The Cole Papers

Phoenix flies

How Arizona paper rose from the ashes of first-generation pagination

PHOENIX, ARIZ. — THE SYMBOLISM IS AS stark as the landscape that surrounds this city: On one side of the street is the old building of Phoenix Newspapers Inc.; on the other, its new home.

The old building resembles many newspaper edifices — something like an armory or prison with extensive loading docks. The new building looks sleek and modern — all glass and polished stone.

The changes inside the new building are just as stark: rather than attempting to preserve a first-generation pagination system (developed by Information International Inc. and installed in the mid-'80s), executives at PNI decided to identify and purchase a new system that would take them beyond mere pagination.

"Been there, done that," Howard Finberg, the director of information services for PNI, has said with regard to full-page output.

Finberg wanted to move the ARIZONA REPUBLIC into "database publishing," which would solve a number of existing and potential problems — a move away from "assembly-line editing," where dozens of hands touch each element before it gets on the page, and a move toward the ability to create content that can be used in multiple media without undue time or trouble.

Of course, producing pages on the Triple-I system was an experience that could be improved: layout editors sat in a darkened room, swinging between the Triple-I terminal (The Green Monster) and a System Integrators Coyote.

The room was dim because the Green Monster's display was but a dim, sketchy realization of the page.

After an open selection process that included representatives from virtually every department of the paper, PNI had a "bake-off" in its offices in 1995, where suppliers staged small pilot systems for PNI employees. Layout editors, artists, reporters — virtually anyone — could try out the candidates.

The paper chose CCI Europe of Marietta, Ga., as its new database publishing supplier. (It should be noted that PNI has retained the consulting services of The Cole Group a couple of times over the last five years, though we did not work on the CCI choice.)

Inside, Correspondent John Bryan travels with me to Phoenix, where he takes a look at CCI as it is now installed. In addition, Bryan provides a look at the "clunkiness" of various page layout applications, including Harris pagination, a system he's working to install at his newspaper, the LOS ANGELES TIMES.

Next up, I fly down to Dallas to visit the annual National Press Photographers Association's Digital conference. Though smaller than previous sessions, this one was still packed with important thoughts and ideas about how to handle the change from making pictures with film and chemistry to making pictures with bits and bytes.

Also inside is Senior Editor Pete Wetmore's look at the Year 2000 problem and how industry suppliers are reacting. It appears that the newspaper business is no better — but no worse — than other industries when it comes to fixing the ubiquitous problem of date-handling (most programmers in the '60s, '70s and '80s used only two digits to represent years in their code — when we get to the year 2000, those programs will think it's 1900).

Lastly, I visit the first incarnation of Seybold Seminars New York. Moved from its traditional spring site in Boston, Seybold Seminars (with whom I am affiliated) offered up a fast-paced conference that seemed to handle the pre-press/new media balancing act well.

Though pagination is a balancing act which almost every newspaper must become proficient at staging, in Phoenix right now the emphasis is on second-generation pagination. With more than 1100 pages output on CCI a week, PNI has moved not only into a new building, but into the forefront of newspaper technology.

— DAVID M. COLE

CCI in Phoenix: 1100 pages a week and only a few problems

PHOENIX, Ariz. — In a darkened room inside the sparkling new building of Phoenix Newspapers Inc., Karen Outland stares at the dim, green shape of what will eventually be a sports page.

She can't see the page itself — all that the 1980s Triple-I technology will show her is a diagram, a sports page blueprint (or in this case, greenprint).

Outland is temporarily consigned to what is a living museum of pagination at the ARIZONA REPUBLIC.

Outside her door, more than 20 other designers get to labor in the light, constructing real pages in real time on a state-of-the-art pagination system from CCI Europe of Marietta, Ga., which disgorges more than 1100 news pages a week.

Except for sports, of course; that will come in due time, and it will rescue Karen Outland and her peers from what is known in both the old and new REPUBLIC buildings as The Cave.

And even the new CCI gear represents not a finished system but a kind of laboratory. You may be looking at CCI in Phoenix but what you'll hear about are the paper's plans for the next wave — the decisions to be made, the specifications to be argued out, the overall strategy.

Chief among the REPUBLIC strategists is Howard Finberg, longtime industry pundit, designer and evangelist who professes to be interested in pagination only as a means to an end.

"We don't want to paginate anymore," the paper's director of information technology said. "I believe in publication systems that slice information into smaller and smaller pieces," which can be used by an infinite number of information "products," such as a web site, CD-ROM or whatever comes down the pike.

A big step in that direction will be taken this autumn when the REPUBLIC shifts to what is essentially its third pagination system — this one combining pagination with content editing, all of it running on PCs using Windows NT.

