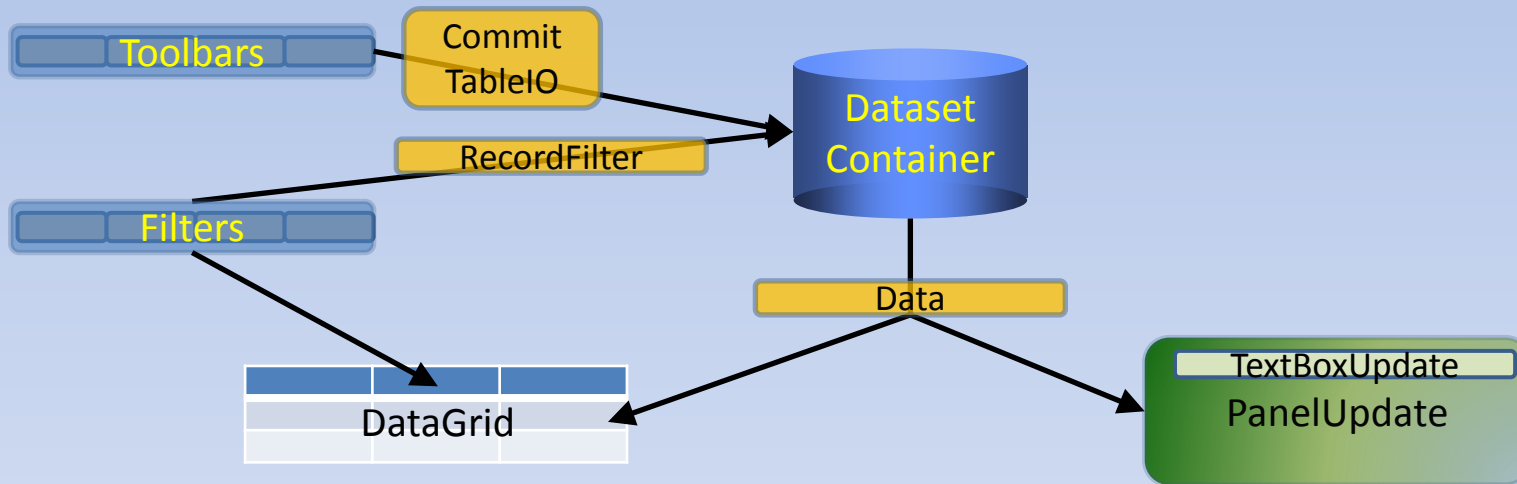
Design Time Relationships



Integration ProDataSet Framework

Intui-Tech GUI for .Net Object Model

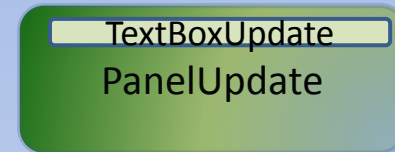
Design Time Relationships



Today's Presentation

Integration ProDataSet Framework

