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Latest Subscriber Content

Source Code Library 2009.05.31 Available

The Clarion Magazine Source Code Library has been updated to include the latest source. Source code subscribers can download the May 2009 update from the [My ClarionMag](#) page. If you're on Vista or Windows 7 please run Lindersoft's [Clarion detection patch](#) first.

Posted Thursday, June 04, 2009

C7 Builds 5646 and 5675 Released

SoftVelocity has released Clarion 7 builds 5646 and 5675. Dave Harms reports.

Posted Tuesday, June 09, 2009

Bringing A Window To The Foreground

Nardus Swanevelder has an application that sends email notifications. But his users wanted the email window, which is not part of the application, to come to the foreground. Like many user requests that look easy, this one turned out to be a bit tricky.

Posted Tuesday, June 16, 2009

The Redirection Class

Jeff Slarve has applications that load images at run time from filenames stored in a database. In a perfect world, this would be no problem. Just store the filename in a database, display the file as needed in an image control, and be done with it. However, in a networked environment several nagging issues pop up that can cause significant difficulty. Enter the Redirection class.

Posted Thursday, June 18, 2009

Product Review: Report and Presentation Manager (RPM)

Reporting has long been one of Clarion's strengths, but the built-in report previewer leaves much to be desired. Lodestar Software's RPM replaces that previewer with its own and adds extra features such as report searching, tagging, merging, page of pages, page deletion and newspaper-style columns.

Posted Friday, June 26, 2009

Archiving Newsgroups With Hamster

A lot of Clarion developers read and participate in the Clarion newsgroups hosted by SoftVelocity at [discuss.softvelocity.com](#). Recently the news server went down (not for the first time) and when it came back up a bunch of the newsgroup messages had been purged. If you were using a newsgroup reader that deletes messages that have been deleted from the server, you lost those messages as well. Here's how to get the archive.

Posted Friday, June 26, 2009

What Features Would You Like To See In C8?

No, C7 isn't quite baked yet. But with the new IDE finally coming to fruition it may be time to start thinking about the features Clarion developers would like to see in C8. Post your suggestions here.

Posted Saturday, June 27, 2009

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Latest Free Content

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Clarion Sites

Clarion Blogs

Writing Your Own Template Chain

The Clarion template system is good for more than just generating Clarion code. Dave Harms presents a small template chain that can serve as a basis for any number of different template writing projects.

Posted Tuesday, June 30, 2009

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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.

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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.

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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.

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Clarion Magazine

Clarion News

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VLC 1.0

VLC 1.0, which is used in StrategyOnline's J-Media product, has been released. The VLC control no longer displays an orange cone when the control initializes. A few changes are needed to J-Media for VLC 1.0 compatibility; a new release will be announced as soon as this is done.

Posted Wednesday, July 08, 2009

ReportControl Template 1.09

Version 1.09 of the ReportControl Wrapper template has been released. This version has been uploaded to Members area along with a new demo example app. Modifications include: Codejock v13.1.0 compatibility added; EscKey event now posts EVENT:CloseWindow; Double clicking a row on the BrowseEnhancer now caters for SelectRecord as well as ChangeRecord; Bug fix for resize not working correctly after layout restored (if no column override defined). Various new class methods have been added.

Posted Wednesday, July 08, 2009

ProPath Demo Download

LANSRAD has a demo of ProPath technology available for download. This demo is a composite installation of the six compiled demo applications that ship with ProPath. All apps are code signed. Each demo is a Clarion generated program with ProPath added to it. The demo programs show ProPath technology in use to redirect the data and INI files into different UAC safe locations. Path control via CSIDL, Windows Registry and External INI Control File methods are all used. Some demos also show off the ProPath First Run technology. They allow you to confirm or change the data paths and even run a secondary setup procedure that allows the user to change settings before the program starts. ProPath is compatible with all Clarion C6 and C7 releases, ABC template chain only. ProPath is \$39.95 USD.

Posted Wednesday, July 08, 2009

iQ-XML 2.52

iQ-XML 2.52 is now available. Changes include: Hide/Show columns in a queue; Quickly change field pictures in the queue; Clarion 7 iQ-XML build now changes all references from IQXML to IQXML70 (INC, LIB, DLL) so there are no conflicts with C6 installed; The DebugMyQueue function lets you debug the contents of your queue.

Posted Monday, June 29, 2009

TDC Beta 2.5.02

A new version of TDC is available for download. Changes to the version control system include: The format of all dates

will work according to the settings of Windows; It's possible to filter files in the list of files if the column selected is the name of the file, the user, the date of check-in or the date of creation; After adding files to a project you will see a report for each file in the Process information section; Fixed the enable-disable status of the buttons on the toolbar for Project Content after adding files; If a file can't be zipped the message will show the name of the file affected; Two preset for compression tools were added to the configuration. In the case of use a custom compression tool you can choose between Winrar and 7z; Added new system configuration to set the file check-out when adding files; Fixed misspellings words in the system configuration window. Changes to the tracking system include: The format of all dates will work according to the settings of Windows; The issues related with another issue are stored properly; The attachments related with an issue are saved and also its tags; The look of the Workflow window (on the issues) was changed. Now it's possible to use RTF controls for the description; Now in the form of Issues is possible to see the list of the files of the VCS system related with the issue; A new field was added for the Contacts in order to indicate the name of access to the Web Portal. Also a check was added to indicate the status of that contact for the Web Portal; Now it's possible to inform if a work log is billable or not, indicating if the price if hourly rated or fixed cost. Also it's possible to inform the kind of work log, according to the list created by the user; In the events for an issue was added a check to indicate if the event is internal. In this case this event will be showed in red color and in the future these events won't be showed to the customers; New check in the form of issues. If it's checked an email won't be sent after confirmation; The number of attachments files to an issue in the issues list was wrong; The submenu for tracking module in the main menu was reorganized. Added new options to be used in the future; The system configuration for numbering the issues was take off, now all the issues will have a global numbering for all projects; Now the notification emails include the list of fields which values has been changed by the user; Now in the status list is possible to indicate if the user has to complete the resolution in the issue workflow when the status close the issue; Now in the issues workflow it is showed a list of resolution concepts to be selected when the issue is closed; Fixed misspellings words in the system configuration window.

Posted Monday, June 29, 2009

Lindersoft Vacation

The Lindersoft office will be closed Saturday, July 4 to Sunday, July 19 for staff vacation. So if you have questions, please ask now! During this time the online store will remain open and you are welcome to place orders. Orders for new licenses will be processed immediately, and upgrade orders or subscription extension orders will be processed within 24 hours. Lindersoft "emergency support" will be monitored in a limited capacity. Response times should be good, but slightly longer than usual to allow staff some personal vacation time.

Posted Monday, June 29, 2009

SetupBuilder 7.0 Release Candidate

The SetupBuilder 7.0 Release Candidate (build 2639) is now available for download. The purpose of the Release Candidate is to solicit one last round of testing before the final release. SetupBuilder 7 is available, free of charge, to all SetupBuilder customers who have an active SetupBuilder maintenance subscription plan. If you do not have an active subscription plan, please contact your account manager at sales at lindersoft.com. SetupBuilder 7.0 starts at \$199.00 for a royalty-free usage license. A trial version is available.

Posted Monday, June 29, 2009

Ingasoftplus Vacation

Ingasoftplus will be on vacation from June 27 to July 18 and will be unavailable to answer your emails immediately.

Posted Monday, June 29, 2009

Clarion Desktop 4.30

Clarion Desktop version 4.30 is available for download.

Posted Monday, June 29, 2009

Clarion to Java Conversion Tool

An early alpha of a Clarion to Java conversion tool is available for download. Only syntactic translation so far and translation is not quite 100%. There is no implementation of the Clarion runtime to handle windows, reports, files etc. at this stage - just software stubs, so resultant Java code will not do much other than compile. The alpha is targeted at Clarion 5.5 source code and is written in Perl.

Posted Monday, June 29, 2009

Clarion 7.0.5768 Released

Clarion 7.0.5768 has been released.

Posted Saturday, June 27, 2009

ProPath - Vista compatible Path Manager for Clarion

LANSRAD has released ProPath, a Path Manager class/template set that makes sure your data and INI files are stored in UAC approved locations. This is a key component in making your applications compatible with Vista, Server 2008 and Windows 7. ProPath manages single or multiple data locations, even data on a Network. The class contains all the tools needed to control file paths with CSIDL values, the Windows Registry or External Control Files. Setup is easy via a few template selections.

Posted Thursday, June 25, 2009

Webinar: Clarion Live! Presents Monthly User Group Webinars, Featuring Noyantis Software

Clarion Live! will begin hosting a monthly Clarion Live! User Group Webinar beginning this Saturday, June 27th, from 7am to 9am PDT (GMT-8). The User Group webinar is designed to be an informal gathering of those using the Noyantis Codejock Wrapper Templates. The webinar will begin with a short presentation by Andy Wilton of Noyantis Software covering one of the Codejock Templates. This month he will talk about the Command Bar wrapper. After that the mics will be opened up so attendees can ask questions, get direct help with coding, and even share their screens to show what they've done with the wrapper templates. If you are using the Wrapper templates, or if you're interested in seeing what they can do, come join the User Group Webinar. To sign up, visit www.clarionlive.com.

Posted Tuesday, June 23, 2009

Webinar: Getting The Most From Build Automator

The next Clarion Live! Webinar is Friday, June 26th, at 9am PDT (GMT-8). Arnor Baldvinsson will be presenting "Getting The Most From Build Automator". Topics include Introduction to Build Automator, Working with the IDE, using the Project Window, Creating new projects, adding project items and action items, Project Window operations, Executing projects, and much more. To register for the webinar, visit www.clarionlive.com.

Posted Tuesday, June 23, 2009

Codejock ActiveX Discount

Motleysoft is offering a 40% discount good towards Codejock ActiveX components and renewal subscriptions through the end of 2009. Products include: Codejock SuitePro 2009 vol.2; Codejock CalendarPro 2009; Codejock Command Bars 2009; Codejock Controls 2009; Codejock DockingPane 2009; Codejock PropertyGrid 2009; Codejock ReportControl 2009; Codejock ShortcutBar 2009; Codejock SkinFramework 2009; Codejock TaskPanel 2009. Select a product, add to cart. After that use coupon code CLARION (enter it into field in Cart form). Push the Update/Recalculate button to see a new discounted price.

Posted Thursday, June 18, 2009

SetupBuilder 7.0 Beta 2631

Lindersoft has released SetupBuilder 7.0 Beta Build 2631. This build contains some bug fixes and comes with a revamped installation image to allow "pinning" of the SetupBuilder IDE on Windows 7. SetupBuilder 7 is available, free of charge, to all SetupBuilder customers who have an active SetupBuilder maintenance subscription plan. If you do not have an active subscription plan, please contact your account manager.

Posted Thursday, June 18, 2009

Aussie DevCon 2009

Organizing this year's Aussie DevCon is under way with many commitments and payments already made. so now's the time to tell you all about it. Check the web site for updates.

Posted Thursday, June 18, 2009

J-Walk: Clarion Desktop Pro Licenses Extended

All expired Pro Licenses were recently reactivated until 30 June, and all Pro Licenses have been extended by an additional 90 days.

Posted Thursday, June 18, 2009

DMC 1.6.0.4

DMC 1.6.0.4 is now available. Changes include: Hide/unhide columns in the viewer and toggle formatting from long to date or time directly in a new module; Viewer now supports keyless TPS - DBF - DAT tables and allows you all modifications; PC Soft WinDev hyper files can be used as destination & viewer with all options; Various other improvements and fixes.

Posted Thursday, June 18, 2009

TDC Version Control

A new version of TDC is available for download. Changes include: New options in Get Last Version; New window for adding files; Security profiles are more powerful; The graph of issues by user works in the dashboard; In the issues report it's possible to see the deadline date, estimated date (beginning and end), last event, product's name, person/s in charge of the issue, worked time, estimated time and percent; The user report now prints all the fields related with users; Email notifications take care of the check that indicates not to send emails to those users that don't belong to the involved Project; Various other improvements and fixes.

Posted Thursday, June 18, 2009

Smart-Type Price Increase

Smart-Type will go gold soon and the price will rise from \$69 to \$99. Smart-Type adds "intelli-sense" to your ABC applications. Features include: Works on every word in an entry field or text box (although you can set it to accept just one entry); Works with Entry Fields, Text Fields, Edit-In-Place, and now RTF Fields; Supplied as pure source - an ABC compliant class, and a template wrapper; You can use any file (including IMDD) as the source of the words or phrases.

Posted Thursday, June 18, 2009

Product Scope 7.8

Product Scope 7.8 is now available. Updated features include: new Product Scope 7 Clipboard; Ability to "stay on top" of browsers, word processors, spreadsheets, to more easily copy and paste user IDs, passwords, registration keys and more.

Posted Thursday, June 18, 2009

SetupBuilder 7 Final Beta

Lindersoft is sending out SetupBuilder 7 "final beta" notifications. Registration for those interested in participating in the SetupBuilder 7 Beta Program is still open. SetupBuilder 7 is available, free of charge, to all SetupBuilder customers who have an active SetupBuilder maintenance subscription plan. If you do not have an active subscription plan, please contact your account manager.

Posted Thursday, June 18, 2009

Noyantis ReportControl 1.08

Version 1.08 of the Noyantis ReportControl wrapper template has been released. Changes include: Save and Restore Layout feature added; Hyperlinks feature added.; Select All control template added; Expand / Contract Row control template added; Expand / Contract All Rows control template added; Event Handler facility added; Internal ID variable sizes increased; Additional Embed Points added; Bug fixes.

Posted Thursday, June 18, 2009

Clarion Handy Tools Clarion# Zip Utility

Clarion Handy Tools has released a free zip utility hand-built with CHT assemblies using Clarion# 7.0.0.5646. The application is pre-compiled, standalone and should run without Clarion# installed on your machine. Clarion# source code for this app available free on request to gcreces at cwhandy.com.

Posted Thursday, June 18, 2009

Clarion Desktop 4.24

Clarion Desktop 4.24 is available for download.

Posted Thursday, June 18, 2009

amazingGUI 1.2.0.2

amazingGUI version 1.2.0.2 has been released. This is a maintenance release so all customers are entitled to download this version. Bug fixes include: When application was composed of DLLs there was a missing INC file, resulting in compilation errors; Procedure and Control Template for theme selection by the final user was not restoring the current path after theme selection; Under certain conditions applications composed of DLLs was not applying the selected theme.

Posted Thursday, June 18, 2009

[New SoftVelocity Blog](#)

SoftVelocity's old blog appears to be gone for good. Here's the new one.

Posted Thursday, June 18, 2009

[Webinar: Learning Clarion 7, New Development](#)

The next Clarion Live! webinar is Friday, June 19th at 9am PST (GMT-8). Bob Foreman and Bob Zauere from SoftVelocity will be presenting "Learning Clarion 7; New Development". In their last session, they focused on application conversion and migration. This time, Bob Foreman would like to review and showcase parts of the advanced chapters of the Learning Clarion Lessons that focus on NEW development. This would including Creating a Browse, Update Form, Copying Procedures, Control and Extension Templates, and other Advanced Topics as covered in the Learning Clarion lessons.

Posted Thursday, June 18, 2009

[Webinar: Clarion and Continuous Integration](#)

The next ClarionLive Webinar is Friday, June 5. Rick Martin will be presenting "Clarion and Continuous Integration". Topics include: What is continuous integration; Why use version control; Clarion and CVS; AppMonitor (automated saving of APP/DCT files); WinCVS (GUI end user client tool for CVS); Building an APP file from WinCVS; claInterface (command line utility for Clarion); Integrating MSBuild and Clarion; Integrating CruiseControl.Net and Clarion.

Posted Tuesday, June 02, 2009

Clarion Magazine

C7 Builds 5646 and 5675 Released

by Dave Harms

Published 2009-06-09

NOTE: I was wrapping up the 5646 review when SoftVelocity released build 5675. I've incorporated notes on the latest build, but most of the real-world commentary is based on build 5646.

It seemed like an innocent enough question. In the C7 newsgroup, on June 2, I asked:

We've had massive threads on tabs/spaces, addins and other non-critical issues. Does that mean this release is usable for most of you, as compared to the previous build?

If not, what are the showstoppers?

That message generated more than 200 posts, and at times there was more heat than light. But a few things emerged out of that discussion, centered on the two areas of productivity and bugs. Certainly in build 5646 there was a strong feeling that the combination of UI changes from C6 and the inevitable bugs simply made life too difficult. It's one thing to be working in the new UI, getting used to the differences and in some cases the workarounds, and it's another to be at the limit of your patience when a bug bites you.

One week later SoftVelocity released build 5675. The response to that build has been somewhat muted. I've heard privately and have read in the newsgroups of markedly better results with this release. On the other hand some of the best (in my opinion) beta testers have yet to try the build.

At this point it certainly *appears* that 5675 is a significantly better release than 5646.

So where does this leave Clarion developers thinking about C7? I think the following points may help clarify the place of C7

in relation to C6:

- Although C7 officially went gold in April, realistically that gold release was the first major beta release. Although there was a beta test program, too many developers were waiting on the gold release. I think this can be attributed to the nature of C7. Early adoption is often driven by new features, and although there are buckets of new IDE features there aren't a lot of runtime or template changes to entice developers to move forward. Going "gold" gave more devs the green light to start testing; unfortunately the first few releases didn't live up to expectations.
- The C7 IDE, based as it is on SharpDevelop, bears a lot of resemblance to Visual Studio. The more you like Visual Studio, the more you're likely to like C7. If you don't know Visual Studio or its kin at all you will face a steeper learning curve.
- If you currently push C6 to the limits and/or you rely on C6's keyboard shortcuts you're going to have a more difficult time than if you're happy navigating by mouse and sticking to core functionality.

That said, if you haven't done any testing with C7, and it turns out that you do something no one else does and that something causes C7 to barf, you have no one to blame but yourself if it's not fixed for the real gold release.

I'll begin with a look at the main issues in 5646, under the headings of productivity and bugs, and then I'll go on to the fixes and the new features.

Productivity

The ongoing lack of a window previewer is a real issue for some developers. SV's position is the new designer displays windows accurately so you shouldn't need a previewer, although one clear difference is the inability to preview a menu in C7.

Extra keystrokes and mouse clicks are a source of major annoyance to some. If you switch display modes in the AppGen you're probably frustrated by the additional clicking needed to change settings via the drop list, as compared to just clicking on a tab in C6. There's some extra clicking going to/from the window designer, mainly because you see the source on the way back.

Adding an icon to a control is potentially more convoluted. In C6 you're looking at a minimum of six clicks (right-click for context menu, choose menu item, choose tab, click on ellipsis button, double-click to select icon (assuming it's in

the current directory), click OK. In C7 it's potentially one click less, although you may not realize right away that the way to do it is to click on the control, then on the little action indicator on the control (Figure 1).

