The /SDFR Flag

You can also use the /SDFR (source data folder reference) flag in a WAVE, NVAR or SVAR statement. The utility of /SDFR is illustrated by this example which shows three different ways to reference multiple waves in the same data folder:

```
Function Test()
   // Assume a data folder exists at root:Run1

   // Use explicit paths
   Wave wave0=root:Run1:wave0, wave1=root:Run1:wave1, wave2=root:Run1:wave2

   // Use a data folder reference
   DFREF dfr = root:Run1
   Wave wave0=dfr:wave0, wave1=dfr:wave1, wave2=dfr:wave2

   // Use the /SDFR flag
   DFREF dfr = root:Run1
   Wave/SDFR=dfr wave0, wave1, wave2
End
```

Igor Pro 8 and Igor Pro 9 handle invalid data folder references in /SDFR=*dfr* flags differently when /Z is included. Igor Pro 8 incorrectly flags an error on the /SDFR statement despite the /Z. Igor Pro 9 correctly suppresses the error on the /SDFR statement because of /Z.

If you use WAVE/Z, NVAR/Z, or SVAR/Z, this means you want to handle errors yourself so you should follow it with a WaveExists, NVAR_Exists, or SVAR_Exists test.

The DFREF Type

In functions, you can define data folder reference variables using the DFREF declaration:

```
DFREF localname [= <DataFolderRef or path>] [<more defs]
```

You can then use the data folder reference in those places where you can use a data folder path. For example:

```
DFREF dfr = root:df1
Display dfr:wave1             // Equivalent to Display root:df1:wave1
```

The syntax is limited to a single name after the data folder reference, so this is not legal:

```
Display dfr:subfolder:wave1   // Illegal
```

You can use DFREF to define input parameters for user-defined functions. For example:

```
Function Test(df)
   DFREF df
   Display df:wave1
End
```

You can also use DFREF to define fields in structures. However, you can not directly use a DFREF structure field in those places where Igor is expecting a path and object name. So, instead of:

```
Display s.dfr:wave1              // Illegal
```

you would need to write:

```
DFREF dftmp = s.dfr
Display dftmp:wave1              // OK
```

You can use a DFREF structure field where just a path is expected. For example:

```
SetDataFolder s.dfr              // OK
```