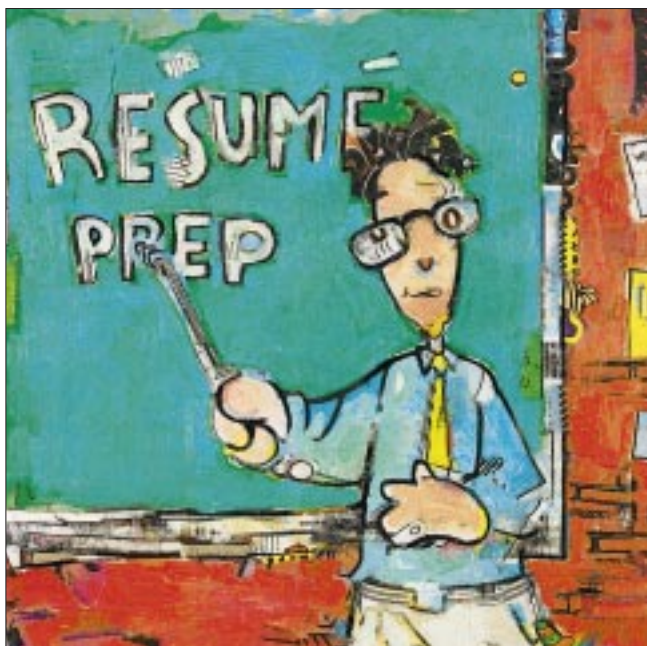


# Work

by Jeffreys Copeland and Haemer



## Your Résumé, Part 1

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**W**e had intended this month to discuss the joint Internet Engineering Task Force/Printer Working Group (IETF/PWG) project to develop the Internet Printing Protocol (IPP). While the IETF only recognizes the contributions of individuals, the protocol is being watched with interest by staff from companies like Hewlett-Packard Co., IBM Corp., Lexmark International Inc., Microsoft Corp. and QMS Inc., so we have every reason to believe that it will be well received. (If you're interested in IPP, look at <http://www.pwg.org/ipp>.)

However, earlier in the month some colleagues came to us and said: "Quick! What do you have for formatting résumés!?"

"Ha!" we said (since all conversations between engineers are punctuated by exclamation points). "Have we got a macro package for you!" And now, we'll share it with you, too.

Before we start, we need to address the important question: "How many accents are there in resume, anyway?" It depends. We've usually seen it with one, but our friend Dick Dunn claims that either two (as in *résumé*) or none (as in *resume*) is proper, even though our edition of *Webster's* also allows one, like one of us has used for years. So, with a tip of

the hat to Dick, we'll use two. As always, you're welcome to change the software.

Also, before we start, we'll remind you to proofread your résumé carefully. Vital documents are sometimes so vital that they develop their own typographic errors when you're not looking. Also, get outside referees: We review each other's résumés, and every so often we get someone else to do it. If you've got a friend you trust in the human resources department of a company like the one you're targeting your résumé for, ask them. Ask managers you've worked for in the past with whom you're still on good terms. You're often too close to the contents of your own résumé to review it critically.

As always, we'll be formatting our documents in `troff`, rather than one of those newfangled what-you-see-is-what-you-get word processor things—we may be computer-literate, but we're Luddites at heart.

We'll warn you ahead of time that we're going to assume some `troff` knowledge, but here we go....

### Design Issues

We'll begin by thinking through what we need to put on the résumé. In general, we want to mark up the résumé structurally—that

is, in terms of the items in the résumé (here's the job title, here are the dates I worked there)—instead of using typographic markup (this word is in italic, this one has a larger point size). This will allow us to change the format of our résumé later by just changing the macros.

On the other hand, we certainly need to identify some things as being in italics, and some in bold, so let's do those macros first, as they're pretty simple.

```
.de i
\f2\\$1\fp
..
.de b
\f3\\$1\fp
..
.de c
\f6\\$1\fp\\$2
..
.fp 6 C
```

We'll assume that we've got an italic font mounted on position 2, and a bold on position 3. As a matter of good `troff` form, we try to refer to the fonts by their position rather than their names. This means that we can change the fonts without changing every reference to them. We've also included a macro for computer type in Courier. This allows us to include things like `http://www.alumni.caltech.edu/~copeland/work.html`. Notice that we mount the Courier font immediately after we define the `c` macro, so the two are physically together in the macro package.

