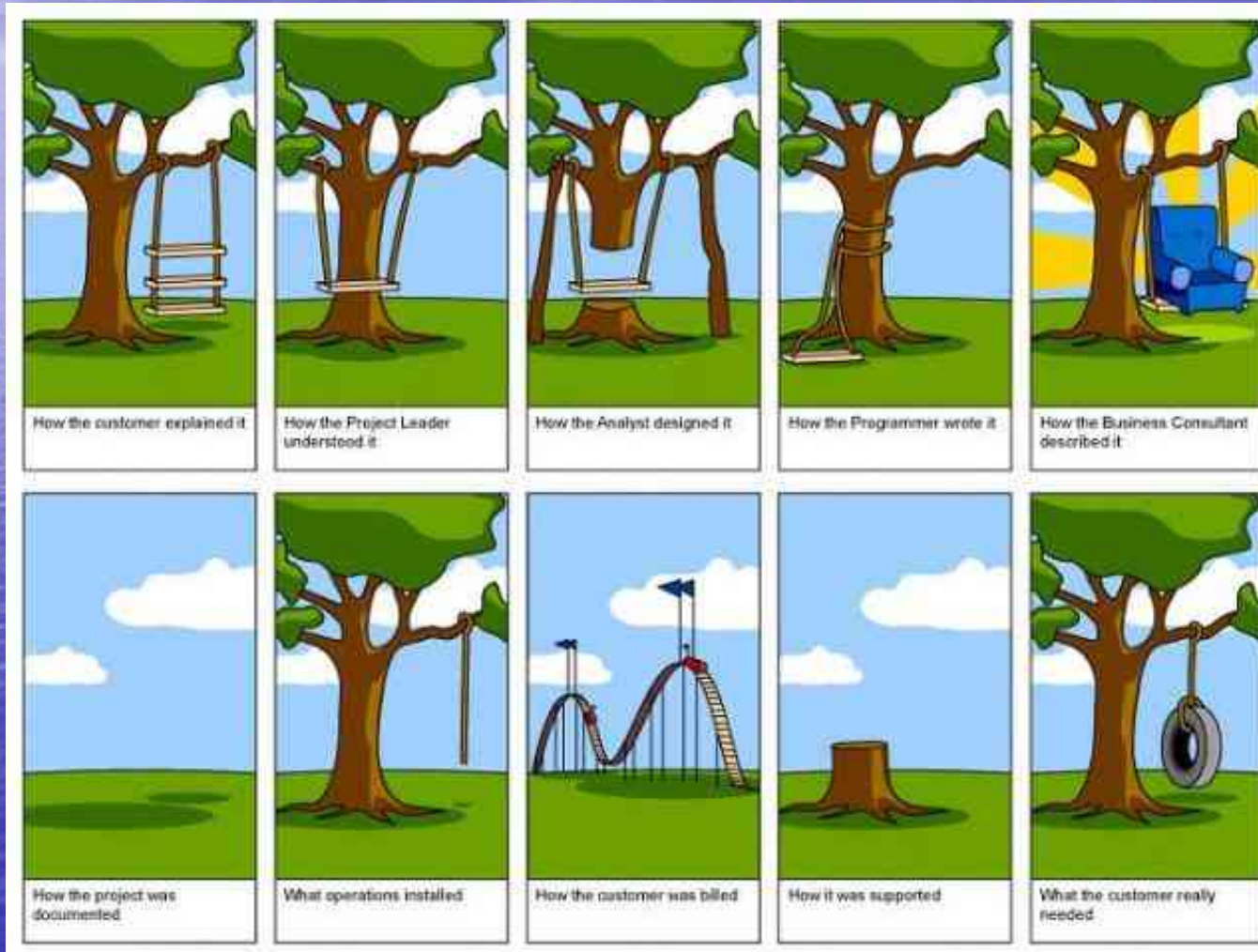


Syspedia

**Leveraging your Embedded
Metadata**

Sales@syspedia.com

Typical Systems today



How is Syspedia better?

- **Metadata from all platforms**

- This means it is able to parse your data and information across your many networked hardware platforms. It can do this because Syspedia is 100% Java and based on open standards and runs everywhere.

- **Understand your business rules**

- In support of security, system integration, and software migrations
 - Parses applications and JCL to the element level for relationship analysis across platforms, systems, applications and file systems.

- **Easy self-service analysis**

- With a Google-like an intuitive web interface, open data model, plus endless ad hoc report capability.

