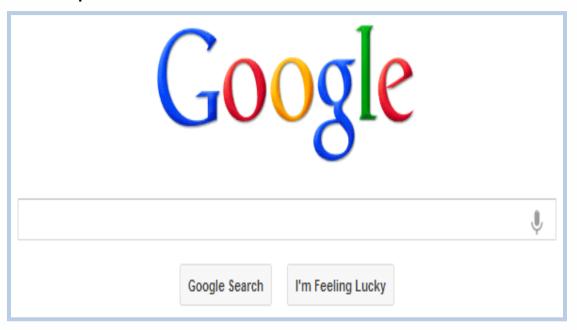


Learning Points

- Case Study Welch Allyn
 - Goal
 - Approach
 - Results
- How Liquid UI Can Help
 - Goods Receipt App
 - Case Study #1
 - Case Study #2
 - Cycle Count App
- 21-day Optimized Application Program
- Q&A

What would the user like?

A simple interface,



using fun devices.



What are we giving them with SAP?

A complex interface,



using old hardware.



How can we use GuiXT to make SAP easier?

- Simple single screen transactions.
 - SAP is set up to do everything. Transactions can have hundreds of fields, multiple tabs, and require several screens to complete.
 - Most of the time we only need to update a handful of fields and ideally we'd like to do it in just one screen.
- Bar Code enabled the SAP screens with GuiXT.
 - You can put a fully functional bar code system in place with GuiXT, TalTech ActiveX, and a Scanner for less then \$2500.
- Automation Why spend hours creating reports? Let GuiXT:
 - Down loading SAP information
 - Push the data into Excel
 - Automatically email the reports, before folks even wake up.
- Interfaces use GuiXT to interface SAP to PC Systems and PC hardware.

GuiXT has improved the Manufacturing Flow SAP Order Entry **Purchasing** SAP **Demand Supplier** VA01 **Automated Automated** Generation of Easy form to update Generation of SpreadSheets Purch. Master Data SpreadSheets **Build** and Email and Email List GuiXT Scale Mobile to Working on interfacing Count Scale Interface Scan Bins Dim system for Shipping **Empty MIGO** MB₁ **MFB VL02** Customer GR B N 1.8 Million 311 140.000 350,000 160,000 Per year Per year Per year Per year **Produc** Single Screen Print KanBan Labels **GuiXT Mobile with** Single Screen 4 Million Bar Code **Pick Tickets** Portable Scanner Bar Code Per year **Future Project with** Single Screen **Future Project with** LiquidUI & IPOD's **Print Hot Labels** LiquidUI & IPOD's **Email Buyers SYNACTIVE** | GuiXT.com @მβγήβγη®2014/Synactive Inc.

A Few Concepts

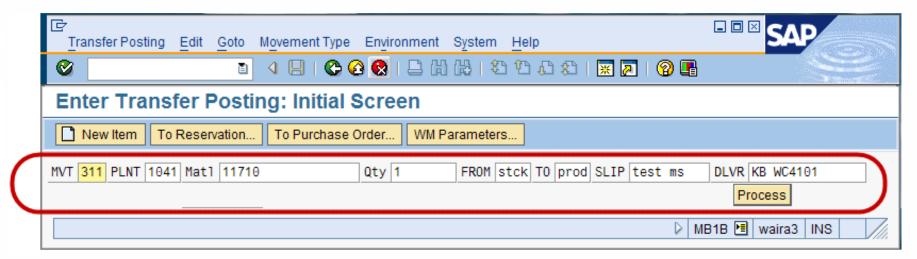
- Every SAP screen has a name with screen elements.
- GuiXT will execute a script when the SAP screen name and the script file name are the same; or when the user clicks a pushbutton.
- The flow of execution is not controlled by the program but rather event driven by the screens appearing.
- GuiXT scripts can do amazing things. They can fill in data, select check boxes, add command buttons to run other scripts, hide screen elements, move elements, add pictures, read & write files, and lots of other stuff.
- GuiXT scripts can start PC applications.
- PC applications can start GuiXT scripts.

This enables us to create interfaces

Simple - single screen - transactions.

GuiXT is used to put all the input fields on the first screen, and to create a Push button to fill out and process the subsequent screens.

For the MB1B we went from 2 Screens with 20 fields to 1 Screen with 8 fields.



This format is also nicely set up to allow barcoding. 350K transaction a year

Simple - Single screen transactions. How is it done?

