



**COLLABORATE 18**

TECHNOLOGY AND APPLICATIONS FORUM  
FOR THE ORACLE COMMUNITY

# How to Solve Your Oracle Reporting and Data Entry Issues with Applications Express APEX

## Turbo Talk

**Session ID:**

10600

***Prepared by:***

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4/24/2018, 5:45 to 6:15

*Remember to complete your evaluation for this session within the app!*

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# About the Presenter

## John Peters, JRPJR, Inc.

- Independent Consultant, working out of the SF Bay Area
  - Techno/Functional focus
  - Supply Chain Functional focus
  - Over 25 years working with Oracle EBS
  - Founding board member of the NorCal OAUG
  - OAUG APEX in EBS SIG Chairman
  - Member of the Oracle ATG CAB
- I enjoy sharing what I know about the Oracle E-Business Suite, I have many prior presentations posted on my web site at:  
<http://jrpjr.com>

# Abstract

- This presentation will show provide an overview of the Oracle Applications (APEX) product and some of the things it can be used for in an Oracle E-Business Suite Environment.
- I am not here trying to sell you something (even though we are here in the exhibit hall). This is a development tool that is included with your database license. It enables you to turn a query into a web page. That web page can even support data entry.
- This is a Turbo Talk so I am going to go fast and I won't be able to show you any live examples.

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# Agenda

- What is Oracle Applications Express (APEX)
- How can you use APEX in an Oracle E-Business Suite environment
- Sample Reports
- Sample Data Entry Screens
- How to Get More Information on APEX

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# What is Oracle Applications Express (APEX)

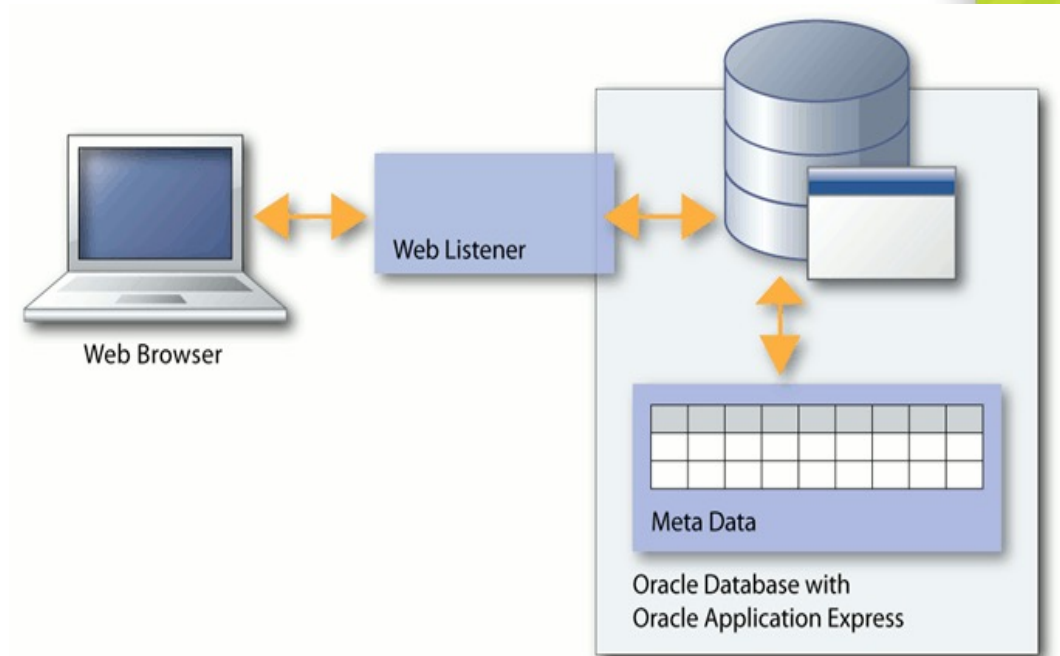


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# Oracle Applications Express APEX

