

59. An entire string is output by calling *print*. Note that if we are outputting the single standard ASCII character *c*, we could call *print('c')*, since 'c' \equiv 99 is the number of a single-character string, as explained above. But *print_char('c')* is quicker, so T_EX goes directly to the *print_char* routine when it knows that this is safe. (The present implementation assumes that it is always safe to print a visible ASCII character.)

⟨Basic printing procedures 57⟩ +≡

```

void print(int s)      /* prints string s */
{ pool_pointer j;      /* current character code position */
  int nl;              /* new-line character to restore */
  if (s ≥ str_ptr) s = ⟨"???" 1381⟩;    /* this can't happen */
  else if (s < 256)
    if (s < 0) s = ⟨"???" 1381⟩;    /* can't happen */
    else { if (selector > pseudo) { print_char(s);
          return; /* internal strings are not expanded */
        }
    if (((Character s is the current new-line character 244)))
      if (selector < pseudo) { print_ln();
        return;
      }
    nl = new_line_char;
    new_line_char = -1; /* temporarily disable new-line character */
    j = str_start[s];
    while (j < str_start[s + 1]) { print_char(so(str_pool[j]));
      incr(j);
    }
    new_line_char = nl;
    return;
  }
  j = str_start[s];
  while (j < str_start[s + 1]) { print_char(so(str_pool[j]));
    incr(j);
  }
}

void print_str(char *s) /* the simple version */
{
  while (*s ≠ 0) print_char(*s++); }

```

60. Control sequence names, file names, and strings constructed with \string might contain ASCII_code values that can't be printed using *print_char*. Therefore we use *slow_print* for them:

⟨Basic printing procedures 57⟩ +≡

```

void slow_print(int s) /* prints string s */
{ pool_pointer j;      /* current character code position */
  if ((s ≥ str_ptr) ∨ (s < 256)) print(s);
  else { j = str_start[s];
    while (j < str_start[s + 1]) { print(so(str_pool[j]));
      incr(j);
    }
  }
}

```