User Workpool

The user workpool is an internal pool from which you can select output files of Natural programs, Natural utilities or job output for further maintenance.

The following objects are written to the user workpool;

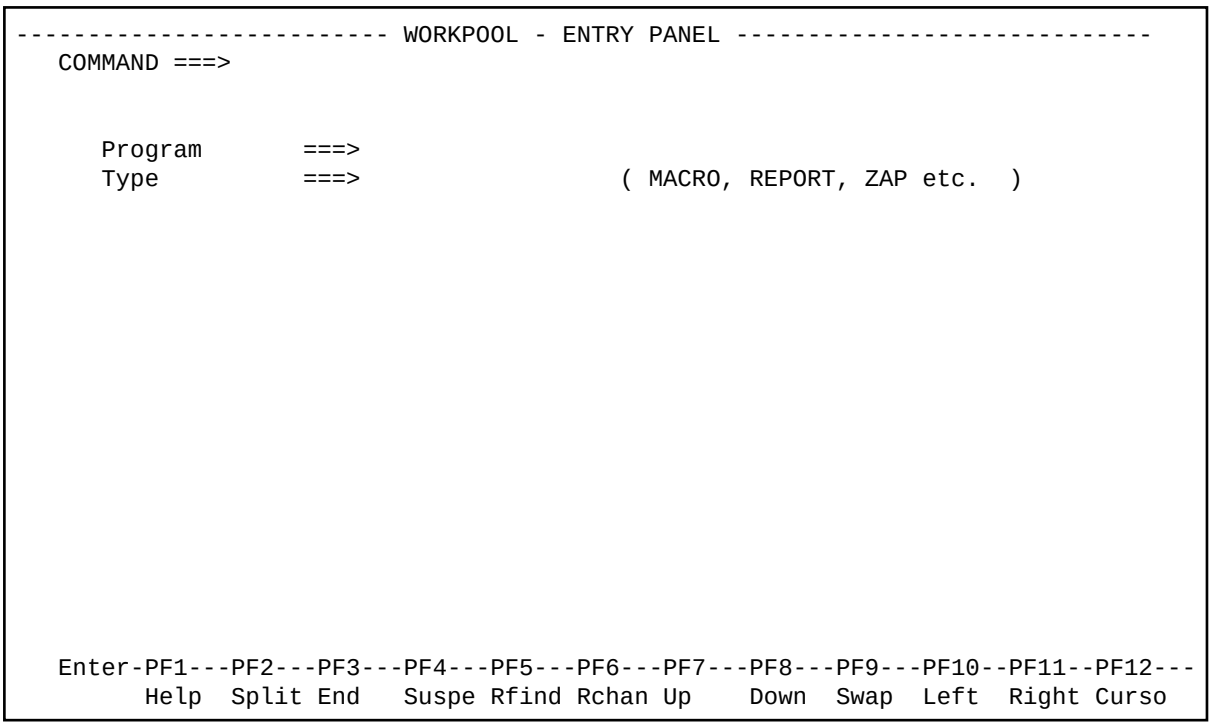
- The output of macro objects as a result of the RUN command;
- The generated code of any object that includes inline macros or the INCLUDE-MACRO statement, as a result of the STOW, CATALOG or RUN command (Natural objects), or the SUBMIT command (other sources);
- The output of any Natural program that defines the workpool as a printer and which includes the WRITE, PRINT and/or DISPLAY statements referring to that printer;
- The output from Natural ISPF and Natural utilities by specifying the workpool as print destination;
- A command script executed by the PLAY command. Also, if a command script is interrupted by the PAUSE command or error, the command lines not yet executed are kept in the workpool and can be modified;
- Command sequences including (error) messages recorded by the RECORD session command;
- A zap generated with the GENERATE or SAVE command after a CSECT has been edited in Natural ISPF.

