

# **Informix 4GL to Genero Bring Your Code Into the Future by Lester Knutsen**

***Webcast on September 22, 2015  
2:00pm EDT***

***Advanced DataTools***

# Lester Knutsen



Lester Knutsen is President of Advanced DataTools Corporation, and has been building large Data Warehouse and Business Systems using Informix Database software since 1983. Lester focuses on large database performance tuning, training and consulting. Lester is a member of the IBM Gold Consultant program and was presented with one of the Inaugural IBM Data Champion awards by IBM. Lester was one of the founders of the International Informix Users Group and the Washington Area Informix User Group.

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# Agenda

- Introduction
- Converting Informix 4GL Code to Genero
  - Demo
  - Conversion Steps
- About Four Js Genero by Stacey M. Osborn, Sales, Four Js

# Example Code

- DBPrivileges – 4GL program developed in 1993 to manage Informix database user and group privileges
  - Add Users
  - Add Groups
  - Grant and Revoke Table Privileges
  - Grant and Revoke Database Privileges
- Written in Informix 4GL 4.X

# DBPrivileges – 4GL

lester — ssh — 80x26

USER MENU: Query **Next** Previous Add Update Remove Tables Exit  
Display the next user record from the last query

---

BETA-RELEASE DataTools – User Privileges REL:1.7

---

User Login: [james ] User Name: [ ]  
Group Name: [groupB ] Description: [Group B ]  
Database Access: [C][CONNECT ]

---

Table	Grantor	Select	Update	Insert	Delete	Index	Alter
[customer ]	[lester ]	[Y]	[N]	[Y]	[N]	[Y]	[N]
[items ]	[lester ]	[Y]	[N]	[Y]	[N]	[Y]	[N]
[manufact ]	[lester ]	[Y]	[N]	[Y]	[N]	[Y]	[N]
[orders ]	[lester ]	[Y]	[N]	[Y]	[N]	[Y]	[N]
[state ]	[lester ]	[Y]	[N]	[Y]	[N]	[Y]	[N]
[stock ]	[lester ]	[Y]	[N]	[Y]	[N]	[Y]	[N]
[table01 ]	[lester ]	[Y]	[N]	[Y]	[N]	[Y]	[N]
[table02 ]	[ ]	[N]	[N]	[N]	[N]	[N]	[N]
[table03 ]	[ ]	[N]	[N]	[N]	[N]	[N]	[N]
[table04 ]	[ ]	[N]	[N]	[N]	[N]	[N]	[N]

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# DBPrivileges – 4Js No GUI

```
lester — ssh — 80x26
USER MENU:  Query Next Previous Add Update Remove Tables Exit
Display the next user record from the last query

-----
BETA-RELEASE                                DataTools - User Privileges                                REL:1.7
-----
User Login:      [james  ]      User Name:      [                ]
Group Name:      [groupB ]      Description:    [Group B      ]
Database Access: [C][CONNECT ]
-----

  Table      Grantor  Select  Update  Insert  Delete  Index  Alter
-----
[customer    ] [lester ] [Y]     [N]     [Y]     [N]     [Y]     [N]
[items       ] [lester ] [Y]     [N]     [Y]     [N]     [Y]     [N]
[manufact    ] [lester ] [Y]     [N]     [Y]     [N]     [Y]     [N]
[orders      ] [lester ] [Y]     [N]     [Y]     [N]     [Y]     [N]
[state       ] [lester ] [Y]     [N]     [Y]     [N]     [Y]     [N]
[stock       ] [lester ] [Y]     [N]     [Y]     [N]     [Y]     [N]
[table01     ] [lester ] [Y]     [N]     [Y]     [N]     [Y]     [N]
[table02     ] [        ] [N]     [N]     [N]     [N]     [N]     [N]
[table03     ] [        ] [N]     [N]     [N]     [N]     [N]     [N]
[table04     ] [        ] [N]     [N]     [N]     [N]     [N]     [N]
-----
```

# DBPrivileges – 4Js GUI

screen

Query User  
Enter data and press ESC key to search or DEL to abort

BETA-RELEASE DataTools - User Privileges REL:1.7

User Login:  User Name:

Group Name:  Description:

Database Access:

Table	Grantor	Select	Update	Insert	Delete	Index	Alter
customer	lester	Y	N	Y	N	Y	N
items	lester	Y	N	Y	N	Y	N
manufact	lester	Y	N	Y	N	Y	N
orders	lester	Y	N	Y	N	Y	N
state	lester	Y	N	Y	N	Y	N
stock	lester	Y	N	Y	N	Y	N
table01	lester	Y	N	Y	N	Y	N
table02		N	N	N	N	N	N
table03		N	N	N	N	N	N
table04		N	N	N	N	N	N

Display the next user record from the last query

OVR

USER MENU

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# DBPrivileges – 4Js Web

Genero HTML5 Web Client

Query User  
Enter data and press ESC key to search or DEL to abort

BETA-RELEASE DataTools - User Privileges REL:1.7

User Login: james User Name:  
Group Name: groupB Description: Group B  
Database Access: C CONNECT

Table	Grantor	Select	Update	Insert	Delete	Index	Alter
customer	lester	Y	N	Y	N	Y	N
items	lester	Y	N	Y	N	Y	N
manufact	lester	Y	N	Y	N	Y	N
orders	lester	Y	N	Y	N	Y	N
state	lester	Y	N	Y	N	Y	N
stock	lester	Y	N	Y	N	Y	N
table01	lester	Y	N	Y	N	Y	N
table02		N	N	N	N	N	N
table03		N	N	N	N	N	N
table04		N	N	N	N	N	N

