

Mainframe connectivity

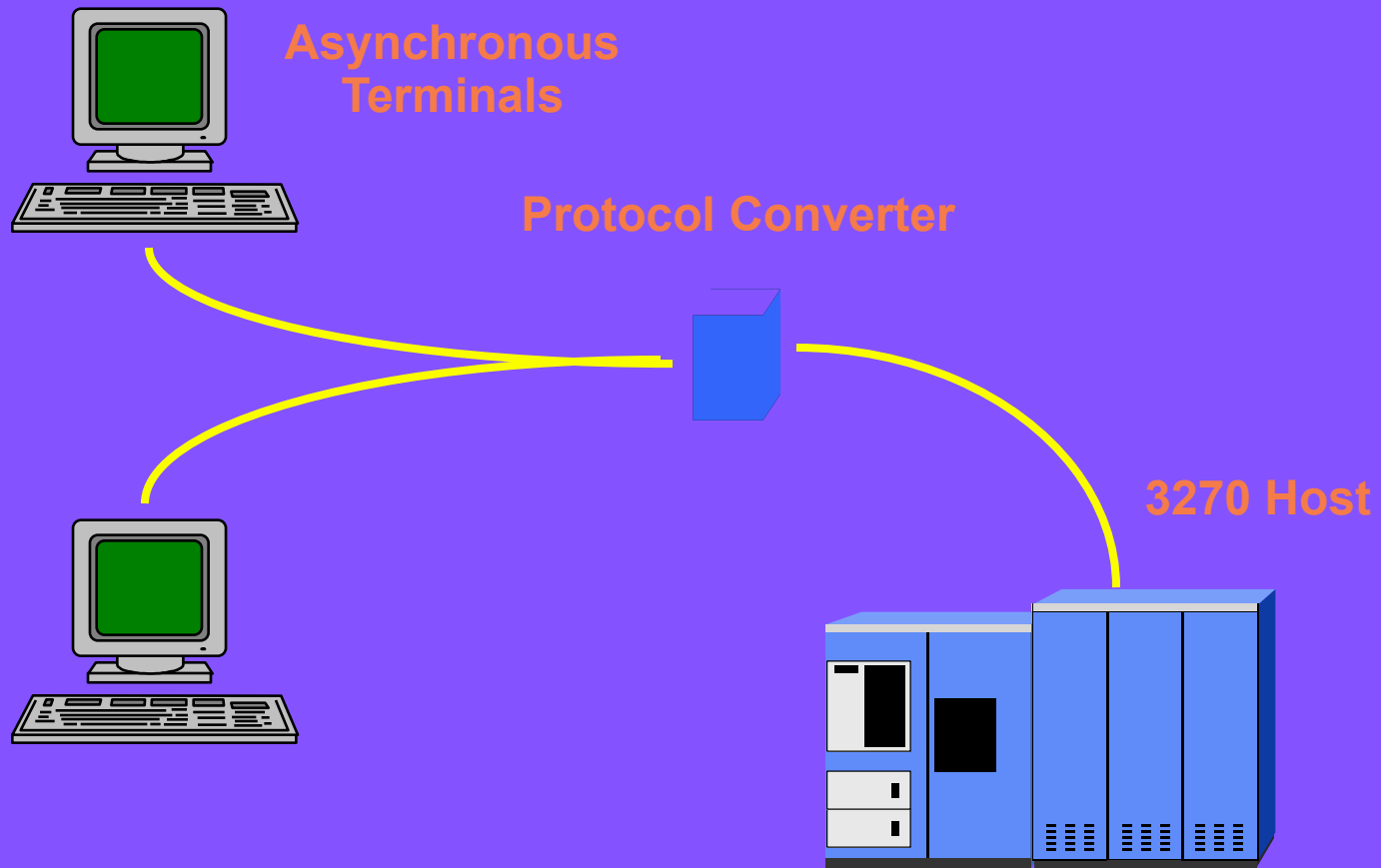
**JIM RAISIO
VICE PRESIDENT, SYSTEMS
