Connect For SUCCESS

U.S. Department of Education
1998 Electronic Access Conferences

Technical Support of EDExpress for Windows

Objectives

- "Behind the Scenes" of EDExpress for

- Optimize Your System for EDExpress for

- Database Utilities
- Common Errors and Resolutions

"Behind the Scenes" of EDExpress for Windows

Type of Application and Database

■ **MS Access (2.0 or 97) with Visual C++ Graphic Interface**

– 16-bit EDExpress uses ODBC DLL (Open Database Connectivity/Dynamic Link Library) files to communicate with MS Access 2.0

32-bit EDExpress uses DAO DLL (Data Access Object/Dynamic Link Library) files to communicate with MS Access 97 database

Installation Options

■ **Stand Alone (32-bit)**

– Full - installs all files

– Custom - select file(s) you want to install

- Apps/Global (5.0)
- Packaging (5.0)
- Direct Loan (5.1)
- Pell (5.2)
- Database
- Help

Installation Options

- ## Network Server (32-bit)

  – Installs database on network

- ## Network Workstation (32-bit)

  – Full - installs all files except database

  Custom - select file(s) you want to install

  - Apps/Global (5.0)

  - Packaging (5.0)

  - Direct Loan (5.1)

  - Pell (5.2)

  - Help

Files Needed by EDExpress

- .mdb - contains all data

- .exe files - runs program

- .dll files - link program to OS or contain

- .hlp files - provides on-line help

- Other files - .ldb, .ocx, .gid, .cnt, .log, .reg, .fts, .ftg and .isu

- Data connectivity files (.dll) are installed in \windows\system or \winnt\system 32

Optimize Your System for EDExpress for Windows

Minimum Hardware and Software Requirements

- IBM compatible PC with at least a Pentium 200 MHz processor

- 64 MB RAM

- Microsoft Windows 95 or Windows NT 4.0

- Monitor capable of SVGA (800x600)

Minimum Hardware and Software Requirements

- Internet access

- Laser printer

- 12x CD ROM

- 4 GB SCSI hard drive

PC Configuration

- **16-bit EDExpress in Windows 3.x**
  - Windows setup - Control Panel|386 Enhanced|Virtual Memory
    - Use 32-bit disk/file access, if possible
      Permanent Swap file = 20MB
  - Optimize PC memory whenever new hardware or software is added
    - Memmaker
    - 3rd-party memory managers - QEMM, 386MAX,

PC Configuration

■ 16-bit EDExpress in Windows 3.x

– Make sure CONFIG.SYS file contains

- DEVICE=C:\DOS\HIMEM.SYS

- DEVICE=C:\DOS\EMM386.EXE NOEMS

- FILES=120

- BUFFERS=32

– Make sure AUTOEXEC.BAT file contains

- C:\DOS\SHARE.EXE /L:500 /F:5100

PC Configuration

- **16-bit EDExpress in Windows 95**
  - Make sure CONFIG.SYS file contains
    - DEVICE=C:\WINDOWS\HIMEM.SYS
    - DEVICE=C:\WINDOWS\EMM386.EXE NOEMS

  - Make sure AUTOEXEC.BAT file contains
    - SET TEMP=C:\WINDOWS\TEMP
    - SET TMP=C:\WINDOWS\TEMP

Network Configuration

■ Novell NetWare 3.x or higher

■ Make sure AUTOEXEC.NCF file on NetWare server console contains

- Set Maximum Record Locks Per Connection=10000
- Set Maximum Record Locks = 10000 x (# users)

– Make sure NET.CFG on all Windows 3.x workstations contains

- FILE HANDLES=120

Network Configuration

- **Windows NT Server 4.0**
  - Maximize throughput for file sharing
    - At the server control panel go to Start, Settings, Control Panel, Network, On Network screen choose the Services Tab, Double Click on the Server icon in the window labeled Network Services, choose Maximize throughput for file sharing

- **EDExpress is not supported in any other network environments**

PC Maintenance

- **Perform regular hard disk maintenance**
  - SCANDISK
  - DEFRAG

- **Delete ede* (i.e. ede1) and *.tmp files from \temp directory, *.chk from root directory and internet cache on a regular basis**

- **Run Virus Scan programs regularly**
  - Avoid scan programs which run continuously in the background

PC Maintenance

- Maintain adequate free hard drive space

- Use a surge protector

- Exit programs and shut down gracefully

- Backup, Backup, Backup

- Limit multitasking

Migrating to a new PC

- **Stand Alone Environment**
  - Full installation of most recent version of each EDE product for each cycle on the new PC

    Copy each .mdb from old PC to appropriate directory on new PC

- **Network Environment**
  - Network Workstation installation on each new

- **Copy files from the c:\iam\data on old PC to same directory on new PC**

Database Utilities

Repair Database

- Repairs a corrupted database

Repair Database

■ EDExpress may not detect corruption. If it behaves unpredictably (error messages, etc.), use Repair to attempt to fix database.