USER MENU

Query

Next

Previous

Add

Update

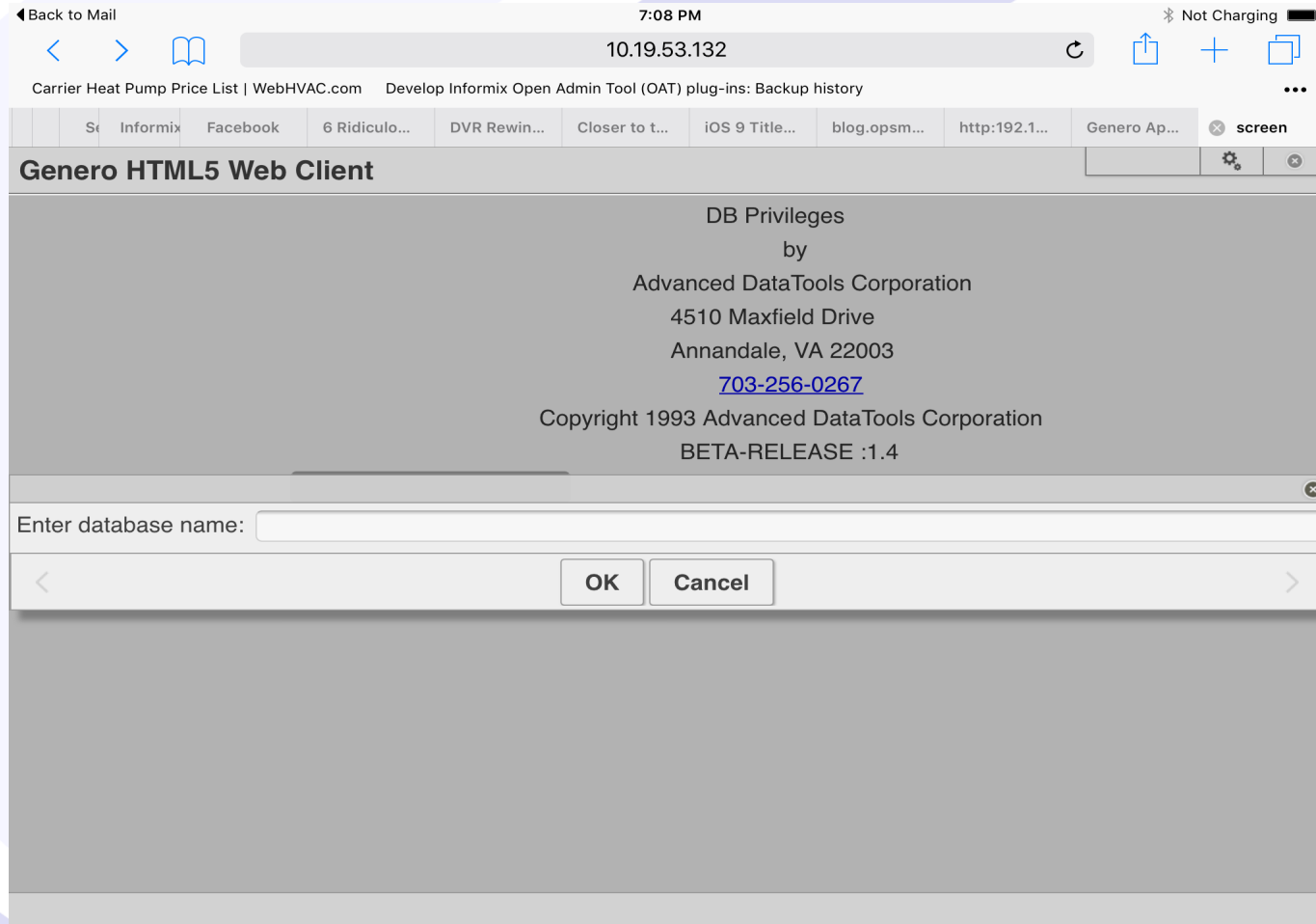
Remove

Tables

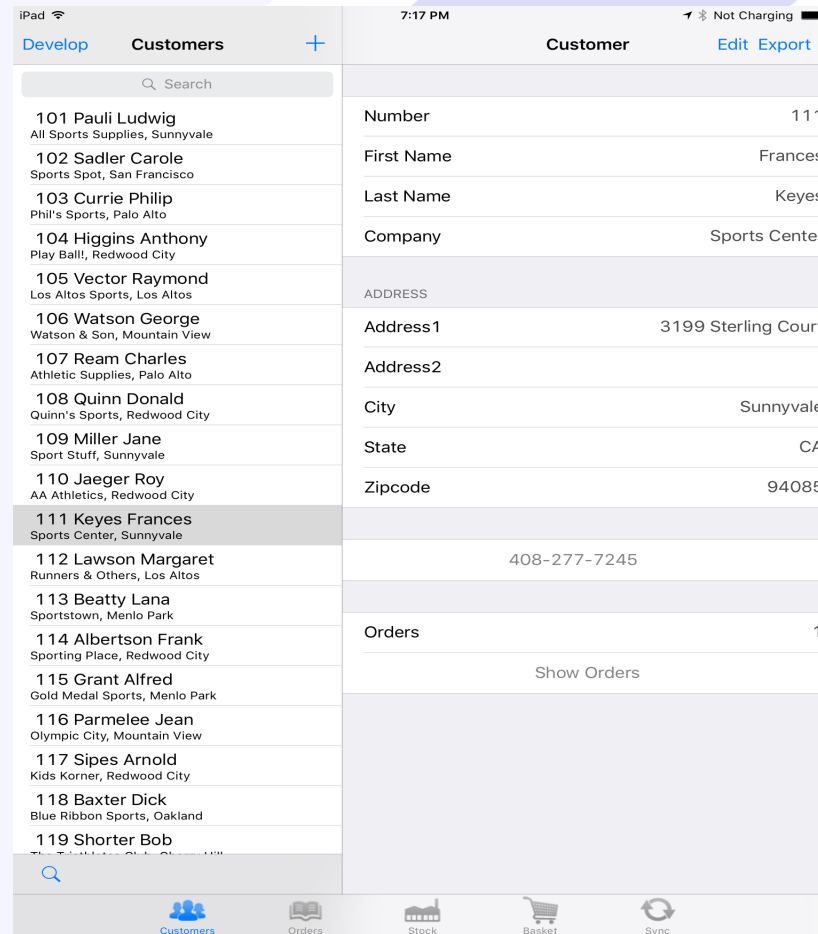
Exit



# DBPrivileges -4Js on iPad



# 4Js iPad App Stores Demo



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# Demo

- First – Make Sure the Old Code Compiles and you have all the source files
- Upgrade old code to current release of engine
- Create a Makefile to compile everything

# Using 4Js Compiler – File Extensions

- Screens (per)
  - form.frm -> form.42f
- Modules (C)
  - program.o -> program.42m
- Modules (RDS)
  - program.4go -> program.42m
- Programs (C)
  - program.4ge -> program.42r
- Programs (RDS)
  - program.4gi -> program.42r

# Using 4Js Compiler

- Screens (.per)
  - Informix 4GL
    - `form4gl form.per -> form.frm`
  - 4Js
    - `fglform form.per -> form.42f`
- Message File
  - Informix 4GL
    - `mkmessage myhelp.msg myhelp.iem`
  - 4Js
    - `fglmkmsg myhelp.msg myhelp.iem`

# Using 4Js Compiler

- Informix RDS P-code Compile
  - Informix 4GL
    - fglpc module.4gl
  - 4Js
    - fglcomp module.4gl
- Informix RDS P-code Link
  - Informix 4GL
    - cat m1.4go m24go ...> prog.4gi
  - 4Js
    - fgllink -o prog.42r m1.42m m2.42m ..

# Using 4Js Compiler

- Informix IDS C-Compile
  - Informix 4GL
    - `c4gl -c module.4gl`
  - 4Js
    - `fglcomp module.4gl`
- Informix IDS C-code Link
  - Informix 4GL
    - `c4gl -o prog.4ge m1.4gl m2.4gl ..`
  - 4Js
    - `fgllink -o prog.42r m1.42m m2.42m ..`

# Makefiles and 4Js

## Makefile Defines

## To Compile Genero

ALL = \$(42R) \$(42F) \$(GLOBAL)

42R = dbpriv.42r # Genero Linker output

42F = dtgrp.42f dtgrpmem.42f dtpub.42f dttab.42f dtuser.42f dtlogo.42f

GLOBAL = dtglobal.4gl # 4GL Globals

## Genero Object Modules

42M = dtpriv.42m dtsql.42m dtglobal.42m dtlog.42m dtmenu.42m \  
grpadd.42m grpmem.42m grpquery.42m grptab.42m grpupd.42m \  
pubtab.42m tabquery.42m tabusr.42m \  
usradd.42m usrquery.42m usrtab.42m usrupd.42m



# Makefiles and 4Js

## Makefile rules

## Rule to compile Genero forms

.per.42f:

fglform \$\*

## Rule to link Genero 4GL modules to globals

\$(42M): \$(GLOBAL) \$@

## Rule to link Genero object modules to create executable

\$(42R): \$(42M) \$(GLOBAL)

fgllink \$(42M) -o \$(42R)

## Rule to compile 4GL to Genero p-code modules

.4gl.42m: \$(GLOBAL)

fglcomp -c \$<

# Challenges of Upgrading Old Code – Perform Screens

- Precise code – missing commas
- Screen array field sizes do not match
- Screen field sizes too small for WORDWRAP

# Challenges of Upgrading Old Code – 4GL Code

- Precise code – old compiler does not check the number of values passed or returned between functions and calling program
  - Functions returned unexpected number of values
  - Functions called with parameters where none were defined
  - Functions called with 1 value where 2 were defined
  - Functions with multiple return statements all returning different types or numbers of values