Next, we'll need to specify the markup for paragraphs. We want to be able to use three kinds of paragraphs: normal block, indented and hanging paragraphs. Our normal résumé style is to use block paragraphs at the beginning of a job description, indented paragraphs within job descriptions and hanging paragraphs for publications.

```
.de PP
.br
..
.de IP \" indented paragraph
.ti +2m
..
.de HP \" hanging paragraph
.ti -2m
..
```

Notice that we're using `.ti` directives, but we don't say what we're doing the temporary indent from. We'll deal with that in the setup.

Another thing we might need is nested bullet lists. In our résumé, we use them for the executive summary page. (Why include an executive summary? Because it allows us to put all the relevant buzzwords on a single page to make life easy for the clerk in the human resources department.) If we were using the `-mm` macro package, we'd use `.DL` dash lists nested within `.BL` bullet lists.

```
.de BU \" bullet list item for summary
.sp .66v
.ti -2m
\(\bu\0\c
..
.de DA \" dashed list item for summary
.sp .25v
.ti -1m
\(\em\0\c
..
.de SB \" item line for summary
.ti +2m
..
```

Again, we're assuming some global page indent in the setup for the lists, but we'll address that later.

## Mr. Manager and Dr. Technical

Next, we need to handle a special case, to prevent special cases: support for two versions of our résumé, one with a technical focus, and one for a management position.

```
.de TE \" technical resume content line
.if \nB [[\f2tech:\f1
.if \w@\\$1@ \{\
. ie \nB \\$1]]
. el .if \nT \\$1
.\}
.if !\w@\\$1@ .if !\nT .if !\nB .ig VE
..
.de MG \" management resume content line
.if \nB [[\f2mgt:\f1
.if \w@\\$1@ .if !\nT \{\
. ie \nB \\$1]]
. el \\$1
.\}
.if !\w@\\$1@ .if \nT .if !\nB .ig VE
..
.de VE \" version end
.ie \w@\\$1@ \\$1\f1
.el .if \nB ]]\f1
..
.if \nB .nr D 1
.if \nB .nr T 0
```

This assumes that when we want to work on the technical version, we invoke `troff` with a line like `troff -rT1 resume`. We've set this up to allow us to work on a “both” version for editing purposes with something like `troff -rB1 resume`. Setting `B` implies that `T` is unset, and `D` (for draft) is set. By turning off `T`, we make the processing for the “both” version a little easier. Also, we may want to do some special processing if we're printing a draft, which the “both” version definitely is.

It's important to note that we've set this up like the `-mm` italic and bold macros. We can invoke the macro with

```
.TE "a technical thing I did"
```

or use `TE/VE` and `MG/VE` pairs to bracket targeted text, like

```
.TE
a long technical
thing that I did
.VE
```

We're doing the latter by making careful use of the `troff ig` directive, buried beneath a chain of `ifs`. (You can easily modify this trick for separate waiter and cook résumés, or developer and tester résumés, if you want.)

Because we're doing this in a bottom-up fashion, next we'll think about the way we'd format each new job. Let's assume we call the macro with a line like this

```
.NJ 11/94#present "Sr MTS" "QMS" "Boulder, CO"
```

That is, we want the dates of the job, the title, the company and location as arguments. Why would we use a pound sign instead of a dash in the dates? Depending on how we arrange the output of the macro, we want to avoid breaking the date across lines if we can help it, because `troff` will break at a hyphen if it can. We can use the `tr` directive to change the pound sign into a dash after the hyphenation and fill is completed. So

```
.de NJ \" new job
.\" takes dates, job title, company, location
.in 0
.sp .66v
.tr #-
.if \w@\\$2@ \\$2.
.ie \w@\\$4@ \\$3, \\$4 (\\$1):
.el \\$3 (\\$1):
.in
.tr --
..
```

Notice that we've taken special care about the punctuation in cases where we may be missing one or more arguments. This allows our résumés to have jobs like

```
.NJ 5/75#6/79 "Teaching Assistant" "Caltech" ""
```

Also, as with our paragraph and list macros, we're assuming a base page indent, and we set our job line firmly against the left margin. Of course, we can always change the formatting of the job lead-in without changing the structure of all the `NJ` macros we used in our résumé text.

