



cyberweave

Enterprise
Application
Integration
Specialists

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Need For Enterprise Application Integration Tools

- ◆ Improved productivity

 - Information is not always centralized
 - Users need to keep track of multiple systems
 - Longer time to connect manually

- ◆ Standardization leads to lower Development costs

 - Code generated in Java/C#.Net for ease of maintenance
 - Generated code can be ported or further integrated
 - Need to support less development tools
 - Lowers administration costs

- ◆ Return On Investment

 - Cost of re-writing existing applications
 - Simple applications in days and complex apps in weeks
 - Software installation and training in days

EAI Solutions all of us can use

- ◆ Non invasive Legacy transformation

Legacy applications are left untouched
Re-Engineering drains resources and is expensive
Ability to connect Legacy/SQL data sources

- ◆ Industry standard technology

Java, HTML, ASP based interface
Two tier or three tier Application support

- ◆ Ease of installation and Support

Application bundled with JRE is all you need
For Applet support, Java-Plugin 1.4.0 or later is needed
For Servlet support Servlet engine should be available

- ◆ Security

For Legacy maintain existing RACF/ACF security mechanism
Optional SSL support available
Java/ASP Code can be signed with code certificates

Multiple Systems Access – Ad-hoc

Sample CW/EAI session accessing multiple TN3270 hosts and SQL Databases

The screenshot displays the Cyberweave Enterprise Application Integration (EAI) interface. The main window is titled "Cyberweave Enterprise Application Integration - Evaluation Version" and contains several panels:

- TN3270(LibOfCong):** A terminal window showing the "LIBRARY OF CONGRESS INFORMATION SYSTEM" menu. The menu items are:
 - Copyright Information -- files available and up-to-date
 - Braille and Audio -- files frozen mid-August 1999
 - Federal Legislation -- files frozen December 1998
 - Searching Hours and Basic Search Commands
 - Library of Congress General Information
 - Library of Congress Fast Facts
 - Comments and Logoff
 The choice field is currently empty.
- TN3270(Aussie):** A terminal window showing the "Initial Applications Menu Processor" for IP Australia. The menu items are:
 - Trade Mark System
 - Patent Administration
 - Designs Administration
 - Patent Indexing System
 The choice field is currently empty.
- JSql(session.MSAccess_guest.ses.bin):** A window displaying a SQL query result set. The columns are: orderid, customerid, employeeid, orderdate, requireddate, shippeddate, shipvia, and freight. The data includes rows for customers like VINET, TOMSP, HANAR, VICTE, SUPRD, etc.
- JSql(session/SQL Server_Texas_Guest.ses.bin):** A window for executing a SQL query. The DBN is "cyberweave", Address is "66.34.127.254:1433", User is "anil", and Password is "*****". The query is:


```
update authors set
  au_fname = :au_fname#vc, au_lname = :au_lname#vc, phone = :phone#ch
  where au_id = :au_id#ch ;
select au_id#ch , title_id#ch , au_ord#ti , royaltyp#in
  into File from author ;
insert from File into author ;
delete from cyberweave.data ;
commit;
```

 The window also shows a list of tables in the "cyberweave.Data" database, including "authors", "ProAllInt", "proCountForState", "proListForState", and "syscolumns".

Sample Database Inquiry/Report Application

Application generated from CW/EAI Toolkit for Database Inquiry/Reports from MS/Access Database

100% of the code was automatically generated for this example.

On Screen application

The screenshot shows a web application window with the title bar 'Cyberweave Enterprise Application Integration'. Inside the window, there is a 'Print' button at the top left. Below it, the text 'NorthWind Database Report' is centered. A table with 6 columns and 25 rows is displayed. The columns are 'OrderId', 'CustomerId', 'EmployeeId', 'OrderDate', 'ReqdDate', and 'ShippedDate'. The data in the table is as follows:

OrderId	CustomerId	EmployeeId	OrderDate	ReqdDate	ShippedDate
10248	VINET	5	1996-07-04 00:00:00	1996-08-01 00:00:00	1996-07-16 00:00:00
10249	TOMSP	6	1996-07-05 00:00:00	1996-08-16 00:00:00	1996-07-10 00:00:00
10250	HANAR	4	1996-07-08 00:00:00	1996-08-05 00:00:00	1996-07-12 00:00:00
10251	VICTE	3	1996-07-08 00:00:00	1996-08-05 00:00:00	1996-07-15 00:00:00
10252	SUPRD	4	1996-07-09 00:00:00	1996-08-06 00:00:00	1996-07-11 00:00:00
10253	HANAR	3	1996-07-10 00:00:00	1996-07-24 00:00:00	1996-07-16 00:00:00
10254	CHOPS	5	1996-07-11 00:00:00	1996-08-08 00:00:00	1996-07-23 00:00:00
10255	RICSU	9	1996-07-12 00:00:00	1996-08-09 00:00:00	1996-07-15 00:00:00
10256	WELLI	3	1996-07-15 00:00:00	1996-08-12 00:00:00	1996-07-17 00:00:00
10257	HILAA	4	1996-07-16 00:00:00	1996-08-13 00:00:00	1996-07-22 00:00:00
10258	ERNSH	1	1996-07-17 00:00:00	1996-08-14 00:00:00	1996-07-23 00:00:00
10259	CENTC	4	1996-07-18 00:00:00	1996-08-15 00:00:00	1996-07-25 00:00:00
10260	OTTIK	4	1996-07-19 00:00:00	1996-08-16 00:00:00	1996-07-29 00:00:00
10261	QUEDE	4	1996-07-19 00:00:00	1996-08-16 00:00:00	1996-07-30 00:00:00
10262	RATTC	8	1996-07-22 00:00:00	1996-08-19 00:00:00	1996-07-25 00:00:00
10263	ERNSH	9	1996-07-23 00:00:00	1996-08-20 00:00:00	1996-07-31 00:00:00
10264	FOLKO	6	1996-07-24 00:00:00	1996-08-21 00:00:00	1996-08-23 00:00:00
10265	BLONP	2	1996-07-25 00:00:00	1996-08-22 00:00:00	1996-08-12 00:00:00
10266	WARTH	3	1996-07-26 00:00:00	1996-09-06 00:00:00	1996-07-31 00:00:00
10267	FRANK	4	1996-07-29 00:00:00	1996-08-26 00:00:00	1996-08-06 00:00:00
10268	GROSR	8	1996-07-30 00:00:00	1996-08-27 00:00:00	1996-08-02 00:00:00
10269	WHITC	5	1996-07-31 00:00:00	1996-08-14 00:00:00	1996-08-09 00:00:00
10270	WARTH	1	1996-08-01 00:00:00	1996-08-29 00:00:00	1996-08-02 00:00:00
10271	SPLIR	6	1996-08-01 00:00:00	1996-08-29 00:00:00	1996-08-30 00:00:00
10272	RATTC	6	1996-08-02 00:00:00	1996-08-30 00:00:00	1996-08-06 00:00:00
10273	QUICK	3	1996-08-05 00:00:00	1996-09-02 00:00:00	1996-08-12 00:00:00
10274	VINET	6	1996-08-06 00:00:00	1996-09-03 00:00:00	1996-08-16 00:00:00
10275	MAGAA	1	1996-08-07 00:00:00	1996-09-04 00:00:00	1996-08-09 00:00:00

At the bottom of the window, there is a 'GetData' button.

Application report with auto Page/Date-Time controls

2004/08/04
10:49:30
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NorthWind Database Report

OrderId	CustomerId	EmployeeId	OrderDate	ReqdDate	ShippedDate
10248	VINET	5	1996-07-04 00:00:00	1996-08-01 00:00:00	1996-07-16 00:00:00
10249	TOMSP	6	1996-07-05 00:00:00	1996-08-16 00:00:00	1996-07-10 00:00:00
10250	HANAR	4	1996-07-08 00:00:00	1996-08-05 00:00:00	1996-07-12 00:00:00
10251	VICTE	3	1996-07-08 00:00:00	1996-08-05 00:00:00	1996-07-15 00:00:00
10252	SUPRD	4	1996-07-09 00:00:00	1996-08-08 00:00:00	1996-07-11 00:00:00
10253	HANAR	3	1996-07-10 00:00:00	1996-07-24 00:00:00	1996-07-16 00:00:00

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10:49:33
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NorthWind Database Report

OrderId	CustomerId	EmployeeId	OrderDate	ReqdDate	ShippedDate
10364	EASTC	1	1996-11-26 00:00:00	1997-01-07 00:00:00	1996-12-04 00:00:00
10365	ANTON	3	1996-11-27 00:00:00	1996-12-25 00:00:00	1996-12-02 00:00:00
10366	GALED	8	1996-11-28 00:00:00	1997-01-09 00:00:00	1996-12-30 00:00:00
10367	VAFFE	7	1996-11-28 00:00:00	1996-12-26 00:00:00	1996-12-02 00:00:00
10368	ERNSH	2	1996-11-29 00:00:00	1996-12-27 00:00:00	1996-12-02 00:00:00
10369	SPLIR	8	1996-12-02 00:00:00	1996-12-30 00:00:00	1996-12-09 00:00:00
10370	CHOPS	6	1996-12-03 00:00:00	1996-12-31 00:00:00	1996-12-27 00:00:00
10371	LAMAI	1	1996-12-03 00:00:00	1996-12-31 00:00:00	1996-12-24 00:00:00
10372	QUEEN	5	1996-12-04 00:00:00	1997-01-01 00:00:00	1996-12-09 00:00:00
10373	HUNGO	4	1996-12-05 00:00:00	1997-01-02 00:00:00	1996-12-11 00:00:00
10374	WOLZA	1	1996-12-05 00:00:00	1997-01-02 00:00:00	1996-12-09 00:00:00

