

Presented by: Derek Maciak CTO/Partner Surround Technologies

surroundtech.com | @SurroundTech

Virginia Beach IBM i User Conference 2016

Bootstrap Responsive Web Development for the IBM i

October 7, 2016 - (8:40 AM-9:40 AM)



Today's Speaker





Derek Maciak **CTO/Partner Surround Technologies**

dmaciak@surroundtech.com | www.surroundtech.com

Socialize:



linkedin.com/company/128638

tweet me @SurroundTech



facebook.com/surroundtech



TODAY'S SESSION:

Responsive .NET Development for IBM i Line of Business and other Web Apps

Bootstrap is now one of the most popular HTML, CSS, and JS frameworks for developing responsive applications on the web. This session will discuss how to best build Responsive Web Applications using .NET, Bootstrap and your IBM i.

In this session you'll learn about:

- Multi-device User Experiences If you haven't heard, it's all about being responsive.
- Introducing Bootstrap

A popular front-end web development framework

• Accessing data and programs on your IBM I Because that's where all the good stuff is.

- Architecture, Technologies and Best Practices We've figured it out so you don't have to.
- Bootstrap framework customizations *Pimping out the ride.*
- Bootstrap themes & templates

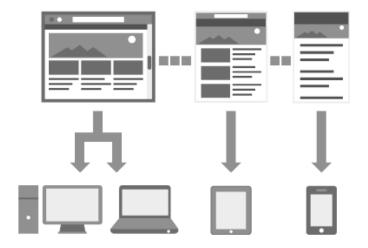


By A Show of Hands

We want to know: How familiar are you with Responsive Design?



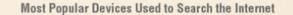
Multi-device User Experiences If you haven't heard, it's all about being responsive.

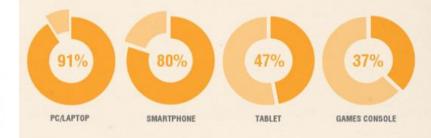




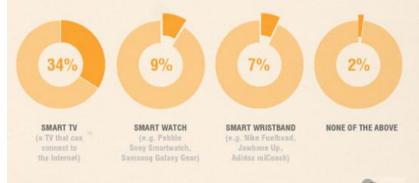
Why Responsive Design?

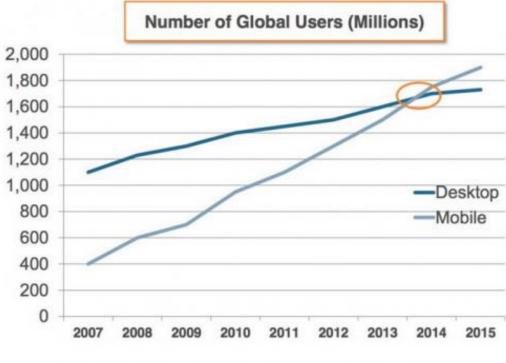
WHICH DEVICES ARE MOST POPULAR? 80% OF INTERNET USERS OWN A SMARTPHONE





Emerging Devices Used to Search the Internet





🚺 comScore.

Source: Morgan Stanley Research



SOURCE:

What is Responsive Design?





- Makes your web page look good on all devices.
- Uses only HTML and CSS.
- Is not a program or a JavaScript.
- Eliminates the need for different source code for different devices
- Developers use a mix of flexible grids and layouts, flexible images and the use of CSS media queries.

Responsive web design is becoming more and more important as *the amount of mobile traffic, which now accounts for more than half of total internet traffic,* increases.

Media Queries



- W3C CSS3 Recommended Standard in June 2012
- Uses @media rule to include CSS properties only if a certain condition is true.
- Always Design for Mobile First

```
CSS Media Queries within a style sheet
```

We Chose Bootstrap.





You could do all this from scratch, but why would you want to? We have, and it's *time consuming*.

With so many options on the market, we *chose* bootstrap.

What is Bootstrap?

Bootstrap, originally named *Twitter Blueprint*, was developed by Mark Otto and Jacob Thornton at Twitter as a framework to encourage consistency across internal tools. Before Bootstrap, various libraries were used for interface development, which led to inconsistencies and a high maintenance burden.

Bootstrap is a free and open-source collection of tools for creating websites and web applications. It contains HTML- and CSS-based design templates for typography, forms, buttons, navigation and other interface components, as well as optional JavaScript extensions. It aims to ease the development of dynamic websites and web applications. It is a front end framework, that is, an interface for the user, unlike the server-side code which resides on the "back end" or server.

Bootstrap is the most-starred project on GitHub, with over 85,000 stars and more than 34,000 forks. via WikiPedia





What is Bootstrap?



CSS

Global CSS settings, fundamental HTML elements styled and enhanced with extensible classes, and an advanced grid system.

