

# Downloading Objects without SYSTRANS

Not applicable to mainframes.

A downloaded object must be made known to Natural. This is done with either of the following methods:

- the Import function of the SYSMAIN utility (see the Natural User's Guide for OpenVMS and UNIX).
  - Using the utility FTOUCH
  - Using NFS to Store Natural Libraries
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## Using the Utility FTOUCH

 To execute the FTOUCH utility

1. Go to an operating system command prompt.
2. Ensure that the transferred file is in the desired FNAT or FUSER directory (as specified in your global configuration file) and has the correct extension.
3. Enter the command **ftouch**.

**ftouch** has the following syntax, the parts of which are described below:

```
ftouch [fnat=dbid, fnr] [fuser=dbid, fnr][bp=bp-name]  
[parm=parm-file] [lib=library-name]  
[-v] [mode] [kind] files
```

The FTOUCH utility can also be used for migration purposes, in which case it has to be invoked as follows:

```
ftouch [fnat=dbid, fnr] [fuser=dbid, fnr]  
[parm=parm-file] [lib=library-name] convert
```

**Note:**

Terms enclosed in brackets ([ ]) are optional; bold letters are actual values that must be entered as shown. The following options are provided:

Option	Explanation
<b>fnat</b> = <i>dbid.fnr</i>	Specifies the database ID and file number of the FNAT system file to be used; default is the value specified in NATPARM.
<b>fuser</b> = <i>dbid.fnr</i>	Specifies the database ID and file number of the FUSER system file to be used; default is the value specified in NATPARM.
<b>bp</b> = <i>bp-name</i>	Specifies the buffer pool to be used. You can omit the <i>bp-name</i> if you want to use the Natural default buffer pool NATBP; otherwise, you have to specify the appropriate <i>bp-name</i> . <b>Note:</b> If the Natural default buffer pool is not active or if the specified buffer pool does not exist, an appropriate error message is displayed.
<b>parm</b> = <i>parm-name</i>	Specifies the name of the parameter file to be used if you want to use a parameter file other than the default parameter file NATPARM.
<b>lib</b> = <i>library-name</i>	Specifies the library to be used. You can omit the <i>library-name</i> if you are already in the appropriate subdirectory; otherwise you have to specify the appropriate <i>library-name</i> .
<b>userep</b> =ON/OFF	<b>Windows only.</b> Specifies whether you want to use the repository or not.
<b>-v</b>	Displays statistics on disk I/Os during processing.
<i>mode</i>	Specifies the programming mode; <b>sm</b> specifies that a program is in structured mode; the default is reporting mode.
<i>kind</i>	Specifies the subdirectory for input; it can be one of the following:  -s for source programs (default), -g for generated programs, -b for both source and generated programs.
<i>files</i>	Specifies the files to be processed; you can specify <i>filename.ext</i> for individual files or:  -a to add new files; all files in the directory which are currently found in FILEDIR.SAG are added (already existing files are not touched). -d to build a new FILEDIR.SAG directory.  <b>Attention:</b> Be careful when using this option, since the old FILEDIR.SAG is deleted and rebuilt from scratch.
<b>-f</b>	Forces an update of the specified object's timestamp in FILEDIR.SAG. This option can only be specified if an individual file has been specified with the <i>files</i> option (see above).
<b>convert</b>	Indicates that the specified library and system files are to be migrated from Natural Version 2.1 to Natural Version 2.2; the old FILEDIR.SAG file is renamed to FILEDIR.212 and a new FILEDIR.SAG file is created.
<b>sync</b>	Indicates that the specified library and system files are to be synchronized between Natural and the repository (Windows only); this function must be executed each time FILEDIR.SAG is modified by FTOUCH. <b>Attention:</b> When specifying <b>sync</b> , ensure that either "userep=ON" is set or the Natural profile parameter USEREP is set to ON.

**Example 1:**

Change to the following directory: *fuser-directory*/TESTLIB/SRC

Enter the following command: **ftouch sm TESTFILE.NSP**

As a result, the program TESTFILE in library TESTLIB is available in structured mode to Natural.

**Example 2:**

Change to the following directory: *fuser-directory*/MYLIB

Enter the following command: **ftouch fmat=21,21 fuser=22,22 -b**

As a result, all files in the directories MYLIB/SRC and MYLIB/GP are available in reporting mode (default) to Natural.

## Using NFS to Store Natural Libraries

When you use NFS to store Natural libraries, you can run into problems when the directories in which the Natural libraries are stored are mounted via NFS from a file server in your network.

The reason for this is the need to lock the FILEDIR.SAG file stored in each library during update operations of Natural objects.

If your NFS locking is incompatible or not properly set up between the involved platforms, Natural can hang in an uninterruptible state while waiting for NFS locking requests to be processed. These requests are generally logged on the consoles of the involved systems or in some other system-dependent log file.

The work-around to solve this problem is to store Natural libraries only on local disks if problems with a hanging and uninterruptible nucleus occur.