The Many Faces of BI Publisher in Oracle EBS

Brent Lowe

Manager of Product Development
STR Software

About STR Software

- **STR Software**
  - Located in Richmond, VA
  - Focused on document delivery solutions since 1988
  - Over 1,230 licenses of AventX in 47 states and 19 countries
  - Over 94% customer retention
  - Oracle Gold Partner with staff of Oracle Certified Professionals
  - OAUG 3-star partner for 2010
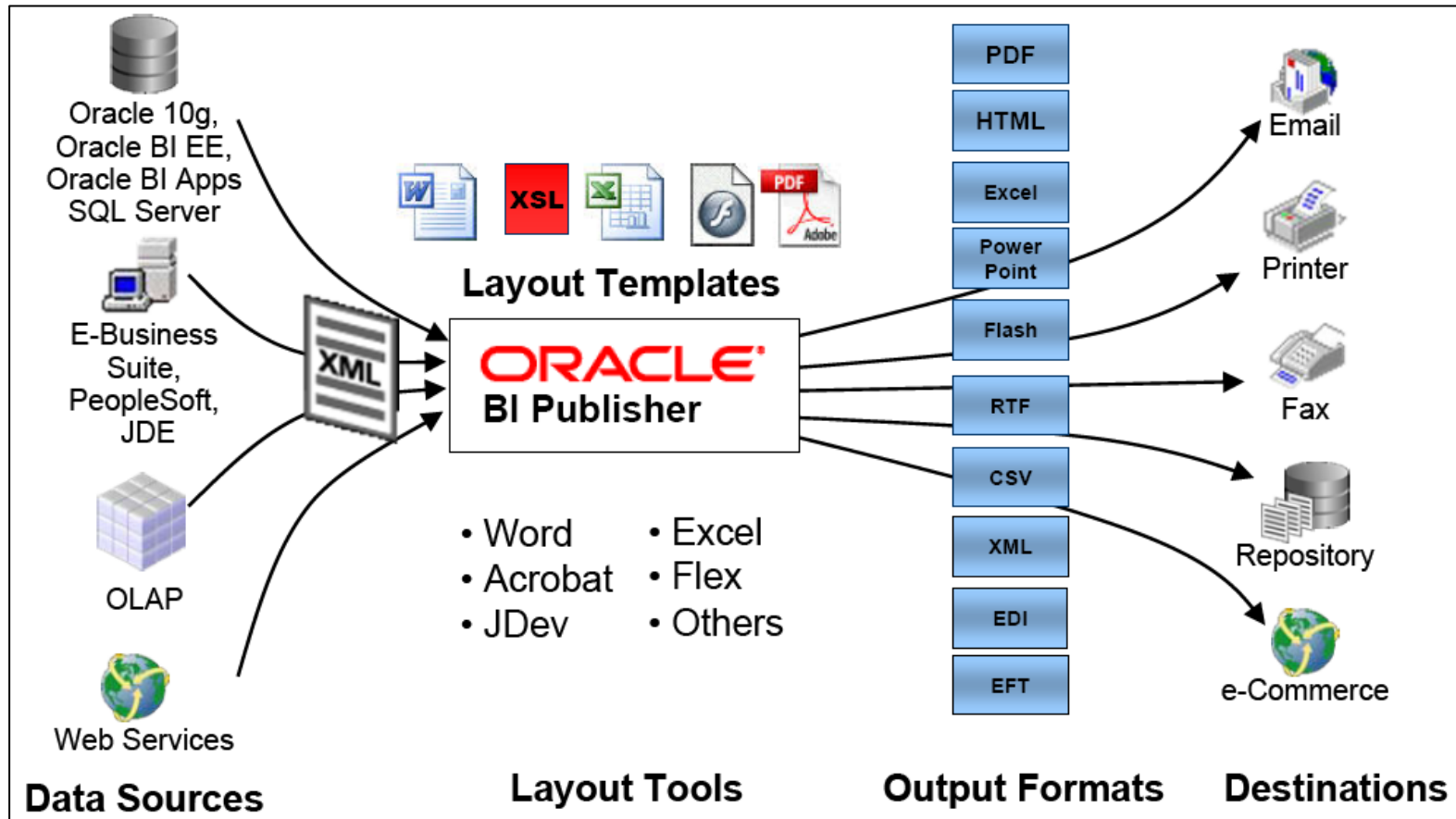 - www.strsoftware.com

- **Brent Lowe**
  - Manager of Product Development
  - BS in Computer Science from College of William and Mary
  - 804-897-1600 ext. 132 and brent.lowe@strsoftware.com
  - http://www.thelowedownblog.com

Agenda – Faces of BIP

- Introduction

- Standard Implementation

- Deviations from the Standard

- Wrap-up and Q&A

Introduction – BI Publisher

Intro: Standard vs. Non Standard

- My own definition

- Standard – Generic implementation provided by ATG that majority of EBS applications can utilize. Functionality native to XML Publisher Adminstrator responsibility and Concurrent Manager.

- Non Standard – Application specific implementations.

- Common between the 2 – All built on the same API!

