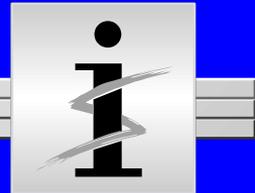




**INTERSOLV<sup>®</sup>**

# Maintenance Workbench

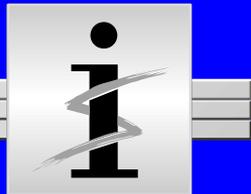
**Moving Software Maintenance  
into the New World**



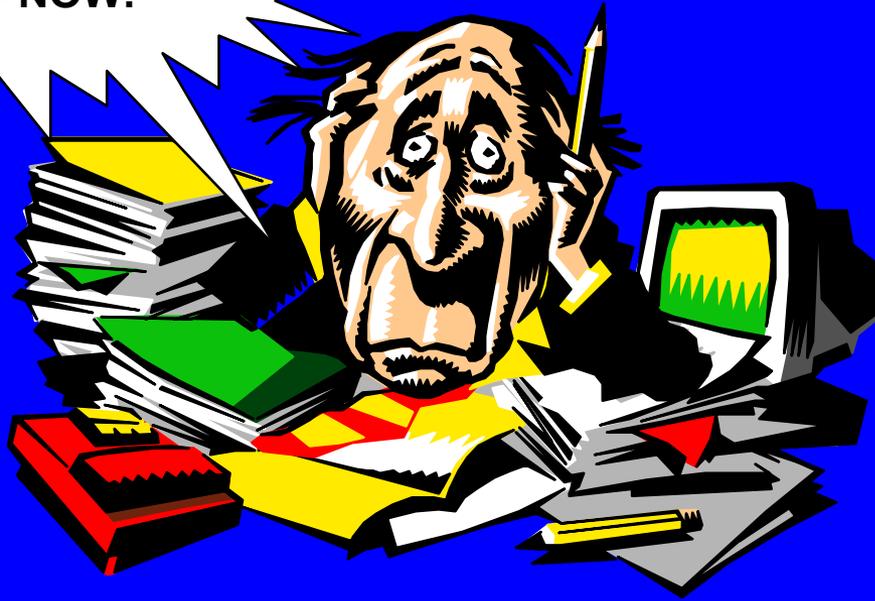


Hello. My name is Courtney. I'm your guide for this demonstration of INTERSOLV's **Maintenance Workbench**.

Please use your **left mouse button** to move forward and your **right mouse button** to move backward.

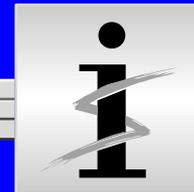
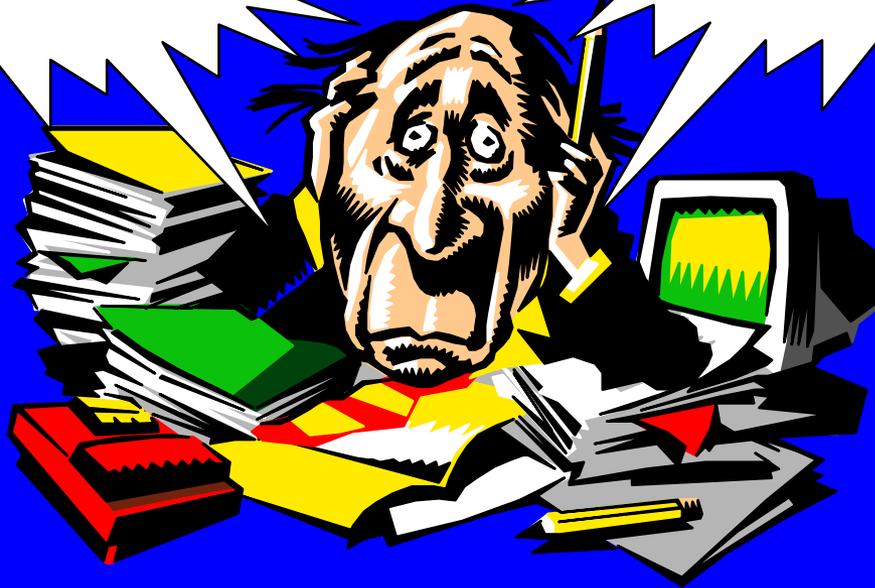


I want my library  
scan - NOW!"



I want my library  
scan - NOW!"

"Where's my  
source code listing?"

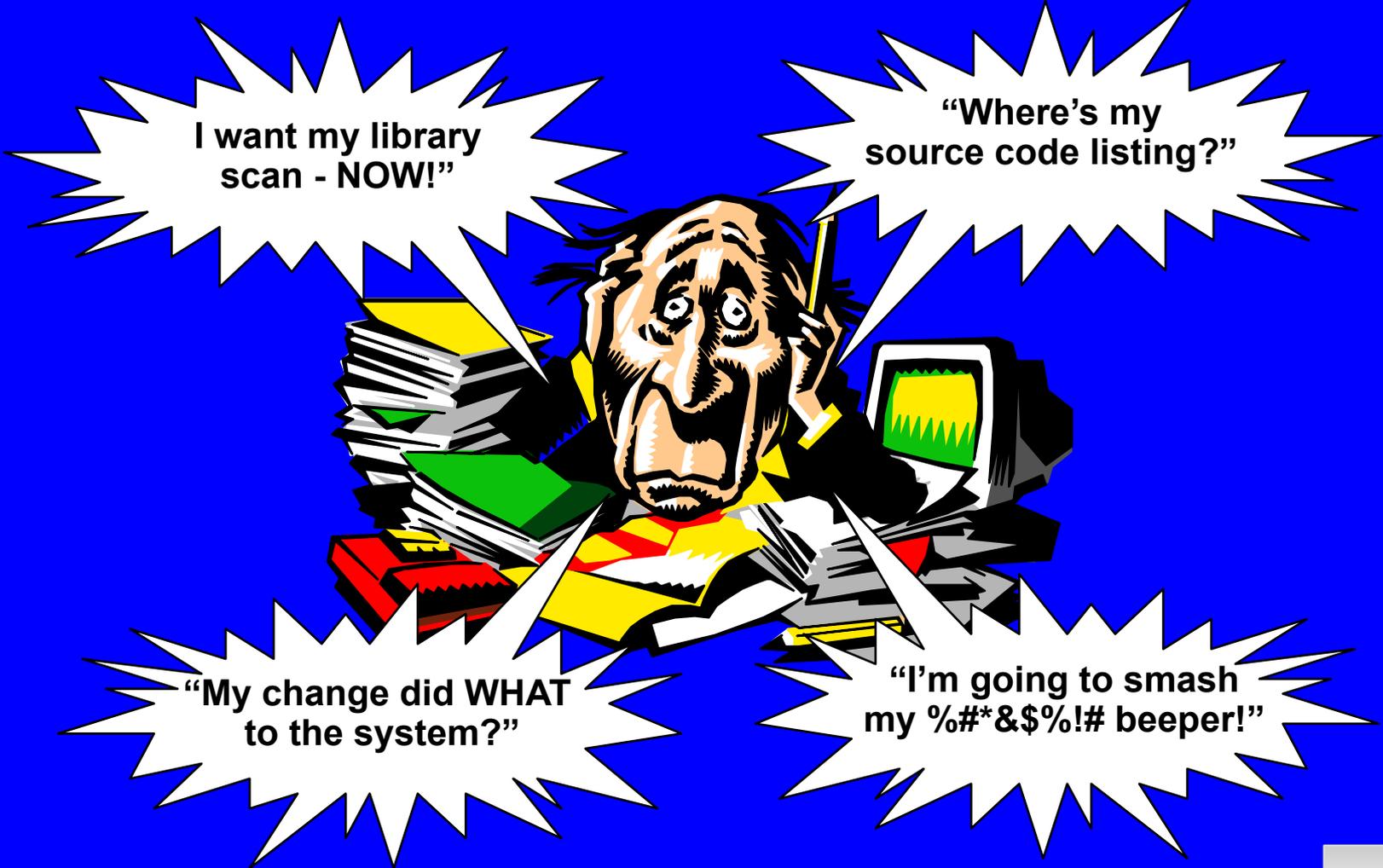


**I want my library  
scan - NOW!"**

**"Where's my  
source code listing?"**

**"My change did WHAT  
to the system?"**



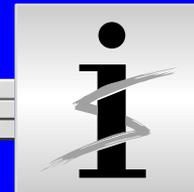


**I want my library  
scan - NOW!"**

**"Where's my  
source code listing?"**

**"My change did WHAT  
to the system?"**

**"I'm going to smash  
my %#\*&\$%!# beeper!"**



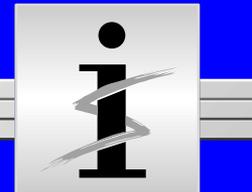
Maintaining legacy systems can be a real headache!  
If you're still using legacy tools to maintain your legacy systems, INTERSOLV's Maintenance Workbench--**MWB** for short--can help you get rid of that beeper!