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10:49:53
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NorthWind Database Report

OrderId	CustomerId	EmployeeId	OrderDate	ReqdDate	ShippedDate
11060	FRANS	2	1998-04-30 00:00:00	1998-05-28 00:00:00	1998-05-04 00:00:00
11061	GREAL	4	1998-04-30 00:00:00	1998-06-11 00:00:00	
11062	REGGC	4	1998-04-30 00:00:00	1998-05-28 00:00:00	
11063	HUNGO	3	1998-04-30 00:00:00	1998-05-28 00:00:00	1998-05-06 00:00:00
11064	SAVEA	1	1998-05-01 00:00:00	1998-05-29 00:00:00	1998-05-04 00:00:00
11065	LILAS	8	1998-05-01 00:00:00	1998-05-29 00:00:00	
11066	WHITC	7	1998-05-01 00:00:00	1998-05-29 00:00:00	1998-05-04 00:00:00
11067	DRACD	1	1998-05-04 00:00:00	1998-05-18 00:00:00	1998-05-06 00:00:00

Reports can be sized to fit or centered on page
 User can choose date and time formats and placement
 Report generation uses scrolling Tables as the base control

Multiple Systems Update

Updating tables across databases

100% of the code was automatically generated for this example

Cyberweave Enterprise Application Integration

Print **Authors Royalty Update** Find Authors

Author ID	Phone No	Last Name	First Name
111-11-1111	408 496-7223	White	Johnson
172-32-1176	408 496-7223	White	Johnson
213-46-8915	415 986-7020	Green	Marjorie
222-22-2222	408 496-7223	White	Johnson
238-95-7766	415 548-7723	Carson	Cheryl
267-41-2394	408 286-2428	O'Leary	Michael
274-80-9391	415 834-2919	Straight	Dean
409-56-7008	415 658-9932	Bennet	Abraham

By State
CA
or Author Id
172-32-1176
or Last Name
White
or First Name
Johnson

Update Authors

Author ID	Title ID	Royalty %
409-56-7008	BU1032	11
213-46-8915	BU1032	54
213-46-8915	BU2075	25

Get Royalty
for Author Id
213-46-8915
or Title Id
BU1032

Updt Royalty
For Author ID
213-46-8915
or Title Id
BU2075
Update Royalty To
25

Demo App accessing DB2 & SQLSrvr from separate locations, implementing all the elements of data modelling (one to many & many to many), for a typical business application (Inquiry and Update)

Hint: Selecting List fills Text; State = CA, AuthId = 213-46-8915, Title Id = BU1032, Rolyty = 55.

Sample Inquiry/Report application converted to update

100% of the code was automatically generated for this example

The screenshot shows a software application window titled "Cyberweave Enterprise Application Integration". The window contains a "Print" button at the top left and a "NorthWind Database Select / Update" title. Below the title is a data table with the following columns: OrderId, CustomerId, EmployeeId, OrderDate, ReqDate, ShippedDate, and shipped Via. The table contains 17 rows of data. An "SQLUpdate Message" dialog box is overlaid on the table, displaying the text "Database Successfully Modified No of Rows Modified 3" and an "Ok" button. At the bottom of the window, there are "Select" and "Update" buttons.

OrderId	CustomerId	EmployeeId	OrderDate	ReqDate	ShippedDate	shipped Via
10248	VINET	5	1991-07-04 00:00:00	1996-08-01 00:00:00	1996-07-16 00:00:00	3
10249	TOMSP	6	1991-07-05 00:00:00	1996-08-16 00:00:00	1996-07-10 00:00:00	1
10250	HANAR	4	1991-07-08 00:00:00	1996-08-05 00:00:00	1996-07-12 00:00:00	2
10251	VICTE	3	1996-07-08 00:00:00	1996-08-05 00:00:00	1996-07-15 00:00:00	1
10252	SUPRD	4	1996-07-09 00:00:00	1996-08-06 00:00:00	1996-07-11 00:00:00	2
10253	HANAR	3	1996-07-10 00:00:00	1996-07-24 00:00:00	1996-07-16 00:00:00	2
10254	CHOPS	5	1996-07-11 00:00:00	1996-08-08 00:00:00	1996-07-23 00:00:00	2
10255	RICSU	9	1996-07-12 00:00:00	1996-08-09 00:00:00	1996-07-15 00:00:00	3
10256	WELLI	3	1996-07-15 00:00:00	1996-08-12 00:00:00	1996-07-17 00:00:00	2
10257	HILAA	4	1996-07-16 00:00:00	1996-08-13 00:00:00	1996-07-22 00:00:00	3
10258	ERNSH	1	1996-07-17 00:00:00	1996-08-14 00:00:00	1996-07-23 00:00:00	1
10259	CENTC	4	1991-07-18 00:00:00	1996-08-15 00:00:00	1996-07-24 00:00:00	1
10260	OTTIK	4	1991-07-19 00:00:00	1996-08-16 00:00:00	1996-07-25 00:00:00	1
10261	QUEDE	4	1991-07-20 00:00:00	1996-08-17 00:00:00	1996-07-26 00:00:00	1
10262	RATTC	8	1991-07-21 00:00:00	1996-08-18 00:00:00	1996-07-27 00:00:00	1
10263	ERNSH	9	1991-07-22 00:00:00	1996-08-19 00:00:00	1996-07-28 00:00:00	1
10264	FOLKO	6	1991-07-23 00:00:00	1996-08-20 00:00:00	1996-07-29 00:00:00	1
10265	BLONP	2	1996-07-23 00:00:00	1996-08-22 00:00:00	1996-06-12 00:00:00	1