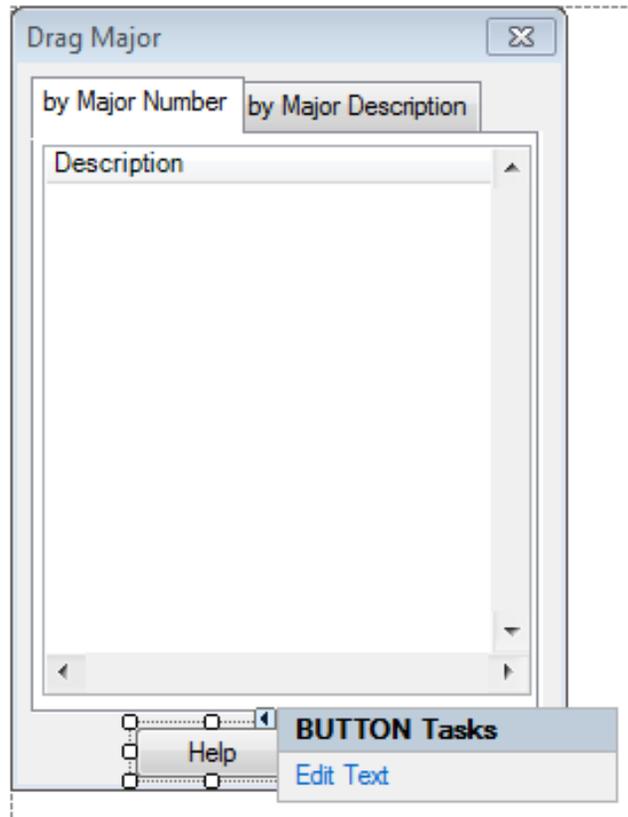


Figure 1. Bringing up the button's action menu

Choose Edit Text. That brings up the Edit Text and Icon window (Figure 2).

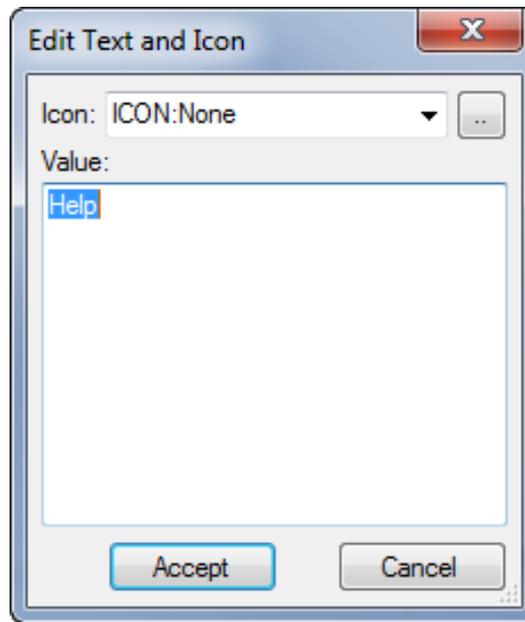


Figure 2. The Edit Text and Icon window

One major issue with icons is that if you navigate to another directory to select an app, that directory isn't remembered when you return to this dialog to select another icon for that control or a different control. C6 does remember the directory.

NOTE: This bug is reported fixed in 5675 but I'm still not seeing the correct behavior.

Many developers also despise the PropertyGrid, which is the standard MS control for setting all kinds of properties. In fact C6 has something similar: the mass property editor which you can invoke by pressing F12. But the mass property editor actually does something C7 doesn't do. Figure 3 shows the C6 mass editor in which I've highlighted three entry fields, two of which have default justification and one of which has right-justification. The italicized text indicates values that are not common to the selected controls. I can set all of these controls to the same justification by clicking on that text and choosing the new value.

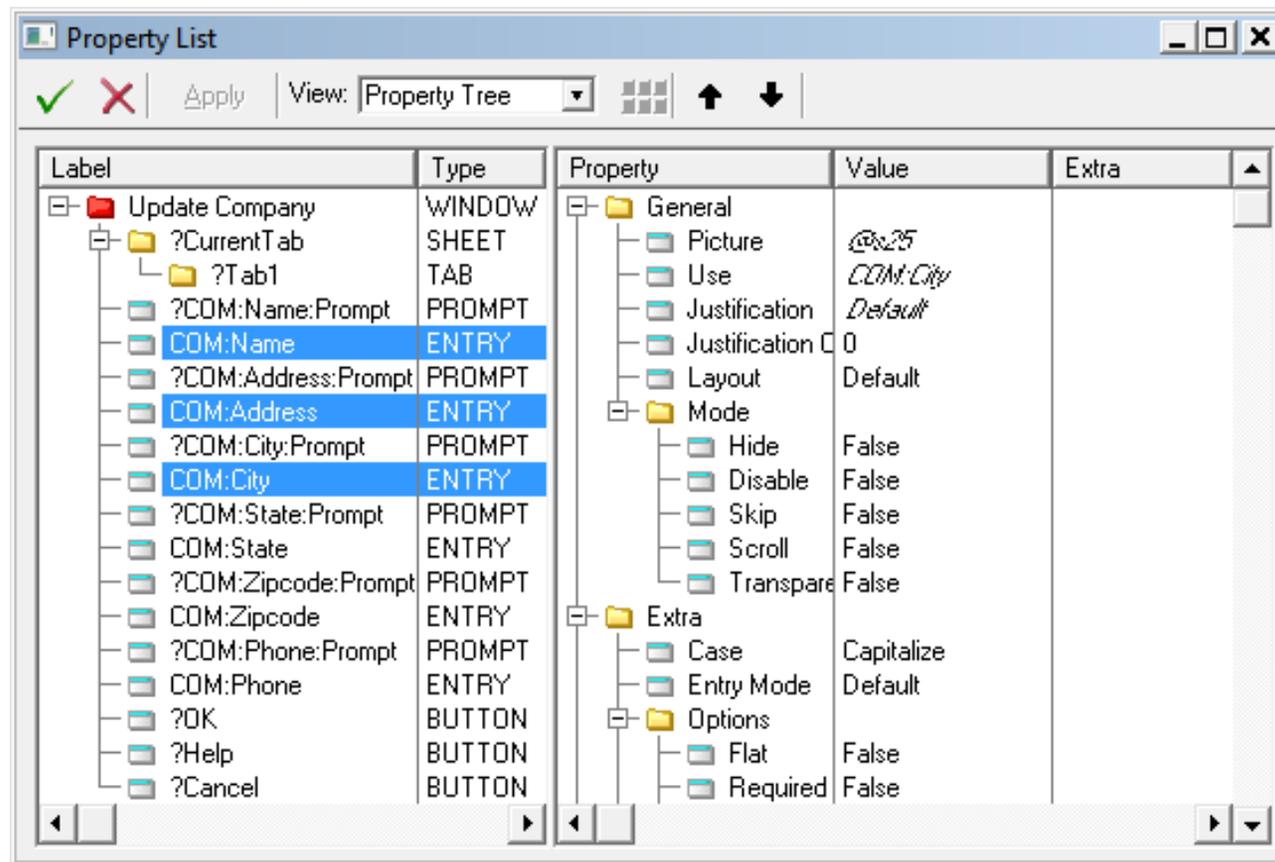


Figure 3. The mass property editor in C6

In C7 I accomplish this by selecting the controls on screen (Figure 4) and using the PropertyGrid (Figure 5).

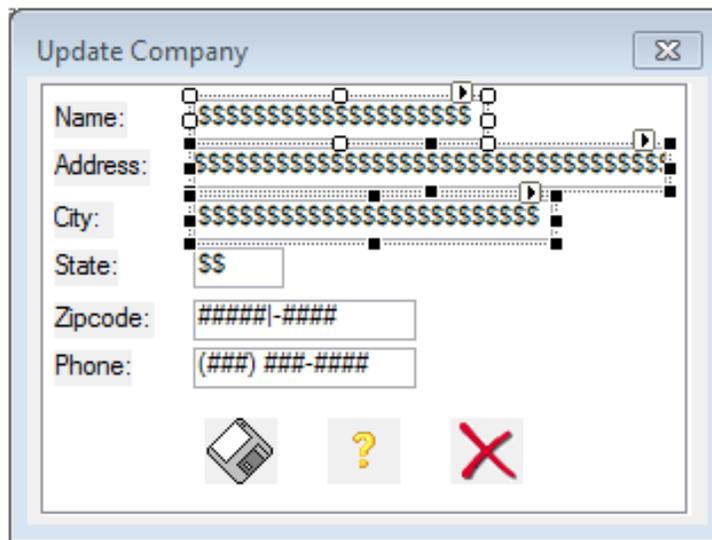


Figure 4. Selecting multiple controls

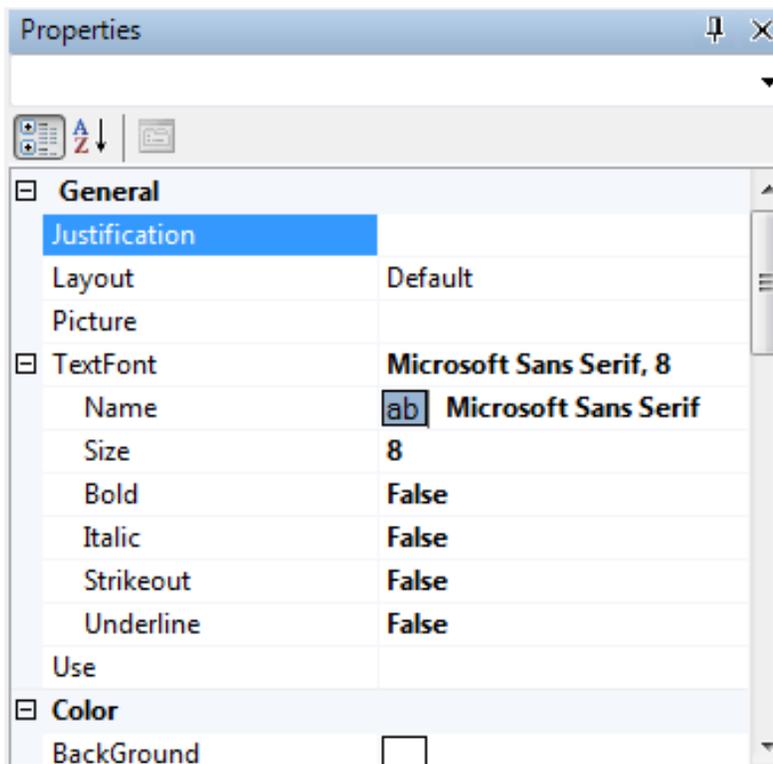


Figure 5. Setting justification via the PropertyGrid

In Figure 5 the Justification field is disabled and shows no value because all the values are not the same. You can use mass update in C7, but only where the values are already identical. I expect this will have to change at some point.

These aren't showstoppers, but they are illustrative of the kinds of productivity issues in C7 vs C6. To be fair, there are also many things C7 does faster/better, not least of which are generating and compiling. Some developers are pushing for a C6-style property dialog in addition to the PropertyGrid.

Another item that got a whole lot of attention recent is tabs versus spaces, otherwise known as Yet Another Religious War. In C6 when you press Tab on a block of code you get a little Block Indent dialog that asks you how many spaces you want to indent, and in which direction. In C7 you don't see that - you simply press Tab or Shift-Tab and the code moves left or right. Whether it moves by tabs or spaces depends on whether you've checked "Convert tabs to spaces" in the editor options. So your code may not move exactly where you want it.

I suspect most of the folks wanting this feature have never tried selecting some text and pressing Ctrl-I to automatically format their source code. But I'll grant there are places where manual placement would be handy, especially in template work. For that matter, the ability to format templates (just the # statements, not the generated source) would be immensely helpful.

NOTE: C6-style tabbing is available in build 5675. It can be disabled in the editor options.

There is no 32 bit report writer yet, which is an issue if you're deploying to 64 bit operating systems. The 32 bit version is expected soon.

Bugs and RTL issues

General IDE stability has improved significantly with the last couple of releases, but there are still bugs to be squashed. Notable issues include:

- Alias prefix problems (fixed in 5675)
- Disappearing VCR attribute (fixed in 5675)
- Mask issues (ongoing)

- Debugger not working under Windows 7

Some beta testers report hard-to-diagnose compile problems that *seem* to be related to the redirection file. Other developers have no redirection issues at all.

If you have weird behavior in C7 you might want to consider a reinstall. But first clean out the temp data. Courtesy of Bob Ricketts (via Bob Foreman), here's a set of instructions you can place in a batch file:

```
ECHO OFF
```

```
RD "%AppData%\SoftVelocity\Clarion\7.0\temp" /S /Q
```

```
RD "%AppData%\SoftVelocity\Clarion\7.0\preferences" /S /Q
```

```
ECHO ON
```

You should also be able to run the middle two lines from any command prompt.

An apparent bug with DROPID('~\FILE') came up again. After doing some digging Kelly Major discovered that on his Vista 64 machine with UAC enabled, dragging a file from Windows Explorer will not trigger an Event:Drop if the receiving program is launched from the C7 IDE. That's because the IDE runs elevated and Explorer normally runs with normal user privileges and so doesn't have the necessary rights to communicate with an elevated program. This appears to be a [known issue](#). Kelly has submitted a feature request for an option to run an application from the IDE *non*-elevated.

For the template programmer...

There's one kind of work for which I have absolutely no hesitation about recommending C7: writing templates. I'm doing that a lot these days, and C7 is worlds better than C6. The new template editor greatly improves navigation within a template; the tabbed interface lets me keep a bunch of templates open at the same time; I can create a project containing the templates I'm working on and add that to the solution containing the app I'm testing; I have one-click generation; I can have a dictionary open at the same time and make changes that impact code generation (just noticed dragging fields to re-order them - wheee!); regular search seems to work quite well now (although I can't seem to get the right-click template search options to function consistently); I can customize my IDE layout for template work; and on and on. I dread the thought of writing templates in C6.

Summary

As you can see from the release notes below (for both 5646 and 5675) bug fixes continue apace. I don't have a prediction for when C7 will effectively be in a gold release, but I suspect that the main limitation right now isn't SV fixing bugs so much as it's users testing the product.

If there are any dramatic developments in 5675 I'll update this article; please add your comments below.

Release notes for Clarion 7.0.5646

1. In all previous builds the default setting for "Cache Applications In-Memory after Editing" was ON. We have changed this default to OFF, but if you have not turned the caching option to OFF we recommend that you do so now. With caching ON you must close both the App and the Solution to be able to edit the Dictionary used in the App.

The cache option is located from the main menu:

Tools-Options-Clarion-Applications General Options

2. no changes to RTL exports so 3rd party DLLs should not require rebuilding

Fixes/Changes/Features

PTSS 33539: Entry field text is underlined when highlighted (Aero)

PTSS 30803: Implemented feature

PTSS 32981: Unable to compile a Clarion 6.2 app in Clarion 7

PTSS 33280: cwHHL.INC is no longer used but the templates still reference the file.

PTSS 33335: Files 'lost' to app when doing changes

PTSS 33367: Copy/Paste table produces ASSERT errors on App load

PTSS 33448: Template TOXML

PTSS 33468: GPF on canceling the Window Designer after canceling Action Dialog

PTSS 33491: event accepted via tab key in properties toolbar does nothing

PTSS 33502: Populate fields on tab 2009-05-27
PTSS 33515: Missing new methods in embeditor
PTSS 33521: tps table in dct editor memo limited to 15772
PTSS 33602: Memory leak
PTSS 33611: Can Not Close Solution
PTSS 33612: Cap fields work different than they did before
PTSS 33626: Canceling Delete Control still deletes the control
PTSS 33635: ClarionCl is broken in 5615

CHANGE: In batch mode, errors from all the applications are displayed together, instead of just the last applications' errors.

CHANGE: Now the Compilation errors are appended to the generation errors instead of overwriting them.

FEATURE: The MSSQL synchroniser now supports MS SQL 2005's xml datatype

FIX: A NullReferenceException could be thrown when cleaning up the file schema pad

FIX: Do not capitalize a character next to apostrophe when CAP attribute is present

FIX: File schema could be not marked as changed on adding or removing files to/from it

FIX: Reduce the memory usage on apps with many OVER fields

FIX: Selection of text in ENTRY/SPIN/COMBO could have unpainted lines of 1-pixel width inside

FIX: Sometimes the audit details for the dictionary were not being saved.

FIX: an exception was thrown if the redirection file indicated that exe, dll or lib files should be found in a directory starting with .. Eg the line "*:exe = ..\bin" would cause the exception.

FIX: The error list was cleaned when the app was closed not allow to edit errors in context when compiled form the App Pad and App caching was off.

FIX: You could not create a MEMO greater than the maximum space left in the RECORD structure

FIX: sometimes the solution could not be closed.

Release notes for Clarion 7.0.5669

(same notes as for 5646)

Fixes/Changes/Features

FEATURE: Block Indent dialog

Option is located in Tools/Options/Text Editor/Clarion Specific Options/General.

If enabled (default is ON) and there is text selected in the editor, you can press Tab to see the dialog (or Shift+Tab).

PTSS 32450: Control template tree not sorted

PTSS 32684: Export file was getting the wrong name when the .app is in a directory that uses a . DOT

PTSS 33099: Report formatted numeric display

PTSS 33371: An exception was thrown if you tried to add a comment or options to Application variables NOTE: You can't save comment or options for Application variables

PTSS 33643: Label of field of file/alias could be understood incorrectly if both file and alias are in the file schema

PTSS 33654: Edit Text and Icon - not remembering directory

PTSS 33657: Embed Tree buttons change in position.

PTSS 33661: Report formatted numeric display

PTSS 33679: Window Designer doubles apostrophes in some cases

PTSS 33710: Value of the ENRY/SPIN/COMBO control could display incorrectly on gaining input focus if its picture had the "blank if empty" modifier

FIX: Data Pad was displaying the Primary Table selected Key for an Alias with the Aliased Table's Key name.

FIX: WALLPAPER "mode" attribute was being reset to stretched

FIX: VCR attribute without any parameter was not correctly saved/restored

FIX: EnterKey and MouseLeft2 key stopped working to edit the template definition in the Template Registry

FIX: Copying an item from the data pad and pasting it into a text editor was adding an extra CR/LF.

FIX: Lib file generalization now only generalizes names if they match any older clarion version naming convention (eg C15, C2, C4, C5, C55, or C60)

CHANGE: some improvements to the template pad; sorting,alignment

written several Java books. David is a member of the American Society of Journalists and Authors ([ASJA](#)).

Reader Comments

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Clarion Magazine

Bringing A Window To The Foreground

by Nardus Swanevelder

Published 2009-06-16

The latest request from my users had me running around in circles for a while. In my application I print a quote and on the Previewer screen I give the user the option to create a PDF document from that report. I then create an email and attach the PDF to the email message. This, however, is also the cause of my problem: the email message is not brought to the front, so the users have to look for the window with the email message. From my point of view this is not a huge problem, but some of the users are not that bright, it seems.

At first the request seemed like it would be easy to implement. But where to start? As always my first stop was ClarionMag where I found Mike Hanson's article [Finding a Window with WINAPI](#). I thought that FindWindow and SetForegroundWindow would fix my problem. But I found that FindWindow did not find my window and therefore SetForeGroundWindow could not work either. I don't know why FindWindow couldn't find my window so I had to look deeper into this problem.