But back to the real world for a bit: What's it like to put out a paper on CCI's system?

How it works

Architecturally, CCI's NewsDesk system doesn't stand out that much — it's a database (in this case, Sybase), off which hangs a database manager called DB Access, along with several text, graphics and page processing applications.

AccessManager governs security; PlanEdit draws the ad stacks. ModelEdit and TagEdit take care of formatting.

The page production work is done by TextEdit, a no-frills word processor; SoftCrop, which handles graphics; and LayoutChamp, the paginator.

All of this runs (for the time being) on Sun workstations. At the REPUBLIC, they're SPARC 2s which started out with 32 megabytes of RAM and wound up with 96, in an effort to increase system speed (it helped).

Though it's an appendage architecturally, LayoutChamp is the functional hub of the REPUBLIC's pagination system.

As demonstrated on a quiet Friday morning by Eddie Rossi of the support staff, it looked fast and easy to use.

You start with a typical European user interface — buttons and palettes all over the place (CCI Europe developed LayoutChamp for its European customer base). On the left are the controls for assembling the page. In the middle resides the page itself and, at right, when it's called up, is the "shape library," which has shapes (e.g., two-column headline over two columns of text) for every possible layout convention.

As new shapes are put together, users can add them to the shape library.

Putting together a page by inserting various shapes easily halves the equivalent time of drawing each one separately; if you're looking for a pagination system, shape libraries ought to be Item 1 on your specifications.

Next, the shape is linked to the story via a gateway to the REPUBLIC's System Integrators' System/55.

How good is it?

We asked to see the CCI system "warts and all," and the CCI-SII gateway came back labeled The Wart.

Basically, it's System Integrators' EPORT user interface, adapted for CCI. Stories sent from CCI to SII have tags (actually, STYL markup) that correspond to the geometry on the page.

Stories are then processed as usual by the copy desk. After the slot releases them, they are flagged and await transport back to CCI, which polls SII every two minutes, looking for something to bring back across.

On deadline, this is called a traffic jam.

So editors can force a poll of SII once they know there's a story waiting. You'd think this would increase the traffic jam, but the computer jockeys at the REPUBLIC say the system load is minimal — about as much as a Coyote terminal.

Now, when the whole gateway goes down, as it has several times in the past, *that's* a production problem. Thanks to some systems tweaking, this nasty behavior has become more and more infrequent. (Next time around, the gateway will be a full-time serial interface; it's already being written.)

However, when The Wart works, it does a fine job: The STYL calls on the story to provide headline information, show line endings (though it's using SII's composition software, line endings are forced onto the CCI system so that editors can trim to length on SII Coyotes), and show copy editors where columns break and the overset needs to be trimmed in.

Changes in an already-released story need only to be filed before they're brought back over to CCI and automatically updated on the page, a Neat Thing other systems should do and don't. But even CCI doesn't do the ultimate Neat Thing: sending an automatic message to the page editor saying, "Hey, the John Tesh Appreciation Dinner story has been updated; make sure you have the right one."

Back on the LayoutChamp, we saw a couple of more goodies:

■ **True WYSIWYG editing:** You can edit any text on the screen — headlines, cutlines, body type, whatever — and LayoutChamp will happily comply, enlisting The Wart to move the changes from the layout screen back to the SII file.

Of course, if you're doing much WYSIWYG editing in real production time, you have a serious problem upstream in the copyflow, so you can bend over and kiss that particular deadline good-bye.

In the real world, CCI supplies with LayoutChamp a no-frills text editor which also can be used for those pesky last-minute libel deletions, but most editing, the REPUBLIC editors say, is done right where it should be — on SII, which was designed for such things.

■ **Real-time runaround:** If you move a piece of art

into a story, the story recomposes immediately to run around it. On other systems, this can be a matter of a few keystrokes, but if you're trying to get a piece of art adjusted so the right lines break around it, a feature like this saves a little time and a whole lot of aggravation.

Not yet perfection

It would be a mistake to conclude that Phoenix's CCI experiences have been a bed of de-thorned roses.

When we visited in late March, the ARIZONA REPUBLIC had just launched daily, zoned pages which were, of course, paginated. The PlanEdit process was busily drawing ad stacks for the new pages, and that was dragging down the rest of the system at the perfect time of day — late afternoon, when the newsroom is just starting to get hectic.

"It's the locking and unlocking of records," sighed David Seibert, the paper's technology development manager for editorial. "It's a problem with Sybase. We're going to have Oracle 7 on the next upgrade, and we expect improvement then."

We saw a hit list of other CCI problems visited upon the ARIZONA REPUBLIC. Among them:

■ Elements and images disappearing from pages.

■ Jumps that don't track correctly, or stories that start anew on the jump page

■ Layout Champ's failure to "undo" some functions.