# GUI Paradigm Shift

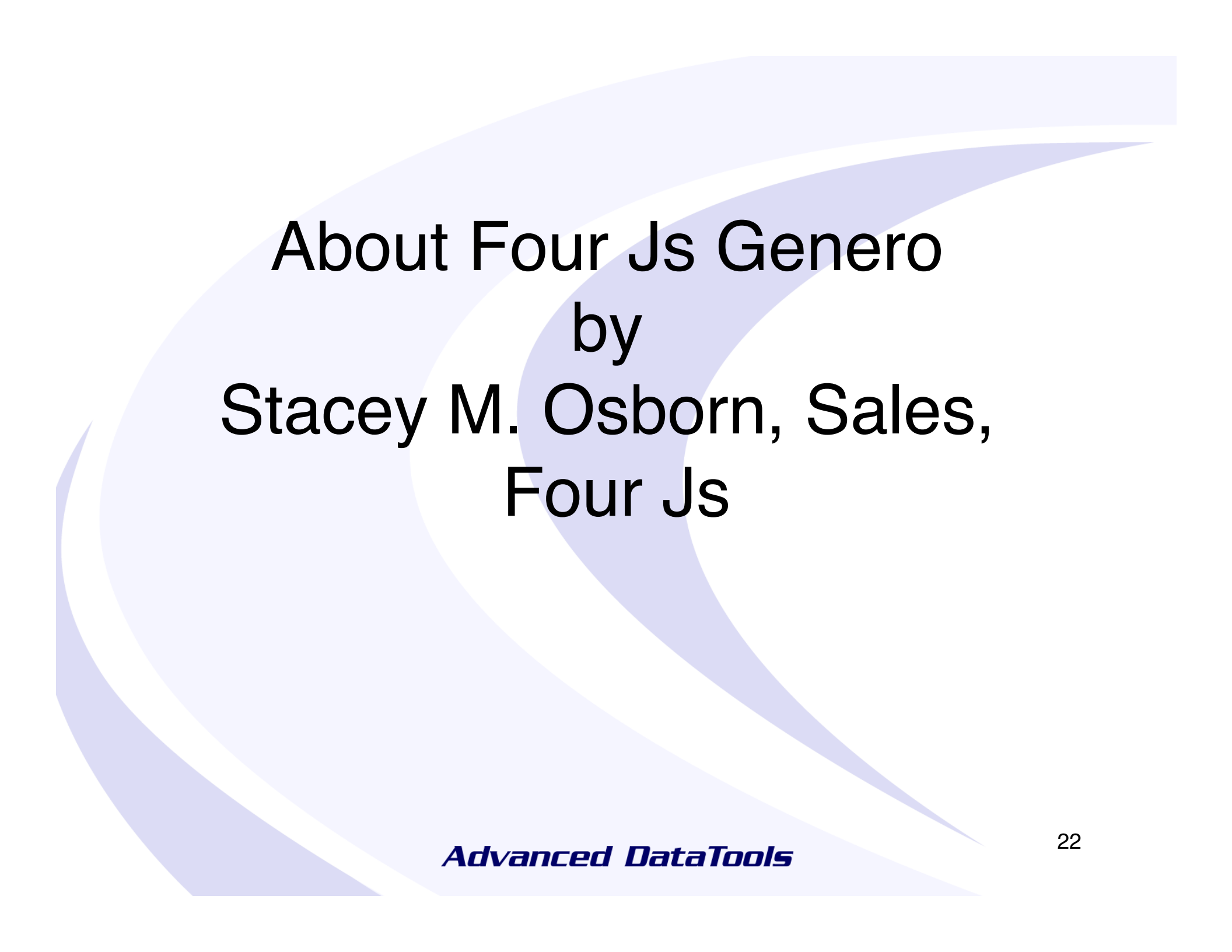
- Challenges of the Web
- Keyboard Function Keys and ONKEY Clause
- Proportional Space Fonts
- Boring Screens

# Questions?



Send follow-up questions to  
[lester@advanceddatatools.com](mailto:lester@advanceddatatools.com)

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# About Four Js Genero by Stacey M. Osborn, Sales, Four Js



**The Fastest Path to Success**

**I4GL to Genero :**

**Webcast presented by**

**Lester Knutsen, President  
Advanced Data Tools**

**Laurent Galais, Manager – Support Services**

**Four Js**

**Stacey Osborn, Sales**

**Four Js**



# Outline of Webinar

- Explain the IBM and Four Js business relationship
- Tell me more about Four Js as a company
- Why make changes to I4GL apps that have worked for 20+ years?
- What is Genero Enterprise- Suite of products?
- 3 Migration steps
- **How do I4GL programmers get started ?**
- Next steps – contacts/ evals/ promos





# What is the IBM & Four Js connection?

- **IBM and Four Js have been technical business partners for 20+ years on an international level.**
- IBM chose Genero by Four Js as the preferred “modernization tool” for I4GL and sold licenses under IBM Genero for several years with very successful migration efforts.
- In a joint statement, July 2015, IBM and Four Js agreed the 4GL/ Genero communities would be best serviced through Four Js directly. Four Js is proactively engaging IBM Genero customers and the transition of technical support has proven best for end users.
- IBM’ers Shawn Moe and Jeff Treece continue to support Four Js as the preferred “modernization tool” and evangelize Genero.
- IBM channel partners are now working with Four Js to migrate existing 4GL customers and sell Four Js Genero Enterprise



# Tell me more about Four Js

- Founded in 1992 by Jean-Georges Schwartz
- Offices in US, UK, France, Latin America, Iberica, ASIAPAC
- US brand-name customers include the NFL, Sears, Skechers, Sungard Public, McDonald's, CVS to name a few
- **Over 22 million licenses sold!**
- **US Technical Support Engineers all have over 11+ years employment with Four Js and avg 20+ years of Informix 4GL exp**
- Leader in the 'Informix-4gl migration vs complete rewrite' market



# Why make changes to I4GL apps that have worked for 20+ years?

**We agree!** As Lester demonstrated.....

**Stick with a coding structure that proves to be solid and timeless BUT with added features to keep up with the modernized apps driven by user demands.**

This is Genero Enterprise!



# Genero Enterprise - a suite of products

- **BDL** - Programming Language + compiler + Runtime System
- **Studio** – Graphical Integrated Development Environment
- Web Services API's
- Application Server
- Graphical clients
  - **Desktop** Client (Windows, Linux, Mac)
  - Universal **Web** Client (HTML5/CSS/JS based)
- Report Writer
- Genero Mobile



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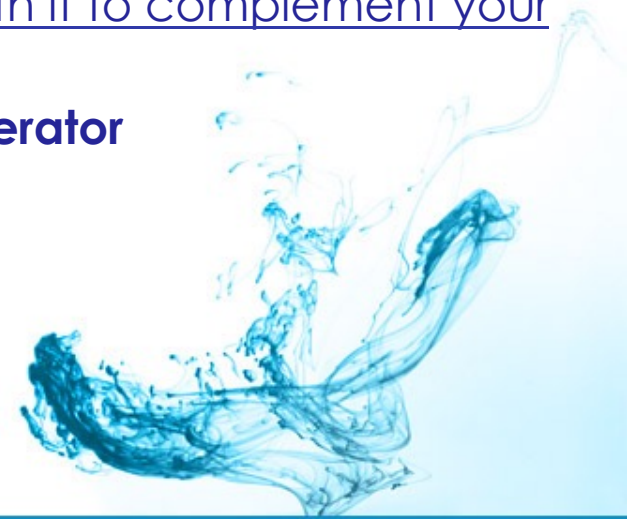
# Genero Enterprise Suite: BDL

- Efficient & Comprehensive high level language to quickly get information in/ out of a database to display it to screen
- It has proven over the year to be a great choice to design sophisticated business / intensive data entry type of applications
- Informix **4gl backward compatible** means legacy code / screens / reports can be used as a base
- **Superset of I-4gl, very easy to pick up for those that program already with Informix**
- New features, widgets and APIs added every year in order to always extend the developer's possibilities while not compromising the core business logic
  - Genero BDL is a full language that doesn't depend on I4gl as a requirement. You can write brand-new applications/modules with it to complement your legacy one
- Developer can **code manually or use a code generator**



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# Genero Enterprise Suite: Studio IDE

- For better productivity or to accelerate adoption for programmers coming from different environments, Four Js provides a Graphical Integrated Development Environment called Studio
- Note that you can work with Genero using command line only