My next stop was the Skype Clarion Chat Group; here I got some Clarion code for a program called WinSpy from Olivier Cretey, who got the code from an unknown source. Figure 1 shows a screen shot of WinSpy running on my machine:

| Top level windows | | | | | The Kids | |
|-------------------|------------------------------|--------------------|--------|---------|----------|------------------------|
| hwnd | text | class | thread | process | hwnd | text |
| 1507824 | | WorkerW | 3648 | 3084 | 2557948 | MsoDockLeft |
| 1578436 | | WorkerW | 3648 | 3084 | 1966750 | MsoDockRight |
| 1704442 | | WorkerW | 3648 | 3084 | 2556308 | MsoDockTop |
| 1639212 | | WorkerW | 3648 | 3084 | 3216764 | Ribbon |
| 1901132 | | WorkerW | 3648 | 3084 | 2424856 | Ribbon |
| 2823596 | | WorkerW | 3648 | 3084 | 2164566 | |
| 2425288 | | Groove.Class.Broad | 6132 | 3084 | 4461598 | |
| 852784 | | ATL:02701E30 | 1104 | 3084 | 3670322 | MsoDockBottom |
| 3409670 | | ATL:02701E30 | 4660 | 3084 | 4523914 | Status Bar |
| 1245702 | | WorkerW | 3648 | 3084 | 3803258 | Status Bar |
| 983854 | | tooltips_class32 | 3648 | 3084 | 3085312 | |
| 1050484 | | ComboLBox | 3648 | 3084 | 1509154 | |
| 4854840 | | WorkerW | 3648 | 3084 | 3607172 | |
| 4589626 | Language | OfficeTooltip | 1548 | 1456 | 1706138 | Managing Windows API |
| 5113692 | Text | MsoCommandBarP | 1548 | 1456 | 2099008 | MSO Generic Control Co |
| 2032218 | Managing Windows API Proto | OpusApp | 1548 | 1456 | 2885022 | MSO Generic Control Co |
| 2427148 | Finding a Window with W/INAF | MozillaUIWindowCl | 4736 | 3388 | 918038 | Microsoft Word Docume |
| 853994 | MCI command handling windo | #43 | 1360 | 3388 | 3147644 | Vertical |
| 1378534 | | MozillaHiddenWind | 4736 | 3388 | 4786538 | |
| 2954680 | NetscapeDispatchWnd | nsToolkitClass | 4736 | 3388 | 2037000 | |
| 1901038 | nsAppShell:EventWindow | nsAppShell:EventW | 4736 | 3388 | 2430324 | |
| 1643908 | TISL_Places_Extension_Supp | Message | 4736 | 3388 | 5638800 | |
| 526326 | | DDEMLEvent | 4736 | 3388 | 1376840 | MsoWorkPane |
| 1971462 | | DDEMLMom | 4736 | 3388 | 2099112 | MsoWorkPane |
| 2032210 | | FirefoxMessageW/ir | 4736 | 3388 | 2167836 | MsoWorkPane |

Figure 1. WinSpy

But what does WinSpy do? It finds the handle to each open window as well as the text (or the caption) of the window, which class it belongs to, the thread id and process id. It also finds the child windows belonging to the parent (top level windows).

Why is this important? Well, `SetForegroundWindow` needs the handle of the Window before it can bring the window to the front. The `FindWindow` API call does return the Window handle but it doesn't help me if it can't find the Window I am looking for.

The WinSpy code gave me some ideas on how to get the handle to my Window. It also helped that Mark Goldberg pointed

me in the direction of an API call named EnumWindows.

EnumWindows

EnumWindow is an API call that lists all the open Windows. Here is what [MSDN](#) says about it:

The EnumWindows function enumerates all top-level windows on the screen by passing the handle to each window, in turn, to an application-defined callback function. EnumWindows continues until the last top-level window is enumerated or the callback function returns FALSE.

MSDN also states:

This function is more reliable than calling the [GetWindow](#) function in a loop. An application that calls GetWindow to perform this task risks being caught in an infinite loop or referencing a handle to a window that has been destroyed.

Here's what the prototype looks like in Clarion:

```
My_EnumWindows(long lpEnumFunc,long lParam),|  
long,pascal,proc,name('EnumWindows')
```

As you might guess the first parameter is a pointer to the callback function. This is what [MSDN](#) has to say about the callback:

The **EnumWindowsProc** function is an application-defined callback function used with the [EnumWindows](#) or [EnumDesktopWindows](#) function. It receives top-level window handles. The **WNDENUMPROC** type defines a pointer to this callback function. **EnumWindowsProc** is a placeholder for the application-defined function name.

What this means is that I have to create a procedure in Clarion that is passed to EnumWindows. Here is what that procedure's prototype looks like in Clarion:

```
myEnumWindowsProc(long hwnd,long lParam),long,pascal
```

To test my callback I implemented it as part of the WinSpy application. I altered the WinSpy code by adding a button to call `SetForegroundWindow` based on the handle returned by the `EnumWindows` call. I expected my modified WinSpy would let me bring any window to the front, and I was surprised when it didn't work. When I asked Google about the `SetForegroundWindow` problem I found the following information on [MSDN](#)

The Windows system restricts which processes can set the foreground window. A process can set the foreground window only if one of the following conditions is true:

- a.. The process is the foreground process.
- b.. The process was started by the foreground process.
- c.. The process received the last input event.
- d.. There is no foreground process.
- e.. The foreground process is being debugged.
- f.. The foreground is not locked (see `LockSetForegroundWindow`).
- g.. The foreground lock time-out has expired (see `SPI_GETFOREGROUNDLOCKTIMEOUT` in `SystemParametersInfo`).
- h.. Windows 2000/XP: No menus are active.

I knew then that I had a problem but luckily Google also supplied me with a possible solution: on a Visual Basic site I found a [PDF](#) containing the following:

Bringing an app to the foreground unbidden is bad behaviour in most apps. As a developer, make every effort to avoid the need for this behaviour altogether. Few users appreciate one app plopping up to the foreground while they're working in another. Given all that, no matter what anyone says, you have to do it at times.

Here's why your `SetForegroundWindow` strategy no longer works, and how you can patch it up. Microsoft has altered the behaviour of `SetForegroundWindow` under all Windows version after Windows 98. If your application is currently in the foreground, this API still behaves as it always did. Then you can bring any window to the front both those belonging to your app and those of other apps. However, if your app doesn't hold the foreground, newer versions of Windows simply call `FlashWindow` to achieve the flashing effect.

The `FlashWindow` API call referenced in the article flashes the specified window one time. It does not change the active state of the window. I needed to bring the window to the foreground.

The article goes on to discuss a `ForceForegroundWindow` function (written in VB) that works by tricking the operating system into thinking the thread whose window is up front is the one making the call. The function accomplishes this deception with a call to the `AttachThreadInput` API, linking your application's main thread's input state with that of the desired foreground window. At this point, a you can call to `SetForegroundWindow` is. One more call to `AttachThreadInput` unhooks the two threads.

```

Option Explicit
'
' Required Win32 API Declarations
'
Private Declare Function GetWindowThreadProcessId _
    Lib "user32" (ByVal hWnd As Long, lpdwProcessId _
    As Long) As Long
Private Declare Function AttachThreadInput Lib _
    "user32" (ByVal idAttach As Long, ByVal idAttachTo _
    As Long, ByVal fAttach As Long) As Long
Private Declare Function GetForegroundWindow Lib _
    "user32" () As Long
Private Declare Function SetForegroundWindow Lib _
    "user32" (ByVal hWnd As Long) As Long
Private Declare Function IsIconic Lib "user32" _
    (ByVal hWnd As Long) As Long
Private Declare Function ShowWindow Lib "user32" _
    (ByVal hWnd As Long, ByVal nCmdShow As Long) As Long
'
' Constants used with APIs
'
Private Const SW_SHOW = 5
Private Const SW_RESTORE = 9

Public Function ForceForegroundWindow(ByVal hWnd _
    As Long) As Boolean
    Dim ThreadID1 As Long
    Dim ThreadID2 As Long
    Dim nRet As Long
    '
    ' Nothing to do if already in foreground.
    '
    If hWnd = GetForegroundWindow() Then
        ForceForegroundWindow = True
    Else
        '
        ' First need to get the thread responsible for
        ' the foreground window, then the thread running
        ' the passed window.
        '
        ThreadID1 = _
            GetWindowThreadProcessId(GetForegroundWindow, _
            ByVal 0&)
        ThreadID2 = GetWindowThreadProcessId(hWnd, _
            ByVal 0&)
        '
        ' By sharing input state, threads share their
        ' concept of the active window.
        '
        If ThreadID1 <> ThreadID2 Then
            Call AttachThreadInput(ThreadID1, _
                ThreadID2, True)
            nRet = SetForegroundWindow(hWnd)
            Call AttachThreadInput(ThreadID1, _
                ThreadID2, False)
        Else
            nRet = SetForegroundWindow(hWnd)
        End If
        '
        ' Restore and repaint
        '
        If IsIconic(hWnd) Then
            Call ShowWindow(hWnd, SW_RESTORE)
        Else
            Call ShowWindow(hWnd, SW_SHOW)
        End If
        '
        ' SetForegroundWindow return accurately reflects
        ' success.
        ForceForegroundWindow = CBool(nRet)
    End If
End Function

```

Figure 2. Listing of VB function ForceForegroundWindow

The problem with this solution is that it is VB code and I wasn't in the mood to translate it into Clarion, so based on advice from Olivier I decided to contact Larry Sand. Larry supplied me with some code that is doing what the VB article suggests.

Let's have a quick recap of what have been covered so far. I need to bring a window to the front and due to the fact that the FindWindow API call did not find my window I could not use SetForegroundWindow. I then discovered that the EnumWindows API call will find my window for me, only to find out that SetForegroundWindow is not doing what I thought it would do. The next step was to get the code from Larry and implement that in my application.

Here is what I had to do to implement all of the above:

Step1: Define the API calls in the Global Map:

```
Module('win32')
  My_EnumWindows(long lpEnumFunc,long lParam), |
    long, pascal, proc, name('EnumWindows')
  My_GetWindowText(UnSigned hwnd,*cstring |
    lpString,long cch), long, pascal, raw, |
    name('GetWindowTextA'), proc
  My_GetWindowThreadProcessId(HWND hWnd, |
    <*UNSIGNED lpdwProcessId>),UNSIGNED, |
    Pascal, Raw Name('GetWindowThreadProcessId')
  My_SetForegroundWindow(UnSigned HWND), BOOL, |
    PASCAL, PROC, Name('SetForegroundWindow')
  My_GetForegroundWindow(), UnSigned, PASCAL, |
    Name('GetForeGroundWindow')
  My_AttachThreadInput(UnSigned idAttach, |
    UnSigned idAttachTo, BOOL fAttach),BOOL, |
    Pascal, Proc, Name('AttachThreadInput')
End
```

Step 2: Define the myEnumWindowsProc

Figure 3 shows what it looks like in the IDE. Please note the ! on the Parameters Tab which turns the return type into a comment. For completeness here is the prototype again:

```
myEnumWindowsProc(long hwnd,long lParam),long,pascal
```

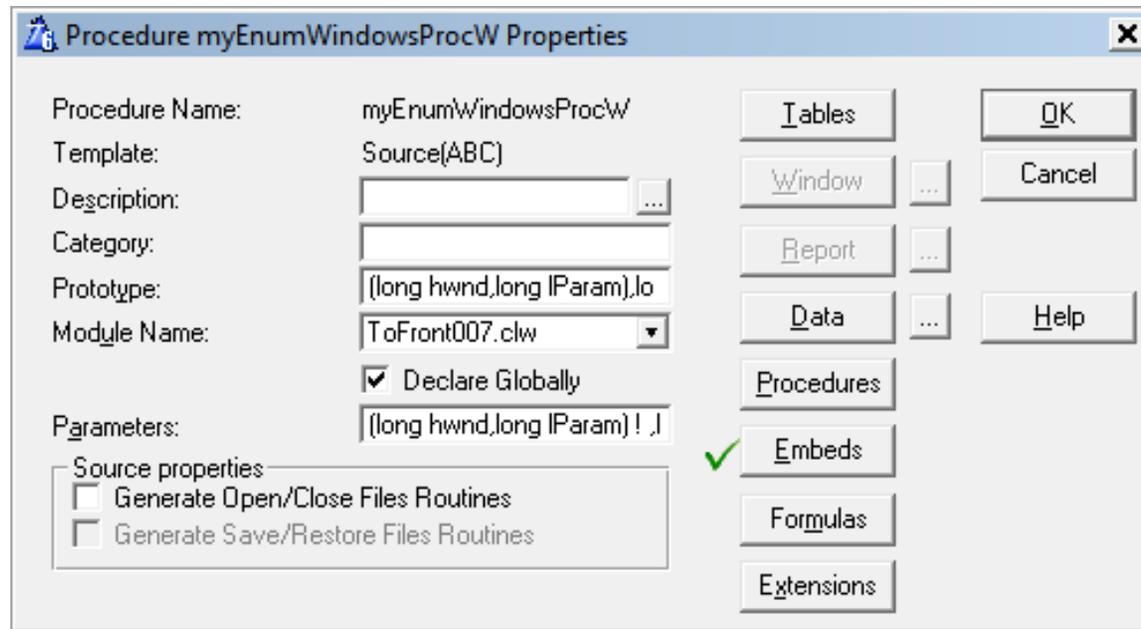


Figure 3. Prototype for myEnumWindowsProc

Here is the code for the above procedure:

```
myEnumWindowsProc PROCEDURE |
    Unsigned hwnd,long lParam)!,long,pascal
```

```
bContinue        BOOL,Auto
```

```
szWindowText     CString(256)
```

```
    cszWindowText    &CString  
    ForegroundWinProcessId  UNSIGNED,Auto  
    OtherWinProcessId    UNSIGNED,Auto
```

```
CODE
```

```
    bContinue = True
```

```
    If My_GetWindowText(hwnd, szWindowText, |
```

```
        Size(szWindowText)) > 0
```

```
        cszWindowText &= (iParam)
```

```
        szWindowText = UPPER(szWindowText)
```

```
    If Instring(cszWindowText, szWindowText, 1, 1)
```

```
        bContinue = False
```

```
        ForegroundWinProcessId = |
```

```
            My_GetWindowThreadProcessId(My_GetForegroundWindow(), )
```

```
        OtherWinProcessId = My_GetWindowThreadProcessId(hwnd, )
```

```
    If ForegroundWinProcessId <> OtherWinProcessId
```

```
        My_AttachThreadInput(ForegroundWinProcessId, |
```

```
            OtherWinProcessId, True)
```

```
        My_SetForegroundWindow(hwnd)
```

```
        My_AttachThreadInput(ForegroundWinProcessId, |
```

```
            OtherWinProcessId, False)
```

```
    Else
```

```
        My_SetForegroundWindow(hwnd)
```

```
    End
```

```
End
```

```
End
```

```
Return bContinue
```

Step 3: Define a procedure `BringWindowToFront` and call that when you want a window to come to the front.

Here is the prototype:

```
BringWindowToFront PROCEDURE (String WindowName)
```

You will call `BringWindowToFront` with the following code:

```
BringWindowToFront('QUOTE AS REQUESTED')
```

All that remains is to look at the code that goes in the `BringWindowToFront` procedure:

```
My_EnumWindows(Address(MyEnumWindowsProc),Address(WindowName))
```

But what does this code do? When I call the `My_EnumWindows` API, it calls `myEnumWindowsProc` which goes through all the open Windows and when it finds the window "Quote As Requested" it gets my application's process ID and compares it with the email window's process ID. If the two are the same it does a `SetForegroundWindow` otherwise it changes the email window's process ID and then does a `SetForegroundWindow`.

Summary

To bring a window to the front is not that straight forward and takes a number of API calls. Bringing a window to the front is also not the best practise from a development point of view, but it has to be done from time to time and this article explains how you can do that.

Please note that the example app uses the [Debugger](#) [sic] template.

[Download the source](#)

[Download the Debugger source](#)

Nardus Swanevelder was born and raised in South Africa. He was a networking engineer for seven years before he moved over to the commercial side of the business. Nardus has developed a Sale Cycle Management system for the Information and Communication Technology industry. He has been programming in Clarion since 1989, and holds B.Com and MBA degrees. In his spare time Nardus lectures Financial Management to B. Com Hons students at North-West University.

Reader Comments

Posted on Wednesday, June 17, 2009 by Kevin Dohren

Hi Nardus,

Great article, but (there's always a but isn't there VBG) I have to point out a slight problem when this method is used with Vista.

To see the problem on a Vista machine start up the app, minimise it, and then hover the mouse over the taskbar icon.

This will display the Vista thumbnail for the app.

Now when you restore the app and click the Bring to Front button nothing will happen.

This is because the Vista thumbnails have exactly the same window captions as the 'real' application.

(You'll be able to see the thumbnail window using WinSpy)

Solution:-

You need to filter the windows looked at in the enumeration using the GetClassName API function.

You can either include only those with 'Clawin' in the ClassName (for a Clarion app) or exclude those with 'ThumbnailClass'

The thumbnails persist in memory so cause a real problem on Vista.

Posted on Wednesday, June 17, 2009 by Peter Gysegem

When I need to bring a window to the fore, I use `WindowName{PROP:Active} = True`. If I want to be really annoying, I put this code on a Timer event and it makes the window come to the front no matter what the user does. Maybe I'm missing something but I tried all kinds of API stuff and, while I could get it to work (sort-of), `PROP:Active` seems to be more reliable.

Posted on Wednesday, June 17, 2009 by Nardus Swanevelder

Hi Kevin

Thanks for that, didn't know that, I am running my app on Windows server 2008 - so I assume I will have the same problem.

In my case I will have to filter out all of the ThumbnailClass windows.

Thanks

Nardus

Posted on Wednesday, June 17, 2009 by Nardus Swanevelder

Hi Peter

The way I understand Prop:Active is that it only works for Clarion Windows created by a Clarion App. In my case my Clarion App opens a MS Outlook Window that I need to bring to the front and because it is not a Clarion Window Prop:Active will not work.

Thanks

Nardus

[Add a comment](#)

Clarion Magazine

The Redirection Class

by Jeffrey Slarve

Published 2009-06-18

Editor's note: This article is update to Jeff's original article on the redirection class published in Volume 2 No 12.

I have applications that load images at run time from filenames stored in a database. In a perfect world, this would be no problem. Just store the filename in a database, display the file as needed in an image control, and be done with it. However, in a networked environment several nagging issues pop up that can cause significant difficulty.

For one thing, you can't count on drive names or path names to be the same from one workstation to the next. Many small businesses don't have a full time administrator who can make sure that everything is set up in a way that you can trust for your program to run smoothly. The path D:\TheFolder\Images\File.jpg on one machine could be M:\Apps\TheFolder\Images\File.jpg on another machine.

One way to deal with different file names is to refer to files by their Universal Naming Convention (UNC) names, which have this format:

```
\\servername\sharename\filepath\file
```

Although UNC would be a good solution, it is not at all easy to obtain the UNC name of a file. This is especially true if the "server" happens to be the workstation from which you're working, because the API calls to get UNC names require that you have Administrative rights. UNC would be fine for a power user, but I haven't found a practical way to reliably retrieve the UNC name of a file. The API procedure SHBrowseForFolder() could be used, but in my opinion it requires too much of the user to make it work as it should.