- Rapid Development Tool
- Been around since 2004
- Wizards and Templates to help make your ideas into a web application using your Oracle DB data
- APEX resides in your DB, in fact as of Oracle DB 12c it is installed by default
- 2 Tier Architecture
  - Oracle DB
  - Web Listener
  - Web Browser
- You develop in a web browser
- Your users use your application in web browser
- Can be run on mobile platforms (as long as they are connected to the DB)



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# Cost

- Oracle Applications Express (APEX) is included in your full database license
- It is just like sql\*plus, sql\*loader, etc., it is a tool in the database tech stack

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# How Can You Use APEX in an Oracle E-Business Suite Environment



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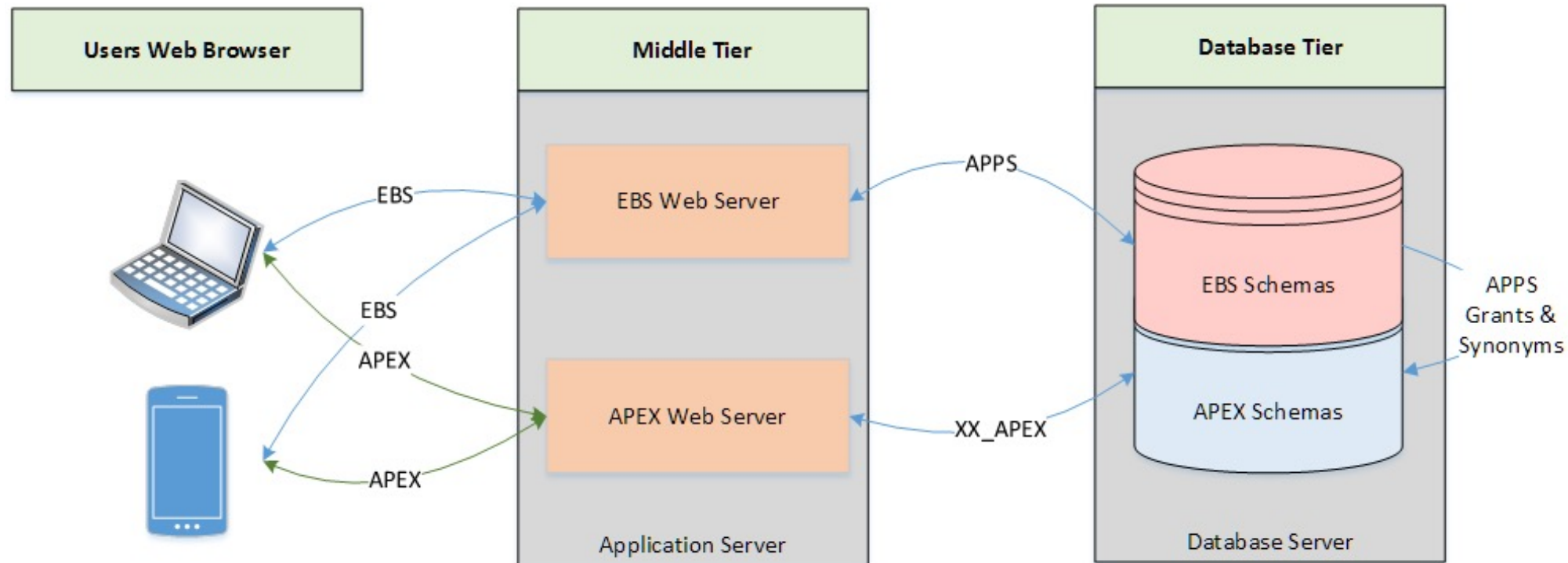
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# APEX and EBS Integration

- Please look at MOS Note 1306563.1:  
Extending Oracle E-Business Suite Release 12.1.3 and Above Using Oracle Application Express (APEX)
  - The white paper has been rev'ed as of Mar-2015, ver 2.01
  - Use this as your starting point for any installation
  - There are two patches for the EBS environment
- This white paper outlines a supported EBS Integration mechanism
- The following are the components:
  - Oracle Database Release, 10.2.0.3 or above
  - Oracle Applications Express, I would recommend 5.1 or above
  - Oracle Rest Data Services, 2.0 or above
  - Web Server
    - Oracle WebLogic
    - Oracle Glassfish
    - Apache Tomcat