Automatically builds metadata

- Built through change management process
- Syspedia scans at the element detail level
 - Builds repository of existing elements
 - Names, definitions, attributes and more....
 - Query/analyze existing standards information
- Shows existing relationships and attributes
 - Allows further standards documentation
 - Build additional naming standard relationships
 - Understand domain and range relationships

Standards Administration

- Setup standard to tie definitions together
- Associate master names & definitions
- Relate other element names to master name
 - Relate to Groups, Business, Subject or Class
 - Enhance descriptions and comments
 - Associate to non-standard names
- Master definition related to:
 - Set of libraries
 - Codes or specific values
 - Other definitions

Standards Administration

The image displays three overlapping web browser windows from the Syspedia application, running on Windows Internet Explorer.

Top Window: Main Menu - PSI Syspedia
URL: http://192.168.0.104:9080/psi20/psi_20_login
Menu items: Systems, Envir/Apps, Modules, Elements, Help. The 'Elements' menu is expanded, showing a list of administration options including Environment Inquiry, Application Inquiry, Element Usage Inquiry, Application Job Inquiry, Job Process Inquiry, Data Set Inquiry, Reports Repository, Environment Administration, Application Administration, Support Contact Administration, Data Discovery Administration, and Standards Administration.

Bottom-Left Window: Standards Administration - Syspedia - PSInc.
URL: http://192.168.0.104:9080/psi20/psi_20_462.jsp
Page title: Syspedia - Innovations that Empower!
Section: Standards Administration
Form fields include: Standard (ISO11179-STANDARD), Support (DAVE), Group (OVERALL STANDARD), Subject (Standards Administration - Syspedia - PSInc.), Business (SI), and Class (SI). The 'Standard Names' section shows a list of standard names with details for 'STANDARDCUSTOMER', including creation and update timestamps, and a description: 'THE STANDARD ABBREVIATION FOR THE CUSTOMER NAME'. A 'Retrieval complete.....' message is displayed at the bottom.

Bottom-Right Window: Standards Listing - Syspedia PSInc.
URL: http://192.168.0.104:9080/psi20/psi_20_461.jsp
Page title: Syspedia - Innovations that Empower!
Section: Standard Listing
Table with columns: Standard Name, Created, Updated, Element, and Subelement. The table lists several standards, including ISO11179-STANDARD, NEWSTANDARD, PRODUCTSTANDARD, and STANDARDCUSTOMER.

Standard Name	Created	Updated	Element	Subelement
ISO11179-STANDARD	2005-06-01 17:09:42.921001	2005-06-01 17:09:42.921001	OVERALL STANDARD	OVERALL ISO11179-INTERFACED ELEMENT DICTIO
NEWSTANDARD	2005-01-08 13:38:17.796001	2005-04-29 11:27:13.515001	CUSTOMER	CUSTOMER
PRODUCTSTANDARD	2005-01-20 10:01:41.312001	2005-01-20 10:02:46.656001	PRODUCT	GOODS SERVIC
STANDARDCUSTOMER	2005-01-17 14:19:13.031001	2005-04-29 12:32:38.515001	CUSTOMER	PURCH

Standards Administration

- Standards reflect the past problems
 - Discover and augment existing standards
- Setup Master Standard to associate all element characteristics
 - Many different standards
 - Associated to
 - Different corporate initiatives
 - Projects
 - Departments