Grid System Typography Code Tables Forms Buttons Images Helper Classes Responsive Utilities

Components

Over a dozen reusable components built to provide iconography, dropdowns, input groups, navigation, alerts, and much more.

Glyphicons Dropdowns Button groups dropdowns Input groups Navs Navbar Breadcrumbs Pagination Labels Badges Jumbotron Page header Thumbnails Alerts **Progress bars** Media object

List Group Panels Button Responsive

Wells

Javascript

Bring Bootstrap's components to life with over a dozen custom jQuery plugins. Easily include them all, or one by one.

Transitions Modal Dropdown Scrollspy Tab Tooltip Popover Alert Button Collapse Carousel Affix

Bootstrap's Benefits

Consistency

Bootstrap was created on the principle of consistency. It was meant to encourage consistency across internal tools at Twitter before creators later realized it had potential for much more. The tools in bootstrap pair designers with developers and ensures consistency regardless of who's working on the project. The end results is uniform across platforms so regardless whether you're using Firefox, Chrome or Internet Explorer, everything looks the same.

Speed

One of the most obvious benefits to using Bootstrap is speed. If you need to develop a new website or application quickly, nothing beats having everything pre-built and ready to customize to your needs.

Responsiveness

We've already seen that mobile traffic is responsible for more bandwidth than desktop computers. Responsiveness is no longer an option, but rather a necessity to keep up with the ever mobile heart beat of the world. By placing an emphasis on responsiveness out of the gate, you cater to current trends without losing site of legacy and varying platforms.







Bootstrap's Benefits

Customizable

Whether you choose to customize bootstrap yourself or use the bootstrap customize page online, any project can be customized to your needs, and the rest you can just toss. Using the online customize tool you can just select the checkboxes you want and download your customized version.

Support

Currently Bootstrap is hosted, developed and maintained on GitHub and has **nearly 10,000 commits and over 500 contributors**. As you can image there is a huge support community behind it and answers to issues can easily be found in support documentation or by simply searching for your problem online. There is no single source of support because of how widely accepted and implemented Bootstrap is.









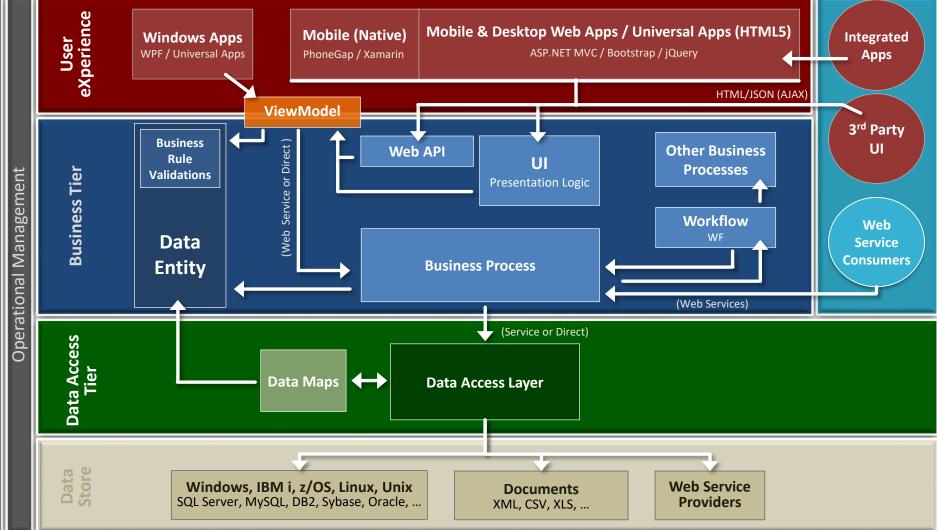
Bootstrap includes a responsive, mobile first fluid grid system that appropriately scales up to 12 columns as the device or viewport size increases. 12 is the magic number.

.col-xs-xx: <7 Extra sma			xx: >=768 nall	Врх	.col-m	d- <mark>xx</mark> : > Mediu		x .c		x: >=12 Large	200px	(xx=1	to 12)
.cont	ainer or .cor	ntainer-fl	uid										
	.row												
	1	2 3	4	5	6	7	8	9	10	11	12		
		.col-sm-4	ŀ				.col-s	sm-8					
		.col-sm-4	Ļ		.col-	sm-4			.col-	sm-4			
	.col-sm-3		.col-sm-3 .col-sm-3		3 .col-sm-3		3						
		_		_	_		_			_	_		

Architecture, Technologies and Best Practices

We've figured it out so you don't have to.