Another thing that I have read about UNC is that it puts more of a demand on system resources because it has to resolve the host name every time a file is referenced. Supposedly it is more efficient to use a mapped drive letter, but I am not

certain about that.

Either way, I really did try to figure out a reliable to store the UNC names, but wasn't comfortable with the hoops that I was having to jump through as a programmer.

Another option is to store just the plain filename, or the "relative path" of a file, but there are no built in FileDialog() functions which retrieve only the filename, or the relative path.

Enter the redirection class

I always thought that the redirection file in the Clarion environment was really cool. If a certain file type is defined in the redirection file, then the IDE knows to search in that spot for the file without having to know in advance the fully qualified path of the file in question. When you use the file dialog to look up an image on a window in the IDE, and that image file is found within defined constraints of the redirection file, only the filename itself is stored. This is immensely useful, especially when you swap APP files with other developers or move Clarion to another drive, because otherwise the filenames would be invalid.

I figured that if I could mimic the redirection file behavior of the Clarion IDE, then I would solve a lot of problems. I wouldn't have to worry about storing the path to the file, nor would I have to worry about UNC.

At the end of this article you can download the redirection class and an example application. That application uses a redirection file that looks like this:

[Common]

```
*.TPL = .;YadaYada
```

```
*.txt = .;yadayada;%ROOT%\test2
```

```
*.tst = %ROOT%\Test2
```

With this redirection file (test.red) I can, for example, put any files with the .txt extension in the current directory, the yadayada subdirectory, or the application's test2 subdirectory and the application will be able to find those files.

Methods

Here are some of the redirection class's methods (in alphabetical order):

AddDefaultMacros Procedure,Virtual

Adds the %ROOT% and %PATH% substitution macros so that they can be used in the redirection file. This is a virtual method that can be overridden and customized. %ROOT% is set to the location of the application, and %PATH% is the application's working directory. These could be different locations if the application's shortcut is configured for a different working directory.

AddMacro Procedure(String pMacro,String pReplacement)

Adds a macro such as %PATH% to the redirection object.

Usage: JSR.AddMacro('PATH', LongPath())

Construct Procedure

Automatic constructor

Destruct Procedure,Virtual

Automatic destructor. If overridden, the Parent.Destruct() should be called.

FileDialog Procedure(String pTitle, |
*String pFileName,String pExtensions,|
Long pFlags,|
Byte ReturnRelativePath=False),Byte

Just like the standard Clarion file dialog, but it has a switch to only return the path relative to the application's directory, if desired.

FindFilePath Procedure(String pShortName,*String pFullName,|
Byte Suggest=False,Byte PathOnly=False),Byte

Attempts to locate a file within the defines of the current redirection environment. Returns False if the file is not found,

unless the Suggest flag is set to True. If the Suggest flag is set to True then it will suggest a path where a file might get created. If PathOnly is set to True then it will treat the pShortName parameter as a path, appending a trailing backslash as needed.

ReduceFileName Procedure(String pLongName,
Byte ReturnRelativePath=False),String

Reduces the fully qualified pathname of a file to that just the filename, just like the Clarion IDE does when you select a file that is found within the redirection file

ParseRedirFile Procedure(String pRedirFileName,
String pSection,Byte Validate=False),Byte,Proc

Parses a redirection file for use by the redirection object. You can optionally set Validate to True. If this is done, then it will offer to create the paths that are defined in the redirection file, but don't exist yet.

ParseRedirString Procedure(String pRedirString,
Byte Validate=False),Byte,Proc

This is the same as ParseRedirFile except that you can pass a string instead of a file. This is handy to use in a config file.

NOTE: As with ParseRedirFile you can call this method multiple times with multiple strings. This could allow you to have a "standard" redirection, and an additional "user" redirection.

ParseLine Procedure(String pLine),Private

Called by the other Parse... functions. Private

ReplaceMacros Procedure(String pText),String,Private

Called by the Parse... functions. If there are macros, then this method replaces them with the valid path.

Reset Procedure

Clears any current redir data that might have been read. You might use this if you allow the user to modify the redirection file and need to re-parse it.

```
ValidateRedirQ Procedure(Byte Verbose=False,  
Byte CreateFolders=False),Byte,Proc
```

Validates any redir stuff that had been parsed

Usage

Really there are just three methods I use on a regular basis:

- ParseRedirString to configure the object
- FindFilePath to locate the file
- FileDialog to look up items whose names you want to add to a database (for later retrieval via the redirection class)

FileDialog calls ReduceFileName to strip out the redirection paths, but you might also have a situation where you want to call ReduceFileName on already-stored path information.

To use this class you first create an instance of the redirection class in your application:

```
JSR JSRedirClass
```

Next, parse the redirection file, specifying the section to use:

```
RedFile = '\Test.Red'  
JSR.ParseRedirFile(RedFile,'Common',1)
```

Call the FindFilePath method, passing the file name you're looking for, and a string to hold the full path and name of the file, if found. At its simplest, the function call looks something like this:

```
if JSR.FindFilePath(FileToFind,FoundFile)  
! do something with FoundFile
```

If the method is successful, it will return true, and your application can go ahead and use the file.

The placement of the folders within the redirection file dictates the order that the folders will be searched. For example:

```
*.TXT = c:\;c:\temp
```

will cause c:\ to be searched first.

The same idea holds true on the order of addition of redirection files. If you want to change the order that things are found, then you need to call Reset and re-parse the files in the order that you want.

The only other caveat is that you need at least Clarion 5.0 or better as the redirection class makes use of the Match() function.

[Download the source](#)

[Jeff Slarve](#) is an independent software developer and the creator of the critically-acclaimed [In Back](#) automated file safeguard utility. Jeff has been a Clarion developer since 1991, and is a member of the group formerly known as Team TopSpeed.

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Clarion Magazine

Product Review: Report and Presentation Manager (RPM)

by Dave Harms

Published 2009-06-26

Reporting has long been one of Clarion's great strengths, but there's always room for improvement, often in the form of third party tools. One of the longest-serving reporting add-ons is Lodestar Software's Report and Presentation Manager XT, better known in the Clarion community simply as RPM. You may be more familiar with Lodestar Software's founder Lee White, who is also the man behind the legendary "etc" Clarion conferences held in Gatlinburg Tennessee from 1998-2004. For a number of years Lee also ran DeveloperPlus, an online store for Clarion third party products.

RPM is primarily, as its name suggests, a presentation tool, not a report creation tool. For the most part, you still create reports the way you always have and your application generates the reports as before. And really that's where standard Clarion reporting begins to break down. If you use the standard report handling functionality built into the templates, and for instance you want to change the report target to a different printer or perhaps to a PDF printer driver, you have to change the printer options *before* you print the report. The previewer is fairly primitive, there's no easy way to tag individual pages for printing, you can't search for report text, and on and on.

There's an opportunity, however, for your app to do a lot more with reports. That's because Clarion creates reports as WMF objects. WMF stands for [Windows MetaFile](#), a Microsoft file format that allows for text as well as graphics. Specifically, the report engine creates [Aldus Placeable Metafiles](#).

RPM operates on these WMF files, providing numerous options for viewing, searching, manipulating and printing.

Here's a short list of RPM's features:

- Previewing one, two, four or six pages at a time, with fully scrollable zoom
- Keyboard or mouse navigation
- Mark individual pages or ranges
- Delete pages individually or by marks
- Text search
- Specify the report destination
- Support for number of copies (even if not supported by the report destination)
- Collation
- Support for duplex printing (even if not supported by the report destination)
- Reverse print order
- Selective printing
- Archive and retrieve reports
- Page renumbering including "page of pages"

- Segmented renumbering (i.e. numbering of subsections within a report)
- Page shuffle
- Report merging and appending
- Export to ASCII
- Multiple report preview
- User-specific reporting options
- "No records" report

RPM also has support for newspaper-style columns, where text flows in columns from top to bottom, then left to right. Newspaper Column Reports (NCR) can be applied to existing reports with some modification. Several pre-defined reports are included, and you can have as many as sixteen columns. I'll talk about NCR a bit more later on.

Installing RPM

RPM is available for Clarion 6.x and Clarion 7 (older versions are still available for download but not supported). When you purchase RPM you'll receive an email containing the login details for the CWAddons product page. Figure 1 shows the portion of the page that applies to RPM. Note that there are separate installs not just for C6 and C7 but also for the various versions of C6. Also make note of your unlock codes; the C7 version uses a combination of an unlock code and a password, while the C6.x version expects a password and a serial number.

I first installed RPM for C6 on a Vista Business 32 bit virtual machine. (Actually, being a bit slow on the uptake I actually started installing RPM for C7 against C7 on that machine - it wasn't until I got to the security dialog that I realized my mistake.)

RPM: (XT) Report/Presentation Manager
RPM with eXtended Target support

Your unique unlock codes for installs listed below ...

| Clarion Version · Release · Build | Template Families | Release Date (reference only) |
|-----------------------------------|-------------------|-------------------------------|
| RPM-XT 7.0.5349 (with Drill Down) | Both* | 26-Apr-2009 |

Your unique unlock codes for installs listed below ...

| Clarion Version · Release · Build | Template Families | Release Date (reference only) |
|-----------------------------------|-------------------|-------------------------------|
| RPM-XT 6.3.9051 through 6.3.9058 | Both* | 02-Oct-2007 |
| RPM-XT 6.3 | Both* | 10-Nov-2007 |
| RPM-XT 6.3.9049 | Both* | 10-Nov-2007 |

R
P
M
X
T

| | | | | |
|---|--------|------------------|--------------|-------------|
|  | RPM-XT | 6.2.9049 | Both* | 10-Nov-2007 |
|  | RPM-XT | 6.2.9048 | Both* | 10-Nov-2007 |
|  | RPM-XT | 6.2 | Both* | 10-Nov-2007 |
|  | RPM-XT | 6.1.9031+ | Both* | 09-Nov-2007 |
|  | RPM-XT | 6.1 | Both* | 09-Nov-2007 |

* legacy templates and libraries are included but do not yet support eXtended Targets

Figure 1. The download page

Note that all versions of RPM listed on the page support both ABC and Legacy templates, but something called eXtended Targets is only available for ABC at present. This relates to Clarion's built-in support for sending reports to PDF, XML, HTML and text; as with NCR I'll have more to say about eXtended Targets a little later. RPM also integrates with other third party reporting products, including [CPCS](#), [Taboga](#), [PDF-Tools](#) and [Office Inside](#).

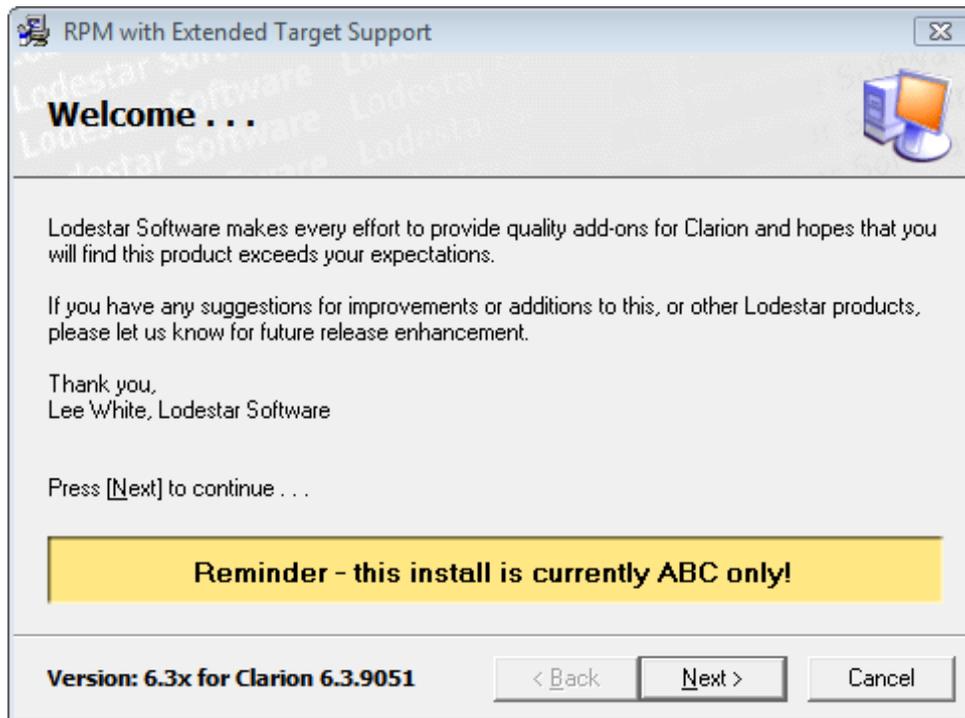


Figure 2. Starting the installer

As Figure 2 suggests, Lee continues to improve RPM over time.

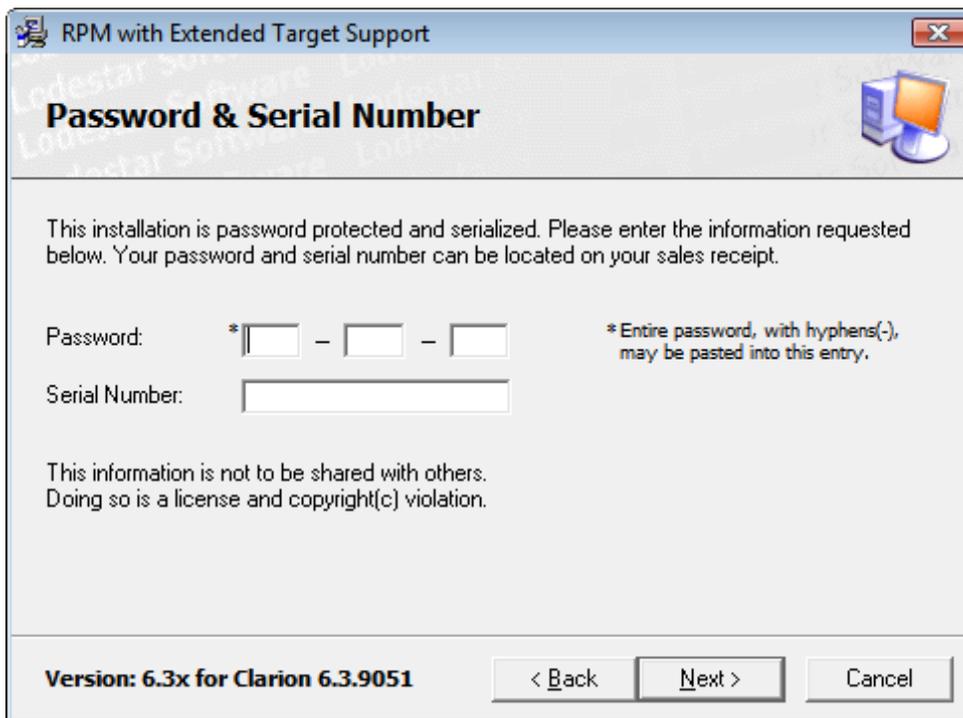


Figure 3. Entering your password and serial number.

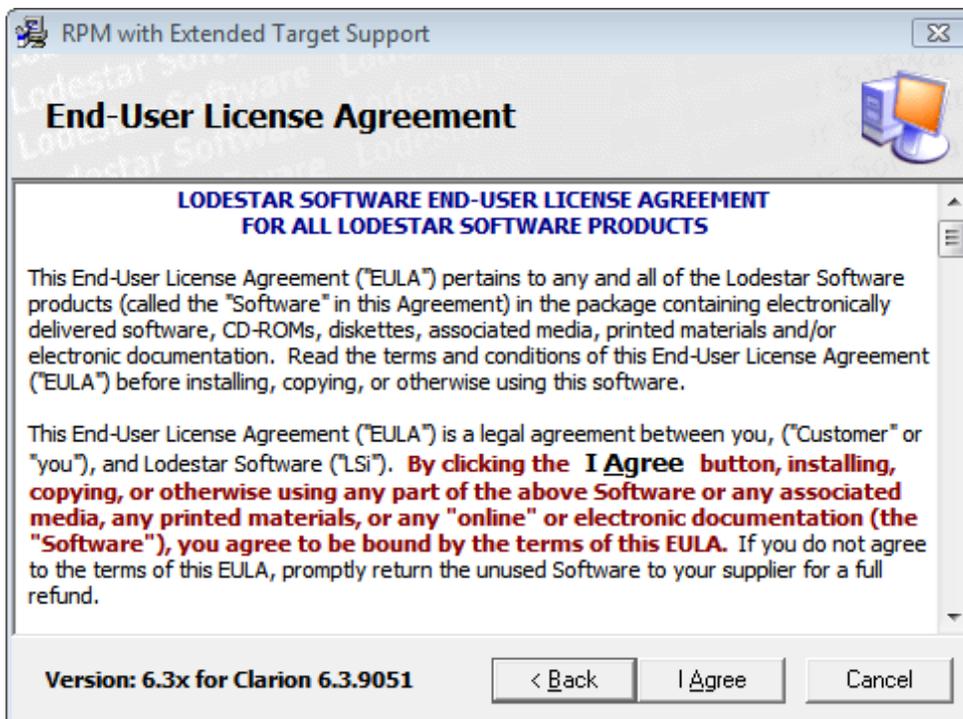


Figure 4. The EULA

I have C6 installed in an odd location; yours will most likely be in \Clarion6 or \C6.

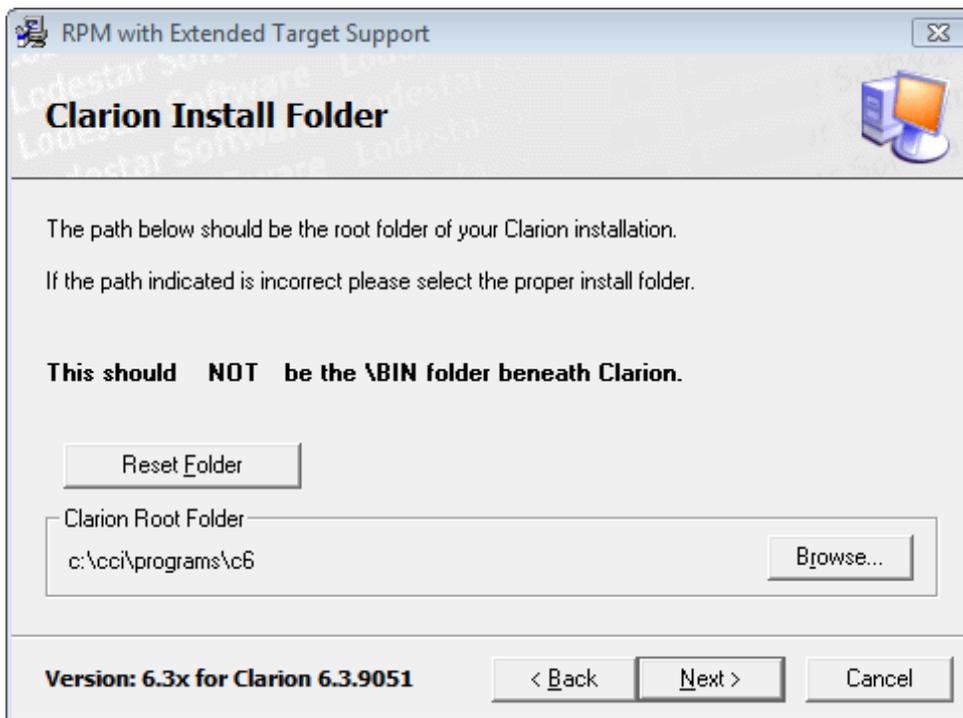


Figure 5. Choosing the install folder

In Figure 6 I've only chosen to install the ABC support, as I no longer do any Legacy development.