Standards Administration

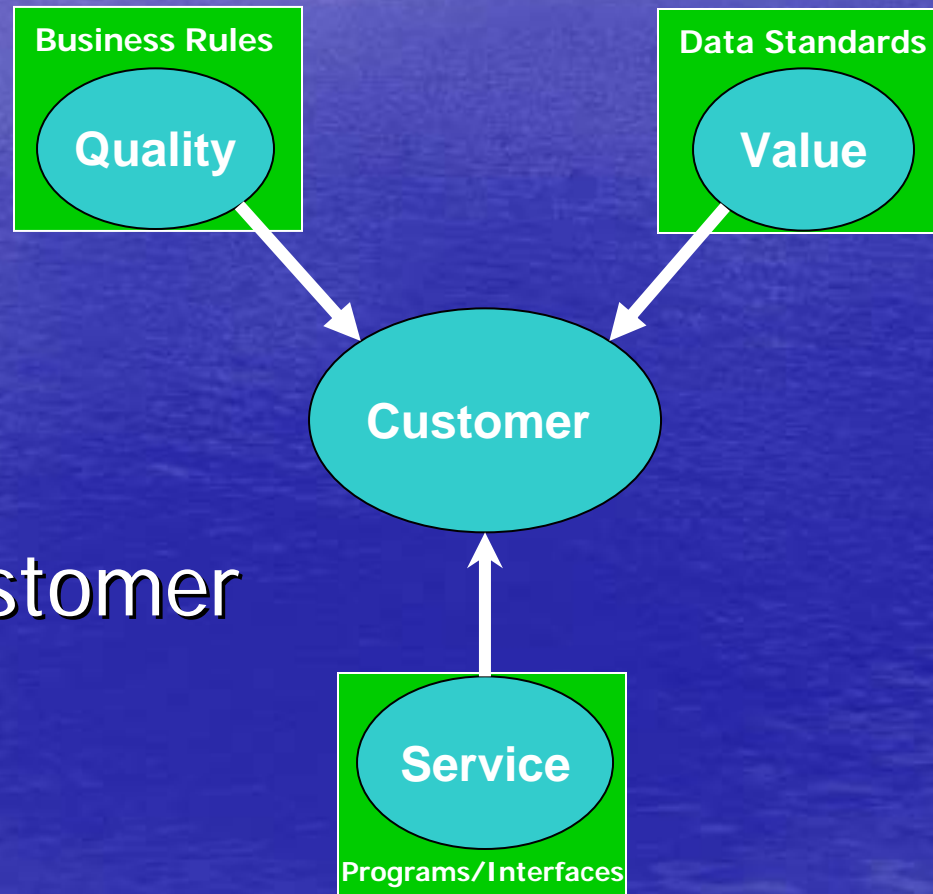
- Associate master names to other names
 - Master element name desired
 - Other elements that have same meaning
- Relate other element names to master name
 - Relate to Groups, Business, Subject or Class
 - Enhance descriptions and comments
 - Associate to non-standard names

Database & File Relationships

- Researches a// Database/File attributes & usage
 - Understand cross platform database and file lineage
 - Applications and programs using your data
- Reconcile application database/file dependencies
 - Understand other definitions and the data's travels
 - Research its business rules and interfaces
- Quickly understand operational data aspects
 - Scope the integration effort and application conflicts

Database & File Relationships

- Quickly annotate, augment or relate metadata
 - Databases
 - Files
 - Elements
 - Standards
 - Applications
- 360° view of customer



Comprehensive Metadata

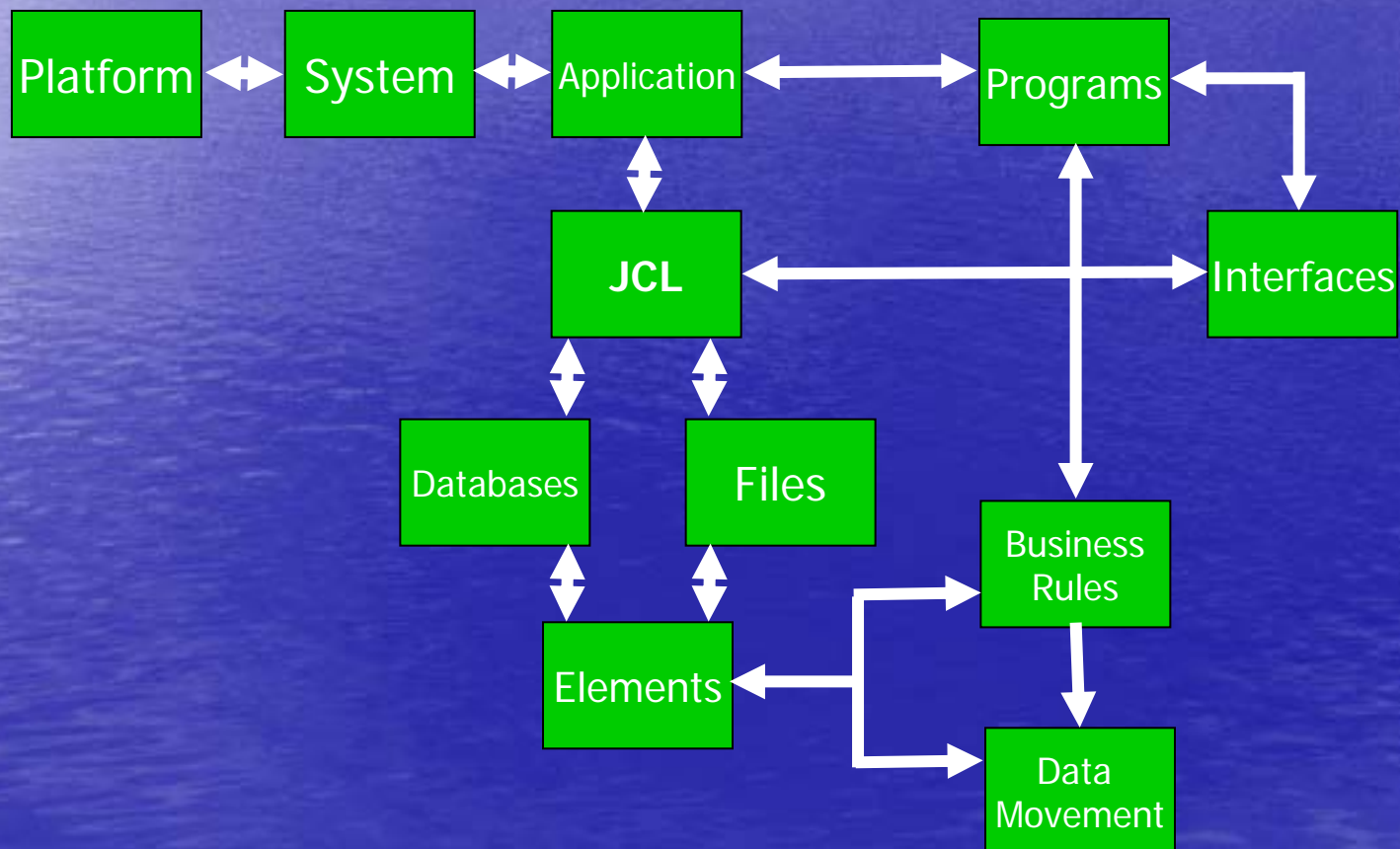
- Business Rules and Data Quality
 - Application source captured
 - Capture IF and other logic statements
 - Where and what quality is verified against
 - Drive logic of your business rules and process
 - Capture all MOVE statements
 - Sending and Receiving elements and files
 - Logic processes on these business rules
 - Data quality is ensured by these tests
 - Data lineage through all the data movement

