PROGRAMMING GUIDELINES / STYLE

Code

    * AT MOST one statement per line

Comments

    * One comment per line
    * Never place comments on the same line as code
    * Place comments before the code

```
void testFunction ()
{
      // reset counter
      counter = 0;

      / / this comment is incorrect (space between slashes)

      // increment counter
      counter = counter + 1;        // no comment here
}
```

Intendation

Braces

Naming Convention

TRAPS & PITFALLS

* Operator Precedence
* '=' vs. '=='   (CINCO WAS BIT BY THIS BUG!)
* ~~'&' vs. '&&'~~
* ~~'|' vs. '||'~~
* Misleading comments
* Number overflow
* ~~██████~~
* Uninitialized variables
* Misplaced brackets
* Overcomplicated statements
* Infinite loops

DEBUGGING

* Write clean code to start with
* Use the SYS_Fatal command
* Binary search method

OPERATORS (Unary, Binary, Relational)

!
-

=
++
--

+
+=
-
-=
*
*=
/
/=

&&
||

==
!=
>=
>
<=
<

EXPRESSIONS (Simple and Complex)

()

Order or operations

STATEMENTS

CONTROL (if/while)

Braces

if   { BRACES REQUIRED! }

else

while   (MED BUG W/ NESTED WHILES)

break

Labels

goto

return

FUNCTIONS

Declaration

Return type

Parameter list

Usage

Parameter passing

Local variables

Returning values