The Progress Electronic Magazine

In this issue:

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Publisher's Statement:

In this issue I examine some scripting that may make administration of Progress based UNIX applications more simple. The scripting handles such issues as different versions of Progress installed, single point of configuration, and simple to understand and atomic operations on the database/application.

Also I examine some of the reasoning for placing an application on a Linux based operating system. The cost of ownership is examined, as well some questions that are management oriented.

To your success,

Scott Auge
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Coding Article: Simple administration scripts for your UNIX Progress application

Written by Scott Auge

The goals of this scripting architecture is to provide the following:

- Handle Multiple Versions of Progress
- One point of configuration
- Simple scripts for handling the database
- Simple scripts for handling the Webspeed transaction broker

setenv.ksh

The setenv.ksh script is key to the architecture of the scripts. It provides a single point where configurations are referenced and prepared. All scripts that are related to your Progress based application should reference this script at the beginning.

By setting the DLC environmental variable, you can quickly change the application's Progress version by pointing it to the directory containing a different version of Progress. By doing this, you can go back and forth between Progress versions (usually upgrades) pain free.

Also included is an environmental variable (PFFILE) pointing to the parameter file for the Progress based application. Once again, different parameter files can be used easily by setting this one point in the scripts administrating your application.

It can be useful for batch oriented files to reference the PROPATH associated with your application. In addition, the logindb.ksh script will find this environmental variable useful. Note that in Webspeed applications, you will need to set the PROPATH in the ubroker.properties file.

If your application uses other variables to locate configuration files or for directory controls, these can be added in this script for ease of administration.

```
#!/bin/ksh
# $Header: /home/appl/opensrc/script/RCS/setenv.ksh,v 1.1 2002/01/14
23:58:16 sauge Exp sauge $

export DLC=/usr/dlc
export PFFILE=/db/amduus/parm/amduus.pf
export PROPATH=$PROPATH:/appl/opensrc/NN/src
export CONFFILE=/appl/opensrc/script/opensrc.conf
```

```
export BROKER=opensrc
```

startdb.ksh

The purpose of this script is to start the database servers. It uses the DLC set in the setenv.ksh script, as well as the PFFILE set there.

```
#!/bin/ksh
# $Header: /home/appl/opensrc/script/RCS/startdb.ksh,v 1.1 2002/01/14
23:58:16 sauge Exp sauge $

. setenv.ksh

$DLC/bin/proserve -pf $PFFILE
```

stopdb.ksh

This script will shutdown the databases. It uses the DLC set in the setenv.ksh script, as well as the PFFILE set there.

```
#!/bin/ksh
# $Header: /home/appl/opensrc/script/RCS/stopdb.ksh,v 1.1 2002/01/14
23:58:16 sauge Exp sauge $

. setenv.ksh

$DLC/bin/proshut -by -pf $PFFILE
```

logindb.ksh

Often times one will want to try out routines or access the data dictionary. This can be easily accessed via the character client. It uses the DLC set in the setenv.ksh script, as well as the PFFILE set there.

```
#!/bin/ksh
# $Header: /home/appl/opensrc/script/RCS/logindb.ksh,v 1.2 2002/01/15
00:19:42 sauge Exp sauge $
. setenv.ksh

$DLC/bin/mpro -pf $PFFILE
```

startweb.ksh

Often web brokers will be “web applications” all in a component-wise sense. To start the application, one needs to start the web broker for that application. This script provides a convenient way to start up the correct broker.

```
#!/bin/ksh
# $Header: /home/appl/opensrc/script/RCS/startweb.ksh,v 1.1 2002/01/14
23:58:16 sauge Exp sauge $

. setenv.ksh

$DLC/bin/wtbman -i $BROKER -x
```

stopweb.ksh

When one wants to stop a web application, this aptly named script references the single configuration point script and issues the proper commands.

```
#!/bin/ksh
# $Header: /home/appl/opensrc/script/RCS/stopweb.ksh,v 1.1 2002/01/14
23:58:16 sauge Exp sauge $

. setenv.ksh

$DLC/bin/wtbman -i $BROKER -e
```

watchweb.ksh

This script can give the user easily viewed information about the web application via the query option on the wtbman script. The user does not need to remember the broker name or syntax, only that they wish to “watchweb.”

```
#!/bin/ksh
# $Header: /home/appl/opensrc/script/RCS/watchweb.ksh,v 1.1 2002/01/14
23:58:16 sauge Exp sauge $

. setenv.ksh

$DLC/bin/wtbman -i $BROKER -q
```

restartweb.ksh

Sometimes one will change configurations in a web application. This provides a fast and easy restart script for the web application.

```
#!/bin/ksh
# $Header: /home/appl/opensrc/script/RCS/restartweb.ksh,v 1.1
2002/01/14 23:58:16 sauge Exp sauge $

. setenv.ksh

stopweb.ksh
startweb.ksh
```

About the author: Scott Auge is the founder of Amduus Information Works, Inc. He has been programming in the Progress environment since 1994. His works have included E-Business initiatives and focuses on web applications on UNIX platforms.
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Management Article: Examining the Linux Decision

Written by Scott Auge sauge@amduus.com

This article looks at Linux not so much from a technical viewpoint, but from a business and management view point. Choosing Linux as the primary operating system for my company presented issues that needed to be looked at in a business decision manner.

One CD, multiple machines.

