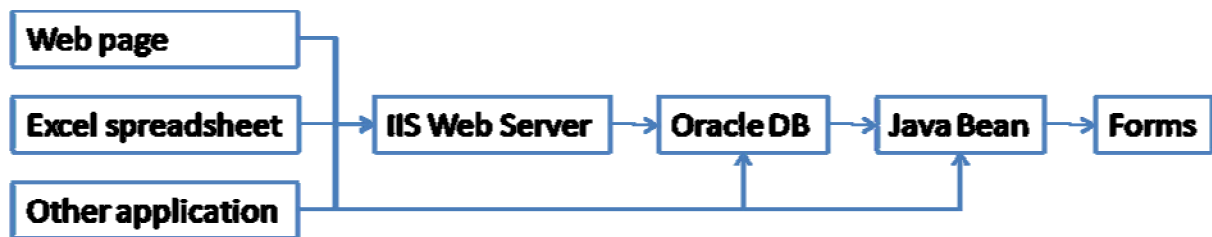


## Interacting with Forms from other systems

### About

Our company wanted a way of interacting with our financial system, which is built with Forms 10, from other external systems. To accomplish this, we created several components which work together to allow data to be sent to Forms.



In this data flow we have a number of external applications which are able to send data to forms.

### Real world example

A user browses our Intranet which contains lists of undelivered orders (Fig. 1). The user is interested in finding out more information about a particular order. The user clicks a hyperlink related to the order and the order information form is opened in our financial system (Fig. 3).

### Explanation

First of all, the user must have the financial system started. This system contains a Java Bean which implements an IP server which listens to a specific port for incoming data. Information about the user's session like username, IP address and port number is stored in v\$session in the database. The web page in which the user found the initial information about the order contains a hyperlink which triggers some JavaScript code using Ajax. The JavaScript code sends a page request with various information like form name and order number to an IIS web server. In turn, the web server finds out the user's username and logs into the financial system's database and triggers some PL/SQL code. This PL/SQL code finds the user's session in the v\$session view, extracts the IP address and port number and sends the data to the client. The Java Bean picks up the data and sends it to the Forms application which can respond in an appropriate way. In this example, Forms will open an order information form and display data regarding the requested order number.

If the user hadn't started the financial system before clicking the URL no session information would be present in the session table and the IIS web server would respond with an appropriate message (Fig. 2).

This example shows one way of using this Java Bean. Another example could be updating graphs and gauges in real time using events generated (UTL\_TCP) from the database skipping the entire IIS web server step.



















Sales		To be invoiced		To be invoiced (Detail)	
Quantity in tonne to be invoiced					
Waybill date			Order no.		
2009-02-11			<a href="#">250361</a>		
2009-02-11			<a href="#">250362</a>		
2009-02-12			<a href="#">250361</a>		
2009-02-12			<a href="#">250362</a>		
2009-02-03			<a href="#">565377</a>		
2009-02-04			<a href="#">563872</a>		
2009-02-16			<a href="#">254610</a>		
2009-02-20			<a href="#">254117</a>		
2009-02-23			<a href="#">250270</a>		
2009-02-23			<a href="#">251427</a>		
2009-02-23			<a href="#">252329</a>		
2009-02-23			<a href="#">253855</a>		
2009-02-23			<a href="#">253857</a>		
2009-02-23			<a href="#">254727</a>		
2009-02-23			<a href="#">254730</a>		
2009-02-23			<a href="#">563692</a>		
2009-02-23			<a href="#">563927</a>		
2009-02-23			<a href="#">564707</a>		

Figure 1. List of orders on a web page

Files To be invoiced To be invoiced (Detail)

Quantity in tonne to be invoiced

Waybill date	Order no.		
2009-02-11	<a href="#">250361</a>		
2009-02-11	<a href="#">250362</a>		
2009-02-12	<a href="#">250361</a>		
2009-02-12	<a href="#">250362</a>		
2009-02-03	<a href="#">565377</a>		
2009-02-04	<a href="#">563872</a>		
2009-02-16	<a href="#">254610</a>		
2009-02-20			
2009-02-23			
2009-02-23			
2009-02-23	<a href="#">253855</a>		
2009-02-23	<a href="#">253857</a>		
2009-02-23	<a href="#">254727</a>		
2009-02-23	<a href="#">254730</a>		
2009-02-23	<a href="#">563692</a>		
2009-02-23	<a href="#">563927</a>		

Microsoft Internet Explorer

No CUPS session was found for your username.

