Clarion Magazine

Clarion News

○ » SV on ClarionLive! on Clarion.NET

[More news]

○ » Clarion.NET FAQ

○ » Clarion# Language Comparison

[More Clarion & .NET]

[More Clarion 101]

Latest Free Content

○ » Mark Riffey's Network Troubleshooting Page

[More free articles]

Clarion Sites

Clarion Blogs

Latest Subscriber Content

Running Clarion on a Mac

More and more Clarion developers are trying out the Mac. Perhaps, like Mark Riffey, you want to do a little iPhone development. But can you run Clarion in a Windows virtual machine on a Mac? Mark shows how it's done.

Posted Thursday, February 11, 2010

Mark Riffey's Network Troubleshooting Page

Mark Riffey's famous collection of network troubleshooting tips and techniques now resides at ClarionMag. This is a free access article.

Posted Tuesday, February 16, 2010

Clarion 7.1.6755 Shows Significant Improvement

Clarion 7.1.6755 is the most stable C7 release to date. Dave Harms looks at two critical issues (reported fixed for the next release), recent fixes and improvements, and the prospects for wide acceptance of 7.1 in the very near future.

Posted Wednesday, February 17, 2010

The Clarion# Compiler: It's C# Under The Hood

Reading through a Russian language PDF on Clarion7/Clarion.NET, Graham Dawson made a surprising discovery: The Clarion# language doesn't compile to IL code: it compiles to C# code.

Posted Thursday, February 18, 2010

ClarionMag 2010: The Beta

We've been working on a compete rewrite of the ClarionMag web site/server for some time now, and the first beta is online!

Posted Wednesday, February 24, 2010

C7.1 - Mask and Preview

When Steve Parker began working with C7 the two significant problems he found were the absence of a window preview mode and problems with the Mask attribute on D1 entry fields. These are reportedly working in the latest 7.1 releases; Dr. Parker assesses the fixes.

Posted Saturday, February 27, 2010

Clarion 101: Passing Groups

GROUP structures are a great way to collect a bunch of related variables in one place. But how do you pass them between procedures, sometimes repeatedly? Tony York explains.

Posted Sunday, February 28, 2010

[Last 10 articles] [Last 25 articles] [All content]

Source Code

The ClarionMag Source Code Library

Clarion Magazine is more than just a great place to learn about Clarion development techniques, it's also home to a massive collection of Clarion source code. Clarion subscribers already know this, but now we've made it easier for subscribers and non-subscribers alike to find the code they need.

The Clarion Magazine Source Library is a single point download of all article source code, complete with an article cross-reference.

More info • Subscribe now

Printed Books & E-Books

E-Books

E-books are another great way to get the information you want from Clarion Magazine. Your time is valuable; with our e-books, you spend less time hunting down the information you need. We're constantly collecting the best Clarion Magazine articles by top developers into themed PDFs, so you'll always have a ready reference for your favorite Clarion development topics.

Printed Books

As handy as the Clarion Magazine web site is, sometimes you just want to read articles in print. We've collected some of the best ClarionMag articles into the following print books:

- ○ » Clarion Tips & Techniques Volume 5 - ISBN 978-0-9784034-1-6

- ○ » Clarion Tips & Techniques Volume 4 - ISBN 978-0-9784034-0-9

- ○ » Clarion Tips & Techniques Volume 3 - ISBN: 0-9689553-9-8

- ○ » Clarion 6 Tips & Techniques Volume 1 - ISBN: 0-9689553-8-X

- ○ » Clarion 5.x Tips and Techniques, Volume 1 - ISBN: 0-9689553-5-5

- ○ » Clarion 5.x Tips and Techniques, Volume 2 - ISBN: 0-9689553-6-3

○ » Clarion Databases & SQL - ISBN: 0-9689553-3-9

We also publish Russ Eggen's widely-acclaimed Programming Objects in Clarion, an introduction to OOP and ABC.

From The Publisher

About Clarion Magazine

Clarion Magazine is your premier source for news about, and in-depth articles on Clarion software development. We publish articles by many of the leading developers in the Clarion community, covering subjects from everyday programming tasks to specialized techniques you won't learn anywhere else. Whether you're just getting started with Clarion, or are a seasoned veteran, Clarion Magazine has the information *you* need.

Subscriptions

While we do publish some free content, most Clarion Magazine articles are for subscribers only. Your subscription not only gets you premium content in the form of new articles, it also includes all the back issues. Our search engine lets you do simple or complex searches on both articles and news items. Subscribers can also post questions and comments directly to articles.

Satisfaction Guaranteed

For just pennies per day you can have this wealth of Clarion development information at your fingertips. Your Clarion magazine subscription will more than pay for itself - you have my personal guarantee.

Dave Harms

ISSN

Clarion Magazine's ISSN

Clarion Magazine's International Standard Serial Number (ISSN) is 1718-9942.

About ISSN

The ISSN is the standardized international code which allows the identification of any serial publication, including electronic serials, independently of its country of publication, of its language or alphabet, of its frequency, medium, etc.

Clarion Magazine

Clarion Magazine

Clarion News

Search the news archive

Free Batch Compiler For C7.1

If you've got the latest Clarion 7 (C7.1.0.6813 or later), you may find this free utility useful for bulk compile of single app solutions. This is the utility used to batch compile the CHT C7 demo applications.
Posted Monday, March 01, 2010

CalendarPro 2.03

Version 2.03 of the CalendarPro Wrapper template is available, along with an updated demo. Modifications include: 'Allow All Day Events to be Moved' option added; 'Allow All Day Events to be Resized' option added; 'Allow Events to be Moved' option expanded; 'Allow Events to be Resized' option expanded; 'Allow Recur. Events to be Moved' option expanded; 'Allow Recur. Events to be Resized' option expanded; New Calendar method: 'AllowAllDayEventMove'; New Calendar method: 'AllowAllDayEventResize'; New DatePicker method: 'MoveSelection'; BUG FIX: DeleteAllEvents now clears memory Cache; BUG FIX: Custom Colours could disappear when double click used and not reappear immediately afterwards; BUG FIX: 'Event Moved' embed point not firing under certain circumstances within multiple Schedules; BUG FIX: GetSelected...Date() could return incorrect value in Week Summary and Month view. The new version can be downloaded from the Members area using the original download and registration details contained in your sales email.
Posted Monday, March 01, 2010

vuMail 3.11

vuMail 3.11 is a free interim BETA release that includes the ability to automatically import and embed images in the body of an email. See "What's New" in the help file for a complete explanation. No changes to any source code is necessary to use vuMail 3.11 (just replace the vuMail.dll).
Posted Monday, March 01, 2010

vuFileTools 3.51

A new maintenance release of vuFileTools is available for immediate download. vuFileTools ver 3.51 is a free update. Changes include: vuRecordWav, spaces are now allowed in the name and path; vuISOS64(), function wasn't exported; Updated memory calls to work on Windows 98; vuCopy() the new updated allows you to copy wildcard files in both the root and subdirectories, but at the cost of speed and the loss of being able to use a UNC for the path, vuCopy() now allows you to choose which method to use; vuFindFile(Filename, Location) can locate a file and return the complete path and name (restricted to where you want to search, can have multiple location criteria).
Posted Monday, March 01, 2010

Noyantis Installer C7.1 Compatibility

All of the Noyantis template installers are now C7.1 compatible. Please fully uninstall any previous versions prior to using the new installers.

Posted Monday, March 01, 2010

amazingGUI 1.2.1.2

amazingGUI 1.2.1.2 has been released. Users with an active suscription will recieve installation keys by mail. Changes include: In multi-DLL projects the data application was trying to export the RunTime Enabling variable even when RunTime Enabling function was not selected; There was a missing function when compiling LOCAL.

Posted Monday, March 01, 2010

SetupBuilder 7.2 Build 2884

A pre-release version of SetupBuilder 7.1, Build 2884 is now available. If you would like to get access to SetupBuilder "Development Builds" (pre-releases), please send your serial number to sales at lindersoft.com. A current maintenance and support plan subscription is required.

Posted Monday, March 01, 2010

Query Wizard 7.03

ClarionTools has released Query Wizard Version 7.03. This release is available immediately and is FREE to all registered Query Wizard 7 developers. Existing customers are encouraged to update to this latest version. Query Wizard supports ABC and Legacy Template Chains, for Clarion C55, C61, C62, C63, C70, and the latest C71 release.

Posted Monday, March 01, 2010

HTMLEditor Wrapper 1.01

Version 1.01 of the HTMLEditor Wrapper template is available. Modifications include: 'FTP' facilities added; 'FTP' Window Controls template added allowing files to be sent to and received from remote servers; 'Merge Process' Extension template added allowing data merged versions of the HTML content to be sent directly to a Printer or a Saved HTML File; New method 'CancelFTPTransfer'; New method 'DeleteFTPFile'; New method 'GetDOMObject'; New method 'GetFTPFile'; New method 'GetFTPInProgress'; New method 'ListFTPFiles'; New method 'PutFTPFile'; New method 'SelectControl'; New method 'SetDocumentTitle'; New method 'SetLocalImageStore'; New method 'UpdateFTPSettings'; BUG FIX: Formatting error when HTML data specified as the initial content. The new version can be downloaded from the Members area using the original download and registration details contained in your sales email.

Posted Monday, March 01, 2010

Icetips Window Fixer

Icetips Alta LLC has released the first public build of Icetips Window FixerYou need a valid Gold or Silver subscription to be able to download the Window Fixer install. The Icetips Window Fixer takes care of checking the position of each window when it opens and move it if necessary to make sure that the window is visible. It works on application frame windows, MDI windows and non-MDI windows. The Window Fixer enumerates all monitors on the system and will check each window and each monitor to make sure that the windows are correctly positioned. If windows are partially or fully

outside of the virtual screen the Window Fixer will move them to the nearest monitor. The Icetips Window Fixer comes with two example applications and one hand coded demo project. The examples are in Clarion 6.3 format and Clarion 7.1 format, one in ABC, the other in Clarion (Legacy) and one hand coded. Icetips Window Fixer works with both ABC and Clarion (Legacy) applications and works in multi-DLL systems as well as standalone executables. There are no black boxes and the product is 100% Clarion source and template code. To apply the Icetips Window Fixer to your application you only need to add a single global template. If you want to override settings you can do that with one or two lines of embedded code - well demonstrated in the example applications. The Icetips Window Fixer is available to both Silver and Gold subscribers and you need to have a valid subscription to be able to download the install.

Posted Monday, March 01, 2010

ReportControl Wrapper 1.13

Version 1.13 of the ReportControl Wrapper template is available. Modifications include: Codejock v13.2.2 compatibility added; New 'Icon View' explorer view type added; New 'Filter' facility added; Automatic 'Row Number' option added; 'Always Reload External Images' option added; 'Best Fit' option added to Column definition; 'Expandable' option added to Column definition; 'Filterable' option added to Column definition; Header 'Alignment' option added to Column definition; Footer 'Text', 'Font' and 'Alignment' options added to Column definition; Row Cut, Copy and Paste options added ***BETA***; Icon Size attributes added to Column definition; Icon Size attributes added BrowseEnhancer Column Overrides (eg, override standard browse icon size); New method added - 'ApplyFilterText'; New method added - 'AllowRowCopy'; New method added - 'AllowRowCut'; New method added - 'AllowRowPaste'; New method added - 'ClearContent'; New method added - 'ClearFilterText'; New method added - 'ClipboardCut'; New method added - 'ClipboardCopy'; New method added - 'ClipboardPaste'; New method added - 'CreateIconViewColumn'; New method added - 'CreateRowNumberColumn'; New method added - 'DisplayIconView'; New method added - 'DisplayRowNumberColumn'; New method added - 'GetBackColor'; New method added - 'GetColumnExpanded'; New method added - 'GetColumnFiltrable'; New method added - 'GetColumnProperty'; New method added - 'RecalcColumnBestFit'; New method added - 'RefreshMetrics'; New method added - 'SetColumnBestFitMode'; New method added - 'SetColumnExpandable'; New method added - 'SetColumnFiltrable'; New method added - 'SetColumnExpanded'; New method added - 'SetColumnFooterAlignment'; New method added - 'SetColumnFooterFont'; New method added - 'SetColumnFooterText'; New method added - 'SetColumnHeaderAlignment'; New method added - 'SetColumnProperty'; New method added - 'SetFontAttribs'; New method added - 'SetIconMaskColor'; New method added - 'SetRelatedListCtrl'; New method added - 'SetRowBackColor'; New method added - 'SetRowNumberStartRow'; New method added - 'SetupIconView'; BrowseEnhancer positioning corrected and enhanced; BUG FIX: GPF when right clicking on InPlace Expand; BUG FIX: BrowseEnhancer bleeding through Tabs; BUG FIX: ActiveX registration was being called too early on the BrowseEnhancer template. The new version can be downloaded from the Members area using the original download and registration details contained in your sales email.

Posted Monday, March 01, 2010

Blog: Setting Previewer Output Targets

Arnor Baldvinsson has put up a new blog entry about how to set the filenames/paths for report previewer target files, such as PDF or HTML files.

Posted Monday, March 01, 2010

Noyantis Acquires LGP, gCalc, gFileFind

The LGP, gCalc and gFileFind utilities have been transferred to Andy Wilton from Noyantis.