// GuiXT script file C:\GUIXT\SCRIPTS\sapmm07m.0400.txt

//Create input fields

```
InputField (0,0) "MVT" (0,4) Size="3"
                                       Name="MVT"
                                                        Default="311"
InputField (0,8) "PLNT" (0,13) Size="4"
                                       Name="PLNT"
                                                        Default="1041"
InputField (0,18) "Matl" (0,23) Size="18"
                                      Name="IMATL"
                                                       Default="xxxxxxx"
InputField (0,42) "Qty" (0,46) Size="8"
                                       Name="IQTY"
                                                        Default="1"
InputField (0,55) "FROM" (0,60) Size="4"
                                       Name="FRMLOC" Default="stck"
InputField (0,65) "TO" (0,68) Size="4"
                                        Name="TOLOC"
                                                         Default="prod"
InputField (0,73) "SLIP"
                        (0,78) Size="10" Name="MSLIP"
                                                         Default="test ms"
                        (0,94) Size="15" Name="DLVR"
                                                         Default="KB WC4101"
InputField (0,89) "DLVR"
```

Simple - Single screen transactions. How is it done?

// Create a Push Button – can also be run by hitting a function code

```
Pushbutton (1,92) "Process" "FCode=/11"
Process="c:\DATA\MB1B_311\MB1B.txt"
USING OIMATL = [IMATL]
USING OIQTY = [IQTY]
USING OTOLOC = [TOLOC]
USING OFRMLOC = [FRMLOC]
USING OMSLIP = [MSLIP]
USING ODLVR = [DLVR]
USING OMVT = [MVT]
USING OPLNT = [PLNT]
```

// Move the cursor to the first input field. SETCURSOR (0,4)



Simple - Single screen transactions. How is it done?

//C:\DATA\MB1B_311\MB1B.txt called by process push button

// Get the input fields

PARAMETER OIMATL

PARAMETER OIQTY

PARAMETER OTOLOC

PARAMETER OFRMLOC

PARAMETER OMSLIP

PARAMETER ODLVR

PARAMETER OMVT

PARAMETER OPLNT

// Fill out the fields on the first screen, and hit the F8

Set F[RM07M-MTSNR] &[OMSLIP]
Set F[MKPF-BKTXT] &[ODLVR]
Set F[RM07M-BWARTWA] &[OMVT]
Set F[RM07M-WERKS] &[OPLNT]

Set F[RM07M-LGORT] &[OFRMLOC]

Enter "/8" //Execute

How easy is that?
Cuts Transaction time
in halfi

// Fill out the fields on the second screen and save

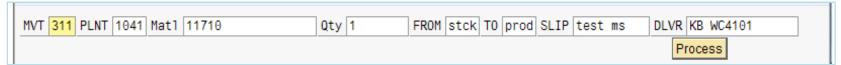
Screen SAPMM07M.0410

Set F[MSEG-MATNR] &[OIMATL]
Set F[DM07R-MB_ERFMG] &[OIQTY]
Set F[RM07M-TULGO] &[OTOLOC]
Set F[MSEG-WEMPF] &[ODLVR]

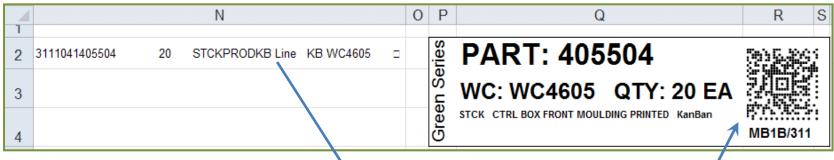
Enter "/11" //Save

Bar Code Enabled Screens with GuiXT.

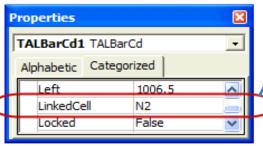
1. We put all the fields together and we enabled the push button with a function key.



2. Use Excel to print the labels, that we laminate, and put on Bins using Velcro.



- **3.** TalTech is an ActiveX that allows you to create Bar Codes from the contents of an Excel cell.
- **4.** Then you just need a bar code scanner connected to the USB port.