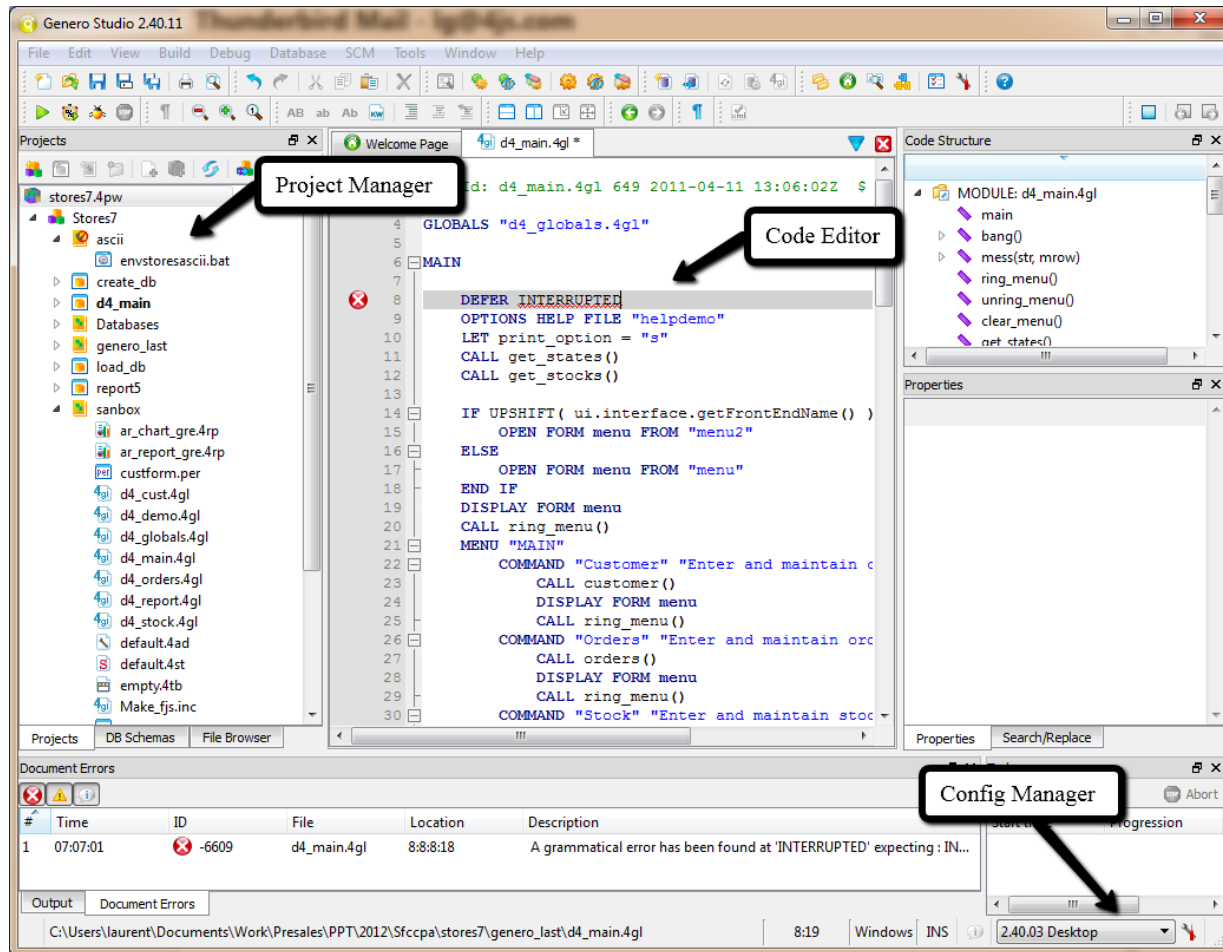


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# Productivity - Studio IDE modules

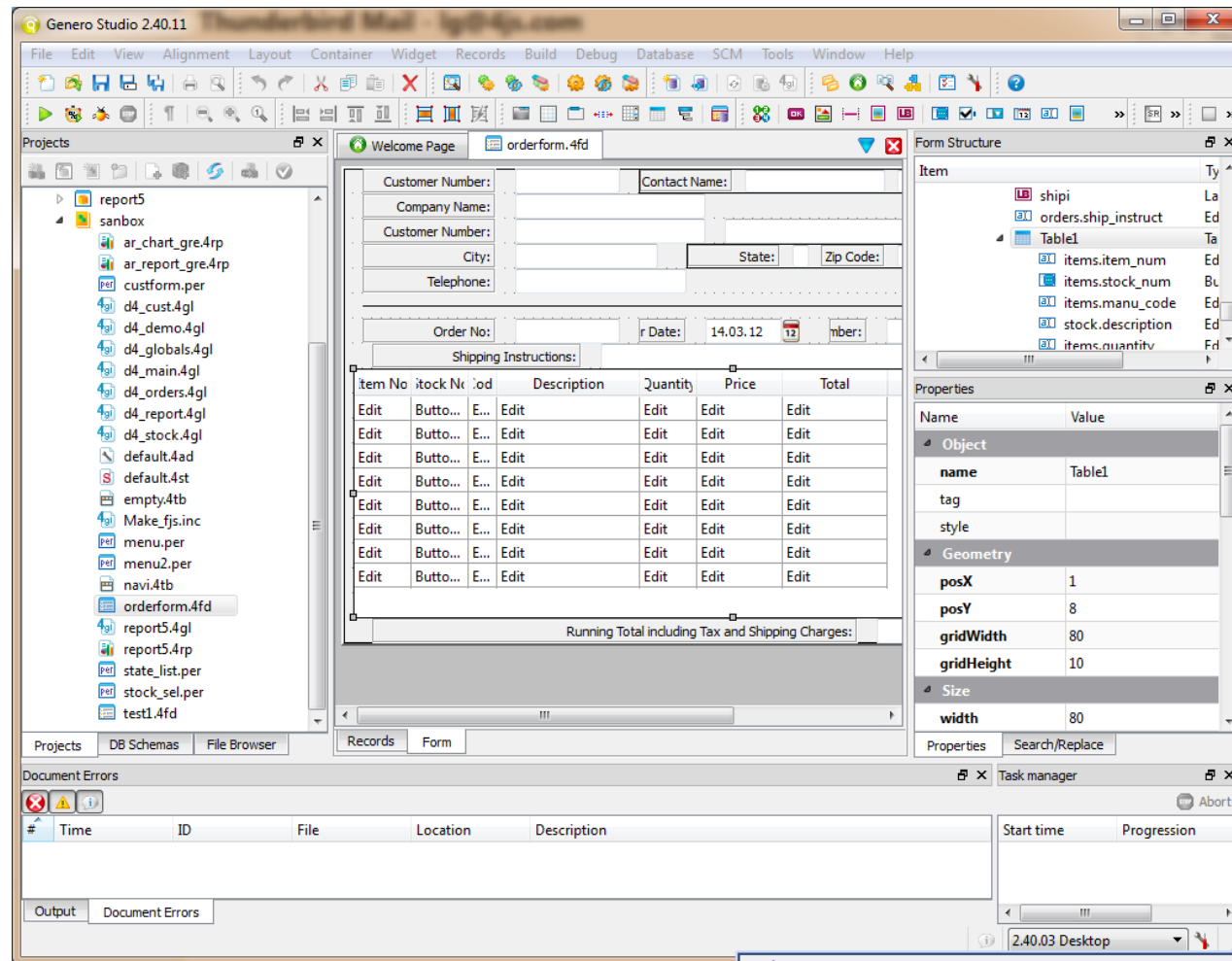


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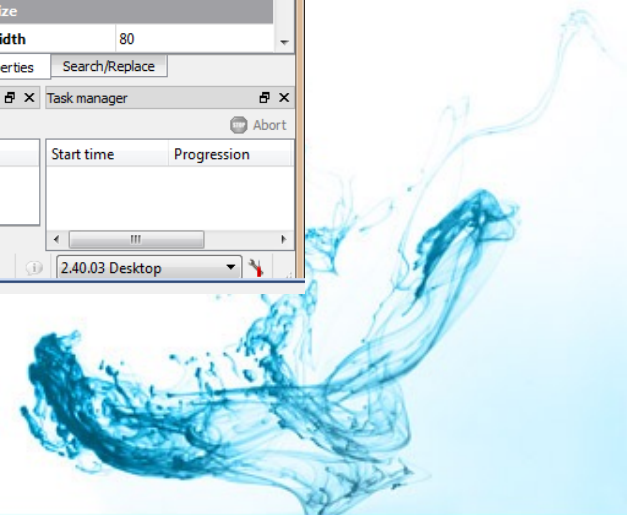


