

**Real Java,
Real Easy.**

Real Java, Real Easy: The Straight Path to e-business for iSeries Developers



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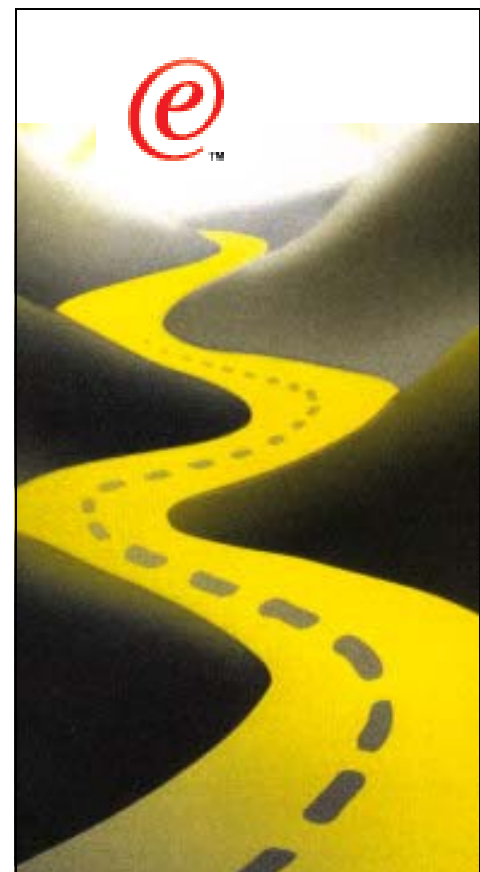
Agenda

Objectives

The Parts to e-Business

The Technologies for e-Business

The Roadmap To Get There



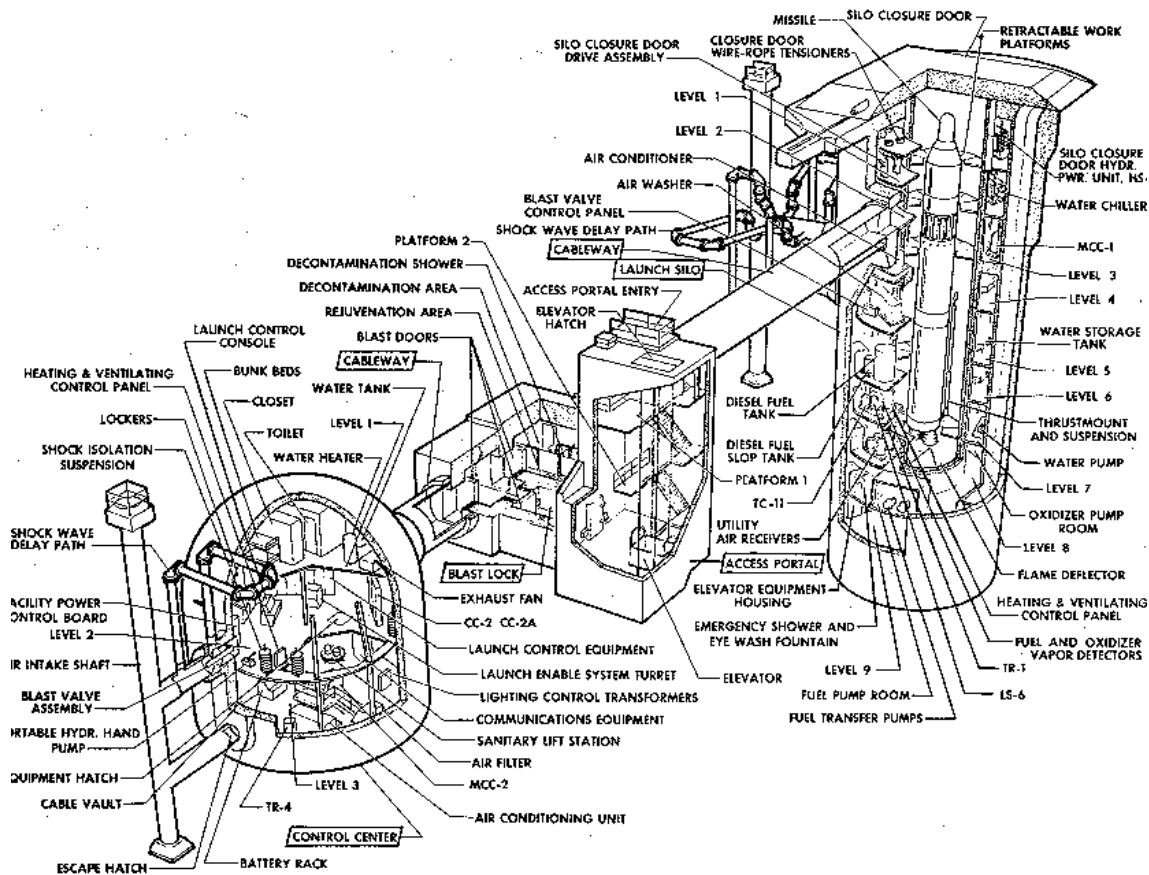
Our objective for this session...



