DP/Publisher. *Intergraph has completed the initial release of its structured document processor.*

user interface and hardware platform. Through its object-based programming environment, Intergraph will be able to extend the product family to include other modules as well.

DP/Publisher. As we reported in our March 14 profile of the Intergraph system, the core module of the Intergraph system, DP/Publisher, is now ready for the field. The product has been in production use for several months at over a dozen beta sites, but this was the first public showing. Intergraph recently completed its sales training for the U.S. sales force, and the trainers for the European sales force recently departed for home after over a year of intensive work on the product here in the States.

DP/Publisher is a solid first release. Although it doesn't challenge the tech-doc composition leaders, it is an excellent adjunct to Intergraph's bread-and-butter products—vector graphics applications. In accounts that do not have Intergraph, their primary selling point will be that DP/Publisher serves as a foundation for future expansion, particularly for sites that intend to eventually computerize their drafting, drawing, presentations and other graphic departments.

DP/Paint. A new product in the DP series, DP/Paint is a raster-based paint program that supplements DP/Publisher in the creation of presentation graphics. It generates RGB output at screen resolution (100 dpi) to 35mm film recorders or Versatec or Calcomp plotters for draft prints.

In most respects, the program is similar to freehand paint packages available for PCs or Macintoshes. It does offer some exceptional features, though:

- Up to 32 levels of gray (depending on the capability of the workstation);
- Pixel cloning, such as you find on color prepress design and retouching workstations;
- Scaling, rotating in any degree and mirroring of images;
- Thresholding—a function for changing the overall gray values of an image or part of an image;
- Level slice—a function for converting to black or white all areas above or below a user-specified threshold of gray or color; and
- Reverse—a function for making a negative of any image.

Because it was developed from a current Intergraph product, DP/Paint was completed much more quickly than the previous products, which were developed from scratch. DP/Paint is available for $800 in single copies, starting this month.

DP/Presenter. The cousin to DP/Paint, DP/Presenter creates resolution-independent presentation charts and graphs from spreadsheet files. It generates PostScript output. At this time, image from DP/Paint and DP/Presenter cannot be mixed, but Presenter files can be included in Publisher documents.

DP/Presenter is scheduled to be shipped in July. Single copies will cost $2,000.

Scanning accessories. Intergraph showed several useful programs that work in conjunction with its E/Scan engineering scanner. E/Scan operates the scanner from the workstation (rather than from the unit itself) and saves the resulting images as run-length encoding. Intergraph said other data compression techniques may also be applied.

I/Draft is a raster editor for cleaning up scanned images, merging them with other vector images and generating output. With it, 2-D and 3-D drawings can be laid on top of raster images. A variety of editing tools are provided, including rotation and the ability to fill and erase bounded areas. The program automatically extrapolates the 200-dpi file into 300 dpi for output on an Apple LaserWriter.

I/Scan provides batch and interactive speckle removal on line art. It also provides tools for replacing raster text labels with vector fonts provided by Bitstream. Twenty to thirty fonts will be in the first release. All are scaled on the fly to the screen and the output device.

I/Vec is the newest of the utilities. It provides a batch or interactive raster-to-vector converter. From the demonstration, it appeared to do an acceptable job of handling the jaggies of scanned lines, but it was much slower than the more expensive Ana Tech device.

All four programs are being shipped this month.

DP/Manager. The foundation for future work in revision control, job tracking and database management of publications, DP/Manager is an object-based hierarchical database manager still not formally introduced (although it is mentioned in our Tech-Doc profile of Intergraph in Vol. 17, No. 11, p. 16).

Although the software shown at the Seminars was still pre-alpha, it is clear that the final product will be oriented toward publishing production managers, not MIS managers. If so, it has the potential to be a unique product in the tech-doc market, where document database management is becoming a critical issue.

We will report on DP/Manager's progress as the product nears completion.

Interleaf

As usual, Interleaf showed up at the Seminars with a large contingent of people and equipment—and a host of product improvements as well.

First on the list was VTE: text processing software for the DEC VT220 terminal. The software, which is compatible with DEC's All-in-1 office automation system, lets writers with non-WYSIWYG terminals share Interleaf documents and still preserve formatting and graphics information.

VTE is scheduled to be shipped in September with a suggested list price of $695.

In conjunction with VTE, Interleaf announced at the Digital Equipment press conference that its WPS and TPS products will be integrated with Digital's All-in-1 office automation system. Interleaf is developing a means to read and write files in DDIF format, which will also be supported by all DEC All-in-1 text processing software. The integration will be offered by DEC as customized software and installation and support in May of this year.

TPS 4.0 at last. Last year at the Seminars we got our first look at Interleaf's release 4.0. It still hasn't been delivered, but it certainly has been expanded. Being shown was 4.0 as it will be released in June on three platforms: Sun, Apollo and DEC.

