



i n v e n t

cobol migration tutorial

Alvina Nishimoto

emulate or migrate?

- how to manage the file system
- library of software to translate turboimage to oracle?
- message files - named pipes?
- go direct or use a layer of software



recompile or translate?

- stay in the language you're in on the 3000?
- or translate to another language?
- what to do about
 - vplus,
 - image
 - mpe intrinsics



cobol program

- want to get off of cobol?
- good tools to convert cobol to c
- pitfalls:
 - manual rework
 - makes it easy to introduce bugs



do one thing at a time

- separate the issues
- don't do new platform at the same time you change languages



recompile or translate

- recompile
 - picking the right compiler
 - picking the right migration tool
- translate
 - modern languages (java; legacyj)
 - move gradually



sticking with cobol?

- language that your current staff is familiar with
 - take what you have and move it
 - then migrate to another language
- if you don't have a staff of programmers
 - how will you support and grow your applications?



maintaining the translated code

- pro's and cons to both approaches
- translating
- recompiling
- “you're not done when you finish recompiling



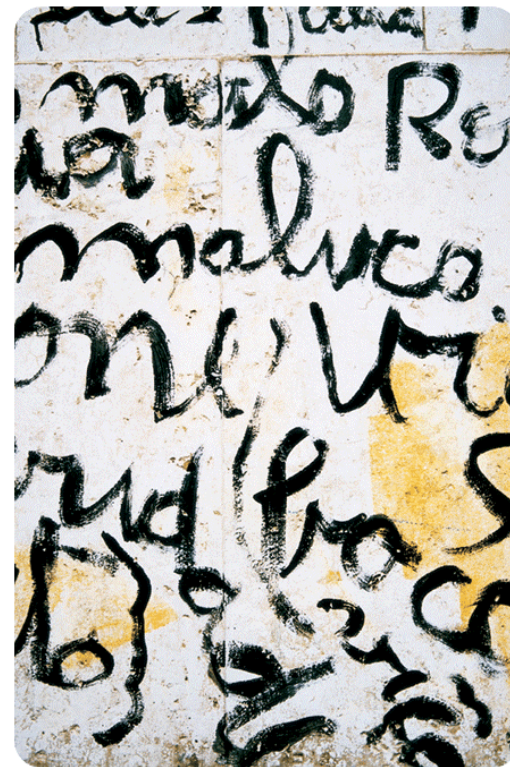
must decide how you're going to handle your subsystems

- if your programmers have written highly modular code, the migration will be easy
 - all the statements that must be modified will be in a single module
 - not typical



the more typical case

- most programs laced with calls to vplus, turboimage and other proprietary mpe intrinsics
- migrating this kind of code is much more difficult
- may need to consider emulation as an alternative



to emulate, or not to emulate

- often determined by
 - quality of staff
 - amount of code to migrate
 - emulators are available
 - retraining concerns



factors that make code difficult to migrate

- turboimage calls
- vplus calls
- other mpe intrinsics
- system variables
- access to udcs
- file system



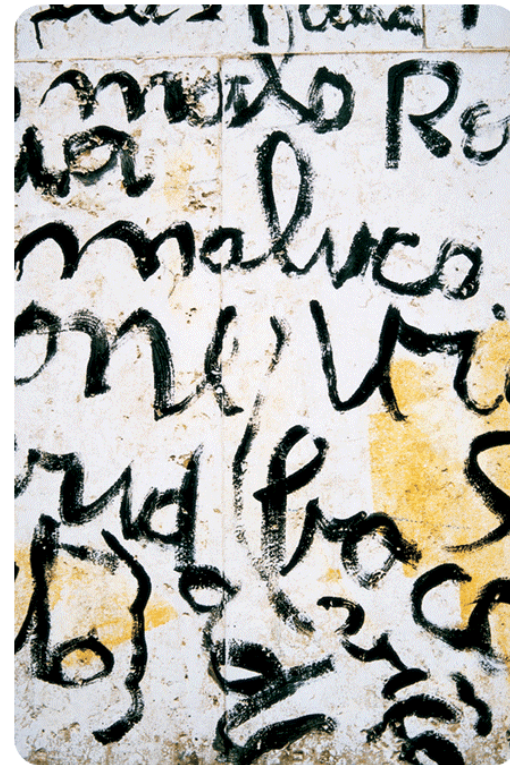
cobol - syntax

- Reserved Words
- Copy libs
- \$INCLUDE
- Macro expansion



reserved words

- example
 - using “window” as a data item name works with hp cobol
 - acucobol uses “window” as a reserved word
- with compile options you can turn off this reserved word, allowing you to leave the item name



cobol - externals

- Passing of parm and info in run command\
command\
command\
- Entry points
- CIERROR
- Job/session environment
(e.g. Temp files)



cobol - file systems

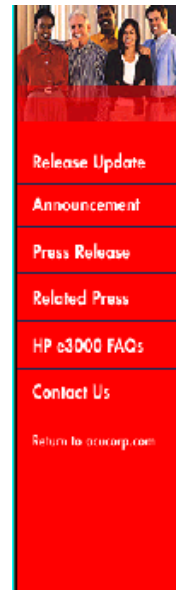
- File naming
(FILE.GROUP.ACCT)
- MPE file types
- Record structure
- Sharing file IDs (FDs as
Intrinsic parameters)
- Sort files
- KSAM files
- FILE equations.
- Temporary files



Acucorp

Support for HP COBOL Syntax

- Most HP COBOL syntax and extensions are supported on all ACUCOBOL-GT platforms.
- Most of the HP COBOL preprocessor and macros are supported on all ACUCOBOL-GT platforms.
- Target platforms include hp-ux, Linux, Windows, etc.
- More information at <http://www.acucorp.com/hp/main.html>



The new face of COBOL™
ACUCORP™

Acucorp Continues to Support HP e3000 Users

business partner



With the Hewlett-Packard Company's announcement of its five-year transition plan for HP e3000 users, enabling them to transition to other HP open standard server platforms, Acucorp has reaffirmed its commitment to the company and its platform. As evidence, Acucorp, a member of HP's Developer & Solution Partner program, is contributing to [HP's e3000](#)

AD technologies

- Migration from cobol to cobol
- migration from spl to c
- migration from fortran to c
- migration from image to sql
- target platforms include hp-ux, unix, Linux, NT
- <http://www.adtech.com>



TransPort Can Port HP e3000 COBOL A

TransPort will very soon be able to Port your MPE COBOL II applicati
AcuCOBOL or MicroFocus COBOL.

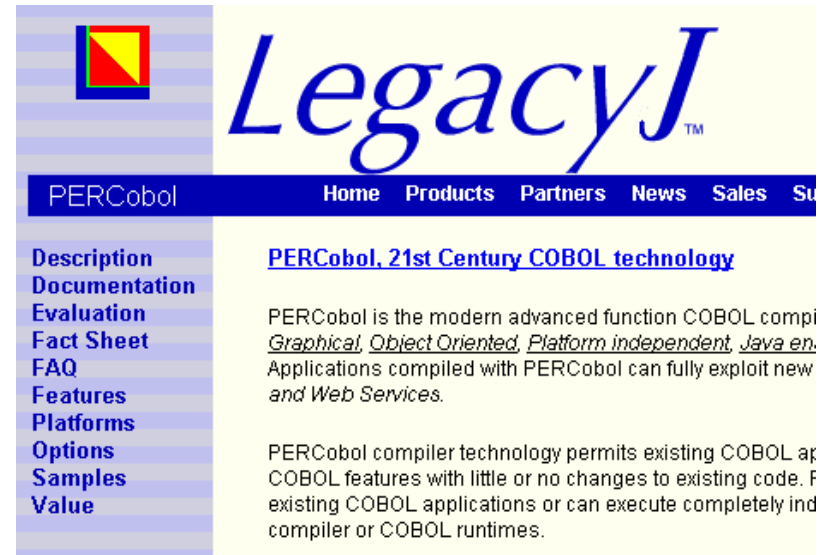
This means that our HP e3000 customers can now take advantage of o
e3000 applications onto other platforms. For example; TransPort will
HP-UX or Microsoft Windows or any platform of your choice.

Look forward to full support in February 2002.

If you have any questions concerning the project, please contact us at [i](mailto:info@adtech.com)

LegacyJ

- PERCobol is the modern advanced function COBOL compiler
- PERCobol 3.0 and ViewJ 3.0 now available.
- PERCobol contains a new IDE, MPE/iX migration and COBOL 2002 features.
- ViewJ provide platform independent HP e3000 VPlus screen execution
- <http://www.legacyj.com>



The screenshot shows the LegacyJ website interface. At the top left is a logo consisting of a square divided into four quadrants of different colors (red, yellow, blue, green). To the right of the logo is the text "LegacyJ" in a large, blue, serif font. Below the logo and text is a dark blue navigation bar with white text for "PERCobol", "Home", "Products", "Partners", "News", "Sales", and "Support". On the left side of the page is a vertical menu with blue text links: "Description", "Documentation", "Evaluation", "Fact Sheet", "FAQ", "Features", "Platforms", "Options", "Samples", and "Value". The main content area has a yellow background. It features a blue link for "PERCobol, 21st Century COBOL technology". Below this link is a paragraph of text: "PERCobol is the modern advanced function COBOL compiler. *Graphical, Object Oriented, Platform independent, Java enabled.* Applications compiled with PERCobol can fully exploit new and Web Services." A second paragraph follows: "PERCobol compiler technology permits existing COBOL applications to be compiled with little or no changes to existing code. Existing COBOL applications can execute completely independent of PERCobol compiler or COBOL runtimes."

Image - conversion

- Data Structure Changes
- Data Type Changes
- Variable Name Changes
- Image Access Changes
- Data Migration