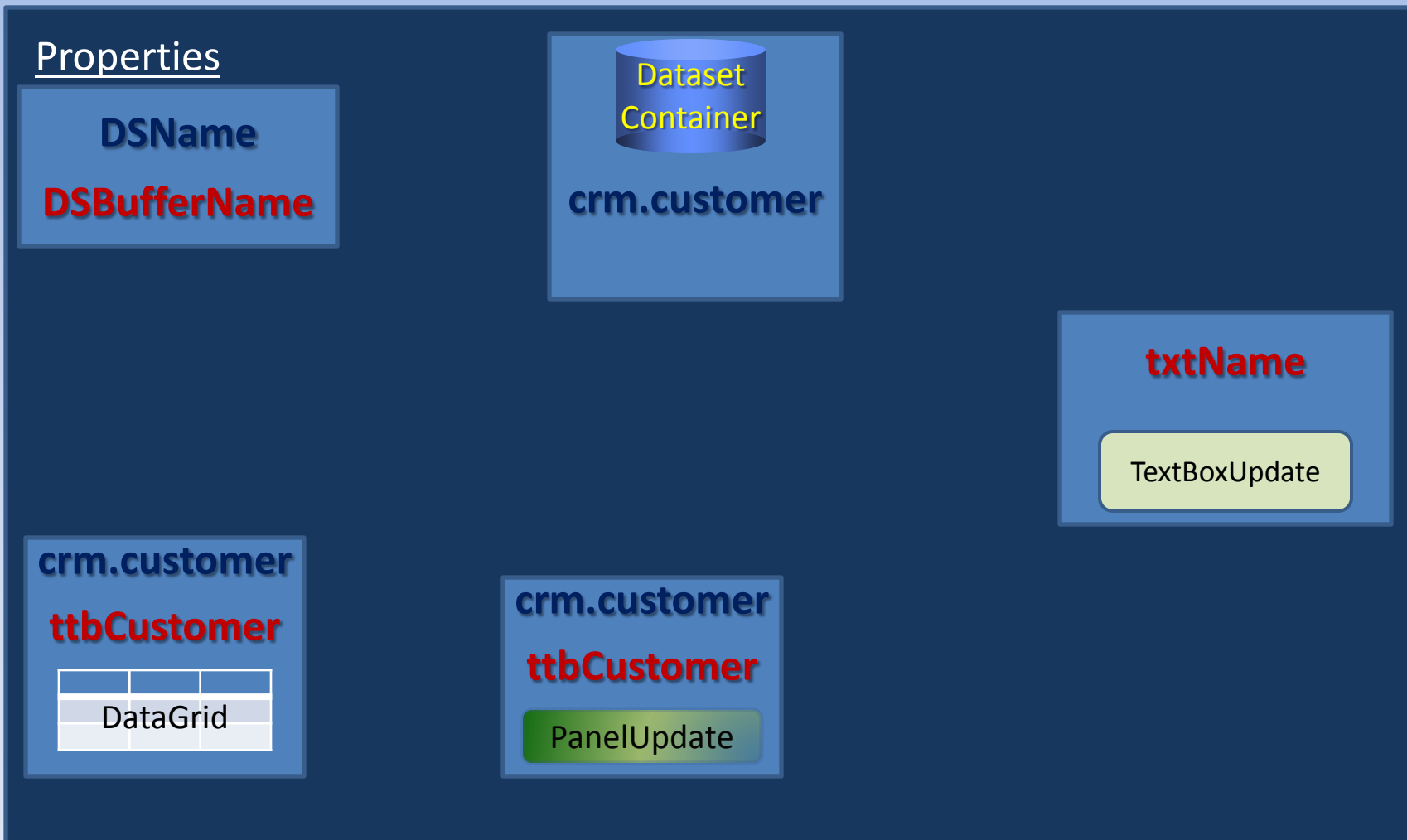
TextBoxUpdate



- No Smart Links Anymore
 - Object Names Bring It All Together
 - Auto-Magically gets Progress Format
 - Auto-Magically gets Progress Label
 - Definition comes from Database, Dataset or Local Override
- txt**Name** (*Customer.Name*)