Element level details

- JCL provides many relationships
 - Between program, database and files
 - JCL gives all DSN and DBMS information
 - Between platform, system and application
 - Schedule provides frequency

Architecture for customization

- Comprehensive metadata
 - What other items do you need?



JCL – The first problem

- Job Security – Simplicity

```
//OEST130P JOB (OES,PROD),'CALCULATE TAX AMOUNT',  
//          CLASS=D,  
//          COND=(0,NE),  
//          MSGCLASS=W  
//*****  
//*      THE MAIN FUNCTION OF THIS JOB IS TO :  
//*          1. PROCESS THE ORDERS AND CALCULATE THE TAX AMOUNT  
//*****  
//OESSTEP1 EXEC OEST13P,SUB=DSNP  
//*  
//
```


JCL – Runs the environment

```
//OEST130P JOB (OES,PROD),'CALCULATE TAX AMOUNT',
//          CLASS=D,
//          COND=(0,NE),
//          MSGCLASS=W
//*****
/** THE MAIN FUNCTION OF THIS JOB IS TO :
/** 1. PROCESS THE ORDERS AND CALCULATE THE TAX AMOUNT
/** 2. SELECT THE TAX AMOUNT PPERCENTAGE FROM THE TAX_RATE_T TABLE
/** 3. OR CALL THE STORED PROCEDURE FOR FOREIGN COUNTRIES.
/** 4. BASED ON THE LOCATION OF THE ORDER CALCULATE THE AMOUNT
/**    AND WRITE THE INFORMATION TO THE OUTPUT FILE
//*****
/**
//JOBLIB DD DISP=SHR,
//        DSN=SYS3X.DB2.DPL0.LOAD
/**
//OESSTEP1 EXEC PGM=OEST130,COND=(4,LT),REGION=0M
/**
//STEPLIB DD DISP=SHR,DSN=SYS3.DPL0.DSNEXIT
//        DD DISP=SHR,DSN=SYS3X.DB2.DPL0.LOAD
/**
//INTRANS DD DSN=OEST.ORDERS.DAILY.EOD,DISP=SHR
/**
//OUTTRANS DD DSN=OEST.ORDERS.DAILY.SALETAX,DISP=(NEW,,DELETE),
//          SPACE=(CYL,(500,30))
//SYSPRINT DD SYSOUT=*
//SYSOUT DD SYSOUT=*
//
```

OEST130P = KEYS-JOB PROGRAM
JOBLIB = DATA RELATIONSHIPS
STEPLIB = DATABASES & FILES

So much metadata to be harvested

IDENTIFICATION DIVISION.

PROGRAM-ID.

OEST130.

* ** VERSION 01 **

AUTHOR.

BEULKE.

INSTALLATION.

PSI-PROCESSORS.

*REMARKS. THIS PROGRAM COMPUTES THE SALES TAX
* FROM THE MASTER TRANSACTION FILE-
* AND PUTS OUT THE TOTAL SALES FIGURES
* IN THE OUTFILE.

