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Rejuvenate COBOL Applications & Reduce Costs
Move to isCOBOL

Housekeeping items

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- Phones on mute
- Click on arrow to open or close control panel
- Q&A
  - Submit during conference via GoToWebinar Window
- PPT available at www.veryant.com/migrate09webinar.php
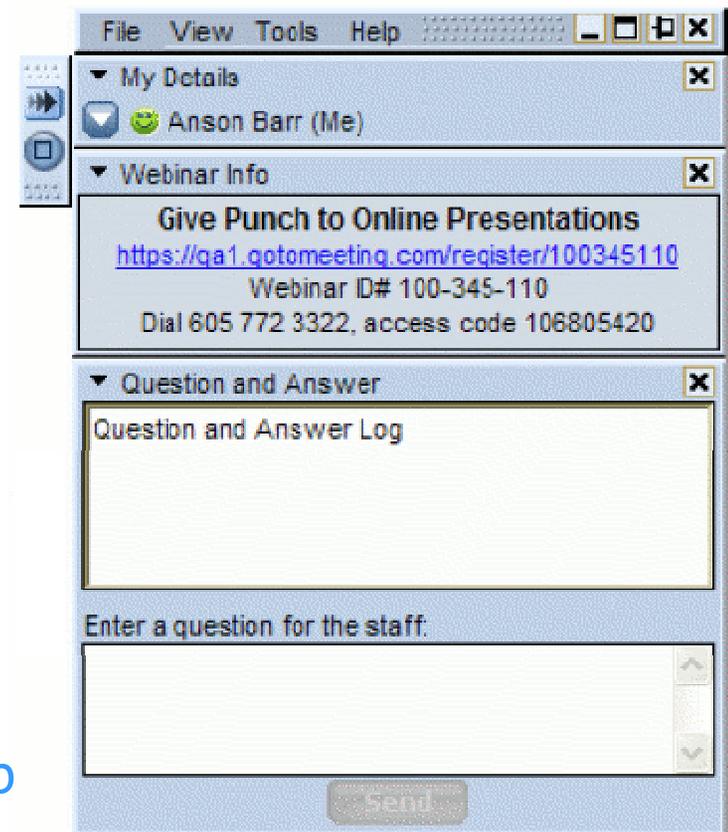
Today's speakers

- ## Larry Turley
  - President, Ron Turley Associates

- ## Frank Gauthier
  - CEO, The COBOL Group and Editor of COBOL Magazine

- ## Alfredo Iglesias
  - VP of Business Development, Veryant

- ## Edwin Sosa
  - Sr. Solutions Engineer, Veryant

Our topics

- Introduction

- Customer experience

- Moving to isCOBOL

- Migrating Micro Focus GUI Dialog

- Getting Started

Powerful technology blend

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COBOL

Descriptive;
self-documenting

Prevalent
(200B LOC)

Optimized for
business processing

Java

Open, extensible
and portable

Growing
community

Internet-
optimized

isCOBOL Customer Experience
Ron Turley Associates

RTA introduction

- Fleet Management software solution provider since 1982

- COBOL history
  - Originally RM/Cobol shop
  - Moved to ACUCOBOL-GT (1987)

- Migrated to windows (from text) platform in the 90's and added GUI capabilities

isCOBOL appeal

- ## Improve features
  - We wanted windows features that we were seeing in other standard products

- ## Expand markets
  - We wanted to move our product to be an international product with multiple language support

- ## Improve product "image"
  - We wanted to stop answering "the COBOL question"

- ## Add product capabilities
  - We wanted to more easily add features and interfaces to other products and devices in the marketplace.