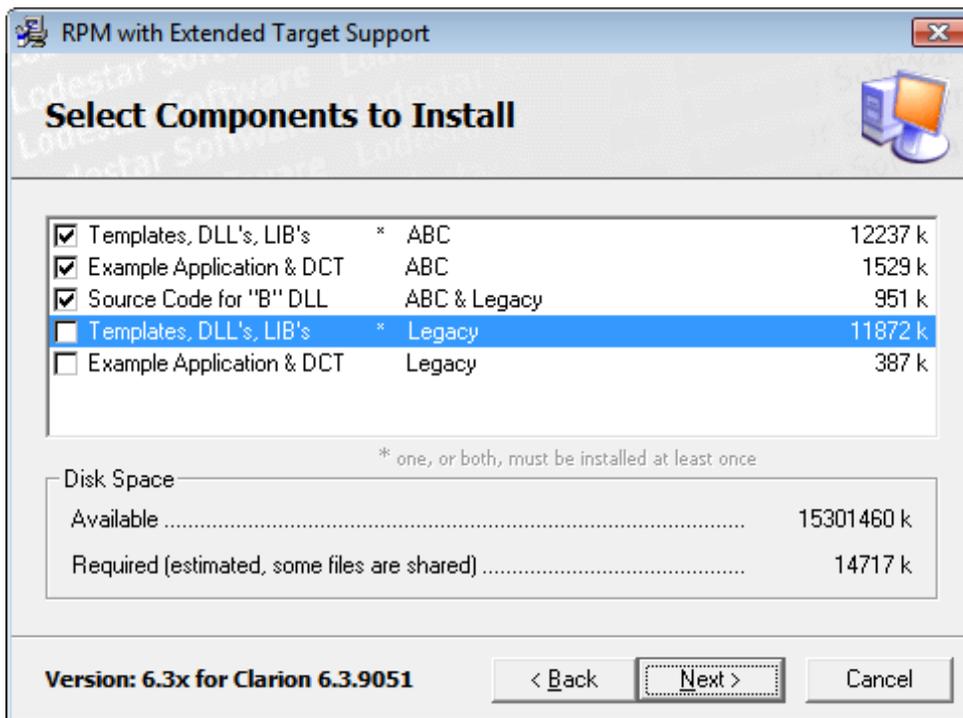


Figure 6. Selecting components

As in Figure 7, the default installation for RPM in C6.x is in a directory under the Clarion directory, but you can easily change this to an install under the 3rdParty directory if you wish, or you can specify the directories manually.

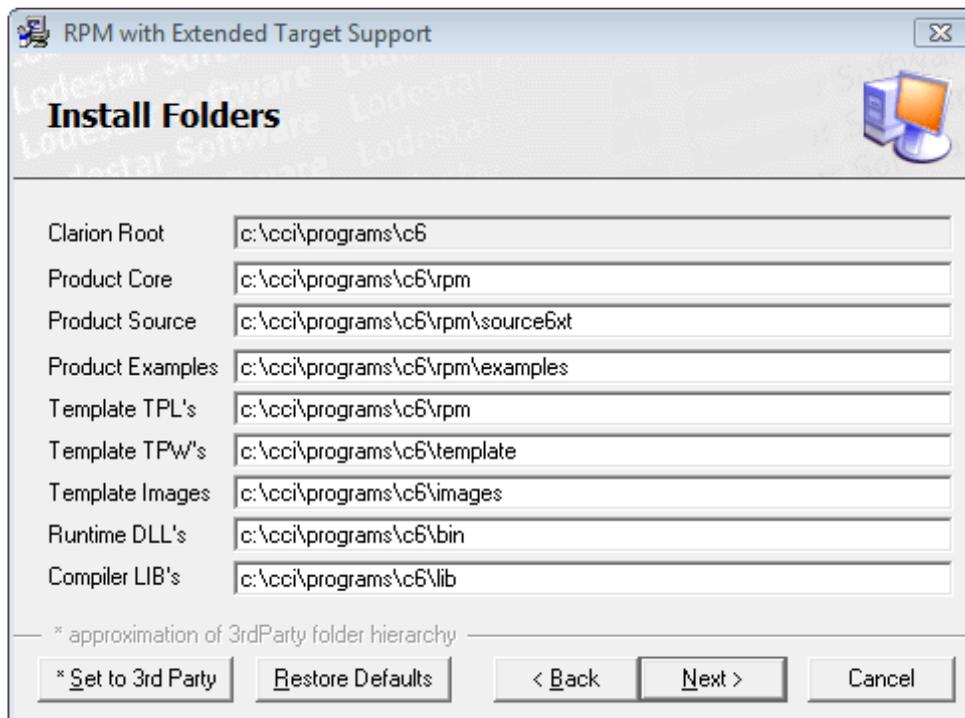


Figure 7. Confirming the install folders

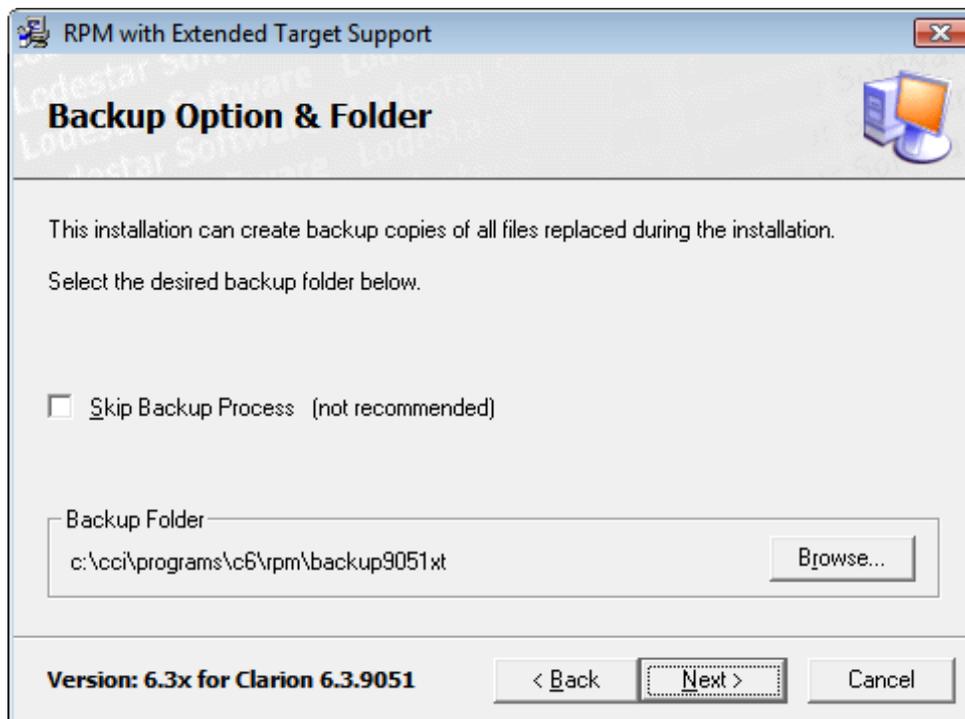


Figure 8. Setting the backup folder

NCR support ideally includes default report structures which you can use when creating new newspaper column style reports. Unfortunately, the only way to get these default structures into the development environment is to modify the shipping DEFAULTS.CLW file (Figure 9).

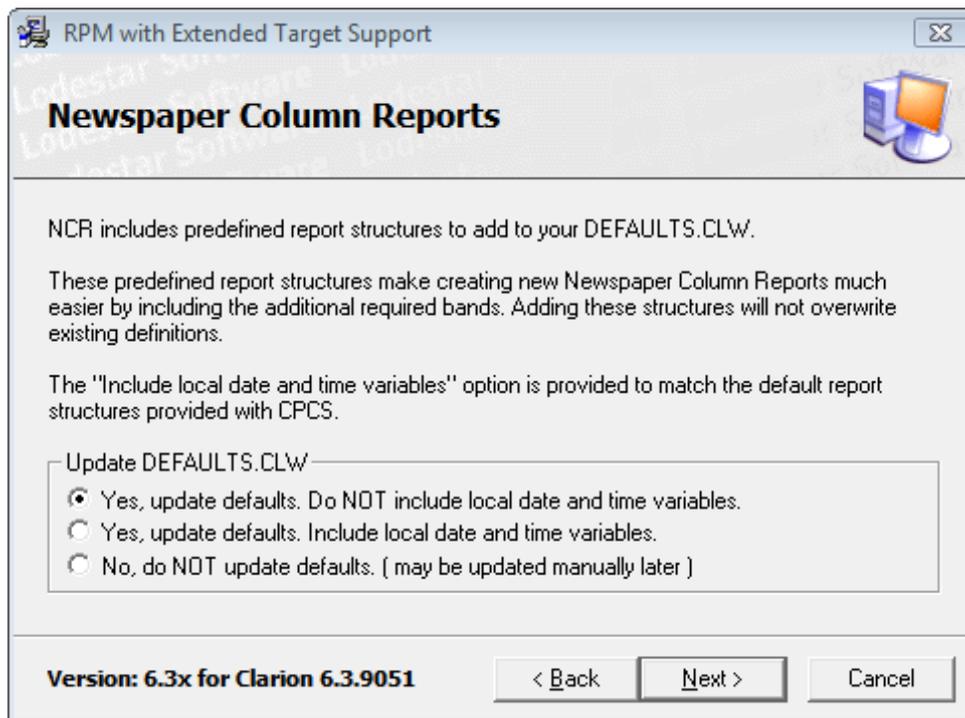


Figure 9. Installing predefined reports for NCR

RPM provides support for customized translations; if you've done this kind of work you'll probably want to preserve your work (Figure 10).

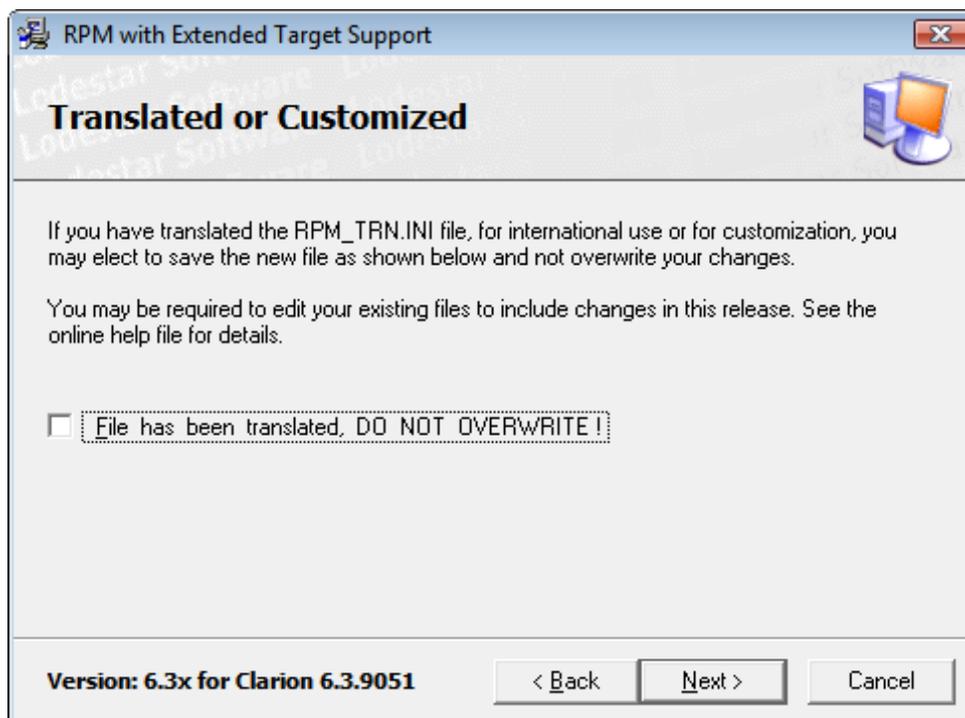


Figure 10. Translation options

At last the install is ready to go (Figure 11).

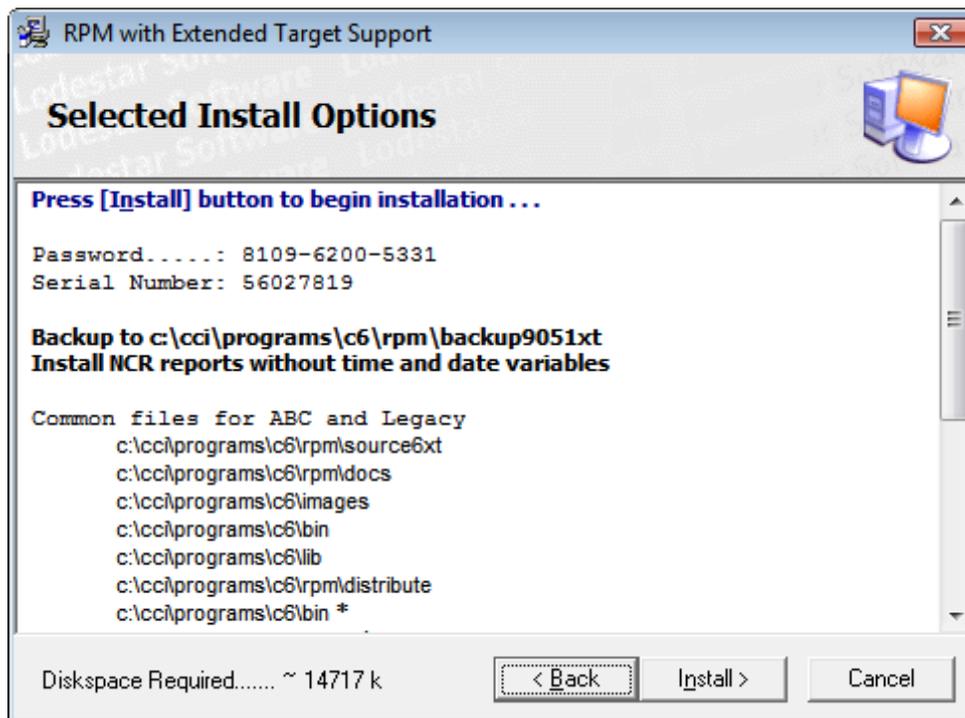


Figure 11. Ready to install

On my machine the actual installation just took a few seconds.

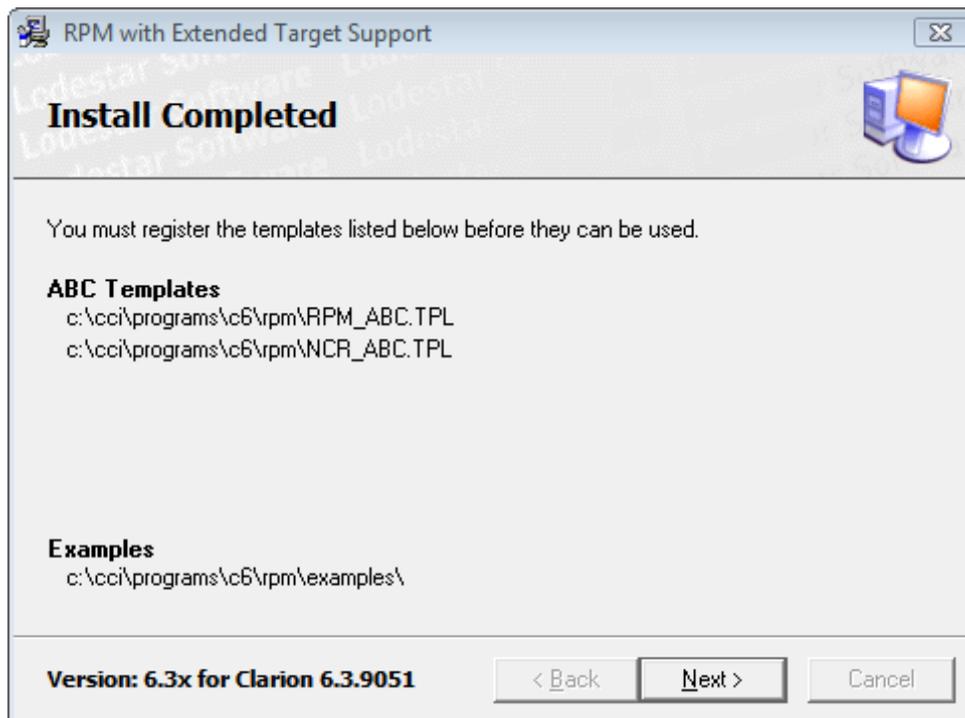


Figure 12. The install has completed.

There's a most important notice in Figure 12: "You must register the templates listed below before they can be used." Lee recently switched to SetupBuilder which has support for registering Clarion templates; the C7 version does install the necessary templates, but the C6 install hasn't yet been converted to SetupBuilder.

Using the templates

To apply RPM to your existing reports you add a global extension to enable RPM features, and then a procedure extension on each report.

First, go to the global extensions list and under Class Lodestar_RPM add the rpm_ReportManager template (Figure 13).

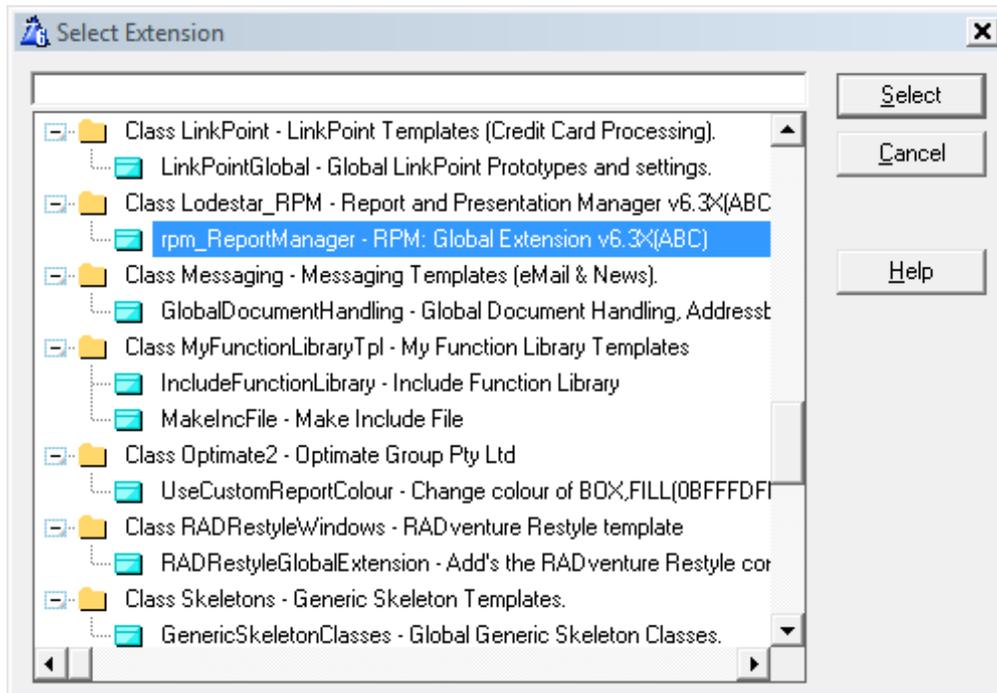


Figure 13. Adding the global extension

Figure 14 shows the global extension properties, Gnrl (General) tab.