# Architecture In EBS Environment

- APEX installed in EBS DB
- APPS Grants & Synonyms to XX\_APEX DB User
- Separate APEX Web Server Components, on same Middle Tier server as EBS



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# Utilize EBS Foundation For Your APEX Applications

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- Use Oracle EBS Authentication, Authorization and Navigation in your APEX Applications
  - Authentication – userid and password from EBS
  - Authorization – use EBS responsibilities to control what can be accessed
  - Navigation – use EBS form functions and menus
- You can register an EBS form function to link to an APEX page, which will open up a browser window with your APEX application

# Example of the Integration

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The screenshot displays the Oracle Applications interface. On the left, the Navigator menu is open, showing a tree structure under 'APEX Order Management Reports'. The 'APEX Inventory OnHand Val' option is highlighted in blue. An 'Open' button is visible at the bottom of the Navigator. On the right, a browser window displays the 'Inventory OnHand Value' report. The report title is 'Inventory OnHand Value' and the user is 'JPETERS'. The report shows a table with columns: A\$Subinventory, Item\$sv\$Item, Item Description, Organization Code, Round(Sum(L.Extended Value),0), Sum(L.On Hand Quantity), and Round(Avg(L.Item Cost),5). The table contains five rows of data for '1 1/9 BUSHEL KRAFT' across different organization codes.

A\$Subinventory	Item\$sv\$Item	Item Description	Organization Code	Round(Sum(L.Extended Value),0)	Sum(L.On Hand Quantity)	Round(Avg(L.Item Cost),5)
STOCK	101006	1 1/9 BUSHEL KRAFT	ESC	14339	14339	1.0000
STOCK	101006	1 1/9 BUSHEL KRAFT	LAM	4340	4340	1.0000
STOCK	101006	1 1/9 BUSHEL KRAFT	NOG	31150	31150	1.0000
STOCK	101006	1 1/9 BUSHEL KRAFT	OXN	1585	1585	1.0000
STOCK	101006	1 1/9 BUSHEL KRAFT	THR	20245	20245	1.0000

# Framework

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The screenshot shows a web browser window displaying the Oracle EBS Reporting interface. The browser address bar shows a URL starting with 'stapex/f?p=301:2010:33839412419417::NO...'. The application title is 'EBS Reporting' and the user is logged in as 'XXPRT Mfg Super User'. A sidebar on the left contains navigation links for Home, XXPRT APEX Employee L..., XXPRT APEX Excel File U..., XXPRT APEX INV Extract..., and XXPRT APEX Super... A 'Filters' section is visible with a 'Business Area' dropdown set to 'Procurement'. Below the filters is a search bar and a table of data.

Item number	Organization code	Description	Primary uom code	Template name	Inventory item status code	Buyer	Planner code	Fixed lot multiplier	List price per unit	Minimum order quantity	Processing lead time	Note->	Cat inventor
"ZBUS-SUB6"	SRL	Generic Bus SubAssy Routing Item, 12 hr	EA	MAKE ASSY MRP	Released		AJR		0			Columns to right are for filters	UNDEFINED.UNDE
"ZBUS-SUB6"	SRZ	Generic Bus SubAssy Routing Item, 12 hr	EA	MAKE ASSY MRP	Released		AJR		0			Columns to right are for filters	UNDEFINED.UNDE
"ZCHARGEHEAD"	MST	Generic Charger Head Routing Item	EA	MAKE ASSY MRP	Released		AJR		0			Columns to right are for filters	UNDEFINED.UNDE
"ZCHARGEHEAD"	BGM	Generic Charger Head Routing Item	EA	MAKE ASSY MRP	Released		AJR		0			Columns to right are for filters	UNDEFINED.UNDE
"ZCHARGEHEAD"	GVL	Generic Charger Head	EA	MAKE ASSY MRP	Released		AJR		0			Columns to right are for	UNDEFINED.UNDE

