

Logo Exchange

Journal of the ISTE Special Interest Group for Logo-Using Educators



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Manuscripts should be sent by surface mail on a 3.5-inch disk (where possible). Preferred format is Microsoft Word for the Macintosh. ASCII files in either Macintosh or DOS format are also welcome. Submissions may also be made by electronic mail. Where possible, graphics should be submitted electronically. Please include electronic copy, either on disk (preferred) or by electronic mail, with paper submissions. Paper submissions may be submitted for review if electronic copies are supplied on acceptance.

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Logo Exchange solicits articles on all topics of interest to Logo-using educators. Submission guidelines can be obtained by contacting the editor. Opinions expressed in this publication are those of the authors and do not necessarily represent or reflect official ISTE policy.

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Sorry I'm Late

Editng *Logo Exchange* is a labor of love. Sometimes assembling an issue is like giving birth. This issue marks the end of *Logo Exchange's* 17th year of publication and my second as its steward. The past two years have seen *Logo Exchange* grow in size, breadth, and depth. I apologize for the tardiness of this issue and with the help of the wonderful Logo community, we will be back on track in no time.

The hardest part of assembling a journal like *Logo Exchange* is collecting content. Each issue requires that we beat the bushes to find Logo users willing to share their news, views, and ideas with others in the community. Our contributing editors have been sensational. Tom Lough, Carolyn Dowling, Alan Epstein, Doug Clements, Julie Sarama, and Jeff Richardson have been reliable sources of terrific articles issue after issue.

Unfortunately, Alan Epstein will no longer be able to write StarLogo Starters. I thank Alan for his excellent series of tutorials and am in the process of finding his successor. Please let me know if you find the StarLogo columns valuable.

My goal as Editor of *Logo Exchange* has been to create a print publication I would like to read. *Logo Exchange* is much more than a legitimate academic journal. I hope that you enjoy the reviews of books about Logo or books echoing the Logo philosophy; the teacher features; news; tutorials; and tales of great teaching. Each issue con-

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Logo Exchange needs your help. Won't you please consider making the following contributions to *Logo Exchange*?

- Suggest teachers to be profiled in Teacher Features. It would be fantastic if you could even write the profile or interview the great Logo teacher. We'll help in any way possible.
- Share ideas about ways in which you use Logo in your classroom.
- Write about great Logo projects created by kids.
- Send news of new Logo products, books and upcoming events.
- Write a how-to article about a specific Logo project or concept.
- Submit research papers related to Logo learning.
- Advocate a specific strategy for using Logo.
- Write a letter to the editor.
- Contribute a back page commentary about an issue burning in your heart/head.
- Send photos of classroom Logo activities and screenshots of kids' creativity.

We will assist you in getting your ideas on paper and into publication. Send your ideas, feedback and articles to logoexchange@stager.org. At a minimum, let me know what you would like to read in the pages of *Logo Exchange*.

See **SORRY I'M LATE** (Page 4)



Logo Y2K

With all the hoopla about Y2K problems, it concerns me that nothing has appeared in the press or on the news about the Y2K Logo problem. Has anyone given thought to how the year 2000 will affect our poor little turtle? Evidently not.

Well, I would like to take advantage of the *Logo Exchange's* international forum to spotlight this potentially troubling situation and to give it the attention it deserves!

For some of us, it is a study in naivete. For example, I have been exclaiming, "Forward 100!" with relatively wild abandon for more than 17 years. How silly of me! I never realized until recently that I should have been saying, "Forward 99!" instead. I suppose I was not aware of the two-digit limitation in DOS!

```
fd 97 rt 45
fd 98 rt 45
fd 99 rt 45
fd . . .
```

Hmm. What's next? Will there be a problem with the next step?

Or, maybe the following is more relevant.

```
fd 1998 rt 45
fd 1999 rt 45
fd . . .
```

Well, if no one sees the problem yet, maybe we should use the traditional *Logo Exchange* fallback: a challenge problem! How can we create a turtle with a Y2K problem?

Well, if no one sees the problem yet, maybe we should use the traditional *Logo Exchange* fallback: a challenge problem! How can we create a turtle with a Y2K problem?

I guess it depends on what you mean by a Y2K problem. If we're talking about the bottom-level, two-digit original DOS convention, that's onething. If we're talking about going from 1999 to 2000, that's anotherthing.

```
to onething :distance
if :distance > 99 [make
"distance 00]
fd :distance
end
```

```
to anotherthing :distance
if :distance > 1999 [make
"distance 0000]
fd :distance
end
```

Using these procedures instead of the usual `fd` in some of your Logo work might give some of you skeptics a quick idea of the scope of this looming problem!

[By the way, I honestly did encounter some interesting problems* with these procedures in various systems. Tell me about your experiences!]

"But, wait!" you say. "The Y2K problem is not about distance; it is about time!" While I will yield to your assertion, I will also mention in passing that Einstein suggested that time and space are quite closely related.

OK, so, let's focus on time.

Many Logo versions have one or more primitives that are related to time. For example, in some versions, the timer reporter gives the time in tenths of seconds since Logo was started up or since the most recent command to reset the timer.

Does the time reported by `timer` have a "rollover point" that might mimic the Y2K problem? Is there a maximum time beyond which the timer is automatically set back to zero?

After playing around a little bit, I wrote a `stepintime` procedure that made use of a line something like `fd (timer - :time)` in the hopes that I could see some errant behavior [such as the turtle moving backwards] if the timer rolled over to zero while the procedure was running.

I ran `stepintime` repeatedly as the timer approached several possible rollover points:

```
99
999
9999
99999
```

Nothing untoward (I almost said unforward!) happened. The value re-

See LOGO Y2K (Page 4)

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