application

hp e3000

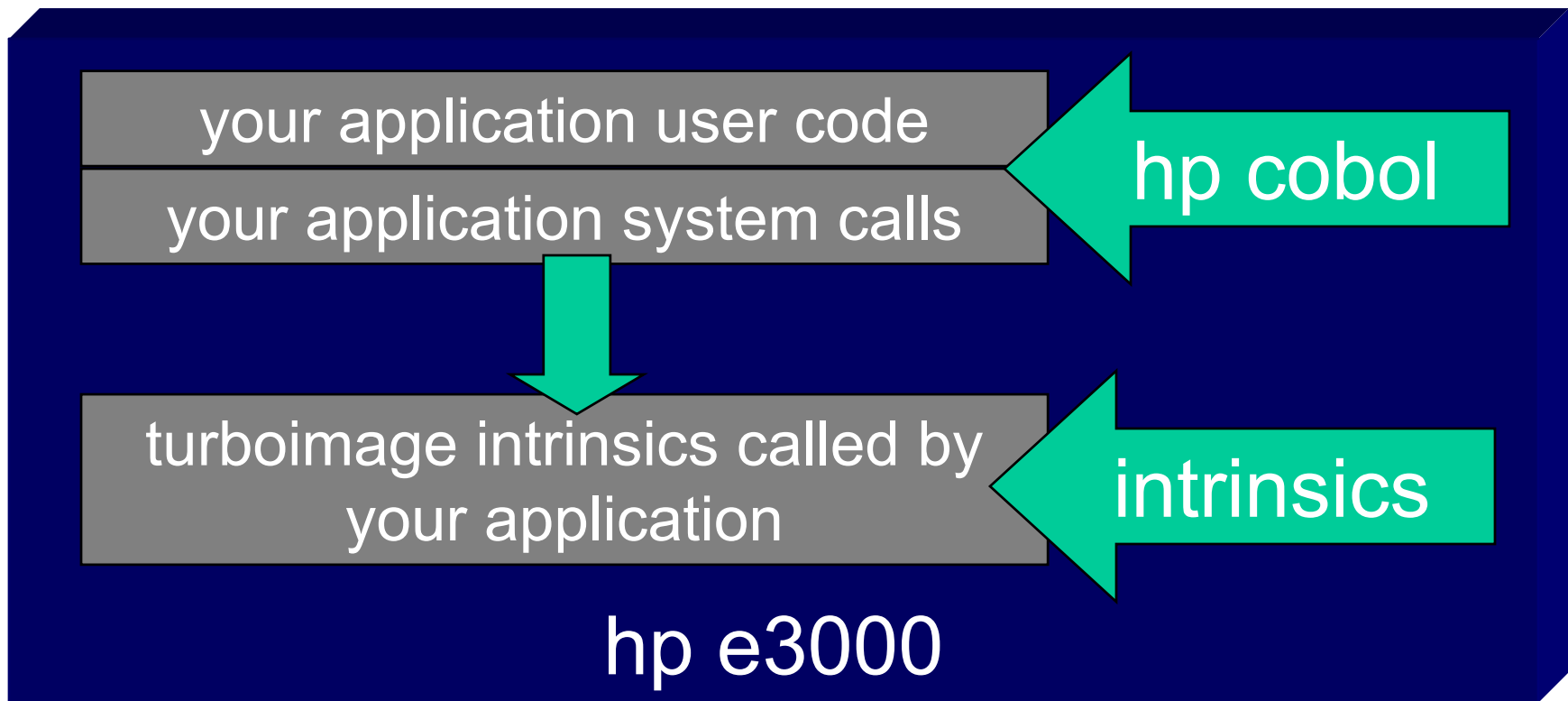
your application user code

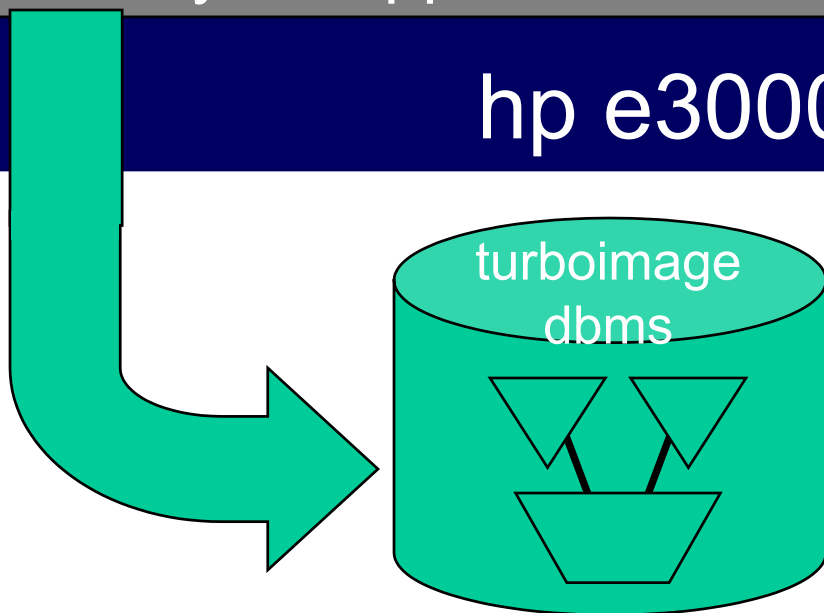
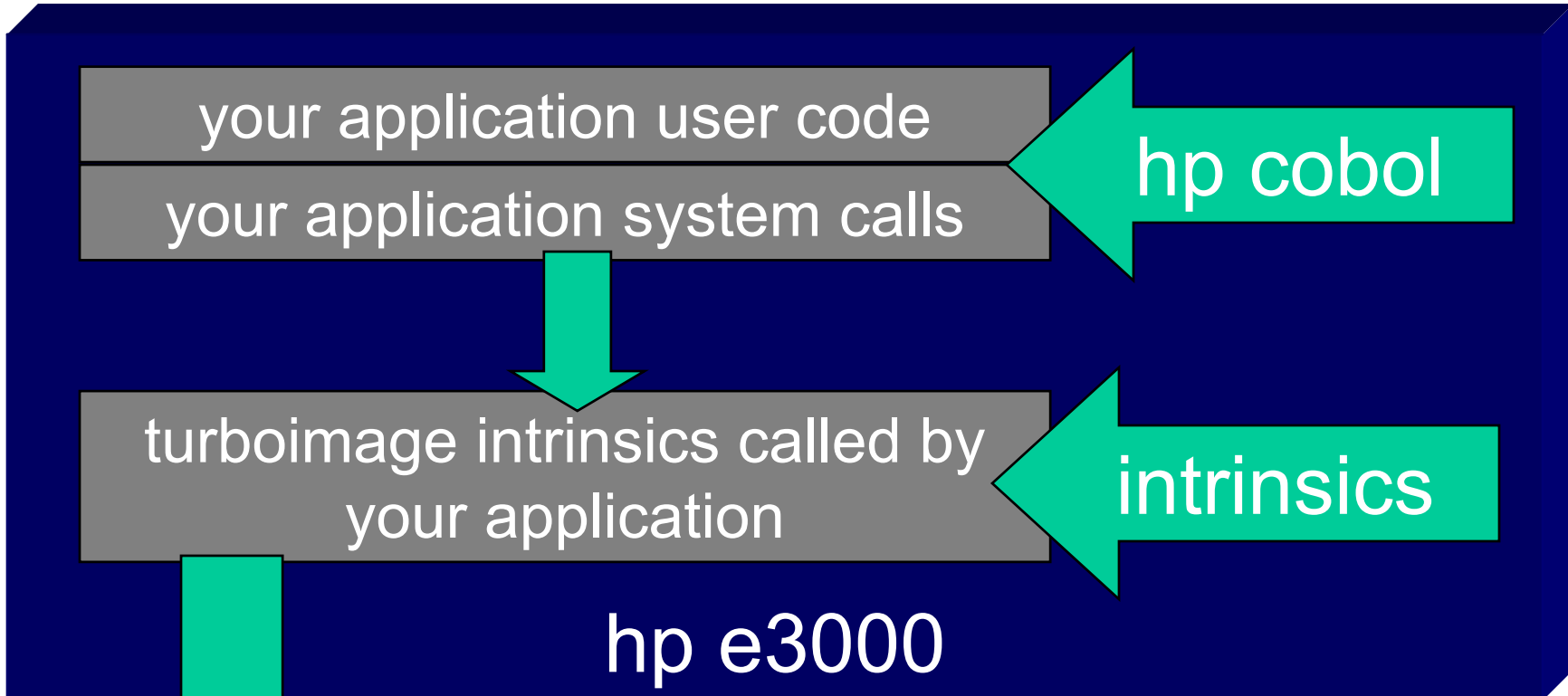
your application system calls



system code called by your application

hp e3000



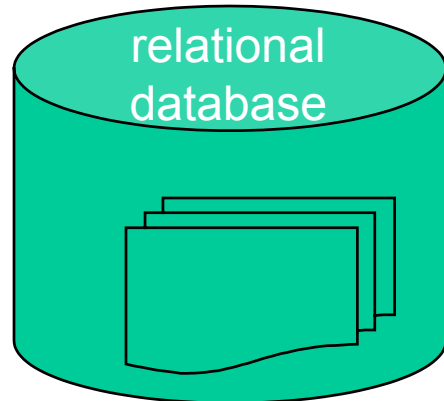
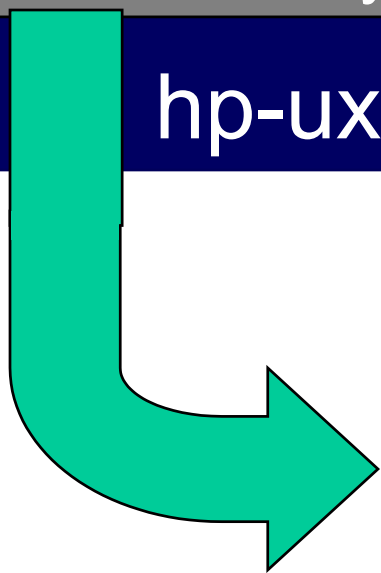
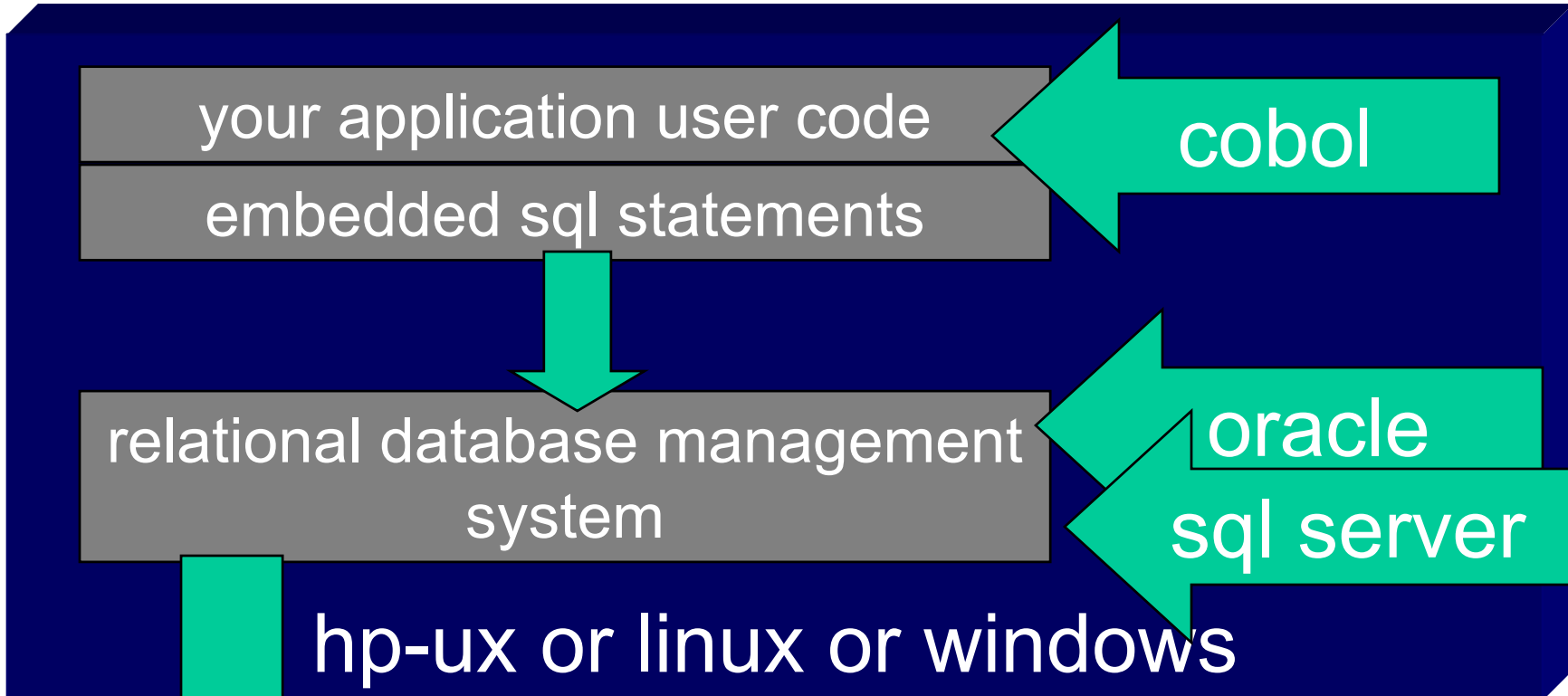


your application user code
embedded sql statements

cobol

hp-ux or linux or windows

*redesign
option*



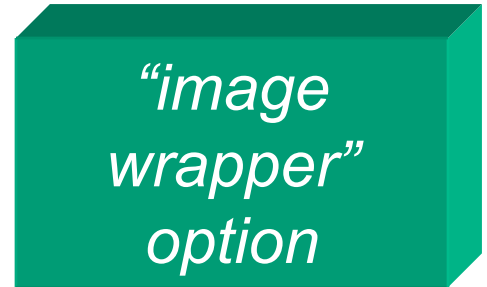
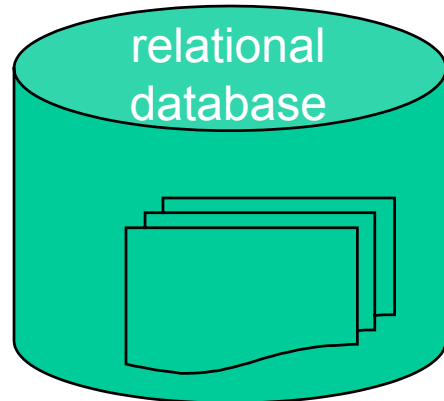
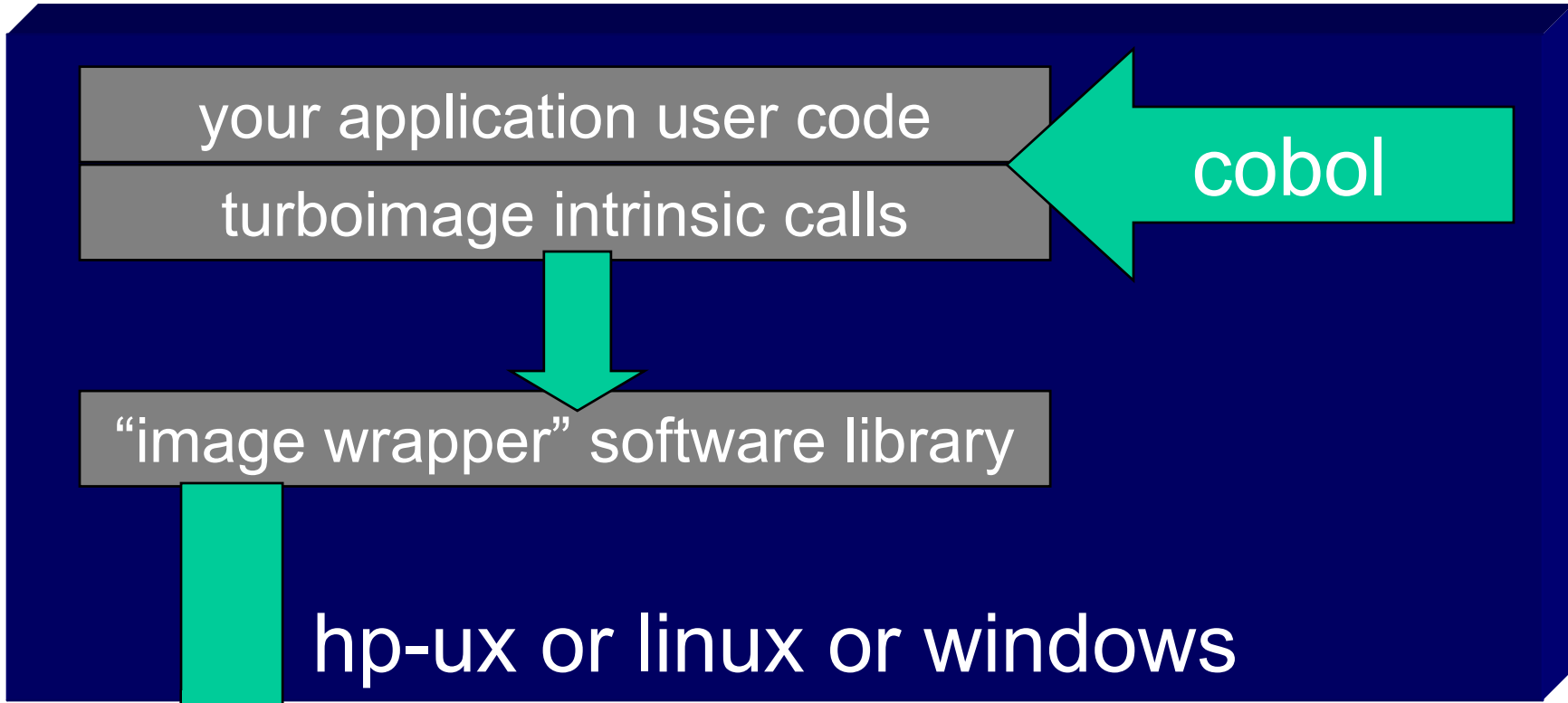
your application user code