The Standard Offering

- Data Model

- Layout Templates

- Report Creation

- Bursting and Delivery

Data Model
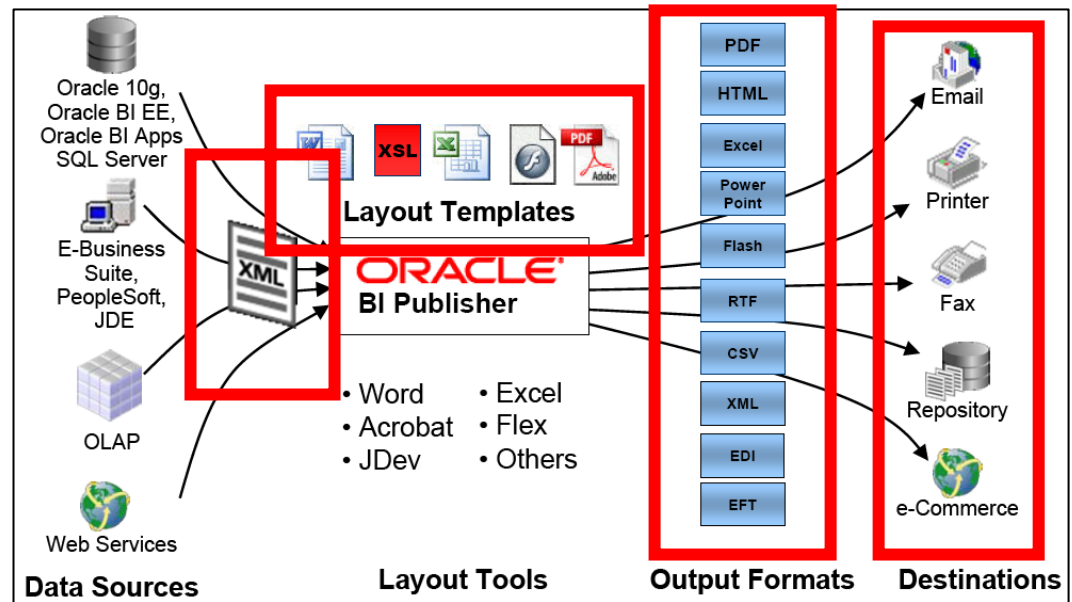
The Standard Offering – Data Model
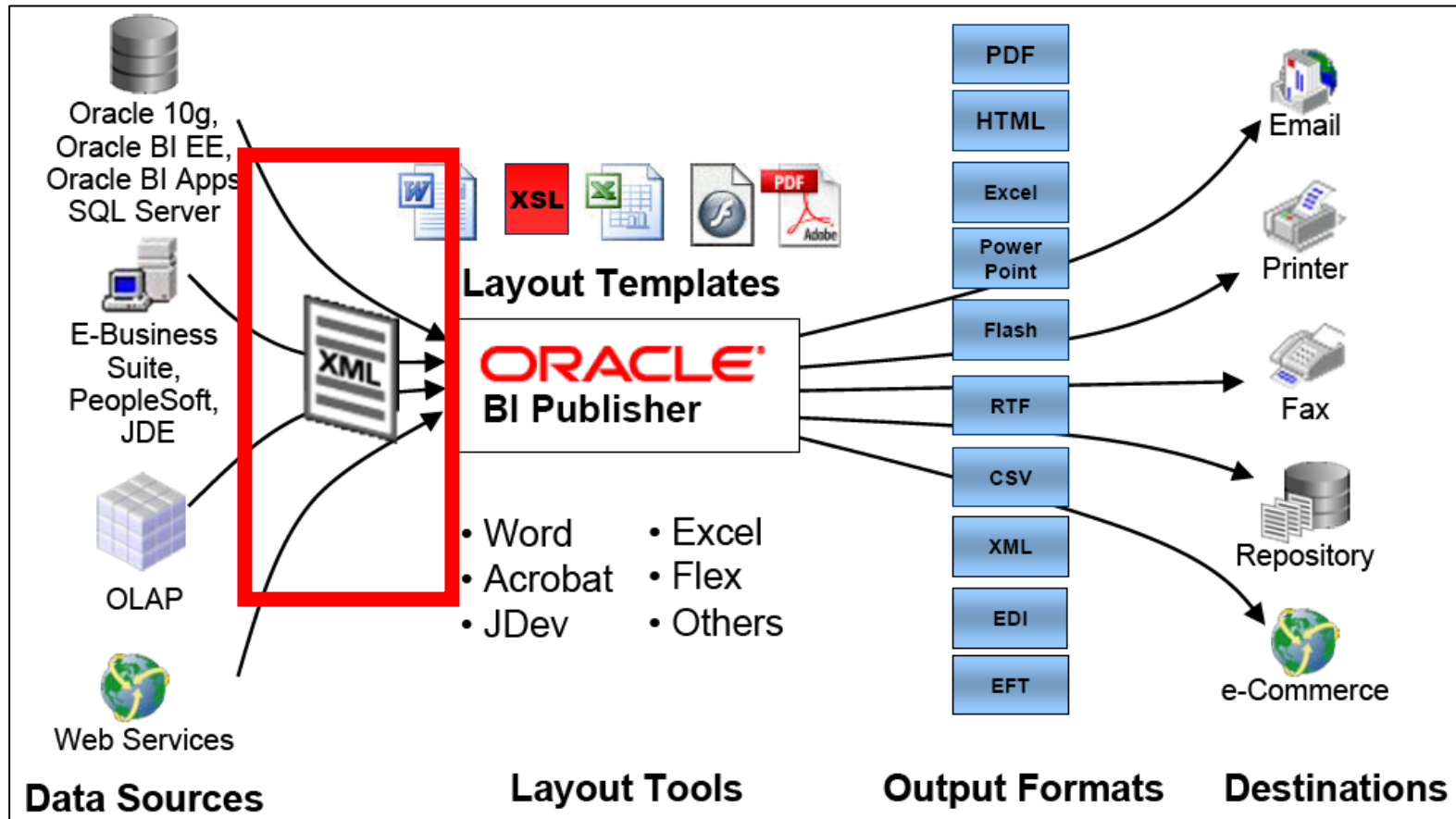
Having Oracle EBS generate **XML data** is the key to reporting.

- Oracle Reports

- Data Templates

Data Model: Oracle Reports

- Utilize your EXISTING Oracle Reports!

Data Model: Oracle Reports

- Demo – How to setup Oracle Reports to output XML

Data Model: Data Template

- Native BI Publisher Concept – Exists as XML based file

- Serves two functions.
  - Retrieve Data using SQL queries.
  - Define how the data is to be formatted as XML.

- Why Use Data Template over Oracle Report?
  - Speed
  - Flexibility
  - Removes duplicity of layout