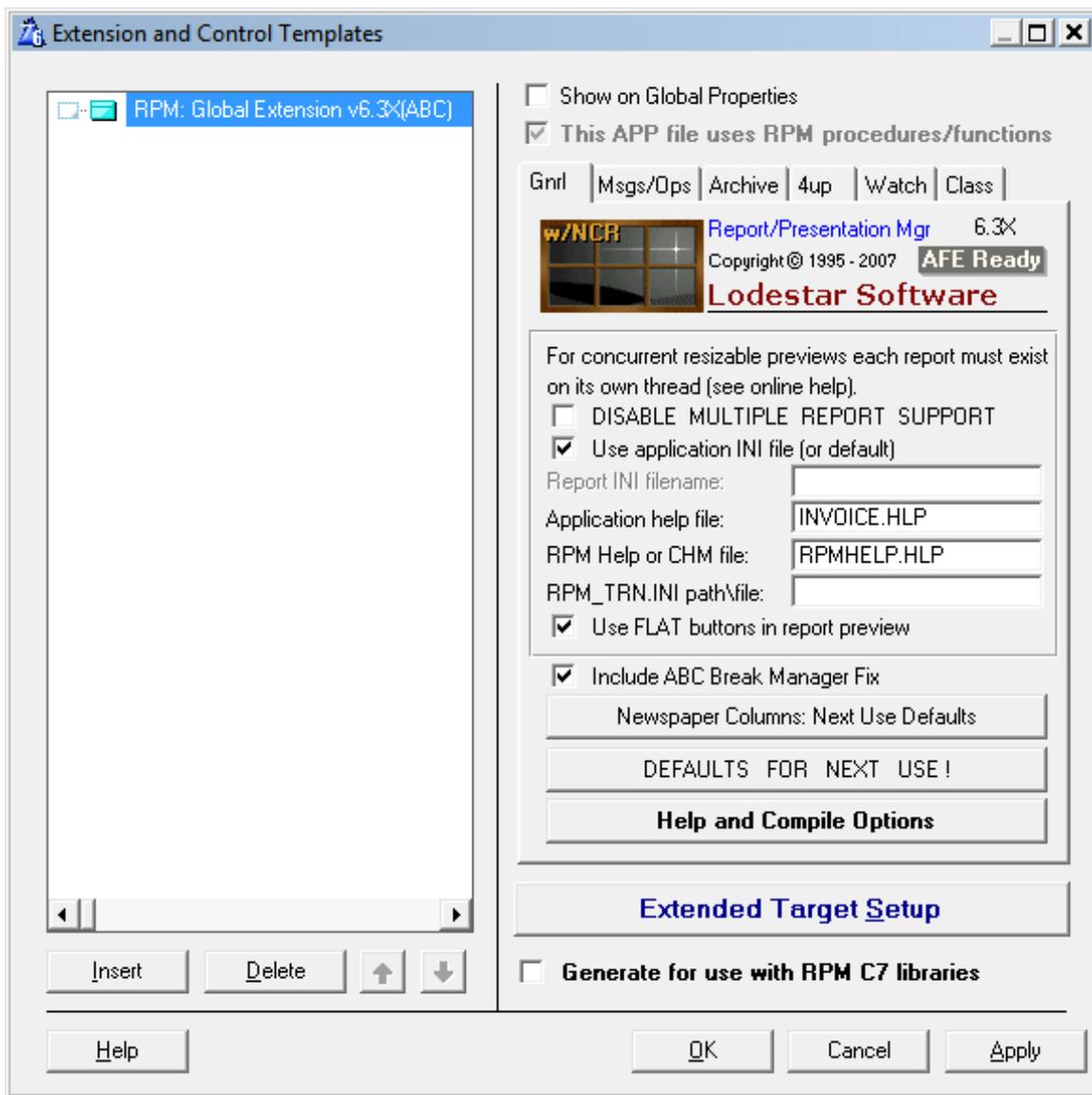


Figure 14. RPM global options

The following figures show the various global configuration options.

| | | | | | |
|------|----------|---------|-----|-------|-------|
| Gnr1 | Msgs/Dps | Archive | 4up | Watch | Class |
|------|----------|---------|-----|-------|-------|

- DO NOT ENCLOSE IN QUOTES -
Disable by blanking Title and Message entries!

"Generation error" (Chained/Appended/Inserted)

Title:

Message:

"Retrieve error" (Retrieving archive)

Title (REQ):

Message (REQ):

Use report generation messages

"Empty Report"

Title:

Message:

"Canceled Report"

Title:

Message:

Figure 15. Messages and operations settings

| | | | | | |
|------|----------|---------|-----|-------|-------|
| Gnr1 | Msgs/Dps | Archive | 4up | Watch | Class |
|------|----------|---------|-----|-------|-------|

Global Report Archive

Global archive TPS file:

Path for file (n/r):

OWNER, Encryption (n/r):

A multi-table file using the TopSpeed driver.

**** DO NOT INCLUDE FILENAME EXTENSION ****

!VariableName may be used for filename & path.
If no path, archives to CURRENT active directory.

A VARIABLE FILENAME OR PATH MUST POINT TO AN APPLICATION "GLOBAL" VARIABLE . . .

Figure 16. Report archiving settings

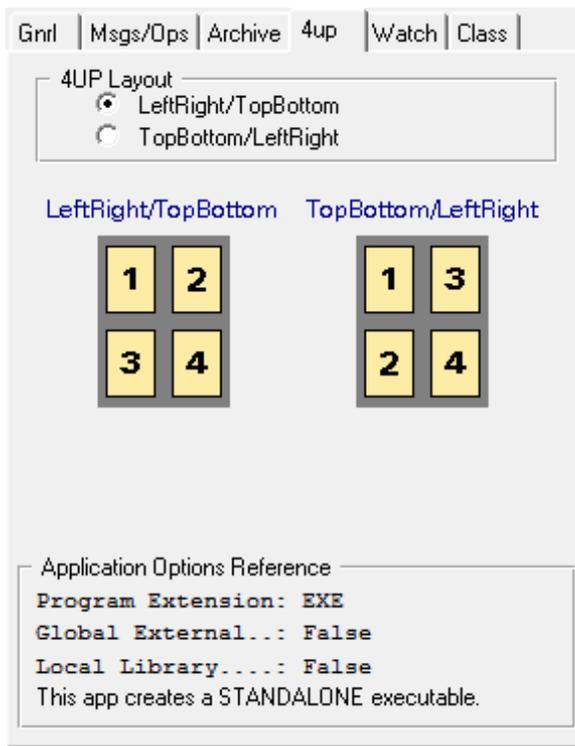


Figure 17. Layout options for four-up printing

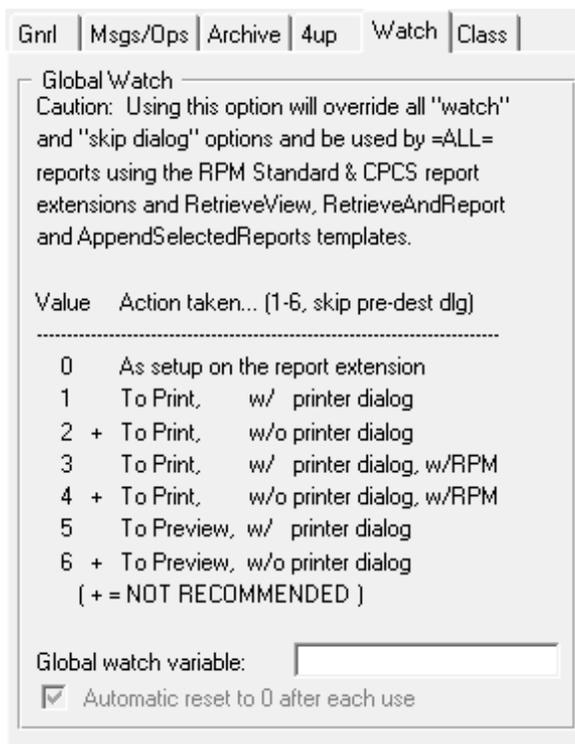


Figure 18. Global watch variable settings

To begin with you can leave the global settings at the default values, although you might want to pay particular attention to the Watch tab options. Here you can specify a variable RPM will use to determine how it should handle printing the current reports. The Help is a little more verbose about the meaning of these settings:

0 Use options as setup on template

- 1 PRINT after selecting a printer
- 2 PRINT with current printer
- 3 PRINT after selecting a printer, use the RPM final destination dialog
- 4 PRINT with current printer, use the RPM final destination dialog
- 5 PREVIEW after selecting a printer
- 6 PREVIEW with current printer

Options to print using the current printer are not recommended, since they don't give the user the option of choosing a printer first.

By creating your own watch variable you can easily override the use of printer selection dialogs on a case by case basis.

Applying RPM to an existing report

After adding the global extension to your application, all you need to do to use RPM with an existing report is to add the rpm_STANDARD_RPT extension template to that report procedure (Figure 18).

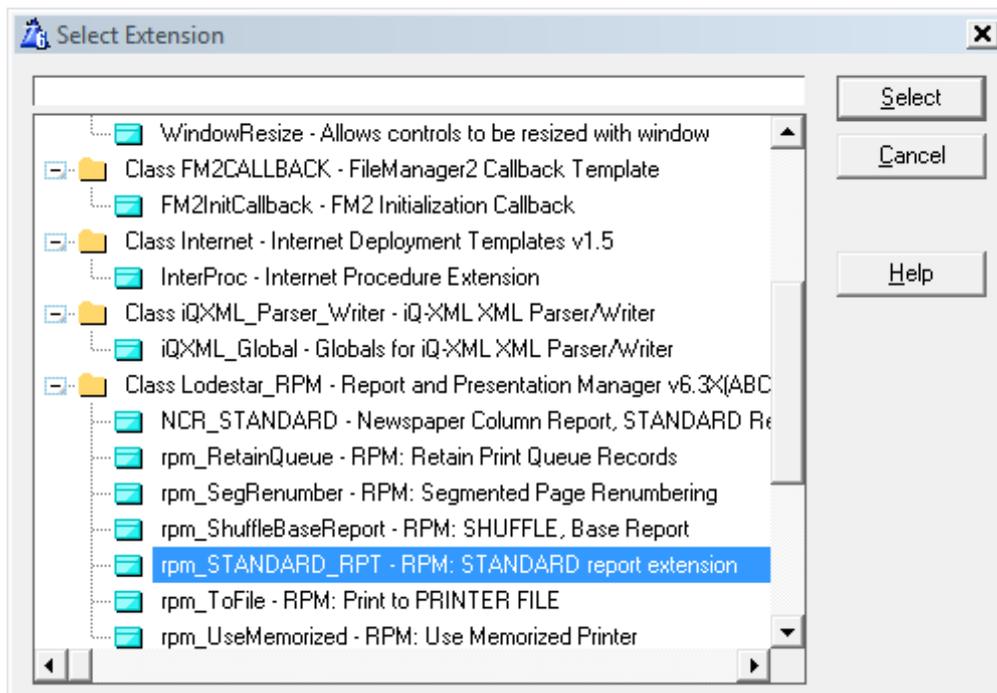


Figure 18. Adding RPM to an existing report

Again, there are a bunch of options available. The Gnrl tab (Figure 19) contains the basic settings to determine how, when and if you ask the user about where the report is to be printed. There are also options available via buttons on this tab to specify how many PRINT statements per timer event, hiding/disabling of specific print and preview options, enable two-up and four-up printing, allow popup menus, setting custom switches, and much more.

| | | | | | | |
|---|------|-----|---|------|------|-----|
| Gnrl | Arch | Exp | Re# | Save | Srch | M/T |
| <input type="checkbox"/> THREADED with: START() or Initiate Thread | | | | | | |
| UNIQUE Report Title: <input type="text" value="PrintPRO:KeyProductSKU"/> | | | | | | |
| <input type="checkbox"/> Include RPM PRE-destination Dialog? | | | | | | |
| <input type="checkbox"/> Default to "PRINT"? <input type="button" value="Print Options"/> | | | | | | |
| <input type="checkbox"/> Include Windows Printer Dialog? | | | | | | |
| <input type="checkbox"/> Use Printer SETUP Dialog instead? | | | | | | |
| Printer Dialog Title: <input type="text" value="elect Printer"/> | | | | | | |
| Watch Options | | | | | | |
| <input type="checkbox"/> Watch variable >>> <input type="text" value="LSiForceToPrint"/> <input type="button" value="..."/> | | | | | | |
| <input type="button" value="Acceptable Values"/> | | | | | | |
| <input checked="" type="checkbox"/> Include ABC Break Manager Fix | | | | | | |
| <input type="button" value="Extended"/> | | | <input type="button" value="Popup"/> | | | |
| <input type="button" value="Hide/Disable"/> | | | <input type="button" value="Button"/> | | | |
| <input type="button" value="2up and 4up"/> | | | <input type="button" value="Switches"/> | | | |

Figure 19. General settings

| | | | | | | |
|---|------|-----|-----|------|------|-----|
| Gnrl | Arch | Exp | Re# | Save | Srch | M/T |
| <input checked="" type="checkbox"/> Enable archive on RPM dialogs? | | | | | | |
| <input type="checkbox"/> Do not use global default file? | | | | | | |
| Archive filename: <input type="text"/> | | | | | | |
| Path for new file (n/r): <input type="text"/> | | | | | | |
| OWNER, Encryption (n/r): <input type="text"/> | | | | | | |
| VariableName may be used for filename & path. If no path, archives to CURRENT active directory. | | | | | | |
| To force a report archive use the CODE template provided with this product. Add template to the END OF REPORT embed. | | | | | | |

Figure 20. Report archiving settings

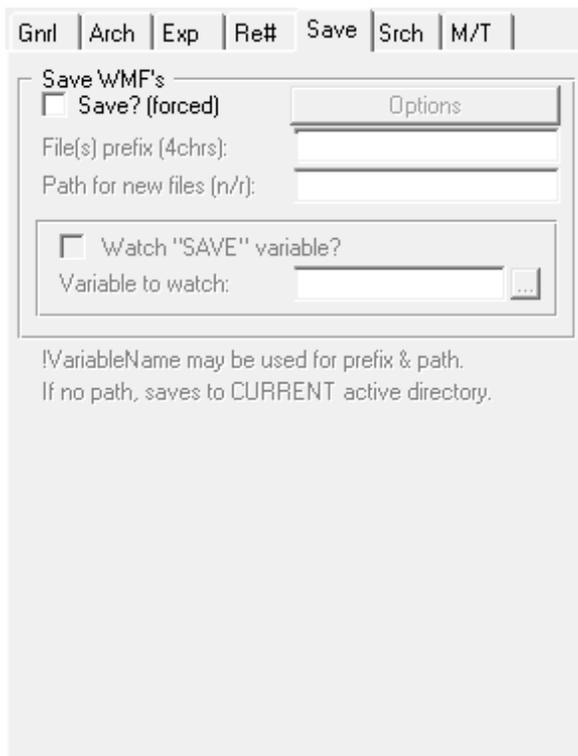
| Gnrl | Arch | Exp | Re# | Save | Srch | M/T |
|--|------|-----|-----|------|------|-----|
| <input type="checkbox"/> Enable export on RPM print dialog? | | | | | | |
| Export ASCII Text | | | | | | |
| <input type="checkbox"/> Export? (forced) Options | | | | | | |
| Export to filename: <input type="text"/> | | | | | | |
| Path for export (n/r): <input type="text"/> | | | | | | |
| <input type="checkbox"/> Append to this file if it exists? | | | | | | |
| Pg separator (<12>=FF): <input type="text"/> | | | | | | |
| Format Options | | | | | | |
| COL width adjustment: <input type="text" value="500"/> | | | | | | |
| ROW misalignment: <input type="text" value="10"/> | | | | | | |
| <input type="checkbox"/> Watch "EXPORT" variable? | | | | | | |
| Variable to watch: <input type="text"/> ... | | | | | | |
| !VariableName may be used for filename & path. If no path, exports to CURRENT active directory. | | | | | | |

Figure 21. Export settings

| Gnrl | Arch | Exp | Re# | Save | Srch | M/T |
|---|------|-----|-----|------|------|-----|
| You must provide a UNIQUE string control to utilize page renumbering. | | | | | | |
| NOTICE: "Control" | | | | | | |
| * MUST be long enough to hold page number text | | | | | | |
| * MUST NOT have the hide attribute. | | | | | | |
| * WILL be left justified & IS case sensitive. | | | | | | |
| <input type="checkbox"/> Renumber pages before printing? | | | | | | |
| Control string text: <input type="text" value="PageNumber##"/> | | | | | | |
| Beginning page number: <input type="text" value="1"/> | | | | | | |
| <input type="checkbox"/> Use "PAGE of PAGES" as in 1 of 12? | | | | | | |
| Connector text "of": <input type="text" value="of"/> | | | | | | |
| Print 1 page FILL IN | | | | | | |
| <input type="checkbox"/> Use page numbering as described above? | | | | | | |
| Literal text string: <input type="text" value="0"/> | | | | | | |
| <input checked="" type="checkbox"/> Enable "Quick" Renumbering? | | | | | | |

Figure 22. Page renumbering

One of the long-standing issues with Clarion reports is the inability to specify a "page of pages" numbering scheme. That's because the Clarion report engine does no post-processing, and it doesn't know the page total until after the report has completed. RPM does much of its magic by post-processing the WMF files created by the report engine, so as long as you specify an appropriate string control on the report RPM can provide "page of pages" numbering.



Gnrl | Arch | Exp | Re# | **Save** | Srch | M/T

Save WMF's

Save? (forced) Options

File(s) prefix (4chrs):

Path for new files (n/r):

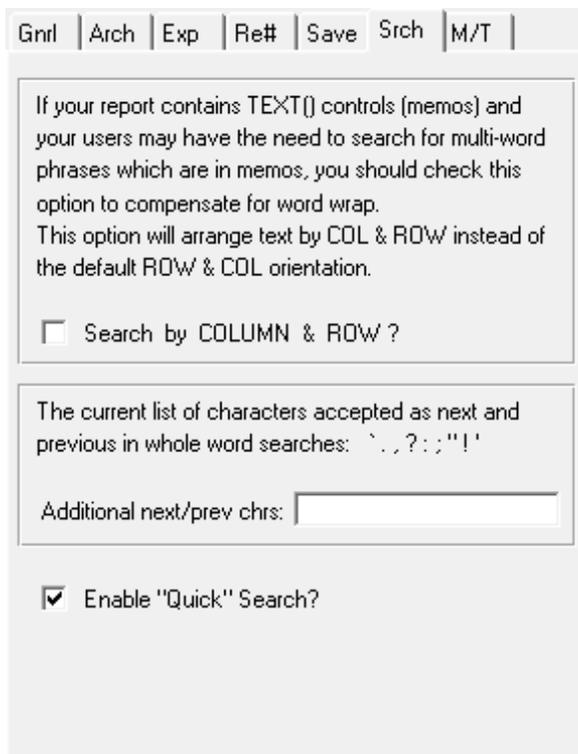
Watch "SAVE" variable?

