DIRECTORY
AltoDefs: FROM "altodefs";

StringDefs: DEFINITIONS =
BEGIN

StringHeaderSize: PRIVATE CARDINAL = 2;
CharsPerWord: CARDINAL = AltoDefs.CharsPerWord;
charlength: CARDINAL = AltoDefs.charlength;
CharsPerPage: CARDINAL = AltoDefs.CharsPerPage;
LogCharsPerPage: CARDINAL = AltoDefs.LogCharsPerPage;

SubStringDescriptor: TYPE = RECORD [base: STRING,
offset, length: CARDINAL];

SubString: TYPE = POINTER TO SubStringDescriptor;

Overflow: SIGNAL;
InvalidNumber: SIGNAL;
StringBoundsFault: SIGNAL [s:STRING] RETURNS [ns:STRING];

WordsForString: PROCEDURE [nchars:CARDINAL] RETURNS [CARDINAL];

AppendChar: PROCEDURE [s:STRING, c:CHARACTER];
AppendString: PROCEDURE [to, from:STRING];
EqualString, EquivalentString: PROCEDURE [s1, s2:STRING] RETURNS [BOOLEAN];
EqualStrings, EquivalentStrings: PROCEDURE [s1, s2:STRING] RETURNS [BOOLEAN];
AppendSubString: PROCEDURE[to:STRING, from:SubString];
EqualSubStrings, EquivalentSubStrings: PROCEDURE [s1, s2:SubString] RETURNS [BOOLEAN];
EqualSubString, EquivalentSubString: PROCEDURE [s1, s2:SubString] RETURNS [BOOLEAN];
DeleteSubString: PROCEDURE [s:SubString];

-- routines for converting between strings and numbers
StringToDecimal: PROCEDURE [STRING] RETURNS [INTEGER];
StringToOctal: PROCEDURE [STRING] RETURNS [UNSPECIFIED];
StringToNumber: PROCEDURE [s: STRING, radix: CARDINAL] RETURNS [UNSPECIFIED];
StringToLongNumber: PROCEDURE [s: STRING, radix: CARDINAL] RETURNS [LONG INTEGER];
AppendNumber: PROCEDURE [s: STRING, n: CARDINAL, radix: CARDINAL];
AppendDecimal: PROCEDURE [s: STRING, n: CARDINAL];
AppendOctal: PROCEDURE [s: STRING, n: UNSPECIFIED];
AppendLongNumber: PROCEDURE [s: STRING, n: LONG INTEGER, radix: CARDINAL];

-- routines for bcpl strings
bcplStringHeaderSize: PRIVATE CARDINAL = 1;
bcplMaxLength: PRIVATE CARDINAL = 255;

bcplSTRING: TYPE = PRIVATE MACHINE DEPENDENT RECORD [SELECT OVERLAID = FROM
length => [
length: [0..bcplMaxLength], body: CHARACTER],
characters => [
char: PACKED ARRAY [-1..bcplMaxLength) OF CHARACTER],
ENDCASE];

bcplStringOverflow, mesaStringOverflow: SIGNAL;
WordsForBcplString: PROCEDURE [nchars:CARDINAL] RETURNS [CARDINAL];
MesaToBcplString: PROCEDURE [s:STRING, t:POINTER TO bcplSTRING];
BcplToMesaString: PROCEDURE [t:POINTER TO bcplSTRING, s:STRING];

END.