

Integrity Journal

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Release of Activity Monitor

Last year we released *SourceTracker*, software to track source and WFL file changes. This year we are releasing *Activity Monitor* which is now out of Beta testing. *Activity Monitor* has the ability to monitor the activity of any file opened by any program running under MCP control. It is intended for disk files of programs communicating with network or internet software to insure that activity on the network has not ceased.

If one is in communication with applications on other servers and, for one reason or another, they stop sending data or activity of any kind, then it may not be known that there is a problem for some time. If something causes activity to diminish, it may also be desired to know this. Thresholds of activity are defined to the monitor so that warnings are issued when thresholds are not met.

Introductory Price - \$2,500

Online Resource Checking

The Doctor now has the ability to actively check online resources 24 hours a day. In the past this was limited to Online hours of operation because of processor defines. Meaningless alerts would be generated if used 24 hours. With current definitions, resources may be checked 24 hours a day without meaningless alerts. It should be noted that the newer

ClearPath computers have expanded the I/O capability considerably and the I/O definition should be altered accordingly.

Processor use, I/O use, memory use, disk file space, and disk activity are all monitored and compared with thresholds that you set for you desires. Default definitions are supplied, but they may be altered to any values needed.

Integrity Journal on the Web

The first *Integrity Journal* was mailed in September of 2004, almost one year after *Integrity Services* was started. There have been three issues a year (January, May, September) since that time. Several years ago the Journal was placed on our web page dating back to 1999. The current issue and previous issues are available under the Technical Info tab. The web page is www.integrity-services-inc.com. Because this is a very convenient media, it is our intention to continue offering the complimentary Journal only on the web page. This issue as well as the next two issues (September 2007, January 2008) will be mailed in written form as all the others have been.

Beginning in May 2008 the *Integrity Journal* will only be available on the web page. Feedback is always welcome. For anyone desiring an email to tell you there is a new Journal on the web page, we will be happy to do that. Send us your email address with the request. As always, our list of email addresses is not sold or given to others.

Life is full of miracles, but they're not always the ones we pray for.

Eve Arden

Cande Match Command

In order to compare the contents of two files there is a Match command in Cande. There is also a Unisys utility, System/Compare, which may be used. The Cande command is simple and easy to use. You may use it on two named files or you may compare a file to your work file. This command may be used to examine the differences in two versions of the same file or different files. It only makes sense if there are similarities in different files. For example let's say that I made changes to a WFL and used the former for daily use and the latter for monthly use. The command:

MATCH WFL/DAILY TO WFL/MONTHLY

Would generate a list of sequence numbers of the different files. The characters R, I, - are used to show which lines are replace, inserted, or deleted. If I wanted to see the exact changes, I would add :T such as:

MATCH WFL/DAILY TO WFL/MONTHLY:T

This would produce the text of each line that is different with R, I, _ in the left hand column. If, instead of listing the file I desired to create a file of the differences I would place a F in place of the T and follow that with a file name.

MATCH WFL/DAILY TO WFL/MONTHLY:F SAMPLEFILE

If I obtain a work file through the Get command then the syntax of the compare is simpler, ie.

GET SYMBOL/INVENTORY

MATCH SYMBOL/OLDINVENTORY:T

If I desired to only match certain lines I could do it as well.

MATCH SYMBOL/OLDINVENTORY 5000-9000:T

The match command is very similar to other Cande commands that deal with whole or partial files. The Insert, Merge, Rmerge, and Move commands use the :T and :F functions or allow sequence ranges.

When I have a work file and have made changes, there is another command to list changes that is more definitive in showing the changes. It must be used before a save is done. It is the list command which has many parameters. For example:

L:AFN

Will list all after images, fixes, and lines next to those that are changed so that changes may be seen in context. I find this to be a very helpful command.

In order to make extensive use of these commands over years of working with files it is important to not resequence the files. I have seen some people who resequence a file after any change, even a one-line fix. May I suggest that with proper preparation resequencing becomes less necessary. For example, when I am preparing to create a new source file for WFL or compiler use I do not use the default sequence numbers that Cande will use, if you let it. I prefer to make use of the full range of sequence numbers available so that future resequencing can be held to a minimum, and then only for portions of the file. Once I create a source file, I never resequence the whole thing.

This allows me to use a wider range of Cande commands and makes my work easier. For most program source and WFL source there are eight digit sequence numbers available. Therefore I use the first digit to signify major program areas and other sequence number digits to break these into groups of sequence numbers of related use. A class in Cande is being held in June. See information on page 5.