Authentication and Security

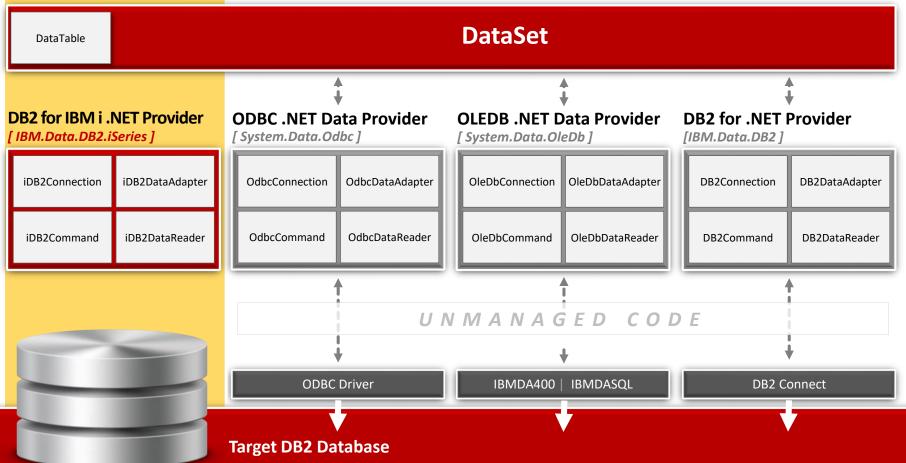
Accessing the data and programs on your IBM i

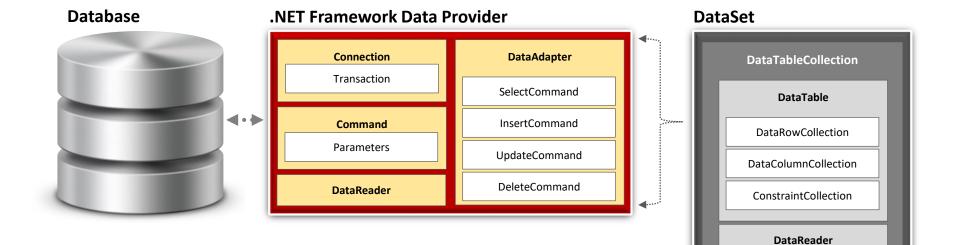
Because that's where all the good stuff is.



BEST PERFORMANCE

ADO.NET





XML SURROUND TECHNOLOGIES

ADO.NET Benefits



• Performance

- No need for COM marshalling or data type conversion to transmit a recordset among tiers
- Scalability
 - No database locks or active database connections for long durations

Interoperability

Datasets are transmitted across network using XML Format

• Maintainability

• Can easily increase the # of tiers after the application is deployed because of XML format

Programmability

Encapsulation of data access functionality

Good to Know

- Available as part of IBM i Access for Windows starting with V5R3M0
- Not a default install option,
 - o Must use Selective install with IBM i Access for Windows
 - Optional Windows Application Package that is part of IBM i Access Client Solutions
- Can connect to down-level OS/400 versions to V5R1
- Need TCP/IP connection from PC to IBM i
- Uses Optimized host database server job (QZDASOINIT) on the IBM i
- .NET class needs to reference IBM.Data.DB2.iSeries
- 5.4 version supports .NET Framework 1.0 and 1.1
- 6.1 and 7.1 versions targets .NET Framework 2.0 and will run on newer .NET Framework versions without modification
- Always check and update to current Service Pack

Bootstrap framework customizations Pimping out the ride.





Bootstrap makes customizing your themes as simple as visiting a website and choosing what components work best for your project. A few clicks and you'll be able to compile and use a system, designed for you, by you.

Visit:

getbootstrap.com/customize

Bootstrap themes & templates We've figured it out so you don't have to.





Many sites exist for customizing your bootstrap site. These plug and play customizations make styling your bootstrap driven site a breeze.

We recommend:

- www.bootswatch.com
- www.wrapbootstrap.com



Hands On Coding Let's see it in action.



{// } Demo Assumptions

- I am using Bootstrap with ASP.NET MVC, but it can be used with any backend framework.
- ASP.NET project templates automatically link in and use Bootstrap
- All data is coming from DB2 on an IBM i.
- I have already done the following:
 - Generated entities using our own Object Relational Mapping (ORM) tool for the following files:
 - Customers and Orders (Customers have 1:M Orders)
 - Created an ASP.NET MVC project using Razor Syntax for Views
 - Referenced the entities generated above
 - Ran MVC Scaffolding against the Customer and Order Models to generate the CRUD
 - Used for demonstration of Bootstrap and not a recommendation for full featured LOB websites
 - Created a PagingModel.cs Model Class
 - Created 2 shared partial views, _PagingControls.cshml and _ModuleTabs.cshtml
 - Created a Customer Editor template Partial View called CustomerEntity.cshtml





Examples from the field Putting it all together







Bootstrap in the field:

This large electric cooperative allows their customers to access and update their account information through a customer portal pulling information from their backend COBOL based system running on their IBM i





Bootstrap in the field:

Viewing electric usage and current as well as previous bills are simple from any device. New services such as paperless billing and fund raising for charities like operation round up have seen huge increases in online subscriptions.