ENVIRONMENT DIVISION.

CONFIGURATION SECTION.

SOURCE-COMPUTER. NCR-VRXE.

OBJECT-COMPUTER. NCR-VRXE.

INPUT-OUTPUT SECTION.

FILE-CONTROL.

SELECT TRANSDATA ASSIGN TO EXTERNAL INTRANS.

SELECT CALCOUTFILE ASSIGN TO EXTERNAL OUTTRANS.




DATA DIVISION.

FILE SECTION.

FD TRANSDATA RECORD CONTAINS 697 CHARACTERS.

01 DATA-RECORD.

03	IN-DRMEMBER-TYPE	PIC X.
03	IN-REGISTER-NUMBER	PIC 9(7).
03	IN-DRSSAN	PIC 9(9).
03	IN-NAME-FIRST	PIC X(20).

 = KEYS-JOB PROGRAM
 = DATA RELATIONSHIPS
 = DATABASES & FILES

Values, Codes and Databases

WORKING-STORAGE SECTION.

01 WS-USA PIC X(03) VALUE "USA".

01 WS-COMPUTE-FIELDS.

03 WS-SALE-AMT PIC 9(5)V99 VALUE ZEROS.

03 WS-SALE-TAX-AMT PIC 9(5)V99 VALUE ZEROS.

03 WS-SALE-TAX-RATE PIC 9(2)V99 VALUE ZEROS.

03 WS-SALE-TOT-AMT PIC 9(6)V99 VALUE ZEROS.

01 COMAST-MASTER.

05 COMASTM-FINAL-DEST PIC X(01) VALUE SPACES.

88 COMASTM-FINAL-DEST-FED VALUE 'F'.

88 COMASTM-FINAL-DEST-COMM VALUE 'C'.

88 COMASTM-FINAL-DEST-STATE VALUE 'S'.

88 COMASTM-FINAL-DEST-ENGR VALUE 'O'.

88 COMASTM-FINAL-DEST-JIM VALUE 'J'.

88 COMASTM-FINAL-DEST-IR VALUE 'I'.

88 COMASTM-FINAL-DEST-MC VALUE 'M'.

88 COMASTM-FINAL-DEST-ENG-REQ VALUE 'E'.

05 COMASTM-IOS-SW PIC X(01) VALUE 'N'.

88 COMASTM-IOS VALUE 'Y'.

05 COMASTM-AIR-GRND-SW PIC X VALUE SPACE.

88 COMASTM-AIR VALUE 'A'.

88 COMASTM-GROUND VALUE 'G'.

 = ELEMENTS

 = DEFINITION

 = VALID VALUES/CODES

 = VALUE NAMES

= DATABASE DEFINITION

***** COBOL DECLARATION FOR TABLE LFADBAC.CNTY_T

01 CNTY.

10 TTXT-RATE-ZIP-CODE PIC X(9).

10 TTXT-RATE-ST-CODE PIC X(2).

10 TTXT-RATE-CNTY-CODE PIC X(3).

10 TTXT-RATE-PCT-AMT PIC 9V9999.

Movement, Business Rules & Data Quality

025-GET-TAX-RATE.

IF IN-ZIPCODE NUMERIC

MOVE IN-ZIPCODE TO TTXT-RATE-ZIP-CODE

DISPLAY 'NON NUMERIC ZIP CODE '.

MOVE IN-COUNTRY-CODE TO TTXT-CNTY-CODE.

IF IN-COUNTRY-CODE = WS-USA

DISPLAY 'CALLING DB2 DIRECT'

EXEC SQL

```
SELECT  TTXT_RATE_PCT_AMT
      INTO :TTXT-RATE-PCT-AMT
      FROM PROD.TAX_RATE_T
      WHERE TTXT_RATE_ZIP_CODE      = :TTXT-RATE-ZIP-CODE
            AND TTXT_RATE_STATE      = :TTXT-RATE-STATE
            AND TTXT_CNTY_CODE       = :TTXT-CNTY-CODE
      WITH UR
```

END-EXEC.

MOVE IN-STATE TO OEST-STATE.

MOVE IN-ZIPCODE TO OEST-ZIPCODE.

MOVE IN-CODE-S TO OEST-SALE-TYPE.

COMPUTE WS-SALE-TAX-AMT

= TTXT-RATE-PCT-AMT * IN-SALE-AMT

+ TTXT-RATE-CITY * IN-SALE-AMT.

IF WS-SALE-TAX-AMT > 100

COMPUTE WS-SALE-TAX = WS-SALE-TAX-AMT + 10.00

MOVE WS-SALE-TAX-AMT TO OEST-SALE-TAX-AMT.