Data Model: Data Template
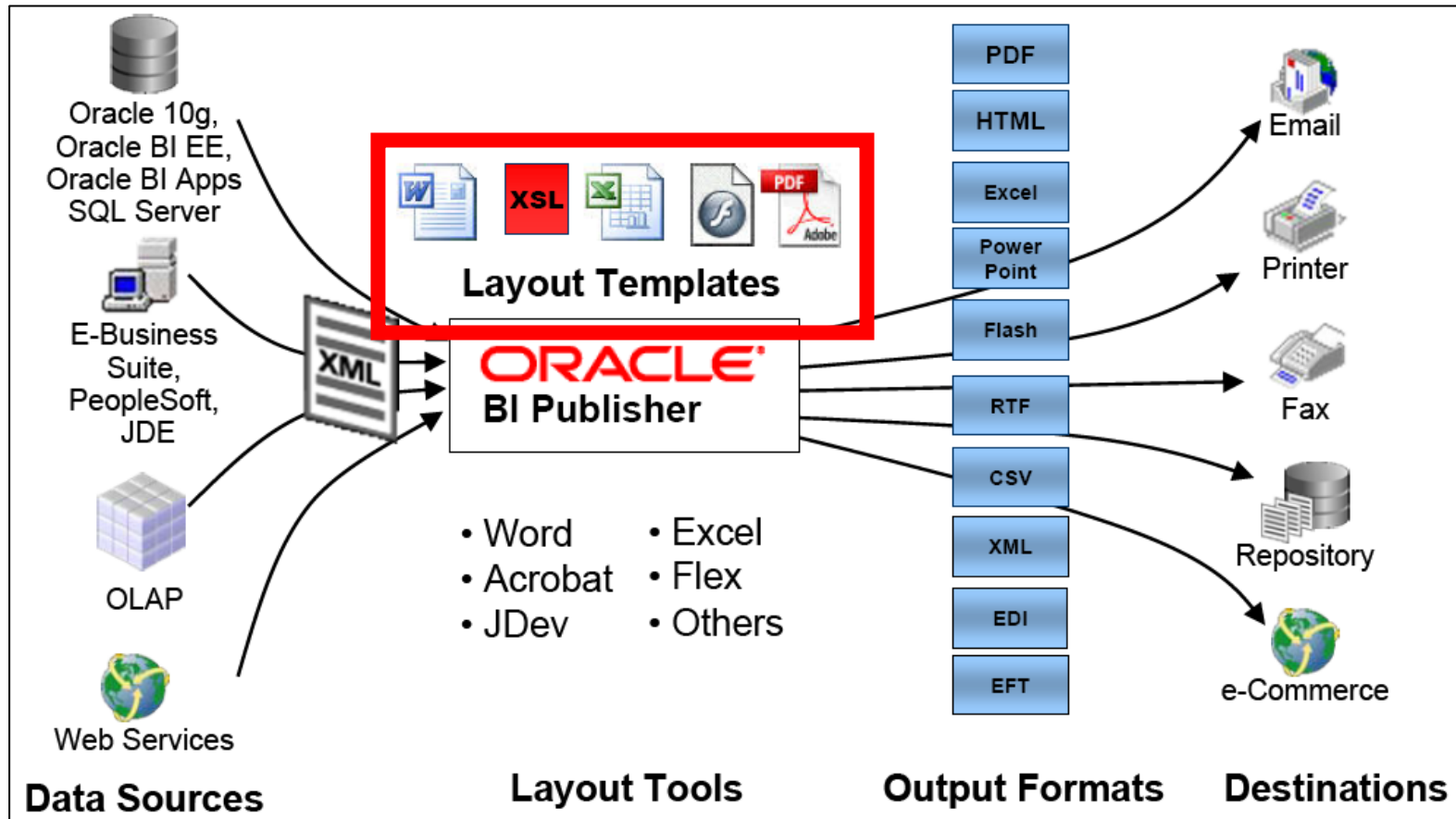
- Example

- Conversion API
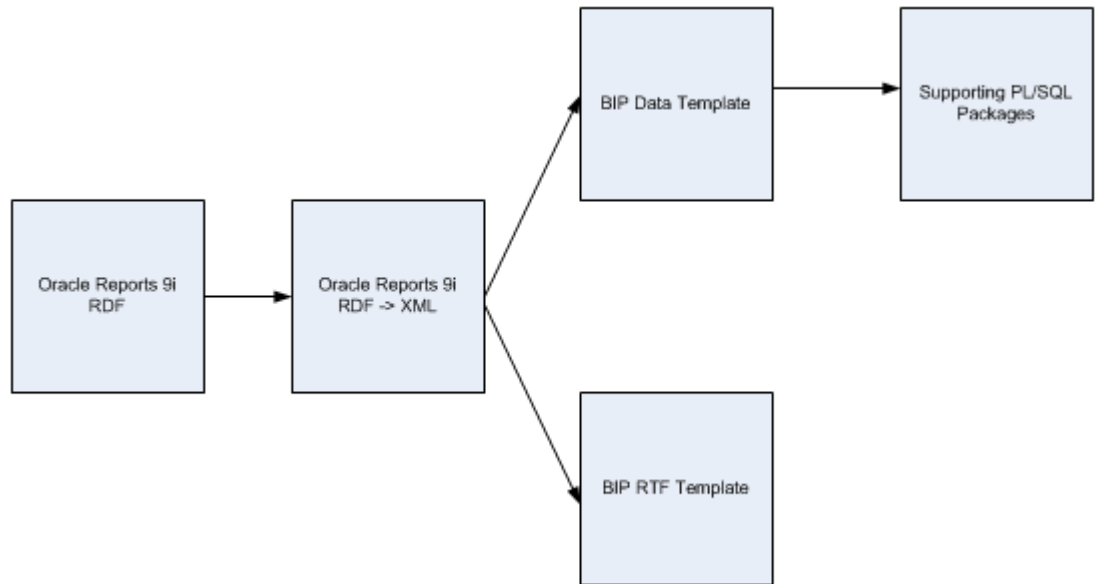
Data Model: Data Template –> Concurrent Program

- Concurrent Manager must have Program Definition to generate output!

- Set 'Executable' to XDODTEXE

- Demo

Data Model -> Data Definition

- Regardless of Oracle Report or Data Template, must register a Data Definition.

- XML Publisher Administrator Responsibility

- Demonstration

Layout Templates

Layout Templates

- Define the look and feel of the finished output.

- Layout Templates can be created in a number of formats including eText, **PDF, RTF**, XSL-FO, XSL-HTML, XSL-XML and XSL-TEXT.
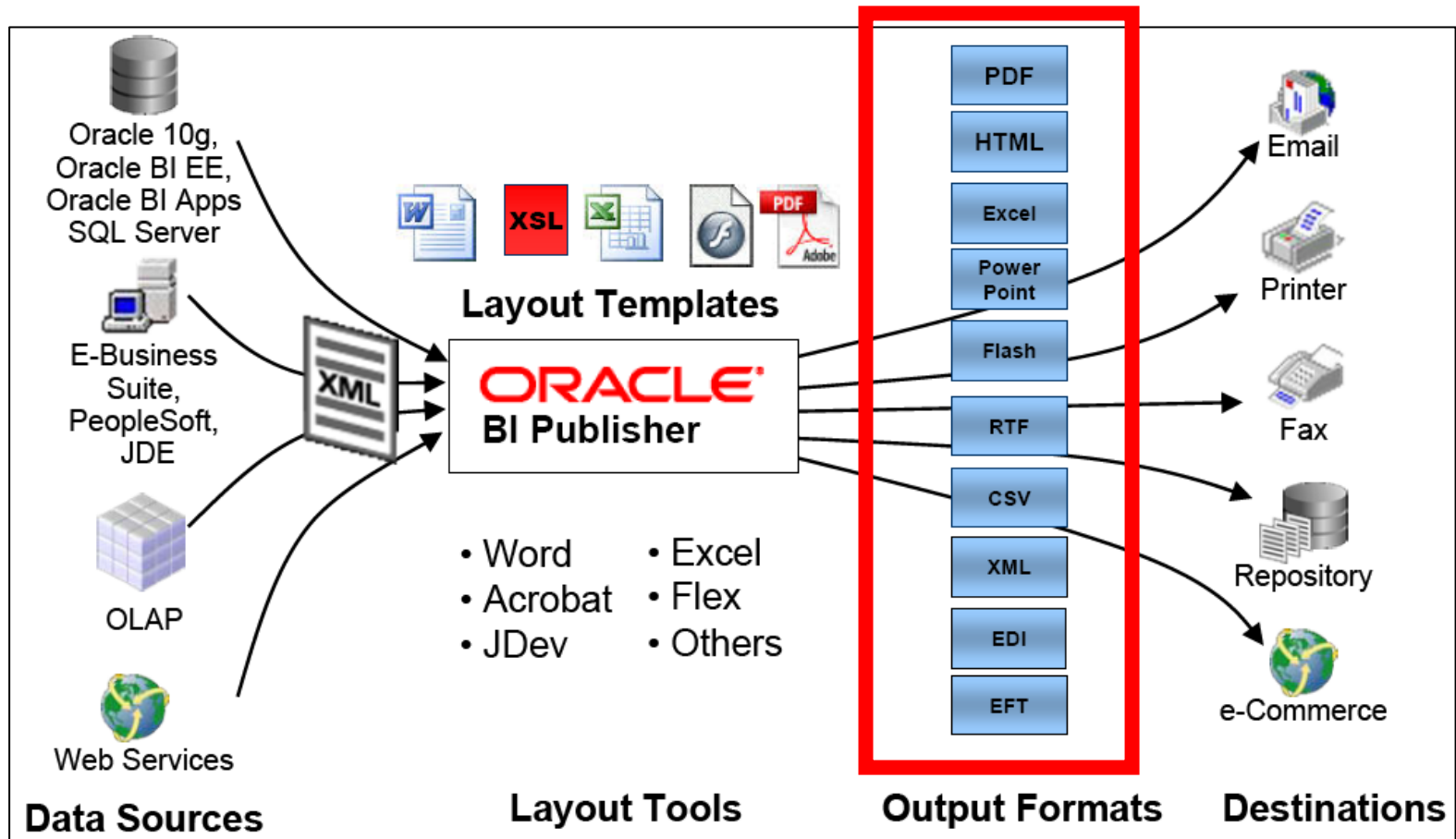
- BI Publisher Desktop

Layout Template -> Registration

- XML Publisher Administrator Responsibility -> Templates.

