Enabling Workforce Continuity

By Brian Herkalo, Director, ClearPath Solutions and Portfolio Management, Unisys

Call it the “graying of the workforce.” Call it a seismic shift in workplace demographics. Or call it a natural result of the passage of time.

However you define it, the ongoing – and accelerating – retirements of seasoned IT experts means much more than the loss of a close acquaintance who had been an essential member of your team.

When someone with 30-plus years of experience walks away from your organization, they take with them decades of time-honed technology skills and best practices. And because this type of intimate business knowledge is often gained through time and repetition alone – not an employee handbook or new-hire meeting – replacing these individuals can be a daunting task.

But that’s not all.

By virtue of the years they have spent helping IT and the business formulate and execute new strategies, these employees have also built a deep, inherent knowledge of how your mission-critical ClearPath® applications – and, by extension, your core business processes – function.

These are people who know your ClearPath environment inside and out, and as a result, their departures put you at risk of losing a considerable amount of foundational knowledge about what makes your company tick.

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Your Formula for Workforce Continuity

We recognize the significant challenges posed by the departure of your IT veterans and understand the critical importance of transitioning skills and knowledge to newer employees as the workforce changes around you.

Like many organizations we talk to, you’ll likely center this effort around identifying, acquiring, and nurturing the skills available in the open market and using them to help your organization’s ClearPath environment address enterprise-class needs.

And when it comes to preserving a continuity of ClearPath skills between generations of IT professionals, there are many ways we can support your efforts to help your newest team members become as knowledgeable as your longest-tenured employees. For example, Unisys offers:

- **Tools and Products:** Our industry-standard middleware, development environments, and new fabric-based systems make it easy to create, deploy, manage, and integrate ClearPath applications.

- **Application Discovery:** We’ll help you document your mission-critical applications in order to effectively transfer business-process knowledge to new employees. (Learn more later in this issue.)

- **Training:** We’ve created an extensive set of courses designed to train your employees on all aspects of ClearPath operations, including system software, specialty partitions, COBOL, databases, and more, in a way that fits your specific requirements.

- **Services:** We provide services tailored to your specific needs and initiatives – whether it’s understanding the TCO of your environment, determining which applications to modernize, outsourcing specific tasks, or anything in between.

Workforce Continuity in Action

This issue of ClearPath Connection is dedicated to the things you can do to help new talent quickly come up to speed, become productive members of your team, and make swift, positive contributions to the business.

To this end, we’ll focus the majority of the issue on the ways the four capabilities discussed above can support three critical areas of your IT operations:

- **Application development**
- **Application integration**
- **System management**

It is our sincere hope that the combination of training, services, tools, and processes we offer will help your organization overcome the difficulties presented by shifting workplace demographics and seamlessly transition core ClearPath skills from one generation to the next.
Using Industry-Standard Skills and Tools to Drive ClearPath Application Development

Your ClearPath system plays host to a rich and varied set of applications you rely on to support and enable your most mission-critical business processes.

You’ve developed and enhanced them over time using a combination of tools we provide, along with industry frameworks, open-source artifacts, and in-house, custom-built development solutions.

Normally, this might create complexity and challenges that could make it difficult to respond to changing business and operational demands. But not in your ClearPath environment.

Your ClearPath environment is equipped with a host of industry-standard tools – and supplemented by a deep portfolio of services – designed to cater to the many development approaches employed today. Whether you have veteran developers who prefer existing, time-tested tools, or younger programmers well versed in contemporary approaches, your ClearPath system can accommodate them all.

This way, you’ll find it much easier to support your existing applications – and build new ones to address tomorrow’s mission-critical demands – in a way that is simple, efficient, fast, and in line with how your development team operates.

Here’s how...

**Industry-Standard Tools and Products**

There are many tools and products in your ClearPath environment that can make application development significantly simpler.

For example, you can use the model-driven development environment and high-level scripting language in Agile Business Suite to build mission-critical enterprise applications in a fraction of the time of other programming approaches. And with the help of the ClearPath ePortal specialty partition, you can easily extend MCP and OS 2200 applications in a way that is optimized for consumption over the Web, web services, and mobile devices.

What’s more, both Agile Business Suite Developer and ClearPath ePortal Developer leverage the familiarity of the Microsoft® Visual Studio® environment, making it easy for people with these skill sets to quickly become productive.