– Database errors

– System errors

Compact defragments and reindexes database, making it smaller and faster

Compact will succeed only if PC has enough free hard drive space for 2 copies of database

■ Always run Compact after Repair

Verify Database

- Checks for data relationship integrity
- Always run Repair Database and Compact Database prior to and after running Verify

- Run Repair, Compact and Verify Database

Utilities on a LAN

- Repair, Compact, and Verify will fail if another user is in EDExpress
  - Repair/Compact will not function or will complete too quickly (<5 seconds)
- Database utilities lock entire database
  - Locked database messages

Clear Files

■ Clears all data from a selected database

  – Accessed from Tools|Utilities|Clear Files or
    Tools|Utilities|Clear Locks

    Record Locks Database

      • Clear record locks for a single user

  – Other databases

Changing Database Location

■ EDExpress 5.x uses DAO (Data Access Object) drivers to communicate with

  – Database location stored in Registry rather

    Tool to change database location provided

    • Go to Help, System Information, select Files Information, click Registry button, enter new database location, exit and reopen to access new

Common Errors and Resolutions

Incorrect DLL Files

■ Manifested as

  – Call to Undefined Dynalink

  – Call to Invalid Dynamic Link

  Invalid Cursor State

  A device attached to the system is not

  Level 2 Compliant Driver Required

Incorrect DLL Files

- Caused by incorrect versions of a DLL file
- Resolved by replacing conflicting DLL with one required by EDExpress

Memory Errors

Memory Errors

■ Causes

– Improper memory configuration

– Improper memory access

  – An application or Windows wrote to memory that it does not "own," overwriting and corrupting EDExpress program code in the same area of

Memory Errors

- ## Resolutions
  - Refer to Optimize Your System for EDExpress

    - Minimum Hardware and Software Requirements

      Network Configuration

Database Corruption Errors

- Manifested as

  – Database error has occurred. No rows were affected by the update or delete operation [Tbl_x_xxxx] A Recordset:: Update () error

  Database C:\winexp9\express9.mdb (database location) needs to be repaired

Database Corruption Errors

■ Manifested as

– "|" isn't an index in this table … Microsoft Access Driver ODBC login failed.

Couldn't Open File "|" or File | is not a database file or is corrupt.

Database Corruption Errors

■ Causes of Database Corruption

  – Functions end abnormally

  – Novell record locks per connection being set

    Not enough hard drive space

    Vshare not loaded

    Hard disk requires preventive maintenance

Database Corruption Errors

■ Resolutions

– Refer to Optimize Your System for EDExpress

- Minimum Hardware and Software Requirements

  Network Configuration

Database Corruption Errors

■ Resolutions

– Refer to Database Utilities

- Repair Database

- Compact Database

- Verify Database

Installation Errors

■ Manifested as

– Data Transfer Error Information - Component
Error returned the following data transfer error
Setup will now abort.

- Media Name: data

- Component: Express

- File Group: Express

- File: Express9.exe

- Error Number: -106 or -115

Installation Errors

■ Causes

- Bad installation diskette
- System conflict during install
- Rights issue

■ Resolutions

- Run Scandisk on disk giving error

  Copy disks to c:\ and install from there

  Check user rights in target directory

System Information

■ System information provides hardware and software information useful for resolving

– software versions, system resources, memory, CPU speed, program and database directories, swap file size, memory, list of DLL and DRV files loaded while program is running, system.ini, win.ini, autoexec.bat, config.sys, odbc.ini

Final Thoughts

Production Schedule

- Schedule activities to avoid locking problems and database corruption

  Receive/Import early in the day

  Do update functions during the day

  Export/Send data late in the day

- Attend Session 17, EDExpress from a School's Perspective and Session 10, Managing your Data Production System

Backup Your Database

- Best preventative measure of all is to backup your database every day

- Regular backups ensure protection of your critical data and reduce recovery time after

EDconnect Interface

- 16-bit EDExpress (ver. 4.x) will only update transmission queue of 16-bit EDconnect

- 32-bit EDExpress (ver. 5.x and up) will only update transmission queue of 32-bit EDconnect (ver. 4.x and up)

Questions?