- Upload Template, Associate with Data Definition, Assign Locale, Preview Finished Report.

- Demonstration
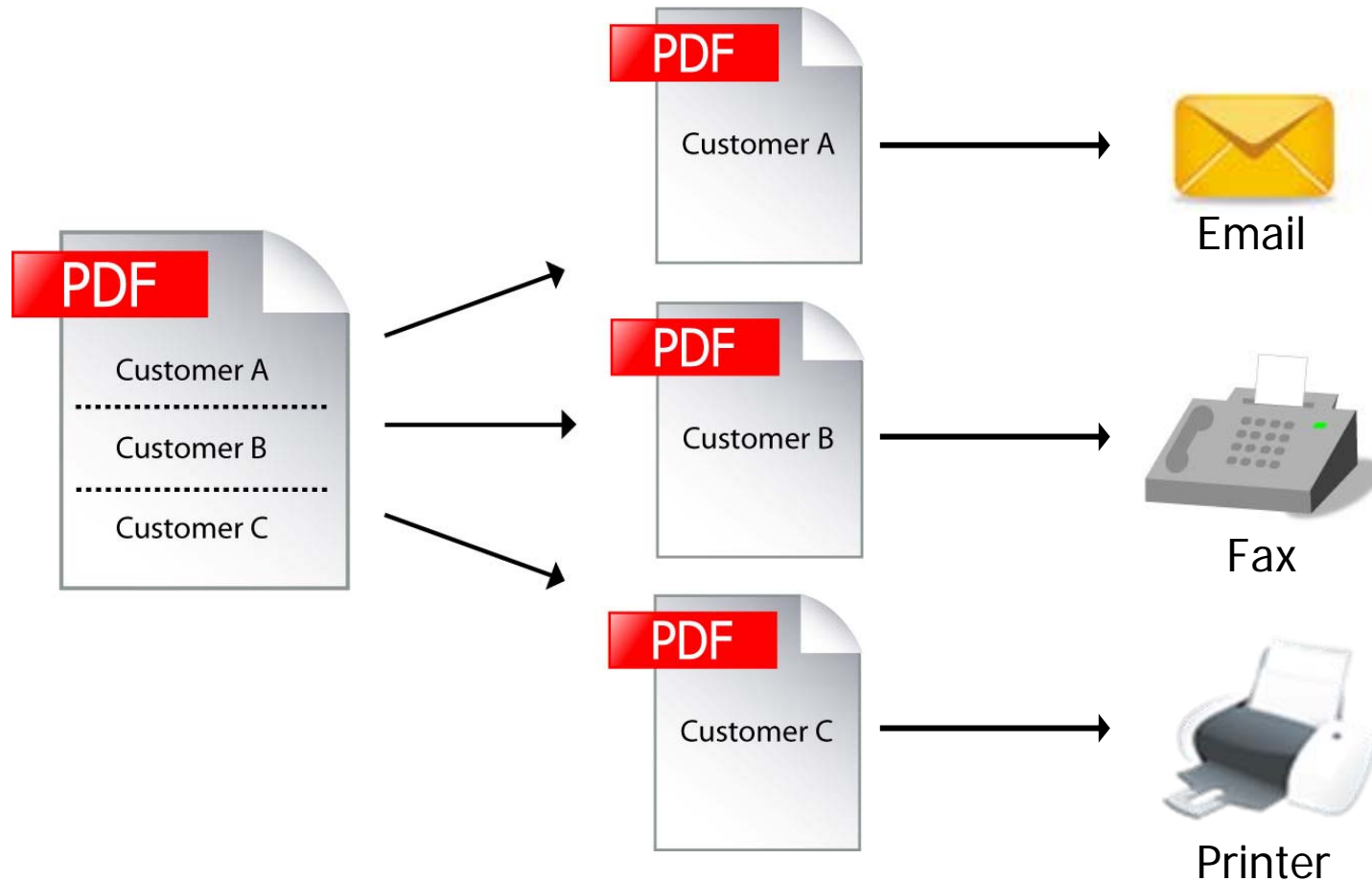
STR software

Report Creation

Report Creation

- Simple as running a Concurrent Request

- Demonstration

Report Bursting and Delivery

Bursting Control Files

- A bursting control file is an XML based file that defines the answers to 4 main questions.

  1. How do I burst the document?

  2. How do I deliver the burst file?

  3. Where do I deliver the burst file?

  4. What should the delivered file look like?

Bursting Control File

```xml
<?xml version="1.0" encoding="UTF-8" ?>
- <xapi:requestset xmlns:xapi="http://xmlns.oracle.com/oxp/xapi">
  - <xapi:request select="/RAXINV/LIST_G_ORDER_BY/G_ORDER_BY/LIST_G_INVOICE/G_INVOICE">
    - <xapi:delivery>
      - <xapi:email server="mail.strsoftware.com" port="25" from="qa@strsoftware.com" reply-to="qa@strsoftware.com">
          <xapi:message id="email1" to="brent.lowe@strsoftware.com" cc="" content-type="text/html" attachment="true" subject="Invoice #${TRX_NUMBER}">Dear
            Sir/Madam, Please find the attached invoice #${TRX_NUMBER} for ${BILL_CUST_NAME} dated ${TRX_DATE}. <br><br> Regards,<br> STR Software
            Receivables</xapi:message>
        </xapi:email>
      - <xapi:fax server="ipp://grimlock:631/printers/axtkocupsprinter">
          <xapi:number id="fax1">${BILL_ADDRESS4}</xapi:number>
        </xapi:fax>
      </xapi:delivery>
    - <xapi:document key="${BILL_CUST_NAME}" output="Invoice_#${TRX_NUMBER}.pdf" output-type="pdf" delivery="email1">
        <xapi:template type="rtf" location="xdo://AR.COPY_RAXINV_SELB.en.US/?getSource=true" filter=".//G_INVOICE[BILL_ADDRESS3='EMAIL']" />
      </xapi:document>
    - <xapi:document key="${BILL_CUST_NAME}" output="Fax_Invoice_#${TRX_NUMBER.pdf" output-type="pdf" delivery="fax1">
        <xapi:template type="rtf" location="xdo://AR.COPY_RAXINV_SELB.en.US/?getSource=true" filter=".//G_INVOICE[BILL_ADDRESS3='FAX']" />
      </xapi:document>
    </xapi:request>
  </xapi:requestset>
```
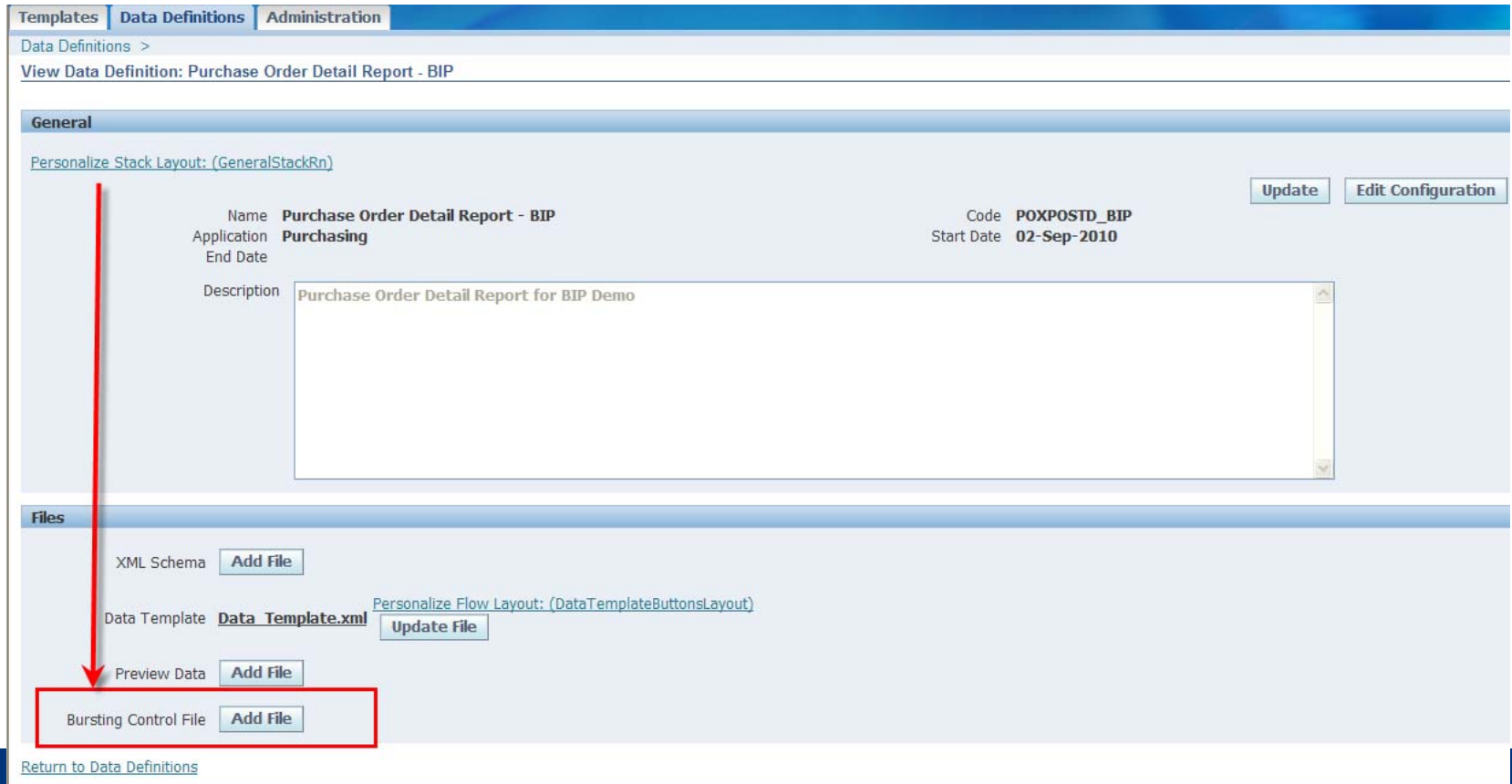
How to burst the document?
How to deliver the burst file?
Where to deliver the burst file?
What should the delivered file look like?

