962-P1-610 **John Selden*** (`js9484@usit.net`), 1015 Melrose Drive, Cookeville, TN 38501, and **Annie Selden** (`selden@tntech.edu`), Mathematics Department, Box 5054, Tennessee Technological University, Cookeville, TN 38505. *A supplementary tool for learning about proofs.* Preliminary report.

We will demonstrate a prototype of a supplementary tool for helping undergraduates understand, and participate in reading and writing, proofs. It consists of hypertext presentations of actual proofs with links to explanations regarding questions one should ask and answer in reading proofs, the "proofs within proofs" structure, the application of theorems and definitions, the special usage of words like "let," etc. The structure of these hypertext documents is both "deep," in having several layers of explanations within explanations, and "wide," in that relevant explanations are linked to parallel information, e.g., when "or" is explained, there is also a link to "and." Such hypertext presentations are to be explored, rather than read, and may help students form mental links that can later bring information to mind when it is needed in constructing proofs. The explanatory material, e.g., about sets and logic, is thus provided in context rather than in an abstract decontextualized way, and consists of precisely what is used in student proofs – in contrast to how it is presented in most "transition" courses. (Received September 15, 2000)