An example of objects that use the Macro facility is contained in the section Macro Facility in the Natural ISPF Programmer’s Guide. An example of a Natural program that uses the workpool as output destination is contained in the subsection Write-To-Workpool Feature. An example of specifying the workpool as printer in a Natural utility is contained in the example. For details on the other instances, see the description of the PLAY and RECORD commands in the section Useful Features, and the description of CSECT handling in the subsection Load Modules and CSECTs in the section OS/390 Objects.

The workpool holds only one entry for each generated Natural program and report. If a program with output in the workpool is run, stowed or cataloged again, the existing output is replaced according to object type. You can browse, edit, save and delete output in the workpool.

Note:
Workpool files are intermediate files only. If you wish to keep source that was generated in the workpool, it is strongly recommended that you store it as another object elsewhere in Natural ISPF (see the subsection Saving Output).

To enter the user workpool, select the WORKPOOL option from the Natural ISPF Main Menu. This displays the Workpool Entry Panel:



Meaning of the input fields:

Field	Meaning
Program	Name of program or member whose output is to be maintained. Enter the wildcard ***** to list all output files or enter a prefix followed by an ***** to list all file names with that prefix (see also the example of the LIST command).
Type	Type of output. Leave blank to list all types according to the name selection criteria. Specify: MACRO To list only output of programs that use the Macro facility. PLAY To list a command script executed or interrupted. RECORD To list recorded command sequences. ZAP To list zaps generated after CSECT editing. REPORT To list all other output files (Natural programs that use the workpool as printer destination).

To select an output file for maintenance specify its program name in the Program input field and enter a function command in the command line. Alternatively, you can issue a function command with object type **O** and member name from any system screen.

Function Commands

The following function commands are available for the workpool facility:

Command	Parameter Syntax
BROWSE	output-name
COPY	output-name, object-type object-parameters, REP
DELETE	output-name
EDIT	output-name
EXPORT	output-name, destination
LIST	..* TYPE=t
PLAY	output-name
PRINT	output-name, printer-id
SUBMIT	output-name, TARGET=node-id

These commands are described in detail in Section Command Reference.

If you issue any of these commands from outside the workpool facility, you must specify object type **O** (output) in the command syntax before the object parameters.

You can display your edit and the workpool sessions in split-screen mode and immediately see the effect of any modifications on the output using the RUN, CATALOG, STOW or SUBMIT command from the edit session as appropriate.

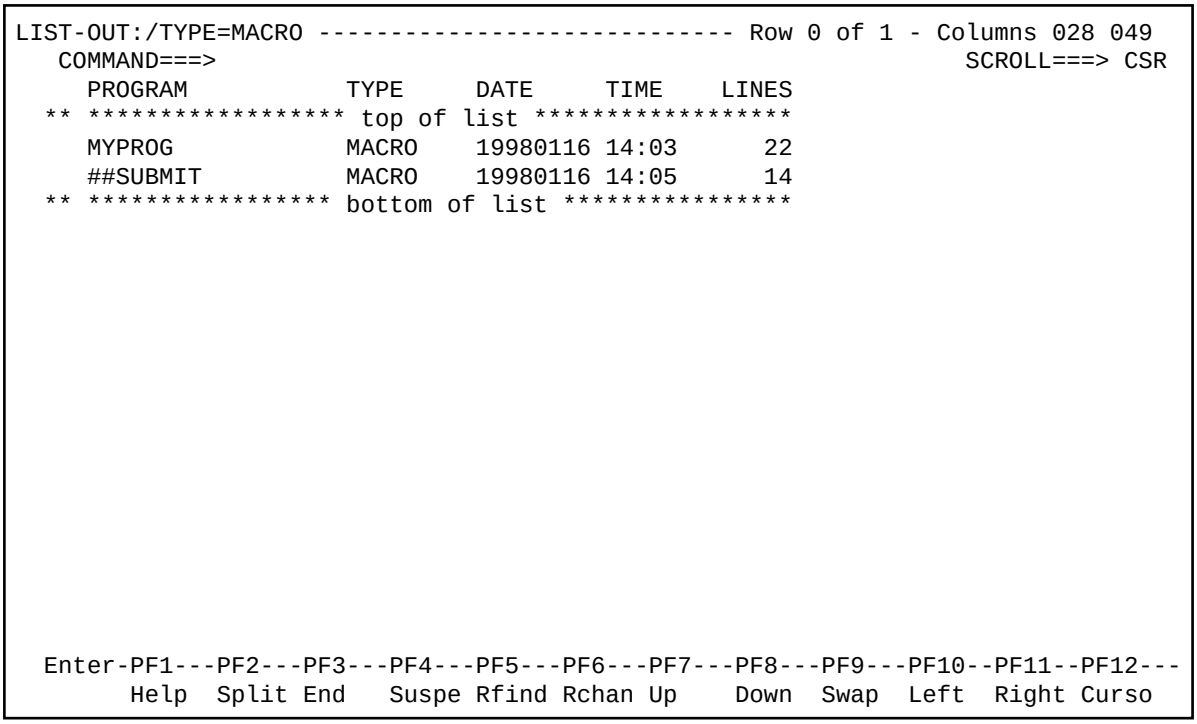
Below are some examples of function commands using full command syntax.