Posted Monday, March 01, 2010

iQ-XML 2.60

iQ-XML 2.60 has been updated for C6.3 (All versions) and C7.1. The Clarion 7.0 version will not be updated, but is still available for download on the website. This new version is now changed to fully support UTF-8 conversion for both the writer and the parser. If the document coming in is UTF-8, it will be encoded as well as when writing the document. In the Examples App, under writer, you'll see an example of the UTF-8 writer where the Clarion viewer shows it unencoded, but when opening it in a web browser or XML editor, it then changes to the converted values (both double-byte and triple-byte). iQ-XML is a *free* tool for Clarion developers to add XML functionality to their applications with very little knowledge. It offers many features not found in Clarion's own XML functions. iQ-XML comes with both Parser and Writer functions. Generate an XML document from a Clarion Queue, Group structure, or using the API's. A novice user can read a complex XML document and fill a Clarion Queue easily. Navigate easily through the XML document, finding nodes and parsing only what you need.

Posted Monday, March 01, 2010

gCalc 5.1 Updated for Clarion 7.x

gCalc has been updated for compatibility with Clarion 7.x. This C7 install is free for current Wingnut gCalc customers.

Posted Monday, March 01, 2010

TraceIt Updated

TraceIt is now Clarion 7.1 and Nettalk Web Server compatible.

Posted Monday, March 01, 2010

SetupBuilder 7.1

Lindersoft has released SetupBuilder 7.1. This release is available, free of charge, to all SetupBuilder customers who have an active SetupBuilder maintenance and support subscription plan. The update contains several enhanced features and important bug fixes.

Posted Monday, March 01, 2010

Super Tagging 7.01

Super Tagging 7.01 is available for download. There is one new feature in this version: buttons for Tag Rest, Untag Rest and Flip Rest. These are similar to the "All" buttons, except that they begin at the current position in the browse. See the "Upgrading from Earlier Versions" section in the docs to learn how to add these to your existing Super Tagging browses. For upgrades and the new passwords, please contact Mitten Software (www.mittensoftware.com).

Posted Monday, March 01, 2010

EasyListView 1.03

EasyListView version 1.03 has been released. There are numerous changes to the demo app and the templates, and a number of new methods have been added. Note that you don't need to re-register new EasyListView.dll. This is a free upgrade for all customers who have a current (valid) subscription plan. EasyListView is a Clarion wrapper around a .NET ListView.

Posted Monday, March 01, 2010

Super Security 7.00

Super Security 7.00 is available for download. This is primarily a compatibility upgrade, making it work with Clarion versions 6.x through 7.1.

Posted Monday, March 01, 2010

ProScan and ProImage For Clarion 7.1

New installers for Clarion ProScan and Clarion ProImage that support Clarion 7.1 are now available for immediate download. These are multi-mode installers that support concurrent installs of Clarion 7.0 and Clarion 7.1 as well as Clarion 6 and Clarion 5.5. Note that you will need the latest installer for ImageEx (available from Solid Software) if you want to install on Clarion 7.1. This is a free update for all Clarion ProScan 2.0 and Clarion ProImage 2.1 users. Users of older versions of ProScan and ProImage can upgrade for $59.95 each (or upgrade your ProScan/ProImage combo for only $99.95).

Posted Monday, March 01, 2010

RPM for 7.1.6695

This build fixes the problem with copies, a couple of bugs, and includes corrected support for LOCAL compiles without duplicates. Please read the Change Log available at the end of the install. It contains notes on what was changed in the libraries to rid LOCAL compiles of the duplicates. For those using AFE, an updated install for 6695 is not required but will be provided.

Posted Monday, March 01, 2010

Icetips February Newsletter

The Icetips Alta February newsletter is now available online.

Posted Monday, March 01, 2010

SV on ClarionLive! on Clarion.NET

In this week's webinar SoftVelocity's Bob Foreman and Pierre Tremblay will demonstrate Clarion.NET. Bob Foreman will start with a WinForms demonstration. Sample projects include: User interface possibilities in .Net (Docking windows, Ribbon menu, Autocomplete, and more); Typed files; Queues; Mixed language projects (Clarion# and C#). Pierre Tremblay will present the ASP.NET/Webforms side of Clarion.NET, featuring ASP.NET and AJAX. A Q&A will follow both presentations.

Posted Wednesday, February 17, 2010

amazingGUI 1.2.0.3

amazingGUI 1.2.0.3 has been released. Changes include: Fix for multi-DLL applications; A Clarion 7.1 installer. amazingGUI is available on Clarion Shop for $119.

Posted Thursday, January 21, 2010

Molebox Intro Price

A 15.00% relative discount on Molebox is available until January 31, 2010. MoleBox is a software virtualization and protection

tool that allows delivering your application as a portable stand-alone secure EXE file which runs instantly with zero installation. MoleBox packs all application files into a single efficient executable file that works without extracting packed files to the hard drive and creating temporary files. MoleBox also applies a number of protection techniques to packed files, including anti-crack protection for EXE and DLLs, resource protection, protection from modification for data files, and many more.

Posted Thursday, January 21, 2010

Thin@ 1.24

Thin@ 1.24 is now available. changes include: Clarion 7.1 is now fully supported (for Clarion7.0 thin@ files check .zip version of the installer; Command line scripts have been added to the setup dialog in the NetMonitor service (The default script allows starting / terminating thin@ service (NetServer and NetListen) if they become unexpectedly unavailable); Client side progress dialog function implemented; Prop:maxwidth and prop:maxheight attributes supported (allowing scrollable images); PressKey() and Press() function is now fully supported (6.3 on); Use ENTER keys instead of TAB template feature is now fully supported; Supported prop:join and prop:spread sheet's parameters; Spin controls up and down arrows now properly generate event:newselection event; Added functions Risnet:GetClientPath() AND RisNet:SetClientPath(STRING); Skip print preview report option is now working properly with Legacy templates

Posted Thursday, January 21, 2010

Super Import-Export 7.00

Super Import-Export 7.00 is available for download. It's a major upgrade, featuring: Job support to remember field assignments, automatic imports and exports, etc; Local variables can be included in list of exportable columns; User-specified formulas supported in exports; Extra #EMBEDs around list queue population; Improved handling of various unusual field and string delimiters; Add unlikely option of omitting fields when they are blank; FormatExportRecord CASE structure is broken into smaller chunks, to speed up compiles for very large export lists (and to enable exceedingly large export lists); When auto assigning fields using header record, matcher tries field names without prefix, uses UPPER, etc; Added ImportBasic_PreviousRecord function, as well as support for ?PrevRecord button; Increased maximum limits on record size, field size and field count.

Posted Thursday, January 21, 2010

Super QBE 7.00

Super QBE 7.00 is available for download. It's primarily a compatibility upgrade, making it work with Clarion versions 6.x through 7.1.

Posted Thursday, January 21, 2010

Super Import-Export 7.00

Super Import-Export 7.00 is available for download. This is a major upgrade, featuring: Job support to remember field assignments, automatic imports and exports, etc; Local variables can be included in list of exportable columns; User-specified formulas supported in exports; Extra #EMBEDs around list queue population; Improved handling of various unusual field and string delimiters; Add unlikely option of omitting fields when they are blank; FormatExportRecord CASE structure is broken into smaller chunks, to speed up compiles for very large export lists (and to enable exceedingly large export lists); When auto assigning fields using header record, matcher tries field names without prefix, uses UPPER, etc; Added ImportBasic_PreviousRecord function, as well as support for ?PrevRecord button; Increased maximum limits on record

size, field size and field count.

Posted Thursday, January 21, 2010

Clarion Magazine

Mark Riffey's Network Troubleshooting Page

Visit Mark's business blog

Resolving network and other file problems with Topspeed / .tps / tps files
This page covers info Windows 98/NT to present day, but most of it is NT/2000/XP related.

Last updated August 26, 2009

(Added more Win2008 SMB2 stuff)

Network / file problems, such as those with symptoms like error 1477 and 2172, can take many forms.

They can be caused by one or more of the following:

- Kinked or damaged cable - just because it looks ok doesn't mean it is - test it or swap it out for another one you may have.

- Cable running close to a fluorescent light ballast (fixture)

- Loose connector/plug on cable

- Old "worn out" cables, particularly coax cables that have been around for years

- Out of date drivers

- Bad hub or a bad port on a hub

- Failed/failing network card

- Power problems (PLEASE protect your systems with a UPS, power problems are one of the biggest troublemakers we know of. Yes, a UPS might cost $79 to $450 depending on how big a unit you buy, but how much is your computer and a day's worth of business worth? Consider it much less than the time to fix a power-caused mess.

- Network setup and/or configuration problems.

- Inadvertent shutdowns

- Shutting down servers while workstations are still in the program

- Out of date network drivers (even those right out of the box are sometimes a problem)
- Improper or less than desirable network bindings/settings
- Loss of network connections caused by server-management-induced timeouts

NOTE: Remember that having backups is a saving grace in the face of file/network problems. Network problems can corrupt your files in a heartbeat. If you have no backups, you are in big trouble (future or present - trouble will occur). Having backups is a responsibility you must take VERY seriously.

Another nice resource of Windows networking info is http://www.windowsnetworking.com/articles_tutorials/ (Thanks to Earl for passing that one on).

Drivers up to date? Windows networking is subject to a number of problems, MANY of which can be solved simply by installing updated driver software from the manufacturer or (more often) Microsoft. The link below will go to a web page that describes just ONE of the problems in Windows peer-to-peer networking, yet there are several other problems referenced at the bottom of that page. In particular, anyone on Windows 95 needs to get their network drivers and "requestor" updated. http://support.microsoft.com/support/kb/articles/q174/3/71.asp and http://support.microsoft.com/support/kb/articles/q148/3/67.asp in particular note some problems that can burn you.

Windows NT users - Are you on service pack 6 instead of service pack 6a or another service pack? If so, expect lots of problems. Microsoft has acknowledged that service pack 6 broke a lot of things network-wise. You can get service pack 6a at their site or you can go back to service pack 5, either of which is stable. In addition, do NOT mix service packs on different NT machines on your network. In other words, run all your NT machines on service pack 5 or on service pack 6a, but not a mix of both service packs.

Test your network using TestLock
Download this program. Follow the instructions. Use it. Note: I didnt write it. I cant support it. I just follow the directions and use it.

Is your network slow when using a mapped drive letter?
The reason is this: The computer has both TCP/IP and NetBEUI (network protocols, similar to different spoken languages). TCP/IP for the Internet and NetBEUI for the local network. TCP/IP is the default protocol. When connecting to a mapped drive after some idle time, the computer tries to connect first over TCP/IP and times out. Then and only then it tries the NetBEUI connection. Go to the Control Panel > Networks > Bindings. Make NetBEUI as the default protocol.

Is your network slow when using a mapped drive letter? (part 2)

Is the drive mapped to the main computer's drive or to a folder?

If it is mapped to a folder, you will likely see a decrease in performance, often a quite noticeable decrease. We are not sure why this happens, but mapping directly to the drive has been proven time and time again to be faster. We have not discovered the reason for this, despite extended searches of Microsoft's tech database (http://msdn.microsoft.com).

Is your network slow?

Recently, we have noticed that the "Windows Indexing Service" has a seriously negative effect on network performance. Turn it off. The indexing service scans your hard disk and indexes the files so that the next time you do a file search, Windows can find the files more quickly. Turn it off. Think about how often you do searches vs how much time you waste waiting on your network. Do a search and do other work while waiting for it. Its just not worth waiting 99% of the time to speed up 1% of your work.

Is your Windows 2003 network slow?

#1 - Get all the Windows 98 machines off of the network. Not just out of your program, but OFF THE NETWORK.

#2 - Get all XP machines on Service Pack 2.

#3 - Get Windows 2003 on Service Pack 2 or later.

#4 - Disable SMB On the Windows 2003 Small Business Server, run "gpmc.msc" and make sure the following policies (10 in total) are all 'Disabled' (instead of 'Not defined') in BOTH 'Default Domain Security Policy' and 'Default Domain Controller Security Policy':

NOTE: The policies are under 'Windows Settings' -> 'Security Settings' -> 'Local Policies' -> 'Security Options'.

1) Microsoft network client: Digitally sign communications (always): Disabled
2) Microsoft network client: Digitally sign communications (if server agrees): Disabled
3) Microsoft network server: Digitally sign communications (always): Disabled
4) Microsoft network server: Digitally sign communications (if client agrees): Disabled
5) Network security: LAN Manager authentication level: Send LM & NTLM - use NTLMv2 session security if negotiated

B. Restart the DC and client computer to take effect.

Do some or all computers on your network randomly "die", "go to sleep" or "hang"?

Usually, this is caused by power management being active on the workstation and possibly the server. Power management is

a fancy computer geek word for "*Windows has settings that turns stuff off when it hasn't been used in a while*". Power management is a bad thing on a network. It's great on a laptop at 37,000 feet with 3 hours remaining of your flight, but it's far more trouble than it is worth otherwise. Bottom line issue: You dont want network cards turning off because you haven't moved your mouse for 20 minutes. You dont want your server's hard drive turning off because no one has touched the server keyboard in the last 30 minutes (this might make your workstations just a little bit cranky when they are trying to read stuff on that server's drive). This is exactly what Power Management is supposed to do, but you don't want this to happen when using a networked database. To investigate, go to Start, settings, control panel (XP in "ugly mode" or Windows 2000) or Start, Control Panel (XP in "pretty mode") and double click the Network Connections icon (if that doesnt exist on your computer, you need to find the place where you can change settings on your network cards). Find your network adapter on this screen. Usually it will say something like "Local Area Connection" or "Wireless Connection 1" (if you are ignoring our advice and using wireless). Right click that icon, click properties. When the screen opens, you'll see the name of the network card up near the top, just below the tabs. To the right of that, there is a Configure button. Click it. When the next screen opens, there will almost certainly be a Power Management tab. On that tab, chances are you will see a checkbox that says something like "Allow the computer to turn off this device to save power". Uncheck the box and click OK until you dont have to look at all these network settings anymore. Reboot your PC, hope for the best.