I want scan

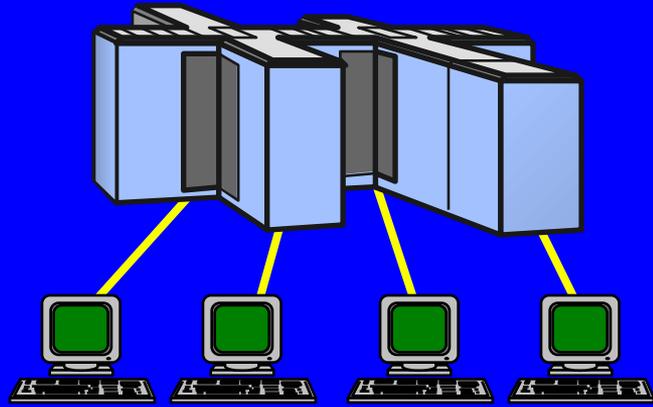
?"

ange did WHAT  
e system?"

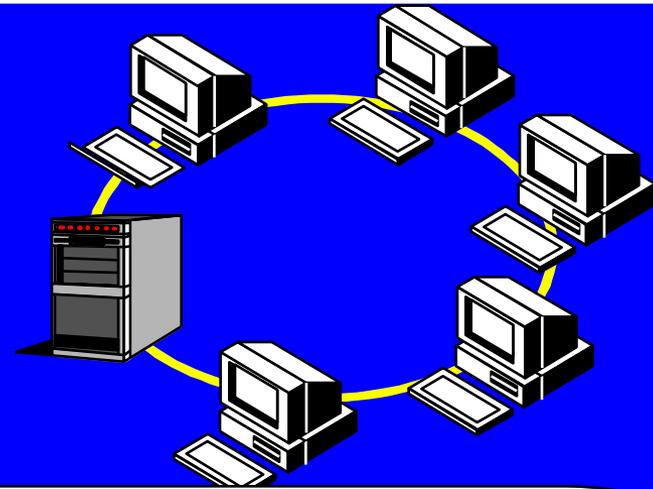
"I'm going to smash  
my %#\*&\$%!# beeper!"



## 3270 Maintenance



## Client-Server Maintenance



MWB moves you into a **New World** of desktop maintenance where you have:

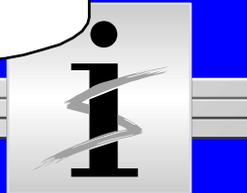
**Interactive, priority processing** for all;

**Application-wide** impact analysis;

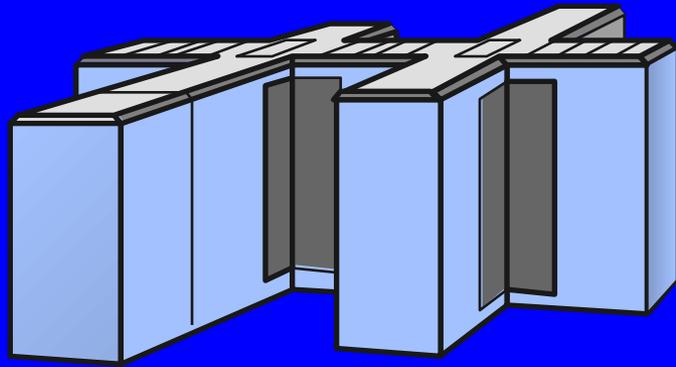
**On-line** application documentation;

An **integrated desktop** for all your tools;

**Team** maintenance.



## Production Environment

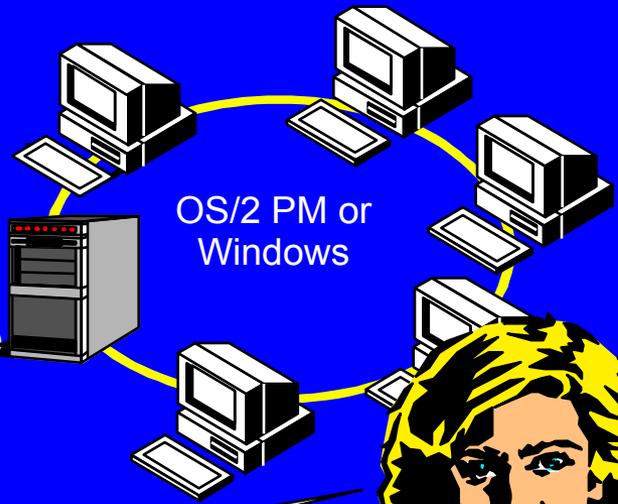


## Maintenance Environment

Production Gateway

Maintenance Database Server

OS/2 PM or Windows



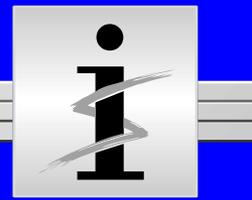
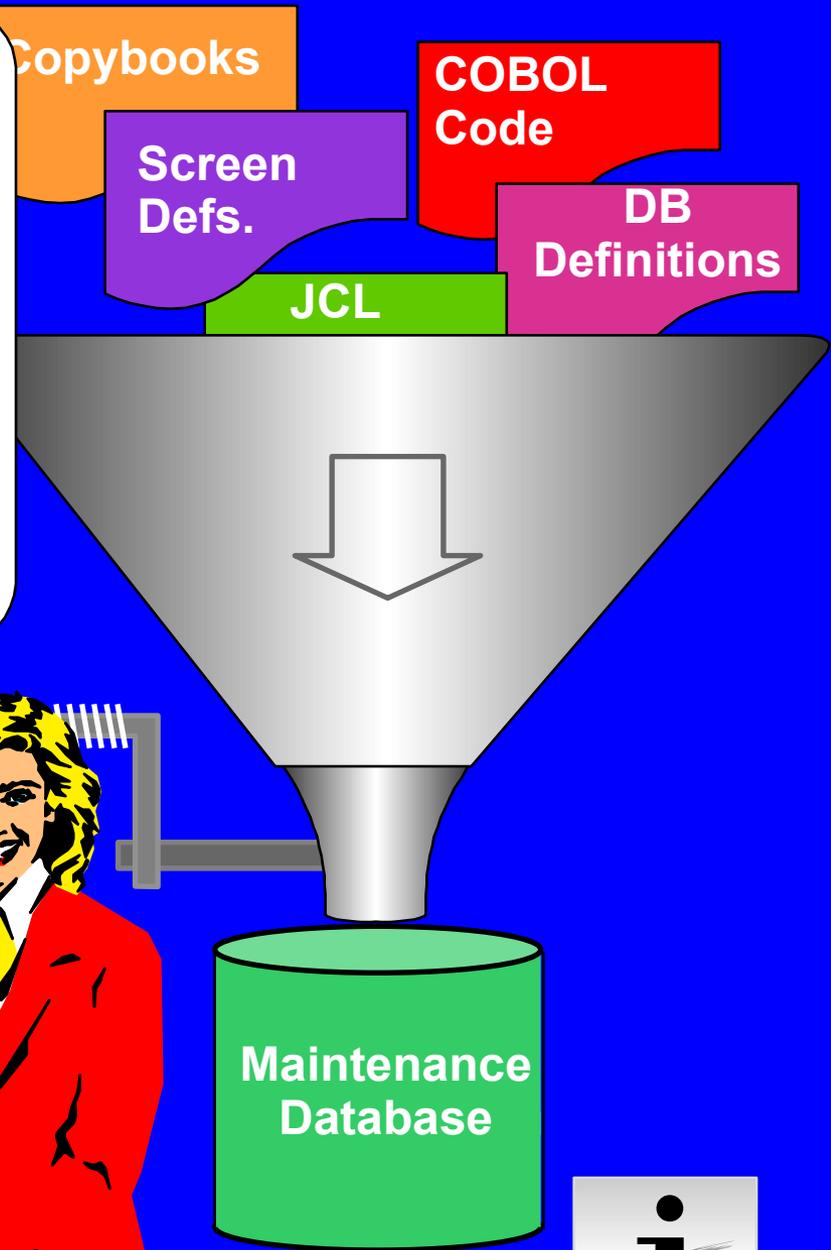
With MWB, maintenance activities are transferred to a client/server-based **desktop environment**. This environment includes:

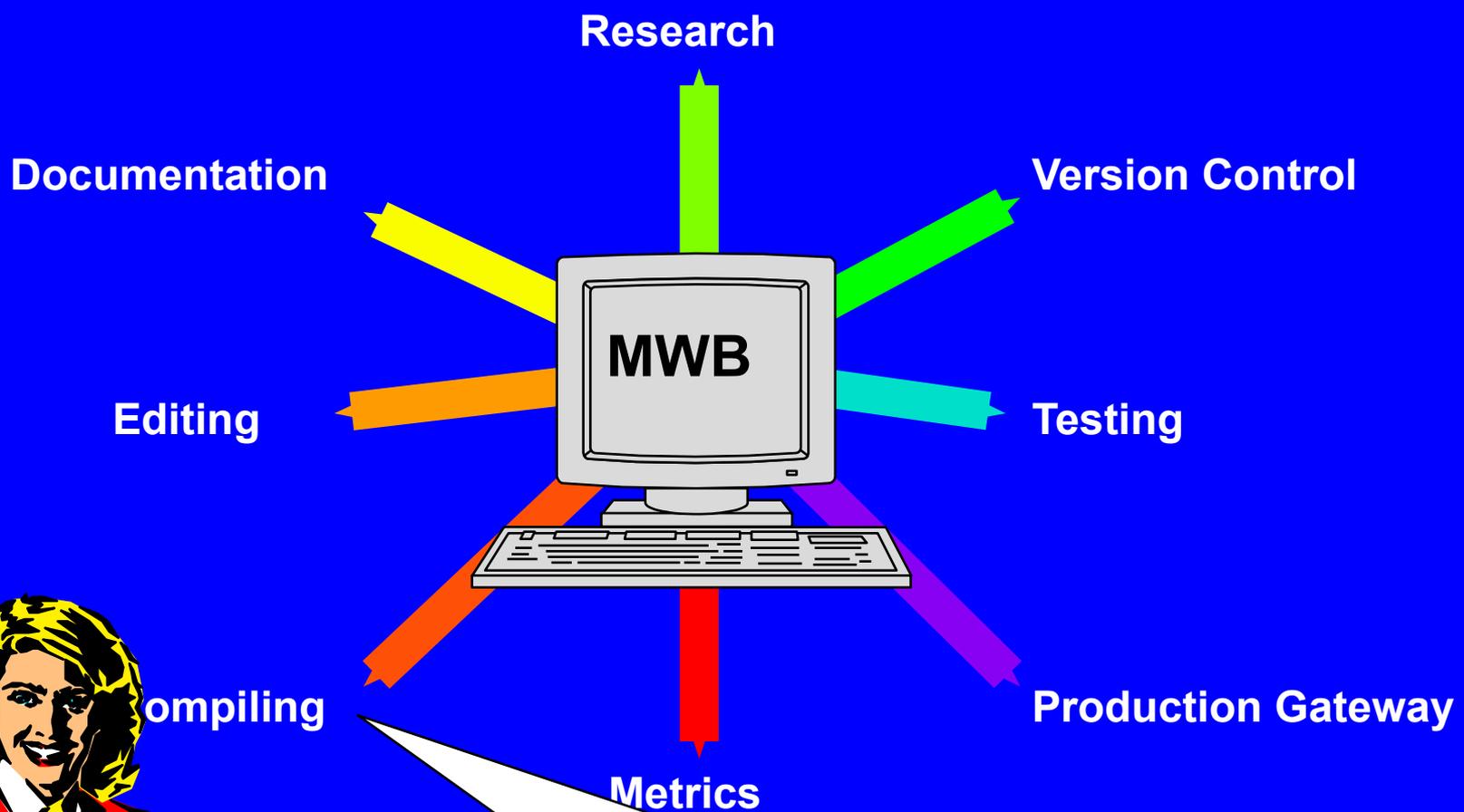
- a Production Gateway to keep source code in synch with the mainframe;
- an on-line, multi-user database server;
- LAN-connected clients -- where the real work gets done!

The **Maintenance Database** is the heart of MWB. It provides:

- Real-time, multi-user access;**
- Application-wide cross referencing;**
- On-line application documentation.**

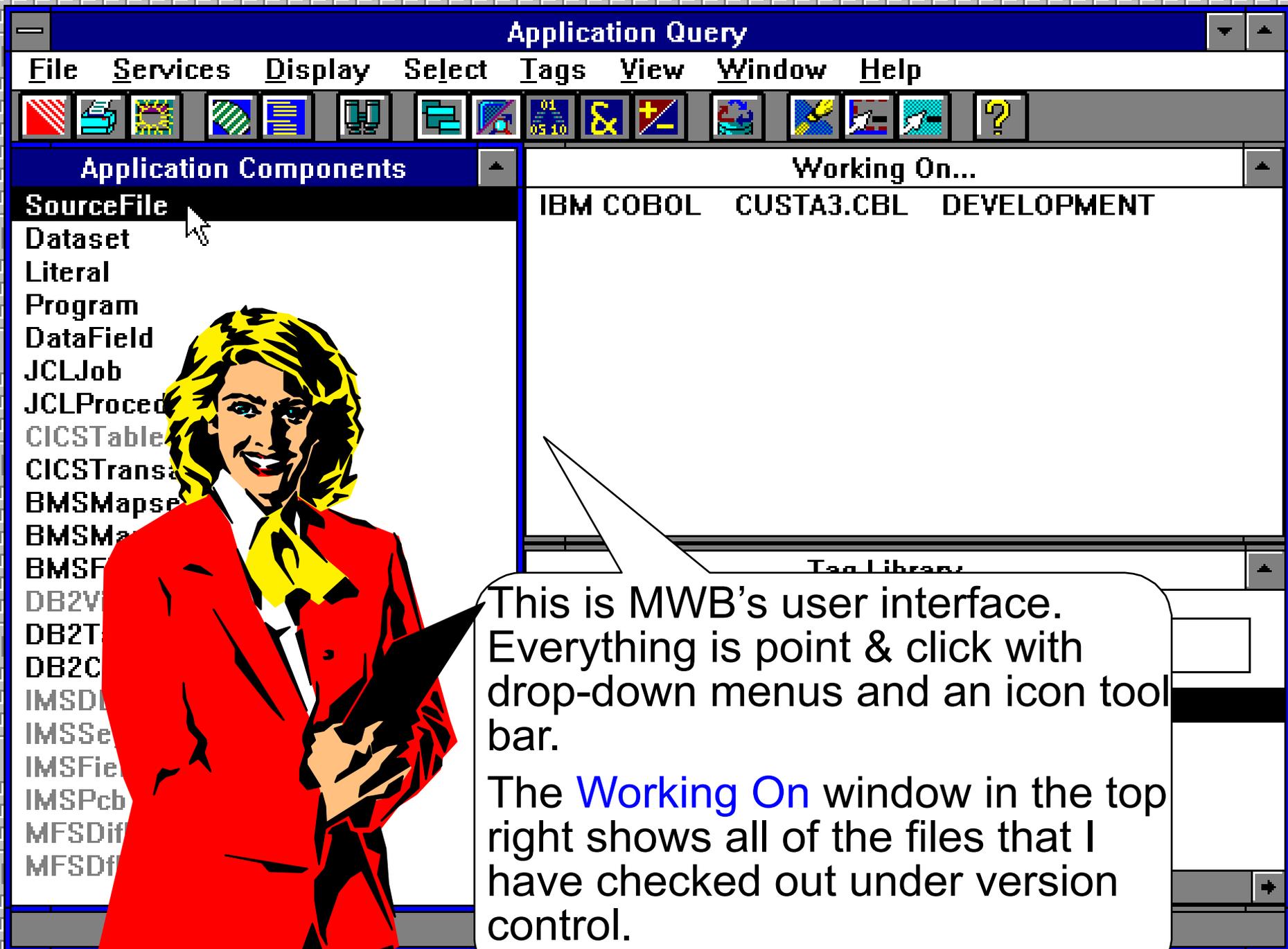
It's kept up-to-date with INTERSOLV's PVCS Production Gateway.





You can also **integrate your favorite tools** into MWB's desktop -- editors, compilers, debuggers, version control, etc. -- forming one cohesive maintenance environment.





This is MWB's user interface. Everything is point & click with drop-down menus and an icon tool bar.

The **Working On** window in the top right shows all of the files that I have checked out under version control.

The **Tag Library** lets you share captured application documentation within your work group.  
We'll talk more about Tags later.

