-- file: Output.mesa
-- edited by Sandman on August 3, 1978 11:50 AM

DIRECTORY
IODefs: FROM "iodefs",
OutputDefs: FROM "outputdefs",
SegmentDefs: FROM "segmentdefs",
StreamDefs: FROM "streamdefs",
StringDefs: FROM "stringdefs",
TimeDefs: FROM "timedefs";

Output: PROGRAM
IMPORTS SegmentDefs, StreamDefs, StringDefs, TimeDefs
EXPORTS OutputDefs =
PUBLIC BEGIN

outStream: StreamDefs.StreamHandle ~ NIL:

GetOutputStream: PROCEDURE RETURNS [StreamDefs.StreamHandle] ~ BEGIN
RETURN[outStream];
END;

PutTab: PROCEDURE ~ BEGIN PutChar[IODefs.TAB]; RETURN END;
PutCR: PROCEDURE ~ BEGIN PutChar[IODefs.CR]; RETURN END;

PutChar: PROCEDURE [c:CHARACTER] ~
BEGIN
outStream.put[outStream,c];
END;

PutString: PROCEDURE [s:STRING] ~
BEGIN
i: CARDINAL;
FOR i IN [0..s.length) DO
  outStream.put[outStream,s[i]];
ENDLOOP;
END;

PutSubString: PROCEDURE [s:StringDefs.SubString] ~
BEGIN
i: CARDINAL;
FOR i IN [s.offset .. s.offset+s.length) DO
  outStream.put[outStream,s.base[i]];
ENDLOOP;
END;

PutTime: PROCEDURE [t: TimeDefs.PackedTime] ~
BEGIN
OPEN TimeDefs;
s: STRING ~ [20];
AppendDayTime[s,UnpackDT[t]];
PutString[s];
RETURN
END;

PutNumber: PROCEDURE [val: CARDINAL, format: IODefs.NumberFormat] ~
BEGIN
i: CARDINAL;
neg: BOOLEAN ~ FALSE;
fill: CHARACTER ~ (IF format.zerofill THEN '0 ELSE ');
s: STRING ~ [10];
IF INTEGER[val] < 0 AND ~format.unsigned THEN
BEGIN val ~ -INTEGER[val]; neg ~ TRUE; END;
StringDefs.AppendNumber[s, val, format.base];
i ~ s.length;
IF neg THEN
BEGIN
i ~ i+1;
BEGIN outStream.put[outStream,'-']; neg ~ FALSE END;
END;
THROUGH (i..format.columns] DO outStream.put[outStream,fill] ENDLOOP;
IF neg THEN outStream.put[outStream,'-'];
PutString[s];
RETURN
PutDecimal: PROCEDURE [val: CARDINAL] =
BEGIN
PutNumber[val, [10, FALSE, FALSE, 1]];
RETURN
END;

PutOctal: PROCEDURE [val: UNSPECIFIED] =
BEGIN
PutNumber[val, [8, FALSE, TRUE, 1]];
IF val IN [0..7] THEN outStream.put[outStream, 'B'];
RETURN
END;

OpenOutput: PROCEDURE [root: STRING, ext: STRING] =
BEGIN
OPEN StringDefs, SegmentDefs;
    i: CARDINAL;
    name: STRING + [40];
    AppendString[name, root];
    FOR i IN [0..name.length) DO
        IF name[i] = '.' THEN
            BEGIN name.length + i; EXIT END;
    ENDLOOP;
    AppendString[name, ext];
    outStream = StreamDefs.CreateByteStream[
        NewFile[name, Write+Append, DefaultVersion], Write+Append];
END;

CloseOutput: PROCEDURE =
BEGIN
    outStream.destroy[outStream];
    outStream = NIL;
END;

END...