Automation

1. Download data hands free using GuiXT!





2. Use GuiXT to run a PC process to pull data in and process it.

3. Output results in the format people really want, Excel spreadsheets





4. Delivered the results the way people want, by Email

- 'Set up an Access data base with an autoexec marco to run this code
- 'Use windows scheduler to run it at night.

```
Function Downloads from SAP()
  'Kill SAP Logon
  RetVal = Shell("taskkill /IM saplogon.exe")
  Tries = 0 'logon tries
  Do 'Try to start SAP several times
     RetVal = Shell("C:\Prog~files\~~~\sapshcut.exe -sysname=WAP -client=900 -user=MySAPid -pw=MyPW")
     Tries = Tries + 1
     Sleep 60000 'Sleep for 60 seconds
  Loop Until isRunning("SAPlogon.exe") Or Tries > 6
  'Failed to log on. Quit
  If Tires > 6 Then
    Print #1, "Failed to start SAP, quit. " & Now()
    Exit Function
  End If
  The following Shell command runs the GuiXT script to download the information
  RetVal = Shell("C:\Prog~files\~~~\guixt.exe Input=OK:process=c:\data\GuiXT_script_file.txt")
  Quit 'Close this application
End Function
```

```
// c:\data\BatchJobs\GuiXT_DL_Script.txt
// The Access data base runs this script after it logs on to SAP.
// This script then runs other scripts and PC processes.
// Run the BenchMark scripts and Email right from SAP
Include "c:\data\BatchJobs\Script Email BenchMark txt"
// Down load all the Material Master tables,
Include "C:\Data\SAP MM\MM GuiXTscripts.txt"
//and run a batch file to put them in a data base on a shared drive
View "C:\Data\SAP MM\Get Data.bat"
// Run the Purchasing VMI scripts,
Include "C:\Data\purchasing\VMI SCRIPTS.txt"
// and then run the Access Database to send out emails to suppliers
View "C:\data\purchasing\VMI Reports.mdb"
// Log off SAP
Enter "/nex"
```

 This spread sheet, which is used to examine safety stock levels, is equivalent to ~ 85,000 SAP screens!

10	Α		C	D	1.1	J.L.	.0	. 17	Q	-5	1.	X	Y	7	AD	. AL.	N	AM.	AN
	Material description	Material	Plant	MRP	MS	Proc Type	Min lot size	Rou ndin g val	PO Open Qty	Kan Bon Bins	Kan Ban Oty	Avg Wkly Dem	Sad Dev	Data Points	Lead Time in Wks	Safety stock	Calc Safety	Dem Chg 13wk	Usage Chart
1			100		1							-	-	- 13	- 1		-	- 3	
487	SCREW 3-56 250 PAN PHILLIPS	106100-1	1000	323	QU	Y	0	100	90380	2.	100	42	20	42	0	200	3-8	-7%	ns/rapegy
188	PHPS 4-40 X 312	106100-11	1000	313	Qu	F	0	50	97700	2	50	16	13	6	0	100	10	0%	1
(8)	SCREW 6-12-300 PAN PHILLIPS OTHER	106100-13	1000	313	QU	F	0	0	657005	4	1000	1389	470	46	0	2500	1293	15%	AND MANY
190	SCREW 8-32-375 PAN PHILLIPS	105100-14	1000	111	QU	f	0	100	98500			1	0	1	0	100	1	016	
191	SCREW 4-40 .750 PAN PHILLIPS	106100-16	1000	נת	QU	,	0	20	997240	2	40	23	20	34	0	120	18	0%	Monday
192	SCREW 2:56:312 PAN PHILLIPS	106100-17	1000	ли	QU	ý.	0	100	97700	2	100	21	15	7	0	200	15	0%	N. A
(9)	SCREW 2:56 JET PAN PHILLIPS	106100-2	1000	ш	QU	F	0	100	72000	2	100	119	77	. 44	0	400	101	-10%	mula
105	phps 9-46 x .256 BLX GXIDE PLT	106100-29	1000	313	QU	F	0	160	75655	. 2	160	76	60	41	0	320	59	-814	MANA
196	SCREW 4-40, 500 PAN PHILLIPS	106100-3	1000	313	QU	F.	0	100	90500	2	80	46	36	.39	0	160	37	-874	Amount of

 And with GuiXT and a little VBA, you can click on a row in the spread sheet and have Excel pull up MD04 in SAP for that part!

Private Sub Worksheet_SelectionChange(ByVal Target As Range)

'runs when a user changes a selection.

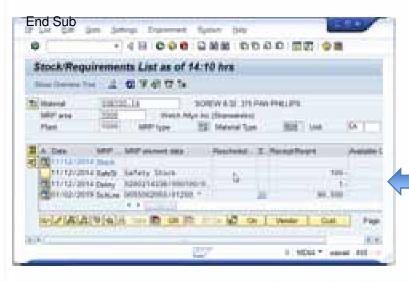
'See if user has clicked on a row

If (Selection.Count = 16384 And Selection.Rows.Count = 1)

Then

'run excel MD04 function Run MD04

End If



Public Sub Run_MD04()

Dim fso As Object Set fso = CreateObject("Scripting.FileSystemObject") Dim oFile As Object