File Services Display S



**Application Components**

SourceFile

Dataset

Literal

Program

DataField

JCLJob

JCLProced

CICSTable

CICSTransa

BMSMapse

BMSM

BMSF

DB2V

DB2T

DB2C

IMSD

IMSSe

IMSFie

IMSPcb

MFSDif

MFSDf

**Tag Library**

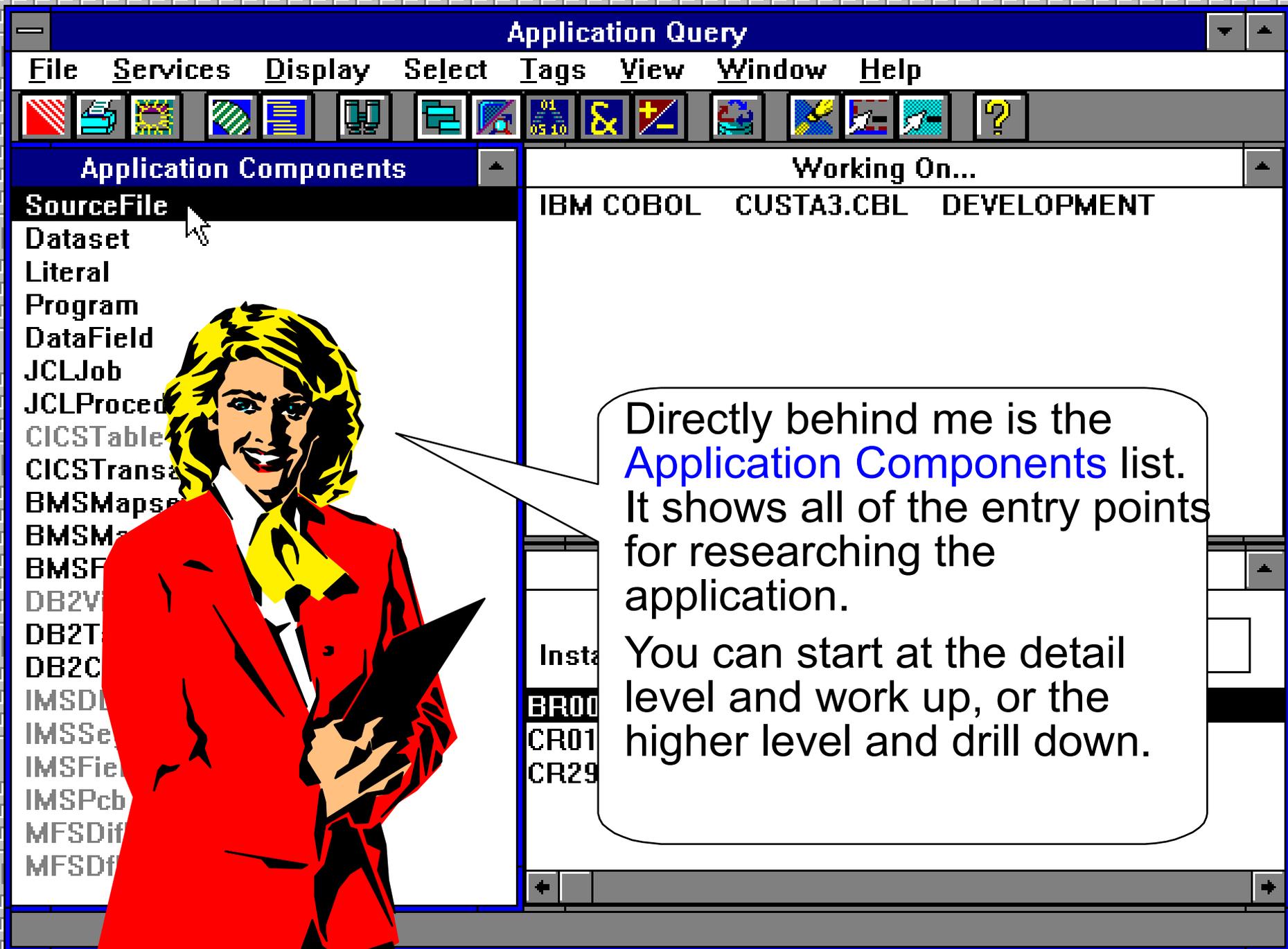
Instance Name:

**BR001 BALANCE CALC**

CR011293-1 CUSTOMER-ZIP SCREEN FIX

CR291193-3 CUSTOMER NUMBER





# Application Query

File Services Display Select Tags View Window Help



## Application Components

- SourceFile
- Dataset
- Literal
- Program
- DataField
- JCLJob
- JCLProced
- CICSTable
- CICSTransa
- BMSMapse
- BMSM
- BMSF
- DB2V
- DB2T
- DB2C
- IMSD
- IMSSe
- IMSFie
- IMSPcb
- MFSDif
- MFSDf

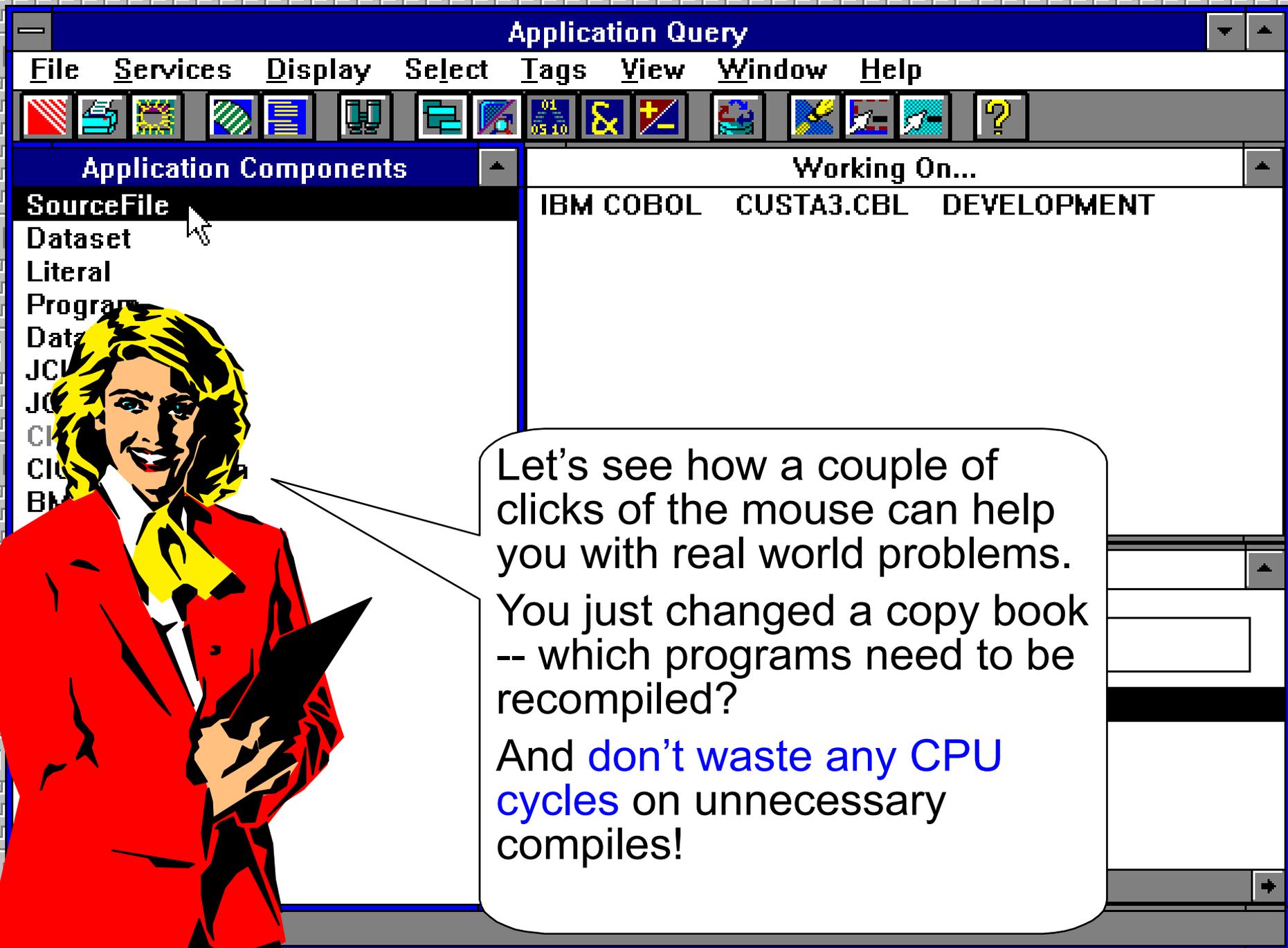
## Working On...