Scheduling Jobs/Tasks with the Holiday Calendar

In August, 2005 I implemented a calendar for holidays to augment the scheduling feature of the System Doctor. There were three functions implemented, but only one worked at that time. The function that worked was the 'H' mask for the day of the week or day of the month. This allows the job or task or any other command to be executed unless this day is a holiday. This was a user requested function and has worked from the beginning.

At that time I also implemented a 'P' and 'A' function to allow commands scheduled to be run on the previous day or the day after when the scheduled day was a holiday. There were some problems with this implementation that are now functioning correctly. Because the months of April and August start with 'A' the mask has been changed to an 'X'. The 'A' will still work for day of the week but not for day of the month.

What this means is that a scheduled command that falls on a holiday (as listed in the Doctor Calendar) can now be ignored (H), executed on the previous day (P), or executed on the next day (X). To accomplish the desired results you must change the mask used, 'SMTWTFS' or "JFMAMJJASOND" to a 'H', 'P', or 'X'. Full documentation is in the Doctor Control file. A full instruction of Doctor functions is available in video on 9 DVDs from last year's class.

*Don't try to go too fast. Learn your job.
Don't ever talk until you know what you're talking about...
If you want to get along, go along.*

Sam Rayburn

Marc Directives

Marc Directives are a means to add, modify, or delete Marc command functions. These functions may also be different for different users. For instance I have implemented the elimination of the 'GO' command for those who are not system users. This means that system users may use the 'GO' command, but it is not available to any other users. This can be helpful for security needs. The same is true with 'CO' and 'PA'.

If you have non-command capable users that you want to be able to start WFLs and run programs, but not have remove and other commands this could be accomplished with Marc Directives.

Another means of additional functionality with Marc is the use of Processing Items. They are more complicated to write and dangerous to test and implement. Marc Directives are easy to write and test. They can be turned on and off easily on the Directive menu. You can get there via menus, but more directly by using 'GO DIRECT' on the action line in Marc. If you have the *Integrity Doctor* software you are using Marc Directives. You may view the directives by checking the appropriate box.

You may implement different directives residing in one library or you may have multiple libraries for directives. For internal reasons you must use Algol to implement them. I have written custom directives for customers in just a few minutes. They are not normally complicated or difficult.

Password Storage Changes

Unisys has implemented a 48-bit hashing algorithm for storing passwords and it improved the performance. Now because of vulnerability to a dictionary attack, although this is mitigated by protecting the passwords from being viewed by casual observance, a new hashing algorithm has been implemented during the 52.1 release that was not part of the initial release. It is not yet documented in manuals. This will be done on MCP release 53.1. The current documentation is in the patchnotes.

The new 256-bit hashing of passwords is now available via a new security option called StrongPasswords. The new passwords are contained in hidden locators in the userdatafile. The initial implementation allows the use of both stored passwords so that you may move between MCPs that support the old as well as MCPs that support the new hashing. Once you are sure that you will not return to a former MCP then you can set StrongPasswords to Required and only use the new hashing.

This is just one more step that Unisys continues to make to insure that the MCP is the most secure operating system in the world. All you have to do to move to the new password hashing is to upgrade to the latest MCP. Setting StrongPasswords to Required may be done at any time thereafter.

One of the oddest things in life, I think, is the things one remembers.

Agatha Christie

Scheduled Classes

Integrity Services has scheduled classes for June 11 – 15 in Bath, Maine. There will be an overview of ClearPath computers, an intermediate class on WFL, and a class on Cande to help expand Cande knowledge for those with a very basic understanding of its use. Time, outside of class, will also be available for any user to discuss and ask guidance on initiating any functions desired with the *Doctor* software, providing they are possible.

Registration Form

Name 1 _____

Name 2 _____

Name 3 _____

Company Name: _____

Company Address: _____

E-mail Address: _____

Class fees are \$600.00 per attendee

Make checks payable to:
Integrity Services, Inc.

► Reservations requested by May 29th 2007 ◀

**For Reservations, send appropriate fees to:
Integrity Services, Inc.
10 Radnor Road
Newark, DE 19713**

A block of rooms has been set-aside at the Holiday Inn (207-443-9741) located in Bath one mile from the classes for those who identify themselves as attending the *Integrity Services*' class. Bed and breakfast facilities or rental cottages may be found through the internet. This is a vacation area so get accommodations soon.

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