Issues considered

- **Staff skills**
  - Learning curve, support, and data
  - New distribution methods
- **End-user satisfaction**
  - Upgrade impact and learning curve
- **Migration timeframe**
- **Technical details**
  - File system choices
  - 3rd Party tool issues
- **Unsupported features or changed features**

Migration process

- ## Baby steps first
  - Small steps taken first to gain familiarity with the conversion process and platform
  - Addressed look and feel first to get a basic working product before handling other areas

- ## Special attention
  - Display alignment
  - ActiveX
  - 3rd Party applications
  - Data conversions and database selection

Demonstration

Status

- Migration near completion
  - ~4 man month project to date; 1 month to go
  - Re-coded a few features
    - Threading, resource files, ActiveX to JavaBean
- Outstanding items
  - 3rd party product
  - Training support staff
- Customer rollout
  - Summer 2009 - 1200 implementations
  - Net new sales with isCOBOL – Q309

Was it worth it?
Definitely!

- Timely and effective support from Veryant team
- High compatibility, <1% code change required
- Lots of bang for our buck
  - Can now add high impact features with little coding effort
- Opens door to international markets
- "Modernized" our language without changing our language…

Moving to isCOBOL

Areas to address
Moving to isCOBOL APS

- Compilation
- Library and External Routines
- Application Environment
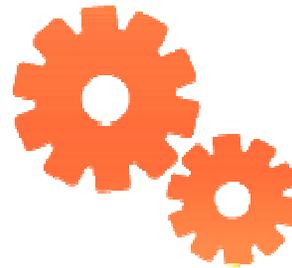- Data Sources
- User Interface
- Interoperability

Transitioning to isCOBOL is similar to a COBOL upgrade

isCOBOL-to-Java process

Develop

Current COBOL programs and practices

Compile

COBOL compiled to pure Java source; JDK compiles output

Deploy

100% Java output (byte code objects)

Leverages current COBOL programs; outputs pure Java code

Compilation
Moving to isCOBOL APS

- Majority of code typically requires only recompilation

- Areas to address:
  - Compile options/directives
    - Example: -sp
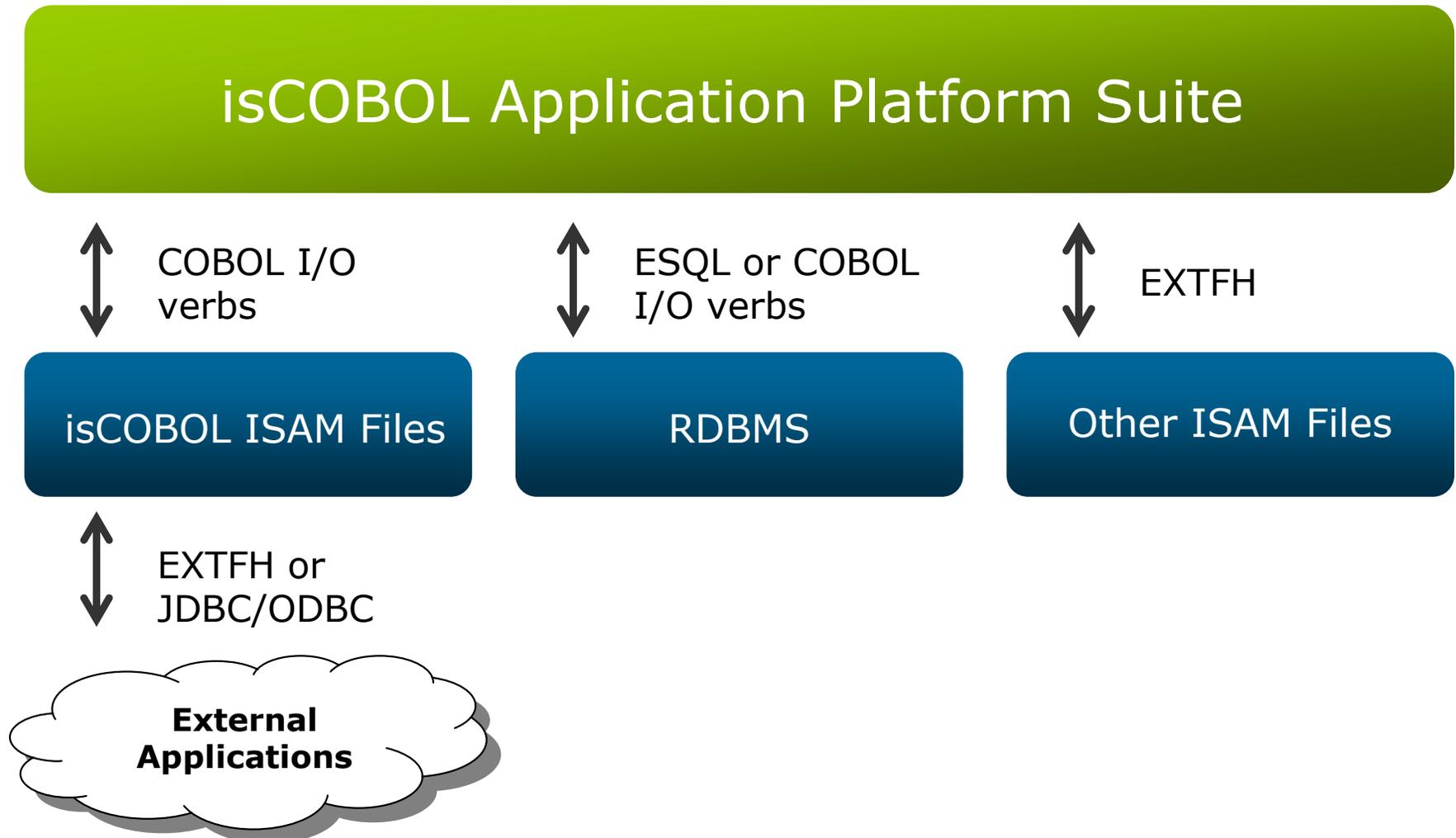 - Language syntax (coding)
  - Programming semantics (behavior)