# What can you do with APEX Sample Reports



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# Sample Interactive Report

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The screenshot shows a web browser window displaying an Oracle EBS Reporting page. The browser address bar shows a URL starting with 'stapex/f?p=301:2010:33839412419417::NO...'. The page title is 'Extract Items for Attribute U...'. The user is logged in as 'XXPRT Mfg Super User' with roles 'GVL' and 'JPETERS'. The page has a navigation menu on the left with options like 'Home', 'XXPRT APEX Employee L...', 'XXPRT APEX Excel File U...', 'XXPRT APEX INV Extract...', and 'XXPRT APEX Super...'. The main content area has a 'Filters' section with a 'Business Area' dropdown set to 'Procurement'. Below the filters is a search bar and a 'Go' button. The main data is presented in a table with the following columns: Item number, Organization code, Description, Primary uom code, Template name, Inventory item status code, Buyer, Planner code, Fixed lot multiplier, List price per unit, Minimum order quantity, Processing lead time, Note, and Cat inventor. The table contains five rows of data for various items like 'ZBUS-SUB6' and 'ZCHARGEHEAD' across different organizations (SRL, SRZ, MST, BGM, GVL). The 'Note' column contains the text 'Columns to right are for filters'. The 'Cat inventor' column contains the text 'UNDEFINED.UNDE'. The Windows taskbar at the bottom shows the time as 8:53 AM on 4/24/2018.

Item number	Organization code	Description	Primary uom code	Template name	Inventory item status code	Buyer	Planner code	Fixed lot multiplier	List price per unit	Minimum order quantity	Processing lead time	Note->	Cat inventor
"ZBUS-SUB6"	SRL	Generic Bus SubAssy Routing Item, 12 hr	EA	MAKE ASSY MRP	Released		AJR		0			Columns to right are for filters	UNDEFINED.UNDE
"ZBUS-SUB6"	SRZ	Generic Bus SubAssy Routing Item, 12 hr	EA	MAKE ASSY MRP	Released		AJR		0			Columns to right are for filters	UNDEFINED.UNDE
"ZCHARGEHEAD"	MST	Generic Charger Head Routing Item	EA	MAKE ASSY MRP	Released		AJR		0			Columns to right are for filters	UNDEFINED.UNDE
"ZCHARGEHEAD"	BGM	Generic Charger Head Routing Item	EA	MAKE ASSY MRP	Released		AJR		0			Columns to right are for filters	UNDEFINED.UNDE
"ZCHARGEHEAD"	GVL	Generic Charger Head Routing Item	EA	MAKE ASSY MRP	Released		AJR		0			Columns to right are for filters	UNDEFINED.UNDE

# APEX – Summary and Detail Drill Down

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The image shows two overlapping browser windows of the APEX Reporting interface. The background window displays a summary table with columns 'Pybl Journal Ebs L2 Id' and 'Fred System'. A red arrow points from the first row of this table to the foreground window. The foreground window shows the 'Journal' detail view for the selected row, displaying a table with columns: Ledger Name, Period Name, L2 Id, Batch Number, Event Id, First Merchant Token, First Created At, First Country, First Currency Code, First Rec Id, First Ledger Id, and First Ever.

Pybl Journal Ebs L2 Id	Fred System
907	
907	
907	

L2 ID	Batch Number	Event ID	Drill Up
907	83	48382	

Ledger Name	Period Name	L2 Id	Batch Number	Event Id	First Merchant Token	First Created At	First Country	First Currency Code	First Rec Id	First Ledger Id	First Ever
US Ledger	JAN-14	907	83	48382	10006201	07-Jan-2014	CA	CAD	10006201	equa110014025	CAPTURE
US Ledger	JAN-14	907	83	48382	100726148	07-Jan-2014	CA	CAD	100726148	equa110014078	CAPTURE
US Ledger	JAN-14	907	83	48382	100367296	07-Jan-2014	CA	CAD	100367296	equa110014027	CAPTURE
US Ledger	JAN-14	907	83	48382	100760356	07-Jan-2014	CA	CAD	100760356	equa110014079	CAPTURE

# Customer 360 Degree View

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Home Customers Items Orders Invoices Renewals AP GL Fixed Assets Acquisition Setups Sys Admin