ADD IN-SALE-AMT TO OEST-SALE-AMT GIVING WS-SALE-TOT-AMT.

= DATA QUALITY

= MOVEMENT

= BUSINESS RULES

= INTERFACES

Provides quick answers – 5 Clicks

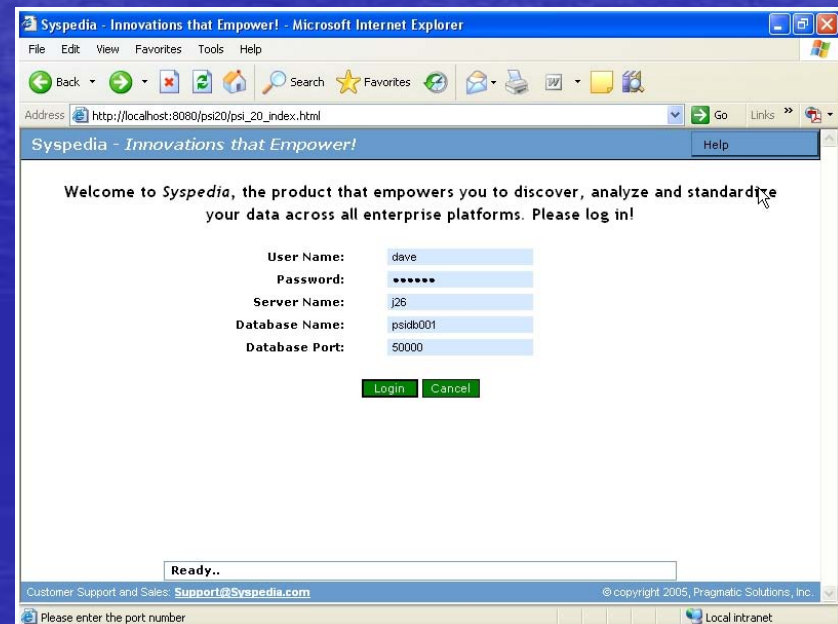
Common situation

- Data relationship or quality issue

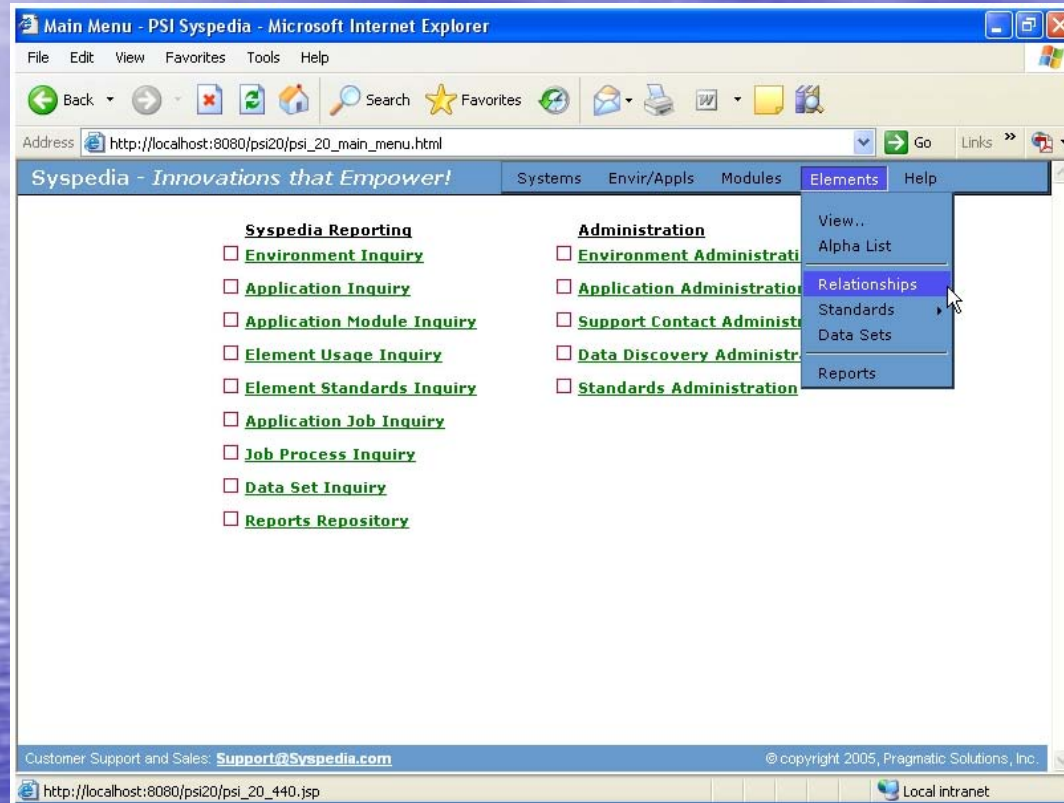
- Data exception occurs in an application
 - Program aborts and the processing stop

- What program caused it!
 - Where is the element used?
 - It is in a lot of programs!