- ✓ I know where **Java** fits in my e-business plan!
- ✓ I can develop e-business applications in **Java**!

Real Java,
Real Easy.

Did you think that JAVA meant maximum effort for minimum results?



It does not have to be...

What have you been asking for?

- ✓ Simple
- ✓ Reliable
- ✓ Secure
- ✓ Portable
- ✓ Maintainable
- ✓ Affordable
- ✓ Investment Protection



How far can I go with my skills?

- ✓ Knowledge of business rules
- ✓ Programming skills
- ✓ Basic SQL skills

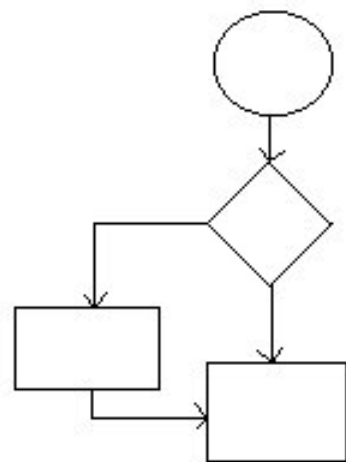


eBusiness Part I - *Best* Language...

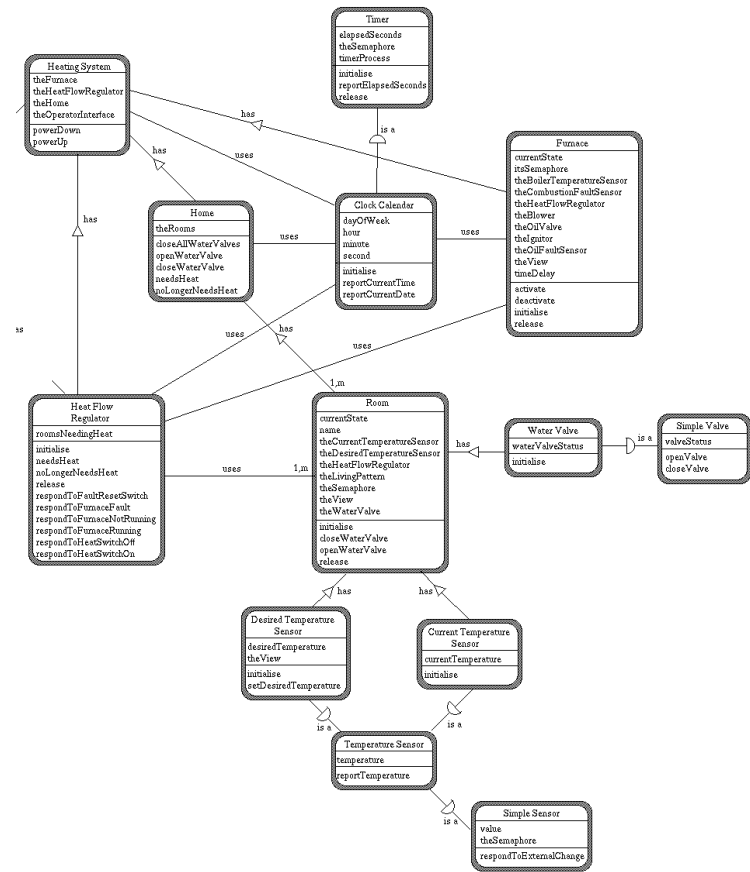
- ✓ Secure, open, robust and viable platform
- ✓ Write once, run anywhere flexibility
- ✓ Fastest growing resource pool



eBusiness Part II- Best Approaches...

