BridgE

an easier starting language than Scheme

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The problem

For new users who aren't CS oriented it is hard to translate ideas into a working program due to syntax.

This leads to frustration over whether or not it's your code/idea that's wrong or your understanding of the language and its syntax.

Domain Analysis

The class of programs can range from very simple ones to (theoretically) complicated loops and calls. We, unfortunately, set our expectations a bit high and were unable to fully implement all desired features as of yet. But as of now, we have reached a milestone that allows simple to moderately advance programs.

These programs can be written today with a potentially much more complicated syntax in any other language (such as Scheme).

Language Constructs

Our constructs are based on the English language and uses a mixture of words and numbers.

Our semantics is "pidgin-grammar" as of now though it can be expanded to reflect more accurately on the English grammar.

A Hello-World Example

```
print "hello world"
```

Demo

create counter #this creates a temp variable *counter*

#let's create a function x that counts and prints

function x will create i and count from i to 7 all while print i

#let's create a function y that calls x at least

function y will do x and increase counter by 1 and print "counter = " + counter

#now let's run y twice and print each time!

print do 2y

Implementation

Describe the implementation.

1. Used past PAs as our base

2. Built upon the original 164 grammar at first to incorporate simple examples

3. Extended grammar slowly while testing and debugging

What you are proud of

Using words like 'and' and 'all while' to incorporate multiline code within one line.

Mistakes

Like English, things are written out continuously in one line (sometimes) which may cause confusion when writing large programs as it has to all be in one line.

What we would do differently

Possibly start afresh instead of trying to build it upon past PAs. Debugging was painful and time consuming.

You have only 6 slides.

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