Windows 98 networking

Here is Microsoft's "best place to start" page for dealing with Windows98 issues, including networking issues. http://support.microsoft.com/highlights/w98.asp

Windows ME (Millennium) networking

Here is Microsoft's "best place to start" page for dealing with Windows ME/Millennium issues, including networking issues. http://support.microsoft.com/highlights/winme.asp

Windows 2000 networking

Here is Microsoft's "best place to start" page for dealing with Windows 2000 issues, including networking issues. http://support.microsoft.com/highlights/Win2000.asp

Windows XP networking

Here is Microsoft's "best place to start" page for dealing with Windows XP issues, including networking issues. http://support.microsoft.com/highlights/winxp.asp

Windows 2003 Server networking

http://support.microsoft.com/default.aspx?scid=fh;EN-US;winsvr2003

Need Netbeui on your XP systems and can't find it?

Click here to find out how to install it. http://support.microsoft.com/search/preview.aspx?scid=kb;en-us;Q301041

Workstation drive letters "getting the red X" (disconnecting from the main computer)

You can disable this by issuing this command from the DOS command line: net config server /autodisconnect:-1

Before using this command, we suggest you read the Microsoft article that discusses autodisconnect. You can find it

here: http://support.microsoft.com/default.aspx?scid=kb;en-us;138365

Windows 2000 or Windows XP mapped drives disconnecting for no apparent reason? (showing the red X over the

drive in explorer)

http://support.microsoft.com/default.aspx?scid=kb;en-us;138365

Novell Netware problems?

The problem could be your Novell Opportunistic Locking setting. Contact your network person for further details. How to

turn it off? Goto Control Panel -> Networks -> Novell Client Properties -> Advanced Settings Tab -> Opportunistic

Locking and make sure this is switched off on all client Machines - ALSO Make sure True Commit is ON at each client

PC (This should help stop data corruption)

Performance issues are often caused by network protocol "bindings"

Check the following Network protocols basics:

- Make sure that your default network protocol has no bindings to a virtual device (dialup.....).
- If you are using TCP/IP and you have dialup on this workstation, try NetBEUI.
- Try to avoid using IPX and NetBEUI together. IPX gets confused when you have a "chatty" NetBEUI. Removing IPX (if you can) is strongly advised.
- If you need to examine the network further, check out http://www.sysinternals.com/Utilities/TdiMon.html to get a bird's eye view of what's going on.

Does the system work on some machines but seems to "think about it" and then do nothing on others?

Sometimes your Windows doesn't have enough "files" set in your config.sys. Try 100 or 125. If this isn't descriptive

enough, you need to have your consultant do this for you. Sometimes having full-time virus scanning turned on does this.

Ask your virus software vendor how to work around this OR exclude our program from your scanner if you can. Power management - Do you have Energy Star features on your computers? Probably so. Power management and networking DO NOT MIX. You can have your computers' power management features turn off and/or dim the monitor, but DO NOT have them turn off the hard drive, network cards etc. This will definitely cause you grief when computers are networked. Grief = lost data

Database corruptions, timeouts and other troubles

Another issue is the various ways that Windows9x and NT try to improve performance, often at the price of stability. Sometimes these things work, other times they cause network timeouts because they force additional file operations behind the scenes and those file operations time out (fail). One way to turn one of these items off is to turn off "Synchronous buffer commits". To do this, click Control Panel, System, Performance, File System, Troubleshooting and check the "Disable synchronous buffer commits" checkbox.

Database corruptions, timeouts and other troubles, part II

Further, Windows NT users face issues caused by some performance improvements that NT tries to implement with network applications by 'faking' multiple use of files. Unfortunately, some users experience file corruption because of this. This article is a bit of nerd-speak, but your network person should take a look at it if you are seeing "Access denied" errors on network files when they *know* that the network permissions are set properly. http://support.microsoft.com/support/kb/articles/Q129/2/02.asp The topic of this article can also be the cause of database corruption and network timeouts (drive not available messages and the like).

Win9x/Me users - Turn off write caching

You need to disable the "write-behind cache". When the program ask to save the data, the data is kept in cache on the local machine [until the cache is flushed] instead of being on the server.

START > SETTINGS > CONTROL PANEL

System

Performance tab

Troubleshooting

Performance

Disable the write-behind cache

Restart the computer

Windows 2000 and Windows XP users - Turn off write caching

You need to disable the "write-behind cache". When the program ask to save the data, the data is kept in cache on the local machine [until the cache is flushed] instead of being on the server.

Right Click MY Computer > Properties > Hardware > Device Manager

Right Click Disk Drive > Properties

Disable: Write Cache Enabled

Restart the computer

Opportunistic locking (oplocks) and performance

This white paper discusses issues related to opportunistic locking - something that can seriously impact performance on ISAM databases (which ours are). This site is related to a product (DataFlex) that we do NOT use, but the same issues can impact your tps databases, usually causing error 530 or other error 5XXs. http://www.dataaccess.com/whitepapers/opportunlockingreadcaching.html

More oplock info below in the Windows 2008 / SMB2 discussion.

More Microsoft articles related to opportunistic locking

Now you see why we suggest keeping up to date on Microsoft fixes...

http://support.microsoft.com/default.aspx?scid=kb;en-us;q124916

Some Client Applications Fail when writing to Windows NT

http://support.microsoft.com/default.aspx?scid=kb;en-us;q129202

PC EXT: Explanation of Opportunistic locking in Windows NT

http://support.microsoft.com/default.aspx?scid=kb;en-us;q130922

Event error 2022: Server unable to find a free connection

http://support.microsoft.com/default.aspx?scid=kb;en-us;q138365

How the autodisconnect works in Windows NT

http://support.microsoft.com/default.aspx?scid=kb;en-us;q142803

Locking error or Computer hangs Accessing network database files

http://support.microsoft.com/default.aspx?scid=kb;en-us;q148367

Possible network file damage with redirector caching

http://support.microsoft.com/default.aspx?scid=kb;en-us;q152186

Possible network data corruption if locking not used

http://support.microsoft.com/default.aspx?scid=kb;en-us;q163401

How to disable network redirector file caching

http://support.microsoft.com/default.aspx?scid=kb;en-us;q174371

Possible database file damage when data is appended

http://support.microsoft.com/default.aspx?scid=kb;en-us;q219022

Improving performance of MS-DOS database applications (ours arent DOS, but its good reading anyhow)

http://support.microsoft.com/default.aspx?scid=kb;en-us;q296264

Configuring opportunistic locking in Windows 2000

http://support.microsoft.com/default.aspx?scid=kb;en-us;q290757

Write caching settings for hard disk may not persist after you restart your computer

Another NT issue re: slow network performance with Service Pack 4, 5, 6, or 6a (Q249799)

http://www.microsoft.com/technet/support/kb.asp?ID=249799

Fix that leaky hose

While it is certainly possible, don't automatically assume network errors are a program problem. I've seen TPS-based programs used in many, many networked systems and by as many as 130 people simultaneously on ONE network. Do other multi-user applications work ok? Can you save a text file into our application's directory using Windows Notepad? If not, the problem is more than likely with the network setup. Just one little thing related to sharing or "permissions" can mess things up. Keep in mind that our programs have many (as many as 80 or more) files open across your network at once, where Notepad only has one. Like a leaky hose where you dont see the leaks till lots of water is going through the hose under pressure, a network can exhibit similar behavior and not fail until it is under a heavy load.

Getting a TPSBT 1477 and/or 2172?

The 1477 and 2172 errors are caused by improperly "closed" files. Kind of like a file cabinet whose drawer or file wasnt closed. Improper closing can be caused by rebooting the server while the workstation is in the program, rebooting a workstation while it is in the program, logging out while you are in the program, having a power outage or even a "burp"

in the power, and so on. The items noted above can help this situation as well. Our tps-based programs have anywhere from 30-80 files open at once. Most other programs that you use on the network dont "push" the network anywhere near this hard. Sometimes a network is like a bad garden hose. Turning the water on slow doesnt expose a leak. Turning it on full force and putting your thumb over the end does.

Another nice network troubleshooting resource: http://farreachtech.com/network_troubleshooting.asp

SMB2

On Server 2008 is a new OpLocks called SMB 2.0

How to disable and more info:

http://www.petri.co.il/how-to-disable-smb-2-on-windows-vista-or-server-2008.htm
Registry key: HKLM\System\CurrentControlSet\Services\LanmanServer\Parameters
key name: Smb2 REG_DWORD 0 = disabled

See also http://www.softrak.com/products/compatibility/windowsserver2008.php
Thanks to Carl Barnes for the info.

More on SMB2 found by Jeff Slarve.

Mark Riffey has been in the software business in one form or another since the early 1980s. His background includes software development for two internationally known enterprise software vendors, the world's premier information systems services company and a Fortune 100 manufacturer. After leaving the ranks of the gainfully employed, he bought a nearly-dead vertical-market software company and grew it to the award-winning market leader in its niche. After selling that company in 2005, he now runs Rescue Marketing, Inc., a marketing, business and technology advisory firm. His business philosophy is simple: Be fair to your customers and yourself; surround yourself with brilliant people who can take a joke, work hard, be a good listener and have a little fun. Mark and his wife Jacki have two boys, Alex and Jonathan. Mark's other interests include Boy/Cub Scouting, backpacking/hiking and almost anything else outdoors, classic blues guitar, golf and photography.

Reader Comments

Add a comment

Clarion Magazine

Running Clarion on a Mac

by Mark Riffey

Published 2010-02-11

I first used a Mac back in the late 1980s, but not really for Mac-specific programming. At the time, I was the MVS/ESA systems programmer at a large automotive rubber products manufacturer in the Midwest. We had a guy who traveled a lot and used a Mac, so I had to figure out how he could gain access to our internal systems during his travels.

At the time, it was as simple as downloading a free 3270 terminal emulation program for the Mac from (of all places) Microsoft. It worked great and my internal customer was happy.

That was it for me Mac-wise for about 20 years.

Since that time, I'd always been curious about Mac development but never had the time, compelling reason or financial justification to get into it.

One of my competitors during the Granite Bear days was a Mac shop, so I had to keep a close eye on Mac development options. Occasionally, I noted that some good dev tools existed for the Mac, such as RealBasic and 4D, but there just wasn't a good reason to drop a wad of cash on one.

In 2005, I sold Granite Bear and that eliminated most of my attention on the Mac world for several years.

Two things changed my level of attention:

In 2007, the iPhone came on the market.

In 2009, 64-bit Unix kernel-based Macs came out and with them, a robust Mac platform for VMWare became a reality.

At that point, I started getting a bit more interested and decided that the next time I bought a laptop, I'd see if I could go Mac and run my Clarion development in a virtual machine (VM). After all, I was already doing that on Windows 7 64 bit, so what difference would it make which machine hosted the VM?

Seriously though, why Mac?

The primary drive for the Mac was couched in two things: I really wanted to tinker with iPhone development for a number of reasons, and I wanted to concentrate my photography and video work on a system that historically has favored those media.

Beyond that, I needed a new laptop because the current one was starting to BSOD several times a day due to a hardware issue that I wasn't sure I could resolve without extended downtime. Due to parental health issues I was heading on the road for two weeks parental health issues, and my ability to work remotely and dependably via laptop had to get fixed quickly.

Have I justified this boondoggle enough yet? It sounded doable, so let's see what happened.

How I work

When I'm working from my home office, I do my development on a quad core, 8gb Windows 7 Ultimate 64 bit desktop box.

I sync daily to my laptop (so I can bail out of town at any time) and to an Infrant ReadyNAS 600 (RAID5) storage unit using SyncBack Pro (automated) and Beyond Compare (when I do it manually), plus I use Carbonite as a last ditch safety valve.

My Clarion 6.3 work on that machine happens in a VMWare Workstation 7 XP Pro virtual machine (VM) and on that VM, I use Lee White's ClarionSwitcher to hop back and forth between various copies of Clarion 6.3.

When I'm not in my home office, I'm on a Windows 7 Ultimate 32 bit laptop. For the moment, that is.

Databases

My use of databases is all over the place.

I run Microsoft SQL Server 2008 Express so I can do local development and testing of projects that use that database.

I run MySQL so that I can do local testing and development of mostly PHP-based web projects. They tend to use Clarion apps to interact with back office software.

I run Firebird embedded for one project and only use the Firebird server when I need to use Database Workbench to manage it.

I use Database Workbench to manage MySQL, Microsoft SQL Server 2008 Express and Firebird.

Web stuff

I also do some web development, most of which is based on WordPress these days. Other web projects require Capesoft NetTalk in some form and often act as middleware between a back office system and a web site.

Mac time

So, how do I get all of this to the Mac? Good question. Trial and error, in my case. A little pointer from Kelly Major helped as well.

