

CSc 451, Spring 2003
Extra Credit Assignment 1
Due: Tuesday, January 21, 1:50 p.m.

The purpose of this assignment is to encourage getting an early start with Icon. Up to ten points may be earned on this assignment.

The assignment is simply this: On `lectura` use `ie`, the Icon Evaluator, to evaluate ten distinct Icon expressions and submit a log of the `ie` session.

The "`script`" command on `lectura` starts a shell (a command processor) and makes a recording of keyboard input and screen output during the execution of that shell. When the shell terminates, the file `typescript` contains a log.

Example:

```
% script
Script started, file is typescript
% /home/cs451/bin/ie
Icon Evaluator, Version 0.8.1, ? for help
][ 2+3;
   r1 := 5 (integer)
][ *(r1*r1*r1);
   r2 := 3 (integer)
][ ^D (control-D)
% exit
Script done, file is typescript
%
```

The file `typescript` now contains a session log:

```
% cat typescript
Script started on Mon Jan 13 21:56:12 2003
% /home/cs451/bin/ie
Icon Evaluator, Version 0.8.1, ? for help
][ 2+3;
   r1 := 5 (integer)
][ *(r1*r1*r1);
   r2 := 3 (integer)
][ ^D
% exit

script done on Mon Jan 13 21:56:54 2003
```

Once the session is done, the file `typescript` can be turned in. Use `451_x1` for a `turnin` tag:

```
% turnin 451_x1 typescript
```

To get the full ten points of extra credit, you must try ten Icon expressions that are not similar to each other. For example, trying `1+2`, `1+3`, `1+4`, etc. would earn one point of extra credit.

You might try Icon's unary `~`, `!`, `/`, and `\` operators to see if you can tell what they do. See if you can determine the difference between `=`, `==`, and `===`, or between `<` and `<<`. You might try some built-in functions: `char`, `ord`, `center`, `left`, `open`, `getenv`, and `image`. You might try operators from other languages to see if you can find some that work in Icon.

Note that all you need to do is to generate a session log and turn it in. You don't need to report on your findings; you just need to provide some evidence that you've done a little bit with Icon.

If you look at the `typescript` file you'll find that it contains all keystrokes, so things like backspaces are in there. That's ok. Also, you need not clean up the file to delete expressions that generated an error of some sort.

If you know how to copy text from a window into a file, you can do that instead of using the `script` command, but the file you submit **MUST BE NAMED** `typescript`.

The Icon Evaluator is an experimental interactive front end for Icon and it can get fouled up. In particular, some erroneous expressions will keep later expressions from working. If that happens, just exit `ie` with a control-D and start it again.

Note that if you exit `script` and start it again, the contents of `typescript` are overwritten.