

Another way is to use the data file interface. Working with Files in FORTRAN-program organized with the help of nine operators and one function: BACKSPACE, REWIND, ENDFILE, OPEN, CLOSE, INQUIRE, WRITE, READ, PRINT, function EOF.

Working with prystoyamy in Fortran uniform level software developer and is using the same operators. Device is considered a file, printer, keyboard, console window OS like. Each device in FORTRAN-program given number by which it can be identified. Device (number) is the global object.

Operating the device starts with giving it room, determine ways of working with him and for him allocation of resources of the OS. It uses operator OPEN. It has a complex syntactic structure, however, commonly used simplified view of the operator next.

OPEN (UNIT = N, FILE = 'NAME', STATUS = 'STATUS')

UNIT parameter specifies the number of the device on which it will be identified in the program (a type INTEGER). Rooms 5 and 6 can be reserved for standard input-output devices - screen and keyboard.

FILE parameter specifies the name of the device on which it will be identified from outside the program - the operating system (a type CHARACTER). Reserved following names: 'PRN', 'LPT' - parallel printer port; 'NULL', 'ZERO' - a fictitious device (the null device); 'USER' - a window into multiwindow applications; 'SON' - console (keyboard for input, output to screen).

STATUS parameter determines the state of the device when you open it (a type CHARACTER). It can have the following values: 'OLD', 'NEW', 'REPLACE', 'SCRATCH' or 'UNKNOWN'. Status 'OLD' defines the file that should already exist (if not, then - error); with status 'NEW' creates a new file (if the file yisnuye then - error); with status 'REPLACE' existing file is destroyed before the new will be created with the same name; with status 'SCRATCH' creates a temporary file that exists only while the program is running and disappears on its completion. When the status 'UNKNOWN' first handled on the status of 'OLD', if they nezavershylysya successful, then actions are performed on the status of 'NEW'. Status 'UNKNOWN' effect by default. In general, you should use status 'OLD' for input and output data 'NEW' to display the results.

Example. Create a new file OUTPUT.TXT and bring it to the variables A, B, C.

```
OPEN (UNIT = 4, FILE = 'OUTPUT.TXT', STATUS = 'NEW')
WRITE (4, *) A, B, C
```

The official word UNIT is optional.

Example. Open file MYFILE.TXT, if not, then - to create.

```
OPEN (1, FILE = 'MYFILE.TXT')
```

If the option is not specified OPEN FILE, it has the status of 'SCRATCH'.

Example. The compiler builds a temporary file with a unique name.

```
OPEN (11)
```

CLOSE statement releases the device number, the device disconnects the application and returns the resources that it catered to the OS. Since then, the released number can

be used for another device. CLOSE statement has the following notation.

CLOSE (UNIT = N, STATUS = 'STATUS')

UNIT parameter specifies the device number by which he is identified in the program (a type INTEGER). The official word UNIT is optional.

STATUS parameter determines the state of the device when you close (a type CHARACTER) and is only useful for files. It can have the following values: 'KEEP' - at the close of the file it is stored (acting by default); 'DELETE' - when you close the file destroyed.

Example. Delete the file MYFILE.TXT.

OPEN (1, FILE = 'MYFILE.TXT', STATUS = 'OLD')

CLOSE (1, STATUS = 'DELETE')