There's a "system importer" tool that comes with VMWare Fusion for the Mac. It runs on your Windows machine and effectively scours the environment and builds a VM from any machine you have. I found out the hard way that it *doesn't* work on a VM — at least it didn't work on mine. I found that kind of odd. Isn't a virtual machine supposed to behave just like a real machine?

Anyhow, I was talking with Kelly and he pointed out a FAQ article that showed how to convert an existing VM. In Fusion, you simply click File, New, and tell it you want to create a VM from an existing VMWare virtual disk file.

For me, that file was my primary development VM (after all was said and done, I actually cloned several VMs).

It took a good while for the Mac to pull that 20 gig VM over from my Windows 7 64 bit development box, but once the import was done, it worked perfectly.

I hopped into settings and started digging around. Aside from one thing, I really didn't find anything worth tinkering with.

Licensing

Licensing is something to be watchful of when you start playing the VM game. In my case, MSDN Universal (or whatever they call it this month) provided OS licenses for this effort. The Windows 7 32 bit license used in the VM is the one that was formerly used on the now-dead HP laptop. If HP can fix it, I'll likely buy an academic license for that machine and give it to one of my boys.

Making more room

That one thing was drive size.

Originally, I'd built the XP VM's virtual disk drive with 40 gig and that was proving to be just a tad too small. On VMWare Workstation, I added a second virtual drive for development projects. If I fill that one up, Workstation allows me to add more drives.

On VMWare Fusion for the Mac, I noticed a feature that hadn't exposed itself to me on VMWare Workstation 6 (or 7): I was able to expand my primary disk space by simply dragging a slider bar to the right a little in the settings panel. This feature may not have been available to me on Workstation because I used a pre-allocated drive space for performance reasons. You can do that on the Mac as well, but I haven't done so.

Once I dragged the slider bar, the actual expansion process took about 10 minutes.

Finally, it was time for the first VM boot on the Mac.

First Boot

It really isn't funny when you watch the first Windows VM boot up on your Mac, but for some reason, I just started laughing out loud when I saw the XP logo screen. Don't know why that hit me as amusing, but it did.

Once I got past the boot, Windows decided that "the hardware had changed" (in this case, it had changed a lot<g>) and made me reactivate Windows. Next, the normal installation of VMWare Tools, which is a requirement after an upgrade of VMWare.

One more reboot to make the VMWare Tools install stick and I was ready to go.

Syncing my dev environment

My next task was to re-sync my current development environments with the XP VM, just to be on the safe side. I cranked up Beyond Compare, started the sync and headed out on an errand. When I arrived home assuming that I'd sync'd everything to the laptop, I found that Beyond Compare couldn't find VM. You know, because I hadn't told the Mac that it was ok to connect to it.

I opened Finder (Mac-ese for Windows Explorer) and clicked Go and Connect to Server. A dialog opened up and asked for a server address.

On the Mac, you can connect in a multitude of ways, but what I do is type smb://machinename into the server address field and click Connect. I then get a login dialog and enter my credentials. Next, the Mac asks me which share I want to use. In other words, this part isn't much different than syncing between Windows boxes.

Or is it? Once I got the Mac to see the other box, I still couldn't get Beyond Compare to see the drive share from the XP VM. Danged Mac.

It's nice to share

Then I realized that I hadn't setup the VM Shared Folders feature. On Windows, I just use the network to do this because I don't like how the Windows version of VMWare Shared Folders' feature works — and sometimes I had permissions issues with it.

On the Mac, the VMWare Shared Folders feature is a necessity — at least for someone at my Mac skill level (Note: FTP is also an option, and the open-source FileZilla FTP server is available on both platforms.)

On Fusion's menu, I clicked Virtual Machine, Shared Folders, Open Shared Folders Settings. I clicked "Share folders on your Mac" and then chose a folder to share. In this case, it was the laptop's C drive share that I had already connected to in Finder.

Now when I went into Beyond Compare, I looked under My Network Places and there were my VMWare shared folders. The UNC in this case was not the \\laptop\laptopdrivesharename but \\vmware-host\Shared Folders \laptopdrivesharename. Blammo. A good bit later, the two dev folders were sync'd.

After going through all that networking hassle, I remembered Apple's Bonjour, which is a free, zero-config network discovery service. Eventually I found that using Finder to connect to another SMB://server is sufficient to allow the Windows VM to find that machine on the network. This eliminates the need to use the Shared Folders feature, which I dont care for on either VMWare platform.

> **Note:** A good while back, Andrew Guidroz pointed out Dropbox.io (now Dropbox.com) to me. If you Dropbox-enable a folder, it will automatically sync with any other Dropbox-enabled folders regardless of LAN/WAN location or OS. I didnt have a compelling need for it at the time, but these days it lets me quickly sync a file or two when I need to move something back and forth between the laptop and the Windows VM. Windows Sync has this capability, but the last time I looked into it they had not yet released their Mac client. When I looked today, it's now available. I havent tried it yet.

In either case, after I got the networking working Clarion started up, my last app version was right there and for the most part, I was good to go.

Except that the XP VM is dog slow. I mean "slow like a teenager crawling out of bed on a cold Saturday morning" kind of slow. Unworkably slow.

Molasses

I looked at the XP VM a bit trying to figure out what might be causing the slowness, but frankly — it had been giving me a little bit of trouble on Windows anyhow, so I decided to build a Windows 7 32 bit VM from scratch that matched my laptop development system.

Note: I could have built a VM from the laptop, but the VMWare converter app apparently doesn't support Windows 7 yet.

I told Fusion to start a new VM, pointed it at the .iso file in my MSDN downloads folder and went out for an errand. When I got back the install was done, and I was ready to customize Windows and re-sync Clarion and my various project folders.

Configuring databases

I went to MySQL.com first. I could have downloaded a Windows install, but I thought it positive to isolate the database from any individual VM, plus it would provide a better testbed than running a localhost server in the VM.

I found the package and TAR installs for OS X, but decided that I should stick with XAMPP since I've historically had such good luck using the ApacheFriends.org installers.

I ran the OS X XAMPP install and then installed Upscene's DatabaseWorkbench (DBW) in the Windows 7 VM to make sure I could connect successfully. If DBW could connect, my Clarion apps would be able to access MySQL as well.

Once I started PHPMyAdmin in Safari (on the Mac) and created a login with the appropriate security privileges, Database Workbench had no problem seeing the OSX-hosted database server and connecting to it.

Because a few of my apps interface with MS Office, I installed the Office 2010 Beta into the VM without incident.

Since MSSQL runs only on Windows, I installed MSSQL 2008 Express into the VM — a departure from my strategy

for MySQL. Most of my MSSQL work involves connecting to remote databases, so this simply enabled local development and testing when I don't need or can't get to the internet. I don't typically use it for in-house apps.

I installed Firebird ODBC and server into the VM. Since I only use it for one set of projects, I didn't see much point in installing it under OS X. If that changes in the future, I will most likely move it out to OS X other than the items needed to run Firebird embedded. The embedded DB just happens to be in the dev folders so I didn't have to do anything else to get that rolling.

Unity

VMWare's Unity feature allows you to run an app in a VM but the window actually looks and feels like a normal window running under the host OS.

On Windows Vista 64 bit, I didn't like VMWare Workstation 6's Unity feature as much as I hoped due to the way it handled integrating the guest's menus into the host OS's menu. On the Mac, I like it because of the separation that is necessary at the menu level.

In either host OS, the windows work fine. It's the menuing that gets me on Windows.

When not using Unity, the Windows VM menu appears via a right click on the iconized VM, rather than mixing itself up with the primary Mac menu.

When you turn Unity on, the menus still don't get in the way.

Result: I get a full screen Clarion window on the host OS *without* goofing up my Windows start / app menus.

Yes, I realize that I'm beginning to sound like a fanboy. That's really not my intent. In fact, I had a pile of skepticism going in, a good bit of which was dissuaded by the stated Mac / VM / Clarion successes of Brian Reid and Kelly Major in their comments on the newsgroups. After the XP VM didn't work, I had a good bit more. Thankfully, a bit of persistence and digging around has proven worthwhile.

Summary

My goal was to lose no productivity for out-of-office Clarion and web development platform while gaining the ability to learn iPhone development — which I clearly achieved. One of the uneventful things was the movement of all my Adobe AIR apps — they didn't change at all from Windows to OS X.

As of now, the Windows 7 laptop goes to the shop to see if they can resolve the BSODs. For the time being, my remote work machine is now a MacBook Pro.

Mark Riffey has been in the software business in one form or another since the early 1980s. His background includes software development for two internationally known enterprise software vendors, the world's premier information systems services company and a Fortune 100 manufacturer. After leaving the ranks of the gainfully employed, he bought a nearly-dead vertical-market software company and grew it to the award-winning market leader in its niche. After selling that company in 2005, he now runs Rescue Marketing, Inc., a marketing, business and technology advisory firm. His business philosophy is simple: Be fair to your customers and yourself; surround yourself with brilliant people who can take a joke, work hard, be a good listener and have a little fun. Mark and his wife Jacki have two boys, Alex and Jonathan. Mark's other interests include Boy/Cub Scouting, backpacking/hiking and almost anything else outdoors, classic blues guitar, golf and photography.

Reader Comments

Add a comment

Clarion Magazine

Clarion 7.1.6755 Shows Significant Improvement

by Dave Harms

Published 2010-02-17

Clarion 7.1 build 6755 has been out for a couple of weeks now, and it's looking like the most solid 7.1 release to date. In a nutshell, if you thought the previous builds were mostly good enough, you'll probably be happy with 6755 too. If you're still sitting on the fence, your wait may just about be over.

Critical bugs

There are really only two critical, repeatable bugs with wide impact that I'm aware of: one affects SQL users, and the other has the potential to affect anyone who uses embed points (which is pretty much all of us).

The SQL bug is a runtime issue, not an IDE issue. In this release an SQL statement with an apostrophe can cause a lockup. One way to cause the lockup is to use a filter locator where the filter string has an apostrophe. This has been verified as fixed for the next release, but meanwhile it has caused some developers to roll back to the previous C7 build.

The embed issue isn't necessarily a showstopper, and it's been present in all releases of C7. In C6 if you delete a control with embed points, those embed points still show in the embed list, but as orphaned embeds. In C7, any embeds related to a control are deleted permanently along with the control. This is obviously a somewhat dangerous situation if you have critical code in an embed and you accidentally delete a control. You may not realize that the code is gone; in C6 you get a reminder in the form of the orphaned embed. So if you're very careful you can work around this problem (and you might want to do a compare with your C6 source to make sure you haven't already lost some embedded code).

SV has at last acknowledged that this is a real problem and, as with the SQL issue, has reported that it's fixed for the next release.

There is one caveat - even in subsequent releases, if you change the #ORDINAL value in a Window structure, you're on your own. This value is like a primary key, and changing it will cause embeds to become irrevocably lost. But this isn't something most Clarion developers are likely to do, nor can I think of a good reason why you'd want to.

Code completion changes

Code completion is now in the embed editor (not just in PWEE). That does take some processing power, but this happens on a thread. You shouldn't see any slowdown in the ability to edit, but you may have to wait for the completion data to be built (also if you exit right away there may be a delay while the thread completes).

The problem is that in code completion for individual embeds takes just as much work as it does when using the PWEE. You have to generate the entire procedure. But in PWEE you do it once and then you edit a bunch of embeds. In single embed editing you still need to generate the code, and you need to generate it each time because some other setting may

have changed in between that causes different code to generate (maybe you changed a procedure or extension template setting). One solution would be to have some code that detects any such change, but that may be a lot of work. It's hard to say.

In fact, if you just go from one embed to another in the procedure tree the code completion data is not recreated. Closing the embed tree and reopening it does cause the data to be rebuilt - just going to another embed without closing the tree doesn't.

Hanging apps and Windows 7

In Windows 7 you may have a situation where a Clarion app (6 *or* 7, I believe) will hang when you press the Alt key. It appears this is a Windows 7 MDI threading bug as it only happens if you have an MDI window open on a thread. Running Windows Live Mail seems to increase the odds of this happening. Pressing Alt-Esc, perhaps repeatedly, may bring the app back to life. I've experienced this, and it's a relief to have a way of restoring the app again. Killing the process in Task Manager was getting old.

I'm told SV has a fix for this issue in the next release. Meanwhile you can check out Marius van den Berg's solution at ClarionFAQ.

Other bugs and missing features

The PE version of 6755 isn't code signed, apparently due to an error in the build process as the previous version is signed. The EE version is code signed.

A couple of people have reported problems with ClarionCL, the command line interface. It seems it only works if you install outside of the Program Files tree.

Hotkeys, accelerators are still lacking. Hopefully this area will eventually get some love.

Robert Paresi has reported that REMOVE doesn't remove files which have a qualified path, which has caused problems for his commercial app, and that there are some issues with templates being removed when they shouldn't be.

There were no changes to the report writer in this release; look for "a stack of fixes/changes/improvements" coming in the next update.

For a full list of fixes and new features please read the change log.

Conclusions

This is the most promising C7 release to date. Is it ready for prime time? Based on a review of the issues and discussions with Clarion developers, I think it's very close.

As with previous releases, there are developers who use C7 already for production work. Wide acceptance really isn't there yet, from what I can see. If the embed issue and the SQL quote bug are completely fixed (as indicated), and no new showstoppers or major regressions turn up, then the next release may finally be the one that achieves that general acceptance by the developer community. Or it may take a couple of more after that. But by now we're all used to waiting.