'Write out a GuiXT script file
Set oFile = fso.CreateTextFile("c:\md04.txt")
oFile.WriteLine "Screen *"
oFile.WriteLine "Enter ""03"""
oFile.WriteLine "Screen *"
oFile.WriteLine "Screen *"
oFile.WriteLine "Screen SAPMM61R.0300"
' pass the material and plant from the selected Excel row
oFile.WriteLine "Set F[RM61R-MATNR] """ & Range("b" & ActiveCell.Row).Value & """"
oFile.WriteLine "Set F[RM61R-WERKS] """ & Range("c" & ActiveCell.Row).Value & """"

oFile.WriteLine 'Set [rimoth-mathin] & oFile.WriteLine 'Set F[RM61R-WERKS] """ 8 oFile.WriteLine 'Set C[RM61R-DFILT] "" """ oFile.WriteLine 'Set C[RM61R-BERID] "" """ oFile.WriteLine "Enter ""=FILT""" oFile.WriteLine "Screen SAPMM61R.0300" oFile.WriteLine "Enter" oFile.Close

'run the GuiXT Script just created retv = Shell("c:\program files\SAP\FrontEnd\SAPgui\guixt.exe Input=OK:process=c:\md04.txt")

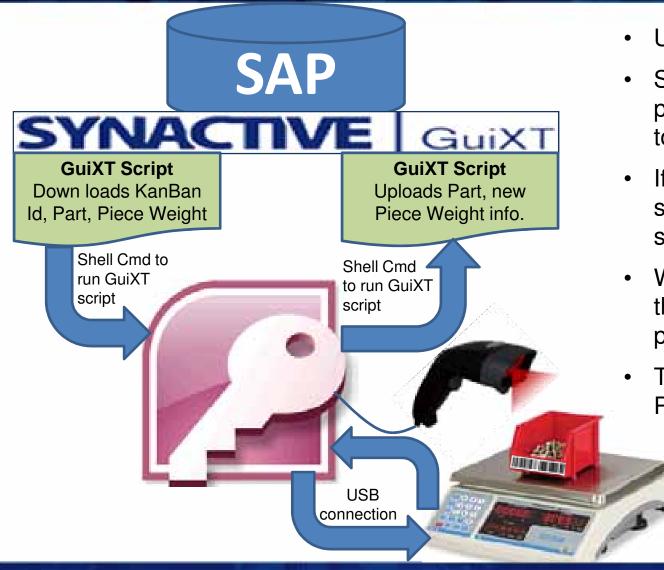
Set fso = Nothing Set oFile = Nothing End Sub

Automation - Process the data

Typically use Microsoft Access with an auto-execute macro to:

- Pull in the text files down loaded from SAP.
- Clean them up.
- Preform any joins, calculations, processing
- Output to Excel
- Email using Google Mail
- Post on the internet using Google Drive

Interfaces – a typical one.



- User scans KanBan Id
- System looks up the parts piece weight and sends it to the scale.
- If there is no pc.wgt, the scale is set to do a sample.
- When the sample is done, the scale sends the pc.wgt to system.
- The system updates the Part's pc.wgt. in SAP.

Interfaces – How's it work?

Microsoft Access data base has a form with two buttons.

These buttons execute shell commands to run GuiXT scripts.

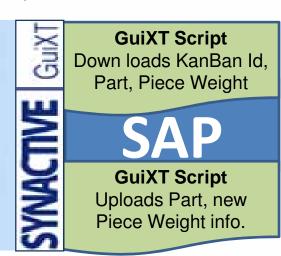


Download SAP Piece Weights

Shell ("C:\Program Files\SAP\Frontend\sapgui\guixt.exe Input=OK:process=C:\data\AvgPCwgt\Get SAP Wgt.txt")

Update SAP PcWgt from Scale

Shell ("C:\Program Files\SAP\Frontend\sapgui\guixt.exe Input=OK:process=C:\data\AvgPCwgt\Upd_SAP_Wgt.txt")



Interfaces – How's it work?

```
// Access writes the updates to a text file and then runs this script
// SAP Easy Access
Screen SAPLSMTR NAVIGATION.0100
 Enter "/nMM02"
// set up files
Parameter UpFr file "c:\junk\WgtUpdfile.txt" Delimiter=","
// open files
OpenFile "&[UpFr file]"
label Read_File <
// Read input file.
ReadFile "&[UpFr_file]" u_part u_gwgt u_nwgt u_wum
Message "Read &[u part]" -StatusLine
// if end of the input file, close the files, and Quit
if not V[u_part]
      Screen SAPLSMTR NAVIGATION.0100
        Enter "mm03"
      CloseFile "&[UpFr file]"
      CloseFile "&[UpFr Log file]"
      Return "Finished Updating"
Endif
```

```
// Change Material
Screen SAPLMGMM.0060
 Set F[Material]
                   &[u_part]
 Enter
// Select View(s)
Screen SAPLMGMM.0070
 Enter
// Change Material (2nd Screen)
Screen SAPLMGMM.4004
// Update New Material Values
 Set F[Gross weight]
                         &[u_gwgt]
 Set F[Weight unit]
                       &[u wum]
 Set F[Net weight]
                       &[u nwgt]
  Enter "/11" //SAVE
GOTO Read File
```

Interfacing to a Mobile Device

Material mover can go all over the production floor and scan the Kan Ban Bins empty.