The ClearPath MCP and OS 2200 IDEs for Eclipse™ support ClearPath OS 2200 languages, such as UCS as well as ASCI for Cobol, C, FORTRAN, and Java. And, it supports ALGOL, COBOL, COBOL74, COBOL85, Java, and others in the ClearPath MCP environment. This makes it easy for developers with a wide range of skills, familiarities, and preferences to work directly in the Eclipse IDE.

In addition, Business Information Server (BIS) helps you create, organize, and manage your business logic, information, and web assets, so it becomes easier to effectively develop new mission-critical ClearPath applications. In addition, the BIS Developers Workshop provides an environment that will appear familiar to anyone who is well versed in Visual Studio.
Your developers can utilize the Java based development tools and frameworks to develop for, and test with, the ClearPath JProcessor specialty partition, which is optimized for the ClearPath environment.

And, the new Application Integration Services tool simplifies the process of creating cross-platform applications by removing the roadblocks that can occur when working between MCP, OS 2200, and Microsoft Windows® environments.

**Services**

Our application-specific services portfolio contains numerous offerings that help you simplify the process of developing, updating, and managing your mission-critical applications. With the help of our ClearPath Application Modernization Services, you’ll be able to strategically prioritize and deliver effective development and modernization initiatives that help extract the greatest value from your ClearPath applications. And when you leverage our ClearPath Application Outsourcing Services, you can take a strategic, flexible approach to addressing day-to-day operations, support, and maintenance needs, enabling you to minimize the cost of managing your applications.

*If you’d like to see what you can do to get more out of the development tools offered in the ClearPath environment, please ask your sales representative about setting up a development workshop for you and your team.*

The examples discussed in this article are but a small sampling of the tools, products, and capabilities you can use to simplify and improve application development. For example, you can use:

- Unisys value-added innovations for Visual Studio
- ClearPath OS 2200 and MCP IDEs for Eclipse
- Java EE
- COBOL
- Agile Business Suite
- Business Information Server
- ClearPath ePortal for OS 2200 and MCP
- JBoss for ClearPath
- Java-based development tools and frameworks
- ClearPath Application Integration Services tool
- Open Distributed Transaction Processing (Open/DTP)

*To learn more about what these tools and products can do for you, please read the ClearPath MCP and ClearPath OS 2200 product catalogs.*
Using Industry-Standard Skills and Tools to Accelerate Application Integration

The demands placed on your business are not just mounting – they seem to be changing overnight.

Because this pressure invariably filters down to IT, it’s become imperative to react to new initiatives – whether it’s an emerging opportunity, regulatory mandate, or competitive pressure – as quickly and effectively as possible.

And with time to market such a critical concern, you’ll most likely find that the best way to support the business as it addresses today’s – and tomorrow’s – challenges is by integrating your existing ClearPath applications with those running in other environments.

Your ClearPath environment is more than prepared to support you in this regard. Whether you want to ready your applications to be accessed by smartphones and tablets, enable them to participate in Service-Oriented Architecture (SOA) environments, or simply extend the value of what you already have in place, you can rely on the wide variety of industry-standard and popular tools in your ClearPath environment – as well as our portfolio of services and training options – to help you get there.

And when you successfully integrate your applications, you’ll also be connecting the critical business processes they support, making your organization more agile and responsive to changing technology and operational demands.

Here’s how…

**Industry-Standard Tools and Products**

Your ClearPath environment supports an extensive range of standard and popular interfaces – and allows applications to collaborate in new environments, such as a SOA – using a number of technologies. For example, it supports:

- Industry-standard application environments, including Java, Java EE, and Open Group DTP
- Participation in SOA implementations using a variety of technologies
- Message queuing using both IBM® WebSphere® MQ and Microsoft Message Queuing (MSMQ)
- Web Services
- File transfer using FTP
- Transaction and database connectors for Java and .NET environments
- Mobile application integration with Apple® iOS, Android™, and Windows platforms

What’s more, your ClearPath system plays host to a number of tools and products that can accelerate your efforts to integrate applications using these and other interfaces and technologies. >>
Here are just a few of the many possibilities:
• The ClearPath ePortal specialty partition helps extend both MCP and OS 2200 applications to new partners, channels, and markets through web, mobile, and web services technologies.
• You can leverage the ClearPath OS 2200 QProcessor to quickly and securely exchange messages with external platforms and systems that support WebSphere MQ message queuing.
• The ClearPath JProcessor, JPJVM, JBoss for ClearPath, and Unisys provided Java connectors can be used to build Java based enterprise applications that integrate with and take advantage of such core ClearPath assets as security, transactions, and databases.
• You can use the XML Parser for ClearPath MCP to help you seamlessly create, update, and read XML documents natively from ClearPath applications, so it’s easier for your organization to use XML as a means of expanding its business relationships.