turboimage intrinsic calls

cobol

hp-ux or linux or windows

*“image
wrapper”
option*



your application user code
turboimage intrinsic calls

cobol

hp-ux or linux or windows

*“image
lookalike”
option*

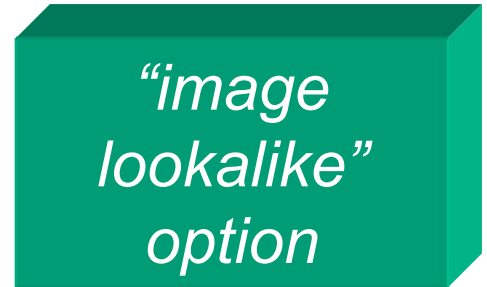
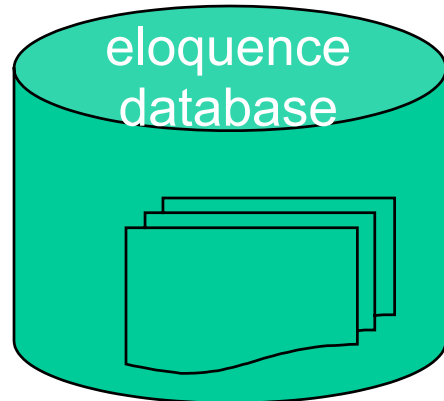
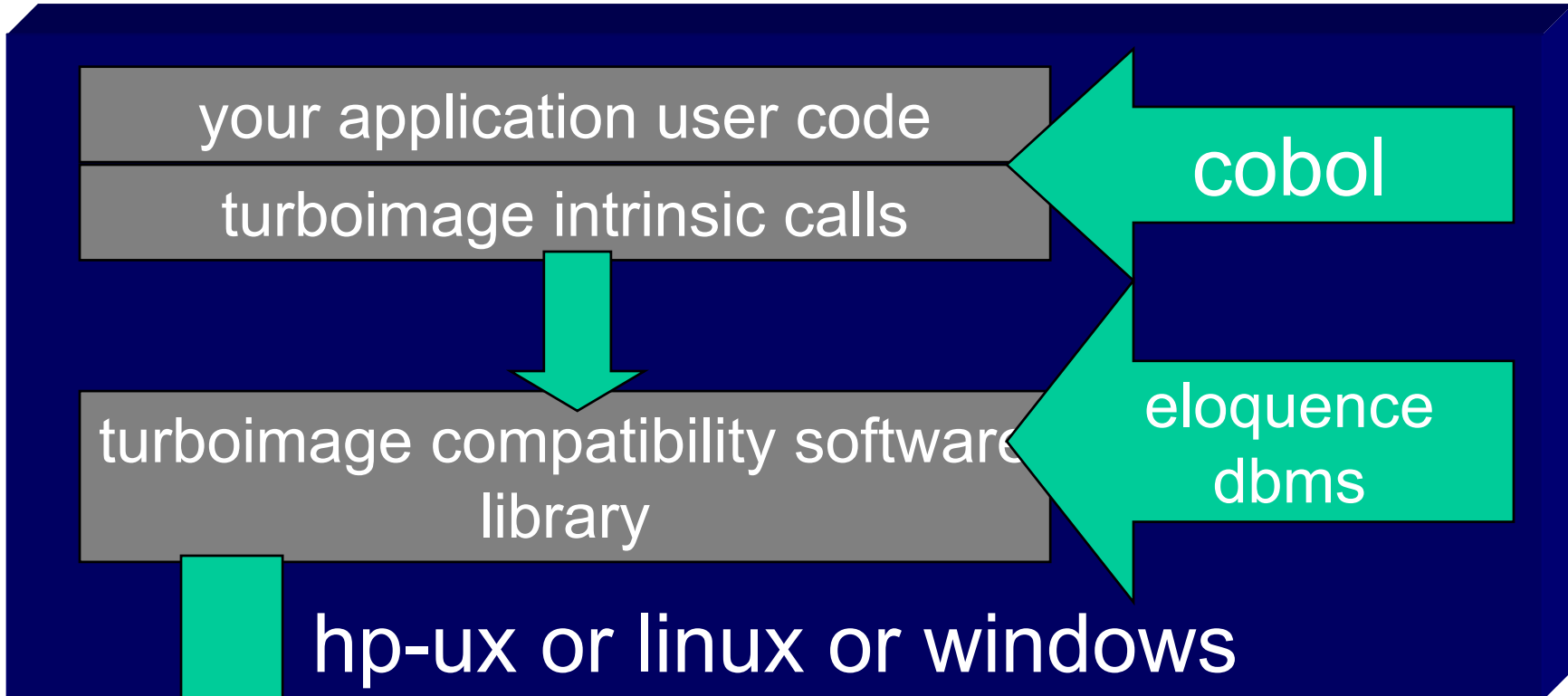


image - api access

- Support of all Image Intrinsic including DBGET & DBFIND modes
- Converting between Image and Relational data types and names
- Image locking
- “SQL Pass thru”



eloquence

- what's interesting about eloquence
 - compatibility with turboimage
 - cost effective
 - available on multiple platforms
 - a proven option, available now



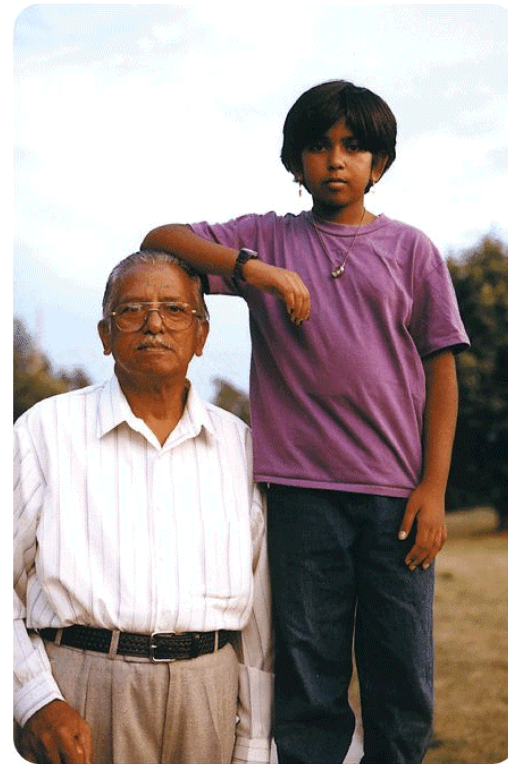
components of eloquence

- hp eloquence programming language (based on hp business basic)
- hp eloquence database (based on image)
- graphical user interface
- development environment



eloquence overview

- ~2,000 sites worldwide
- 60 vars/isvs
- from a single-user laptop to server-based
- several hundred concurrent users
- terminal based or distributed gui env.



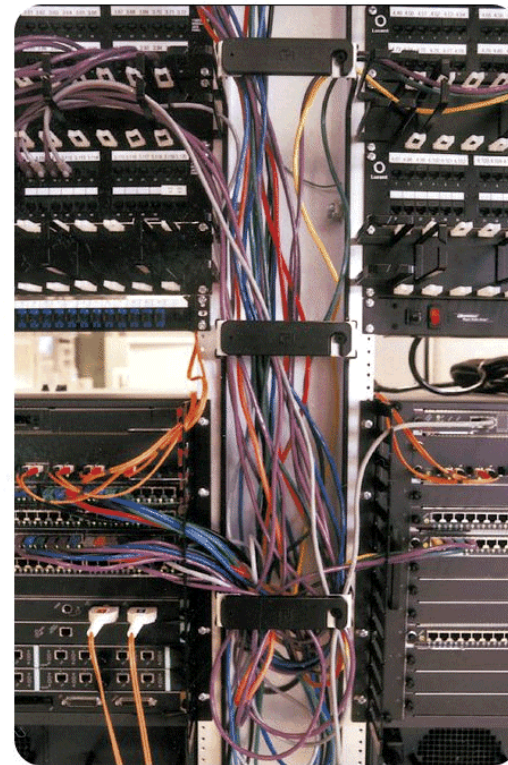
product overview

- eloquence was first released in 1990 as a migration solution to move hp250/hp260 applications to hp-ux
- since then eloquence has gone through continuous development



release a.07

- scheduled for q3 2003
 - order from an eloquence partner or through the web
 - unlimited license
 - user-based entry license
 - option3k for ti compatibility
- download via the web
 - cd-rom media option



product evaluation

- an evaluation version is available for download from the hp eloquence web site
 - the “personal edition” provides a free two user license with a database up to 50 mb
 - a temporary license provides an unlimited version of hp eloquence for evaluation purposes



the database

- based on turboimage
 - uses indexing, not hashing
 - integrated indexing options
 - most things are dynamic
 - new security subsystem - extension of image password security
 - additional locking options
 - client/server environment
 - multiple platforms
 - online backup & odbc
- turboimage compatible



performance

- performance is better than mainstream databases
 - built to do image very well
 - optimized for image operations
- when does eloquence make sense?
 - intended for low-medium size sites
 - 300+ users
 - can handle 400 users
 - >500 users should look at mainstream db.



scalability

- 400-500 users max
 - no dba team
- a transitional tool?
 - eloquence certainly can be used as a stepping stone towards a mainstream db
 - if you have policy/staffing/knowledge in place for mainstream db



client/server model

- application linked with client library
- database is accessed by server component
- connected by network (or shared memory)
- calls in client code submitted to server



turboimage compatibility

- small wrapper implements image api
- turboimage compatibility api
 - other api's: management, catalog lookup
- all turboimage intrinsics and almost all modes are supported and behave identical



where is the data kept?

- data stored in volume files
 - not in the file system
 - maintained by the servers
 - containers of disk space
 - no root files
 - all db structure info is kept in a db - the catalog
 - replaces root files



scalability

- limits exceed or match turboimage
- a.07.00 limits of eloquence
 - 2048 data items
 - 500 data sets
 - 64 / 16 paths
 - entry length 5120 bytes
 - db size 500 gb / 32 tb
 - no more than 500 users suggested



utilities

- dbvolcreate
- dbvolextend
- dbvolchange
- dblogreset
 - data base volume management
- dbfsck
 - database volume consistency check and simple repair tool
- dbctl
 - server management utility
- http status monitor
- dbrecover
- dbutil: security and structural maintenance
- schema: same as ti - accepts ti schema files
- dbtables: cross ref
- prschema: recreate schema from db...
(more)



more utilities

- dbdumpcat
- dbexport
- dbimport
- export/import data base content to/from flat file
- query utility
- different from hp's query program



compatibility

- all turboimage intrinsics and almost all modes are supported and behave identically
- hp e3000 applications can usually be ported with no or only minor changes
- currently not supported:
 - btree indexing (“super-chains”)
 - dbctl modes for btree maintenance
 - item level security



locking

- locking is optional
- additional dblock and dbunlock modes are available
- transaction isolation does not expose uncommitted changes to concurrent sessions
- transactions cover all databases



hashing & transactions

- eloquence uses indexing instead of hashing
 - hashing causes migrating secondaries
 - indexes require more disk accesses, but with caching, this doesn't represent a limitation
 - indexes are more flexible, with no performance penalty
- transactions
 - different from ti
 - don't expose uncommitted changes to concurrent sessions



compatibility

- compatibility goes beyond the intrinsics
 - compatible performance profile
 - utility programs make it easy to apply existing knowledge



CSL

- Linkway® BridgeMaster is the 'MPE to Anywhere Tool'. It allows an HPe3000 program access to any external data source as though it were resident on the HPe3000.
- read data directly from DB2, Oracle, Informix, Sybase, MS SQLServer, MS Access etc.
- write data directly to DB2, Oracle, Informix, Sybase, MS SQLServer, MS Access etc.

Press to Enter

Welcome to the home of LINKWAY® The world's best e-Connectivity for the HPe3000!