// GuiXT script for PKBC to move fields

//Set the default status SET R[RMPKB-FLEER] "x" SET R[RMPKB-PKINR] "X" SETCURSOR F[RMPKB-PKKEY]

// Postion the Kanban Id fields to the top Left POS R[RMPKB-PKINR] (1,1) POS F[RMPKB-PKKEY] (1,12)

Interfacing to an iPod Touch

We're working on replacing the Mobile Computers with iPod's



- Liquid UI doesn't lose SAP connection.
- iPod is a fraction of the cost. It's lighter and has more functions. Email, imessage
- Honeywell SLED provides fast bar code reading, more rugged, security.

Honeywell's Captuvo SL22 series enterprise sled for the Apple® iPod touch® // GuiXT script for PKBC to move fields

//Set the default status SET R[RMPKB-FLEER] "x" SET R[RMPKB-PKINR] "X" SETCURSOR F[RMPKB-PKKEY]

// Postion the Kanban Id fields to the top Left POS R[RMPKB-PKINR] (1,1) POS F[RMPKB-PKKEY] (1,12)

Interfacing to an iPod Touch

I have PKBC running on the IPod touch.

Very cool, but I need smaller fingers :-)



How can we use GuiXT to make SAP easier?

- Simple Single screen transactions.
 - Very easy to do and can cut transaction times in half
 - Great ROI's
- Bar Code enabled the SAP screens with GuiXT.
 - Increase transaction speed Ten fold with less errors.
 - Minimal investment.

Automation

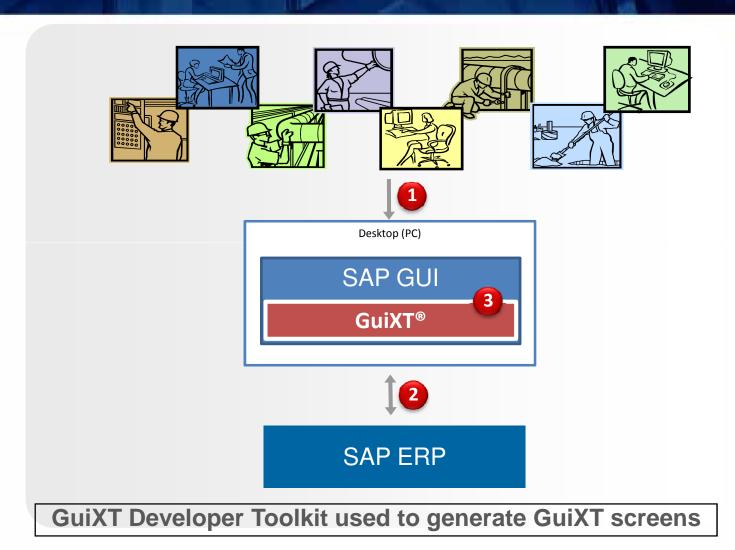
- Great way to send management / supplier / operation reports
- Schedule them to run at midnight.
- In you inbox ready to process

Interfaces

- Connect iPod to SAP. How cool is that!
- Interface SAP to PC hardware and PC Systems.

How Does GuiXT Work?

- 1) User makes a request via SAPGUI (e.g. VA01)
- 2) SAP responds with VA01 screen
- 3) GuiXT screen modifications are applied and SAPGUI draws new screen for VA01



What is included with SAP GUI?



- Single screen modifications only
- No screen aggregation

Improving the User Experience Before Liquid UI



Improving the User Experience After Liquid UI



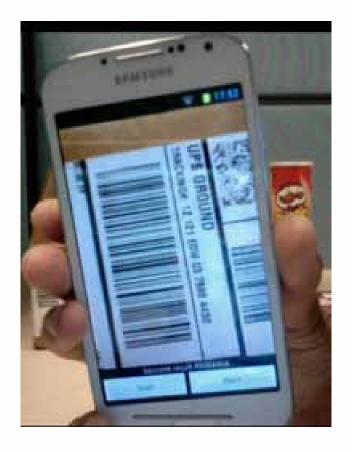
Liquid UI Screen Aggregation

Good Receipt for Purchase Order



Same Application on Android with Camera Integration for Barcode Scanning





Same Application on iPhone / iPad And Windows Scanguns







ONE development effort, multiple touchpoints

For full screen recording go to:

http://www.guixt.com/rapidapps/goods_receipt.php

Case Study: Sugar Cane Refinery

A leading domestic sugar producer and North America's first fully integrated cane sugar company, farming 185,000 acres of land.