## New Pages, Last Pages

Now we need to look at our least favorite `troff` thing: the macro to handle the top of the page. It's generally a messy process because the macro is invoked by the bottom of page trap, and we need to do some swapping of environments to prevent the line that caused the page spill from being inadvertently printed.

```
.de BP\" top of page macro
'ev 1
'br
'bp
'sp |.5i
'ps 10
'if \\n%>2 {\
' t1 |\f3R@\\o@e\'@sum\\o@e\'@/\\"*(Jf\fp (continued)|\
|\f6\\*(J@\fp|
' if !\\nA 't1 |\\*(A1, \\*(A2|\\*(A3|
'\}
'if \\nD 't1 'draft: \\*(PD''
'ps
'sp |1i
'ev
..
```

What are all those hieroglyphs in the `t1` lines in the page header? We'll define some strings for our names and addresses, `Jf` contains Jeff's full name, `J@` will have Jeff's email address, and then `A1`, `A2` and `A3` for his street address, city and phone number, respectively. That data will appear throughout the résumé, and so defining them as strings means that when we move it's not so much of a hassle.

In any event, our top of page processing does the following: On each page after the second (the first page will be the execu-

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tive summary, the second is the beginning of our résumé proper, and we don't want a page header on it, just our name, centered) we put our name on the left side, our email address on the right (in Courier). On the next line, we put our address and phone number, but we can suppress this by setting the `A` number register on the command line.

Let's digress for a moment about form. It's good practice to put your address on each page of your résumé. Pages can get separated, and we want to make life easy for the clerks who are processing it. However, if you send your résumé to an agency, they'll want to strip your address because they want inquiries to go through them, and you've just saved the clerk in their filing department the trouble.

If we've set the `D` number register, we're printing a draft, and we put the date string `PD` at the top of the page, too. We're setting the whole page header in 10 point and then reverting to the original point size. (Do we need to revert? We may not, but we can never remember whether the point size is in the environment or not, so we make the switch to the original point size explicit.)

Let's use this macro immediately, so that we have the macro and the trap physically together in the source:

```
.if t .wh -1i BP
.if n .rm BP
.if n .pl 1
```

---

Notice that we're really only using this for `troff`. In `nroff`, we set the page length to one line so that we never get a real page break. Why? Because the `nroff` version of our résumé is going to be used mostly for email, and page breaks in email are annoying. (Actually, we'll also use `nroff` to generate the HTML version, but let's come back to that.)

We also want an "end" macro. This will allow us to print a footer at the bottom of the last page, with the date or other tag information.

```
.de EM
.ch BP \" remove the end page trap
.sp |\\n(.pu-.5i
.tl '''\\*(PD'
..
.em EM
```

We should also define the date string we print on the draft version and in the footer. Notice we append a `t` or `m` so we can tell whether we've printed the technical or management version.

```
.\" printed date
.ds PD \\n(mo/\\n(dy/\\n(yr
.ie \\nT .as PD t
.el .as PD m
```

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Another structural macro we need is a section header, for things like “Education” and “Publications.”

```
.de SC \" begin section
.in 0
.sp 1v
.i "\\$1"
.in +4m
.br
.ns
..
```

We’ve used our previously defined italic macro here. The only odd thing to note is the `ns` directive, which prevents explicit spacing until we’ve printed a line of text. This means that the space we generate in the `NJ` macro gets ignored immediately after

```
.SC Experience
```

The last thing we need to supply is a macro to produce a fancy block at the top of the first, executive summary page.

```
.de PH \" 1st page title block
.ce 5
\f3\*(JF\f1
```

---

```
\*(A1
\*(A2
.sp .2v
\*(A3
.ps -1
.c \\\*(J@ " mailto:\\*(J@
.ps
..
```

Notice: name in bold, address strung out below in roman, followed by phone and email, with each line centered.

## Out of Space, Out of Time

We’re not quite done with the base-level résumé macros, but we’re out of space for this month’s column. Next time, we’ll finish up the last little bit of the macros—mostly page setup and some string definitions—and proceed to discuss how to produce an HTML résumé.

One quick note, however, Nachum Dershowitz and Edward M. Reingold’s book on calendar processing, *Calendrical Calculations* (Cambridge, ISBN 0-521-56474-3), is finally in print. We’ve been touting their calendar work, first from *Software–Practice and Experience*, and now in this book, in our column for some time. We just got our copy of the book today.

Until next time, happy trails. ✍

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