Example: LIST

The following figure illustrates the result of the command:

```
LIST O * TYPE=MACRO
```

The list includes all output files that use the Macro facility (macro objects and output of members that have inline macros):



Meaning of the column headings:

Field	Meaning
PROGRAM	Name of the member that generated this output: name><: Name of macro object, or of Natural program that uses the workpool as printer destination. ##INLINE Output of Natural program that uses inline macros. ##SUBMIT Output of macro objects and non-Natural members as a result of the SUBMIT command.
TYPE	Type of output (e.g., MACRO, REPORT, PLAY, ...)
DATE	Date output was generated in the workpool.
TIME	Time output was generated in the workpool.
LINES	Number of lines in the output.

Line Commands

The following line commands are available from a list of output objects. Each line command is an abbreviation of the corresponding function command:

Line Command	Corresponding Function Command
B	BROWSE
CP	COPY
D	DELETE
E	EDIT
EX	EXPORT
PL	PLAY
PR	PRINT
SB	SUBMIT

Line commands can also be used as valid abbreviations of function commands entered in the command line of any system screen.

Example 1: Printing output from a Natural utility to the workpool

This example shows you how to write selected messages from the Natural utility SYSERR to the workpool.

In the Natural SYSERR Utility Menu, specify function code PR, an appropriate message type and the required application (in our example, SYSISPS1). Then specify the required message range to be printed:

```
17:28:33              ***** NATURAL SYSERR Utility *****              94-12-27
                                  - Menu -

                    Code  Function
                    ----  ---------------------------------------
                     AD   Add new messages
                     DE   Delete messages
                     DI   Display messages
                     MO   Modify messages
                     PR   Print messages
                     SC   Scan in messages
                     SE   Select messages from a list
                     TR   Translate messages into another language
                     ?    Help
                     .    Exit
                    ----  ---------------------------------------
             Code .. PR   Message type .... UL
                          Library ......... SYSISPS1
                          Message number .. 6800 - 6810
                          Language codes .. 1________
   Please enter code.
   Command ===>
   Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12---
         Help        Exit                                                  Canc
```

Press Enter to display the printer specifications.

You must specify WORKPOOL as printer:

```
17:28:33              ***** NATURAL SYSERR Utility *****               94-12-27
                                   - Menu -
                     +------Print User Defined Error Texts------+
                     !                                          !
                     !   Library .......... SYSISPS1            !
                     !   Language code .... 1                   !
                     !                                          !
                     !   Long texts, too .. Y                   !
                     !   Error number ..... 6800 -  6810        !
                     !   Lines per page ... 60_                 !
                     !   Left margin ...... 10                  !
                     !   Top margin ....... 0_                  !
                     !   Bottom margin .... 0_                  !
                     !   Printer .......... WORKPOOL            !
                     !                                          !
                     +------------------------------------------+
             Code .. PR   Message type .... UL
                          Library ......... SYSISPS1
                          Message number .. 6800 - 6810
                          Language codes .. 1________

   Command ===>
   Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12---
         Help        Exit                                              Canc
```

Press Enter to perform the function. If you entered UL as Message type, the specified messages are written to the workpool, including long texts.