Services
When you use our ClearPath Mobility Application Services, you’ll be able to determine the fastest, most effective way to create mobile applications that leverage your ClearPath applications and data, and are optimized for smartphones and tablets across all major platforms – iOS, Android, BlackBerry®, and Windows. And with the help of our ClearPath Application Advisory Services, you’ll be able to align application initiatives with key business priorities while determining the best way to get the most value out of your investments over the long term. Our ClearPath Integration Services can then help integrate your ClearPath applications with broader data center workloads.

Want to learn how you can make the most of the integration capabilities offered by your ClearPath system? Give the ClearPath Appraisal Service a try. And please read “Understanding IT System State – Experiences from the ClearPath Appraisal Process” to see what the service can do for you.

The examples listed in this article are but a small sampling of the tools, products, and capabilities you can use to streamline application integration. For example, you can use:
• Java connectors
• .NET connectors
• ClearPath OS 2200 QProcessor
• ClearPath ePortal for MCP and OS 2200
• JDBC and ODBC
• ClearPath Application Integration Services tool
• Distributed Transaction Integration (DTI)
• CIFS for ClearPath OS 2200
• MCP Client Access Services
• XML Parser for ClearPath MCP
• WebSphere MQ for ClearPath MCP
• WebSphere MQ for ClearPath OS 2200
• MCP Interface to Microsoft Message Queuing
• Business Information Server
• ClearPath OS 2200 JProcessor
• ClearPath MCP JProcessor

To learn more about what these tools and products can do for you, please read the ClearPath MCP and ClearPath OS 2200 product catalogs.
Simplifying ClearPath System Management with Automation

No matter what you do, or where you operate, one fact is a constant: IT services drive your business. It simply cannot survive without them.

And that’s why system management is such a focal point of your IT operations.

But as business demands change and your ClearPath environment is expected to coexist and collaborate with other systems, both within your organization and outside of it, system management becomes more challenging and more critical.

And that’s where automation comes in. Complex environments simply cannot be managed by manual processes alone. They are too slow, error-prone, and resource-intensive to meet the demands the business places on the services you deliver.

Clearly, high levels of automation are essential to effective system management. And that’s where your ClearPath system shines. It features a host of tools and products designed to automate specific areas of your operations – all so you can make system management more efficient, streamlined, and responsive to changing business demands.

And by helping you automate critical system management tasks, your ClearPath system is also eliminating the need for you to invest in acquiring and training specialized resources to execute these jobs. Because it’s doing so much of the work for you, your ClearPath system can actually help you get more out of the skills you already have in house.

Here’s how...

Tools and Products that Drive Automation

There are a variety of tools and products in your ClearPath environment that help to automate specific aspects of system management, such as disaster recovery.

For example, you can rely on Operations Sentinel to take you beyond simple server management by automating, consolidating, accessing, monitoring, and managing multiple heterogeneous systems and applications – all through a single point of operation – so you can simplify complex operations across your entire data center.

With Enterprise Output Manager, you can automatically process and route print files and other application output files from numerous platforms to any supported output destination across multiple environments, helping you reduce your carbon footprint while improving internal and external communication streams.

Apex, a new product for the OS 2200 operating environment, is designed to consolidate administrative processes that used to require numerous tools and utilities into a single, web-based interface, making it easy for everyone from veteran IT staff members to less experienced users to effectively manage their ClearPath Dorado systems. The initial release of Apex provided security-related administration capabilities; future ones will offer expanded system management functions.  

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And with the help of Business Continuity Accelerator software, you can simplify and strengthen the recovery of your mission-critical IT services by automatically transferring an entire disk image, including the operating system and its configuration files, from a live MCP environment to a backup system.