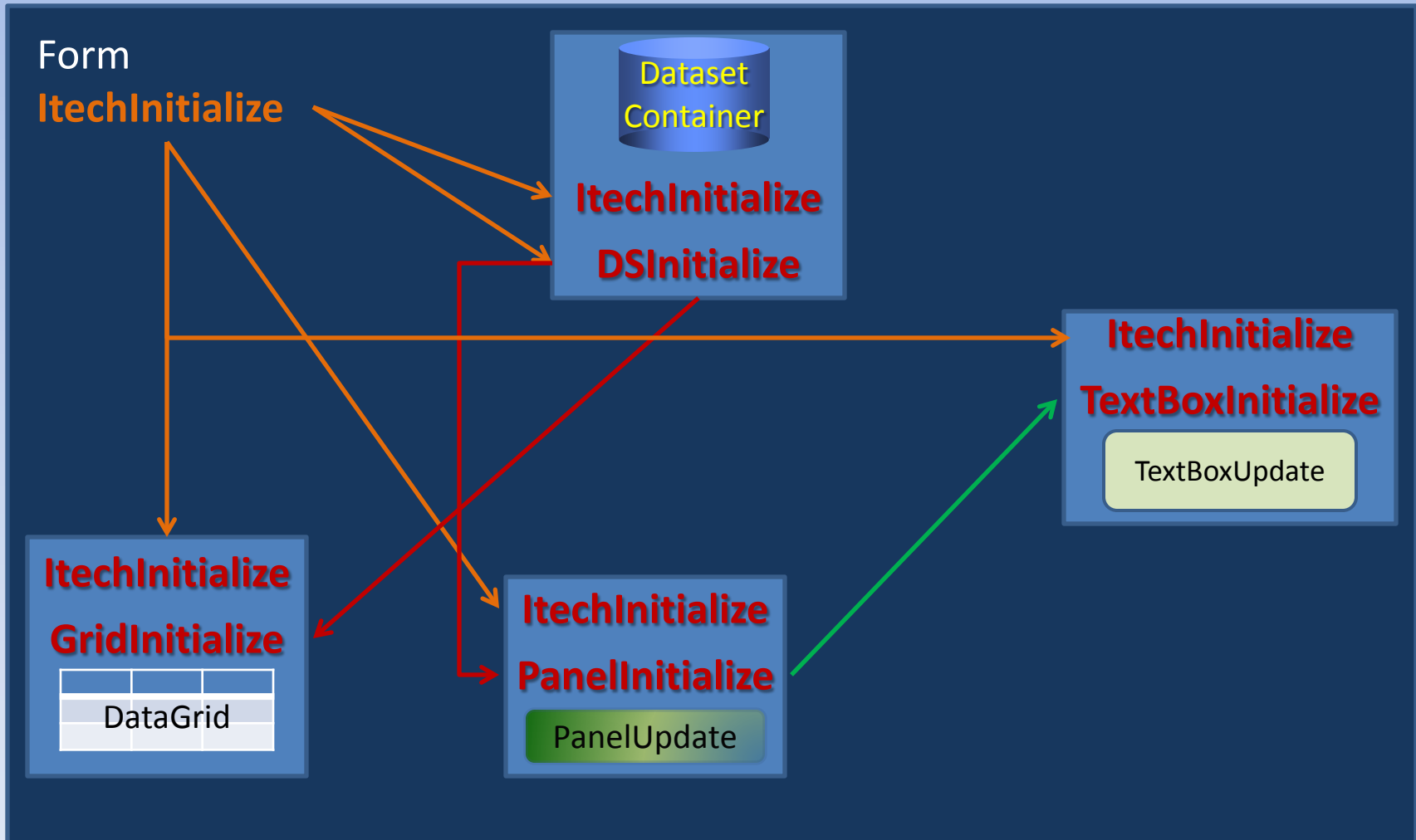
Integration ProDataSet Framework

How It All Comes Together – *Property Names*



Integration ProDataSet Framework

How It All Comes Together - *Initialization*



Integration ProDataSet Framework

Form ITechInitialize

```
intCount = THIS-OBJECT:Controls:Count.  
DO intControl = 0 TO intCount - 1:  
  objControl = THIS-OBJECT:Controls:Item[intControl].  
  DYNAMIC-INVOKE (objControl, 'ItechInitialize') NO-ERROR.  
  chrDSObjectType = ?.  
  chrDSObjectType = DYNAMIC-INVOKE (objControl, 'DSObjectType') NO-ERROR.  
  IF chrDSObjectType = 'DSContainer' THEN DO:  
    DSContainerCount = DSContainerCount + 1.  
    DSContainers[DSContainerCount] = CAST (objControl, gui.ITechControls.DSContainer).  
  END. /* IF chrDSObjectType = 'DSContainer' */  
END. /* DO intControl = 0 TO intCount - 1 */  
DO intControl = 1 TO DSContainerCount:  
  DSContainers[intControl]:DSInitialize().  
END.
```

Integration ProDataSet Framework

DataSet Container DSInitialize

```
DO intObject = 0 TO intObjectCount - 1:
  objControl = THIS-OBJECT:ParentForm:Controls:Item[intObject].
  IF objControl = THIS-OBJECT THEN NEXT.

  chrDSObjectType = ?.
  chrDSObjectType = DYNAMIC-INVOKE (objControl, 'DSObjectType') NO-ERROR.
  IF chrDSObjectType = ? THEN NEXT.
  IF chrDSObjectType = 'TextBoxUpdate' THEN NEXT. /* Maybe Later? */

  chrDSName = ?.
  chrDSName = DYNAMIC-INVOKE (objControl, 'DSName') NO-ERROR.
  IF chrDSName <> THIS-OBJECT:DSName THEN NEXT.
  CASE chrDSObjectType:
    WHEN 'DataGrid' THEN DO:
      DataGridCount = DataGridCount + 1.
      DataGrids[DataGridCount] = CAST (objControl, gui.ITechControls.DataGrid).
      DataGrids[DataGridCount]:DSContainer = THIS-OBJECT.
      DataGrids[DataGridCount]:BufferHandle =
        DSHandle:GET-BUFFER-HANDLE (DataGrids[DataGridCount]:DSBufferName).
      DataGrids[DataGridCount]:PKFieldName =
        objSesCL:PKFieldName (DataGrids[DataGridCount]:BufferHandle).
      DataGrids[DataGridCount]:GridInit(DataGrids[DataGridCount]:BufferHandle).
      IF DataGrids[DataGridCount]:BufferHandle = TopBuffer THEN
        DataGridTopLevel = DataGrids[DataGridCount] .
  END. /* WHEN 'DataGrid' */
```

Integration ProDataSet Framework

DEMO TIME

Integration ProDataSet Framework

Foot Note

Today, the aforementioned company who switched from GUI For .Net to seeking a browser based solution still has neither.

Questions?

Integration ProDataSet Framework

What Your Story?

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Thank You!