ENGINEERING
WALL DATA INCORPORATED**

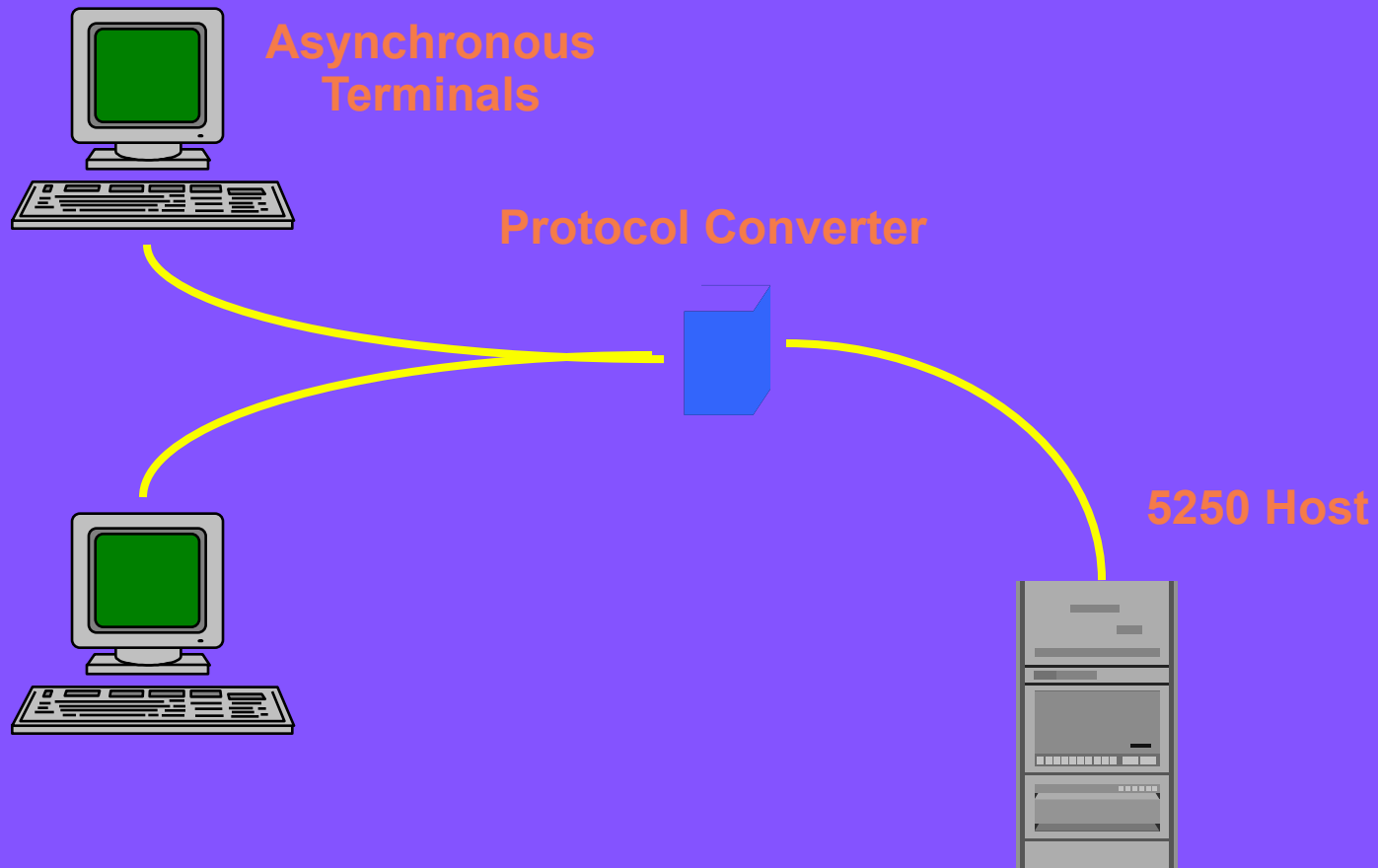
Prerequisites:

Familiarity with Windows API Calls

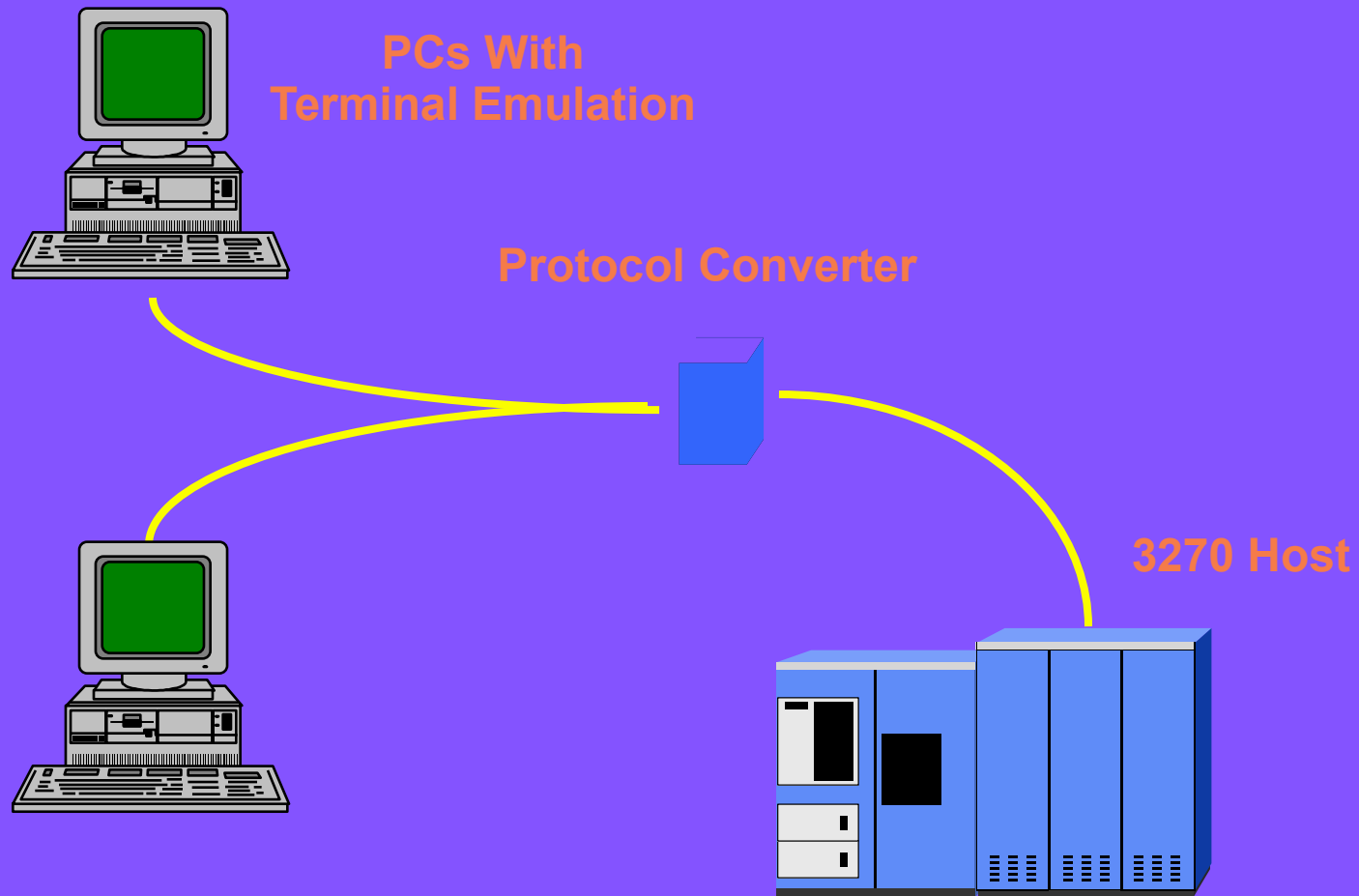
Familiarity with Visual Basic

Demo Code ZIP File: RUMBADBA.ZIP





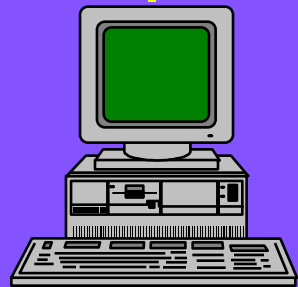
-
- **AND THEN PCs BECAME THE DESKTOP
TERMINAL OF CHOICE**



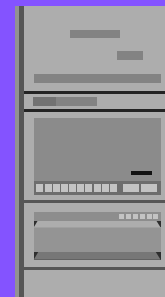


PCs With
Terminal Emulation

Protocol Converter



5250 Host



BUT USERS WANTED MORE

AND WANTED IT EASIER TO USE

- ☺ THE TERMINAL EMULATION SOFTWARE BECAME MORE SOPHISTICATED
- ☺ WINDOWED DOS APPLICATIONS WERE DEVELOPED WITH HOT-KEY APPLICATION JUMPING
- ☺ THEN MICROSOFT PRODUCED A FUNCTIONAL WINDOWS PRODUCT--WINDOWS 2.X
 - A SEMI-GRAPHICAL, MULTI-TASKING ENVIRONMENT FOR IBM AND COMPATIBLE PCs

WALL DATA USED WINDOWS 2.11 AS THE PLATFORM FOR THE RUMBA FAMILY, STARTING IN JANUARY OF 1989

- RUMBA WAS DESIGNED FOR THE END USER
- IT WAS TO BE A HOST COMMUNICATIONS SYSTEM THAT:
 - ☺ WAS INTUITIVE TO OPERATE
 - ☺ WAS MANUAL FREE
 - ☺ WAS EASY TO DISTRIBUTE IN LARGE NUMBERS
 - ☺ WAS HARDWARE AND NETWORK INDEPENDENT

RUMBA IS A COMMUNICATIONS SYSTEM

IT IS MORE THAN A TERMINAL EMULATOR

TERMINAL EMULATION IS ONE OF ITS ENABLING TECHNOLOGIES

RUMBA BRINGS HOST DATA AND APPLICATIONS INTO

A WINDOW ON YOUR DESKTOP FROM WHEREVER

THEY RESIDE IN OR ON THE CORPORATE NETWORK

AND

MAKES THIS SAME DATA AND THESE APPLICATIONS

AVAILABLE TO OTHER DESKTOP APPLICATIONS

THROUGH INDUSTRY-STANDARD APIs

THESE RUMBA APIs INCLUDE:

EHLLAPI

DDE

APPC

(and now) ODBC

WHAT IS ODBC AND WHAT DOES IT MEAN TO YOU?