Challenges

- Complex screens for inbound production and receiving, and outbound deliveries
- Material count manual entry
- Accessibility of devices while in plants and storage locations
- Some plants have low or no network connectivity due to security reasons, resulting in duplicate work efforts



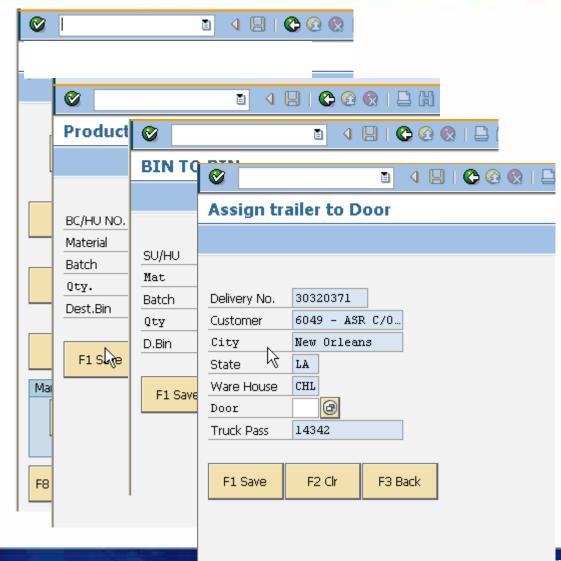
Custom Transactions

- WM013 Inbound with STO's
- WM014 Inbound with PO's
- WM015 Receiving from Production
- WM016 Receiving from Production
- WM019 Outbound to Customer with STOs
- WM021 Outbound to Customer with SOs

Liquid UI Inbound and Outbound Delivery Process on Scan Guns

- Inbound when you get the materials into the warehouse
- Outbound are materials you send outside.
- Internal when goods are moved about internally

For full screen recording go to: http://www.guixt.com/screencams



Case Study #2: Textile Fibers Company

One of the world's largest integrated producers of polymers and fibers, primarily for nylon, spandex and polyester applications in clothing, carpets, cars and computers.

Challenges

- Miscalculation in inventory, results in excessive goods in the warehouse or a backlog.
- Shorter shelf life products sitting in the warehouse turn into scrap materials.
- Goods Movement of hazardous material to a wrong location results in compliance penalty.
- Productivity is lost when users write the Goods receipt information on paper and then re-enter it in to SAP



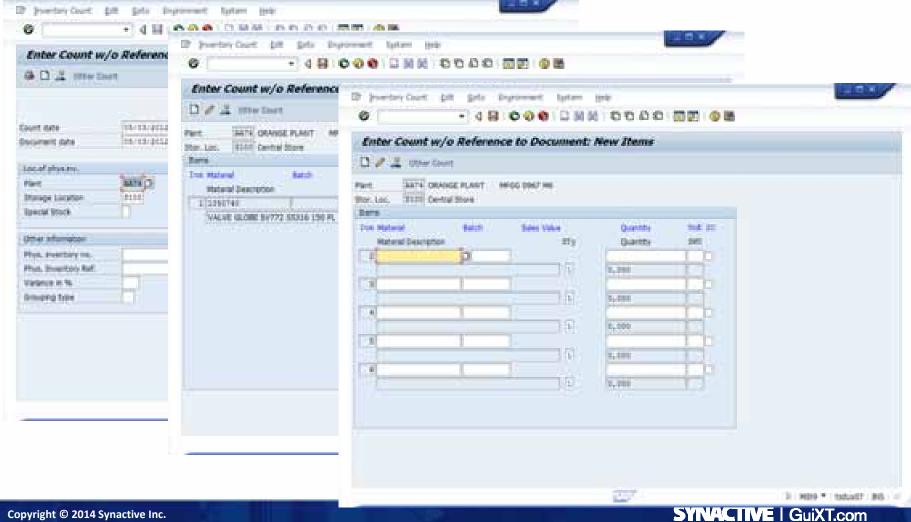
GuiXT Mobile solution in both online and offline modes provided easy access in plants / storage locations with barcode scanners for fast and accurate inventory counting, reservation and picking.