Blog entries

There was a flurry of activity on the SV blog. Perhaps in response to griping about the long delays between builds, one entry describes a plan to add login and download capability to the SV web site, for builds, serial numbers and help file updates. Once the project goes public, the initial plan is to make builds available every two weeks (or possibly weekly). Another entry mentions the addition of code completion to the embed editor, and the latest post is a discussion of LastChanceHook, a new way to override the runtime library's internal exception handler.

David Harms is an independent software developer and the editor and publisher of Clarion Magazine. He is also co-author with Ross Santos of *Developing Clarion for Windows Applications*, published by SAMS (1995), and has written or co-written several Java books. David is a member of the American Society of Journalists and Authors (ASJA).

Reader Comments

Add a comment

Clarion Magazine

The Clarion# Compiler: It's C# Under The Hood

by Dave Harms and Graham Dawson

Published 2010-02-18

> *Editor's note: All the research, source code and original work for this article was done by Graham Dawson; the text is by David Harms.*

It's generally been assumed by the Clarion community that Clarion# is a .NET language all its own. Yes, all .NET languages compile to Microsoft Intermediate Language (MSIL) code, which are compiled to native code, usually by a "just in time" or JIT compiler at runtime.

In fact, the Clarion compiler does not emit MSIL code as has been assumed; instead it translates the Clarion# code into C# code, which is then compiled into MSIL code (as a DLL or EXE) using the Microsoft C# compiler.

How it works

As previously mentioned in Clarion Magazine, SoftVelocity has been using a Russian outsourcing company, Arcadia, for significant portions of the new IDE. A PDF detailing some of this work is available online, and includes a diagram of the compilation process (Figure 2).
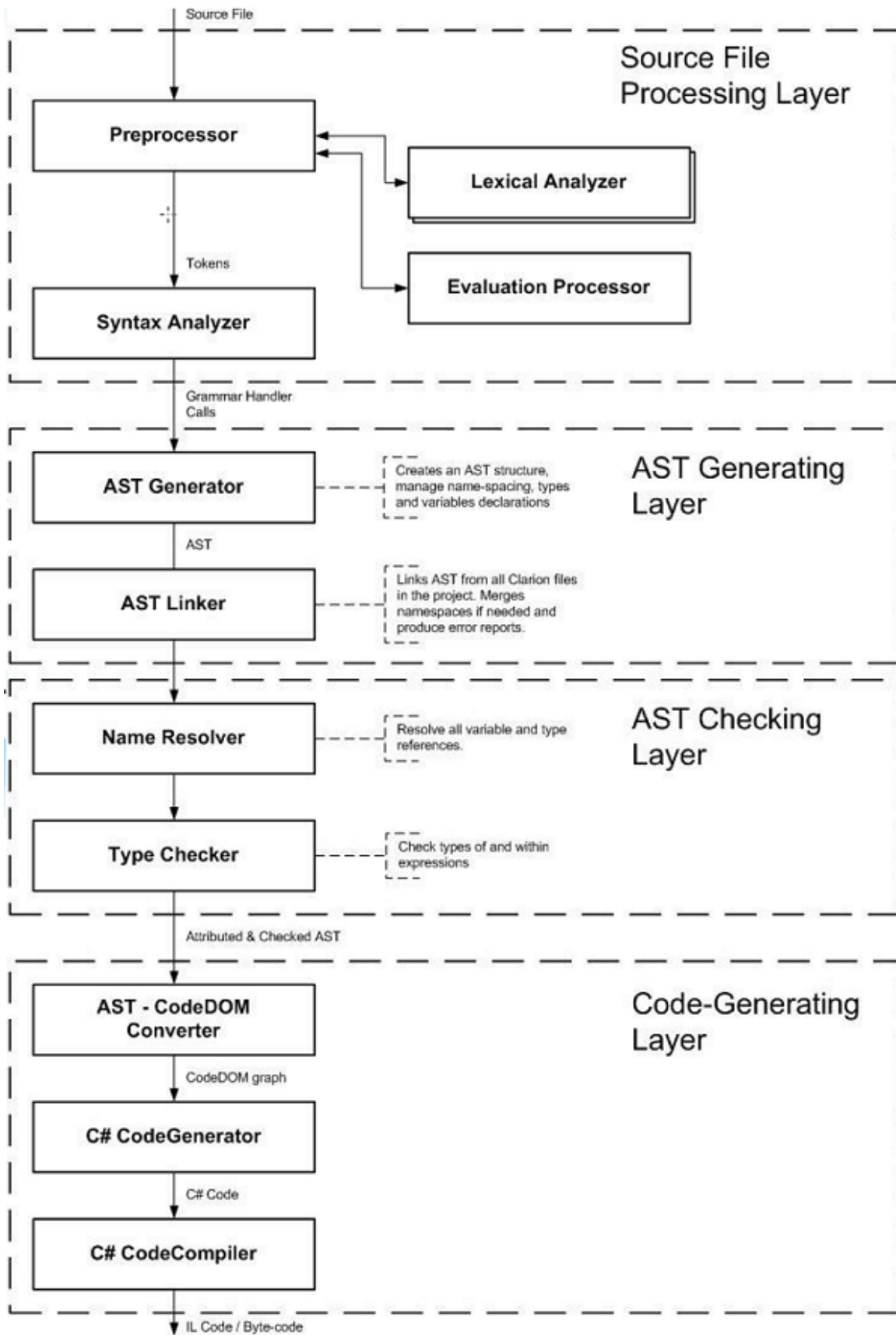
Figure 1. The Clarion# compilation process

According to the flow chart, the Clarion code goes through a number of preprocessing steps, resulting in a CodeDOM
graph which is used to generate C# code. Whether this accurately reflects the current process in use we can't say, but it is

easy to demonstrate that when you compile a Clarion# application, a C# version of that application is created in a temp directory, along with the files needed to compile that code into IL code.

The easiest way to view these temporary files is to use Clarion# to compile and run the Watcher app contained in the downloadable source zip. Watcher simply looks for new files to appear in the directory you specify (via a FileSystemWatcher) and lets you view and copy those files. It also numbers the copied files so you can easily view them in the order they were created.
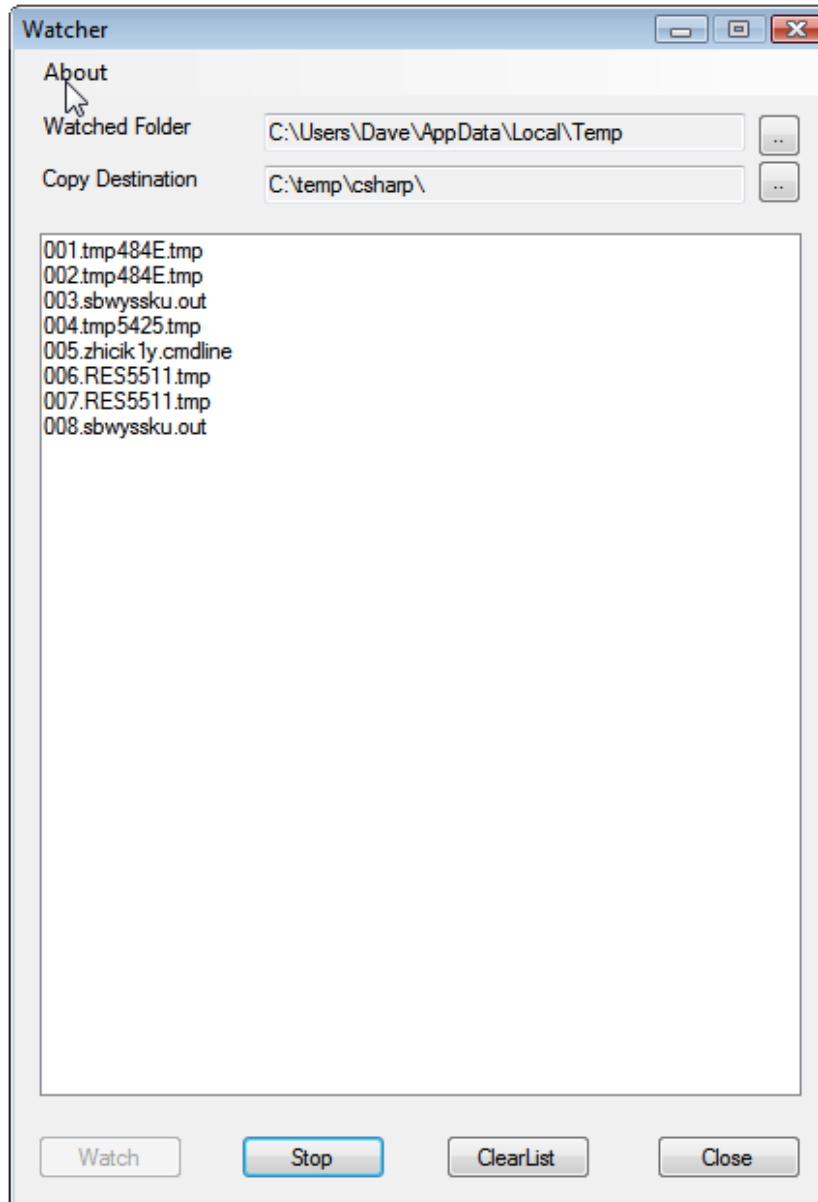
Figure 2. The temporary files

In Figure 2 the watched folder has been set to C:\Users\Dave\AppData\Local\Temp and the copy destination is another temp folder.

Once you have Watcher running you can open any Clarion# project. Press the Watch button, then compile the project. Figure shows the output from a simple Clarion# Hello World program.

You may see some duplicates in the list; this is because Watcher monitors both the creation and changed events and copies the files in each case.

The first and second tmp files are identical and contain the following text (line breaks added).

```
"C:\dev\Clarion.NET\HelloWorld\AssemblyInfo.cln"
"C:\dev\Clarion.NET\HelloWorld\Main.cln"
"C:\dev\Clarion.NET\HelloWorld\MainForm.cln"
"C:\dev\Clarion.NET\HelloWorld\MainForm.Designer.cln"
/r:"C:\Windows\Microsoft.NET\Framework\v2.0.50727\System.Data.dll",↵
  "C:\Windows\Microsoft.NET\Framework\v2.0.50727\System.dll",↵
  "C:\Windows\Microsoft.NET\Framework\v2.0.50727\System.Drawing.dll",↵
  "C:\Windows\Microsoft.NET\Framework\v2.0.50727\System.Windows.Forms.dll",↵
  "C:\Windows\Microsoft.NET\Framework\v2.0.50727\System.Xml.dll"
/out:"C:\dev\Clarion.NET\HelloWorld\obj\Debug\HelloWorld"
/target:WinExe
/catchall
/red:"C:\dev\Clarion.NET\HelloWorld"
/debug+
/debug:Full
```

This is a set of command line options for the Clarion# compiler clc.exe, which is run via this command found in sbwyssku.out:

C:\dev\Clarion.NET\HelloWorld> "C:\Program Files\Clarion.Net\bin\clc.exe" "@C:\Users\Dave\AppData\Local\Temp\tmp484E.tmp"

The result of that compile process is tmp5425.tmp, which contains the C# code. We won't list it all here; you can browse the full listing if you wish, along with that of the other files. But here's a cleaned-up snippet:

```
namespace HelloWorld
{
    [Clarion.GlobalClass()]
    [Clarion.Program()]
    public class GlobalMain
    {
        static GlobalMain()
        {
#line hidden
            unchecked
            {
                Clarion.RTL.CThreadSupport.
                    AddOnStartHandler(new EventHandler(__OnStartThread));
                Clarion.RTL.CThreadSupport.
                    AddOnFinishHandler(new EventHandler(__OnFinishThread));
            }
        }
```

```
        private static void @__OnStartThread(object sender, EventArgs args)

        {

        }


        private static void @__OnFinishThread(object sender, EventArgs args)

        {

        }


        public static void @__InitThreadSupport()

        {

        }


        internal static void @__CLA_Main()

        {

          Clarion.RTL.CThreadSupport.OnStart();

          try

          {

#line hidden

            unchecked

            {

#line 19 "C:\dev\Clarion.NET\HelloWorld\Main.cln"

              System.Windows.Forms.Application.

                EnableVisualStyles();

#line default

#line hidden

#line 20 "C:\dev\Clarion.NET\HelloWorld\Main.cln"

              System.Windows.Forms.Application.

                SetCompatibleTextRenderingDefault(false);

#line default

#line hidden

#line 21 "C:\dev\Clarion.NET\HelloWorld\Main.cln"

              System.Windows.Forms.Application.

                Run(((System.Windows.Forms.Form) (new MainForm())));

#line default

#line hidden

            }

          }

          finally

          {

            Clarion.RTL.CThreadSupport.OnExit();

          }
```

```
            }
        }
    }
```

You can view the full source here. And yes, you can load up the generated source in Visual Studio and compile it there, provided you add the needed assembly references.

Note all the #line directives. These modify the reporting of errors and warnings, effectively pointing you back to the CLN file if the compiler encounters a problem.