ODBC--Open DataBase Connectivity

**A MICROSOFT-SPONSORED API FOR PROVIDING
STANDARDIZED ACCESS INTO BOTH HIERARCHICAL
AND RELATIONAL DATABASES**

WHICH VENDORS AND APPLICATIONS SUPPORT ODBC?

- MICROSOFT
 - ACCESS
 - VISUAL BASIC
 - EXCEL
- LOTUS
 - 1-2-3
- ORACLE
- POWERSOFT
- AND OVER 20 OTHER COMPANIES

WHAT DOES ODBC HAVE TO DO WITH IBM RELATIONAL DATABASES?

**THE RELATIONSHIP BETWEEN ODBC
AND IBM RELATIONAL DATABASES
WAS INDIRECT--
UNTIL NOW**

**HOW IS WALL DATA'S ODBC TO IBM RELATIONAL
DATABASE LINK DIFFERENT?**

**IT IS THE FIRST DIRECT LINK BETWEEN
WINDOWS ODBC APPLICATIONS AND
IBM'S DRDA-COMPLIANT RELATIONAL DATABASES
(DRDA = Distributed Relational Database Architecture)**

ODBC Applications

Excel 4.0 Lotus 1-2-3
Access 1.1 PowerBuilder
Visual BASIC 3.0

ODBC API Functions

**RUMBA Database Access
Interface Functions**

DRDA Functional Calls

APPC Engine (RUMBA, Microsoft, Novell, IBM)

DRDA Databases

DB2 2.3
DB2/VM
OS/400

RUMBA for DATABASE ACCESS

Sample Application:

**Direct Access to an AS/400 Database
Using an Excel MACRO**

RUMBA for DATABASE ACCESS

Sample Application:

**Direct Access to an AS/400 Database
Using a Visual BASIC Complex Application**

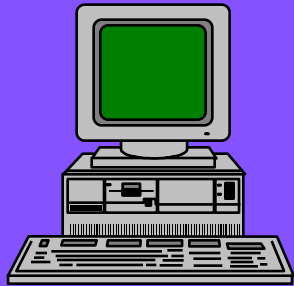
RUMBA for DATABASE ACCESS

Sample Application:

**Direct Access to an AS/400 Database
Using a Visual BASIC Sample Application**

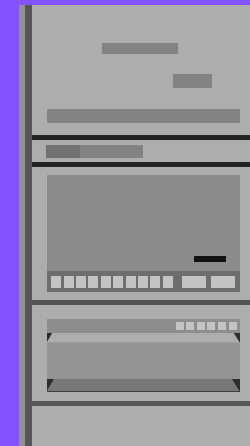
Previous Approach

PC



End-User Application (Excel, VB)
ODBC API (Vendor "A")
Communications API (Vendor "B")

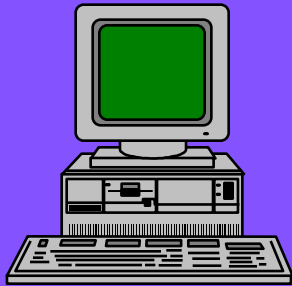
AS/400



IBM Communications Interface
AS/400 Transaction Program (Vendor "A")
IBM AS/400 Relational Database

PC

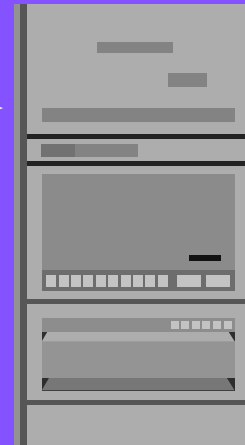
RUMBA for Database Access



End-User Application (Excel, VB)
RUMBA ODBC API
RUMBA Communications API

AS/400

IBM Communications Interface
IBM AS/400 Transaction Program
IBM AS/400 Relational Database



WHO CARES?

HOW MANY “SEATS” ARE THERE?



WORLDWIDE POPULATION OF IBM RELATIONAL DATABASES

(1993 Data)

	<u>DATABASES</u>	<u>SEATS</u>
DB2	6,500	6,500,000
SQL/DS	8,000	4,000,000
AS/400	250,000	10,000,000

WALL

DATA

EXAMPLES

DEMONSTRATIONS

EXERCISES