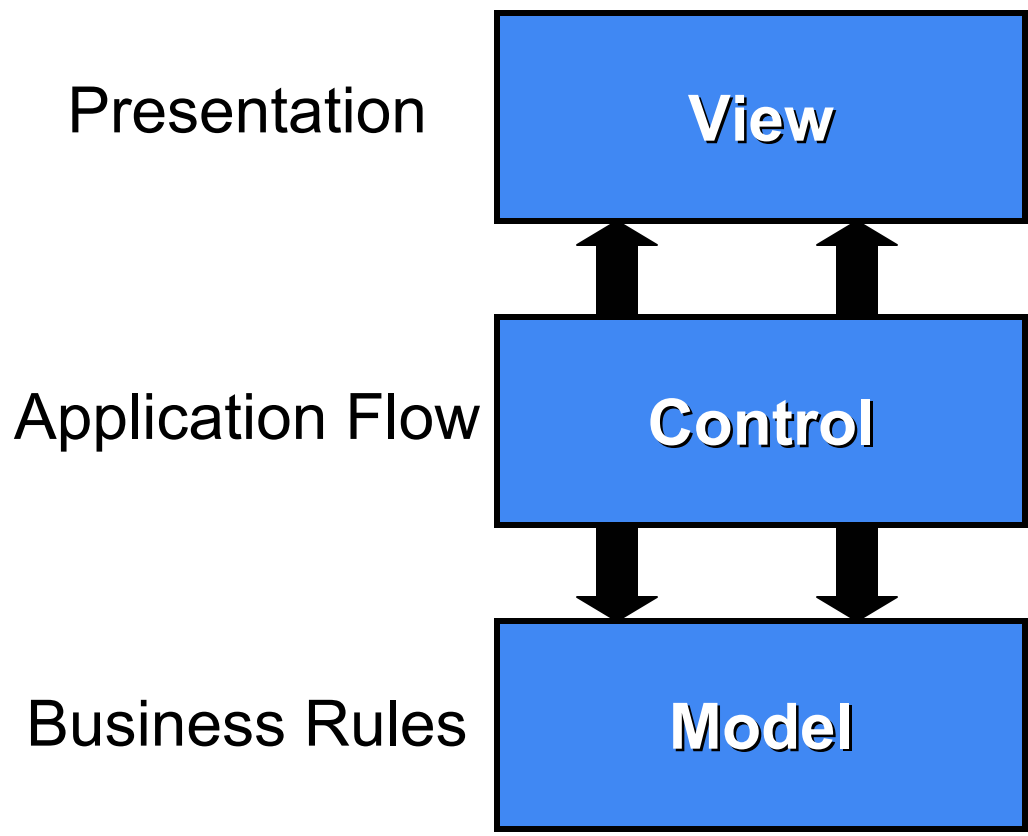


Simple Flow Chart Approach



Complex Object Approach

eBusiness Part II - Best Design...



First, what do you want to build?

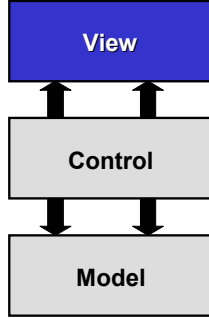


- Serve business information to a browser?
- Call business functions from a Web application?

Next, the “**MVC**”
technologies that get you
there fast!

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View Technologies



HTML

- tag-based mark-up language
- rendering content to a browser
- including text, multimedia, and links.

JSP

- scripting language
- creating dynamic web pages
- based on Java.



Browser

HTML Syntax Examples

Simple, *static* presentation language.

Tag	Interpretation
<html> </html>	Begin, end of html document
<title></title>	Document title
<h1></h1>	Header size 1
<h2></h2>	Header size 2 (smaller than size 1)
<h3></h3>	Header size 3 (smaller than size 2)
<h4></h4>	Header size 4(smaller than size 3)
<p></p>	Paragraph delimiter
	Link identifier
 	Image identifier/loader
<table></table>	Table formatting

