

1. Function and Use.

This small program will convert SJIS encoded Japanese characters into a ‘preprocessed’ form. The need of this program arises from the fact that this encoding uses the characters ‘\’, ‘{’, and ‘}’ which have special meanings in \TeX .

Use this program as a filter:

```
sjisconv < input_file > output_file
```

2. The program.

The only function of this program is to replace all occurrences of SJIS encoded two byte characters **XY** with `^7fX^7fZZZ^7f` (**X** and **Y** are the first and the second byte of the character; **ZZZ** represents the second byte as a decimal number).

Additionally we define a `TEX` macro at the very beginning to signal a preprocessed file.

The following code is very simple. No error detection is done because `TEX` which will see the output of `sjisconv` complains loudly if something is wrong.

Note that the user-defined character area of SJIS (with the first bytes in the range 0xF0-0xFC) is not supported because it is not portable.

```
#define banner "sjisconv_ (CJK_ver._4.8.3)"
#include <stdio.h>
#include <stdlib.h>

int main(int argc, char *argv[])
{int ch;

  fprintf(stdout, "\\def\\CJKpreproc{%s}", banner);
  ch = fgetc(stdin);
  while (!feof(stdin))
  {if ((ch ≥ #81 ∧ ch ≤ #9F) ∨ (ch ≥ #E0 ∧ ch ≤ #EF))
    {fprintf(stdout, "\\177%c\\177", ch);
     ch = fgetc(stdin);
     if (!feof(stdin))
       fprintf(stdout, "%d\\177", ch);
    }
    else
      fputc(ch, stdout);
    ch = fgetc(stdin);
  }
  exit(EXIT_SUCCESS);
  return 0;
}
```

/* never reached */