IBM COBOL CUSTA3.CBL DEVELOPMENT

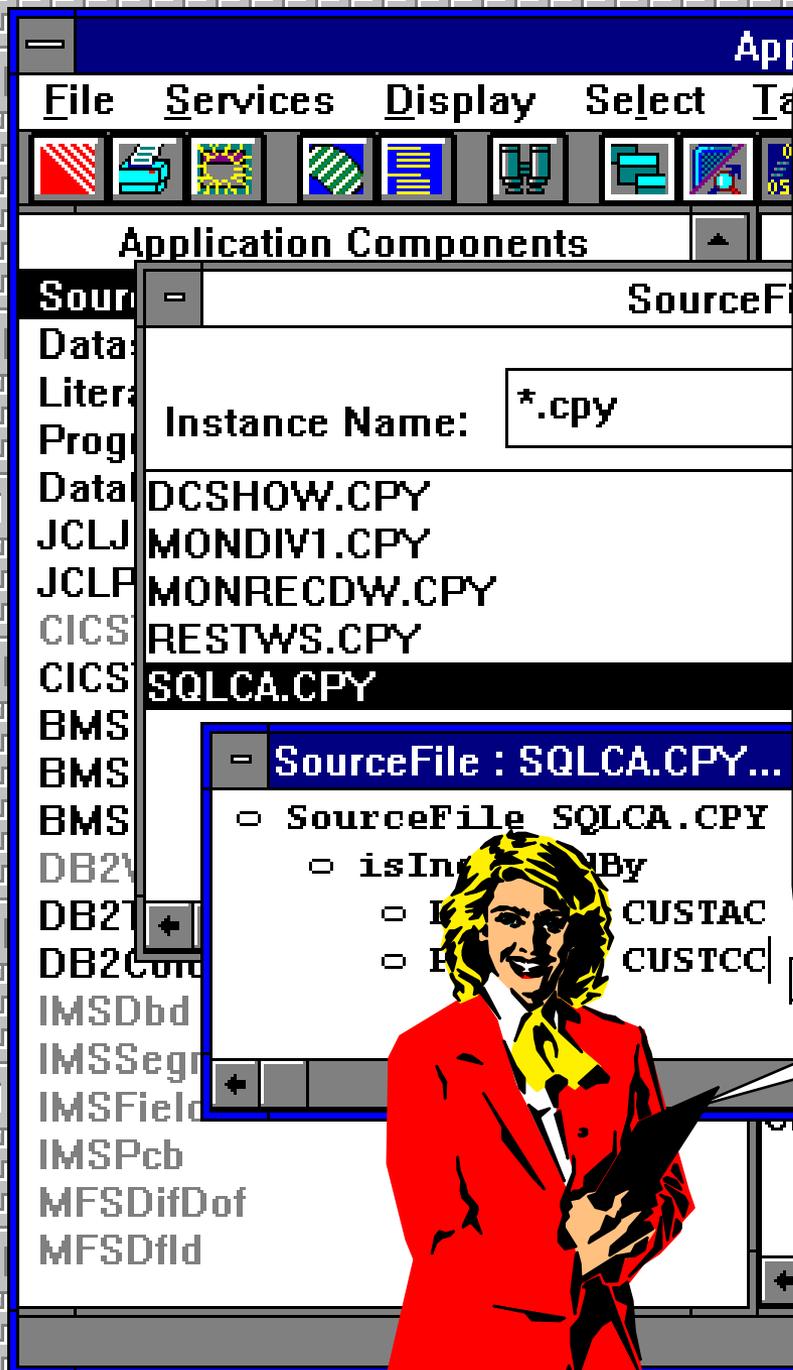
Insta

- BR00
- CR01
- CR29

Directly behind me is the **Application Components** list. It shows all of the entry points for researching the application. You can start at the detail level and work up, or the higher level and drill down.

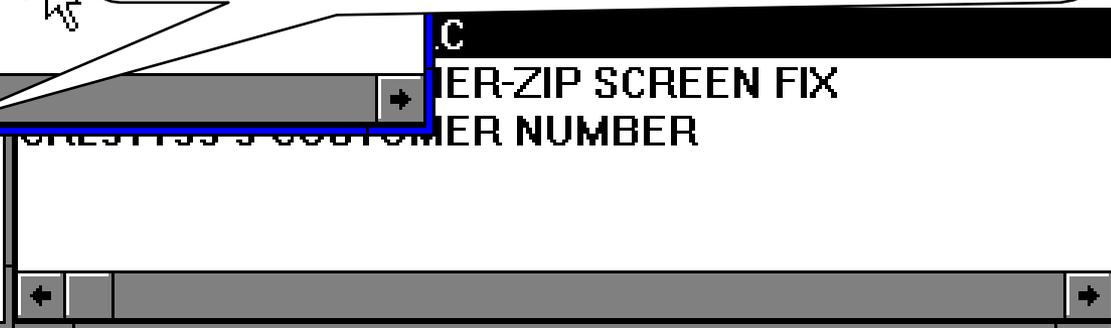


Let's see how a couple of clicks of the mouse can help you with real world problems. You just changed a copy book -- which programs need to be recompiled? And **don't waste any CPU cycles** on unnecessary compiles!



MWB instantly provides a listing of **all** programs that need to be recompiled within the application. MWB's true application-wide view also assures you that these are the **only** programs that need to be recompiled. This will **save you countless hours** as well as dramatically **reduce your use of expensive CPU cycles**.

And if you want to view the source code, just double click on one of the programs!

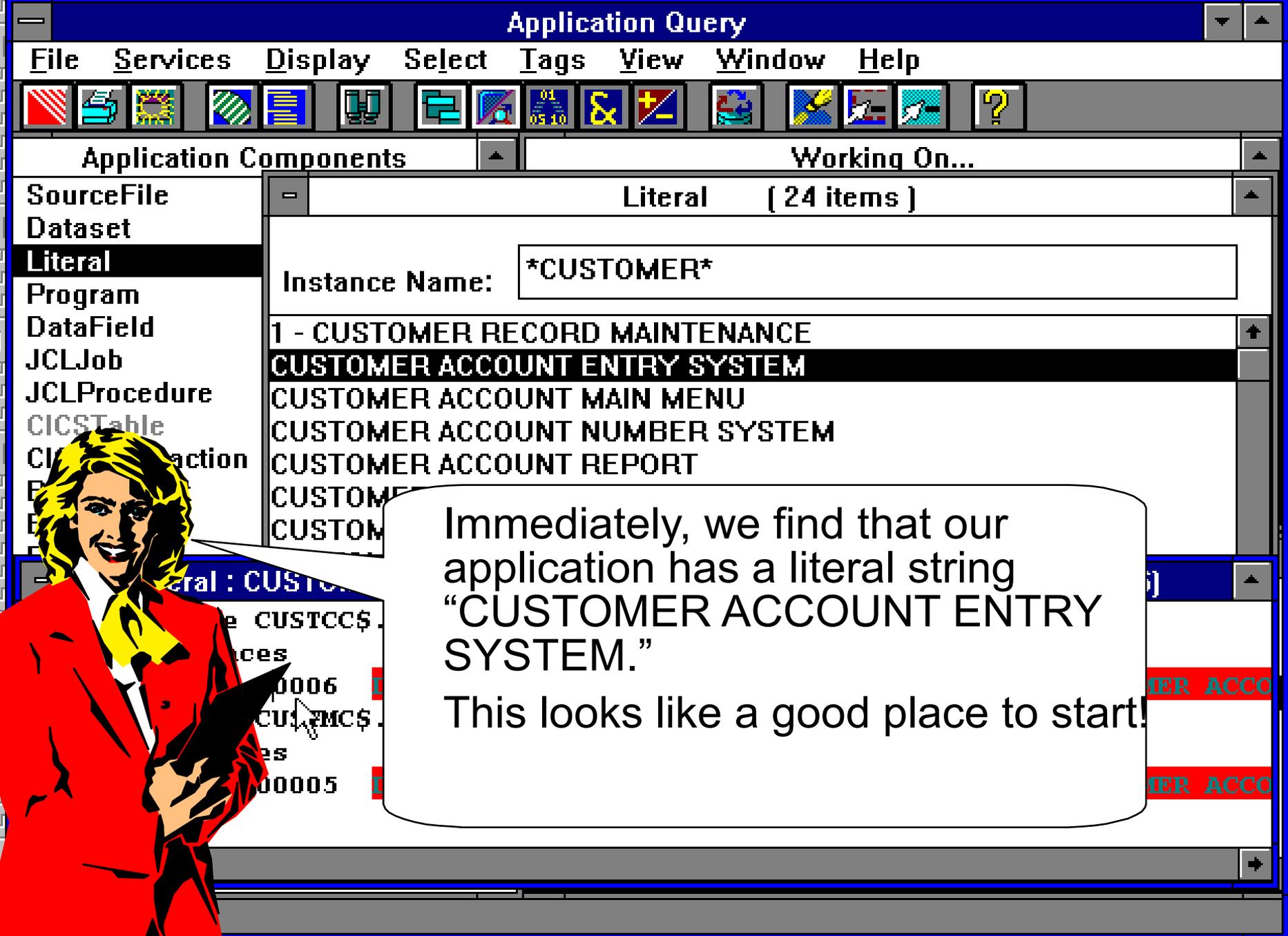


Let's look at another problem that really demonstrates MWB's extensive **navigating capabilities**.