		+		
	waysOn ower Company		Hangte Prepare Consulton Find us on Consultant	
🕈 🛛 Pay a Dil 👻	Noving * Customer Service *	Outage	Center +	
Make a Payr Paying for Nember: JOC 5 PO WRITE ID: 1204567000			Shift4	
Card Details:			Cardholder Information:	
Cordholder Name:*			Phone Number:'	
Card Type:" Cord Number:"	MasterCard	•	E-Maik.	AlwaysOn Power Comp
Expisation Month?	Expiration Year:*		Deurseet Beteller	1.
Street Address:"	•		Payment Details: Please enter the amount you with to pay. There is a \$2.75 convenience for to process your payment.	Make a Paymen
As it appears on your credit	t card slatement. Do not include City or State	1	Annexern (Enter payment annount, Le. 150.10) Resource for Different Annount:	Card Details: tentrolier Kener
				Leel Type:" Mario Gard Cerl Hamber" Bayesbook Models," Experisor

Bootstrap in the field:

Customers now have more choices of how to pay their bill online. Automated payment services and bill history means customers will never have to worry about being away and a bill being due.

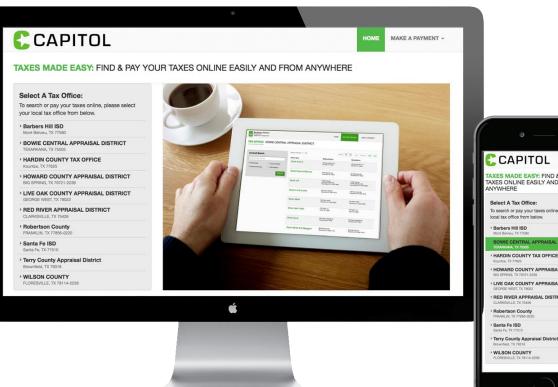




Bootstrap in the field:

Reporting street light outages or other problems within the utilities zone is as easy as 1-2-3.







WILSON COUNTY

Bootstrap in the field:

No one likes paying taxes, but since we all have to, it might as well be easy and look good. If you live in Texas, you know what we're saying.

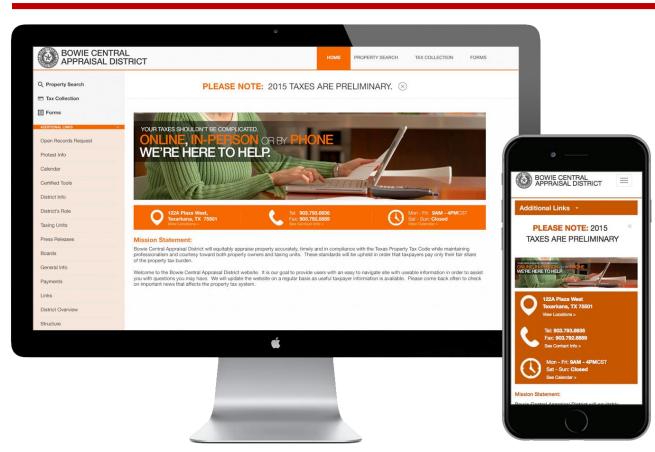


	۲					
TAX ASSESSOR-COLLECTOR PO BOX 6527 TEXARKANA, TEXAS 75505-6527		HOME ACC	COUNT SEARCH MAKE A PAYMENT -			
ACCOUNT SUMMARY: DAVIS ANGELA (17 HOME / ACCOUNT SEARCH / ACCOUNT SUMMARY	2249)		A Print Tax Recap			
Account Summary:						
Owner Name: DAVIS ANGELA Owner No.: 172249	Mailing Addre	DAVIS ANGELA DBA ANGELA DAVIS SCHOOL OF ATTENTION TAX DEPT 101 E FRONT DE KALB TX 75559	F DANCE	Tax Assessor- PO B0x 6527	Collector	
	:					Tax Recap
				DAVIS ANGELA HOME / ACCOUNT SEAR	(172249) CH / ACCOUNT SUMMARY	іах несар
Tax Summary				Account Summ		
By Accounts By Year By Jurisdiction				Owner Name: Owner No.:	DAVIS ANGELA 172249	
Account Number	Paid	Due this Month	Due Next Month	Mailing Address:	DAVIS ANGELA DBA ANGELA DAVIS	SCHOOL OF
42600010204 📷	\$0.00	\$13.66	\$13.93		DANCE ATTENTION TAX DEP	
TOTAL - ALL ACCOUNTS	\$0.00	\$13.66	\$13.93		101 E FRONT DE KALB TX 75559	
	ú			Tax Summ By Accounts	By Year By Jurisdict	
				Account Number	Paid Month	th Mor
				42600010204	\$0.00 \$13.60 \$0.00 \$13.60	
				ACCOUNTS		

Bootstrap in the field:

Taxes explained. FINALLY. User friendly screens explain current and past due taxes and any linked accounts all in an easy to read design.