Bursting Control File - Registration

- Upload Bursting Control File to Data Definition

Invoke Bursting

- 2 Step Process

Step 1: Run Concurrent Request to Generate Data.

Step 2: Run 'XML Publisher Report Bursting Program'

Demonstration

Bursting Status Report

- XML Publisher Report Bursting Program creates it's own Report -> Bursting Status Report.
    - How document was burst
    - How documents were delivered
    - Status of delivery

Bursting Status Report

Bursting Status Report

Date: 2010-08-16 03:08:14
Page 1 Of 1

| Request ID	4446348
Parent Request ID	4446347
Report Name	Invoice Print Selected Invoices - Bursting Demo
Output File	/disk1/oraapps/inst/apps/VIS1_silverbolt/logs/appl/conc/out/o4446348.zip

| Key	Output Type	Delivery	Output	Status
Business World	pdf	Fax	/tmp/081610_035610028/Invoice_fax#10007144.pdf	Success
Hilman and Associates	pdf	email	/tmp/081610_035610028/Invoice_#10007145.pdf	Success

Delivery Engine

- Email
    - Allows for dynamic Recipient, CC, BCC, Subject, Message Body
    - Single Attachment – The report that was generated.
- Print
    - Utilizes IPP to print to CUPS based printers.
    - Depending on printer, specify tray, duplex, copies, etc...
- Fax
    - Utilizes IPP to print to CUPS based printers that communicate with Fax Modems.
    - Allows for dynamic fax number.
    - Status determined based on print job, not final outcome of fax.
- File
    - Output data to named file on file system.
- FTP
    - Send data to remote machine.

Standard Offering w/in Oracle EBS
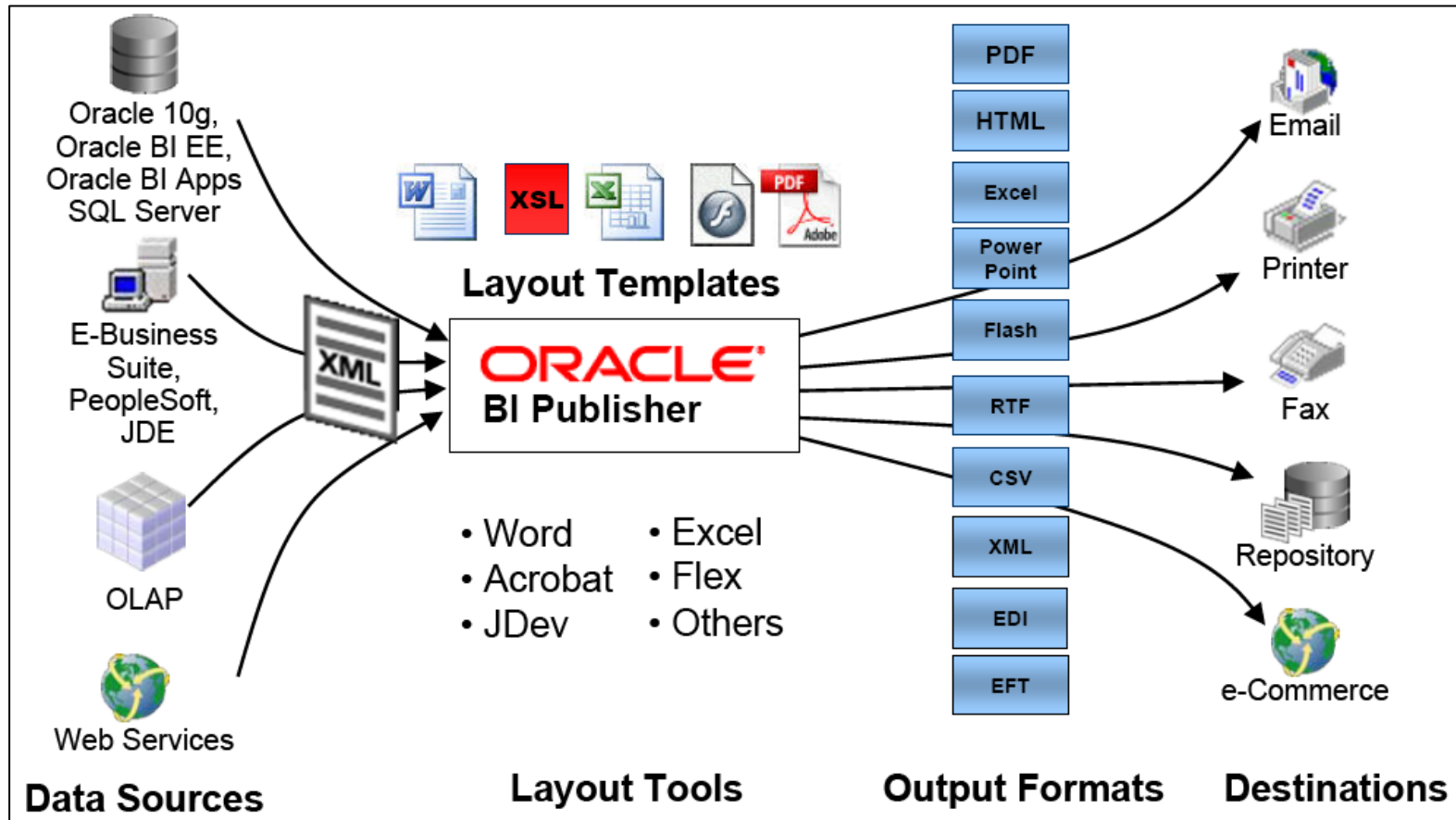
Variations from the Standard