CSL
COMPUTING
SOLUTIONS
LIMITED

HPe3000

Computing Solutions Limited,
10 St. Andrews Road,
Droitwich Spa,
Worcestershire,
United Kingdom WR9 8DN

Telephone: +44 (0) 1905 794 400
FAX: +44 (0) 1905 794 464
Email: Electronic mail
Support: support@cslink.com
Sales: sales@cslink.com

End of

Announcement of the century!! by a3000 discontinued. Supported till 2006.

CSL are experts in HPe3000. The **only** HP Select Partner for e-Services in the UK, CSL have worked exclusively in the HPe3000 market for 24 years and offer the world's leading interoperability products to enhance the performance of your HPe3000 Enterprise Server.

CSL is a focal point for HPe3000 expertise. With over 200 man years of HPe3000 experience, the multi-faceted CSL operation can offer you world class solutions that meet the challenges of the new millennium. Partnering with you and with Hewlett-Packard is a serious business. Quality is a watchword at CSL where delivery meets expectation whatever the challenge, where efficiency and courtesy compliment professionalism and diligence and where customer satisfaction is our greatest satisfaction.

No organisation survives without providing real value to its customers and 24 years success is testimony to the quality that CSL brings to the HPe3000 marketplace.

Send mail to webmaster@cslink.com with questions or comments about this web site.
Copyright © 1997 Computing Solutions Limited. Last modified: November 14, 2001.

ICRA W3C HTML 4.01

Internet

IMAXSOFT (LeeTech)

- OpenTURBO transforms MPE-TURBO applications into N-tier UNIX-ORACLE and Window NT-SQL SERVER platforms either without any or with very minimum code change
- OpenTURBO utilities convert TurboIMAGE data and its internal structure to Oracle or SQL Server
- OpenTURBO enables your MPE TURBO applications to run concurrently on HP/3000 and HP/9000

iMaxsoft

vplus

- Migrating the Screen
- Migrating the Processing Specs
- STDLIST
- Maintenance

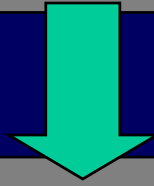


application

hp e3000

your application user code

your application system calls

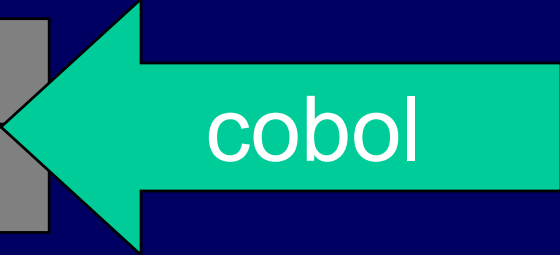


system code called by your application

hp e3000

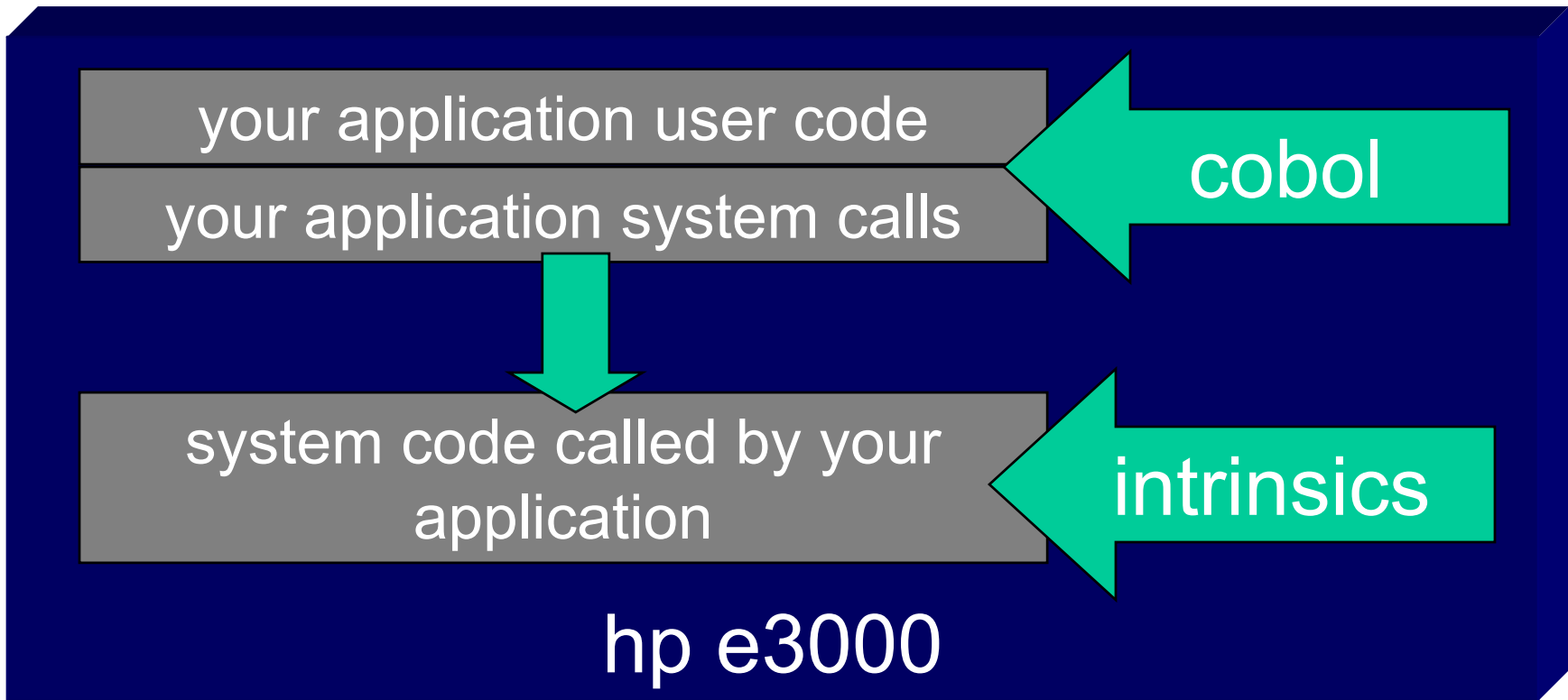
your application user code

your application system calls



system code called by your application

hp e3000



your application user code
your application system calls

system code called by your application

hp e3000

any desktop device

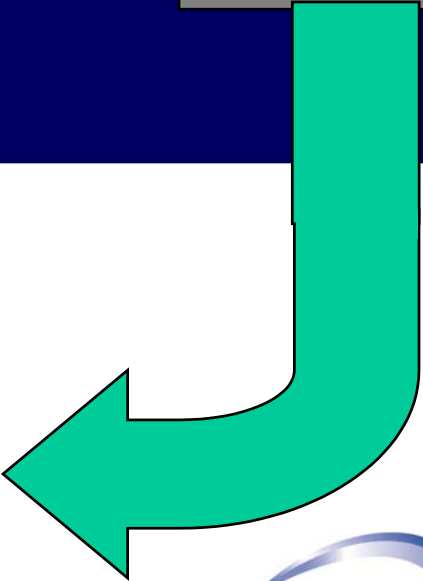
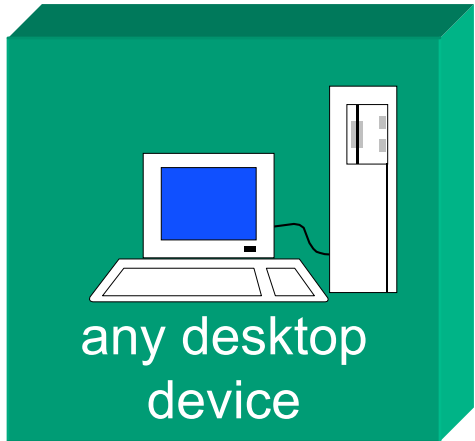
your application user code
your application system calls

Device
independent

system code called by your
application

hp e3000

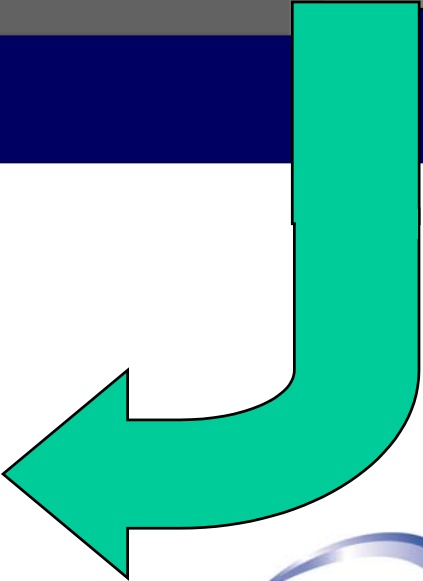
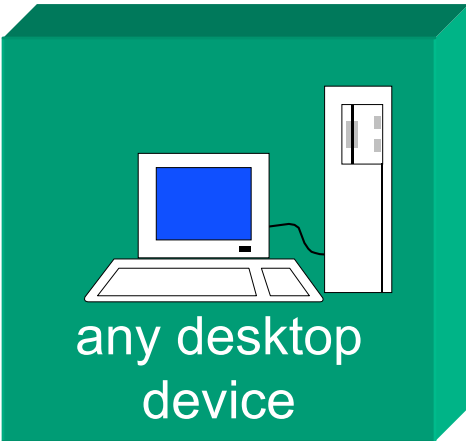
any desktop
device



Accept...
display...

IX

hp e3000

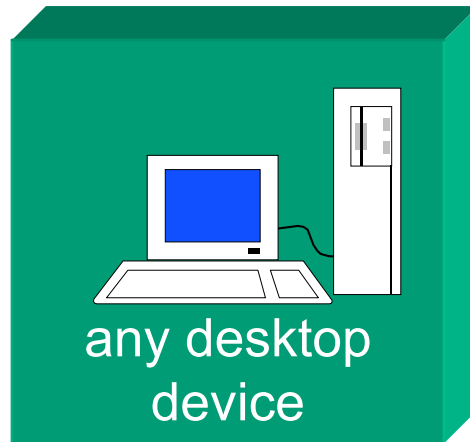


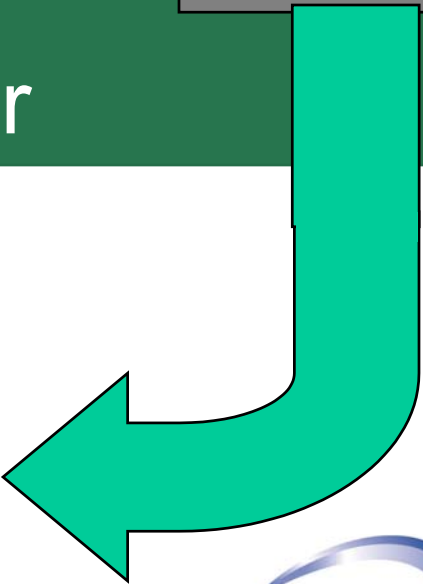
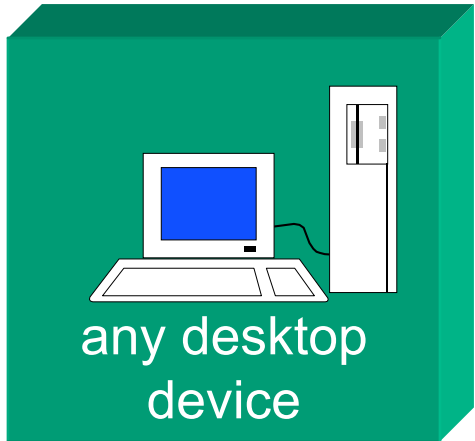
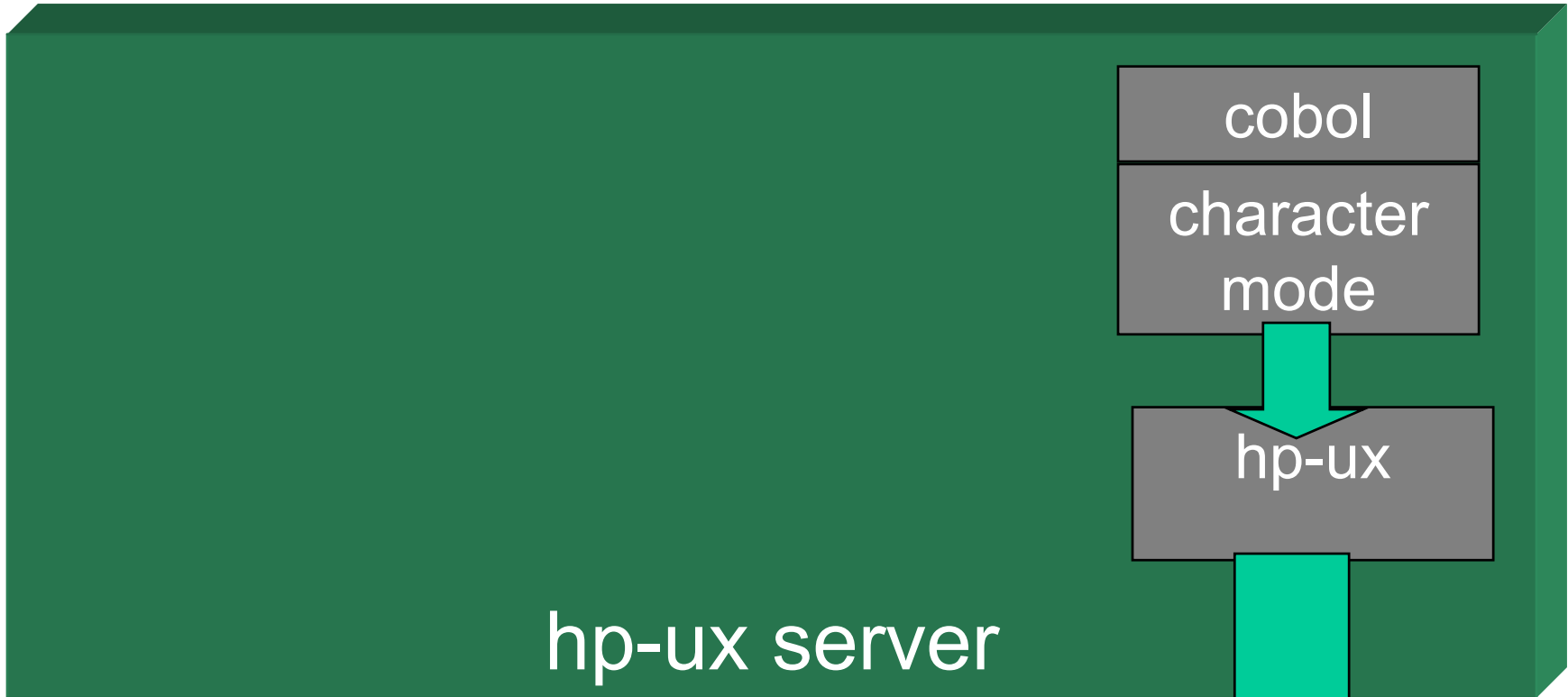
Industry standard
cobol syntax