- Click 1 – Log on
- Security first – log on to Syspedia
 - Meets strictest regulatory requirements
- Web application
 - Web application on your company intra-net



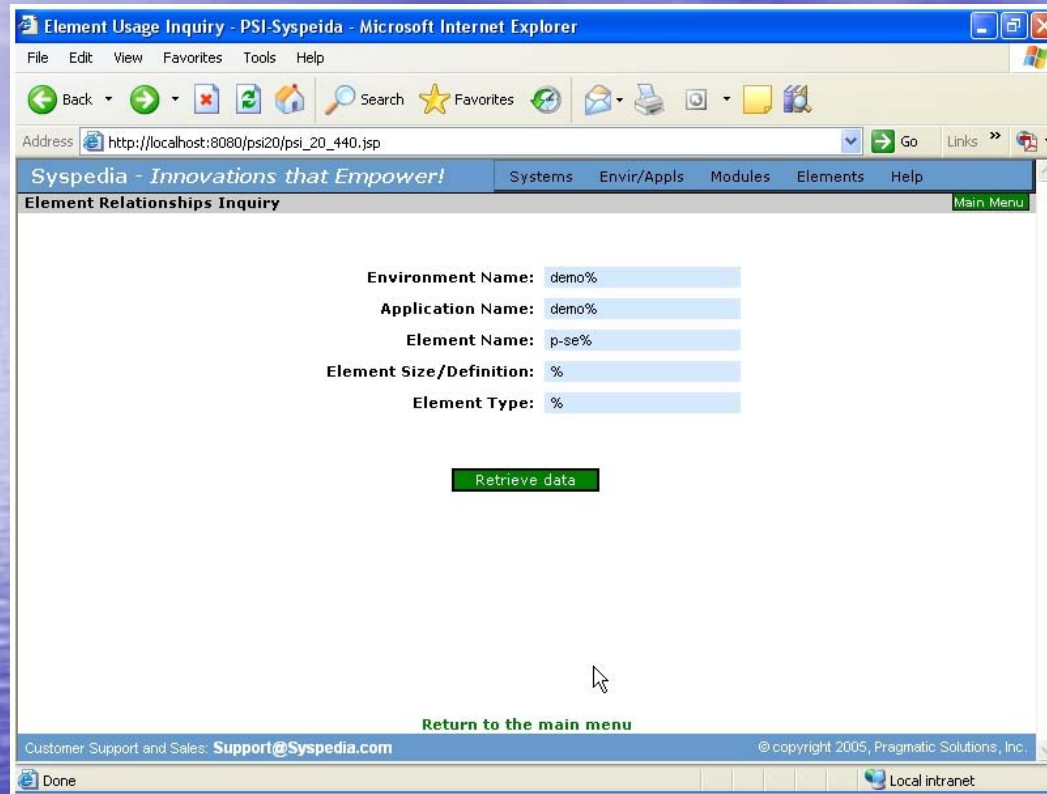
Element Relationships



Click-2

- Syspedia offers many options at your finger tips!
 - Main menu quickly gets you to the information you need!
- Since the P-SERV data element had the data exception
 - What other programs use this data element?

It is used in....



Click-3

- By entering the criteria
 - Syspedia can search across platform or applications
- You can search a wide variety of criteria in Syspedia