Customer Reports Customers Customer Details

Customer 293.7\*

Summary

Sites

Orders & Renewals

Annualized Value

Invoices

Tax Exemptions

Receipts

AR Balances

Assets

Where Used

Notes

SF Opportunities

Support Cases

View All Sections

Customer Summary

Cust Num 103859 Party Num 5215 Parent Cust Name

Channel ISV Classification COMMUNICATIONS

Orders

Orders.csv row(s) 1 - 15 of 34

ORG_NAME	ORDER_NUMBER	ORDERED_DATE
RS INC	10102300	12-DEC-2013
RS INC	10101856	06-SEP-2013
RS INC	0101833	30-AUG-2013
RS INC	0101830	30-AUG-2013
RS INC	10101743	14-AUG-2013
RS INC	0101742	14-AUG-2013
RS INC	0101741	14-AUG-2013
RS INC	10101476	14-JUN-2013
RS INC	10101393	24-MAY-2013
RS INC	10101392	24-MAY-2013
RS INC	10101391	24-MAY-2013
RS INC	10100975	28-FEB-2013
RS INC	10100567	04-DEC-2012
RS INC	10100560	30-NOV-2012
RS INC	10100559	30-NOV-2012

Service Contracts

src\_contracts.csv row(s) 1 - 25 of more than 500

Org Name	Contract Num	Status	Sta
RS INC	0002586-02-DEC-13 17:10:35	Entered	01-
RS INC	0007710-12-DEC-13 10:58:30	Entered	12-
RS INC	002478-03-OCT-13 18:44:03	Entered	01-

Customer Summary

Cust Num 103859 Party Num 5215 Parent Cust Name

Channel ISV Classification COMMUNICATIONS BI Pub Language American English Terms

Invoices

Invoices.csv row(s) 1 - 15 of 433

Org Name	Inv Num	Inv Date	Po Num	Src Doc Num	Inv Amt	Curr Cd	PDF	Note	Src
INC	0000551	13-DEC-2013		3453	-5,450.00	USD	View Invoice PDF	View Notes	IMPORTED
NC	10111414	13-DEC-2013		3453	5,450.00	USD	View Invoice PDF	View Notes	IMPORTED
NC	10111380	12-DEC-2013		10102300	12,000.00	USD	View Invoice PDF	View Notes	ORDER ENTRY
NC	0111392	12-DEC-2013		8010	318.82	USD	View Invoice PDF	View Notes	IMPORTED
NC	10111081	06-DEC-2013		0003647	472.77	USD	View Invoice PDF	View Notes	OKS CONTRACTS
INC	10111082	06-DEC-2013		0003648	472.77	USD	View Invoice PDF	View Notes	OKS CONTRACTS
INC	10111083	06-DEC-2013		0003649	472.77	USD	View Invoice PDF	View Notes	OKS CONTRACTS

Account Executive [redacted] Batch Number L38453 Quote Number [redacted] End Customer Name [redacted] Delivered Via Electronic Delivery

Line	Item Number/Description	QTY	UOM	Tax	Ext Amount
1	F6LL Coverage from 01-DEC-2013 to 30-NOV-2014	40	Con Sesn	N	5,450.00

If your organization is tax exempt and has been charged sales tax, please email a copy of your tax exemption certificate to [redacted] or fax to [redacted]

**SUMMARY**

Subtotal	5,450.00
Tax Total	0.00
Total Due	USD 5,450.00

# Export to Excel

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The image shows two overlapping windows. The background window is the APEX Reporting interface, displaying a report titled 'User Responsibilities'. The report is filtered to show rows containing 'System Administrator'. The 'Download' section is active, showing options for CSV, HTML, and Email. The CSV option is selected. The foreground window is Microsoft Excel, displaying the exported data in a CSV file named 'user\_responsibilities.csv'. The data is organized into columns: User Id, Responsibility Id, Application Id, User Name, Responsibility Name, and Application Name. The 'System Administration' application is highlighted in yellow in the Excel spreadsheet.