Feature improvements since we last reported included a new desktop command language, based on LISP, that gives a slightly different look (and functionality) to the desktop. The user can create modifiable routines, modify parameter definitions (such as what the mouse buttons do) and run special programs. For example, the software can be set up to run filtering programs automatically, or allow the user to interact with the process. One of the filters that is now complete is a full IGES implementation. This makes all IGES graphics fully editable within Interleaf's programs.

There have been many additions to the style sheets, reflecting the additions to other functional areas. Table setting has been improved. It is now possible to select portions of straddle headers and have them repeat automatically on a second page along with table data that automatically breaks across pages. There is still some work to be done in this area, though.

It would be nice if the user could easily move column boundaries interactively instead of having to redefine columns via numbers. Tables currently support automatic vertical sizing, but horizontal sizing has not been added to the program yet.

In general, we found the tables implementation to be good as a first pass, with "ease of use features" needing to be added in subsequent releases.

A-page features have been improved, and Interleaf has added the ability to mix landscape pages within a document (via the book concept). Pages can be created in portrait mode and rotated entirely. Headers and footers are handled automatically. Another feature that has been added is the rotation of text strings. Graphic text could always be rotated, but not normal text strings. Now it is possible to rotate entire "strings" of text (but not paragraphs of h&j'ed text). This makes it convenient to add rotated text along the side of a table, for example. It is also possible to edit the rotated text at any angle.

Interleaf has also added three new frame types: underlay, overlay and side frames. It is also possible to mix frames side by side. Underlays and overlays can be used to add a background (or foreground) effect to a page. The side frames are convenient to add fixed graphic elements anywhere along the side of a page. This was rather difficult in previous releases of the product.

Interleaf has also added the ability to annotate document text with notes, embedded in the text string. The notes can be hidden or viewed under user control.

Another feature is a concept of inheritance. This allows parameters of certain tagged elements to be set "relative" to another tagged group. For example, a set of copy can be set one point larger than its parent. As the parent grows in size, so does the related copy, automatically.

Interleaf has always been very strong on the graphic side of the house. It has improved its handling of spot color with editable patterns and assignable colors and color mixing. There are now three color models: RGB, HSV and CYM. In general, we found it very convenient to use color in a variety of ways and apply spot color to nearly any drawing or created shape. It still lacks support for full process color and an appropriate color output device, outside of the Kodak environment. It provides the ability to output colored images as monochrome images (ignore color) or as a hue sample (output everything that is in the same hue, regardless of saturation level), or simply everything that gives you a separate output for each tint pattern.

H&j quality. We were glad to see that Interleaf has added to user controls over the quality of text composition. Instead of the previous feature, which provided only a one-to-ten sliding scale for specifying how much hyphenation is desired, it is now possible to specify independent minimum, maximum and nominal interword space values.

After much effort to determine how the algorithm works, we finally deduced that it targets the minimum interword space on justified lines and the nominal on quadded or ragged lines. When asked what we thought of that approach, we expressed a preference for targeting the optimum. Interleaf said it wanted to produce the highest quality, but didn't make a commitment to change its current routine.
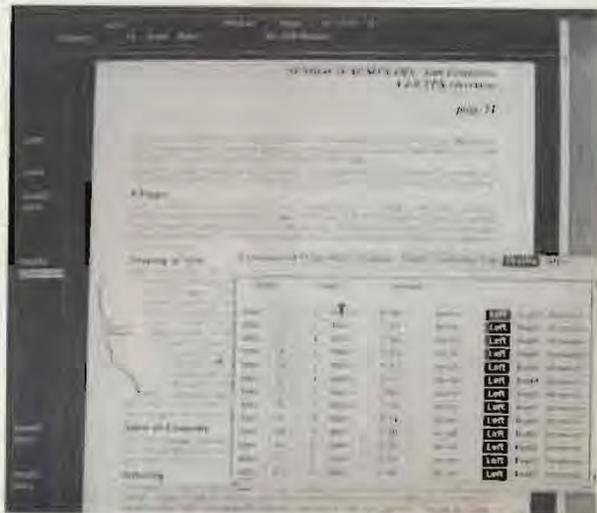
Irregular runaround control. *The amount of space between the graphic and the text can be adjusted line by line in the profile of the component's property sheet.*
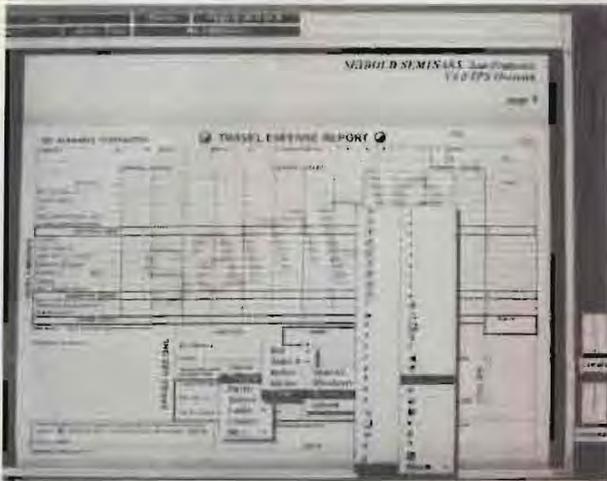
Rotated text. *If you look closely, text within the form is rotated 90.° ("Sample" is a graphic.) The pop-up menu picks pi characters.*

With the current routine, the user specifies three spacing values as percentages of the spacing associated with the font.