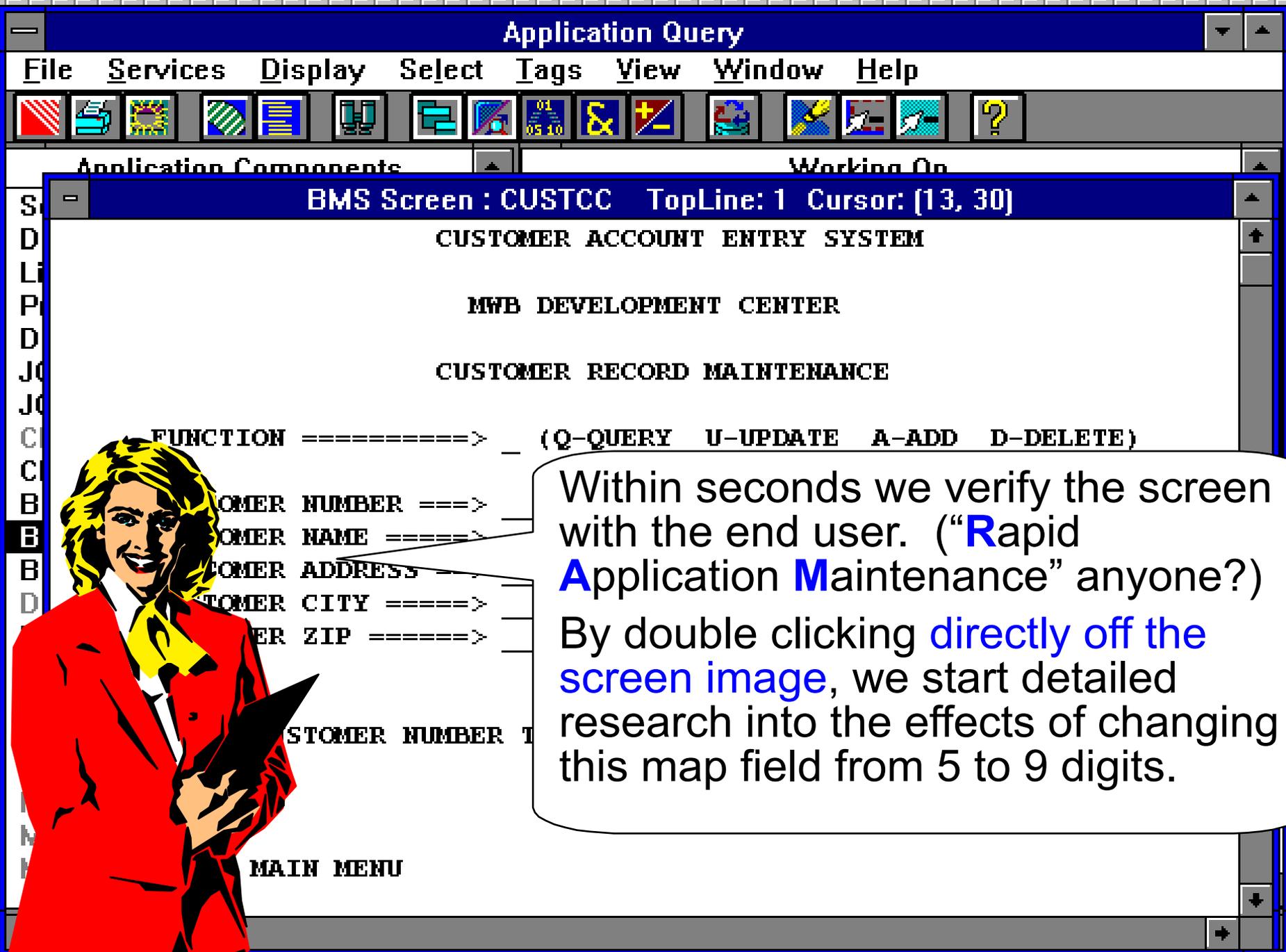
We just put the Customer Information System back into production with 9 digit ZIP codes. An end user calls and says, "I was trying to put a new customer into the system and it wouldn't let me enter the 9 digit ZIP code. I *thought* you guys fixed that!"

- reads
  - DB2Table CUSTOMER
- receives
  - BMSMap CUSTCC
- sends
  - BMSMap CUSTCC
- transfersTo
  - Program CUSTMC





Immediately, we find that our application has a literal string "CUSTOMER ACCOUNT ENTRY SYSTEM." This looks like a good place to start!



BMS Screen : CUSTCC TopLine: 1 Cursor: (13, 30)

CUSTOMER ACCOUNT ENTRY SYSTEM

MWB DEVELOPMENT CENTER

CUSTOMER RECORD MAINTENANCE

FUNCTION =====> (Q-QUERY U-UPDATE A-ADD D-DELETE)

CUSTOMER NUMBER ==>

CUSTOMER NAME =====>

CUSTOMER ADDRESS =====>

CUSTOMER CITY =====>

CUSTOMER ZIP =====>

CUSTOMER NUMBER T

MAIN MENU

Within seconds we verify the screen with the end user. ("Rapid Application Maintenance" anyone?) By double clicking directly off the screen image, we start detailed research into the effects of changing this map field from 5 to 9 digits.

# Application Query

File Services Display Select Tags View Window Help

We quickly move from the map field to the program. Here we can **easily examine** the data declaration section as well as other places in the program where 'ZIP Code' is referenced or modified.

```
007 DFHDE (013,028),ATTRB=(UNPROT,BRT,FSET),LENGTH=005
```

```
o CUSTCC-CUSTOMER-ZIP-OUTP  
o CUSTCC-CUSTOMER-ZIP-INPT  
o CUSTCC-CUSTOMER-ZIP
```

Field: CUSTCC-CUSTOMER-ZIP TopLine: 1 Cursor: (3, 38)

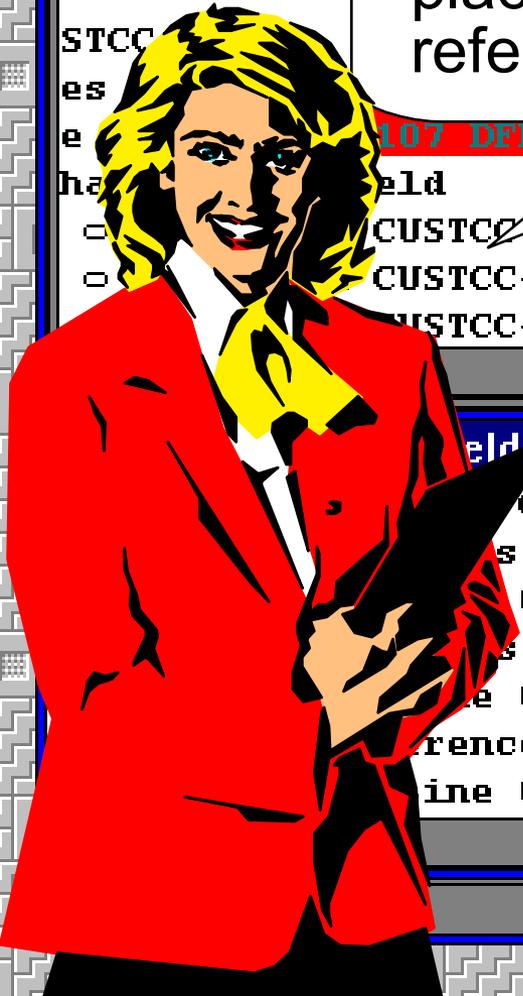
CUSTCC.CBL

```
00237 15 CUSTCC-CUSTOMER-ZIP PIC X(5).
```

```
01371 MOVE CUSTOMER-ZIP TO CUSTCC-CUSTOMER-ZIP.
```

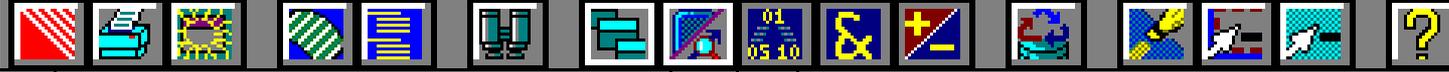
References

```
line 01348 MOVE CUSTCC-CUSTOMER-ZIP TO CUSTOMER-ZIP.
```



# Application Query

File Services Display Select Tags View Window Help



Application Component

(CUSTCC)

CC\$.BMS

STCC

es

e 00037 **CUST107**

hasSymbolicField

- o DataField CUSTCC-CUSTOMER-ZIP
- o Field CUSTCC-CUSTOMER-ZIP-INPT
- o Field CUSTCC-CUSTOMER-ZIP

**),LENGTH=005**

In MWB's DataField window we find the program moves the ZIP code to the CUSTOMER-ZIP field. We can follow the path further by double clicking on CUSTOMER-ZIP.