OK

Figure 2. Forms application isn't running

The screenshot displays a software interface with two main windows. The top window, titled "Order Entry SZ30 - 1", shows order details for Order Number 250362. The bottom window, titled "General Data - Microsoft Internet Explorer provided by HP IT", shows a table of invoices to be invoiced.

**Order Entry SZ30 - 1**

Order Number: 250362 (circled in red)

Type: Customer Order | Date: 2008-12-05

Status: Active | Cert: [Redacted] | St. Po: [Redacted]

Sales Office: [Redacted] | Sales Person: [Redacted]

Customer: [Redacted] | Product: [Redacted]

Main Customer: [Redacted] | Running Basis: Diameter

Sales Group: [Redacted] | Terms of Payment: [Redacted]

Ordered by: [Redacted] | Prompt Paym. Disc: [Redacted]

Sales Agent: [Redacted] | Payment Method: Standard method | Price Code: [Redacted] | Delivery Date: [Redacted]

SA Reference: [Redacted] | Currency: [Redacted]

Delivery Address: [Redacted] | Exchange Rate: [Redacted] / [Redacted] = [Redacted]

Market: [Redacted] | Gross Price: [Redacted] per [Redacted] x [Redacted]

Autom. Booked: Yes [Redacted] | End Us: [Redacted] | Net Price: [Redacted]

Deliv. Note Type: [Redacted] | WH: [Redacted] | Object: [Redacted]

POL: [Redacted] | Transport Mode: 1 | Sea

POD: [Redacted] | Terms of Delivery: [Redacted]

Final Destination: [Redacted] | Location: [Redacted]

Amendment Date: [Redacted] | Updated by: [Redacted]

Buttons: 4 Add.Data, 5 Discounts, 6 Ext.Char., 7 Remarks

**Order Item Summary**

Item No.	Article Number	Width	Diam.	Length	Quantity	Reels / Package	Product Classification	CDD	Free/ Hold	Expiry Date	Status
1						1	MAKING				

Buttons: OK/Accept, 8 Details, 9 Remarks, 0 Del.Times, Total Tonnes

**General Data - Microsoft Internet Explorer provided by HP IT**

Address: [Redacted]

General | Exchange Rates | Exchange Rates (Transport) | Sales | To be Invoiced | To be Invoiced (Detail)

Quantity in tonne to be invoiced

Year	Month	Sales Office	Waybill date	Order no.	[Redacted]	[Redacted]	[Redacted]	[Redacted]	Sum
2009	FEB	[Redacted]	2009-02-11	250361	[Redacted]	[Redacted]	[Redacted]	[Redacted]	[Redacted]
2009	FEB	[Redacted]	2009-02-11	250362	[Redacted]	[Redacted]	[Redacted]	[Redacted]	[Redacted]
2009	FEB	[Redacted]	2009-02-12	250361	[Redacted]	[Redacted]	[Redacted]	[Redacted]	[Redacted]
2009	FEB	[Redacted]	2009-02-12	250362	[Redacted]	[Redacted]	[Redacted]	[Redacted]	[Redacted]
2009	FEB	[Redacted]	2009-02-03	250361	[Redacted]	[Redacted]	[Redacted]	[Redacted]	[Redacted]
2009	FEB	[Redacted]	2009-02-04	250362	[Redacted]	[Redacted]	[Redacted]	[Redacted]	[Redacted]
2009	FEB	[Redacted]	2009-02-16	254610	[Redacted]	[Redacted]	[Redacted]	[Redacted]	[Redacted]
2009	FEB	[Redacted]	2009-02-20	254117	[Redacted]	[Redacted]	[Redacted]	[Redacted]	[Redacted]
2009	FEB	[Redacted]	2009-02-23	250270	[Redacted]	[Redacted]	[Redacted]	[Redacted]	[Redacted]
2009	FEB	[Redacted]	2009-02-23	251427	[Redacted]	[Redacted]	[Redacted]	[Redacted]	[Redacted]

Buttons: Done, Trusted sites

Figure 3. User clicked the URL and the order information is displayed in the Forms application