Outside of that nasty disappearing-element trick, it doesn't look to be a bad list — annoyances, but not atrocities.

Face it: Pagination — whether from the viewpoint of the user or system administrator — is not a walk in the park. For these giant machines to properly keep track of all the variables that go into a daily newspaper, they have to be complex.

That complexity asserts itself all over the system, in the database administration, in workstations, networking, formatting — and in the user interface.

The pagination learning curve — no matter who supplies the system — is steep and treacherous, and Phoenix doesn't skimp on training.

Bob Ogle's in charge of that department, and new trainees get two solid weeks — 80 hours — of CCI training before they ever touch a live page.

"Training is of huge importance," said Finberg. "It's a business proposition — if you don't have well-trained people, you're not getting the most out of the system.

"It was a mistake not to have a trainer in the development process" for the installation of the first CCI system, Finberg said. "Fortunately, we learn from our mistakes," and Ogle is now part of the team planning for the next phase of the installation.

Once users crest that steep learning curve, they'll find that any pagination system imposes restrictions on how they can work.

Because of the complexity of the process, the path to pagination is a very narrow one — you don't have a lot of room for side excursions.

"It's one of the biggest challenges we have with this system, because this system gives you three or four ways of doing things," Ogle said.

"For example, there are four ways to zoom in on a page," Ogle said, "but two of them are stupid. They'll see these things in the palette (on screen), and they'll ask what they do. We defuse it right at the beginning by showing them, 'It'll do this, this and this, but *you* do it this way.'"
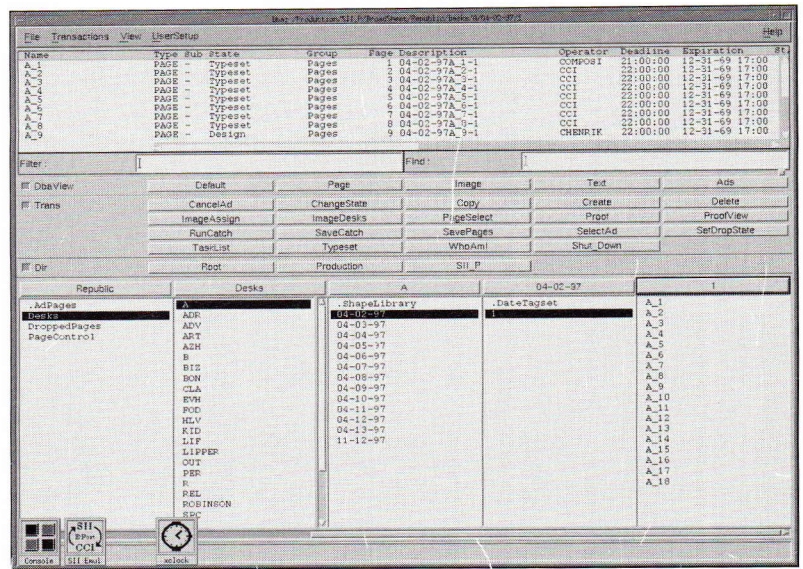
The Quark question

If those strictures chafe the Quark XPress users who convert to CCI, they must be getting over it — Seibert said most Quark XPress use is on the wane at Phoenix.

XPress is, after all, free-range chicken — you can do whatever you want, though it's questionable whether you're taking fewer steps to do it than in a pagination system (see sidebar next page).

"You can do almost anything in CCI that you can do in Quark," Seibert said. "We discourage people from going back to Quark — as a rule, once you leave Quark you don't ever go back."

That's just the way Finberg wants it, too.

"Quark has been the worst thing that's ever hit the newspaper industry," he said. "It gives you a false sense of security; i.e., 'I've got Quark and I'm ready to publish.'

"Quark is *not* a collaborative workgroup product. It doesn't allow for sharing. It doesn't allow for many people working on the same design at the same time. To me it's a [single-user] product and that's the assembly-line process that we are trying to get away from."

Coming soon

Two more CCI acts are yet to appear on stage in Phoenix, but the planning is already under way:

■ **MediaServer:** This, said Finberg, is a module that plugs into the existing CCI system, and consists of a bunch of translations and programs that will take the CCI output and revamp it for web use.

"It just sets up some rules — this is a headline, convert it to HTML (HyperText Markup Language) format, a byline converts to this text, captions go over here," Finberg said.

"Then you can design some standard templates, have text and photos automatically flow onto the template page, and publish onto the Web without the hand coding we're now doing."

The idea, Finberg said, is to automate enough of it that the care and feeding of the web site can move onto the copy desk.

"Right now, we don't put the whole paper on the web site — our purpose is to build a compelling site that uses the paper but goes beyond it," he said.