DataField : CUSTCC-CUSTOMER-ZIP TopLine: 1 Cursor: (5, 61)

```
SourceFile CUSTCC.CBL
declares
Line 00237 15 CUSTCC-CUSTOMER-ZIP PIC X(5).
ifies
Line 01371 MOVE CUSTOMER-ZIP TO CUSTCC-CUSTOMER-ZIP.
ferences
o Line 01348 MOVE CUSTCC-CUSTOMER-ZIP TO CUSTOMER-ZIP.
```



# Application Query

File Services Display Select Tags View Window Help

DataField : CUSTOMER-ZIP TopLine: 6 Cursor: (17, 43)

- o references
  - o Line 00386 MOVE CUSTOMER-ZIP TO CUSTC3-CUSTOMER-
- o SourceFile CUSTCC.CBL
  - o declares
    - o Line 00148 **D5 CUSTOMER-ZIP PIC X(5).**
  - o modifies
    - o Line 00938 EXEC SQL SELECT CUSTOMER\_N
    - o Line 01013 EXEC SQL SELECT CUSTOMER N
    - o Line 01348 **MOVE CUSTCC-CUSTOMER-ZIP**
  - o references

With MWB, we have easily found every program that declares, references, and/or modifies CUSTOMER-ZIP. As we continue to drill through the application, we can even find the database it's stored in!





# Application Query

File Services Display Select Tags View Window Help

## Store Tag

Tag Name: CR#130194-01: CUST ENTRY SCREEN FIX

DEVELOPMENT

### \*\*\* Item List \*\*\*

```
SourceFile CUSTC3.CBL
  hasTaggedSourceAt
    Line 00023 05 CUSTOMER-ZIP PIC X
SourceFile CUSTCC$.BMS
  hasTaggedSourceAt
    00006 DFHMDF POS=(001,024),I
    00037 CUST107 DFHMDF POS=
SourceFile CUSTCC.CBL
  hasTaggedSourceAt
    00048 05 CUSTOMER-ZIP PIC X
    00087 15 CUSTCC-CUSTOMER-ZIP
    00088 MOVE CUSTCC-CUSTOMER-ZIP
    00089 MOVE CUSTOMER-ZIP TO C
```

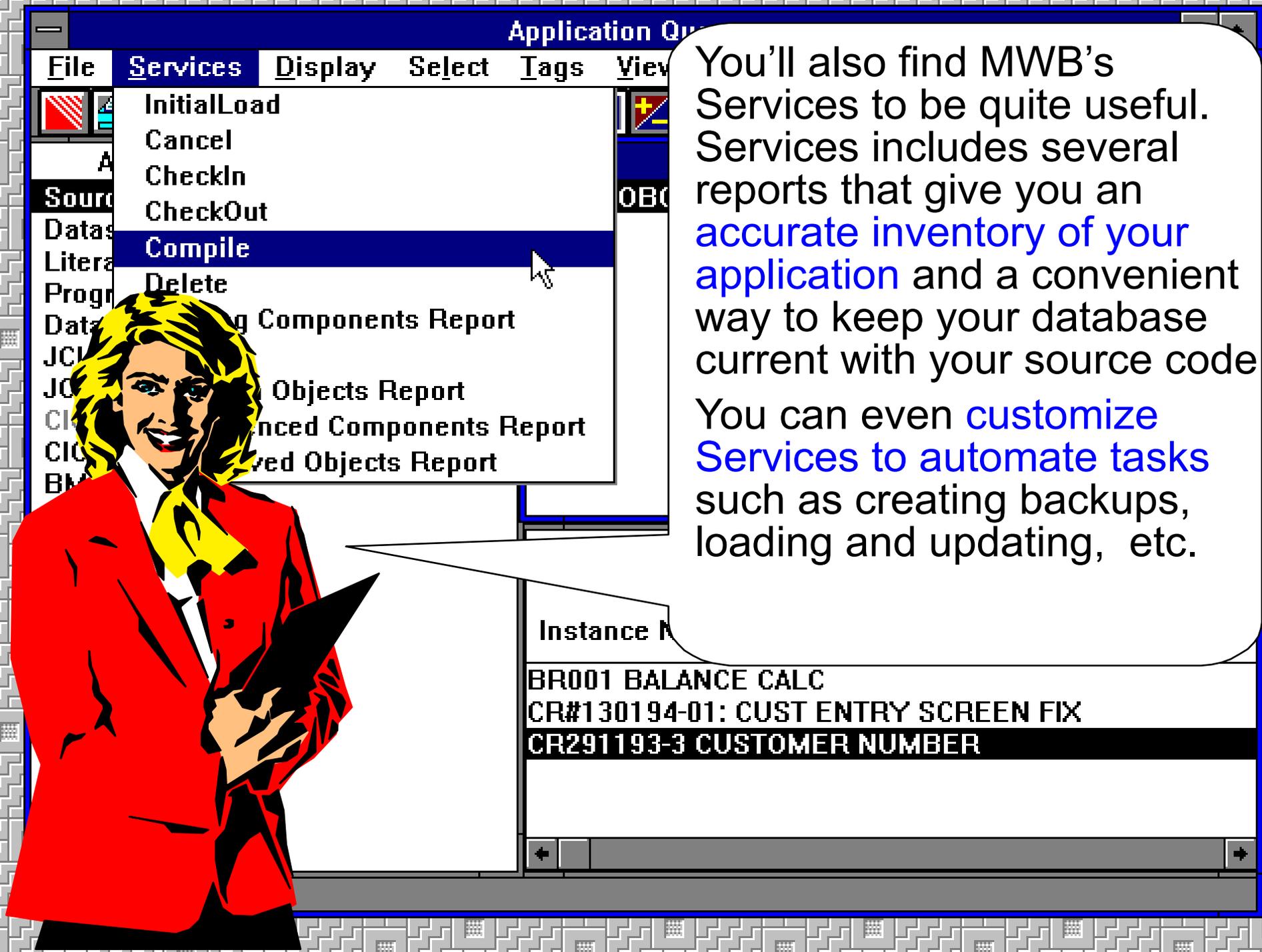
Tags capture your knowledge base, thereby providing **more flexibility** in allocating personnel resources.

They're also great for **re-using business rules** in redevelopment or new development projects.

Cancel

Help





You'll also find MWB's Services to be quite useful. Services includes several reports that give you an **accurate inventory of your application** and a convenient way to keep your database current with your source code. You can even **customize Services to automate tasks** such as creating backups, loading and updating, etc.

# Application Query

- File
  - Services
    - InitialLoad
    - Cancel
    - CheckIn
    - CheckOut
    - Compile**
    - Delete
  - Display
  - Select
  - Tags
  - Y
- Source  
Data  
Litera  
Progr  
Data  
JCLJ  
JCLP  
CICS  
CICS  
BMS  
B  
E  
D  
D  
D  
I  
IM  
IM  
M  
M

Services also provides dynamic, instant access to the tools you've integrated into your customized desktop.

You select the tools that meet your specific requirements, all under one common desktop for easy access by your developers.



Tag Library	
Instance Name:	<input type="text"/>
BR001 BALANCE CALC	
CR#130194-01: CUST ENTRY SCREEN FIX	
CR291193-3 CUSTOMER NUMBER	

# Application Query

File Services Display Select Tags View Window Help

InitialLoad  
Cancel  
Checklo



Working On...

CUSTA3.CBL DEVELOPMENT

By now, you're probably wondering what types of companies are using INTERSOLV's MWB!

Well, if you'll pardon our namedropping, here's just a few of our customers...

Tag Libran

Instance Name:

BR001 BALANCE CALC  
CR#130194-01: CUST ENTR  
CR291193-3 CUSTOMER NUM



Source  
Data  
Litera  
Progr  
Data  
JCLJ  
JCLP  
CICS  
CICS  
BMS  
BMS  
BMSF  
DB2View  
DB2Table  
DB2Column  
IMSDbd  
IMSSegment  
IMSField  
IMSPcb  
MFSDifDof  
MFSDfld

**MCI**

**NYNEX**

**FDC**

**Makita**

**AMEX**

**SIAC**

**Sallie Mae**

**Southern California Edison**

**Chase**

**Computer Horizons**

**AMS**

**Unilog**

**AT&T**

**U.S. West**

**ANZ Bank**



MCI

Makita

SIAC

Salli

Southe

Chas

C

A

Unile

U.S

ANZ BANK



And listen to what they're saying!

“The ‘eight day’ research project took only 3 hours!”

“We transferred 25% of our staff to new development projects!”

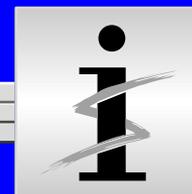
“Our staff ramped up in less than a week!”

“I was able to respond to an end user request in 2 1/2 minutes, while I still had him on the phone!”

And there's more...



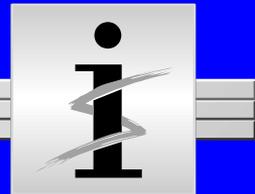
No more waiting  
with **priority**  
processing!



No more waiting  
with **priority**  
processing!



The system test  
worked because  
I got **the whole**  
change!

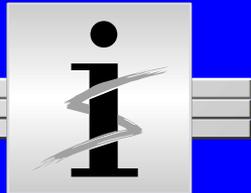


A man with brown hair, wearing a yellow shirt, is running towards a computer monitor. He has a determined expression. The background is a solid blue color.

No more waiting  
with **priority**  
processing!

