Pasm constants are defined in the load constant (ldc) instruction. For example,

Mnemonic	Operand 1	Operand 2
ldc	r	1.602e-19

- The mnemonic is ldc and is translated to 0x32
- Operand 1 is a P-Machine type given in Table 2 of the P-Machine Specification (https://cs2.uco.edu/~trt/cs5023/pspec.pdf). In this case, the type r – real, is translated to 0x04.
- Operand 2 is the actual constant. The P-Machine type, in operand 1, determines where the constant is stored and the actual value stored in operand 2.

P-Machine Type	Stored
b	The Boolean value, either a 0 – false or a 1 – true is stored in operand 2.
c	The character value, an 8-bit ASCII character code, is tore in operand 2.
i	The integer value, a 32-bit, twos complement integer, is stored in a table of integer constants. The index of the integer constant is placed in operand 2.
r	The real value, a 64-bit, IEEE double precision binary value, is stored in a table of real constants. The index of the real constant is placed in operand 2.
s	The character string, a C programming language string of characters, terminated by a character whose ASCII code is zero, is stored in a table of character string constants. The index of the first character of the string in the table is placed in operand 2.
t	Sets are not implemented.

Example file constants.pcd

```
ldc b 0
ldc b 1
ldc c 'a'
ldc c 'A'
ldc c 'z'
ldc c '!'
ldc c ''''
ldc i 13
ldc i 0
ldc i -54
ldc r 9.8
ldc r 3.14159
ldc r 6.02e-19
ldc r -15.6
ldc s 'One, two, buckle my shoe,'
ldc s 'Three, four, shut the door.'
ldc s 'Five, six, pick up sticks.'
ldc s 'Seven, eight, lay them straight.'
```

Assembly listing file constants.alst created by Pasm

```
String Constants
Index   Constant

    0 "One, two, buckle my shoe,"
   26 "Three, four, shut the door."
   54 "Five, six, pick up sticks."
   81 "Seven, eight, lay them straight."

Set Constants
Index Constant

Integer Constants
Index   Constant
    0                    0
    1                    1
    2                   13
    3                  -54

Real Constants
Index   Constant
    0         9.800000e+00
    1         3.141590e+00
    2         6.020000e-19
    3        -1.560000e+01

P-Code Instruction Array
  PC OP       R1         R2
   0 ldc(32)   b(01)     0(0000)
   1 ldc(32)   b(01)     1(0001)
   2 ldc(32)   c(02)    97(0061)
   3 ldc(32)   c(02)    65(0041)
   4 ldc(32)   c(02)   122(007a)
   5 ldc(32)   c(02)    33(0021)
   6 ldc(32)   c(02)    39(0027)
   7 ldc(32)   i(03)     2(0002)
   8 ldc(32)   i(03)     0(0000)
   9 ldc(32)   i(03)     3(0003)
  10 ldc(32)   r(04)     0(0000)
  11 ldc(32)   r(04)     1(0001)
  12 ldc(32)   r(04)     2(0002)
  13 ldc(32)   r(04)     3(0003)
  14 ldc(32)   s(05)     0(0000)
  15 ldc(32)   s(05)    26(001a)
  16 ldc(32)   s(05)    54(0036)
  17 ldc(32)   s(05)    81(0051)
```