One more temporary file, zhicik1y.cmdline, contains the command line options for the Microsoft C# compiler csc.exe (line breaks added):

```
/t:exe /utf8output ↵
  /R:"C:\Windows\Microsoft.NET\Framework\v2.0.50727\System.Drawing.dll" ↵
  /R:"C:\Windows\assembly\GAC_MSIL↵
  \SoftVelocity.Clarion.Runtime.Classes\2.0.188.4769__4aca31c24e330653↵
  \SoftVelocity.Clarion.Runtime.Classes.dll" /R:"C:\Windows↵
  \assembly\GAC_MSIL\SoftVelocity.Clarion.FileIO\↵
  2.0.188.4769__4aca31c24e330653\SoftVelocity.Clarion.FileIO.dll" ↵
  /R:"C:\Windows\assembly\GAC_MSIL\SoftVelocity.Clarion.Runtime.Procedures↵
  \2.0.188.4769__4aca31c24e330653\SoftVelocity.Clarion.Runtime.Procedures.dll"↵
   /R:"C:\Windows\Microsoft.NET\Framework↵
  \v2.0.50727\System.Windows.Forms.dll" ↵
  /R:"C:\Windows\Microsoft.NET\Framework\v2.0.50727\System.dll" ↵
  /R:"C:\Windows\Microsoft.NET\Framework\v2.0.50727\System.Xml.dll" ↵
  /R:"C:\Windows\Microsoft.NET\Framework\v2.0.50727\System.Data.dll" ↵
  /out:"C:\dev\Clarion.NET\HelloWorld\obj\Debug\HelloWorld.exe" ↵
  /D:DEBUG /debug+ /optimize-  /checked- /target:winexe ↵
  /debug+ /debug:full /main:Clarion.RTL.__CLA_InternalSupport.__CLA_ ↵
  "C:\Users\Dave\AppData\Local\Temp\tmp5425.tmp"
```

What it all means

At first blush it may be a little disturbing to find that Clarion# is not, as many of us thought, a "pure" .NET language that compiles directly to IL code. But it's presumably easier to maintain a translation layer on top of C# via CodeDOM than it is to create a Clarion to IL compiler from scratch.

One downside to this approach is that Clarion# compiling will *always* be slower than C# compiling because of the extra step involved.

A big upside is that this opens up a lot of new investigative opportunities, particularly if you're interested in using the Clarion.NET assemblies from C#. And if you run the Watcher on the new ReportWriter you'll get lots of information on how that works, including the temporary assemblies it creates if you add script code to a report.

Ultimately, however, this information casts another shadow on the Clarion# language. If Clarion# is a layer on top of C#, it at least raises the question of whether it's more profitable to just cut out the middleman entirely. Let's say you find some source code in C# which you'd like to use in your Clarion# application. You go through a few trials getting the syntax

right, and it compiles. Which simply means that the C# code that became Clarion# code is now C# code again, and perhaps not in an optimal form.

If nothing else, this should be one more incentive for Clarion.NET developers to learn C#.

[Download the source](#)

[David Harms](#) is an independent software developer and the editor and publisher of Clarion Magazine. He is also co-author with Ross Santos of *Developing Clarion for Windows Applications*, published by SAMS (1995), and has written or co-written several Java books. David is a member of the American Society of Journalists and Authors ([ASJA](#)).

Reader Comments

Posted on Thursday, February 18, 2010 by Angel L. Bermudez, Jr.

Dave,

I always suspected as much. This is not all bad as I am certain that SoftVelocity will eventually create C# templates. SoftVelocity claims, and rightly so, that you can build data base applications 10 times faster with their IDE. So I got to ask. What difference does it make what language it gets accomplished in?

Posted on Friday, February 19, 2010 by Graham Dawson

Hi Angel,

One of the items in the next to last slide in the Russian presentation under the (translated) header
'Prospects' is 'Integration with VS2007 Shell'

So I think right from the start the idea was to create something that could be added into Visual Studio, and that implies C#

I'm not suggesting using C# behind the scenes is a bad idea, far from it, I actually think it's a good thing.

The whole way SoftVelocity has re-used components:-
SharpDevelop, MSBuild, DevExpress, T4, etc
is to be commended.
Take the best of what's available 'Adopt and Adapt' shows great pragmatism, and a concentration of the ends rather than the means.

And you're right, when the AppGen appears a lot of the implementation of an application will be hidden by the templates.

But the .NET Frameworks are completely different to the Windows API. They contain huge amounts of high level, ready to use functionality, and I just think in the end it may make more sense to use that directly.

Graham

Posted on Friday, February 19, 2010 by Robert Hutchison

Dave/Graham

Without this and Dave's last article (The future of Clarion Part 3)I would be completely in the dark.

It would help if Soft Velocity were more transparent about the whole thing, first the new template language is not really all theirs and now Clarion Sharp is not what it seems either.

I cant say the path they have chosen to take is a bad thing or a good thing but if they don't tell us it will look to some people that they are trying to pull the wool over our eyes, which is definitely a bad thing.

I remain committed to Clarion and don't want to add to the pressure they must be under but I have waited patiently and shelled out at the drop of a hat because

the past performance of Soft Velocity has given me the confidence to do so. Surely they have to do something now to restore confidence. I am a pretty die hard fan and shudder to think what the more outspoken Clarion programmers must be saying on the newsgroups now.

I would like to see a statement from Bob Z (like the road map he did before) that puts everything they are doing out in the open.

Robert

Posted on Friday, February 19, 2010 by Robert Hutchison

Dave/Graham

Without this and Dave's last article (The future of Clarion Part 3)I would be completely in the dark.

It would help if Soft Velocity were more transparent about the whole thing, first the new template language is not really all theirs and now Clarion Sharp is not what it seems either.

I cant say the path they have chosen to take is a bad thing or a good thing but if they don't tell us it will look to some people that they are trying to pull the wool over our eyes, which is definitely a bad thing.

I remain committed to Clarion and don't want to add to the pressure they must be under but I have waited patiently and shelled out at the drop of a hat because the past performance of Soft Velocity has given me the confidence to do so. Surely they have to do something now to restore confidence. I am a pretty die hard fan and shudder to think what the more outspoken Clarion programmers must be saying on the newsgroups now.

I would like to see a statement from Bob Z (like the road map he did before) that puts everything they are doing out in the open.

Robert

Posted on Sunday, February 21, 2010 by Russell Eggen

I believe the argument over whether or not Clarion# is a real .NET language or not is not the point. Keep in mind what *our* goals are: Creating rich and robust apps faster than anyone else without the required overhead of learning most of another language.

In this regard, it looks like SV is going to make good on this paradigm. I'm with Graham, I think this is a good thing.

Of course this won't close the door on C# developers claiming that we add an extra layer to the process, but in the end, is that really salient?

I can still add their assemblies to my project and vice-versa. In the end, I don't really see any issues.

Keep in sight the major final product we produce with this tool. Its too easy (and counter productive) to get caught up in the nuances of what goes on under the hood.

This is no different than the win32 world actually, since the Clarion language is really a nice API wrapper - sparing us from that drudgery.

In the .NET world, there are new opportunites to use different languages for different platforms. I don't think SV is restricting us to only Clarion#. We'll see over time how many different target language templates they provide (not to mention a new and emergin 3rd party market!)

On the whole, this is something to get excited about. The down side is that as of this comment, we still have to wait a bit longer to see the first offerings.

Posted on Wednesday, February 24, 2010 by Alex McCullie

Hi Dave

Again, thank you for the insights (perhaps speculative at times) of Clarion.NET behind the scenes. This is needed in light of SoftVelocity silence.

I am concerned about converting to C# and then compiling to CIL: it just adds one extra level of dependency for Clarion to deal with nuanced .NET and C# version changes, bug fixes, and the like. In one sense Clarion.NET is a C# code generator but with the C# code in a relatively inaccessible format.

Alex

Posted on Thursday, February 25, 2010 by mogamat abrahams

Well then there is some hope at least for cross compiling and support for platforms other than Win32 via Mono...

However with code generation frameworks (sans gui) now becoming the norm for webapps at least (Symfony, ruby on rails etc), its only some time until someone at ms plops a gui on top of one of the many .net frameworks out there and destroys SV's market...

Posted on Thursday, February 25, 2010 by Dave Harms

Mogamat,

I still think SV can leverage its experience to great effect, but yes, there definitely are more and more codegen frameworks coming online.

To me the key is how you make Clarion-style codegen work with WPF and Silverlight. Dunno how SV plans to do this.

Dave

Add a comment

Clarion Magazine

ClarionMag 2010: The Beta

Published 2010-02-24

I'm pleased to announce the first public beta release of the new Clarion Magazine web site! You can find it at http://beta.clarionmag.com/

Technically, this probably more like an advanced alpha than a full beta since not all of the current Clarion Magazine functionality is present. But the site does add some important new functionality we want to get into our subscribers' hands.

As of February 24, beta functionality includes:

- The home page, with news items, article listings, and beta news
- Article viewing, including PDF and source downloads
- A new forms-based login system with a "remember me" option to keep you logged in, and an explicit logout option.
- A "random article" listing
- Fully pageable lists. Almost all lists on the new site are actually paged browses that remember their state for the duration of the browser session. So if you're on page 5 of the article lists, and you click on an article to view it, when you return to the main page you'll still be on page 5 of the articles list.
- On the My ClarionMag page you now have a number of paged lists to help you better manage how you read and track articles. These include:
  - An "articles I haven't yet read" list. We'll show you all the articles you've never read. Well, almost - we only started logging this data back in 2003, so if there are older articles you only read before we started collecting the data then they will show up in this list. Once you view an article it's automatically removed from this list.
  - A "favorite articles" list. When you view an article you have the option to add it to your "favorites" list. If the article is already in the list, you'll see an option to remove it from the list.
  - A "read later" list. This is for those articles you want to read at some future time. You add/remove them the same way you

do the favorite articles.

❍ An "articles I've already read" list.

There's still work to be done - in particular, we haven't finished the search engine and store implementations yet, and many areas need more polish. But we're looking forward to moving everyone to the new site in the near future.

And there's lots more new functionality to come.

One important notice about the login changes on the new site. If you've been relying on your browser's memory to log you in to the current site you may have forgotten your password entirely. There are a couple of ways to retrieve it.

One way is to get it from your browser - FireFox will let you view stored passwords, and I imagine most other browsers will as well.

The other is to get your password emailed to you by ClarionMag. But please make sure we have your current email address - you can update that (as well as your mailing list preferences) here.

And please verify your email address. We do at times sends out special offers by email only, and if we don't have a current email address, or you've declined to be on our mailing lists (which are double-opt-in) you're unlikely to hear about those offers.

If you have any questions, concerns or suggestions, please submit them via the contact page, on Twitter, or via Skype if you see me in one of the chats.

About that other site ...

Yes, we do have another site in development, one that we believe will be a terrific help to anyone doing .NET development, whether in Clarion.#, C#, VB.NET or any other .NET language. That site uses the same server software we're developing for the new ClarionMag site, and we expect the .NET site to go live shortly after the new ClarionMag goes gold.

Reader Comments

Add a comment

Clarion Magazine

C7.1 - Mask and Preview

by Steven Parker

Published 2010-02-27

In the previous articles of this series, I described my first "all Clarion 7, all the time" experience. As you may remember, I found two items that brought my transition to Clarion 7 up short.

The two problems I found were the absence of a window preview mode and problems with the Mask attribute on D1 entry fields. 7.1 is supposed to have addressed these.

Installing 7.1

By now most of you should know that where 7.0 required the Visual C++ 2005 runtimes, 7.1 requires the 2008 version of these runtimes.

The first 7.1 release's notes did not instruct me to remove previous Clarion 7 releases. So, throwing caution to the wind, I installed 7.1 over my existing 7.0 release.

I was immediately prompted to install the Visual C++ 2008 runtimes:
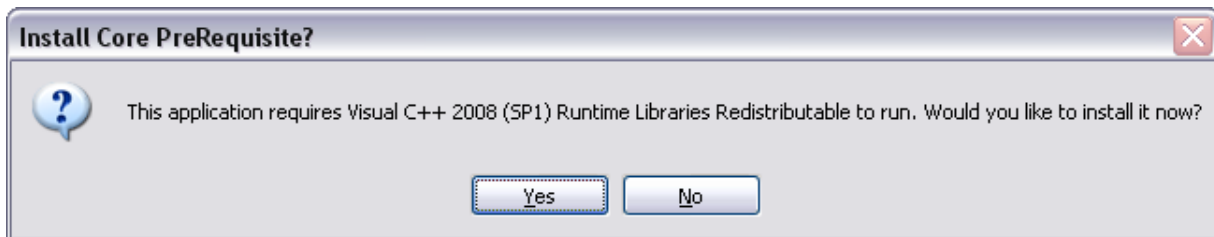
Figure 1. Clarion 7.1 install prompts to install C++ runtimes

(that's how I brilliantly deduced that these runtimes were required by 7.1). From some of the postings on the news groups, it seems that some people either didn't get this prompt or ignored it.

The Microsoft files install and then Clarion 7.1 installs. Clarion 7.1 started and ran without problem.

So, the question is "Are my two little problems dealt with?"

Preview

Creating RSSBuilder, I had placed an image in the main menu as a background. Without a window preview mode, I had to compile and run to see what the image looked like. While Clarion 7's compile/run cycle is quite fast, having to do so just to see what a window looks like is a ... pain.