Library and external routines

- isCOBOL implements common library and external routines
  - C$, W$, CBL_, etc.
  - SYSTEM, C$SYSTEM
  - C language routines
- Library routines yet to be implemented:
  - Implement in COBOL or Java
  - Find equivalent Java routine
  - Identify alternative method
- Example
  - C$XML – JDOM

Application environment

- Runtime configuration and environment variables

- Program launch
  - Shell scripts, batch files, shortcuts

- Deployment architecture
  - Local vs. Thin Client
  - User Login/access control
  - Interfacing with other applications

- Example
  - ISCONFIG

Data sources

isCOBOL Application Platform Suite

COBOL I/O verbs

ESQL or COBOL I/O verbs

EXTFH

isCOBOL ISAM Files

RDBMS

Other ISAM Files

EXTFH or JDBC/ODBC

External Applications

User interface
Moving to isCOBOL APS

- ## Transition smoothly:
  - Character-based screens (green screens)
  - GUI screen section and procedure division
  - External custom user interface libraries

- ## Areas to address:
  - ActiveX
  - MF Dialog, RM-Panels
  - COBOL-WOW

With isCOBOL, the same GUI runs on all supported platforms

Micro Focus COBOL GUI Dialog
The COBOL Group

Dialog System overview
The COBOL Group

- Dialog System (Dialog) is a powerful GUI with rich instruction set

- Drawbacks
  - Difficult to maintain
  - Lack of available talent
  - Antiquated user interface

- Migration challenges
  - Tight integration between Dialog procedures and calling program rules
  - Restrictive cross-platform portability
  - Extensive proprietary code
 - Programming style issues