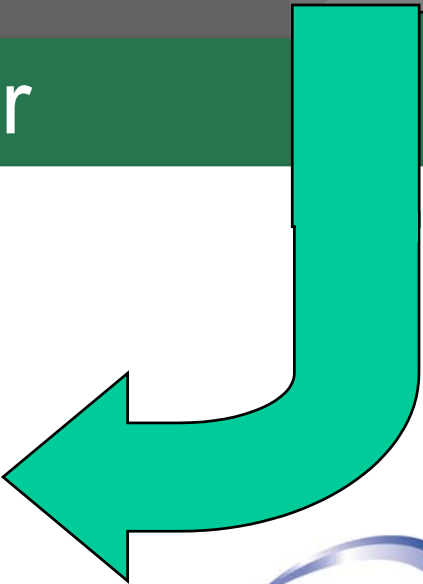
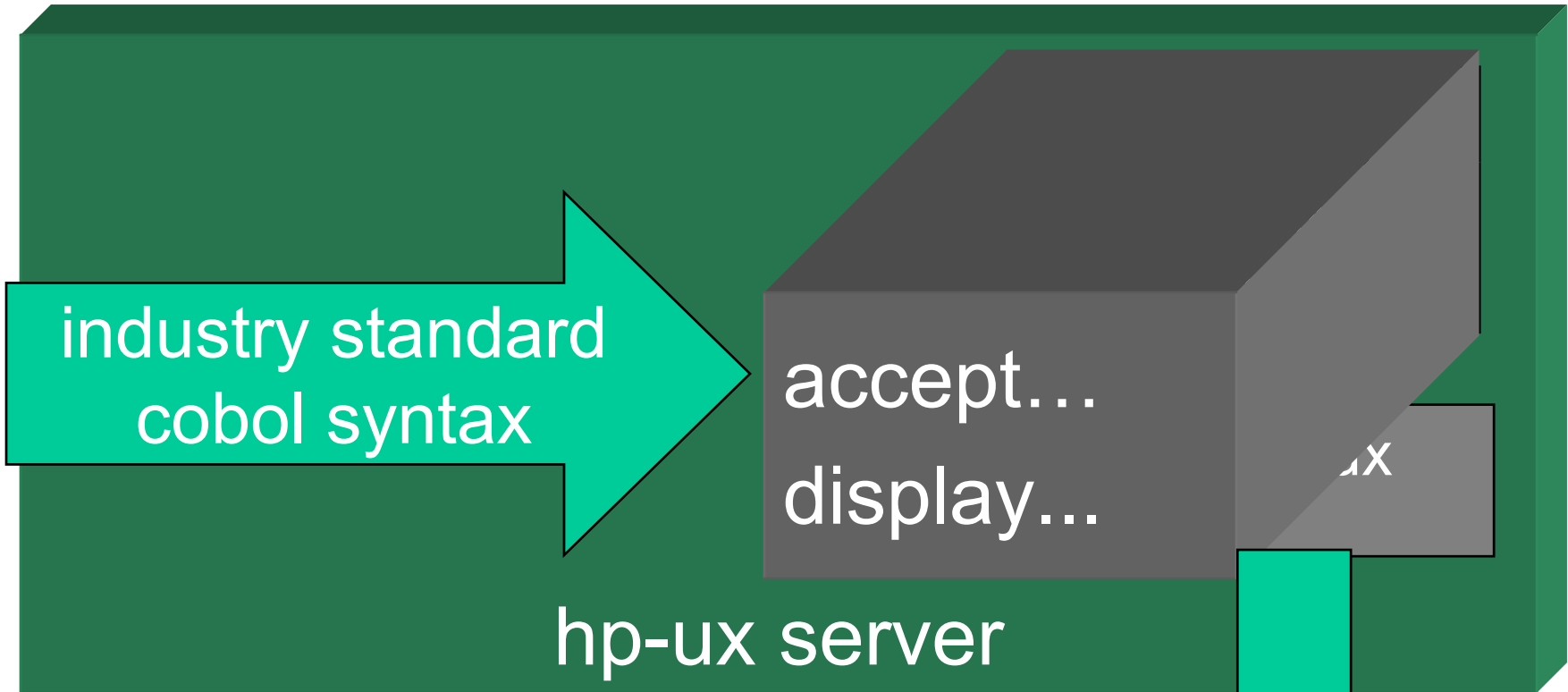
Accept...
display...

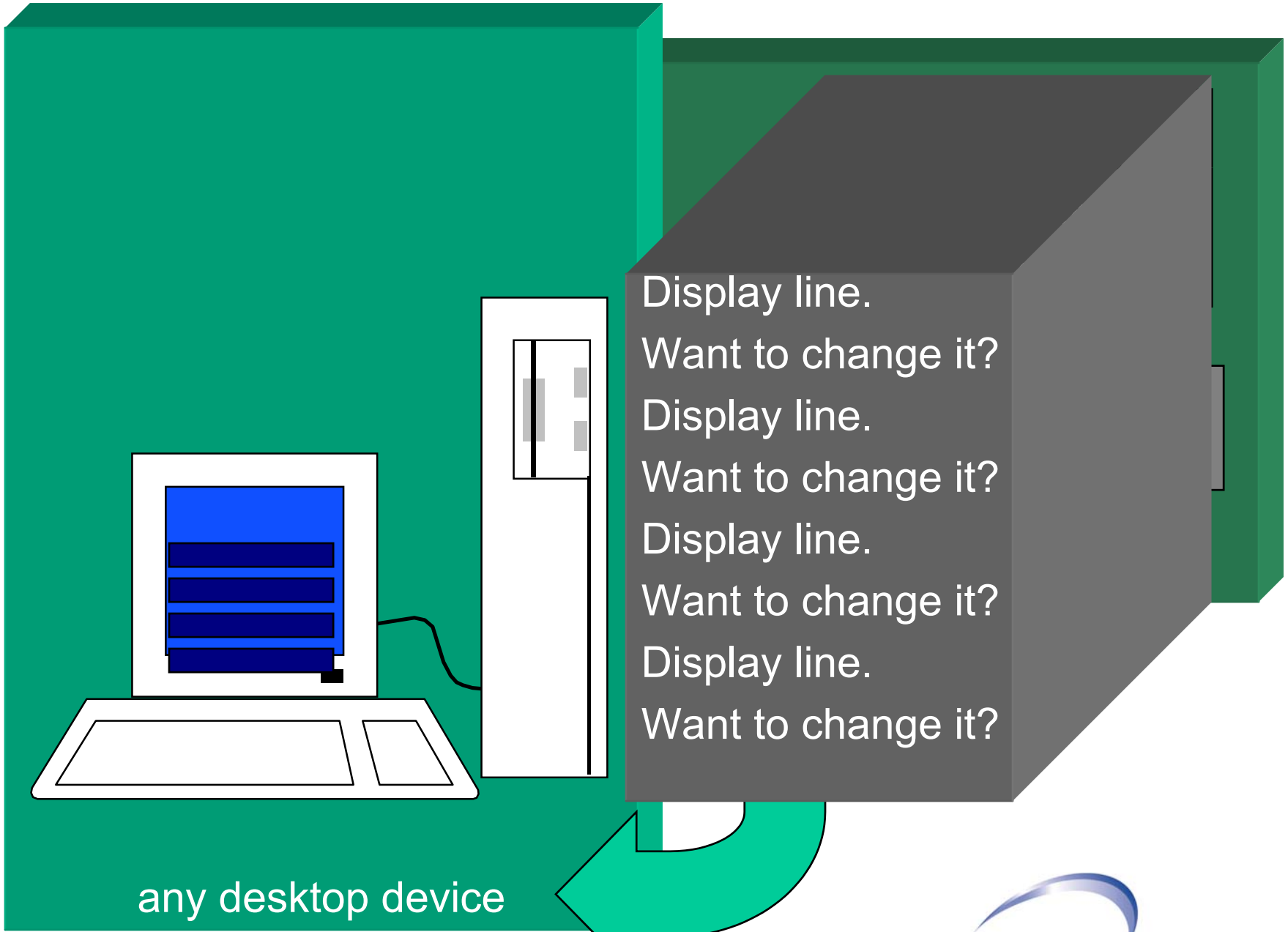
IX

hp e3000



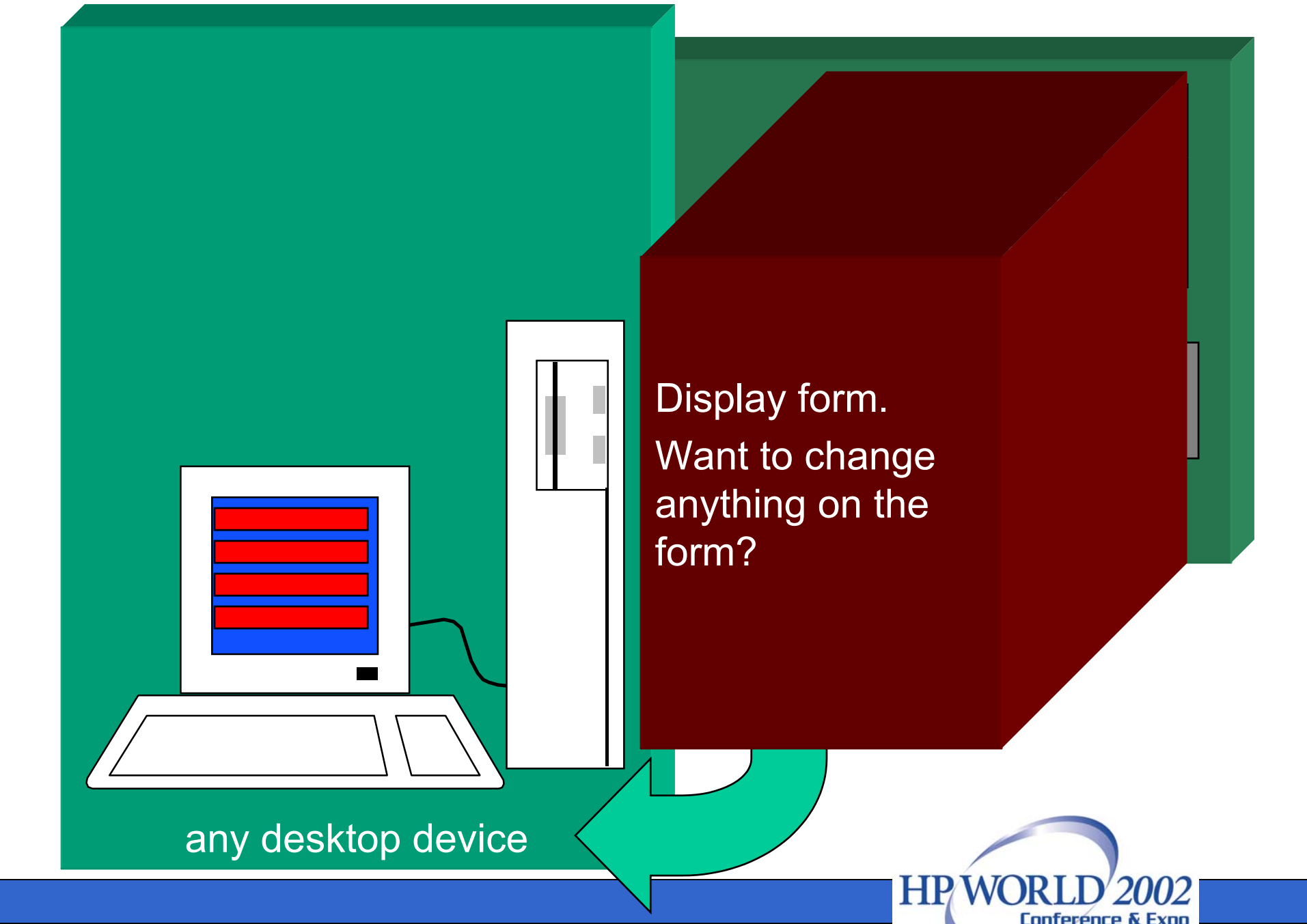






Display line.
Want to change it?
Display line.
Want to change it?
Display line.
Want to change it?
Display line.
Want to change it?
Display line.
Want to change it?