C7.1 offers a window preview. It does this by compiling the window into a little, stand alone program and running that temporary program. I recall, many years ago, other development IDEs offered precisely this sort of pre-compilation in order to test a window. Clarion developers thought it was funny because all we had to do was press a "Preview"

button. Now, we have pre-compilation and those other environments are either moribund or no longer feature a preview (Visual Basic, the last time I looked at it, for example, didn't have a preview mode — and, yes, it does need one; last year, playing with VB, I created a window with a button that was hidden, in code, by default; it displayed only at runtime). Ah, how the world changes.

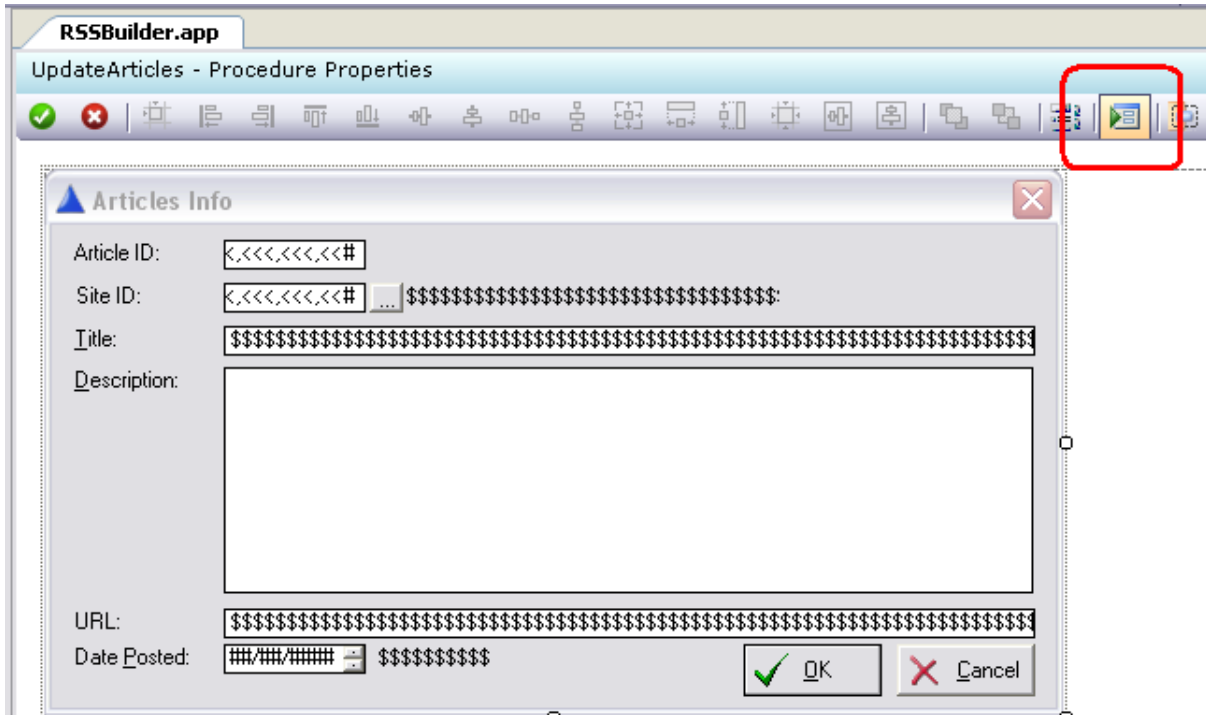The new preview button is on the right side of the menu bar (Figure 2).

Figure 2. Clarion 7.1's window preview button

The preview does work (Figure 3).
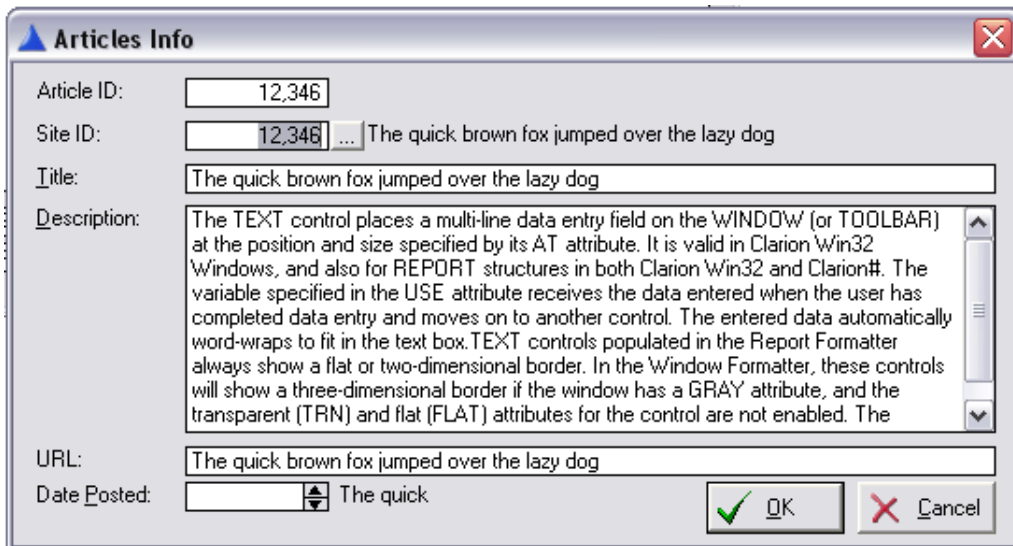
Figure 3. Generated preview window

Note how each field *and* string populated on the window is filled with dummy data (except the date field). The first time I used the new preview, I noticed that I had a display string that, should the user use the whole field, would be cut off by my design. Helpful, that.

Additionally, I can click in the fields and enter data myself.

However, the preview, at least the first time it is called, is less than totally instantaneous. Used to previous Clarion preview functions, not seeing the preview window immediately, I pressed the button again.

I ended up with multiple previews (Figure 4).
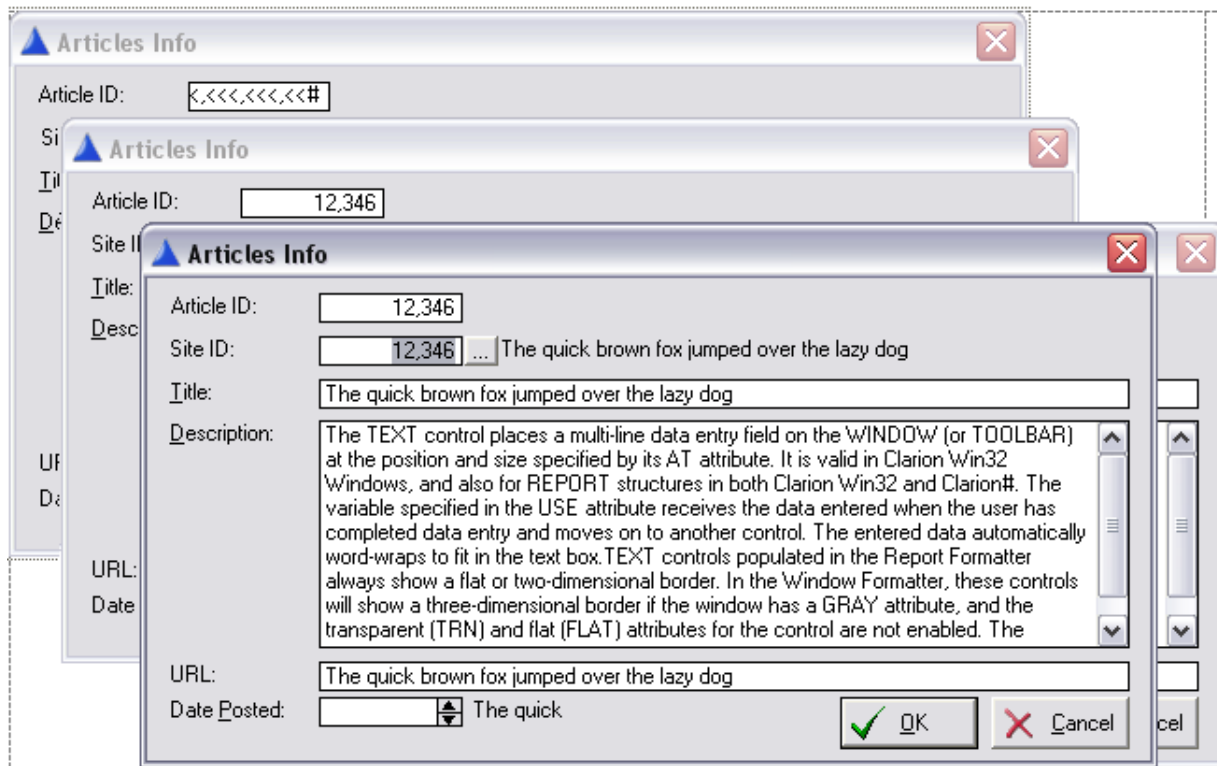
Figure 4. Press "preview" too often &

There is no keyboard shortcut, at least at this time, and I do not know whether one is planned. So, this isn't quite as friendly as the old preview, at least for those of us who are "mouse averse." But, for the time being, the prefilling with data goes a long way toward compensating.

To stress test preview (after reading some postings in which developers claim that preview fails with very complex windows — and, no, I do not for a moment doubt them), I found one of my more complicated windows.

This window (see Figure 5) has seven tabs, six list boxes and the table source is 685 lines:

Figure 5. Preview of my complex window

Bottom line: preview is back and it works (at least for windows as complex as I draw them).

Mask

Mask was listed in the 7.1 release notes as fixed.

The problem I was having was that entering "21509" into a field formatted @D1 resulted in "21/50/90" instead of the expected "2/15/09." In general, I was forced to enter a leading zero for all months with only one digit.

So, I eagerly pulled up the app I had been using for testing date entry and typed in "21509." I promptly got "21/50/90" just as before.

So, the bug is still there, right? No, it turns out that Mask *was* fixed. Previously, selecting a formatted field, not already containing data, displayed a blank entry field. What it should have showed was an empty but formatted field, as in Figure 6.

Figure 6. Properly MASKed field

And that is what showed after compiling the app in Clarion 7.

So why does "21509" result in "21/50/90" instead of the expected "2/15/09"? The answer turns out to be that there was a second bug; the problem I was experiencing was masked by the bug in MASK. IntelliDate was miscalculating and returning the unexpected results.

IntelliDate was fixed in the second 7.1 build, Build 6695. In 6695, my @D1 fields work exactly as they have since IntelliDate was introduced in CFD.

So, to be very clear. MASK is fixed in the first 7.1 release. Intellidate was fixed in the second 7.1 release (6695) and remains fixed in the latest release, 6755. Between the two fixes, my @D1 fields are working as expected again.

There is, however, a new issue with date fields. In the past, fields formatted @D2 could receive the short date and expand it to the long version. Now I have to enter all four digits of the year. But, I don't have to enter the leading zero for the first nine months of the year.

I can live with this.

Summary

The major hurdles to my transition to Clarion 7 have been addressed. But I am not quite ready to commit completely to it.

As you may recall, one of the features of Clarion 7 that appeals to me greatly is the ability to use the new IDE to work with apps in previous versions of Clarion. I still maintain apps in 5.5 for my web site (www.par2.com).

So, I have another set of test to run: can I use Clarion 7 to maintain my Internet Connect and Web Builder apps, maintain them such that the resulting DLLs and EXEs will run correctly on my web site?

As soon as I know, I'll let you know.

Steve Parker started his professional life as a Philosopher but now tries to imitate a Clarion developer. He has been attempting to subdue Clarion since version 2007 (DOS, that is). He reports that, so far, Clarion is winning. Steve has been writing about Clarion since 1993.
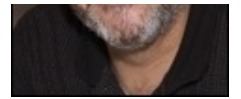
Reader Comments

Add a comment

Clarion Magazine

Clarion 101: Passing Groups

by Tony York

Published 2010-02-28

Getting older can be a terrible thing, and on occasion the old CPU does not always retrieve long since stored information. Such was the case with this bit of coding 101. Articles are not always written on what others may consider simple, and the Clarion help does not always clarify clearly, so here is my first Clarion Mag article. At least I, for one, can call upon this article in the future and save me a bit of time wasting.

Firstly, I find that revisiting old code is a great way to see how far one has come in a programming career. Really old code has the tendency to make one wince at how clumsy and amateur those early coding attempts were. This was one such occasion.

I have an application that gathers information from a lease, hire purchase or goods mortgage document (they may have different names where you come from) and turns that data into amortisation schedules and journal entries.

My users wanted the ability to enter this data at the form level, and without saving the record (being impatient I suppose), they wanted to be able to view an amortisation grid, and then from that grid have the option to print or export that amortisation schedule.

The viewing and reporting procedures also needed to be called from a browse as well as from the form. Calling from the browse is easy, but I had to find a way of being able to feed data across to those procedures from the "unsaved" form as well.

In the old code, I had used global variables, lots of them, to allow the procedures to pick up the information needed. I think it was Bruce Johnson who drummed into my little brain at an Aussie DevCon that global variables are dangerous things and should be avoided. So what other options were there? Groups were the solution to the problem.

Groups provide a nice neat way of passing across a "single" record of information, coupled with a nice simple prototype for the receiving procedures, and the ability to keep passing it on with relative ease.

So how did I do it, and what tips would I give?

Global definition

First, I need to start at the Global Data section of the application, and define the GROUP and its fields. For the purposes of this article, I shall keep the GROUP small. The most important thing to remember at this stage is mark the group as a TYPE. There is a checkbox provided in the properties window.

```
PG          GROUP,TYPE
Field1        STRING(20)
Field2        LONG
```

```
              END
```

This simply defines the GROUP for later use in the passing process.