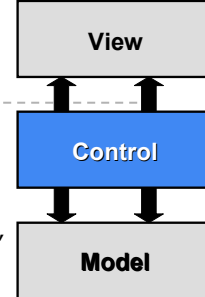
JSP Syntax Example

Simple, *dynamic* presentation language.

```
<%@ page language="java" %>

<%@ taglib uri="http://structuredsoft.com/dtd/sjform" prefix="f" %>
<html>
<head>
<title>
List Events
</title>
<body>
<f:form name="frmEvents" method="POST">
<table width="216" border="0" cellpadding="0" cellspacing="0">
<tr bgcolor="#eefdd">
    <td height="15" colspan="2" class="hdtxt">Events</td>
</tr>
<f:repeater name="rptEvents">
<tr>
    <td class="date"><f:text name="EventDateFMT" repeater="rptEvents" nocontrol="true"/><br/>
    <a class="hdtxtGreen" href="/portal/page/events.jsp?id=<f:text name="EventID" nocontrol="true"
repeater="rptEvents"/>"><span class="hdtxtGreen"><f:text repeater="rptEvents" name="Description"
nocontrol="true"/></span></a>
<br><br/>
    </td>
</tr>
</f:repeater>
</table>
</f:form>
</body>
</html>
```

Control Technology



```
/*
 * Main entry point to the script.
 */
void main() throws FormResultsConversionException, StoreNotFoundException, ResultStoreException, NotFoundException,
ValueException, FormResultsNotFoundException, ClassNotFoundException, SQLException{

    FormPage frmIndex = new FormPage("/jsp/quicksearch.jsp");
//root to SJ is the application context
//Main program loop will loop forever from request to request until the user ends their session.

    while(1==1){

        frmIndex.show(); //Display the index page and process any results.

        //Make sure that we clear any error messages prior to validation.
        frmIndex.clearErrmsgs();

        // get button clicked and value of contact nbr entered
        String ctcnum = frmIndex.getString("CTHSEQNUM");
        String sButton = frmIndex.getButtonUsed();

        ctcnum = ctcnum + "";

        if(ctcnum.length()>0){
            //Validate the contact number.
            Status valstatus = validateSearch(ctcnum);

            //Check our results.
            if(!valstatus.isValid()){
                frmIndex.setErrmsgs(valstatus);
            }else{
                showEdit(ctcnum);
            }
        }else{
            // didn't click search button so pass this to the generic button
            //handler. If no shared buttons was clicked, control will
            //drop back to the main screen.
            handleSharedButtons(sButton);
        } //end validation
        ctcnum="";
    } // end main while

} //end main
```

Java Control Script

structured|Jtm

Control Technology Close Up

```
// CRUD mainline StructuredJ script example void
main(String[] args) throws Exception {
    p = getPropertiesFromFile();
    if (CURRENT_ACTION==0) CURRENT_ACTION = SEARCH_ACTION;
    while (notExit) {
        switch (CURRENT_ACTION) {
            case SEARCH_ACTION: searchTable(); break;
            case BROWSE_ACTION: browseTable(); break;
            case ADD_ACTION: addTable(); break;
            case EDIT_ACTION: editTable(); break;
            case DELETE_ACTION: deleteTable(); break;
            default: processActions();
        };
    };
}
```

Look familiar?

structured|Jtm

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Java Control Script

vs.