Bootstrap in the field:

Local district offices can even control the look and feel of their own sites using Bootstrap and Accelerator's built-in CMS.



Q Property Search		unt Details Propert			Tax Year: 2015		
Tax Collection	Account Nu	imber: 23460005400 (4847	73-1/72065)		Print Summary		
ADDITIONAL LINKS	Owner Name:	Davis Angela	Situs Address:	258 CR 3111			
Protest Info Calendar	Mailing Addres	s: ATTENTION TAX DEPT 101 E FRONT DE KALB TX 75559	Legal Description:	DAVIS A A-517 5070/279 01/25/07 5416/323 06/27/08 BLK/TRACT 85		Tax Year: 2014	
Certified Tools				1.057 ACRES		Account Details	Property I
District Info District's Role	Account De		Value Information			Account Number:	Print Summary
Taxing Units	Exemptions: Owner Percent: Deed Date:	General Homestead age: 100.0%	Land: Improvements: Personal:	8,468 33,228	Ag Market: Ag Productivity: Timber Market:	42600010204 (82128-1/164438)	ight fine Outlining
Press Releases	Last Date to Pr	otest: 5/1/15	Mineral:		Timer Productivity:		
Boards	2015 - Currer	t Year Values 5 Year Historical Val	lues			Owner Name:	DAVIS, ANGELA
General Info						Mailing Address:	101 E FRONT DE KALB, TX 7555
Payments	Code \$	Jurisdiction Name	Appraised 0 41,696	Exemptions © 9,339	Taxable = 33,357		106 N RUNNELS DE KALB
District Overview	03D 04C	DE KALB ISD TEXARKANA COLLEGE	41,696 41,696	25,000	16,696 41,696	Legal Description:	Google Map PERSONAL PROPE
Structure	CAD	BOWIE APPRAISAL DIS	41,696		41,696		FURN FIX & EQUIP
		_	ú			Account Details Exemptions: Owner Percentage: Deed Date:	100.0%

Bootstrap in the field:

Down to the finest details of pages each district controls their content without effecting the user friendly design.