# Studio IDE – Screen Designer



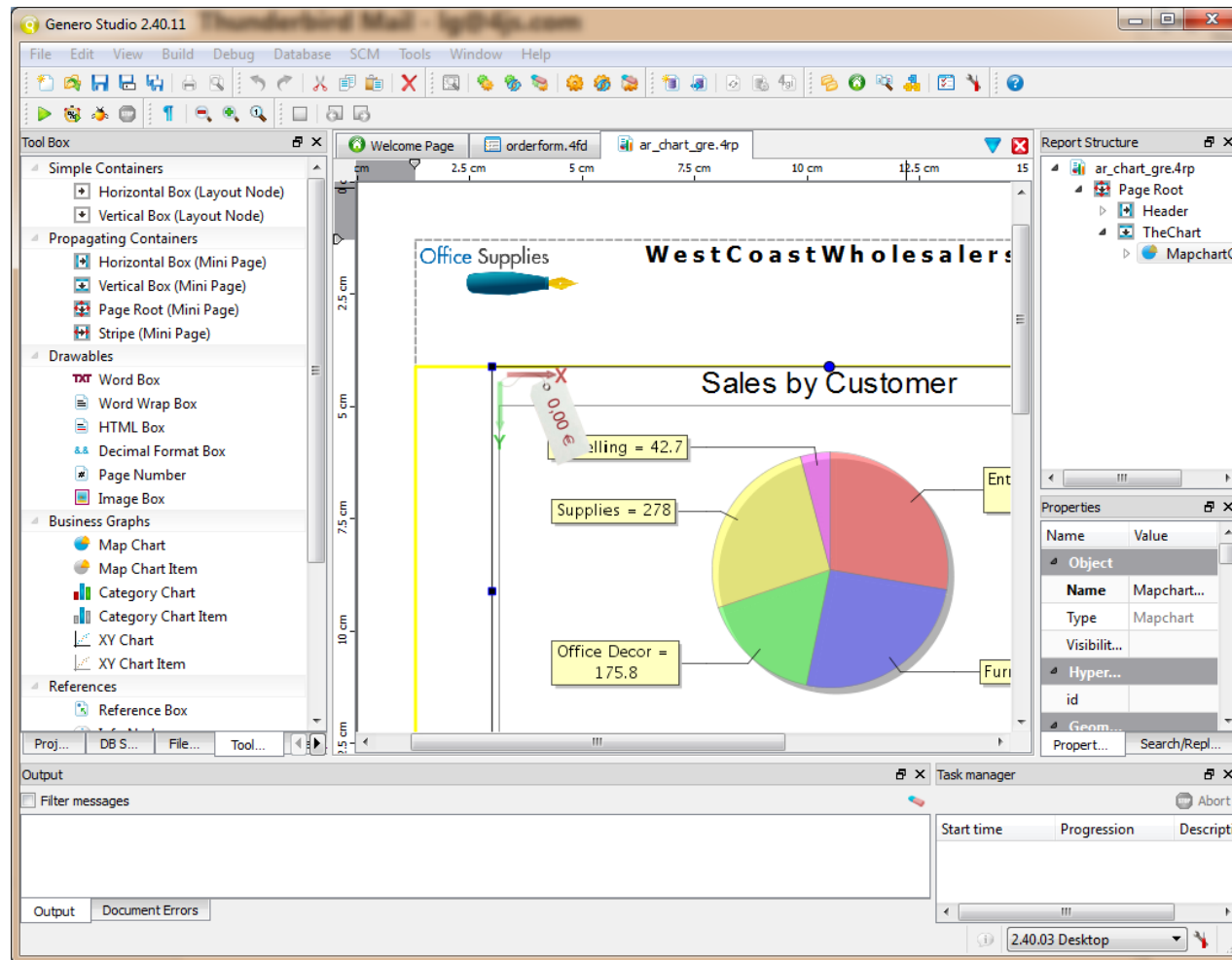
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# Studio IDE – Report Designer

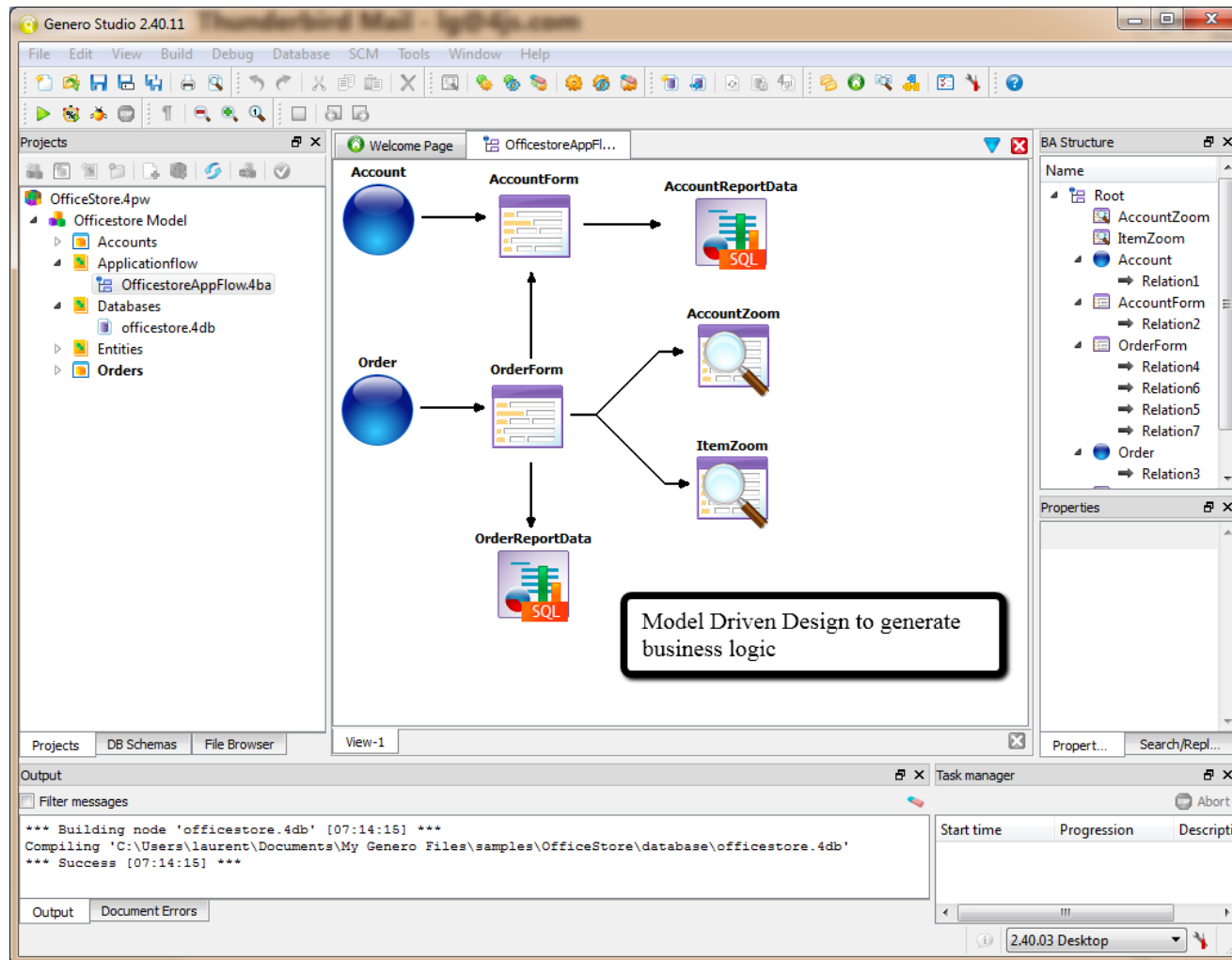


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# Studio IDE – Business Application Modeling



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# Genero Enterprise Suite: Open Architecture

- **Write once, deploy anywhere**
- P-code is OS cross-platform like Java Byte code
  - OS support: Linux, Windows, Mac, AIX, SUN, HP, ...
- Database agnostic when using Four J's ODI
  - Informix, SqlServer, Oracle, DB2, Mysql, ...
- Our Dynamic Virtual machine loads DLLs at runtime (like Apache)
  - XML & JSON API
  - Web Services API
  - Utils/Mathematical API
  - Custom C/Java functions
- Cross front-end User Interface protocol based on DOM/XML
- Thin client, n-tier Architecture



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# Genero Enterprise Suite: Interoperability

- **Four Js Web Services API is a 12 years old mature BDL extension to the language**
- Allows to create consumer programs as well as create or reuse 4gl business logic to convert it as Service provider programs
  - Supports most common Styles & Protocols (**Doc, RPC, RESTful, SOAP**)
- In most cases, the code can be generated
  - With the help of a WSDL file
- *We also provide a **Java Bridge API to natively call Java Utility APIs from 4gl***



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# Genero Enterprise Suite: Front-Ends

- **Still supports Informix ASCII code without a change**
- 4gl screens (.per) are backward compatible with Genero UI but in order to maximize the possibilities, a migration is recommended.
- The Server or DVM sends the same XML back to each front-ends
- **Desktop Clients available as well as Web Clients**



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# Desktop Application

EmployeeDetail

File Edit Navigate Report

Accept Cancel Append Insert Modify Delete Search Zoom First Previous Next Last Print... Print Preview PDF HTML XLS RTF Exit

**Identity**

 title: Mrs  
Last Name: FONTAINE  
First Name: Sophie  
Date of Birth: 12/10/1955  
Marital Status: ☒ Single ☐ Married ☐ Windowed

**Address**

address: Avenue d'Eylau  
zipcode: 75116  
town: PARIS  
country: FRA  
email: support@mycompany.com.fr  
url: www.mycompany.com