**Services**

The ClearPath Appraisal Service can help you determine how to maximize the benefits of automation in your ClearPath environment. The service examines how successfully the technologies and processes you’ve implemented eliminate manual effort – from little to no automation to a “lights out” data center that can run without any human intervention. Once you know where your organization stands, we’ll give you a set of actionable recommendations – typically focused around using features and capabilities that already exist in your ClearPath system – to increase automation in your environment.

*Want to learn how you can automate more areas of your ClearPath environment? Give the ClearPath Appraisal Service a try.*

*And for more information, please read “Unisys ClearPath Systems Management: Maximizing IT Service Availability.”*

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The examples discussed in this article are but a subset of the capabilities we provide to automate specific aspects of system management. For example, you can use:

- Enterprise Output Manager
- Operations Sentinel
- Apex
- Locum Software products
- Business Continuity Accelerator
- Workload Management for ClearPath MCP
- SMA OpCon/xps
- Security Center
- dbaTOOLS products
- ClearPath Appraisal Service
- ClearPath Automation Services

*To learn more about what these tools and products can do for you, please read the ClearPath MCP and ClearPath OS 2200 product catalogs.*
ClearPath Customer Education: Your Skills, Maximized

Maintaining a high level of ClearPath skills – and making sure everyone else on your team does the same – is critical to maximizing the value of your ClearPath environment in today’s fast-paced, competitive marketplace.

So how can you do that? With the help of the ClearPath Customer Education program.

ClearPath Customer Education offers a suite of training courses designed to provide you with the skills and competencies needed to maximize productivity and extend the value you bring to the business. We do this by offering detailed, comprehensive course content across four areas:

• ClearPath OS 2200
• ClearPath MCP
• ClearPath OS 2200 and MCP specialty partitions
• Agile Business Suite

All of the content within each course catalog can be tailored to your specific requirements.

Moreover, the courses listed in these catalogs leverage three delivery options, giving you the flexibility to choose how, when, and where you train:

• Classroom training: These instructor-led classes can be held at your facility and tailored to the requirements of your environment, eliminating the time and costs associated with travel. Classroom training can also be hosted at select Unisys sites.

• Self-paced training: Offered for select topics, self-paced training provides a flexible alternative to classroom training by enabling students to move through course modules in a way that matches their specific needs and time constraints.

• Instructor-led web-based training: Delivered live via the Web, these courses provide a highly interactive environment – with demonstrations and hands-on lab exercises when applicable – and cover topics in one-to-four-hour blocks, allowing students to attend from any place that has Internet access.

Ready to get started?

Then visit the U.S. or European ClearPath Customer Education web sites today. And for additional information, please contact your Unisys representative or email us at UnisysCustomerEducation@unisys.com.
And since these applications encapsulate your critical business processes, one thing is certain: An in-depth understanding of them – one that’s supported by complete, comprehensive documentation – is indispensable any time you want to bring new team members onboard, support emerging business requirements, or address changing compliance mandates.

We recognize how crucially important it’s become to fully document your mission-critical ClearPath applications. That’s why we’ve partnered with Hatha Systems® to bring the company’s Knowledge Refinery® product to ClearPath users who want to transfer application knowledge to new staff members and clearly document their applications.

**What it Is, What it Does**

Knowledge Refinery is a tool designed to enable knowledge discovery and knowledge management.

It operates in a team environment, allowing multiple people with different roles to perform activities at the same time. It uses an international standard representation of your applications. And, it can be integrated into every area of your organization’s development process.

As a result, Knowledge Refinery can be used for a variety of purposes, including documentation, compliance, business knowledge extraction (rules, terms, and processes), and application assessment, modernization, and maintenance.

At its core, the product focuses on helping you answer specific questions across three areas:

**Application Assessment**
- How complex is my application? What business and technology risks are associated with it?
- Are there enterprise or performance dependencies to consider before modernizing?
- What is the cost of transforming the application? What solution options are available based on the assessment results?
- Should I modernize or maintain the application?

**Application Maintenance**
- What is the impact of a new functional update to the overall application?
- Will new compliance requirements have an impact on my application? Where? How many resources will it take to implement the required changes?
- How much did my application change over the course of this fiscal year? Is it the same as I planned?