You can view the messages by selecting the WORKPOOL option from the Natural ISPF Main Menu:

```
BROWSE-OUT:PPRTUSR/TYPE=REPORT-1 ------------------------------ Columns 001 076
   COMMAND===>                                                   SCROLL===> CSR
  ** ******************************** top of list ********************************
              ---------------------------------------------------------------------
              SYSISPS16800 Invalid command
              ---------------------------------------------------------------------

              Text:  The command that was entered was not a valid N-ISPF command.

              Expl:  .

              Actn:  .

              ---------------------------------------------------------------------
              SYSISPS16801 Invalid parameter
              ---------------------------------------------------------------------

              Text:  Invalid parameter

              Expl:  The parameter that was entered was not a valid N-ISPF parame

              Actn:  .
   Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12---
         Help  Split End   Suspe Rfind Rchan Up    Down  Swap  Left  Right Curso
```

Note:
You can proceed as in the above example with all Natural utilities which prompt for a printer name. Output of other Natural utilities and Natural system commands can also be routed to the workpool by means of the Natural terminal command %H#WORKPOOL (see **Natural Reference Documentation**).

Example 2: Printing output from any Natural ISPF screen to the workpool

From any Natural ISPF screen, enter the command:

```
NAT LIST P MYPROG EXPAND C *
```

In the command line of the resulting screen, enter the command:

```
%H#WORKPOOL
```

Then press PF2 to print the expanded program list and return to Natural ISPF by pressing PF3. You can also handle the expanded list in the workpool as appropriate.

Example 3: Printing Predict object lists to the workpool

Within Software AG's Interactive Data Dictionary Predict, lists of objects can usually be shown in one of the display modes SELECT, LIST and DISPLAY. If you choose either the LIST or the DISPLAY mode and enter the terminal command %H#WORKPOOL, as reply to the MORE prompt, the complete list of Predict objects is written to the workpool where it can be further processed.

Saving Output

When browsing or editing output in the workpool, you can save the output currently displayed as another Natural ISPF object using the Editor command CREATE from the Editor command line.

You must mark the block of lines you wish to copy to the target source with two Editor line commands CC, and then issue the CREATE command in the format:

```
CREATE object-type object-parameters
```

If you omit the **object-type** and/or the **object-parameters**, prompt windows help you make a valid selection (note that the command format and prompt windows are the same as used for the COPY function command).

Example: CREATE

The command displayed in the Editor command line of the following screen creates PDS member MYJOB in the library MY.ONLY.SOURCE using all four lines of the displayed output (marked with two CC Editor line commands):


```
EDIT-OUT:EXJCL/TYPE=MACRO---------------------------------- columns 001 072
   COMMAND===> CREATE P MY.ONLY.SOURCE(MYJOB                    SCROLL===> CSR
  ***** ***************************** top of data ****************************
  CC001 //* FR=//* ,
  00002 //* SV #VOL = COM811
  00003 //JWOTP12  JOB  JWO,CLASS=1,MSGCLASS=X,REGION=2500K
  CC004 //SCAN     EXEC TAPESCAN,TAPE=COM811
  ***** *************************** bottom of data ************************
  Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12---
        Help  Split End   Suspe Rfind Rchan Up    Down  Swap  Left  Right Curso
```

Alternatively, you can copy output from the workpool with the:

- CP line command from a list of workpool entries or
- COPY function command from any system screen in the format:

```
COPY O name,object-type object parameters,REP
```