The system test  
worked because  
I got **the whole**  
change!

By **capturing my**  
knowledge base, I  
can now get  
promoted!

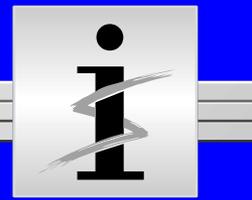


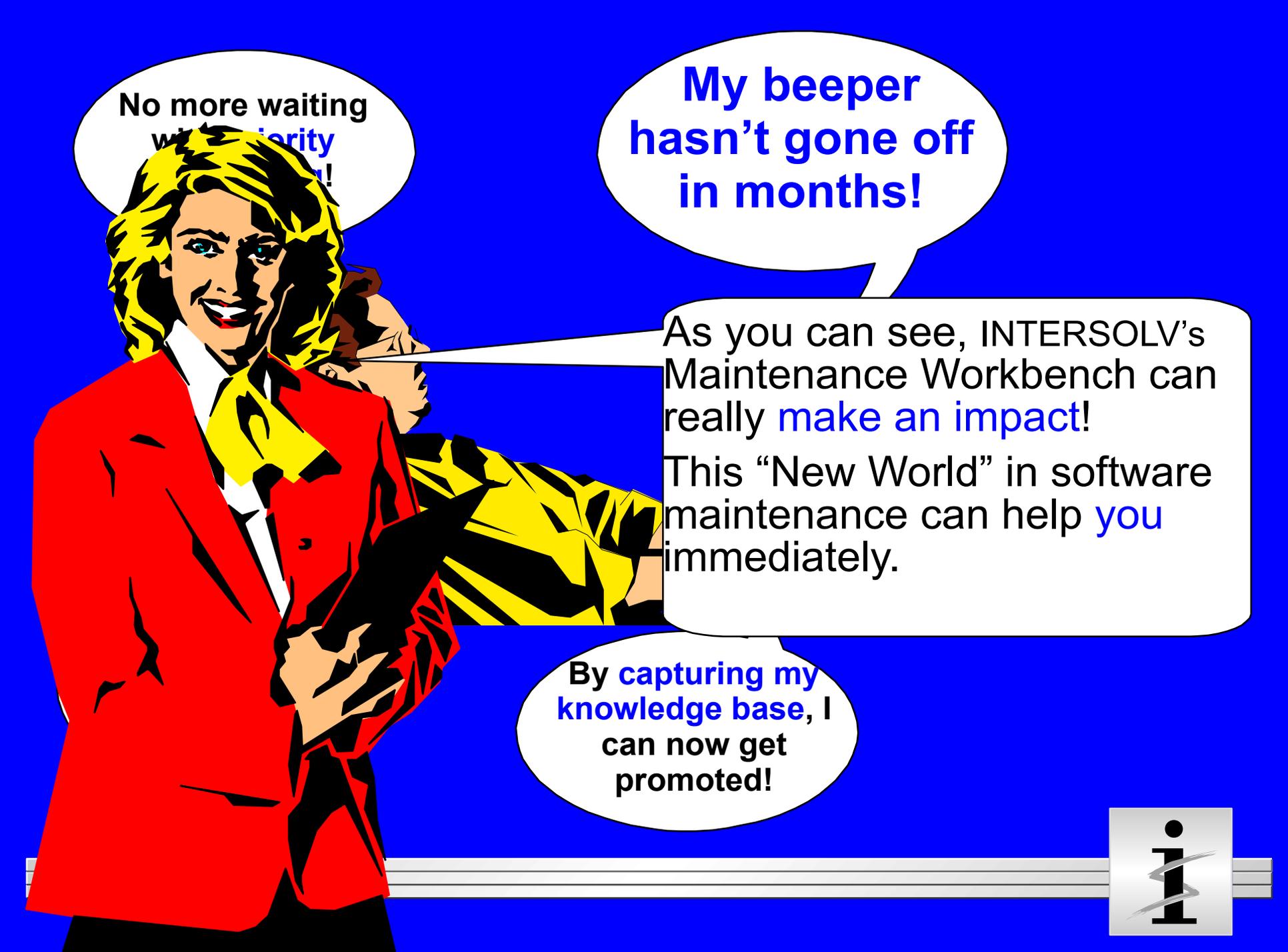
No more waiting  
with **priority**  
processing!

My beeper  
hasn't gone off  
in months!

The system test  
worked because  
I got **the whole**  
change!

By **capturing my**  
knowledge base, I  
can now get  
promoted!



A woman with blonde hair, wearing a red blazer and a yellow tie, is smiling and talking to a man in a yellow shirt. The man is holding a laptop. The background is blue.

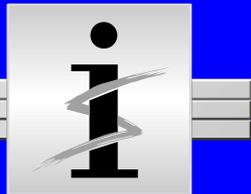
No more waiting  
with **priority**  
!

My beeper  
hasn't gone off  
in months!

As you can see, INTERSOLV's  
Maintenance Workbench can  
really **make an impact!**

This "New World" in software  
maintenance can help **you**  
immediately.

By **capturing my**  
**knowledge base**, I  
can now get  
promoted!



# INTERSOLV Development Suite

New Development



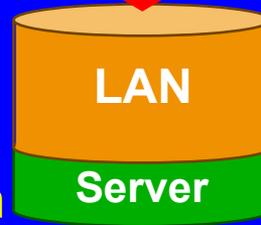
Rapid Prototyping  
Design driven

Existing Systems

Maintain  
Extend  
Redesign



Software Configuration  
Management

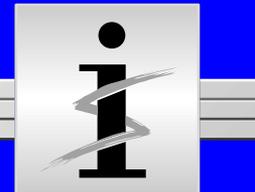


Production

Targets



Broad Production Coverage



# INTERSOLV Development Suite

## New Development

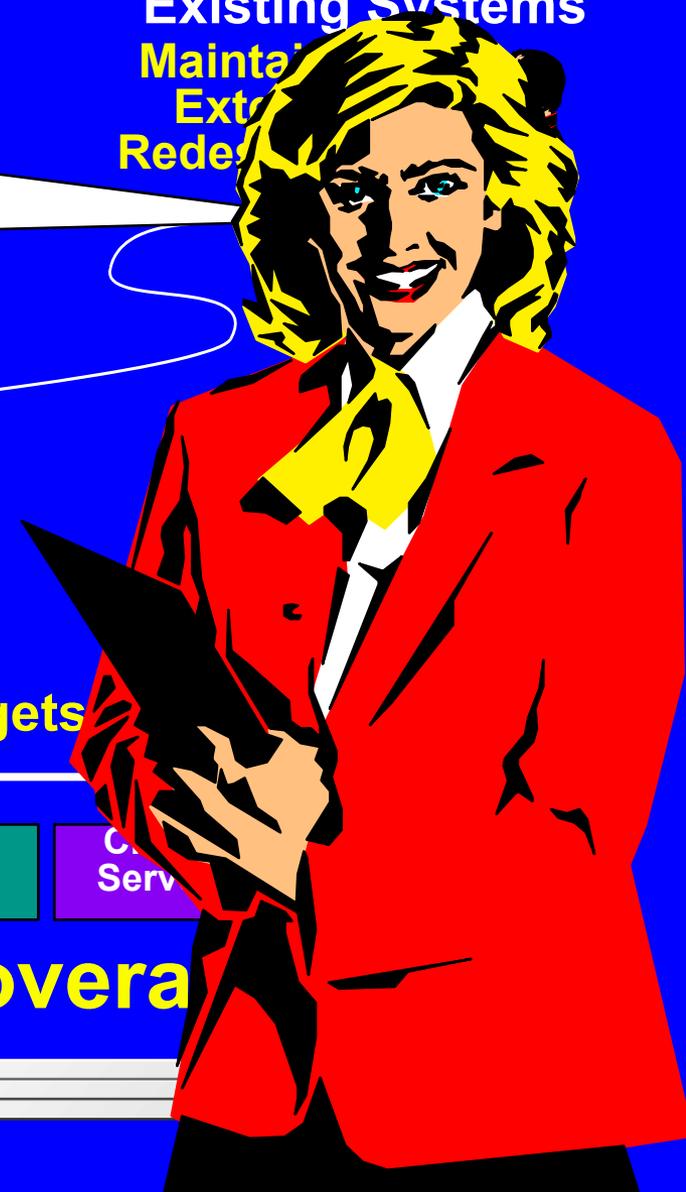
Maintenance Workbench is one of many tools in the **INTERSOLV Development Suite**. For more information, please contact your local INTERSOLV representative or give us a call:

**1-800-777-8858 (North America) 44 727 812812 (United Kingdom).**

And please tell them Courtney sent you!

## Existing Systems

Maintain  
Ext  
Redes



Windows

OS/2

OS 400

UNIX

MVS

C Serv

Targets

## Broad Production Coverage



**INTERSOLV**

**Your Edge in Software  
Development**