Processes Optimized

MIGO_GR Goods Receipt
MIGO_GI Goods Issue
MIGO_TR Transfer Posting
MIO1 Create Physical Inventory
MIO4 Enter Inventory Count

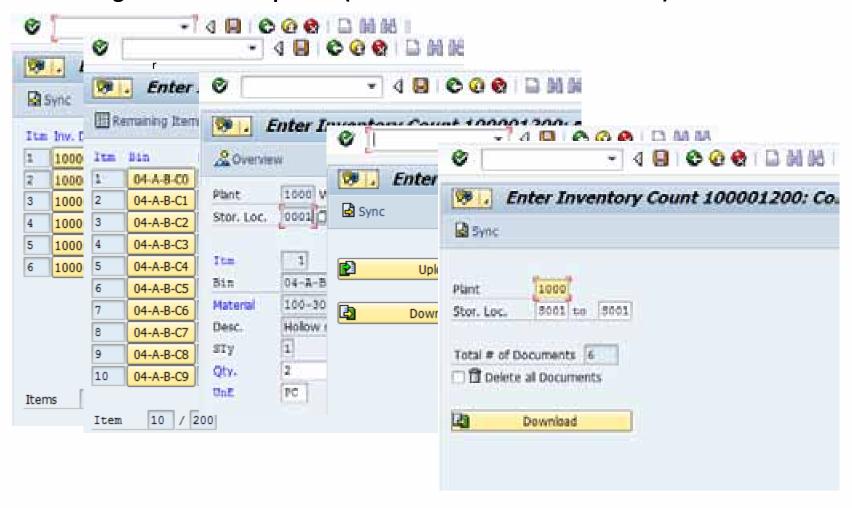
MI04 - Enter Inventory Count

Warehouse Management Before Liquid UI



MI04 - Enter Inventory Count

Warehouse Management After Liquid UI (Offline handheld mobile device)



ROI

- Physical inventory count process was reduce by
 50%
- Errors reduced by 75%
- Employee productivity increased by 40%
- Easy to train employees and intuitive interface



http://www.guixt.com/screencams/WarehouseManagement.php

Cycle Count App

- Improve customer service
- Reduce inventory costs
- Users work more efficiently via workflow integration in the application
- All required information necessary to create inventory document on screen
- Users are less prone to errors
- Deployable in as little as 1 day

For full screen recording go to:

http://www.guixt.com/rapidapps/cycle_count.php



Building the Business Case

	Transactions S	Seconds	Hours	Hrs@\$20 FTE's
MIGO	140,000	100	3,889	\$77,778 1.9
MB1B/311	350,000	60	5,833	\$116,667 2.9
MFBF	160,000	45	2,000	\$40,000 1.0
VL02N	350,000	90	8,750	\$175,000 4.4
SCALE	100,000	60	1.667	\$33,333 0.8
Interface	100,000		1,007	•
Pick tickets	350,000	30	2,917	\$ 58,333 1.5
Shortage report	2,080	10,800	6,240	\$124,800 3.1
Supplier Emails	176,800	300	14,733	\$294,667 7.4
			46,029	\$920,578 23.0



Company X will need 23 additional people to receive goods with Standard SAP

Real ROI

Plant Maintenance

Create Work Order was reduced from 8 minutes to 4 minutes. Improved workflow and reduced error rate by 50%. Reduced training from 2 hours to 30 minutes. Total Saving of \$90,000 per year.

Materials Management

This helped them in reducing the training time by 75%, standardizing the process, making the users 66% more efficient and also helped in minimizing the errors.

Procure To Pay

Ten to twelve actions reduced to a maximum of three actions; 75% time savings with improved accuracy.

Sales Order / Quotes

Create sales order reduce to 3 screens from 22 screens, which previously took 8 minutes to process vs. 3 minutes.

Training time reduced by 65%.

Fleet Maintenance

Barcode scanners attached to Desktop for vehicle parts, streamlined the process increasing efficiency and improved truck deliveries by 60%. In addition, the warranty process saved \$1 million per year.

Order To Cash

Improved overall customer service and satisfaction by more than 60%.

Warehouse Management

Physical inventory count process was reduce by 50%, errors reduced by 75%, employee productivity increased by 40%, easy to train employees and intuitive interface.

Service Management

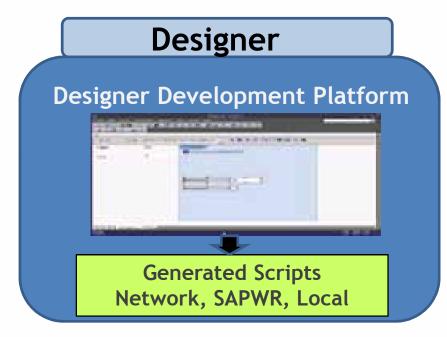
Change and Display transactions have the same benefits. Boost maintenance staff productivity by 100%, faster maintenance and fault repair system improves overall productivity. Over \$1 million plus in annual savings.