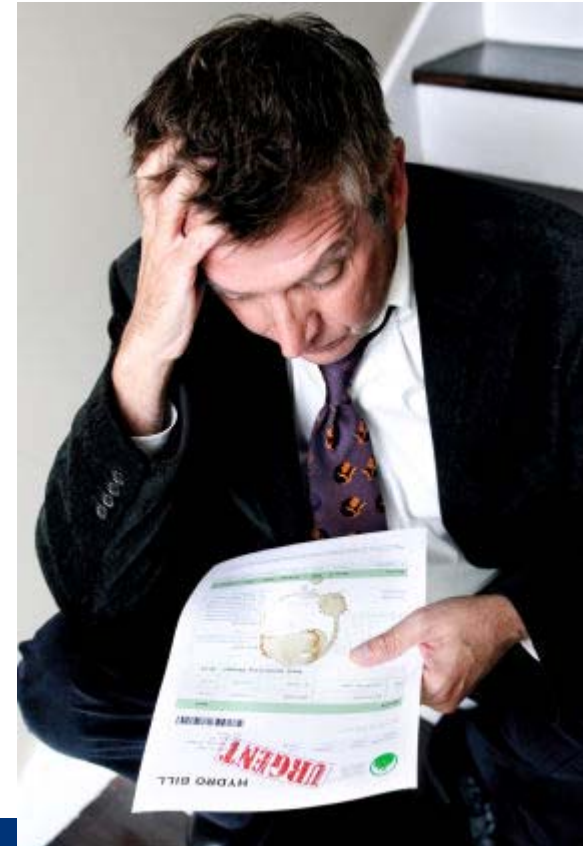- Advanced Collections

- Advanced Procurement

- Payables
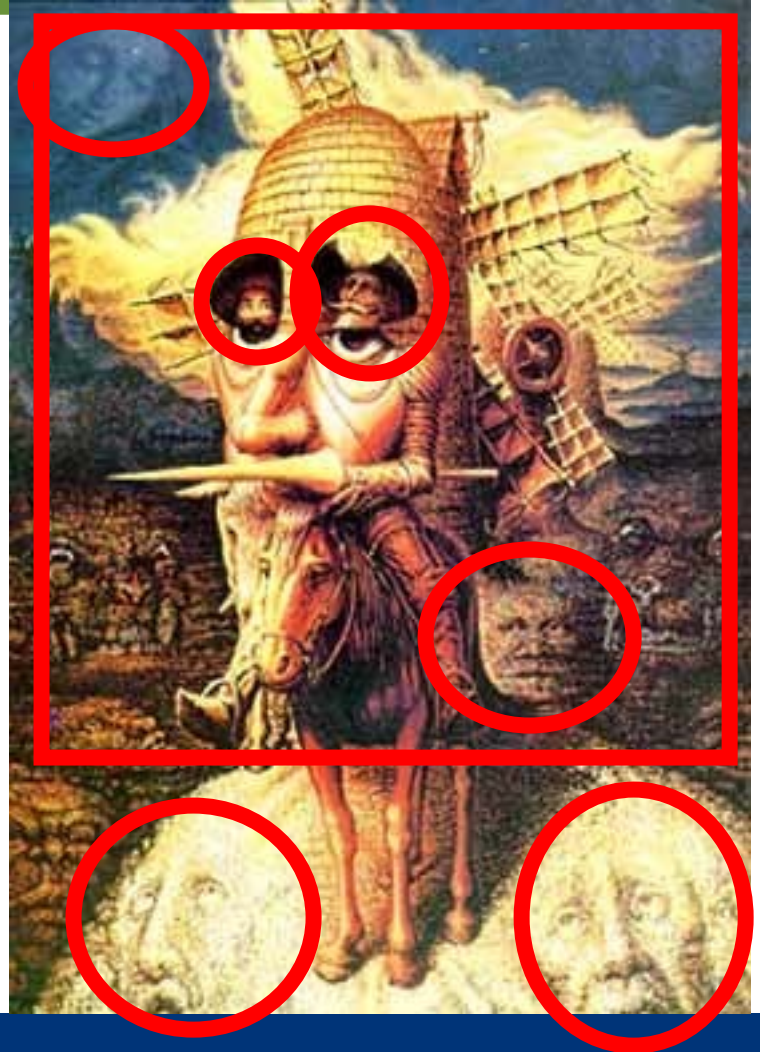
Advanced Collections

- 11iEX.H Rollup 4/R12 – Oracle One-To-One Fulfillment Server replaced by BI Publisher.

Variations:

- Template/Data Definition Pairs
- XML Generation
- Report Generation and Delivery

Advanced Collections – Template/Data Definition Pair

- Templates are registered via the standard methodology.

- All Advanced Collections Templates reference a generic 'dummy' Data Definition: "Collections XML Data Source"

Name	Application	Data Definition	Type	Start Date	End Date	Duplicate
ADS Custom Soft Dunning Letter 1	Collections	Collection XML Data Source	RTF	05-Nov-2004		
ADS Custom Invoice Letter	Collections	Collection XML Data Source	RTF	05-Jan-2005		
Adjustment Confirmation Letter	Collections	Collection XML Data Source	RTF	05-Nov-2004		
AR Dunning Soft Letter	Collections	Collection XML Data Source	RTF	12-Nov-2008		
Consolidated Invoice Confirmation Letter	Collections	Collection XML Data Source	RTF	05-Jan-2005		
Dunning Hard Letter 1	Collections	Collection XML Data Source	RTF	05-Nov-2004		

Advanced Collections – XML Generation

- Does not use Oracle Reports or Data Templates.
- Uses Queries setup within Apps: Collections Administrator Responsibility -> Administration -> Manage Templates Query