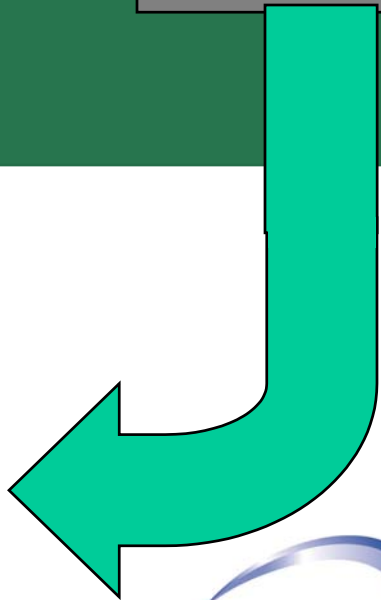
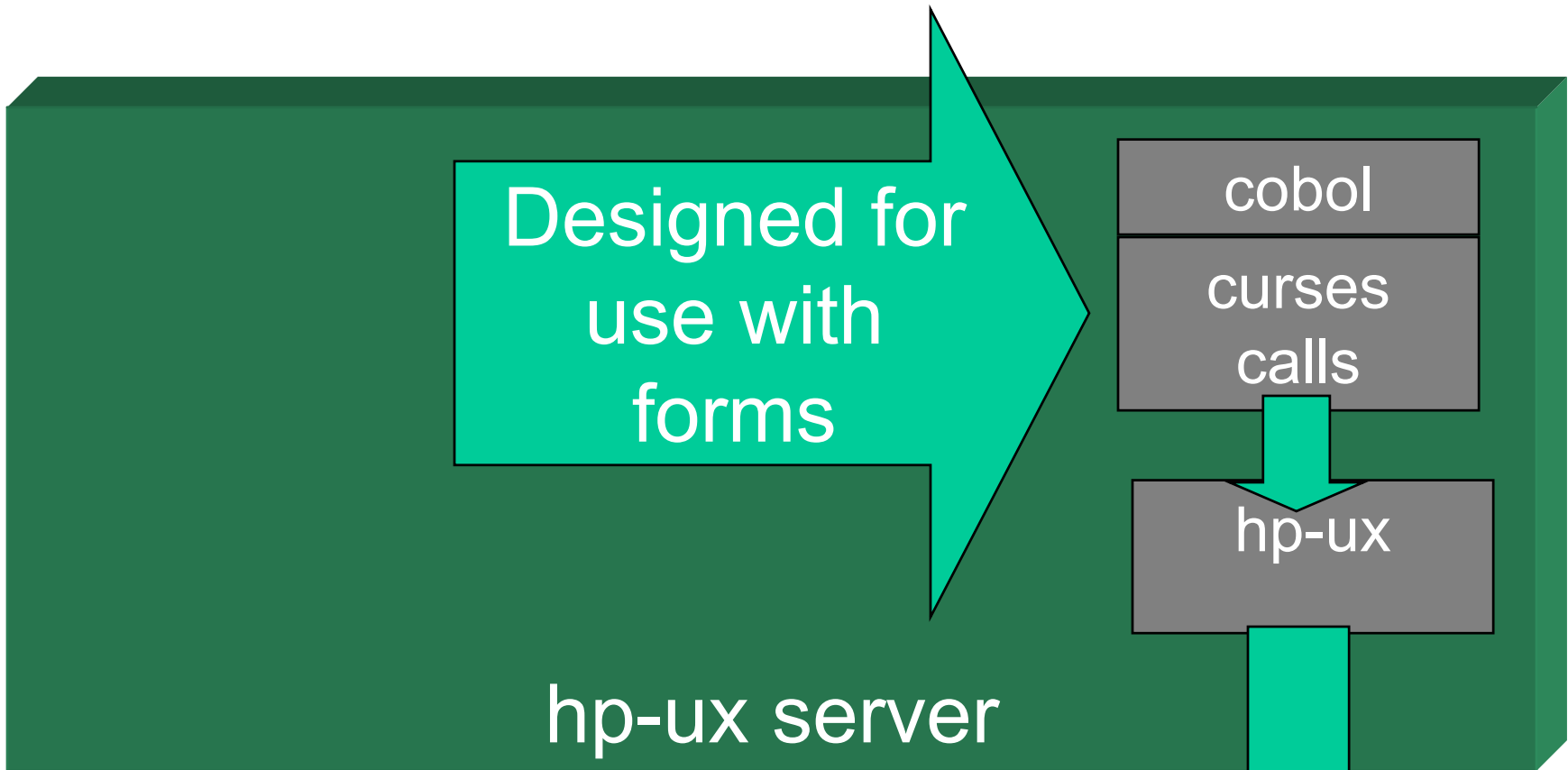
any desktop device

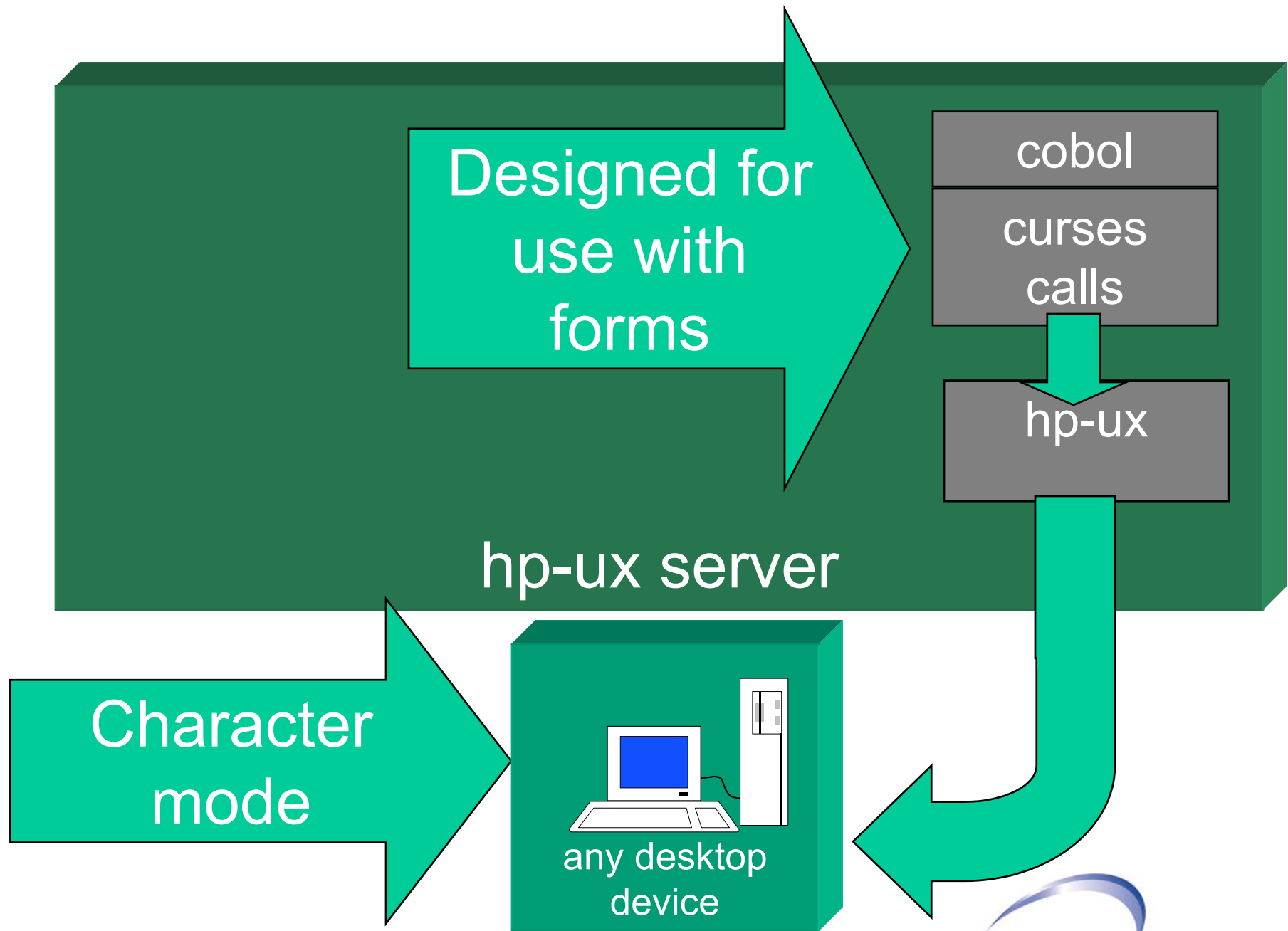


cumbersome

Display line.
Want to change it?
Display line.
Want to change it?
Display line.
Want to change it?
Display line.
Want to change it?

any desktop device





vplus formsfile
contains forms definitions

cobol

vplus calls

mpe/ix

hp e3000

block mode
desktop device

HP WORLD 2002
Conference & Expo

vplus formsfile
contains forms definitions

cobol

vplus calls

mpe/ix

hp e3000

block mode
desktop device

Data passed
between
desktop and
server just
ONCE PER
SCREEN

vplus formsfile
contains forms definitions

cobol

vplus calls

mpe/ix

System overhead is greatly reduced, compared to character mode (like curses)

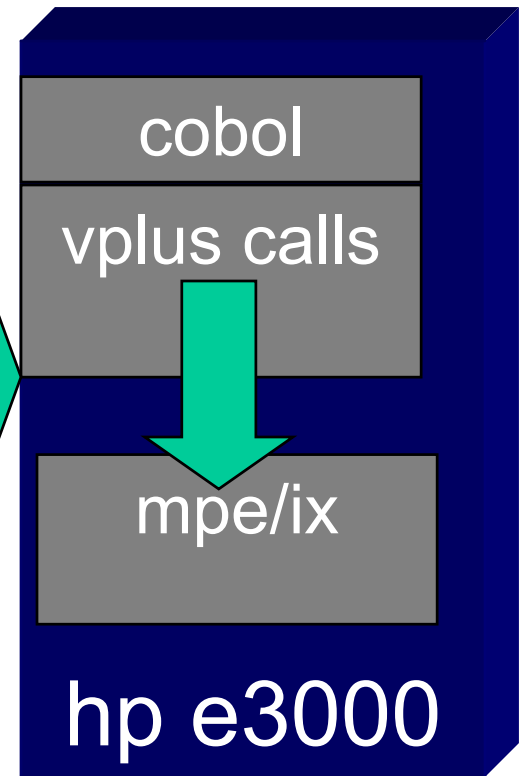
hp e3000

Data passed between desktop and server just ONCE PER SCREEN

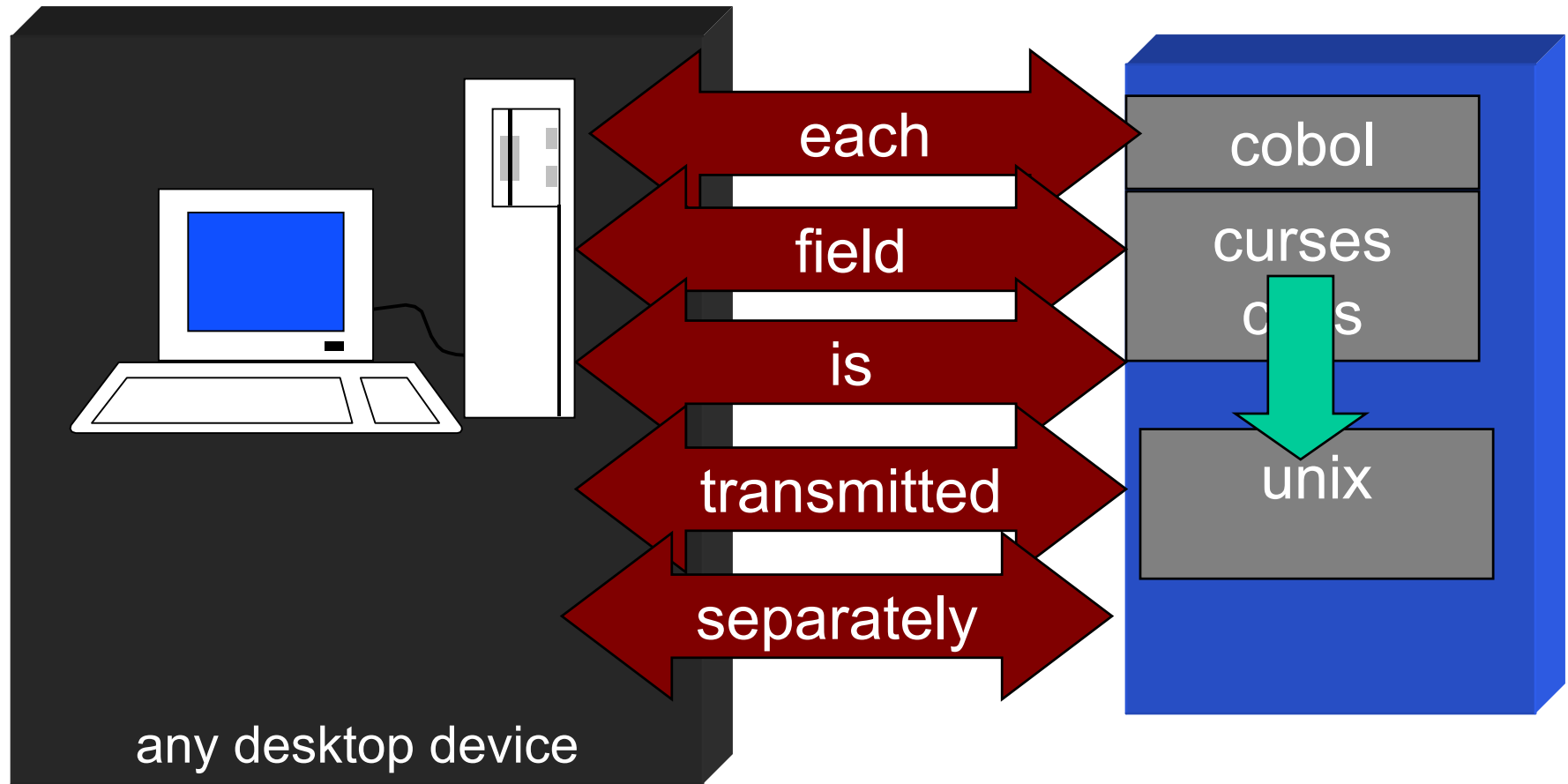
block mode
desktop device



All the data on the screen transmitted at the same time



In block mode, system overhead is greatly reduced compared to character mode.