Next, I move on to the calling procedure.

The calling procedure

In the data declaration embed point, I declare a new GROUP based on the global definition, making sure to include the END statement.

```
PG1           GROUP(PG)
              END
```

> **Note:** You can also add different fields to the group if you wish, but those fields can only used within the calling procedure. Only the TYPEd fields can be referenced in the receiving procedure.

It is also worth noting that if you add the group using the data button on the procedure property window, the generated code adds a PRE() statement, which, unless a value is entered, will produce "Label duplicated.." errors. I would suggest using the embed method noted above.

In a code embed point, allocate data to the two variables. eg.

```
PG1.Field1 = "Hello World"
PG1.Field2 = 1
```

Then, in a code embed point of a button control, or in the "action" properties window of the control, pass the GROUP to the receiving procedure, in this example let us call it ViewPG2, as follows:
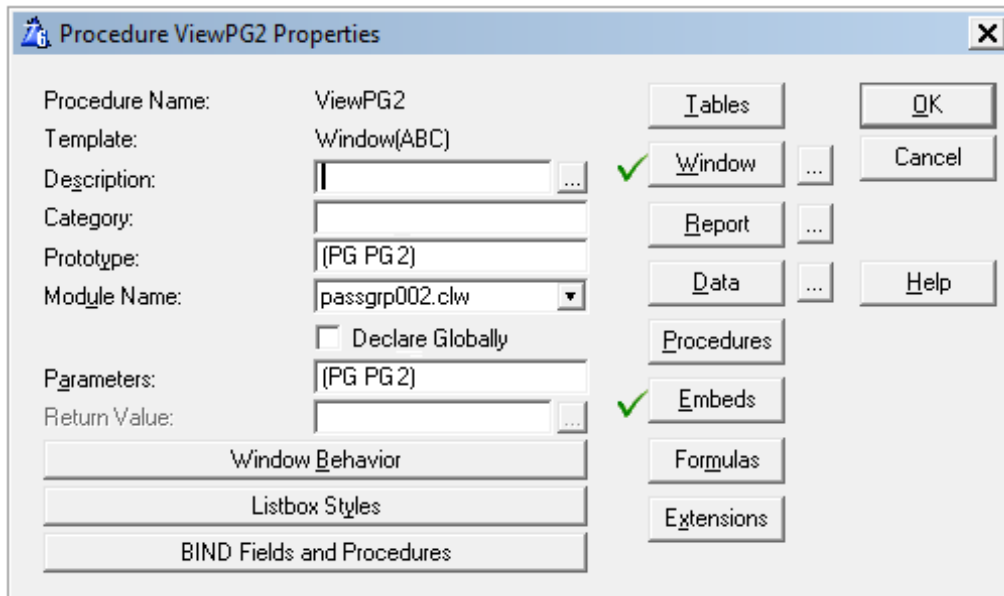
```
ViewPG2(PG1)
```
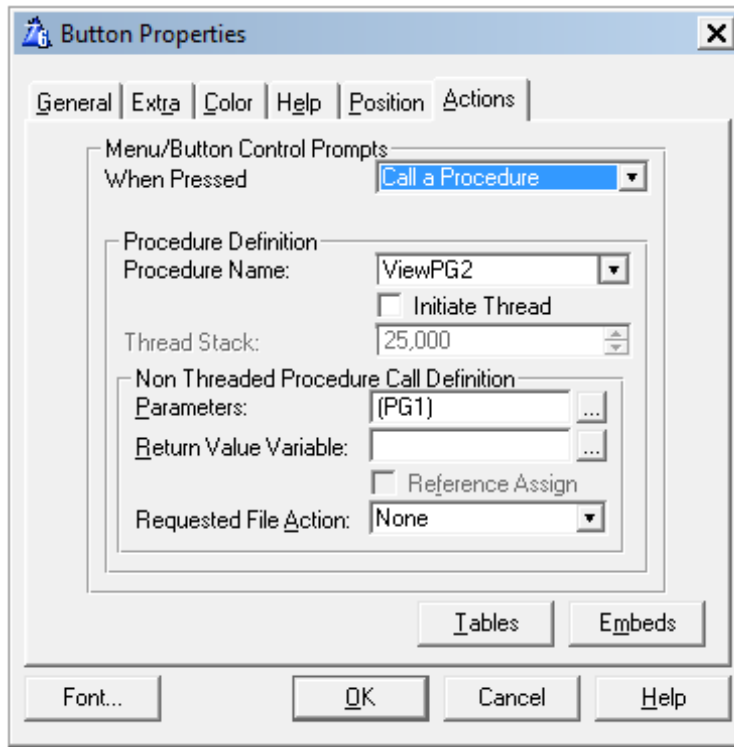
Figure 1. Passing the group

The first receiving procedure

Looking at the ViewPG2 procedure. The first thing to do in this procedure is change the prototype and parameters on the properties window to read as follows.
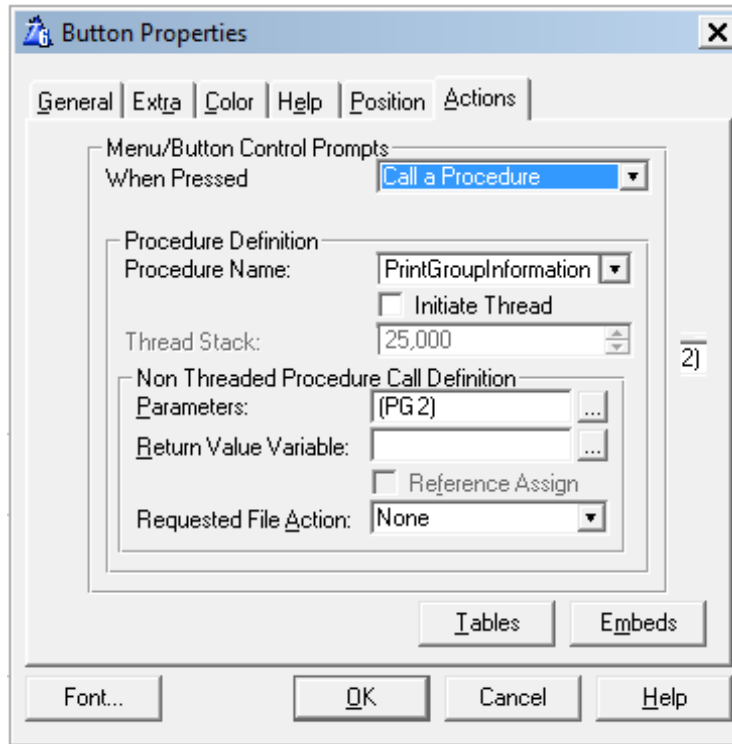
(PG PG2)

Figure 2. The receiving procedure

I can now use the information passed to the procedure, using the group name PG2.

LocalVariable = clip(PG2.Field1)

Now, I need to call a print procedure from the ViewPG2 procedure, and pass that GROUP information to it. The code is surprisingly simple:

PrintGroupInformation(PG2)
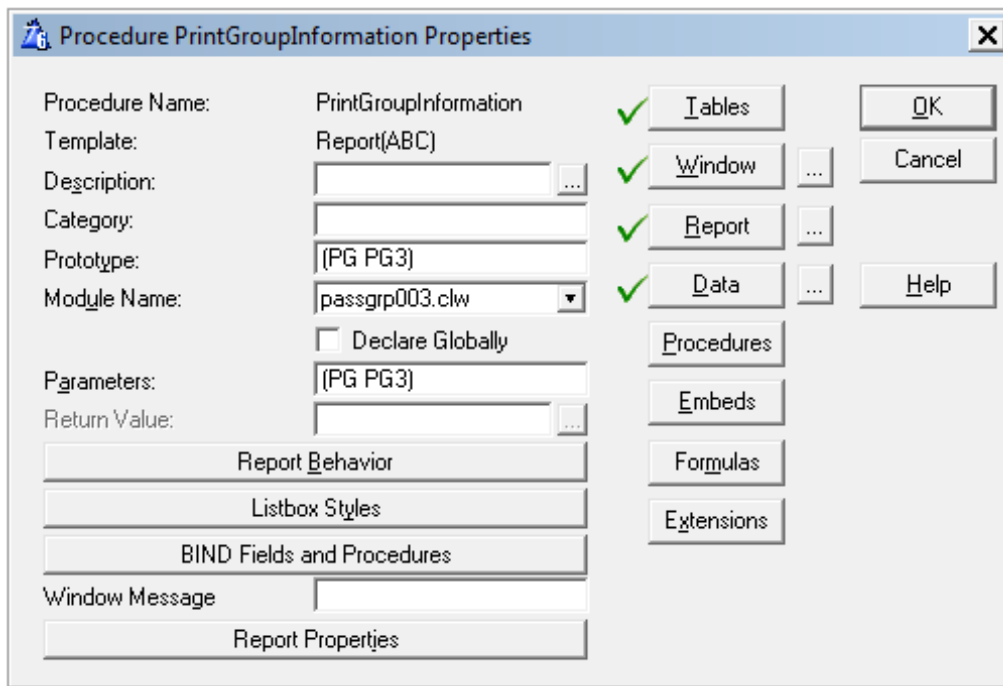

Figure 3. Passing the second group

The second receiving procedure

Now I move to the Print procedure. The first thing to do in this procedure is change the prototype and parameters on the properties window to read as follows.

(PG PG3)

Figure 4. The second receiving procedure

I can now use the information passed to the procedure, using the group name PG3. Note that the new "receiving" GROUP is named differently — PG3 — but it still has type PG type.

    LocalVariable = clip(PG3.Field1)

There it is, a simple way of passing multiple fields to procedures, even nested procedures.

I trust it will be of help to those whose memory fades from time to time.

Final notes

You will note that I have used several group names PG1, PG2, and PG3. I did this to show that you can use different names if you choose. You may have your own particular coding preferences for the purpose of clarity. However, you could also have just used PG1 throughout the entire process. It still works.

Tony York is an accountant by profession, but in 1992 went out full time to create programs for the accounting profession. He has established one of Australia's leading utility providers to accounting staff, Fiscal Software. He has been using Clarion since the DOS days, and so is old enough to have senior's moments, like the one that prompted this article. He is married with five children, five grandchildren, and two more on the way. He lives in Perth, Western Australia.

Reader Comments

Add a comment

Clarion Magazine

The ClarionMag Blog

Get automatic notification of new items! RSS feeds are available for:

XML All blog entries
XML All new items, including blogs

Blog Categories

- » All Blog Entries
- » Clarion 7 Clarion.NET
- » Future Articles
- » News flashes
- » Nifty Stuff

Windows 7 RC, upcoming articles, and CMag beta news

Direct link

Posted Wednesday, February 24, 2010 by Dave Harms

These are busy times.

I've got a couple of articles in preview at the moment, on by Tony York on passing groups, and another by Dr. Parker on the status of his much-desired fixes to the previewer and MASK in C7.1. And I've got an excellent two-parter by Philip Prohm on converting your apps to C7.1, the first part of which should be online by the end of this week.

Like a lot of other people, I installed the Windows 7 release candidate on my development machine sometime last year, fully intending to upgrade to the RTM when it came out. But I never got around to it. And last week I became aware that the deadline was March 1, as of which time I could expect my Windows 7 RC install to start shutting down abruptly every two hours. So last week I bit the bullet and did a fresh install.

Years ago I started keeping a document with the exact steps needed to get everything up and running on a new install. Even with that the process takes more than a day, and there's always some app or configuration that I added since the last time but forgot to document. I have around fifty different applications/utilities I use on a regular basis, so I really need that doc.

I started the install last weekend, and although I had my core configuration in place by Monday morning and the majority

of apps installed by the afternoon, I'm still doing a certain amount of fixup and cleanup each day. And of course there were various glitches, such as when I installed the latest PostgreSQL 8.4 release. And found out when it came time to update the ClarionMag beta database that I was running 8.3 on the server. And I had problems importing the new database. And and and ... well, just another day at the office.

The new ClarionMag beta site is coming along nicely. You can have a look at beta.clarionmag.com. In particular check out the My ClarionMag page. As you'll notice on the latter page the login system is different on the new site. We're switching to forms-based authentication, with a "remember me" option that keeps you logged in. If you've been relying on your browser's memory to log you in to the current site you may have forgotten your password entirely. There are a couple of ways to retrieve it.

One way is to get it from your browser - FireFox will let you view stored passwords, and I imagine most other browsers will as well.

The other is to get your password emailed to you by ClarionMag. But please make sure we have your current email address - you can update that (as well as your mailing list preferences) here.

And please do verify your email address. We do at times sends out special offers by email only, and if we don't have a current email address, or you've declined to be on our mailing lists (which are double-opt-in) you're unlikely to hear about those offers.

There's a lot of cool stuff happening on the beta site - I'll have more to say in upcoming articles. Really, go check out My ClarionMag. You'll find some nifty new ways to manage your own view of ClarionMag, including lists of favorite and "read later" articles.

Oh yes, I had someone ask me about the .NET site. That's still in development, but as it uses the same server code base as the new ClarionMag site you can expect to see it online in the near future.

If you're on Twitter, you can follow the beta progress and other ClarionMag news and notes on the ClarionMag Twittwer feed.