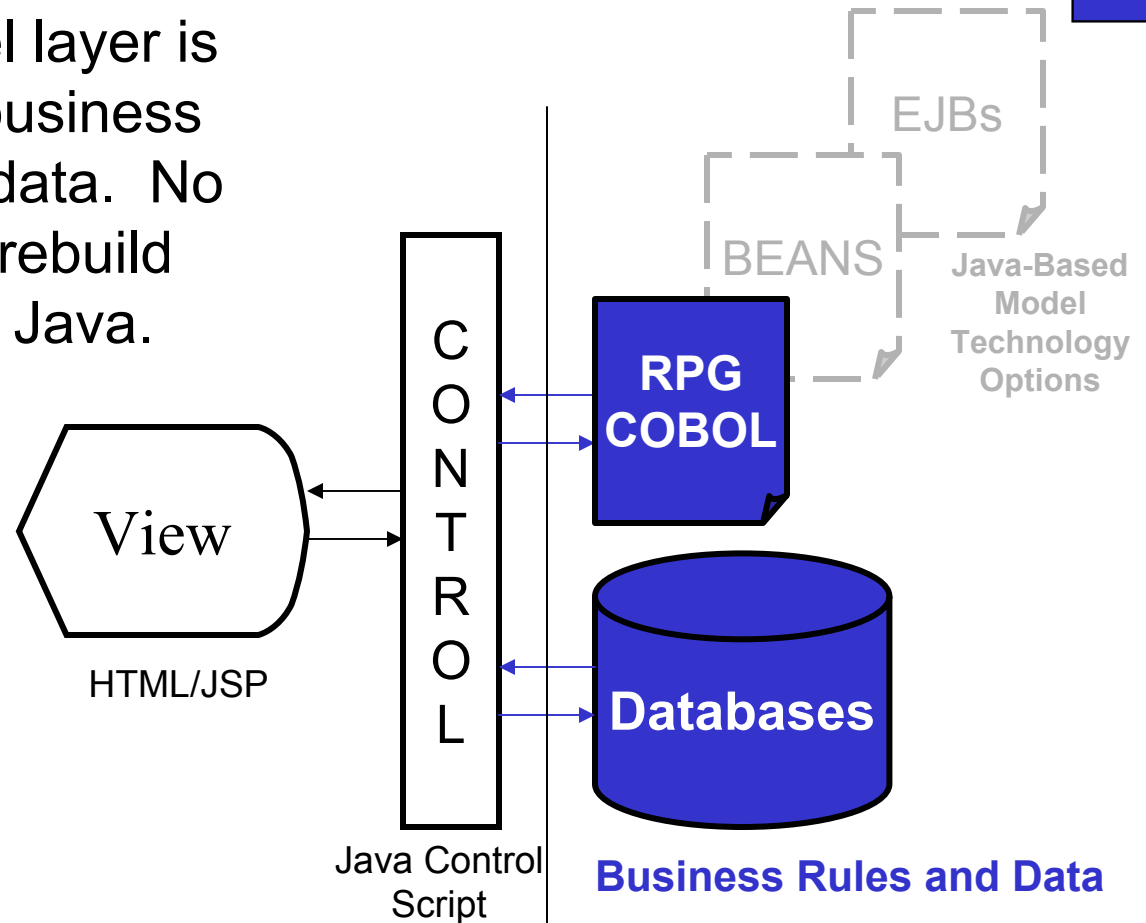
RPG...

RPG concept	StructuredJ Web concept
DDS display source file	JSP source files
DDS Record format for screen	JSP file for form (= screen) Lays out input and output fields on Web form
DDS source files compiled for use	JSP files compiled for use
Enter RPG 5250 source program	Enter SJ script
Compile RPG source to program object	Compile SJ script to executable Java class
Declare DDS formats in program	Declare JSP files in SJ script
1. FORDENTD2 CF E WORKSTN SFILE(ORDSFL:SflRrn)	2. FormPage frmIndex = new FormPage("/jsp/quicksearch.jsp")
Do mainline until user hits Exit button	Do mainline until user hits Exit button
3. DOU *IN03 = \$Exit	4. while (1==1){
Write / Read DDS Record format	Write / Read JSP file
5. EXFMT PROMPT	6. frmIndex.show();
Execute a subroutine or procedure	Execute a script method
7. EXSR ClrError	8. frmIndex.clearErrmsgs();
Move data from form field to program field	Move data from form field to program field
9. MOVE CTHSEQNUM CTNUM	10. String ctnum = frmIndex.getString("CTHSEQNUM");
If test on field length	If test on field length
11. CTLEN IFGT 0	12. if (ctnum.length())>0){
Call edit subroutine for a contact nbr	Call edit subroutine for a contact nbr
13. EXSR SHOWEDIT	14. showEdit(ctcnum);
If no contact entered, call Choices to run selected Function	If no contact entered, call Choices to run selected Function
15. EXSR CHOICES	16. handleSharedButtons(sButton);
Other logic is in subroutines or	Other logic is in methods in the same script