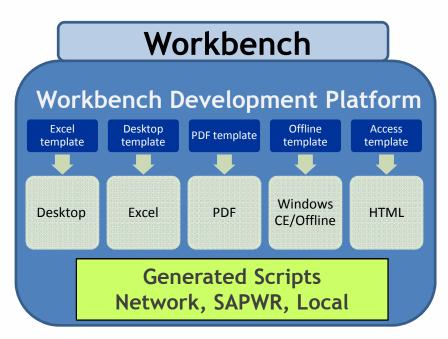
Benefits with Liquid UI – SAP @ Your Fingertips

- Native speed of SAP GUI (browser/web server is optional)
- Fully secure, not at mercy of browser
- No kernel upgrade
- No Odata, SMP, Gateway, etc
- Reduced training time
- Increase data integrity, reduce errors
- Increase customer satisfaction
- Increase efficiency
- 16 years of UX domain expertise
- Unified UI strategy for Desktop, Mobile devices and Web



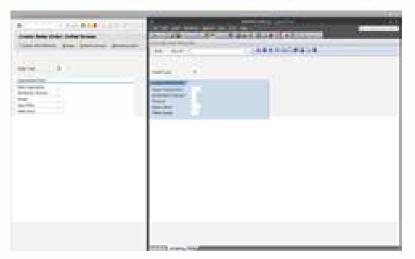
The Synactive Developer Suite





One Suite - Two Components

Designer



WYSIWYG



Deploy to any touch point





Scripts auto-generated

Workbench







Select Layout on Workbench



Scripts auto generated (Edit if needed)



Deploy to any touch point









What Does the 21 days Include?

The initial phase includes review and analysis your existing processes, interviewing functional process analysts or business users, and development of your business requirements.

Process and Interface Design

Installation and Deployment

Development

Development and Testing

In this step, we collaborate with your team to discuss the learning from the discovery phase, and develop a design that meets your expectations, coals, and deliverables.

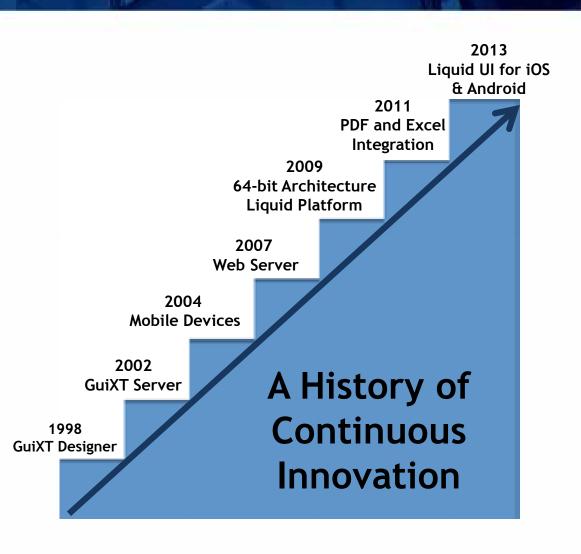
Synactive will assist your IT staff in the installation and deployment of the application. We will review and document the requirements, install the application, confirm system functionality, and recommend the best deployment method to sustain desired performance levels.

The development phase consists of simplifying and extending the newly created application to iOS, Android, mobile scanning devices, web/enterprise portals, Excel spreadsheets, Adobe PDF documents, or back to SAP GUI on the desktop. Unit testing is performed, and documentation is created.

Who we are....

Synactive @ a Glance

- Founded by Gerd Rode and Thomas Ewe
- Embedded with SAP since 1998
- A Single Platform approach
- SAP Partner Certified with Net Weaver integration
- Thousands of users and 15 years of SAP UI domain knowledge



In Good Company...over 1000 customers





























Research Hospital

















Liverpool"







































Next Steps

- Watch intro to <u>LiquidUI 3-min YouTube video</u> and pass it around to your team and managers
- http://www.guixt.com/screencams
- Download the iOS and/or Android native client app demo version
- Email <u>rfi@guixt.com</u> for a 30-day license
- Engage Synactive to reach your goals
- Join our new <u>Liquid UI Community</u> and be a part of our team



Upcoming ASUG Events



Delivering a new SAP UX for PM Workers on Drilling Vessels (tentative)
Thurs Dec 11, 10AM PT

Featured Speaker: Byron Keiser, Senior Applications Analyst at Pacific Drilling

Thank You