**Employment**

Started: 10/01/2005  
position: Propaganda Manager  
taxno: 689-489-667  
salary: 160300.00

**Pay Reviews**

paydate	reason	salary
08/07/1990	Started	50000.00
10/07/1993	Promoted G5	60000.00

**Leave**

paydate	adjust	balance
08/07/1990	10.00	40.00
10/07/1993	5.00	60.00

**Sick**

paydate	adjust	balance
08/07/1990	10.00	40.00
10/07/1993	5.00	60.00

**History**

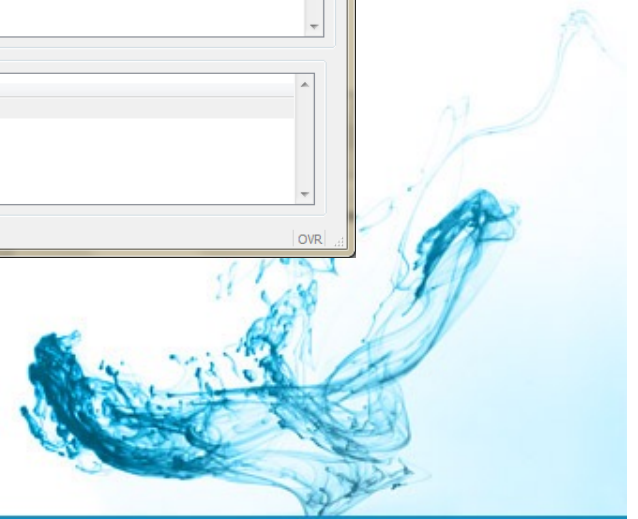
historydate	historytype	summary
08/07/1990	REVIEW	Performance was good but KPIs could be better
10/07/1993	DISCIPLINED	Inappropriate behaviour at office christmas party

25/40 OVR



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# Genero Enterprise Suite: Web Front-End (GWC-HTML5)

- Clean and Responsive
  - Without changing the Business Logic or the code, will look & feel like a Desktop application
- Distributable
  - The client only needs to have a web browser, there is no vendor specific software to install on the user's PC/Device/OS
- Highly customizable
  - via HTML5, CSS3 & JavaScript
  - snippet driven for better granularity
  - therefore allows Browser specific tuning
- New generation of Web client will be released with our coming V3



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# Equivalent Web Application


EmployeeDetail x  
localhost:6394/wa/r/Detail\_Laurent\_studio?OutputMap=DUA\_HTML5

Genero HTML5 Web Client

File Edit Navigate Report

Accept Cancel Append Insert Modify Delete Search Zoom First Previous Next Last Print... Print Preview PDF HTML XLS RTF Exit

**Identity**

 title Mrs  
Last Name FONTAINE  
First Name Sophie  
Date of Birth 12/10/1955  
Marital Status ☒ Single ☐ Married ☐ Windowed

**Address**

address Avenue d'Eylau  
zipcode 75116  
town PARIS  
country FRA  
email support@mycompany.com.fr  
url www.mycompany.com

**Employment**

Started 10/01/2005  
position Propaganda Manager  
taxno 689-489-667  
salary 160300.00

**Pay Reviews**

paydate	salary	reason
08/07/1990	50000.00	Started
10/07/1993	60000.00	Promoted G5

**Leave**

paydate	adjust	balance
08/07/1990	10.00	40.00
10/07/1993	5.00	60.00

**Sick**

paydate	adjust	balance
08/07/1990	10.00	40.00
10/07/1993	5.00	60.00

**History**

historydate	historytype	summary
08/07/1990	REVIEW	Performance was good but KPIs could be better
10/07/1993	DISCIPLINED	Inappropriate behaviour at office christmas party

25/40



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# Genero Enterprise Suite: Report Writer

- Genero Report Writer allows you to create and publish new business report designs as part of your applications
  - **Separates real code from Report Design**
    - This means an intermediate phase of redesign is now possible using Four Js Report Designer
  - Supports various formats: HTML, PDF, Excel, Word
  - High performance
  - **API-Driven**
  - Easy to maintain or to add reports to an existing data definition
- Not an ad-hoc/BI analytics product like Crystal Report or COGNOS




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# Sophisticated business reports: Order List

















Report-users-MacBook-Pro.local-41004-09-11-10-36-22.2.pdf (page 1 of 6)



**Office Supplies**  
4 Avenue de Paris  
78000 Versailles  
Phone: +33 (0) 1 23 45 67 89  
FAX: +33 (0) 1 23 45 67 80

Customer Code: **bloggs**  
**Fred Bloggs**  
177 Elms Crescent  
  
SW4 8AF London  
United Kingdom

### Customer Order

Item ID	Description	Quantity	Unit Price	Total
Order Date: 10/25/2011				
		Order No.: 5	Origin: MTC	
 FU-004-A	Grandfather clock	1.00	122.00	122.00
 FU-008-A	Office chair	1.00	129.00	129.00
 FU-011-A	Table lamp	1.00	27.00	27.00
 SU-001-A	Blue and green pens	1.00	1.20	1.20
	Blue - Unit			
 SU-001-D	Blue and green pens	1.00	1.20	1.20
	Green - Unit			
 SU-004-A	Clipboard	1.00	7.20	7.20
	Unit			
 SU-005-A	Coloring pencils	1.00	0.15	0.15
	Blue - Unit			
 SU-005-C	Coloring pencils	1.00	0.15	0.15
	Red - Unit			
 SU-005-B	Coloring pencils	1.00	0.15	0.15
	Yellow - Unit			
 SU-006-A	Magnifying glass	1.00	9.90	9.90
	Unit			
 SU-002-A	Notebook	1.00	4.00	4.00
	Unit			
 SU-009-A	Organizer book	1.00	4.00	4.00
	Unit			
 SU-008-A	Paper clasp	1.00	0.80	0.80
	Unit			
 SU-010-A	Pen	1.00	3.50	3.50
	Unit			
 SU-003-A	Scissors	1.00	4.35	4.35
	Unit			
 SU-011-A	Stapler	1.00	6.10	6.10
	Unit			

Printed with Genero Report Writer

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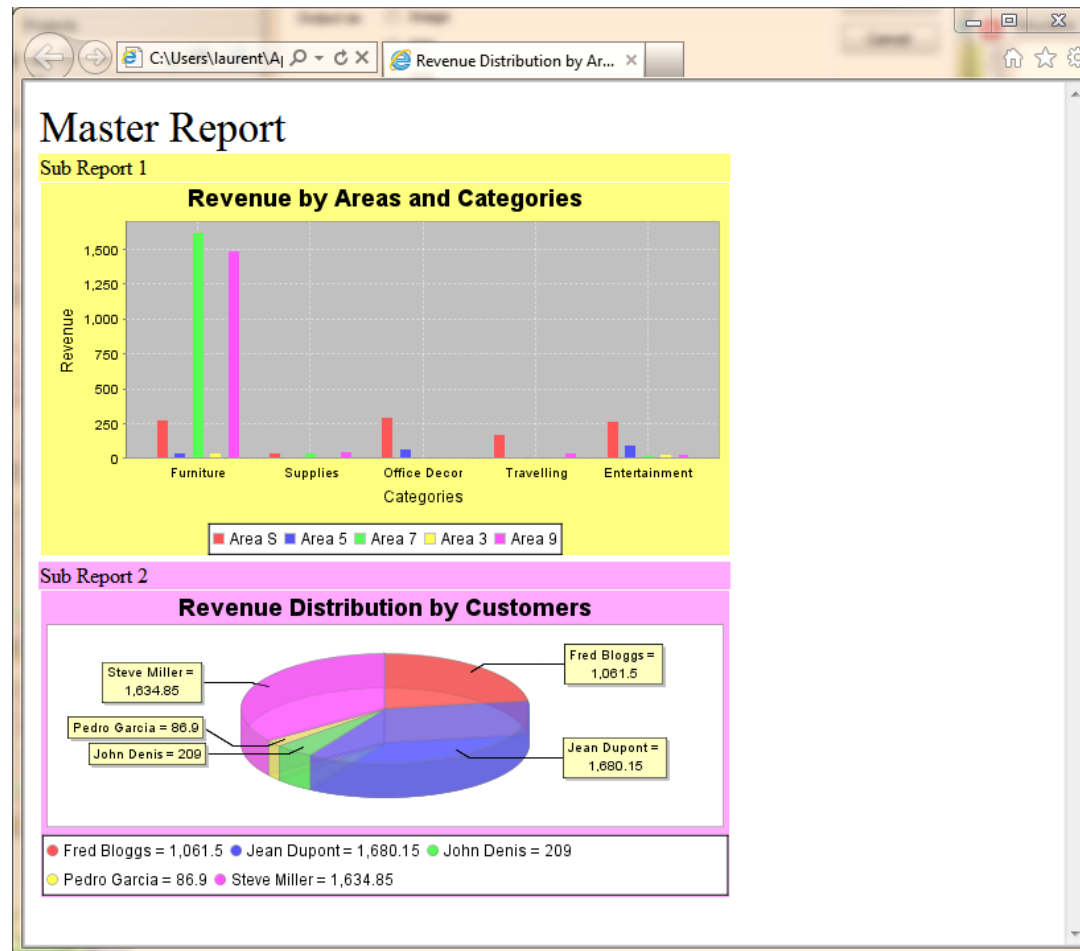