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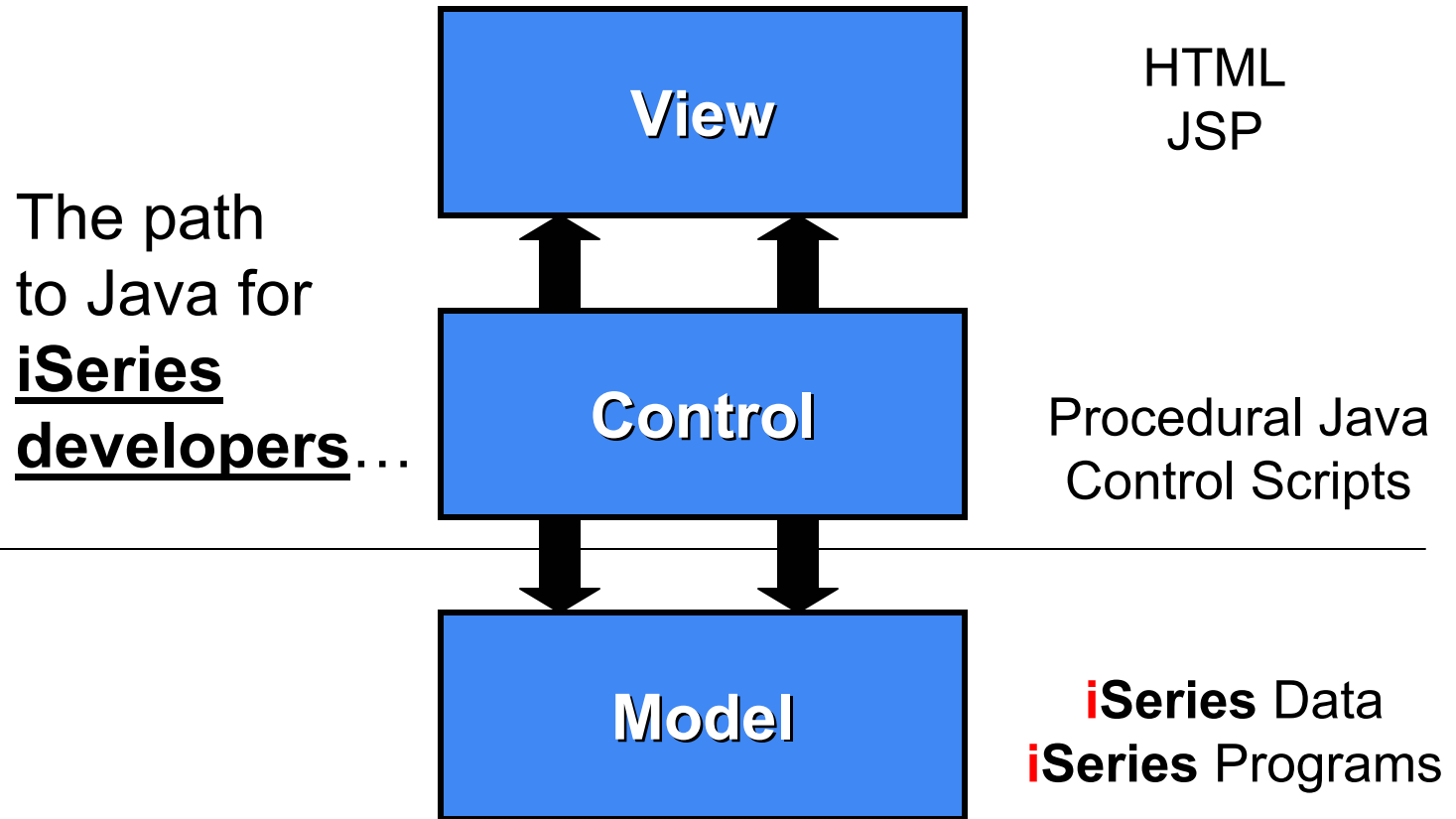
Model Technologies

The model layer is existing business logic and data. No need to rebuild them in Java.