Variable to watch: ...

!VariableName may be used for prefix & path.
If no path, saves to CURRENT active directory.

Figure 23. Saving WMFs

If you wish you can force your application to save WMF files. As an alternative to this template option you can use the rpm_SaveWMF and rpm_ExitReport templates.



Gnrl | Arch | Exp | Re# | Save | **Srch** | M/T

If your report contains TEXT() controls (memos) and your users may have the need to search for multi-word phrases which are in memos, you should check this option to compensate for word wrap. This option will arrange text by COL & ROW instead of the default ROW & COL orientation.

Search by COLUMN & ROW ?

The current list of characters accepted as next and previous in whole word searches: ` . , ? : ; ! ' '

Additional next/prev chrs:

Enable "Quick" Search?

Figure 24. Text search options



Figure 25. Handling empty reports

You can find out more about these template options in the RPM Help, which is supplied in PDF, CHM and HLP formats and is also available [online](#).

Again, to start with you might simply want to accept the default values.

The previewer

If you use the default settings, after your report generates you'll see the RPM previewer instead of the stock previewer.

For comparison purposes, Figure 26 shows the stock previewer for the Products list report in the Invoice sample application.

| Product SKU | Description | Quantity In Stock | Re-order Quantity | Unit Price |
|-------------|----------------------|-------------------|-------------------|------------|
| AGP12 | Agapanthus | 12 | 15 | \$28.75 |
| ALS-555 | Alstroemeria | 46 | 50 | \$7.50 |
| AMSL15646 | Amaryllis2 | 82 | 50 | \$2.50 |
| AMY64648 | Amaryllis | 14 | 20 | \$15.00 |
| AN-57813 | Antherium | 93 | 45 | \$8.00 |
| AN329DLO | Antherium (2 Gallon) | 38 | 10 | \$14.75 |
| AR-1684943 | Aarons | 0 | 125 | \$2.50 |

Figure 26. The stock previewer

Figure 27 shows the same report in the RPM previewer.

| Product SKU | Description | Quantity in Stock | Re-order Quantity | Unit Price |
|-------------|-----------------------------|-------------------|-------------------|------------|
| AGP12 | Agapanthus | 12 | 15 | \$28.75 |
| ALS-555 | Ailstroemeria | 46 | 50 | \$7.50 |
| AMSL15646 | Amaryllis2 | 82 | 50 | \$2.50 |
| AMY64648 | Amaryllis | 14 | 20 | \$15.00 |
| AN-57813 | Antherium | 93 | 45 | \$8.00 |
| AN329DLO | Antherium (2 Gallon) | 36 | 10 | \$14.75 |
| AR-1684943 | Aarons | 0 | 125 | \$2.50 |
| AS-123AS | Aster | 75 | 50 | \$15.00 |
| ASF-1638 | Assorted Flowers | 0 | 75 | \$7.50 |
| B-45483 | Bethlehem | 5 | 15 | \$20.25 |
| BA-123I | Barto | 13 | 15 | \$15.00 |
| BB234501 | Banksia | 48 | 10 | \$2.50 |
| BE1566 | Beqonia | 55 | 25 | \$8.00 |
| Bird_par | Bird Of Paradise (3 Gallon) | 0 | 35 | \$20.00 |
| BOP-1234 | Bird Of Paradise (1 Gallon) | 20 | 40 | \$15.00 |
| C-1668 | Camation | 0 | 150 | \$0.65 |
| CAC-123 | Cockscomb | 0 | 5 | \$75.00 |
| CAL5666 | Calla Lilly | 0 | 10 | \$8.00 |
| CL1029U309 | Clematus | 0 | 15 | \$2.00 |

Figure 27. The RPM previewer

Both the stock previewer and the RPM previewer let you zoom in and out but the RPM previewer gives you finer-grained control. You can use the left and right mouse buttons to move in and out in 5% increments, and there are toolbar buttons to fill to page width or page height. There are also buttons to show two, four and six pages at once. The stock previewer does have page tiling capability but it's far more difficult to use.

Navigation options on the RPM previewer toolbar include first, last, next and previous page, as well as a go to specific page number button.

RPM adds a powerful page marking feature. In Figure 28 (one of the RPM sample reports) I went through the report page by page and pressed the spacebar to mark/unmark individual pages. I then pressed the six page view button.

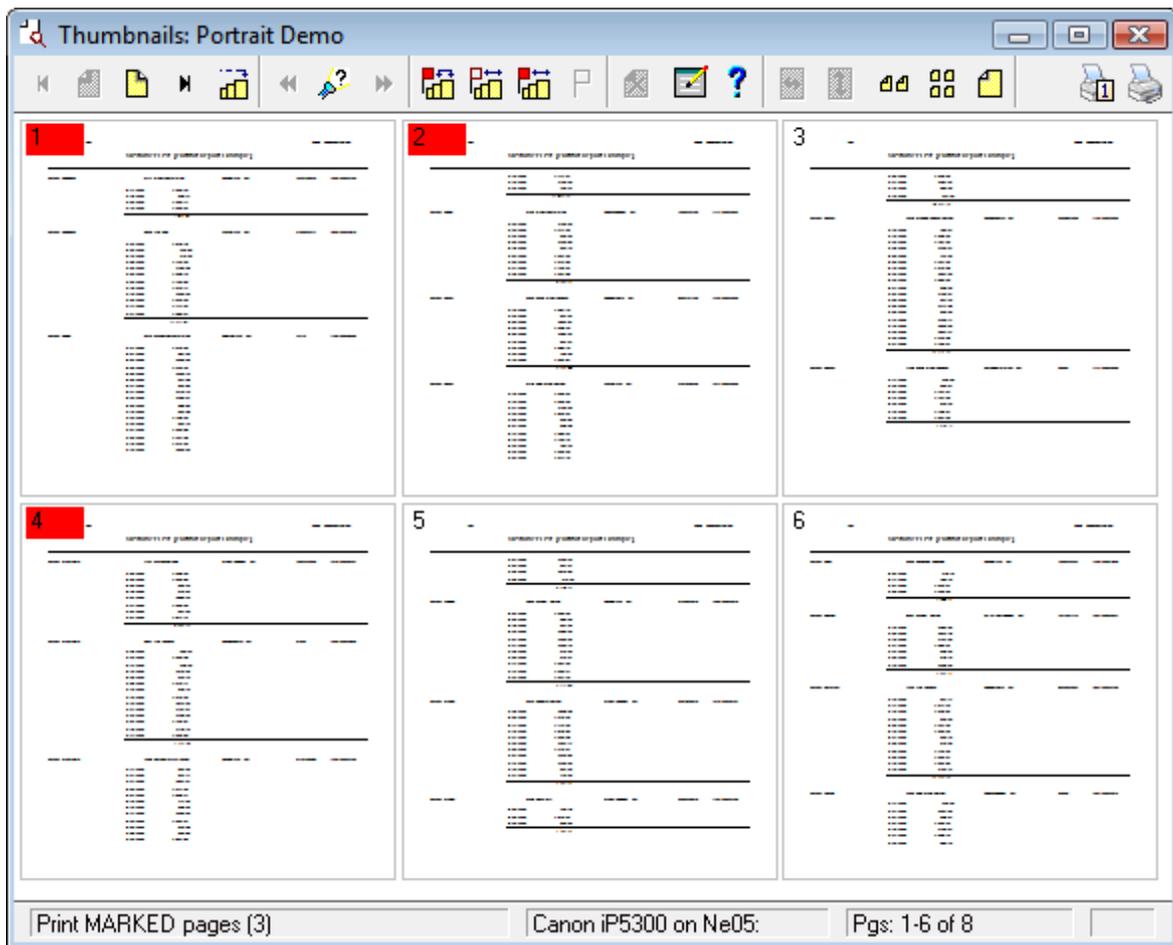


Figure 28. Marking pages

You can also mark directly from the two, four or six page view by right-clicking on individual pages.

At first I found the two, four and six page buttons a little confusing, since they are really toggles. I was expecting to press another button to return to single page view, and instead found myself inadvertently closing the report.

Of the first six pages shown only three are marked for printing. If I click on the Print button I'll see the Report Destination window (Figure 29) which indicates that three marked pages will be printed.

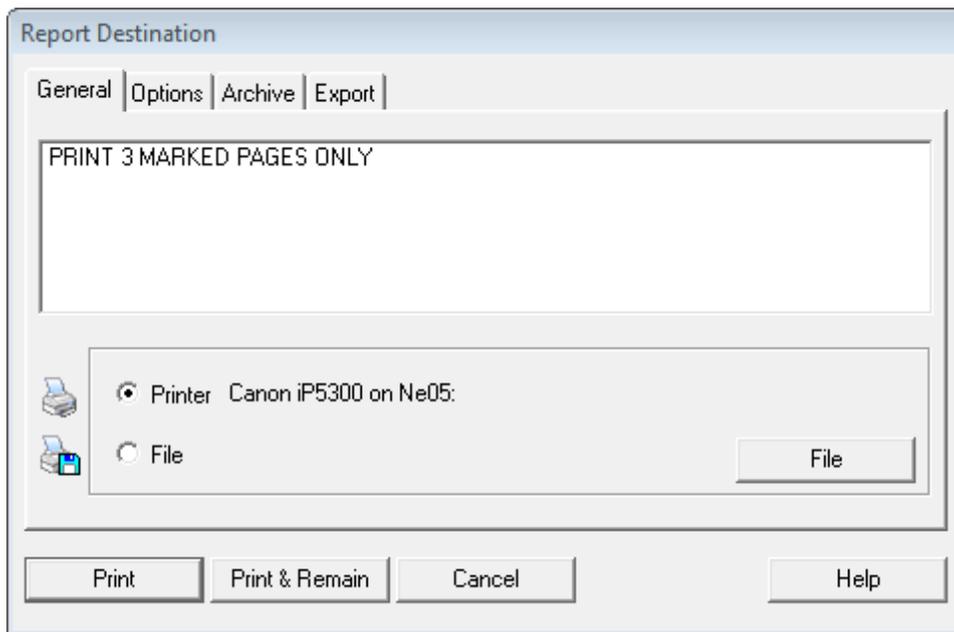


Figure 29. Printing marked pages

The Options tag (Figure 30) lets me specify copies, collation, and duplex printing, as well as two up or four up printing.

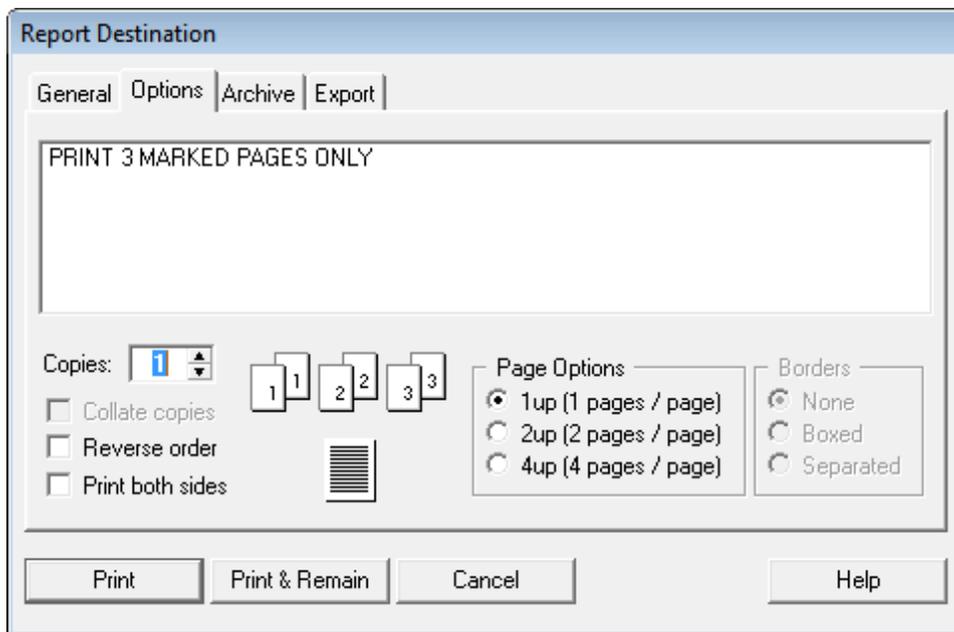


Figure 30. Printing options

The range selection toolbar buttons let you select a range, unmark all, or mark all pages. If you choose to select a range you'll see the dialog in Figure 31, which lets you delete unmarked pages.

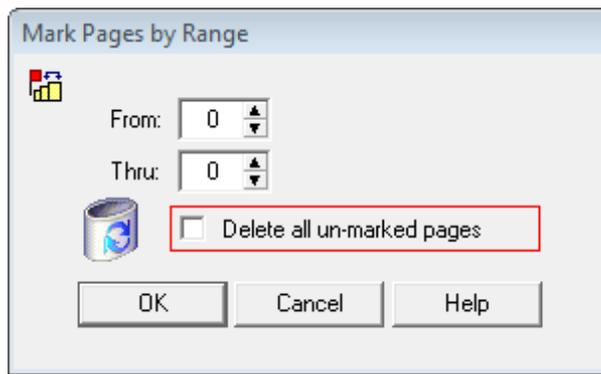


Figure 31. Selecting a range of pages.

Similarly, the search option lets you tag pages where the search term is found, and optionally you can delete all other pages.

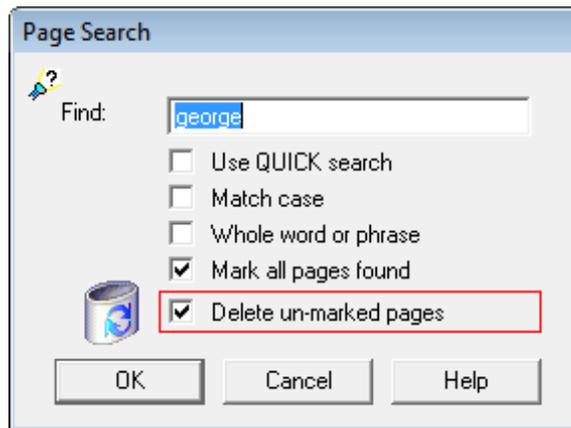


Figure 32. Search options

Setting defaults

Early on I noticed a problem with reports coming up maximized. For purposes of screen shots I preferred a non-maximized state, but the report was forced to maximized. I asked Lee about this, and he told me to check the Threaded with Start or Initiate Thread option on the procedure extension template. Once that was checked the report started on its own thread and I could change the window state without difficulty. Lee also pointed out that I could set that option on the Defaults for Next Use button on the global extension template. Changes here affect any extension templates populated *after* you make those changes, so it's probably worth your while to study the default options early on and set those options you think you're likely to need.

The pre-destination dialog

If on the template Gnr1 options you check Include RPM PRE-destination Dialog then before any report is processed you'll see the window in Figure 33.

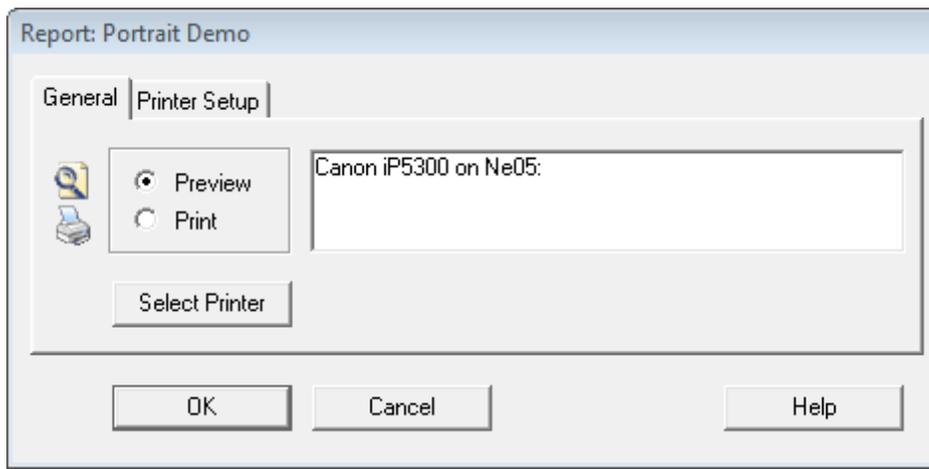


Figure 33. The pre-destination dialog

If you choose Preview (the default) the report will be displayed from the RPM previewer, from where it can subsequently be printed. If you choose Print then the previewer is skipped and you're taken to the Report Destination window.

NCR

NCR stands for Newspaper Column Report, in which you can have reports that run in columns from top to bottom, then left to right, across the page. Figure 34 shows the example NCR report.