Demonstration

Advanced Collections: Report Generation and Delivery

- Collections notices are meant to be delivered.
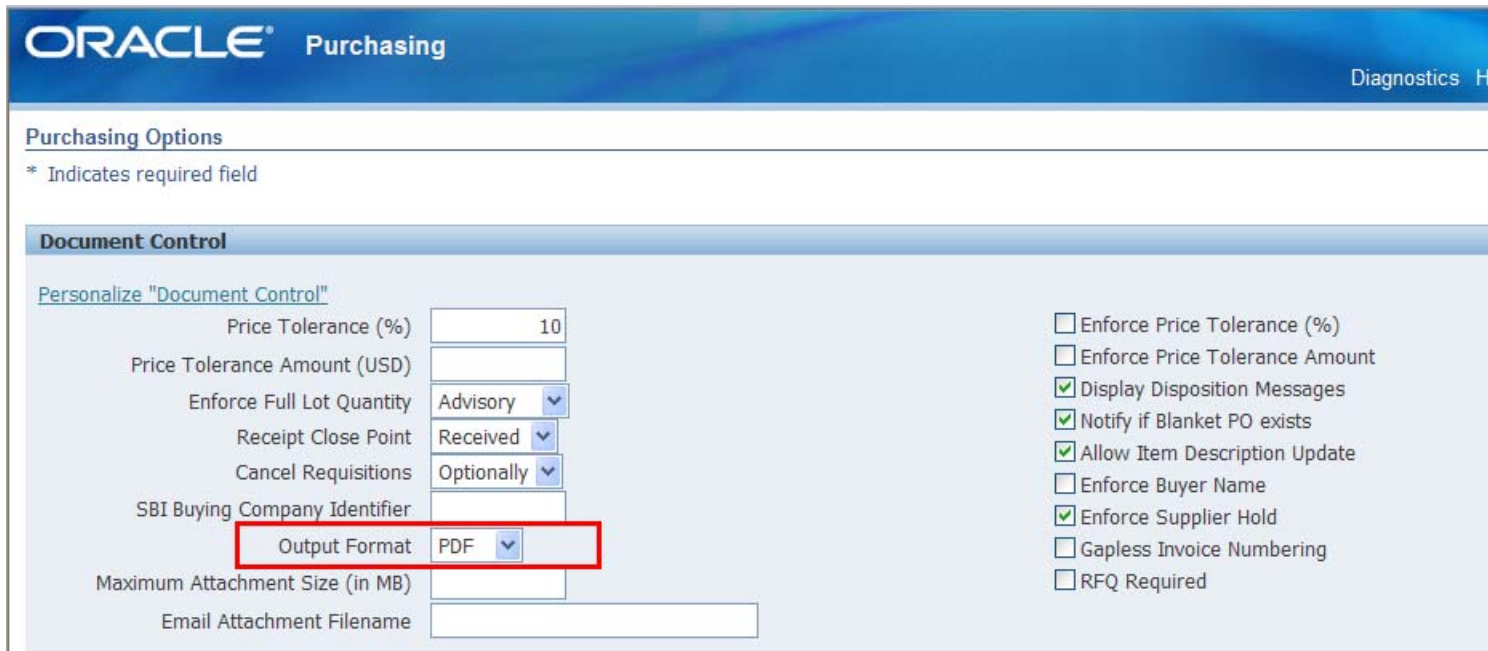
Collections Agent -> Collections

Demonstration

STR software

Advanced Procurement

- PO Approval Process – Release Purchase Orders based on workflow process.

- Variations
  - Setup
  - XML Generation & Layout Templates
  - Report Generation & Delivery

Advanced Procurement

- ## Setup
  - Purchasing Super User Responsibility -> Setup -> Organizations -> Purchasing Options

Advanced Procurement

- Setup
  - Associate Templates with Document Types
  - Purchasing Super User -> Setup -> Purchasing -> Document Types

Advanced Procurement

Document Types

Personalize "Document Types Table"

Create

Type	Name	Document Type Layout	Contract Terms Layout	Update	Delete
Auction Buyer Auction	Sourcing Buyer Auction	Sourcing Style Sheet	Oracle Contract Terms Template	✏️	🗑️
Change Order Request Requisition	Change Order Request: Requisition			✏️	🗑️
Purchase Agreement Blanket	Blanket Purchase Agreement	Blanket Agreement Stylesheet with Logo	Oracle Contract Terms Template	✏️	🗑️
Purchase Agreement Contract	Contract Purchase Agreement	Contract Agreement Stylesheet with Logo	Oracle Contract Terms Template	✏️	🗑️
Purchase Order Planned	Planned Purchase Order			✏️	🗑️
Purchase Order Standard	Standard Purchase Order	Standard Purchase Order Fax	Oracle Contract Terms Template	✏️	🗑️
Quotation Bid	Bid Quotation			✏️	🗑️
Quotation Catalog	Catalog Quotation			✏️	🗑️
Quotation Standard	Standard Quotation			✏️	🗑️
Release Blanket	Blanket Release	Blanket Release Stylesheet with Logo		✏️	🗑️
Release Scheduled	Scheduled Release			✏️	🗑️
Requisition Internal	Internal Requisition			✏️	🗑️
Requisition Purchase	Purchase Requisition			✏️	🗑️
Request for Quotation Bid	Bid RFQ			✏️	🗑️
Request for Quotation Catalog	Catalog RFQ			✏️	🗑️
Request for Quotation Standard	Standard RFQ			✏️	🗑️
Sourcing RFI Sourcing RFI	Sourcing RFI	Sourcing Style Sheet	Oracle Contract Terms Template	✏️	🗑️
Sourcing RFQ Sourcing RFQ	Sourcing RFQ	Sourcing Style Sheet	Oracle Contract Terms Template	✏️	🗑️

Create

Advanced Procurement

- XML Generation
  - XML is generated from packages/views
    - PO_COMMUNICATION_PVT package
    - PO_****_XML views

- Layout Templates
  - 11i10 – Default to XSL-FO only templates
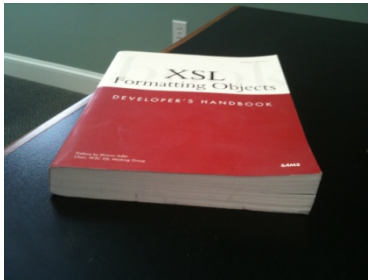
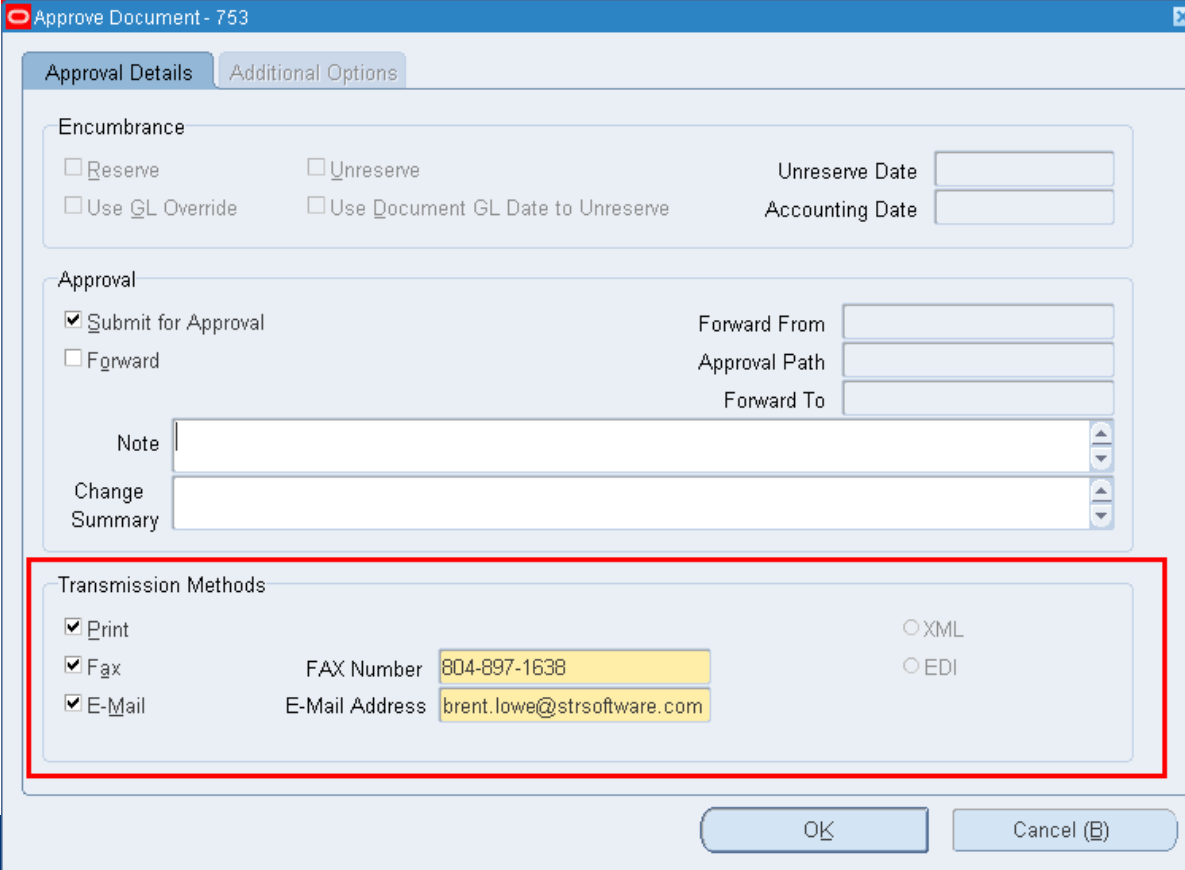- Patch 4670662 – Allows for RTF based templates!