In character mode, applications must be scheduled and dispatched more frequently, causing higher system overhead.

vplus formsfile
contains forms definitions

cobol

vplus calls

mpe/ix

hp e3000

Block mode
means you
must have a
block mode
device on the
desktop

block mode
desktop device

HP WORLD 2002
Conference & Expo

Option 1
simulate vplus on the
target platform

cobol

vplus calls

vplus
simulator

hp-ux server

• Still tied to
block mode

block mode
desktop device

Option 2

intercept vplus calls
translate to another UI.

hp-ux server

cobol

vplus calls

vplus
translator

Curses, or
web or VB

- Not tied to
block mode

PC or browser

Option 3
replace vplus calls in
your application

cobol

Network
calls

hp-ux

hp-ux server

Desktop PC
(java, VB, etc.)

things to think about

- migration options
 - character mode architecture
 - client/server GUI
 - web GUI
- choosing an option
 - depends on language, UI being used
 - knowledge of UI design
- emulation of all (or part) of the mpe environment?



one application can have multiple UI's

- classic manman application (mfg)
- six different user interfaces
- knowledge of user interface design



UI design resources

- Graphic arts experience
- could be a graphics arts person who works on brochures
- Applies in environment in which you're re-engineering the whole application



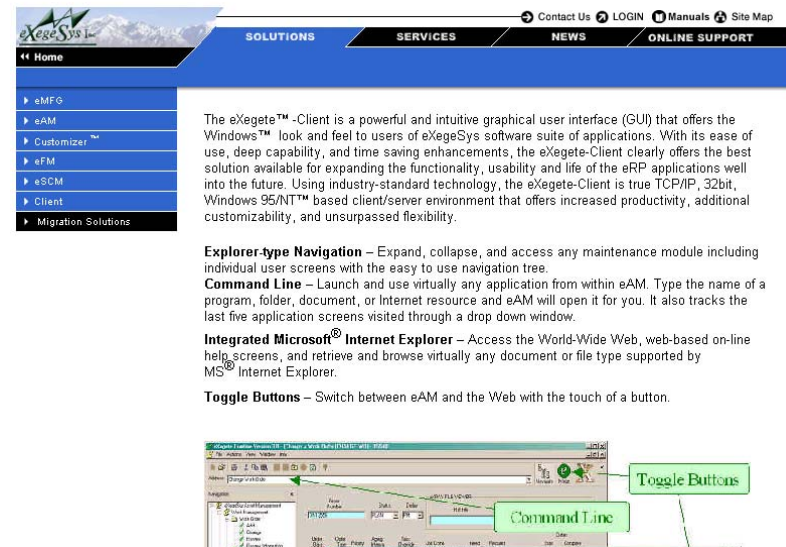
tools to move what you have

- 40%-60% of the customers have vplus screens
- easily migrated
- vplus library
- code is unchanged



eXegeSys

- Explorer-type Navigation – Expand, collapse, and access any maintenance module including individual user screens with the easy to use navigation tree
- Command Line – Launch and use virtually any application from within eAM
- Toggle Buttons – Switch between eAM and the Web with the touch of a button



The screenshot shows the eXegeSys website interface. On the left is a navigation tree with items: Home, eMFG, eAM, Customizer™, eFM, eSCM, Client, and Migration Solutions. The main content area contains text describing the eXegete™ -Client and lists features: Explorer-type Navigation, Command Line, Integrated Microsoft® Internet Explorer, and Toggle Buttons. A small application window is shown at the bottom with callouts for 'Toggle Buttons' and 'Command Line'.

Contact Us LOGIN Manuals Site Map

SOLUTIONS SERVICES NEWS ONLINE SUPPORT

Home

- eMFG
- eAM
- Customizer™
- eFM
- eSCM
- Client
- Migration Solutions

The eXegete™ -Client is a powerful and intuitive graphical user interface (GUI) that offers the Windows™ look and feel to users of eXegeSys software suite of applications. With its ease of use, deep capability, and time saving enhancements, the eXegete-Client clearly offers the best solution available for expanding the functionality, usability and life of the eRP applications well into the future. Using industry-standard technology, the eXegete-Client is true TCP/IP, 32bit, Windows 95/NT™ based client/server environment that offers increased productivity, additional customizability, and unsurpassed flexibility.

Explorer-type Navigation – Expand, collapse, and access any maintenance module including individual user screens with the easy to use navigation tree.

Command Line – Launch and use virtually any application from within eAM. Type the name of a program, folder, document, or Internet resource and eAM will open it for you. It also tracks the last five application screens visited through a drop down window.

Integrated Microsoft® Internet Explorer – Access the World-Wide Web, web-based on-line help screens, and retrieve and browse virtually any document or file type supported by MS® Internet Explorer.

Toggle Buttons – Switch between eAM and the Web with the touch of a button.

Toggle Buttons

Command Line

GUI Innovations, Limited

- Move Sequential files, KSAM and Image data to MS Access, MS SQL Server, MySql
- GUI3000 - Control MPE and UNIX from the same screen



business partner 

Compaq Solutions Alliance
iPAQ Handheld Solutions Developer

COMPAQ

Welcome

GUI Innovations Limited is a Software Consultancy business and specialises in client/server applications with special reference to [Hewlett-Packard](#) e3000 systems, [Microsoft](#) SQLServer, Windows NT and Windows 2000. The company is now very active in the [Pocket PC](#) market and Pocket PC development, specialising in linking your Pocket PC to your corporate network and servers.

GUI Innovations undertakes on-site software and programming consultancy for long or short periods, and bespoke software development. The company is a Hewlett-Packard business partner, a member of the Compaq Solutions Alliance program, and also a Microsoft Mobile Solutions Partner. We are a small highly flexible company who take a lot of pride in all the work we do.

In the light of recent announcements about the future of the HPe3000, we will be continuing to support and develop our HPe3000 products up to and beyond December 2006.

You may be interested in the fact that we already have experience on several migration projects from the HPe3000



Pixel Group

- Host Access Gateway – Server-based screen-scraping host integration technology turns virtually any green-screen application into data objects used by web, wireless and composite applications
- Host Access Open Object-Quickly enhances, rejuvenates or extends any legacy host application by integrating terminal emulation in a browser to easily create new graphical interfaces

The screenshot displays the Quovadx website with a blue header and navigation menu. The main content area features several sections:

- OEM Host Integration Available:** A blue box with white text stating, "Link your own applications and tools to any green screen application. OEM Pixel's Technology as your own Universal Host Adaptor." with a [<more>](#) link.
- Microsoft BizTalk Server:** A small image of the BizTalk Server logo.
- The ultimate in state-of-the-art Thin client solutions:** A blue box with white text stating, "Lower your total cost of ownership using the [HostAccess Thin Client Solutions](#)".
- Non-invasive Web Enable Any Green Screen Application:** A blue box with white text stating, "HostAccess Gateway quickly and easily delivers any green screen information in any host based legacy application to web solutions of any...".

Navigation menus include: Company, Products, Solutions, News, Events, Support, Services, Partners, Downloads. A Microsoft Certified Partner logo is visible in the top right.

ENGLEWOOD, Colo., Jan. 10 /PRNewswire-FirstCall/ --
Quovadx, Inc. (Nasdaq: QVDX), formerly XCare.net, Inc. (Nasdaq: XCAR), a trusted provider of total business integration software and services, today announced that it has acquired the Pixel Group, a provider of integration and connectivity software with offices in the United Kingdom and Atlanta...
[Click Here for full article](#)

Pixel specializes in providing the most flexible Host Integration solutions available today.

Robust Systems

- VB-View provides a migration path from Hewlett Packard's VPlus terminal based applications to a true client/server GUI environment
- HP-UX with a Windows graphical VB-client or Internet Explorer client.

PAINLESSLY MIGRATE FROM YOUR OLD
TERMINAL EMULATOR.....

Terminal-based application interface showing purchase order details. Fields include: Action Code, Purchase Order Review, Purchase Order Printed, P.O. Number: PNTAB506, Order No: 25.02.03, Required: 10.05.03, B.O. Number, PO Type: Catalog Ord, del Mode: 12, Vendor No: 01026, Status: Open, Revisions: 0, Start Item, Currency: U.S. DOLL, Vendor Name: ALLIED PURCHASING SERVICES, Material Orig: 100.20, Buyer Name: SERAJ AHMED AL-HARB1, Additional Charge: 47.97, Expeditor: HADI, IBRAHIM A, Total Order Value: 235.35.

X Item	Order	Recvd	U/M	SC	Description
1	1	1	EACH	05	CENTER LATHE REVOLVING, MODEL BR
2	20	20	EACH	05	MILL END, MM, BLK & HILKMAN STOCK

TO A FULLY FUNCTIONAL
Client Server Graphical
ENVIRONMENT

VB-View

From
Robust Systems Inc.

Tel: +281 242 2313
www.robustsystems.com

Graphical client-server application interface showing purchase order details. Fields include: Action Code, Purchase Order, Purchase Order Printed, P.O. Number: PNTAB506, Order No: 25.02.03, Required: 10.05.03, B.O. Number, PO Type: Catalog Ord, del Mode: 12, Vendor No: 01026, Status: Open, Revisions: 0, Start Item, Currency: U.S. DOLL, Vendor Name: ALLIED PURCHASING SERVICES, Material Orig: 100.20, Buyer Name: SERAJ AHMED AL-HARB1, Additional Charge: 47.97, Expeditor: HADI, IBRAHIM A, Total Order Value: 235.35.

X Item	Order	Recvd	U/M	SC	Description
1	1	1	EACH	05	CENTER LATHE REVOLVING, MODEL BR
2	20	20	EACH	05	MILL END, MM, BLK & HILKMAN STOCK #22-7014-B

Robust Systems Home Page

ScreenJet, Ltd

- Graphical User Interface conversion on HP3000
- Replacement V/Plus API for migration, plus additional V/Plus conversion formats for ACUCOBOL and an XML & XHTML Browser format
- In January, Acucorp, Inc. has announced a technology alliance with ScreenJet Ltd

ScreenJet & Acucorp Announce Alliance

Acucorp, Inc. has announced a technology alliance with ScreenJet Ltd. Acucorp and ScreenJet plan to offer a software migration solution for COBOL-VPLUS applications running on the HPe3000. With this new solution, programmers can migrate existing COBOL-VPLUS applications to UNIX, Linux or Windows NT by using the ScreenJet™ toolkit to convert VPLUS forms directly into Acucorp's AcuBench™ development environment. For the full text of the press release, [click here](#). To receive further information on Acucorp and ScreenJet migration tools, [click here](#).

To read the ScreenJet V/Plus Enhancement and Migration Strategy Overview, [click here](#). A V/Plus Migration White Paper has just been published by ScreenJet. To download a free copy, [click here](#).