ReportFORM band is filtered with 'FALSE'

1 of 5

Customer Phone Number Listing (Landscape with NCR)
Report:HEADER band is filtered with 'FALSE'

| Name | Number | Name | Number | Name | Number |
|----------------|---------------|----------------|---------------|---------------|---------------|
| ALLEN, ANDREW | (508)555-8730 | BARNES, BOB | (743)555-7989 | BOYD, RALPH | (594)555-5500 |
| ALLEN, ANDREW | (458)555-9470 | BARNES, CARLA | (823)555-8331 | BOYD, ROGER | (452)555-4337 |
| ALLEN, ANDY | (765)555-4085 | BARNES, DONNA | (569)555-9560 | BOYD, STEVE | (558)555-9247 |
| ALLEN, ANDY | (171)555-9882 | BARNES, GEORGE | (547)555-7171 | BOYD, WILMA | (851)555-4762 |
| ALLEN, BETH | (229)555-6630 | BARNES, GEORGE | (316)555-1447 | BOYD, WILMA | (648)555-1632 |
| ALLEN, BETH | (571)555-5893 | BARNES, GEORGE | (722)555-8313 | BOYD, YADA | (737)555-8426 |
| ALLEN, BETTY | (120)555-8693 | BARNES, JOE | (496)555-1387 | BROWN, ANDY | (495)555-1026 |
| ALLEN, BETTY | (111)555-5565 | BARNES, LARRY | (451)555-1805 | BROWN, BETTY | (126)555-2305 |
| ALLEN, GEORGE | (513)555-4261 | BARNES, LARRY | (431)555-6832 | BROWN, BOB | (211)555-3636 |
| ALLEN, GEORGE | (596)555-8463 | BARNES, RANDY | (275)555-8870 | BROWN, BRUCE | (661)555-2020 |
| ALLEN, GEORGE | (290)555-9185 | BARNES, RANDY | (214)555-3062 | BROWN, GEORGE | (515)555-5532 |
| ALLEN, LARRY | (593)555-5979 | BARNES, RANDY | (515)555-2490 | BROWN, GEORGE | (150)555-6400 |
| ALLEN, MARY | (373)555-4797 | BARNES, THOMAS | (786)555-3609 | BROWN, MARBLE | (585)555-8087 |
| ALLEN, MARY | (782)555-8183 | BARNES, WILMA | (294)555-9046 | BROWN, STEVE | (297)555-4364 |
| ALLEN, PAI | (208)555-7408 | BOYD, ANN | (204)555-6214 | BROWN, WILL | (291)555-9234 |
| ALLEN, RALPH | (307)555-9621 | BOYD, ANN | (813)555-1754 | GOVE, ANN | (156)555-3354 |
| ALLEN, ROGER | (437)555-9755 | BOYD, BETH | (120)555-3250 | GOVE, BETH | (597)555-1325 |
| ALLEN, STEVE | (887)555-9512 | BOYD, BILL | (159)555-9570 | GOVE, BILL | (867)555-7106 |
| ALLEN, THOMAS | (308)555-6778 | BOYD, BRUCE | (218)555-9074 | GOVE, BILL | (265)555-9912 |
| ALLEN, THOMAS | (526)555-5053 | BOYD, BRUCE | (836)555-3980 | GOVE, CARLA | (873)555-4855 |
| ALLEN, WILL | (885)555-1506 | BOYD, DESSIE | (881)555-6958 | GOVE, DESSIE | (375)555-6875 |
| ALLEN, WILMA | (498)555-1589 | BOYD, DONNA | (363)555-6634 | GOVE, DONNA | (253)555-7807 |
| ALLEN, YADA | (270)555-3657 | BOYD, JOE | (323)555-8009 | GOVE, GEORGE | (410)555-4268 |
| BARNES, ANDREW | (637)555-1251 | BOYD, LARRY | (567)555-8700 | GOVE, JOE | (395)555-5995 |
| BARNES, BETTY | (328)555-2294 | BOYD, LEE | (554)555-2213 | GOVE, LARRY | (567)555-7629 |
| BARNES, BETTY | (450)555-2943 | BOYD, MARBLE | (124)555-7843 | GOVE, LEE | (268)555-5847 |
| BARNES, BILL | (326)555-6254 | BOYD, PAI | (772)555-5557 | GOVE, MARY | (155)555-2108 |

Figure 34. An NCR report

As you can see there are three columns of data, each made up of a name and a phone number.

The help goes into the details of creating NCR reports, but in essence this is a report in which only the first column

is populated. Your report structure does not include any columns beyond that first column. Instead, you specify the number of columns via the NCR_STANDARD extension template. Print preview must be turned on, since RPM again does its magic by manipulating the generated WMF files, consolidating a longer single-column report into a shorter multi-column report. All the usual page numbering (and renumbering) options are available.

Extended target support

A few releases back, SoftVelocity added the ability to print reports to PDF, XML, HTML and text. RPM integrates with this functionality via its eXtended Target support (which is the XT in RPM XT). If you are using one or more of SoftVelocity's report extensions, or extensions from a third party vendor, the Report Destination dialog will be displayed (Figure 35).

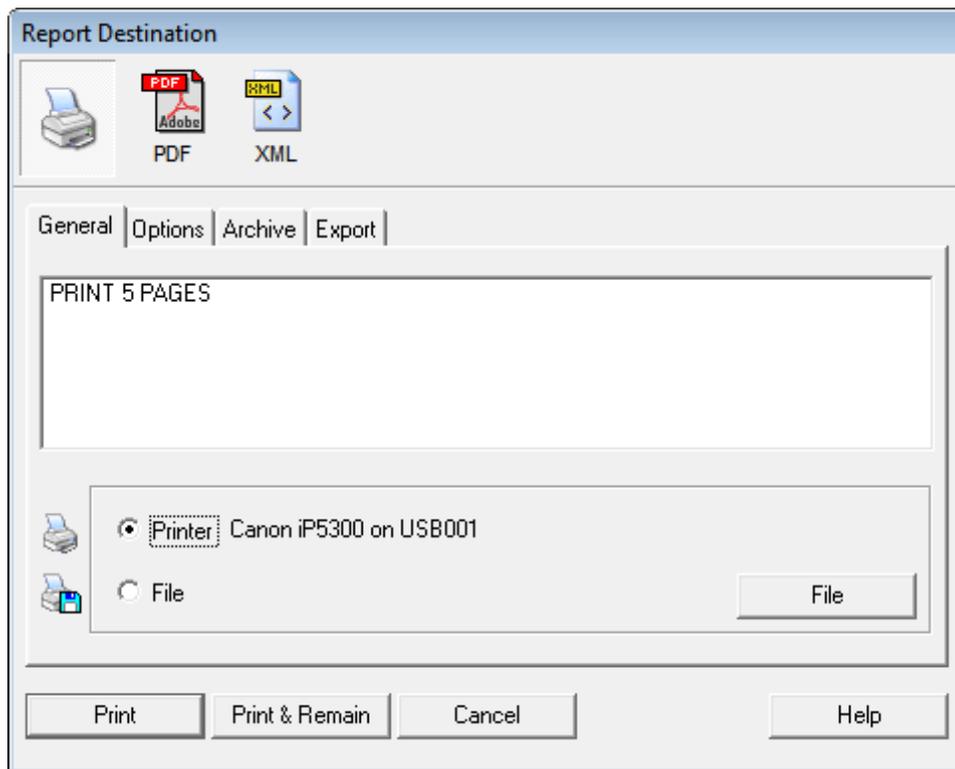


Figure 35. Report Destination with PDF and XML support

Any extended targets will be displayed at the top of the Report Destination window - just click on a target to redirect the output.

RPM's eXtended Target functionality supports appended reports (a standard feature of RPM), i.e. appended, shuffled and inserted reports can be previewed, sent to extended targets and printed. This is also supported for archived and retrieved reports.

Extended targets can be reused for different purposes. You might want to have a PDF option for a report as well as an option to email that PDF as an attachment.

You can create your own extended target if you wish. Just define it as a routine or procedure within RPM and it will be called from the report procedure; in fact, any procedure that's accessible by the report can be called from the preview, final destination or pre-destination dialog. Targets can be forced without user intervention and the report can be closed or sent to preview. In other words, RPM's eXtended Target support is highly flexible.

Other features, future features

I don't have the space here to cover all of RPM's features. In particular, I haven't touched on report archiving, combining multiple reports into a single report, or exporting. RPM plays nice with a number of other third party reporting products such as [CPCS' Creative Reporting Tools](#).

If you've ever used Quicken you'll appreciate drill-down reporting, currently available only in the C7 version (but will be back-ported to C6). You can assign sub-reports to items in a report so you can click on those items and "drill down" to detailed information. And you're not limited to reports; these links can bring up browses, forms or whatever.

There are some differences in the UI between C6 and C7, and a revamped UI is currently under development. Lee provided me with a screen shot showing some of the user interface changes.

The top two toolbars are the current C7 design, with the second one showing drill-down activated. The third toolbar is the original toolbar, before drill-down, and the fourth toolbar shows the concept for the new UI which has not yet been released.



Figure 36. Toolbar versions

C7 support

RPM fully supports Clarion 7, and the new installer (built with SetupBuilder) does install the RPM template chain. Inadvertently I ran the install while I had an application open and the IDE still successfully registered the template.

Conclusion

Lodestar Software's RPM replaces the bare-bones previewing functionality included with the shipping templates, but it's

far more than just a previewer with an extensive list of features including (but not limited to) searching, numbering, archiving, printing, shuffling, and merging reports. RPM integrates with the newer extended report targets from SoftVelocity and other vendors and also adds newspaper-style columns and "drill down" reporting.

The only real weakness I came across in RPM was that it lacked a section in the documentation that gave me the big picture of what RPM could do. The docs are quite extensive, and there are helpful "getting started" and "how to..." sections, but it took me a while to build a model in my mind of all of RPM's capabilities. An introductory section with a bunch of screen shots showing what can be achieved with RPM would be a big help.

That said, if you take the time to dig into the docs you'll soon realize that RPM is considered one of the classic Clarion third party addons for good reason.

RPM is sold on an updates-by-subscription basis. A new single developer license is \$168 and includes one year of updates. RPM does incorporate "black box" DLLs. A portion of the source code is available; as noted below this will increase over time.

Lodestar Software also sells the [Automated Fax Engine](#) (AFE), [US Postnet Barcodes](#) (PNet) and a standalone edition of [Newspaper Column Reports](#) (NCR). A new subscription plan for all of Lodestar's products is \$271 including one year of updates.

For more information or to purchase RPM contact Lodestar Software via the [CWAddons web site](#).

Rating: 

Vendor comments

There are many things currently happening with RPM. In addition to the new user interface that's waiting in the wings I'm working on improved support for Fomin Reports and integration of RPM text export and archive to better fit the extended target metaphor. Also the back porting of drill-down support to Clarion 6 versions is under way, as is drill-down and eXtended Target support for the legacy (pc: "Clarion") template family.

Although current releases provide a marginal portion of RPM as source, for translation and look & feel changes, it is by no means the majority. Future releases will uncover more and more of the source behind the curtains until, with the new UI release, all but a small portion - the RPM print engine - will be provided as source and eventually even it will be. This source, if I can pull it off, will be in APP format for easier modification and support. Stay tuned!

Lee White

[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 Tuesday, July 07, 2009 by Tony Tetley

We were probably the first to use the Drill Down feature, sort of beta testers. Lee did an exceptional job of putting this product together. Our users love the new capabilities. Everyone should be using this product for reports.

[Add a comment](#)

Clarion Magazine

Archiving Newsgroups With Hamster

by Dave Harms

Published 2009-06-26

A lot of Clarion developers read and participate in the Clarion newsgroups hosted by SoftVelocity at discuss.softvelocity.com. Recently the news server went down (not for the first time) and when it came back up a bunch of the newsgroup messages had been purged. If you were using a newsgroup reader that deletes messages that have been deleted from the server, you lost those messages as well.

The solution to this problem is the same one [I suggested a couple of years ago](#) when I found the news server unacceptably slow: use a news proxy, in this case Hamster. I recently made that article free access; you no longer need a subscription to read it.

Hamster can protect you against future outages, but what about past outages? Happily, Ron Eisner has made a [Hamster archive](#) of the SV newsgroups available via Steve Parker's Par2 site. The archive is around a gigabyte so it'll take a while to download.

NNTP newsgroup files are just text files, so you have a couple of options for using this information. One is to dump the files into an existing Hamster installation, overwriting the existing newsgroup files with these versions. And then you'll need to update the database with the latest messages from the news server.

Alternatively you can just dump the files into a directory and search them with [HamFind](#). In fact, that's really the best way to use HamFind - using it concurrently with Hamster running on the same database could cause loss of data.

Please note that the chat newsgroups is not included in the archive.

[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 Tuesday, June 30, 2009 by Glenn Rountree

Thanks for the HamFind tip! Missed that completely. Perfect, no fuss solution for searching the "lost" archive. One nice little feature is the export found articles to text option (right click on the message pane). Handy for saving an entire message thread for later reference.

Posted on Tuesday, June 30, 2009 by Dave Harms

I should have made it clearer in the article - Ron is the one who pointed out Hamfind.

Dave

[Add a comment](#)

Clarion Magazine

What Features Would You Like To See In C8?

by Dave Harms

Published 2009-06-27

Last month I had an email from Robert Hutchison, asking if I would consider canvassing ClarionMag readers for thoughts on what features they'd like to see in Clarion 8.

I realize that Clarion 7 isn't done yet. Still, while the new IDE has massive amounts of new functionality, the core *Clarion* functionality as embodied in the templates and RTL hasn't changed that significantly. Yes, we do have some UI changes, Unicode support and TrueType. Those are all good things, and there are also good reasons for not changing the core functionality at the same time as the new IDE is finalized.

But with the new IDE finally coming to fruition it may be time to start thinking about the features Clarion developers would like to see in C8. Robert pointed out that during one of the [Clarion Live!](#) webinars Bob Zaunere "said he would seriously look at adding in the ability to edit the dictionary while the app was opened if he thought there was enough interest to do so."

Robert has a couple of other suggestions:

- Have the Window designer and the embed tree open at the same time and be able to edit them both at the same time
- A multi-tabbed embed tree in the same manner as they have done multi-tabs in the dictionary editor. Every time you open an embed point from within the designer, say from a control, it would open another embed tab within the Primary embed tab.

Let me know your suggestions by posting comments below. I'll collate them and pass the list on to SoftVelocity.

[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 Saturday, June 27, 2009 by Lee White

> A multi-tabbed embed tree

As long as there is an option to turn this behavior on/off. It's been requested for the DCT editor also so if both had this option it would be appreciated. Even if it were as simple as ENTER for one instance and CTRL+ENTER for multiple it would be a good thing.

Posted on Saturday, June 27, 2009 by Benjamin Dell

Definitely the ability to prototype screens and the dct at the same time.

I use this feature a lot while working at client sites.

The ability to extract screens from a app and 'play' them in a viewer as static screens for client's to look at and approve/comment on.

Definitely enhanced team development support.

Posted on Saturday, June 27, 2009 by Benjamin Dell

Forgot...

The ability to ;

Create a snapshot of a project and save ALL the source and tmp, inc, clw, trn, ect files for a project and the ability to re-create the development environment for that project from the snapshot.

Also ability to take this snapshot and distribute to team members.

Ben

Ben

Posted on Sunday, June 28, 2009 by Martin Howes

None! The road map should be:

Clarion# for .Net version 1

Clarion version 7.1

Clarion# for .Net version 1.1

Clarion# for .Net version 2

Talk of Clarion version 8 is a distraction. The SoftVelocity development team should be spending their time on .Net because that is the platform for the future.

Martin

Springwater Software Ltd, UK

Posted on Sunday, June 28, 2009 by Michael Summons

Using Datamodelor we've always had the ability to edit the dictionary while the app was open.

I would expect to be able to have at least the same functionality with C7. It is a feature I use a lot.

Posted on Sunday, June 28, 2009 by Stephen Bottomley

Everyone's perennial favourite:

Virtual Dictionaries made from tables in multiple dictionaries.

Posted on Monday, June 29, 2009 by Thomas Glomb

64bit compiler please !

Posted on Monday, June 29, 2009 by Paul Blais

Improved resources files editor. Maybe even have an external table like the DCT that can hold all these common things developers often reuse app to app. You can add images, icons, and other resources on the solution but when you need you pick one you can't ever use it to pick you go to the disk all the time for every item in every instance. The icon picker is lame. No one really uses the ones that are easy to pick from the drop down list and no drop down can really hold all of them.

It would be nice to make currently added images, icons, and any other resources (tabbed by type) in a browse. You then can pick from the ones you have or add a new

one and pick it. I'm redoing icons today and the process sucks.

This might lead to a better solution explorer too. When building an app I should interact with all the baggage I'm adding as I go and never have to reselect things I already have selected.

Posted on Monday, June 29, 2009 by Casey Rippon

I am more interested in improvements to my users' experience than minor efficiencies in the IDE. A couple of much needed improvements:

- 1) Browse cells with word wrap like HTML tables
- 2) Multiple select that uses Windows standard click, Ctrl-Click and Shift-Click.

Posted on Monday, June 29, 2009 by David Sperling

As more and more of my customers seem to have at least one Mac, it would be great to be able to compile native Mac version of apps as well.

Posted on Monday, June 29, 2009 by TrevorC

First we should not even be discussing V8, when V7 is still not yet fully-feature complete (imo) compared to other modern development platforms. It may be feature-complete as per the original roadmap, but that is not my point.

Second I agree with another poster about .NET... I can't see how a company with the limited resources of SV can possibly develop (with any professionalism) TWO platforms (c7 and C.net) - they should choose ONE and go for it!

I believe long-term they should choose Clarion.Net and put ALL their efforts after C7.x into developing ONLY Clarion.Net and focus in particular on ease of migrating apps from C6.x/C7 to this platform... DotNet opens up MANY more opportunities than C7/C8 ever will.

Look at all the major component/add-on writers... all their time & money is in .Net and we need to be using their products natively to keep our apps current/ahead of the game. We've battled too long to get Clarion working with these tools in COM/OCX form... Clarion needs to get "mainstream" or risk dying.

Furthermore think about it SV, put your marketing heads on for a minute! Clarion.Net is the ONLY area (RAD developing & template code generation for .Net) where SV truly have a unique-selling-point over other platforms... so USE that advantage before we all run out of money & patience!

Sorry, long answer... the short answer is we shouldn't be discussing C8 imo.

Posted on Monday, June 29, 2009 by Michael Gould

I'm not interested at this time with a C8. It would be nice if ActiveX's were as easy to use in C7 as they are in other development platforms, but for me personally C7 will be the last Win32 platform that I will use. SV should concentrate on fixing those items that are specific to C7. We all know that Clarion 7.1 is going to see the light of day because that is where the new report writer is promised, but in 2009 IMO opinion SV should be concentrating their efforts on Clarion#.

Mike Gould

Posted on Monday, June 29, 2009 by luuk sluyter

I agree all efforts should be put into the Dot.net path. We have been (mis)using Clarion from version 2 onwards to generate C, VB and VB.Net code for pc and mobile devices, making extensive use of dictionary and home made templates. Today Windows CE5 and WM form the majority of the mobile devices we sell and most projects start in Clarion 6.3 when we create a Vb.Net application using the templates. At a certain point the application is frozen and manually coded further using VS2005. Of course we would love to stay within Clarion# with support for VB.Net and C# so we can stay within the one environment!

Best regards

Solicom B.V.

Luuk Sluyter

Posted on Monday, June 29, 2009 by Murray Gillespie

Along the same lines as the first post.

Embeds, Extensions, Calls and formulas should have their own pads. (as in data, code templates etc)

In C7 getting to the embed editor especially is a regression in terms of usability from C6

Posted on Monday, June 29, 2009 by kevin plumber

64bit compiler please !

I'm paying for C7 (and C8) but have not used it yet. My initial enthusiasm when I signed up has dispersed with the long release delays. I'll get around to it when I have time but a 64 bit compiler will make me get my feet wet quicker...

Posted on Monday, July 06, 2009 by George Lehmann

Whether you believe in C7 or .Net as the wave of the future, I think team development tools is the place where the product family could use the most help.

I know various attempts have been made in the past to integrate different source control systems into the Clarion world, but I've yet to see anything that comes close to the functionality of what can be achieved in the pure source world.

Yes, the binary structure of the app files is the reason why our world is so different from everyone else's. But until a decent source control system is built into Clarion and not added on as an import/export afterthought, we'll never have productive team development.

Cheers,

George Lehmann

Horizon Business Concepts

Posted on Tuesday, July 07, 2009 by Bruce Johnson

A 64 bit compiler would give existing apps a huge boost in terms of longevity without the economic pain of a rewrite to .net.

I agree with other posters though that beyond that, SV are probably better off spending their time on .Net, once C7 is complete.

Cheers

Bruce Johnson

[Add a comment](#)