STR software

Advanced Procurement

- ## Report Generation and Delivery
  - Once PO gets final approval (via workflow rules) the PO output gets created programmatically and "delivered" based on rules associated with PO Approval/Tools->Communicate.

  Email – Workflow Mailer

  Print – Concurrent Output (PO Output for Delivery)

  Fax – Concurrent Output (PO Output for Delivery)

Advanced Procurement

- Delivery – PO Approval
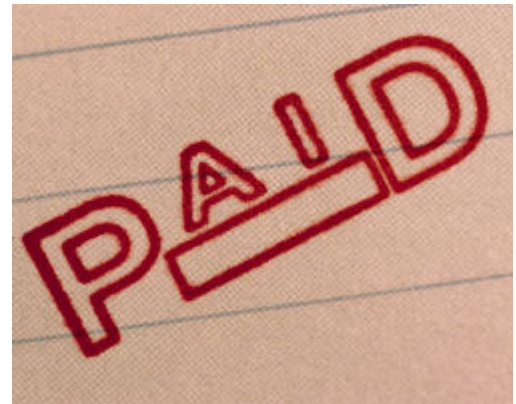
Advanced Procurement
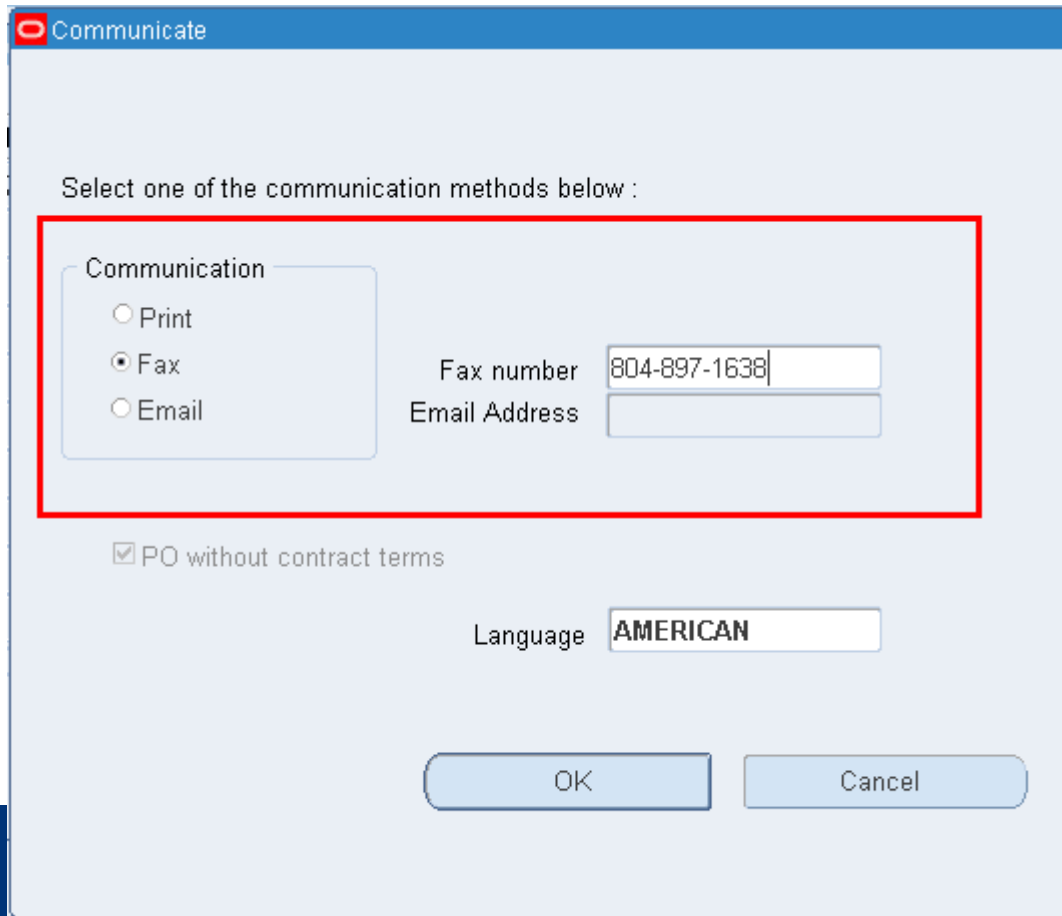
- Delivery – Tools -> Communicate

Payables

- Separate Remittance Advice – Starting in R12, completely re-written to utilize BI Publisher.

- New Program: Send Separate Remittance Advice

Variations:
- XML Generation
- Layout Template Setup
- Delivery

Payables

- ## SRA XML Generation

  - Dummy Data Definition is setup with the required code of IBY_FD_INSTRUCTION_1_0.
  - $IBY_TOP/patch/115/publisher/defs/IBY_PPIOUT_1_0.xsd
  - Package: IBY_FD_EXTRACT_EXT_PUB

Payables

- SRA Layout Template Setup

Layouts setup as normal in XML Publisher Administrator but associated with Payment Profile in Payables.

Payables Manager Responsibility -> Setup -> Payment -> Payment Administration

Payables

- **SRA Delivery**
  - Delivery Information: Payables Manager -> Suppliers -> Entry

Payment Attributes

Payment Delivery Attributes	Payment Specifications	Separate Remittance Advice Delivery

Delivery Method [Fax ▾]

E-Mail [_____]

Fax [804-897-6357]

Cancel   Save

Payables

- Send Separate Remittance Advice Conc Program
  - Generates XML
  - Applies configured template
  - Figures out whether to fax, email or print document
  - Uses BIP Delivery Manager to deliver

Conclusion

- BI Publisher is a powerful tool

- Because built on set of APIs, it's flexible.

- Not all applications are utilizing what is considered to be the standard.

- Hopefully was able to shed some light on variations.

Contact Information:

Brent Lowe

STR Software

brent.lowe@strsoftware.com

www.thelowedownblog.com

www.strsoftware.com