ScreenJet Designer

ScreenJet Designer provides an alternative to V/Plus. Using ScreenJet Designer you build your own Graphical user Interface File by extracting the layout and characteristics of your V/Plus form and then interacting to enhance the screen layout to meet modern GUI requirements. [ScreenJet](#)

And Converts it to THIS: →

file system

- MPE naming
(FILE.GROUP.ACCT)
- File Types
- File Attributes
- File Labels
- File Equations



intrinsic

- Stand Alone
- Pass Thru
- Complex



platinum tools and partners

- hp e3000 Platinum tools
 - Denkart
 - DISC
 - NearTek
 - Sungard/Bi-Tech
 - Transoft
- hp e3000 platinum partners
 - Lund
 - MB Foster
 - Speedware



Denkart

hp e3000 platinum tool

- ViaNova 3000 Standard
 - Provides for the transfer of applications to another platform
- ViaNova 3000 Flex
 - For environments that have special target requirements, need re-engineering or demand a customized set-up and execution
- www.denkart.com

The screenshot shows the Ordina Denkart website. The header includes a 'Home' link and the company name 'ORDINA DENKART' with the tagline 'ORDINA DENKART SOLUTIONS'. The main heading is 'ViaNova'. A sidebar on the left lists 'Solutions' with a vertical navigation menu: 'AsToC', 'ViaNova' (selected), 'Re-what?', 'Overview', 'ViaNova Wang', 'ViaNova BNC', 'ViaNova 3000' (with a red arrow), 'ViaNova UNISYS', 'ViaNova XDMS', and 're•Source'. The main content area features the title 'ViaNova 3000' and the tagline 'Leave the platform but take your applications with you.' Below this, there is a paragraph explaining the product's benefits, a section titled 'ViaNova 3000' describing the migration solution, and a note that the product is available in two editions: 'ViaNova 3000 Standard' and 'ViaNova 3000 Flex'. The 'Standard' edition is described as being for application transfer without delay, while the 'Flex' edition is for environments with special requirements.

DISC

hp e300 platinum tool

- OMNIDEX on desired database and hardware platform
- Network Services to facilitate data migration across platforms
- OmniAccess cross-platform database and operating system API
- MPE Library that converts key Turbolimage, MPE File System, and MPE Operating System calls to the OmniAccess cross-platform library
- Turbolimage-to-SQL DDL (Data Definition Language) program that generates DB2, Oracle or SQL Server-specific DDL from an existing Turbolimage database
- JDBC and ODBC, API, and drivers for standards-based application development of converted applications
- www.disc.com

The screenshot shows the DISC website interface. At the top, there is a navigation bar with links for Search, Site Map, Contact Us, Home, and Remarkable Data Agility. The main content area features a headline: "DISC Offers HP e3000 Migration Software and Services" dated November 14, 2001, from Boulder, CO. The text describes the availability of software and services for migrating HP e3000 customers to other computing platforms. A contact box for Terry O'Brien, Executive Vice President, is provided. The page also includes a sidebar with navigation links (What's New, Company, Products, Press/Events, Partners, Library, Support) and a search bar. On the right, there are dropdown menus for "What is OMNIDEX?", "Why is it So Incredibly Fast?", "Where Can It Help Me?", "Who Uses OMNIDEX?", "Can I See it in Action?", and "How Can I Learn More?". A footer section contains a question/comment form.

neartek

hp e3000 platinum tool

- neartek's AMXW software migration tool
- moves data from image, ksam and flat files to other platforms
- runs hp e3000 jcl
- most hp e3000 intrinsics covered through a shared library
- hp cobol to microfocus cobol
- target platforms include unix, windows, and linux.
- <http://www.neartek.com/virtualstoragesoftware/amxw.htm>



Automatic Migration from HP 3000 to Unix, Windows, or Linux

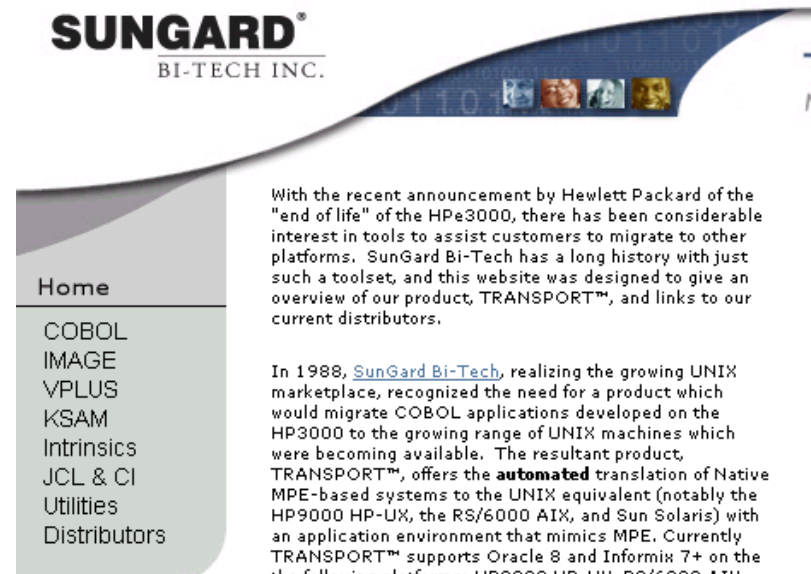
Nearthek's AMXW software migration tool is the most comprehensive solution on the market today for HP3000 systems whose applications and information must eventually be ported to new environments such as Unix, Windows, and Linux. Hewlett-Packard promotes AMXW to customers as a pathway having the best technical and financial features for prolonging application lifetime and safeguarding data investment.

Migrations are easy to set up with AMXW, whose tailorable translation parameters offer exceptional flexibility and adaptability for use with customized applications. The migration process covers all logical components including applications, databases, interfaces, files, and scripts. Once the parameters and platforms are set up, AMXW can attain a performance of 1 million translated lines per day.

Sungard/Bi-Tech

hp e3000 platinum tool

- since 1988
- automated translation of native mpe-based systems to unix
- transport™ will currently convert and transfer cobol source code, copylibs, image schemas, image data and vplus forms files.
- emulates most mpe commands
- most mpe intrinsics have also been emulated.
- <http://sungardbi-tech.com>
- <http://transport.bi-tech.com>



SUNGARD®
BI-TECH INC.

Home
COBOL
IMAGE
VPLUS
KSAM
Intrinsics
JCL & CI
Utilities
Distributors

With the recent announcement by Hewlett Packard of the "end of life" of the HPe3000, there has been considerable interest in tools to assist customers to migrate to other platforms. SunGard Bi-Tech has a long history with just such a toolset, and this website was designed to give an overview of our product, TRANSPORT™, and links to our current distributors.

In 1988, [SunGard Bi-Tech](#), realizing the growing UNIX marketplace, recognized the need for a product which would migrate COBOL applications developed on the HP3000 to the growing range of UNIX machines which were becoming available. The resultant product, TRANSPORT™, offers the **automated** translation of Native MPE-based systems to the UNIX equivalent (notably the HP9000 HP-UX, the RS/6000 AIX, and Sun Solaris) with an application environment that mimics MPE. Currently TRANSPORT™ supports Oracle 8 and Informix 7+ on the following platforms: HP9000 HP-UX, RS/6000 AIX,

Transoft

hp e3000 platinum tool

- Provide an I/O mapping module that converts access to IMAGE data to Oracle and SQL Server
- Utility programs to unload IMAGE, KSAM, Allbase and HP flat files and transfer them to the target platform
- Utility that emulates VPLUS on UNIX and Windows platforms, in a dumb terminal or java based graphical environment
- Convert JCL to PERL scripts
- HP Intrinsic emulations in COBOL and C, allowing direct replacement of Ininsics
- www.transoft.com



The screenshot shows the Transoft website with a navigation menu at the top: News | Products | Services | Customer Stories | Company Information | Partners | Technical Support | On-line Ordering. The main content area features a blue box with the text: "To receive 'headlines' - our email newsletter, please [click here](#)". Below this is a link: "[To obtain more information on Transoft, please click here.](#)". The article title is "Where Do You Go After the HP 3000?" with the sub-headline "Anywhere You Want!". The article text reads: "You didn't ask for it, but the HP 3000 is going away. If you're like most HP 3000 users, you're now trying to make a choice. Transoft has an alternative to starting over or even migrating. It's called Transoft Application Transformation. With Transoft Application Transformation solutions you can do more than just solve your immediate migration problem. You can position your HP 3000 application as the platform for solving your immediate and future business problems. Over the last fifteen years, hundreds of companies have improved their legacy applications with Transoft. That's because Transoft offered them a breadth of choices no one else could match and a proven track record no one could refute. See for yourself what Transoft can do for your HP 3000 applications by joining an upcoming 'Anywhere You Want' Webinar. Available Dates: Thursday, March 7th at 12:30pm EST; Thursday, March 21st at 12:30pm EST; Thursday, April 11th at 12:30pm EST".

maintenance and support

- Continued Application Evolution
- Run Times



**HP e3000 Transition Tools Partner Matrix
March 2002**

Partner	Coverages	Distribution Model
AcuCorp	Languages, DB Access, Intrinsic, VPLUS, Development Env.	3rd Party Direct
AD Technologies	Data Migration (Cobol, Fortran, SPL, Image)	3rd Party Direct
Bradmark	Data Migration (DB)	3rd Party Direct
Cognos	4GL and DB Access	3rd Party Direct
Denkart	Data Migration, VPLUS, JCL, Intrinsic, Languages, MPE Utilities	Platinum Program
DISC	DB Access & APIs, Data Migration, JCL, Development Env (Cobol converters)	3rd Party Direct, Platinum Program
Envoy Technologies Inc	MPE Utilities	3rd Party Direct
eXegesys	VPLUS	3rd Party Direct
GUI Innovation Limited	Data Migration, MPE Utilities	3rd Party Direct
HP Eloquence	Image DB Replacement	3rd Party Direct
iMAXSoft	Data Migration (Image), MPE Utilities	3rd Party Direct
LegacyJ	VPLUS, Languages	3rd Party Direct
MB Foster	Data Migration (DB), MPE Utilities	3rd Party Direct, Platinum Program
Near Technolgoies (Neartek)	DB Access, Data Migration, VPLUS, JCL, Intrinsic, Languages, MPE Utilities	Platinum Program
Pixel Group	Data Migration (User I/Fs)	3rd Party Direct
Robelle	Data Migration, MPE Utilities, Development Env	3rd Party Direct
Robust Systems	VPLUS	3rd Party Direct
Screenjet Ltd	VPLUS	3rd Party Direct
Serena Software, Inc	Languages	3rd Party Direct
Speedware Corporation	DB Access, Data Migration, Development Env	3rd Party Direct, Platinum Program
SunGard Bi-Tech	Data Migration, VPLUS, Languages, Development Env	Platinum Program
Taurus (Quest)	Data Migration	3rd Party Direct, Platinum Program
Transoft	DB Access, Data Migration, VPLUS, JCL, Intrinsic, Languages, MPE Utilities	3rd Party Direct, Platinum Program
Vital Soft, Inc	Data Migration, MPE Utilities	3rd Party Direct
Whisper Technology	MPE Utilities, Development Env	3rd Party Direct
Willow Technology, Inc	Data Migration	3rd Party Direct
WRQ, Inc	Data Migration (DB), VPLUS	3rd Party Direct

transition tools & services matrices

- visit HP website for latest transition partners program (tools & services matrixols & services matrix):
<http://www.hp.com/go/e3000partners>
- tools: click “hp e3000 transition tools partners”
- services: click “hp e3000 transition services partners”



Ceridian

- Ceridian takes the hp e3000 migration plunge with some help from hp services' consulting



challenges

- leading provider of managed business solutions for human resources to Fortune 500 companies
- \$1 billion in revenues
- need for an open, scalable, multi-tiered application architecture to keep in step with the rapid business growth being experienced
- to be in a positive position to take advantage of emerging technologies
- y2k testing



Ceridian takes the hp e3000 migration plunge with some help from hp Services' consulting

solution

- hp services' consulting
- conversion from the hp e3000 997/600 and 987/200 to 2 v-class hp 9000 servers
- Powerhouse on MPE converted to Powerhouse on HP-UX
- HP OpenView Network Node Manager
- IT Operations



Ceridian takes the hp e3000 migration plunge with some help from hp Services' consulting

solution (cont.)

- Taurus/Quest Bridgeware tool
- 206 different IMAGE datasets across 10 databases
- 400 million records totalling 38 GB had to be moved
- ran HP 3000 and HP 9000 in parallel for most of the two year project



Ceridian takes the hp e3000 migration plunge with some help from hp Services' consulting

solution (cont.)

- iteratively tested bulk moves from the HP3000. Once the logic was proven, the logic for moving incremental HP3000 data changes was tested
- BridgeWare moved and kept in synch some 38 GB of critical data, moving up to 17 million records per hour
- more problems with data cleansing than anticipated



Ceridian takes the hp e3000 migration plunge with some help from hp Services' consulting

lessons learned

- hp project management avoided project slippage due to the complexity of the migration
- not all the code and JCL were used or needed, analysis would have avoided some of the unnecessary conversion



Ceridian takes the hp e3000 migration plunge with some help from hp Services' consulting

results

- improved performance
- greater scalability – 30% better than 3000
- better integration capabilities
- internet access



Ceridian takes the hp e3000 migration plunge with some help from hp Services' consulting

why hp?

- hp and Ceridian teams worked efficiently together
- maintained overall responsibility and accountability for entire migration activity
- good solid team of people



Ceridian takes the hp e3000 migration plunge with some help from hp Services' consulting



what Ceridian is saying

“Ceridian’s migration from the HP e3000 to the HP 9000 was a success! What we did was the right thing to do. Ceridian is much better off than it was before... the HP people were great and they built a solid team that stuck it out until the project was completed.”

David Goodman
Senior Vice President
of Product Development
for Ceridian



i n v e n t