CALS support. Interleaf demonstrated its first level of compatibility with SGML by importing SGML files into a TPS document *(see photo)*. So far, Interleaf is working on a single definition, Mil-Spec 387784B, which is specified by the DoD as part of CALS.

In the commercial release of the product, which will be a follow-on to TPS 4.0, Interleaf will extend the SGML support to operate within the TPS environment. SGML tags, shown as attributes of components, will automatically be created as the writer adds components. The system does not restrict the user from using noncompliant components, but
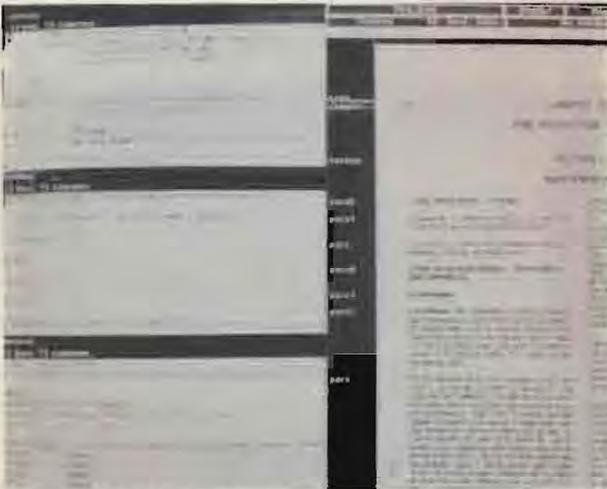
Accepting SGML input. *At left, the three screens show the original ASCII file being imported and run against the Sobemap parser, which flagged any errors and inconsistencies that compromised compliance with the document type definition. The resulting file was then run through a specific Interleaf ASCII filter, converting the tags to TPS components with specific formatting attributes applied. The resulting document can be seen in the foreground.*

by establishing SGML-compliant style sheets, the administrator can exert control over the types of documents writers can create. Individual users will be able to choose between seeing the SGML coding on top of the WYSIWYG display or suppressing the SGML codes to see just the formatted page. When finished, users will be able to output an ASCII file that could be checked against the parser and delivered CALS-compatible to the recipient.

In version 4.0 of TPS, Interleaf has added looseleaf pagination and freeze pagination, additional revision controls that bring TPS in line with MIL-M 38784B and ATA100 specifications. It already has IGES and CCITT Group 4 facsimile support. When the SGML features are ready later this year, Interleaf plans to offer CALS compatibility on Sun, DEC and Apollo workstations.

Island Graphics

Because this is one of the few events Island Graphics attends, it provides a rare opportunity to see the development efforts that may appear later through OEM deals. (Customers to date include Compugraphic, Berthold, Texet, Sun Microsystems, A.B. Dick, Hallmark, and a few others.)

This year the focus was on three products: the Berthold Headliner introduced at Imprinta and scheduled for release this summer, a free-form page composition program resembling the one provided to Texet, and the Giant Paint product that was developed for Hallmark.

Headliner. The Berthold Headliner is to the electronic age what the old Visual Graphics Typositor was to days gone by—with the appropriate (and enormous) benefits of computerization. It was developed to enhance the features of the M Series workstation, running on the Sun Microsystems platform, which was how Island demonstrated it.

The Headliner uses convenient, graphic windows to perform operations. Multiple windows can be displayed, moved, or suppressed on the screen. Text is created and displayed in the central area, using an assortment of fonts generated from Bezier curves. Operations that can be performed on a block of text (a headline or other element) include shaping it like a cone, cylinder, sphere, etc.; rotating it on any of its three axes; creating a mirror image; and so on. Not yet functional is a feature for setting type along a wavy line.

Alignment of elements is comprehensive. Items can be aligned left, center or right with respect to another item on the screen. They can be grouped or layeted. Areas can be filled with tints or patterns.

SolarWrite. This composition package, which runs on Sun Microsystems workstations, doesn't really have a name because it isn't a real product, but it is available to OEM customers. At the Seminars it was going under the name SolarWrite. It resembles the package Texet is using as its FreePage program, except that FreePage has a Texet user interface. It also resembles the A.B. Dick InPrint program except that InPrint runs under MS-DOS on a PC.

SolarWrite offers a combination of word processing, page layout, free-form layout and structured document for-