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Genero Report Writer



# Sophisticated Business reports: Graphs + Sub-reports



### 3 Migration steps: do it at your own pace

#### ➤ Step 1 : Straight recompile

- No changes to the business logic or forms
- Will run in ASCII/console mode in place for I4gl
- Will run in GUI 'as-is' in 'traditional' mode: not beautified but functional
- For reports, Legacy engine still works as-is
- Or you can choose to run Genero Report writer in 'traditional mode' as well
- Very quick process: Application will be functional but may require esthetic tweaks
- <http://4js.com/company/ibm-i4gl-to-genero/stores-demo-example/#toggle-id-4>



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# 3 Migration steps: do it at your own pace

## ➤ Step 2 : Modify screens only

- Toolbars, TopMenu
  - Tables, Treeviews
  - Containers like foldertabs, groups, ...
  - Widgets: Dropboxes, Images, Date pickers, ...
- Note that you might need to redesign your global window management as all open window will popup a new container in GUI



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**Demo**

MODIFY: enter data  
VIEW details of the current record

**\*\* CORPORATE SOLUTIONS \*\* - INVOICE ENTRY -** Mon Sep 02 2002

Company	CS	Transaction Number	000521	1/2002:01Jul2001-31Jul2001
Bank	WPAC1	Date	12/01/1994	Control Total
Source	MAN	Postdate	12/01/1994	Computed
Currency	AUD	Rate	1.0000	Difference
<b>** POSTED **</b>				

**INVOICE ENTRIES**

Trx	Supp. ID	Supplier Name	Type	Number	Inv Date	Amount
1	MIDEN	Miden Pacific	D	3121500056	20/12/1993	1,318.20
2	INFORMIX	Informix Software	D	104963	13/12/1993	350.00
3	INFORMIX	Informix Software	D	104964	13/12/1993	2,424.00
4	INFORMIX	Informix Software	D	104903	24/11/1993	7,037.30
5	JAYARE	Jayare's Cleaning	D	JK1293	13/12/1993	390.00

**INVOICE DETAILS**

Trx	1	Supplier	MIDEN	Miden Pacific	Number	3121500056
Ref		Inv Date	20/12/1993	Due	03/01/1994	Amount
Inv Type	D					1,318.20
Ret.Amount		Ret. Date			Separate Cheque	

OPTIONS: use arrow keys, OR F1=VIEW DETAIL F4=Q

**AP:Invoice Entry**

File Process Enquiry Maintain Report

Invoice Journal

Company	CS	Transaction	000521	1/2002:01Jul2001-31Jul2001
Bank	WPAC1	Trans Date	12/01/1994	Control Total
Source	MAN	Post Date	12/01/1994	Computed
Currency	AUD	Rate	1.0000	Difference
Status	<b>** POSTED **</b>			

Invoice Entries Details

Trx	Supp ID	Type	Number	Inv Date	Amount
2	INFORMIX	D	104963	13/12/1993	350.00
3	INFORMIX	D	104964	13/12/1993	2,424.00
4	INFORMIX	D	104903	24/11/1993	7,037.30
5	JAYARE	D	JK1293	13/12/1993	390.00
1	MIDEN	D	3121500056	20/12/1993	1,318.20

View Cancel PgDown Prev Help PgUp Notes View Help

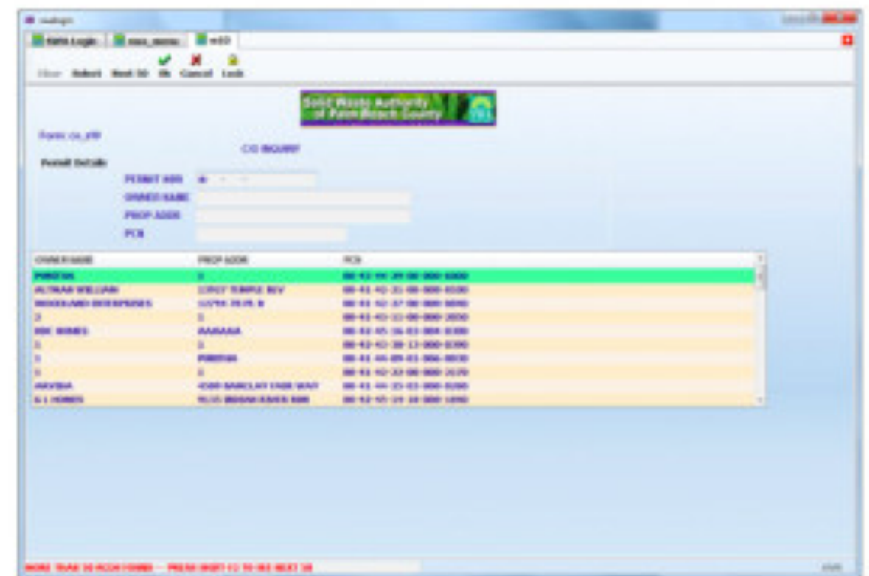
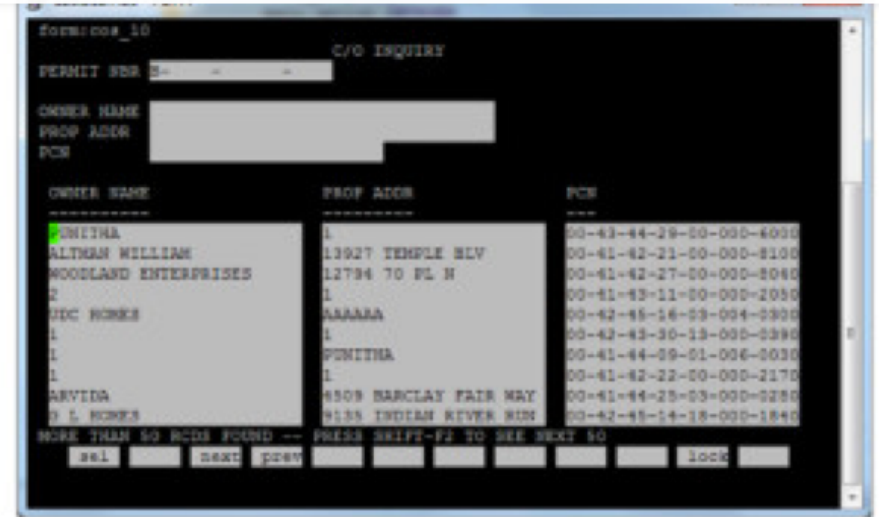
INS



**FOUR Js**  
The Power of Simplicity

Genero  
Ex





**FOUR Js**  
The Power of Simplicity

Four Js Development Tools  
P11 Strategic Planning  
Executive Summary



# 3 Migration steps: do it at your own pace

- **Step 3: Adapt Business Logic for advanced/new design and UI capabilities**
  - Multiple Dialogs/Focus
  - Drag & Drop
  - Web Components
- **Genero BDL is a full language that doesn't depend on I4gl as a requirement. You can write brand-new applications/modules with it to complement your legacy one**