	A	B	C	D	E	F
1	User Id	Responsibility Id	Application Id	User Name	Responsibility Name	Application Name
2	1010	20420	1	ASG...	System Administrator	System Administration
3	1118	20420	1	CIA...	System Administrator	System Administration
4	1117	20420	1	CR...	System Administrator	System Administration
5	1112	20420	1	JOHN...	System Administrator	System Administration
6	1113	20420	1	LYNNE...	System Administrator	System Administration
7	1110	20420	1	MARK...	System Administrator	System Administration
8	1011	20420	1	MOBILEADM	System Administrator	System Administration
9	1111	20420	1	MOHAN...	System Administrator	System Administration
10	1005	21704	535	OP_SYSADMIN	SFM System Administrator	Provisioning
11	0	20420	1	SYSADMIN	System Administrator	System Administration
12	1124	20420	1	TEDMI...	System Administrator	System Administration
13						

# What can you do with APEX Sample Data Entry Screens



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# Simplified Data Entry Screens

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Rental Order Control Center ATR-ROCC-Super User-All 010.Livermore (PO/INV) Log Out

Dispatcher ▾ Billings **Transfers** Serial Numbers Driver

Add Sub-Inventory Movement

Serial Number \* ⓘ  
1053

Item Number \* Item Description  
AT1001-A 21K Gal Frac Tank

Current Org To Org  
010.Livermore (PO/INV) 010.Livermore (PO/INV)

Current Subinventory \* To Subinventory \*  
G-LIVERMOR G-FRESNO (Green) ▾

From Locator  
.

Current Reason Code To Reason  
 ▾

Current Reference To Reference

# Interactive Grid

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Rental Order Control Center
ATR-ROCC-Super User-All 010.Livermore (PO/INV) Log Out

Dispatcher **Billings** Transfers Serial Numbers Driver

## Pending Billing DeMobilization Detail

166093 - Kleen Solution Environmental [view details](#)

### Order Lines

Cancel Show Completed Lines Generate Del Doc Generate Job Order Doc Submit

Line #	N...	Link To Line	Item #	Item Description	Serial # To Mob	Credit Hold	Qty Rq'd	Qty Shp'd	Qty Rtn'd	Qty... Rtn	UOM	Sub Inventory	Rtn to Subinventory	Ok to Bill	\$	Pickup Call Off	Start Rent	Actual Return	Stop Rent	Sch'd Return
Line Number: 1, Shipment Number: 1																				
1.1			AT2010	20 Yd Poly...	PT2494	Line	1		1		Day	G-LIVER...	G-LIVERMOR		1	31-JAN-...	17-NOV-...	31-JAN-...		31-JAN-...
Line Number: 4, Shipment Number: 1																				
4.1			AT2010	20 Yd Poly...	PT6014	Line	1	1			Day	G-LIVER...			1		20-NOV-...			
4.1.1			AT2010-A	20 Yd Poly...	PT6014	Line	1	1			EA	G-LIVER...			0					
Line Number: 5, Shipment Number: 1																				
5.1			AT2010	20 Yd Poly...	PT6015	Line	1	1			Day	G-LIVER...			1		20-NOV-...			
5.1.1			AT2010-A	20 Yd Poly...	PT6015	Line	1	1			EA	G-LIVER...			0					
Line Number: 6, Shipment Number: 1																				
6.1			AT2010	20 Yd Poly...	PT6006	Line	1	1			Day	G-LIVER...			1		20-NOV-...			
6.1.1			AT2010-A	20 Yd Poly...	PT6006	Line	1	1			EA	G-LIVER...			0					

# How To Get More Information on APEX



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# Where to go for more information

- Many, Many Books on the Oracle APEX (check version in book, you want Ver 5)
- OAUG APEX in EBS SIG  
<http://apexsig.communities.oaug.org/>
- Oracle TechNet  
<http://www.oracle.com/technetwork/developer-tools/apex/overview/index.html>
- Oracle's APEX Web Site  
<https://apex.oracle.com>
- My Web Site  
<http://jrpr.com/> click on Paper Archives
- Insum  
<https://www.insum.ca/>

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