Dialog procedures
The COBOL Group

```
Object MAINMENU
    Type WINDOW
    Parent DESKTOP
    Start (0,0)
    Size  (2516,1652)
    Display "Pro_EDI Main Menu"
    Style BORDER TITLEBAR SYSTEM-MENU MINIMIZE COLOR("","LIGHT GRAY")
    Icon "proedi"
    Dialog CASE(ON)
        Event SCREENSET-INITIALIZED
            SET-FOCUS TRAD-PART-PB ;
        End Event # SCREENSET-INITIALIZED
        Procedure @INFO
            DISABLE-OBJECT MAINMENU ;
            SHOW-WINDOW INFO-WIN ;
            SET-FOCUS PB-OK ;
        End Procedure # @INFO
        Event ESC
            MOVE "QUIT" LS-PRGM-ID ;
            RETC ;
        End Event # ESC
        Event CLOSED-WINDOW
            INVOKE-MESSAGE-BOX EXIT-MBOX $NULL $REGISTER ;
            IF= $REGISTER 1 @QUIT ;
            SET-FOCUS TRAD-PART-PB ;
        End Event # CLOSED-WINDOW
        Procedure @TRAD-PART
            DISABLE-OBJECT MAINMENU ;
            ENABLE-OBJECT STATUS-EF ;
            MOVE "witszs" LS-PRGM-ID ;
            RETC ;
            ENABLE-OBJECT MAINMENU ;
            SET-FOCUS TRAD-PART-PB ;
        End Procedure # @TRAD-PART
```
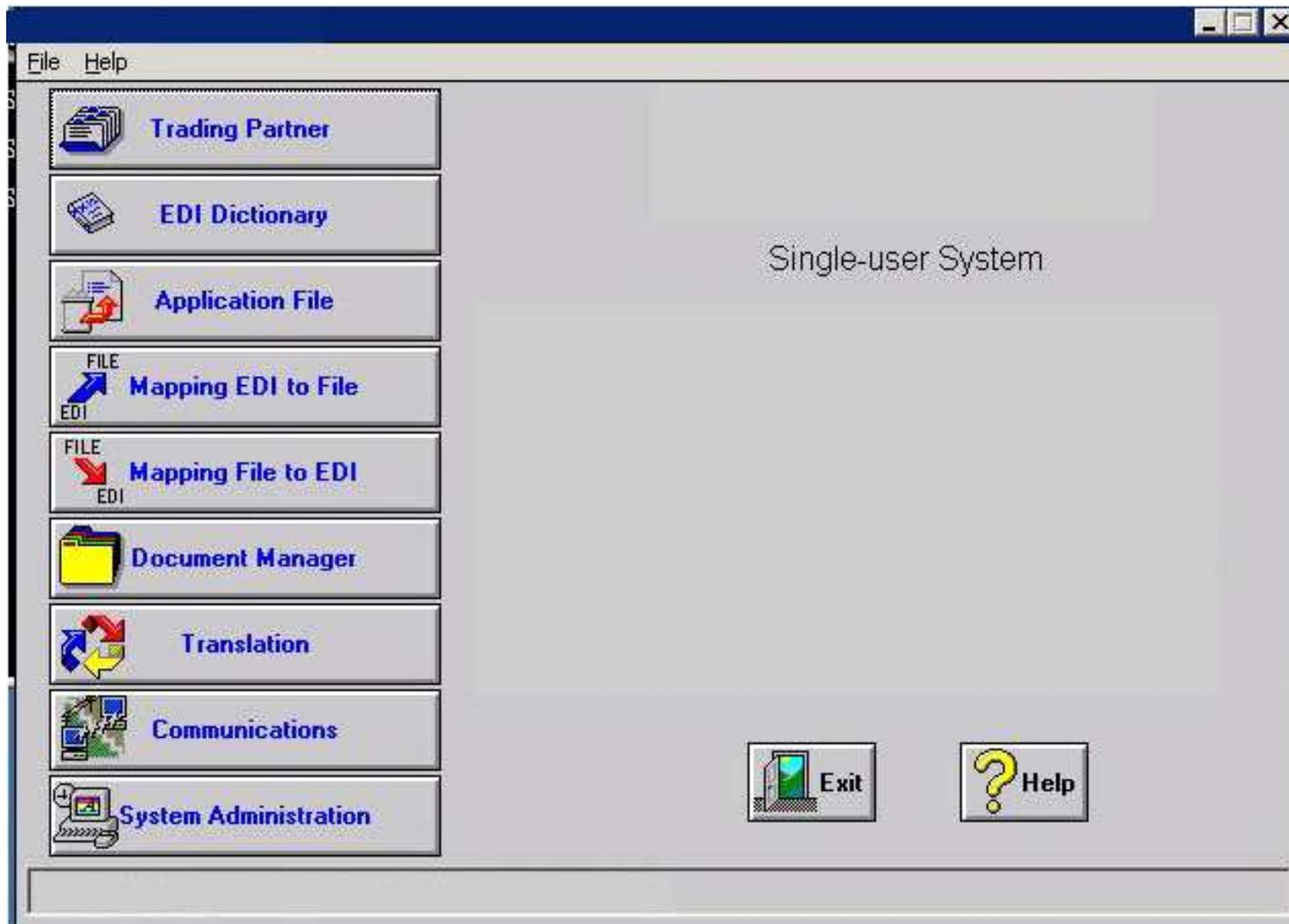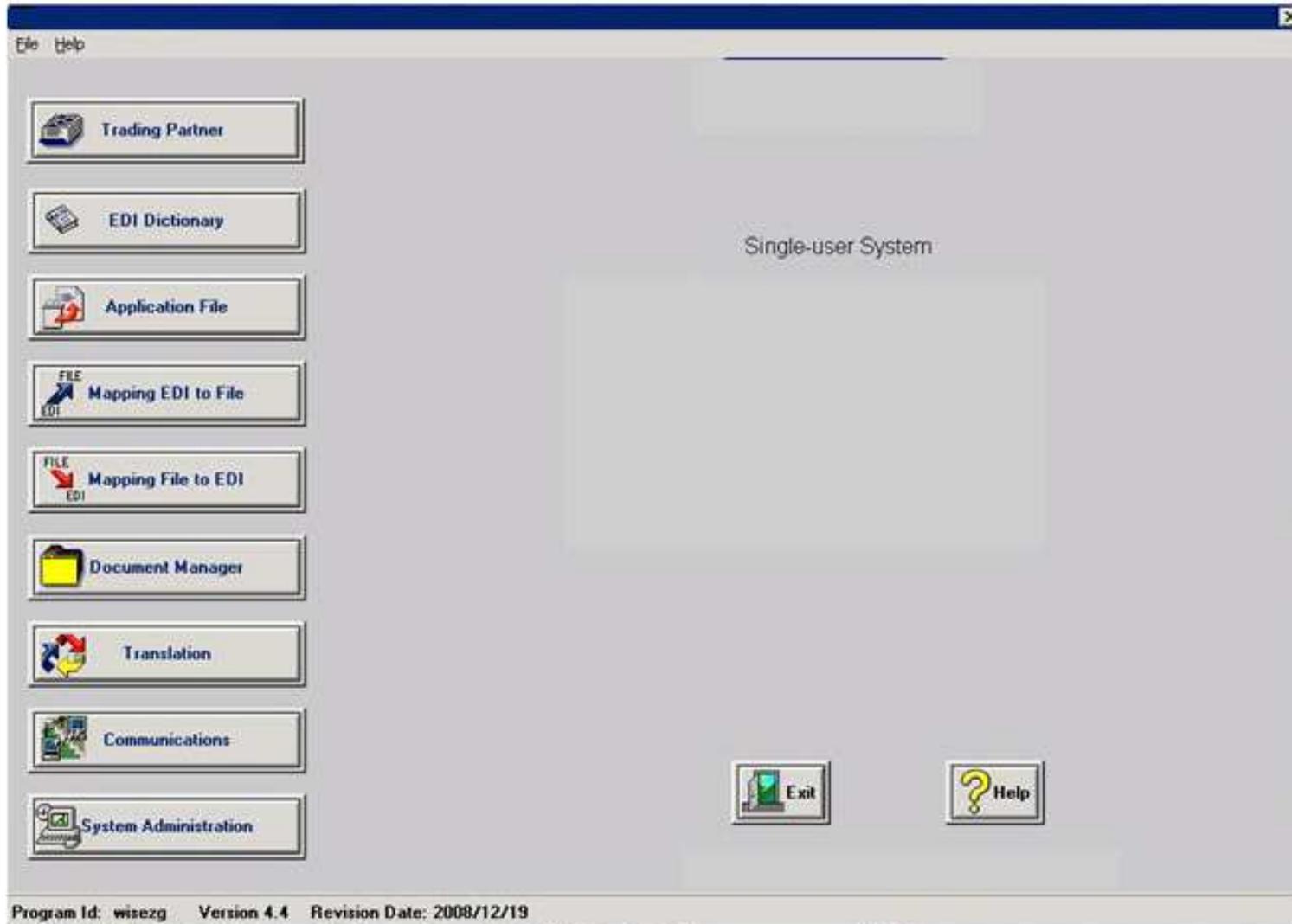
Migration methodology
The COBOL Group