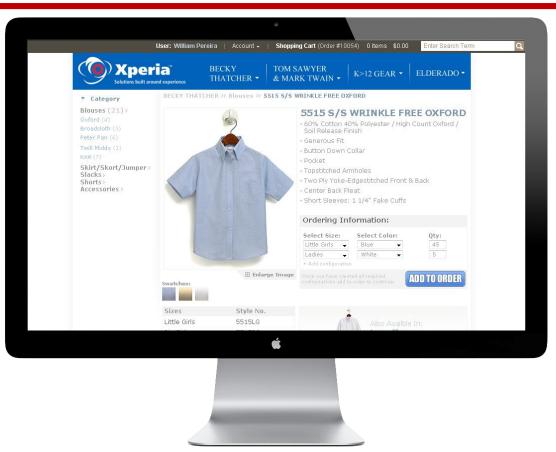
Southers built around experience HATCHER & MARK TWAIN IT items found for your search Blouse Category Oxford (4) Broadcloth (3) Peter Pan (6) Peter Pan (6) Tomil Middy (1) Tomil Middy (1) First Availability View As Image: Color Black Soil Release Finish fraid Armey White Black Blue Soil Release Finish fraid Armey State I L/S WRINKLE RESISTANT BROADCI HO INTED SPORT COLLAR BLOUSE - SSR Follyester 35% Cotton / Soil Release Finish fraid Armey First Availabili 7/22/11 Style Part Pan (6) Soil Release Finish fraid Armey - Soil Release Finish fraid Armey First Availabili 7/22/11 Soil Release Finish fraid Armey Soil Release Finish fraid Armey Style Polyster 35% Cotton / Soil Release Finish fraid Armey First Availabili 7/22/11 Style Polyster 35% Cotton / Soil Release Finish fraid Armey First Availabili 7/22/11	User: William Pe	ereira Account - Shopping Cart (Order #10054) O Items	\$0.00 Enter Search Te
Sort By: Price Low - High Price High - Low Availability View: 1 Oxford (4) Broadcloth (3) Peter Pan (6) Tom Sawyer & Mark Twain First Availability Twill Middy (1) Tom Sawyer & Mark Twain Collar First Availability Yiew: 1 * Knit (7) Tom Sawyer & Mark Twain First Availability Yiew: 1 * Soill Release Finish Image • Sill Release Finish Image • Sill Release Finish Image * Wrinke Black Becky Thatcher First Availabil Black Bue Becky Thatcher First Availabil Bue Buoy • Sill Release Finish Image First Availabil * Size Becky Thatcher First Availabil * Size Becky Thatcher First Availabil			AR 🕶 🕴 ELDERADO 🕶
Sort By: Price Low - High Price High - Low Availability View: 1 Oxford (4) Proadcloth (3) Peter Pan (6) Peter Pan (6) Peter Pan (6) Peter Pan (6) Tom Sawyer & Mark Twain Pirst Availability First Availability Twill Middy (1) Nitit (7) Peter Pan (6) Peter Pan (6) Peter Pan (6) Twill Middy (1) Nitit (7) Peter Pan (6) Peter Pan (6) Peter Pan (6) Will Neldester 35% Colton (1) Soil Release Finish (1) Peter Pan (6) Peter Pan (6) Black Black Becky Thatcher Soil Release Finish (1) Peter Pan (6) Yellow Becky Thatcher Soil Release Finish (1) Peter Pan (6) Peter Pan (6) Yellow Becky Thatcher Soil Release Finish (1) Peter Pan (6) Peter Pan (6) Yellow Becky Thatcher Soil Release Finish (1) Pered Rid Pered Rid Pered Rid Yellow Becky Thatcher Soil Release Finish (1) Pered Rid Pered Rid Pered Rid Yellow Becky Thatcher Soil Release Finish (1) Pered Rid Pered Rid Pered Rid Pered Rid	items found for your search Blouse		
Oxford (4) Broadcloth (3) Peter Pan (6) Twill Middy (1) Knit (7) Color Black White Black White Soill Release Finish Yellow Red Red Set Set Becky Thatcher Status Soill Release Finish T/22/11 Status Soill Release Finish T/22/11 Soill Release Finish			
Broadcloth (3) Peter Pan (6) Twill Middy (1) Knit (7) Knit (7) Color Black White Black White Black White Sellaw Becky Thatcher Sellaw State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State S		and the second	View: 12 👻
Peter Pan (6) Tom Sawyer & Mark Twain Tom Sawyer & Mark Twain Twill Middy (1) Knit (7) Color Black White Blue Yellow Red Size Becky Thatcher Size Becky Thatcher Size Becky Thatcher First Availabil T/21/11			
Color Sill S/S POINTED COLLAR BLOUSE 7/21/11 Winkle Resistent - 65% Polyester 35% Cotton - 7/21/11 Winkle Resistent - 50% Polyester 35% Cotton - 7/21/11 Black - Soll Release Finish - 7/21/11 Black - 7/21/11 - 7/21/11 White - 7/21/11 - 7/21/11 Black - 7/21/11 - 7/21/11 Wite - 7/21/11 - 7/21/11 Black - 7/21/11 - 7/21/11 Wite - 7/21/11 - 7/21/11 Black - 7/21/11 - 7/21/11 Wite - 7/21/11 - 7/21/11 Black - 7/21/11 - 7/21/11 Wite - 7/21/11 - 7/21/11 Black - 7/21/11 - 7/21/11 Wite - 7/21/11 - 7/21/11 Black - 7/21/11 - 7/21/11 Wite - 7/21/11 - 7/21/11 Broadcott - 7/21/11 - 7/21/11 Wite - 7/21/11 - 7/21/11 Broadcott - 7/21/11 - 7/21/11 Broadcott <t< td=""><td></td><td>Tam Courses & Mark Trush</td><td>First Availability:</td></t<>		Tam Courses & Mark Trush	First Availability:
 Knit (7) Color Black White Blue Yellow Red Sill Release Finish First Availabil Tapered Fit First Availabil Tapered Fit Size Becky Thatcher First Availabil 			
Color Solution Sol		- 65% Polyester 35% Cotton	
Color Black White Blue Red Color Solution Blue Blue Blue Blue Blue Blue Blue Blue			
Black White Blue Yellow Red State State Blouse Blou		[read more]	
White Blue Blue Red Stati L/S WRINKLE RESISTANT BROADCLOTH POINTED SPORT COLLAR BLOUSE - 65% Polyester 35% Cotton / Soil Release Finish - Tapferd fit / rest dread - Size Becky Thatcher First Availabil	Color		
Blue 5431 L/S WRINKLE RESISTANT 7/22/11 Yellow BROADCLOTH POINTED SPORT COLLAR BLOUSE • 65% Polyester 35% Cotton / Soil Release Finish • Tapered Fit • 5ize Becky Thatcher First Availabit	Black		
Yellow Red Red State BROADCLOTH POINTED SPORT COLLAR BLOUSE 65% Polyester 35% Cotton / Soil Release Finish Tapered Fit Tad mon. Size Becky Thatcher First Availabit			First Availability:
Red BLOUSE GSW, Polyester 35% Cotton / Soil Release Finish GSW, Polyester 35% Cotton / Soil Release Finish Taparad Fit //wad more Size Beckv Thatcher First Availabit			7/22/11
Tapered Fit Imad mon Size Beckv Thatcher First Availabi	Red		
✓ Size Becky Thatcher First Availabit		🔍 🕐 Tapered Fit	
 Size Becky Thatcher First Availabi 			
	Size	Becky Thatcher	First Availability:
Small 5411 L/S WRINKLE RESISTANT 7/22/11	Small		7/22/11
BROADCLOTH POINTED SPORT COLLAR			
BLOUSE			
Large 65% Polyester 35% Cotton / Soil Release Finish Tapered Fit /rad more 7		· Tapered Fit	

