Output: A sparse matrix in CSR format represented by W_CSRValues, W_CSRColumns, and W_CSRPointerB.

MatrixSparse SMSM Example

```
Function DemoMatrixSparseSMSM()
   // Create sparse matrix A in CSR format
   Make/FREE/D/N=(11) valuesA = {1,25,26,44,16,22,28,5,11,36,42}
   Make/FREE/L/N=(11) columnsA = {0,4,4,7,2,3,4,0,1,5,6}
   Make/FREE/L/N=(6) ptrBA = {0,2,4,4,7,9}

   // Create sparse matrix G in CSR format
   Make/FREE/D/N=(8) valuesG = {1,10,26,6,14,38,15,23}
   Make/FREE/L/N=(8) columnsG = {0,1,3,0,1,4,1,2}
   Make/FREE/L/N=(8) ptrBG = {0,1,3,3,3,3,6,8}

   // Compute product MatrixA x MatrixG
   MatrixSparse rowsA=6, colsA=8, csrA={valuesA,columnsA,ptrBA}, rowsG=8,
            colsG=5, csrG={valuesG,columnsG,ptrBG}, operation=SMSM
   WAVE W_CSRValues, W_CSRColumns, W_CSRPointerB   // Outputs from SMSM

   // Print the 1D waves representing the output CSR sparse matrix
   Print W_CSRValues
   Print W_CSRColumns
   Print W_CSRPointerB
End
```

MatrixSparse TOCOO

TOCOO produces a sparse output matrix in COO format equivalent to the input matrix which may be in dense, CSC, or CSR format.

Inputs: A dense matrix specified by the matrixB keyword or a sparse matrix specified by the cscA or csrA keywords.

Output: A sparse matrix in COO format represented by W_COOValues, W_COORows, and W_COOColumns.

MatrixSparse TOCOO Example

```
Function DemoMatrixSparseTOCOO()
   // Create the Wikipedia example 4x4 matrix in CSR format
   Make/FREE/D values = {5, 8, 3, 6}
   Make/FREE/L columns = {0, 1, 2, 1}
   Make/FREE/L ptrB = {0, 0, 2, 3, 4}

   // Create a sparse matrix in COO format from the CSR matrix
   MatrixSparse rowsA=4, colsA=4, csrA={values,columns,ptrB}, operation=TOCOO
   WAVE W_COOValues, W_COORows, W_COOColumns    // Outputs from TOCOO

   // Print the 1D waves representing the COO sparse matrix
   Print W_COOValues
   Print W_COORows
   Print W_COOColumns
End
```

MatrixSparse TOCSC

TOCSC produces a sparse output matrix in CSC format equivalent to the input matrix which may be in dense, COO, or CSR format.

Inputs: A dense matrix specified by the matrixB keyword or a sparse matrix specified by the cooA or csrA keywords.