Most commercial operating systems require a purchase of a license per machine. One cannot go out and buy one "copy" of the operating system and then put it on as many machines as one desires.

Linux varies from this business model by allowing installation of the operating system on as many machines as one desires. One need not even purchase the operating system from the major distributors, but can download the operating system. (Though, it is recommended on purchase at least one copy of the operating system as installation of it will be far more simple from CD.)

The business scenario this serves best, is the requirement of another machine in the company for load distribution. Using other operating systems, one would need to put forward money for an additional license, as well wait for the license to come in.

Linux's distribution model allows quick action of creating a new computer as well at a less expensive price.

One machine, multiple clients.

Most commercial operating systems limit the number of users allowed to log into or connect to the operating system at any one time. Under most UNIX licenses, only a certain number of logins will be allowed due to licensing constrictions. Under Windows, only so many users may be able to connect to a particular Window's service.

Linux allows as many connections and logins as the hardware will support for no extra costs.

Under a business scenario of hiring an additional worker, one does not need the overhead of additional user or connection licenses (or the activities associated to increase those) under Linux. Hiring workers with Linux is simple, fast, and inexpensive.

Licensing is simple

The next example is that one particular operating system is very specific about it's licensing. Sometimes you can get a Progress RDBMS operating on the machine, but the license under which the operating system was released into your possession forbids using the machine as a server.

In fact, the licensing restrictions made by this one particular un-named software giant makes Linux that more intriguing because one does not face the Software Business Alliance and it's tendency to bring torts against owners of this software company's products.

In fact, there are numerous times when one buys use of a product from this un-named company, only to discover that you really did not buy use of the product. This un-named company's licensing methods are becoming more and more complicated, and if you make the wrong choice, even if you did front money – you can be sued over it.

Linux licensing is simple. A short, non-legal answer is this: Use it inside your company all you want for whatever you want for whom ever you want. If you resell or redistribute Linux, or a derived work from Linux, you must also provide the source code. It's that simple.

One CD, multiple services.

Linux often presents a one-stop shop for basic services. Other operating systems often require the purchase of other tools for generating web pages, delivering mail, or basic networking services such as routing and DNS.

Under a business scenario, the company does not need to purchase other products as with other operating systems. It is a one stop smorgasbord of services available.

What about OS support?

One complaint often issued about Linux is the lack of "vendor support." The answer to this is entering a support contract with the distributor of the operating system. Often, the distributor of Linux makes their money this way! In addition, some of the larger distributors have consultants who can go on-site to provide service.

Hence, under a business scenario, if something appears that is beyond the internal resources of the company, external resources can be called for support at a paid rate.

What about Progress RDBMS support?

Since this is in a Progress oriented magazine, this question is addressed. Basically, yes. In fact, people have had Progress running on Linux before it was officially available for Linux!

The security issue and administration tasks.

I will be the first to admit that another operating system is unfairly singled out for attacks by the cracker community. I will also say, the unnamed operating system is a juicy target for crackers, because at it's core, it was never meant to be a networked operating system, but a personal operating system.

All that aside, there is extensive administration that needs to be performed on some of the other operating systems out there. This administration requires bodies and time to perform. Also, the more machines there are to perform this work on, that many more activities must be paid for.

The business scenario provided is a company that wants to spend it's time and resources on using it's information systems, not so much on patching and rebooting it's machines daily. One can blame hackers/crackers for a company's need to drop a server offline for patches, but the fact remains that server is out of operation.

Under Linux, the machines are there to do as they were bought and prepared for, not to provide jobs to system administrators, nor to interrupt business operations. Linux security problems are there, but they are there to a much smaller degree than some other operating systems out there. There is a smaller system administration team needed, and best yet, a lot of administration can be done remotely.

Can it handle the work load?

Linux has been used as an operating system in personal digital assistants to supercomputers used in atomic research. One can say the operating system can scale quite nicely. Linux has also been found to have a higher performance on older hardware.

The business scenario is that the company does not need to replace it's machines with the installation of a new operating system. And, since the better performance is there, it is conceivable that hardware upgrades can be performed less frequently equaling less down time, fewer costs, and more employee time oriented to strategic operations.

Additional Resources:

White Paper from Red Hat on TCO of Linux:
https://redhat1.rgc2.net/servlet/website/ResponseForm?koE09v3wyLn-aw

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A place to announce Progress User Groups, Open Source Exchanges, etc. No charge!

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http://www.progress.com/success/index.htm

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http://www.infoworld.com/articles/hn/xml/02/01/08/020108hnprogress.xml

Product Announcements:

Service Express

Service Express is available for sale. It provides a web based help desk system that can be used on an intranet or the internet. Highly configurable and supports workflow. We can run it ASP under your domain or our domain. Source code is available. It ships with source code. Service Express can be purchased for as little as $4,500.

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Amduus Information Works, Inc. is creating survey software. This software can be used on a web site to query a population of people about their views and needs. The population could be internal to a company or external to yield a better understanding of the marketplace. Documentation for the application will be available at http://www.amduus.com for free download.

The software ships with source code for better adaptability to your company's application landscape and needs.

Customers and resellers are welcome to contact Scott Auge at sauge@amduus.com for more information. Survey Express can be had for as little as $1,000.

The software can be rented out at $100.00 per survey per week of taking results.

Publishing Information:

Scott Auge publishes this document. I can be reached at scott_auge@yahoo.com.

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