SURROUND TECHNOLOGIES™

Bootstrap in the field:

E-comm? No problem. There's a theme for that.





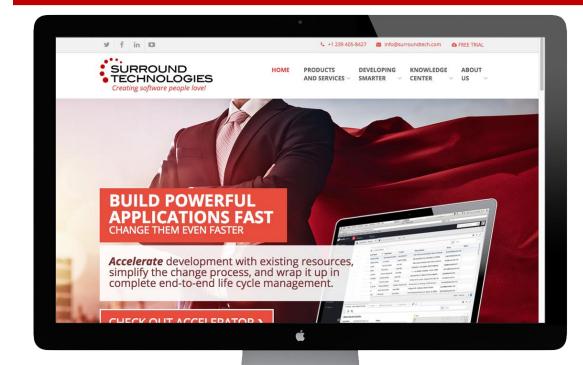


Xper	1	ECKY HATCHEI		M SAWYEF IARK TWA		EAR - ELDE	RADO -
✓ Invoice Search	Sort Results Date Range: 	Last 15 day	/S	▼ - OR - (0	to to	
By Order Number:	Sort By:	All Transad	ction Types	•	(MM/DD/YYYY)	(MM/DD/YY	m) Results
By Customer Name:	1.2. A. 12. A.		1.00	1.22			
By Date:	Order Number Q 100053	Date 07/15/11	Amount	Items	Salesperson Derek Maciak	PO 10256585665	PDF
	Q 100058	07/15/11	\$1524.10 \$124.00	52	Derek Maciak	78564755665	2
From:	0 100065	07/10/11	\$124.00	10	Will Pereira	10256585665	2
To:	Q 100032	07/15/11	\$1524.10	4	Derek Maciak	185684255	2
By Salesperson:	Q 100051	07/02/11	\$1524.10	13	Doug Webb	10256585665	2
	Q 100125	06/15/11		11	Vinay	542587965455	2
By PO#:	Q 100078		\$11524.10	1450	Derek Maciak	021350005	~ ₹
	Q 10005		\$1524.10	200	Derek Maciak	877745225	7
	Q 100234		\$1524.10	25	Derek Maciak	21455685985	2
Search	0 100225		\$1524.10	102	Derek Maciak	0455221044	~ ↓
	21 Invoices Found		4100 1120	100	Dereit Hadian	Show:	10.00
	22 11101000 1001	-				0110111	
	📄 Print 🎘 Vies	v PDF 🚺	Open in New	Widnow	Pre	vious Invoice Ne>	t Invoice
	INVOICE	#:1000)53		Date	Ordered: 07/15	5/2011
	Product	SI	tyles(s) S	Size(s) Q	ty Availability	Price Total	
	rounce		cynab(by c	5/120(5) 2	cy productionicy	Thee Total	



Visit SurroundTech.com





Bootstrap in the field:

Promotional Sites can be setup in notime. Check out our own site <u>SurroundTech.com</u> created with Bootstrap using Accelerator's CMS to see how we are using Bootstrap to promote ourselves at various trade shows.

Dogfooding:

We use our own technology to understand what, if any, pitfalls our customers may encounter.