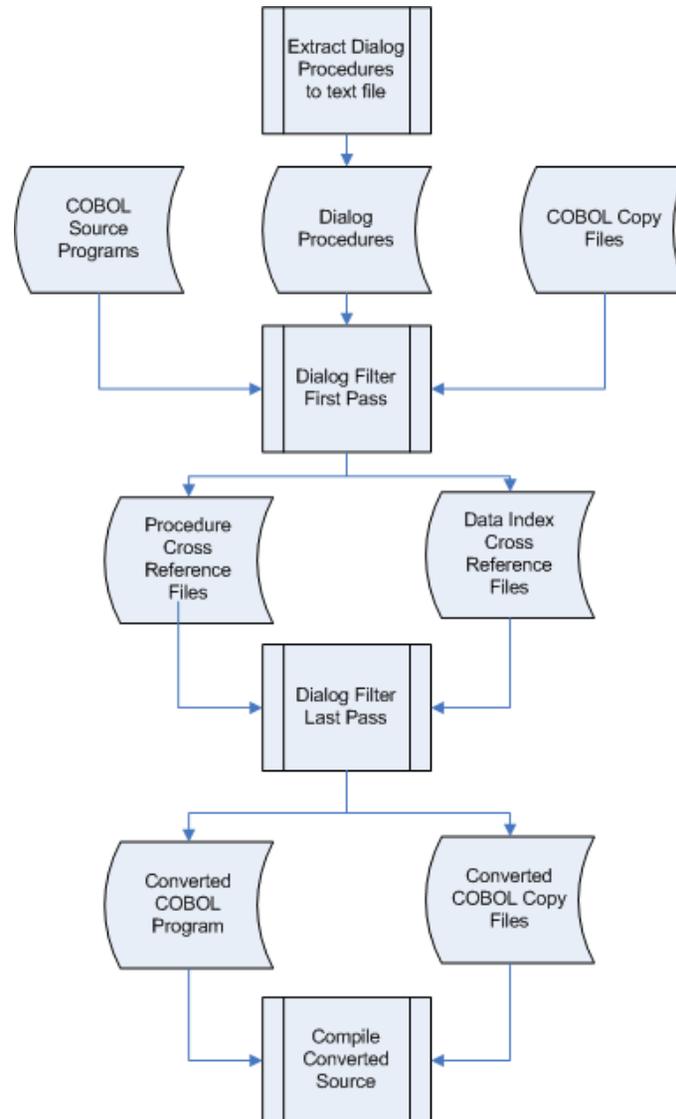
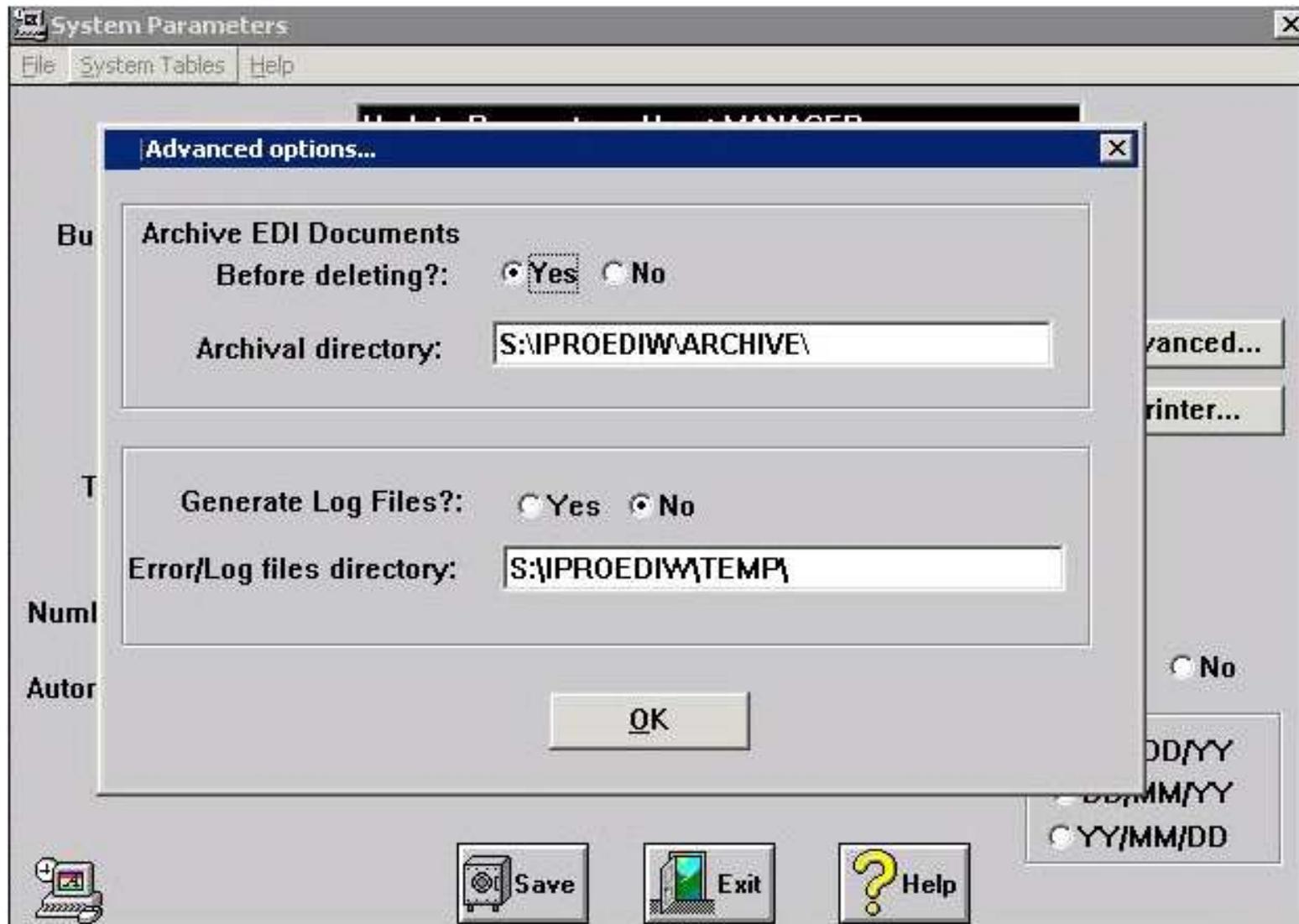# Dialog Application Screen
The COBOL Group

isCOBOL Application Screen
The COBOL Group

Dialog Application Screen
The COBOL Group

isCOBOL Application Screen
The COBOL Group

Interoperability

- Accessing COBOL data externally
  - isCOBOL ISAM ODBC
  - EXTFH
- Calling COBOL from C, Java, etc.
- Web interfaces
  - CGI, Servlets
- Web services/SOA
- COM, ActiveX, .NET

Transition resources

- isCOBOL Compiler
- isCOBOL IDE
  - Real-time syntax checking
- Environment
  - ISCONFIG
- Data
  - ISMIGRATE
  - JUTIL and ctutil
- Veryant expertise
  - Application survey form and follow-up discussion

Next steps?

- 1:1 technical briefing
- Technical survey
- Representative prototype
- Code analysis report
- Proof of concept

September 18-20th, 2009
John. S. Knight Center (Akron, Ohio)

www.cobolanniversary.com

Thank you for attending!

- Brief Webinar survey will following this session

- Additional information and questions can be directed to info@veryant.com

- Stay informed!
  - Visit http://www.veryant.com/signup.php to join the Veryant Community

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Thank You!

Rejuvenate COBOL Assets and Reduce Costs – Move to isCOBOL