But with the MediaServer, you can do it both ways.

"A copy editor might be doing a print package, but another might be building a web package using the print package as a basis, and they're using the same tools to do

Clunky is as clunky does

Designers love to say that compared to Quark XPress, the big pagination systems are too "clunky," requiring too many steps between the blank screen and the finished page.

So we made up a simple test: Lay out a two-column story with a headline, picture and cutline, and package them all in a hairline box.

We asked Eddie Rossi of the ARIZONA REPUBLIC to list the steps needed to build this package in CCI LayoutChamp, while we navigated through our own copies of Quark XPress and Harris NMP pagination.

The results, given below, don't include any text formatting, because that can be automated in formats on Harris and CCI, and in tags in XPress.

They also don't take into account how much faster or more simply an experienced user — in any one of the three environments — would be able to accomplish this fairly mundane task, thanks to deftness acquired through practice, and customized set-up (such as defaults tailored to the task).

Admittedly, not all facets of a user interface reside in the number of steps needed to build a page element — they're just the easiest to evaluate side-by-side. In that evaluation, it's noteworthy that the sequences are not identical, with Harris ending with the package being boxed, a step taken earlier in the other two programs.

Similarly, a designer using CCI's LayoutChamp can completely build an article, including all other shapes (head, deck, cutline, etc.), and *then* apply the article margin (in XPress lingo, the text inset). Layout Champ simply recalculates the new column measures for all elements depending on the dimension given in article margin.

All that said, could it be that "clunkiness" simply is in the mouse of the beholder?

— JB

Here is the cutline informa tot. its a bunch of tables and chairs. it was the best I could do on short notice. What do you think iam, a working clip-art library?

Headline line 1
Headline line 2

Dolor sit amet consectetuer adipiscing, elit, sed diam nonummy nibh euismod tincidunt ut laoreet dolore magna aliquam erat volutpat.

Quark XPress:
1. Draw a text box.
2. Change to two columns.
3. Modify text box to inset text 12 points.
4. Apply hairline rule to text box.
5. Draw picture box.
6. Apply hairline rule around picture.
7. Place picture.
8. Scale and crop picture.
9. Draw text box for caption.
10. Flow in caption.
11. Draw text box for headline.
12. Flow in headline.
13. Flow in story.
14. Adjust spacing of all elements as needed.

Harris
1. Establish a special, boxed grid.
2. Select story.
3. Place headline.
4. Square story off to two columns.
5. Place art.
6. Scale and crop picture, refit and compose.
7. Place cutline, refit and compose.
8. Compose (flow in) story.
9. Adjust spacing of all elements as needed.
10. Switch back to normal grid.
11. Draw box around package.

CCI
1. Using Article Tool, draw a two-column article on page.
2. With the article selected, activate the More button in the Element Palette.
3. Access Article Margin field in the "More" box. Type the amount of space (text inset) you want for the article.
4. In the Element Palette's line thickness field, apply the weight of the rule on the outside of the article.
5. Drag shapes from the Shape Library (headline, image with caption) into the article.
6. Adjust spacing of all elements as needed.
7. Click on the image name in the component list of the page and drag the image onto the image shape.
8. Crop and scale the art.
9. From component list, click on story name and drag it.

it," Finberg said. "This way we don't let the tool dictate who does what job, we let the skills dictate that."

Right now it's in specification stages; expect installation this summer.

■ **Content editing system:** The plans call for an expansion of the existing CCI system from 39 seats to about 200, moving off Sun workstations and onto Pentium-driven PCs running Windows NT, moving off Sybase and onto Oracle for Release 5 of the CCI software, improving the way photos move to CCI from the AP Preserver database, and of course, retiring The Wart in favor of the serial interface between CCI and SII.

Editors will be on the CCI system, probably using Microsoft Word for editing (though, if the interface works right, they could use SII's Coyote/3 software on their PCs.)

Reporters will continue to write on SII.

The new software will enable "story branching," in which different zoned editions could use one story, each in different trims, with different lengths and headlines.

As each version is needed on the page, CCI would apply that version's editing to the single story. It's a novel idea to keep one copy of a story for archiving and HTML use, while still allowing maximum flexibility for editors and still keeping the database usage low.

This one bears watching.

Of more pressing concern, however, is the completion of the conversion to CCI that since 1995 has been quietly going on amid all the planning for the next generation.

At mid-April, Finberg said the REPUBLIC was 92 percent paginated, churning out about 1100 pages a week. May should see the paper starting the conversion of sports, its last department, and Finberg expects that to be completed around Memorial Day.

And then, at last, Karen Outland can turn off the remaining Triple I terminal, and step out of The Cave into the light.

— John Bryan