Accelerator CMS

st					X
~		Pages Browser - Surround Websites Administra	ation		
<u>File Edit View Tools Navigator V</u>					
	rch 💽 🔛 🙀 💭 🕼 🗭 🔚 🔚 🔍 💈				
Navigator 👻 🌪 🗙	Website Pages + × +				
👷 Navigator Favorites 💿	Website Pages			Last Refresh: I	19:10 AM
🖬 🖩 🔳 (-)	🕂 Add 🥥 Remove 🚍 Sequence 🕤 Propertie			Q. Filter Results (Ctrl+F) 🔳
Q. Filter Modules	Name	Description	Alternate Name	Alternate Description	Number
▲ OWorkflow ≜	• 😸 Home Page	Home Page			3
Workflow	🗏 🗑 Menu	Menu			4 2
Workflow Instance	🕀 🔛 The Conference	The Conference (Top Menu)			5 3
22 Workflow Areas	Software Modernization and Development	Software Modernization and Development (Top Menu)			11 9
Workflow Instance Statuses	🖲 🗑 Software Modernization	Software Modernization	<i class="icon-right-open"></i> <st< td=""><td></td><td>5 000 11 12</td></st<>		5 000 11 12
4 🕼 SurroundTech.com Content Mar	🖲 🐖 Software Development	Software Development	<i class="icon-right-open"></i> <si< td=""><td></td><td>13 3</td></si<>		13 3
Se Website Pages	🗉 🐨 Accelerator	Accelerator	<i class="icon-right-open"></i> <st< td=""><td></td><td>13 3 4 14 15 16 17 18 10 10 10 10 10 10 10 10 10 10 10 10 10</td></st<>		13 3 4 14 15 16 17 18 10 10 10 10 10 10 10 10 10 10 10 10 10
🚞 Media Library	🗷 🔛 About Surround	About Surround	<i class="icon-right-open"></i> <st< th=""><th></th><th>15 9</th></st<>		15 9
 SurroundCommon.com Content 	🗷 🔛 Contact Us	Contact Us	<i class="icon-right-open"></i> <sl< td=""><td></td><td>16</td></sl<>		16
Website Pages	🗷 🗑 Carousel	Carousel			17 3
🚞 Media Library	🗑 🔛 Banners	Banners			18 2
Consultation Meeting Dates	🗷 🗑 Form Confirmations	Form Confirmations			24
Consultation Meeting Times	🗷 🔛 Legal Pages	Legal Pages			32
A GiModernization.com Content Ma	🖲 🔛 Templates	Templates			35 3
🔛 Website Pages	1				35
Media Library	to m Items Loaded: 31 of 31				
 Generative 	Contens coaded: a for a f			BAL BAL AI	
Users User Groups	🗑 Detail 🥥 Bernarks (0) 🥜 Audit Stamps				
Command Groups	Module Name	Module Number			A
d Class	Home Page	3			
Security Question	Module Description				
Kuser Access	Home Page				
K, User Access Log	Image Name				
User Record Locks	Default				
Event Log	Module Type Explorer Item Na	me			
4 🔍 Remarks	Static Web Content AB_StaticWebCo				
Remark Type					
😤 Remark Templates	Module Extensions Extra Head Markup HTML Bo	dy Content Banner Carousel Slider Carousel			A
# % Maintenann	Page Title				
				1	/2015 9:10 AM



Accelerator CMS

Easily manage static, dynamic and database driven content across multiple systems, sites and customers.

- Line of Business Apps
- Portals
- Forms
- Ecommerce

New Accelerator Desktop Style UX



	ly Used 👻 Favorites 🗸		🎫 English (US) 🗸	Find reports and more Q 🗭 🔳	
Customers/Orders	tomer ₩ X +	EasyBuy Cycles	Recently Used V Favorites V	English (US) > 🔀 Find reports a	nd more Q =
 Image: Customer the second sec	C C Search	Derek ∽ □ Customers/Orders ⊕	≅ Customer 🗃 🗙 🕂 ⊞ Customer 🏠		EasyBuy 🛞 Cycles 🛛 Q 🗭 🚍
- Order Item 🖈 Aaron - E Product 🏠 Aaron Aaron Aaron Aaron Aaron - E Product	Allen Cycles As Baker Cycles As Bryant Cycles As Butler Cycles As evers • etail Order I Signature	 □ Customer □ Shipping Address □ Order □ Order tem □ Order Item □ Product 	Compared and the second s	Contact Full Name Telephone Email Aaron Alexander 548-555-0129 aaron180 Aaron A Allen 648-555-0141 aaron550 Aaron E Baker 488-555-0125 aaron400	Filter Results Customer Customer ** Commands Filter Results Commands Filter Results Mame Aaron Alexander Cycles Aaron Allen Cycles Aaron Baker Cycles Aaron Baker Cycles
Ne Le	Customer Detail - Aaron - Alexand ame Aaron Alexander Cycles ogal Name Aaron Alexander Cycles, LLC ontact Last Name Alexander		Detail Order Order		Aaron Bryant Cycles Aaron Butler Cycles Aaron Campbell Cycles Aaron Campbell Cycles New for test Aaron Campbell Cycles New for test Aaron Campbell Cycles New for test Aaron Carter Cycles Aar

IBM i for Power Systems









Today's Speaker: **Derek Maciak**

[CTO / Partner]

dmaciak@surroundtech.com | www.surroundtech.com

Socialize:

- linkedin.com/company/128638 1
 - tweet me @SurroundTech
 - facebook.com/surroundtech