Conversion of the inquiry/report sample to accommodate update
Made trivial by exploiting independent input/output triggers for
The same columns

TN3270 access with SQL Update

100% of the code was automatically generated for this example

Library Of Congress Lookup with Logging

Search For

Result set

Resultset		
ITEMS 1-3 OF 1,289	SET 4: BRIEF DISPLAY	FILE: C105
(ASCENDING ORDER)		
1. H.CON.RES.6: SPON=Rep Bilirakis, (Cosp=54); OFFICIAL TITLE: A concurrent resolution concerning the protection and continued livelihood of the		

Search argument

Timestamp	Search Argument
10-04-2004 07:36:49	Ret foreign policy
10-04-2004 07:36:30	Ret day care
10-04-2004 07:35:54	Ret day care
10-04-2004 07:35:33	Ret tax rebates
10-04-2004 07:34:59	Ret mortgage rates

This Demo extracts data from the Library of Congress TN3270 system. The search argument is time-stamped and stored on a SQLServer Database.

Usage Hints:
Key in **"Ret day care"**, **"Ret mortgage rates"** or **"Ret tax rebate"** to retrieve matching data. you can also select any entry from the displayed search argument column.

Trigger chaining option is used in this sample to automatically update SQL Server database on completion of legacy data retrieval. Built in Auto-Input facility is used to copy data from table to text field and text field to text-field.

Trigger chaining and Auto-Input options are available for Buttons, Labels, Text field, List and Table.

CW/EAI Toolkit Software requirements

- ◆ Applications - Bundled JRE is all you need!

IDE provides code generation and code execution support
Code executes on client system as a rich client application

- ◆ II tier Applets - Basic Web server – IIS or Apache

Code downloaded from Web Server
Executes under the control of browser on client
Java plugin 1.4 or later must be available on the client

- ◆ III tier Servlets – WebLogic , Tomcat or WebSphere

Application in WebAppServer creating HTML/ASP data
Client uses browsers to manage data

- ◆ Optional JDBC Drivers for DBMS support

Type III or Type IV drivers for Database access
Built-in support for MS/Access

- ◆ Optional code signing

Using code certificates from Verisign/Thawte/Baltimore

CW/EAI Components

◆ Host configuration

Defines Host location – Location and optional Port number
Database Name for SQL sessions
Optional SSL specification for TN3270 sessions

◆ TN3270 Emulator

Supports TN3270 and TN3270-E protocols
Record, playback and Execute scripts
Dynamic Font/Color change
Symbolic and positional data extraction
SSL support for secure messaging

◆ ISQL Executive

Automatically Build List of Tables/Stored procedures
ISQL wizard for building SQL statements
Interactive execution of SQL before session integration

◆ GUI Designer Tool

Supports List, Button, Label, Text field, Image and Tables
Events and data can be chained for multi-session interface
Automatically generates Login and message prompts

Application generation step by step

- ◆ Record Host sessions containing data to be integrated

For TN3270 record at least a login session and trigger session

For SQL sessions build/Execute SQL statements

Saved sessions are used to identify where the data resides

- ◆ Design project screens using User Interface Design facility

Label, Button, List, Text field, Text Area, choice components

Images can be added to Labels and Buttons

Graphic primitives also provided to enhance UID

- ◆ Associate Host sessions

Identify Trigger components – that specify a host event

Identify Input/Output components using saved host sessions

Optionally chain Triggers and in/out fields

- ◆ Install Applications

Generate source code

Compile and optionally sign code using site standards

Copy/Install signed Cab/Jar files in Web server directory

Install HTML/Jscript/VBScript source

- ◆ Execute your finished Application!

Application Integration/Web Enabling Process