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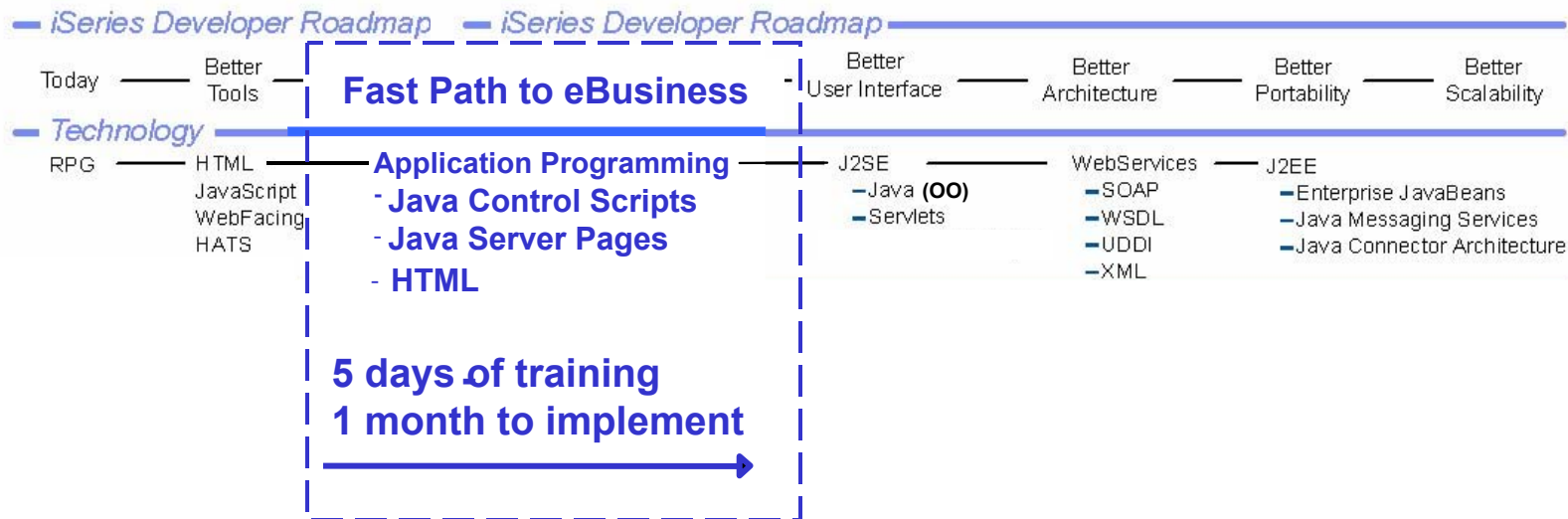
Putting It Together for YOU!



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Customized Roadmap to e-Business



71 days of training/6-12 months to implement

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The tools of the trade...

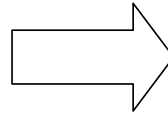
Open Source

- Eclipse
- StructuredJ
- JTOpen
- Jetty AS

OR

WDSC

BUILD

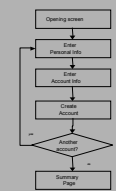


RUN

iSeries / i5

Native JVM*

Java Control Program



RPG

DB

WebSphere. OR Jetty
(Open Source)

Application Server

OS/400

* Or Linux or Windows in an LPAR

It's what have you been asking for...

- ✓ Simple
- ✓ Reliable
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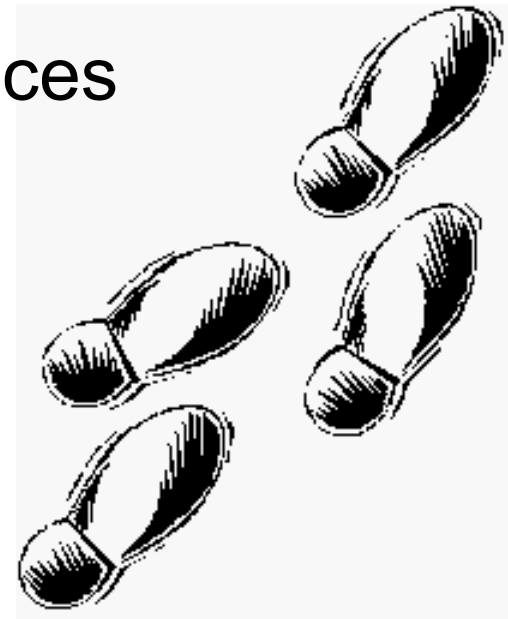
Did we meet our objectives?

- ✓ Do you know where **Java** fits in my e-business plan?
- ✓ Can you develop e-business applications in **Java**!



Next Steps...

- ✓ Choose a simple e-business application
- ✓ Take a custom training workshop
- ✓ Consider consulting services



“Simplify Java Web development with StructuredJ”

By Jim Mason

July 1, 2004

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- 12 Programmers: Reap the benefits of iSeries Navigator
- 23 Simplify Java Web development with StructuredJ**

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