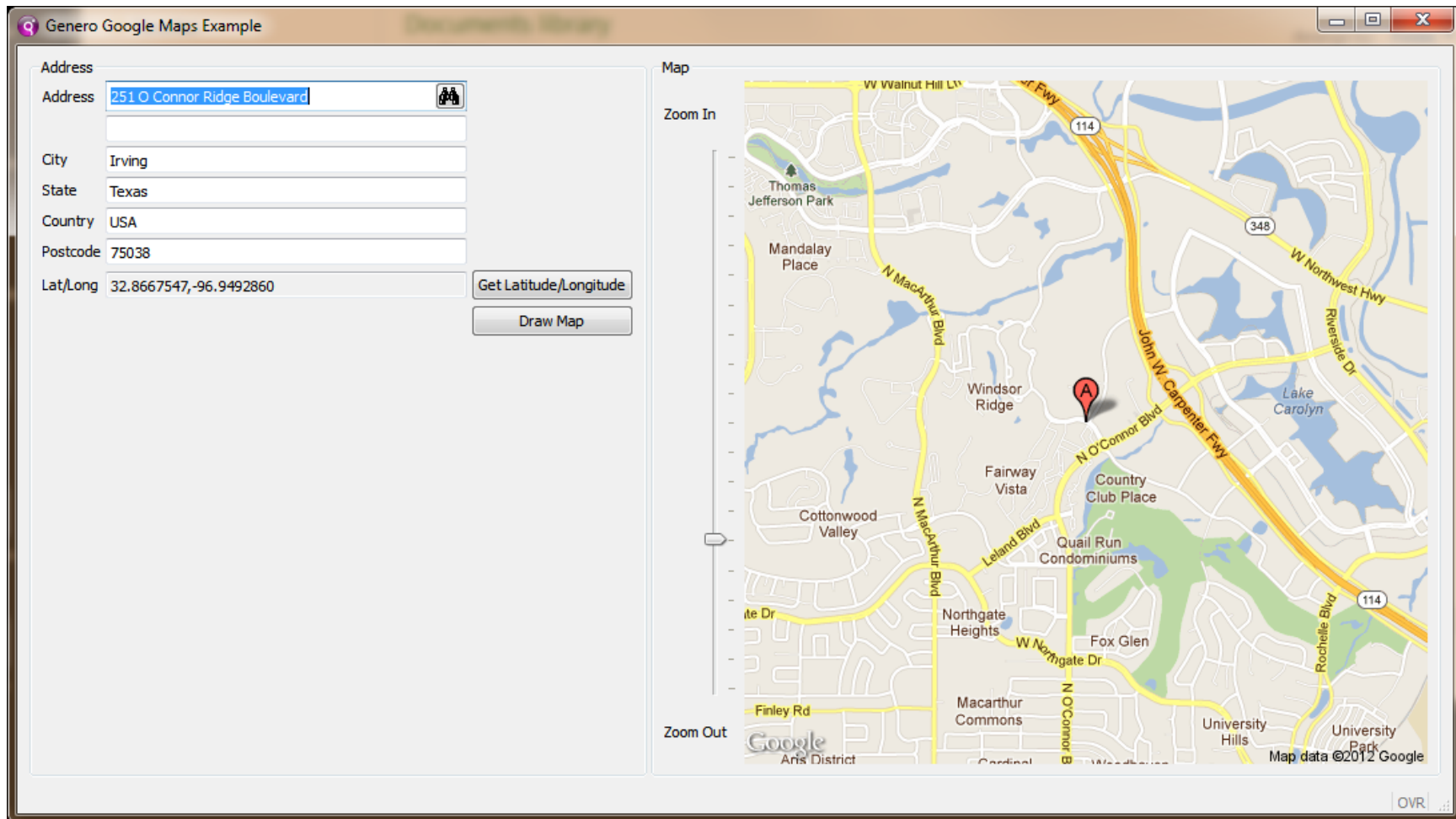
**FOUR Js**  
The Power of Simplicity

Genero introduction





# Consuming GoogleMap Web Service



# Web Component Chart - Drag & Drop

Genero HTML5 Web Client

Current month:

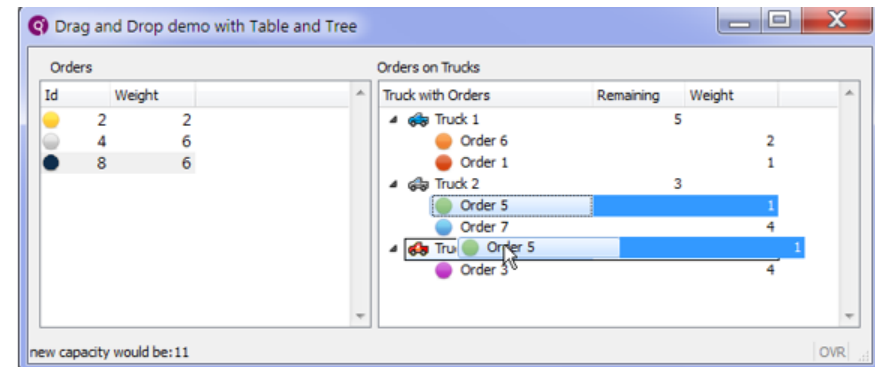
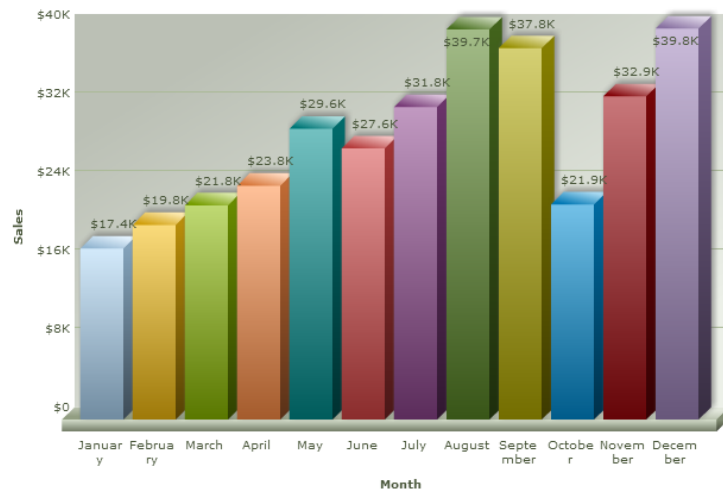
January

17400 ▲ ▼

*This demo relies on several third party products.  
Please read [this notice](#) to enable it.*

FusionCharts Trial

Monthly Sales Summary  
For the year 2009



Four J's Development Tools  
FY11 Strategic Planning  
Executive Summary

Genero introduction

# Four Js & Four Promos in 2015

- Project: modernizing I4GL applications with Genero Enterprise/ Mobile 2.5  
Promo: **REPURPOSE** your 4GL renewal funds to receive **dollar for dollar credit**
- Project: migrating IBM Genero customers to Four Js Genero 2.5  
Promo: **FREE** – simply call Stacey at [972.786.0921](tel:972.786.0921) to get started!
- Project: upgrade BDS TUI, BDS licenses to Genero 2.5  
Promo: **TRADE IN** your licenses for a **dollar for dollar credit** towards Genero 2.5
- Project: Maintenance Amnesty for existing Four Js customers – true-up and co-term existing expired licenses.  
Promo: **BOGO** Buy one and get one free maintenance support.
- **REWARD** : With all Four Promotions, Four Js is set to release Genero 3.0 in December. With Genero 2.5 current maintenance contracts, your organization will be entitled to the benefits and features listed here for Genero 3.0 at **NO COST! NO COST! NO COST!**



# Where to get started

- Genero BDL is a superset of Informix 4gl, it is very easy to pick up
- Investigate more on your customized migration plan
  - <http://4js.com/company/ibm-i4gl-to-genero/>
- Get trained - your choice: instructor led or self paced
  - <http://www.4js.com/en/training>
- Four Js will work with ADT to assist in achieving a technical win through a small proof of concept at minimum or no charge.
- Please ask Lester or Stacey for details
- [info@advanceddatatools.com](mailto:info@advanceddatatools.com) and / or [smosborn@4js.com](mailto:smosborn@4js.com)



For an evaluation license with full developer, compiler and debugger features, please contact

Stacey Osborn – Sales Account Executive - [smosborn@4js.com](mailto:smosborn@4js.com)



Intelligent Business Application Infrastructure

# Next Webcast

## Informix Storage and RAID5

*Doing Storage the Right Way!*

***By Art Kagel***

- Date: October 20, 2015
- Time: 2:00pm EST

# Informix Training in 2015

- October 12-15, 2015
  - **Informix for Database Administrators**
- All courses can be taken online on the web from your desk or at our training center in Virginia.
- We guarantee to *NEVER* cancel a course and will teach a course as long as one student is registered!



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Web: <http://www.advanceddatatools.com>



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# Thank You

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***Advanced DataTools Corporation***

lester@advanceddatatools.com

For more information:

<http://www.advanceddatatools.com>

***Advanced DataTools***