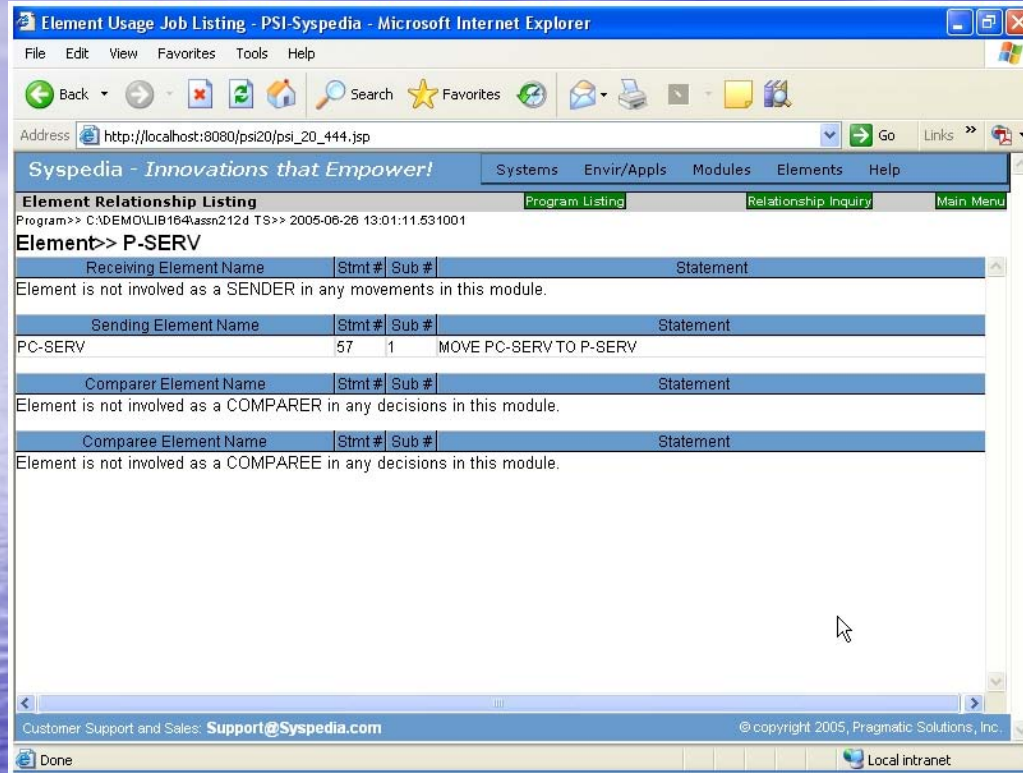
It is used in....

Element Name	Definition	In Program	Extract
P-SERV	9(2)	C:\DEMO\LIB160\assn130d	2005-06-26 13:1
P-SERV	9(2)	C:\DEMO\LIB160\club030d	2005-06-26 13:1
P-SERV	9(2)	C:\DEMO\LIB164\abil70d	2005-06-26 13:1
P-SERV	9(2)	C:\DEMO\LIB164\assn020d	2005-06-26 13:1
P-SERV	9(2)	C:\DEMO\LIB164\assn030d	2005-06-26 13:1
P-SERV	9(2)	C:\DEMO\LIB164\assn140d	2005-06-26 13:1
P-SERV	9(2)	C:\DEMO\LIB164\assn141d	2005-06-26 13:1
P-SERV	9(2)	C:\DEMO\LIB164\billn20d	2005-06-26 13:1
P-SERV	9(2)	C:\DEMO\LIB164\cbil110d	2005-06-26 13:1
P-SERV	9(2)	C:\DEMO\LIB164\cbil110o	2005-06-26 13:1
P-SERV	9(2)	C:\DEMO\LIB164\cbil115d	2005-06-26 13:1
P-SERV	9(2)	C:\DEMO\LIB164\club080d	2005-06-26 13:1
P-SERV	9(2)	C:\DEMO\LIB168\assn130d	2005-06-26 13:1
P-SERV	99	C:\DEMO\LIB164\assn952d	2005-06-26 13:1
P-SERV	S9(1) ↔	C:\DEMO\LIB164\assn212d	2005-06-26 13:1

Click-4

- List of programs using P-SERV element
 - Shows one program with a different definition
- By choosing the program we see the data element relationships and the business rules

It is used in....



Click-5

- Syspedia shows the application code that effects P-SERV
 - List all movements, business rules and comparisons
- We quickly understand the data element mismatch issue
 - We quickly understand what program caused the problem
 - We quickly understand where in the application code the element is used

Syspedia provides quick answers

- Syspedia provides Cross Platform analysis of data elements
 - Syspedia 100% Java
 - Data elements standards, dictionary
- Syspedia easy to use
 - Intuitive web interface
- Answers for everyone
 - Business analysts
 - Application developers
 - Database administrator

Syspedia can help you build it!

- Extract all the program/file components
 - Evaluate in-depth information
 - Leverage the web interface
 - Wikipedia – Crowd source your metadata
- Implement capabilities needed now!
 - Setup is quick and easy
- Setup up your metadata repository today!
 - Nothing is as unique as your business
 - Inform and transform your business for performance!

Success Stories

- Full service repository
 - Shares metadata with all in-house and out sourced development staff
 - Common understanding, domain and range
- Full 360 view of customer
 - Needed to find all customer addresses
 - Where is the data used?
 - What data validation criteria is used?
- Project Conversion
 - Understand where and what IDMS/Adabase calls

Imagine what you could do with
all those colors?