**Application Modernization**
- What can I reuse and what do I retire from my “as is” application?
- What are the services I need to web enable?
- Did I extract all the “as is” business logic I need? >>

You’ve relied on your ClearPath applications to serve as the cornerstone of your operations – and give your organization a competitive edge in the marketplace.
How You Can Benefit

The ultimate goal of Knowledge Refinery is to help you extract systems knowledge. To that end, Knowledge Refinery can help you:

• Improve system knowledge by accessing detailed and current information
• Maintain continual compliance
• Reduce knowledge loss
• Accelerate decision making
• Minimize your reliance on expensive, high-demand skills

Want To Learn More About Knowledge Refinery? Then stay tuned for a deep dive into the product in an upcoming issue of ClearPath Connection.

Examples of Direct Productivity Gains Over Current Methods*

<table>
<thead>
<tr>
<th>Activity</th>
<th>Cost Reduction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Understanding</td>
<td>60-80%</td>
</tr>
<tr>
<td>Documentation</td>
<td>70-90%</td>
</tr>
<tr>
<td>Business concepts extraction (terms and rules)</td>
<td>50-80%</td>
</tr>
<tr>
<td>Code clean-up (dead code, obsolete code, obsolete data)</td>
<td>70-90%</td>
</tr>
</tbody>
</table>

*Based on Hatha Systems experience in performing and managing modernization and maintenance projects. Impact on activities and total project will vary based on specific circumstances.
Want an Early Look at the Newest MCP Software?

Developing and qualifying a new MCP software release requires progressive testing at several levels. As part of this process, we routinely ask the ClearPath user community to take new software for a test drive and see how it performs under real-world conditions.

With work on ClearPath MCP Release 17.0 and other new products in full swing, Unisys is looking for your help with either or both of the following test activities:

- **ClearPath MCP Release 17.0**: Alpha testing for the next major MCP release is planned to run from mid-November 2014 through mid-January 2015. This will be followed by a beta test that is scheduled to end in late February 2015.

- **A new plug-in to Microsoft Visual Studio**: Once released, this plug-in will allow you to develop MCP applications in Visual Studio. A beta test is planned to begin in November 2014.

Participating in either test gives you an opportunity to “kick the tires” of the new software prior to its general availability. You’ll get an early look at new features, take advantage of advanced opportunities for in-house qualification, and have ready access to Unisys Support and Engineering for help resolving any questions and issues. If you participate in the MCP 17.0 alpha or beta test, you’ll also get temporary license keys that will allow you to try out all of the products in the release, even those that you don’t currently license.

If you would like to be considered for either testing program, please contact Pam Becker, MCP Software Field Test Coordinator, to begin the process. A signed pre-release agreement is required to take part in either test, so please allow some lead time to get signed up.
Building a Clear Picture of IT Costs

Understanding IT costs is essential to sound decision making. This knowledge plays a critical role in understanding the financial impact of delivering the products, services, or capabilities your business produces. And, it’s a key determining factor in any decision that will influence the strategic direction of IT.

We explore these concepts in “Understanding IT Cost,” our newest white paper. Throughout, the paper details the ways we can help you analyze the TCO of your ClearPath system and other environments and weigh the financial implications of one IT strategy against another. And, we’ll show you some examples of each analysis and how they help to illustrate the value of ClearPath systems.

Ready To Learn More? Download “Understanding IT Cost” today.
Resources

The list below contains quick links that will help you stay up to date on all things ClearPath.

- ClearPath homepage
- ClearPath Libra homepage
- ClearPath Dorado homepage
- ClearPath OS 2200 homepage
- ClearPath MCP homepage
- ClearPath Services homepage
- Agile Business Suite homepage
- Business Information Server (BIS) homepage
- ClearPath & Innovation Blog
- ClearPath How-To Videos on YouTube
- ClearPath Libra/MCP Webinars
- ClearPath Dorado/OS 2200 Webinars
- eBook: Understanding the Economics of ClearPath Systems
- eBook: How to Shift Your IT Focus from Administration to Innovation
- eBook: ClearPath MCP Case Studies – Success through Business Process Automation
- Guide: ClearPath OS 2200 Course Catalog
- Guide: ClearPath MCP Course Catalog
- Guide: ClearPath OS 2200 and MCP Specialty Partitions Course Catalog
- Guide: Agile Business Suite Course Catalog
- Newsletter: Developing Agility September 2014
- Newsletter: ClearPath Connection June 2014
- White Paper: Understanding IT Cost (NEW)
- White Paper: Delivering Value: The Economics of ClearPath Systems (UPDATED)

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