

E information	repl.	ident	FGS840613	page	1/16
			X RC8000	class	EXT
subj. CATSORT AND CAT, SW8010/2, SYSTEM UTILITY PACKAGE, RELEASE 1.0.					
PN: 991 10475					
In System Utility Package, version 2, Release 1.0, some changes and extensions have been made in the program catsort, and another program, cat has been added. The following description replaces the description of catsort in RCSL No 31-D607, System 3 Utility Program, Part Two, Users Guide.					

information	repl.	ident FGS840613	page 2/16
		X RC8000	class EXT
subj. CATSORT AND CAT, SW8010/2, SYSTEM UTILITY PACKAGE, RELEASE 1.0.			

TABLE OF CONTENTS

PAGE

1.	catsort	
1.1	Examples	
1.1.1	Example 1	
1.1.2	Example 2	
1.1.3	Example 3	
1.2	Call	
1.3	Format of output	
1.4	Function	
1.4.1	Sorting Specifiers	
1.4.2	Catalog Specifiers	
1.4.3	Entry Specifiers	
1.5	Error Messages	
1.6	Further Examples	
1.6.1	Example 1	
1.6.2	Example 2	
1.6.3	Example 3	
1.6.4	Example 4	
1.6.5	Example 5	
1.6.6	Example 6	
1.6.7	Example 7	
1.6.8	Example 8	

E information	repl.	ident FGS840613	page 3/16
		X RC8000	class EXT
subj. CATSORT AND CAT, SW8010/2, SYSTEM UTILITY PACKAGE, RELEASE 1.0.			

TABLE OF CONTENTS

PAGE

2.	cat	
2.1	Examples	
2.1.1	Example 1	
2.1.2	Example 2	
2.1.3	Example 3	
2.2	Call	
2.3	Format of output	
2.4	Function	
2.5	Error Messages	
2.6	Further Examples	
2.6.1	Example 1	
2.6.2	Examples 2-8	

information	repl.	ident	FGS840613	page	4/16
			X RC8000	class	EXT

subj.

CATSORT AND CAT, SW8010/2, SYSTEM UTILITY PACKAGE, RELEASE 1.0.

1. catsort

Lists on current output selected parts of the main catalog (or any auxiliary catalog) sorted according to parameters. At last also total number of entries and segments output are listed.

1.1 Examples

1.1.1 Example 1

The FP command:

```
catsort base.project.min
```

will list all entries with a base contained in the project base, e.g. belonging to the actual project. The parameter min causes that only name, segments, docname, date, and scope is listed.

1.1.2 Example 2

The FP command:

```
catsort scope.project min.yes
```

will do the same but only permanent entries with an entry base equal to the project base are output.

information	repl.	ident	FGS840613	page	5/16
		X	RC8000	class	EXT
subj. CATSORT AND CAT, SW8010/2, SYSTEM UTILITY PACKAGE, RELEASE 1.0.					

1.1.3 Example 3

The FP command:

catsort

will list all entries in the main catalog sorted according to base and entry name.

See also 1.6, Further Examples.

1.2 Call

$$\begin{aligned}
 \{ \langle \text{outfile} \rangle = \} & \begin{matrix} 1 \\ 0 \end{matrix} \quad \text{catsort} \quad \left\{ \begin{matrix} \langle \text{catalog spec} \rangle \\ \langle \text{entry spec} \rangle \\ \langle \text{sorting spec} \rangle \end{matrix} \right\} \begin{matrix} * \\ \\ 0 \end{matrix} \\
 \langle \text{catalog spec} \rangle ::= & \begin{matrix} \text{main.} \left\{ \begin{matrix} \text{yes} \\ \text{no} \end{matrix} \right\} \\ \text{cat.} \left\{ \begin{matrix} \text{yes} \\ \text{no} \\ \langle \text{integer} \rangle \\ \langle \text{document name} \rangle \\ \text{main} \end{matrix} \right\} \end{matrix} \\
 \langle \text{entry spec} \rangle ::= & \left\{ \begin{matrix} \text{system.} \left\{ \begin{matrix} \text{only} \\ \text{yes} \\ \text{no} \end{matrix} \right\} \\ \text{name.} \langle \text{entry name} \rangle \\ \text{docname.} \langle \text{document name} \rangle \\ \text{base.} \left\{ \begin{matrix} \langle \text{scope} \rangle \quad .\text{min} \\ \langle \text{lower} \rangle . \langle \text{upper} \rangle \end{matrix} \right\} \\ \text{scope.} \left\{ \begin{matrix} \langle \text{scope} \rangle \quad .\text{min} \\ \langle \text{power} \rangle . \langle \text{upper} \rangle \end{matrix} \right\} \\ \text{before.} \langle \text{clock} \rangle \\ \text{after.} \langle \text{clock} \rangle \\ \text{size.} \quad \langle \text{lower} \rangle . \langle \text{upper} \rangle \\ \text{cont.} \quad \langle \text{lower} \rangle . \langle \text{upper} \rangle \\ \text{min.} \quad \text{yes/no} \end{matrix} \right\}
 \end{aligned}$$

E information	repl.	ident FGS840613	page 6/16
		X RC8000	class EXT

subj.

CATSORT AND CAT, SW8010/2, SYSTEM UTILITY PACKAGE, RELEASE 1.0.

$$\begin{aligned}
 \langle \text{sorting spec} \rangle &::= \left\{ \begin{array}{l} \text{basesort} \\ \text{docsort} \\ \text{slicesort} \\ \text{sort} \end{array} \right\} \cdot \left\{ \begin{array}{l} \text{yes} \\ \text{no} \end{array} \right\} \\
 \langle \text{scope} \rangle &::= \left\{ \begin{array}{l} \text{system} \\ \text{project} \\ \text{user} \\ \text{login} \\ \text{temp} \end{array} \right\} \\
 \left\{ \begin{array}{l} \langle \text{lower} \rangle \\ \langle \text{upper} \rangle \end{array} \right\} &::= \langle \text{integer} \rangle \\
 \left\{ \begin{array}{l} \langle \text{clock} \rangle \\ \langle \text{yymmdd} \rangle \\ \langle \text{hhmmss} \rangle \end{array} \right\} &::= \langle \text{yymmdd} \rangle . \langle \text{hhmmss} \rangle \\
 \left\{ \begin{array}{l} \langle \text{yymmdd} \rangle \\ \langle \text{hhmmss} \rangle \end{array} \right\} &::= \langle \text{integer} \rangle
 \end{aligned}$$

1.3 Format of Output

In case of basesort.yes each entry is listed in one line in the form:

$\langle \text{entryname} \rangle \langle \text{modekind} \rangle \langle \text{document name} \rangle \langle \text{remaining entry tail} \rangle$

If the parameter min is specified the line is:

$\langle \text{entryname} \rangle \langle \text{modekind} \rangle \langle \text{document name} \rangle$

Before each group of entries with the same base, one line stating the base and permkey is listed.

In case of basesort.no, this line is replaced by a supplement to each entry line. The supplement comes after entry name and consists of the information from the entry head:

$\langle \text{first slice} \rangle \langle \text{name key} \rangle \langle \text{catalog key} \rangle \langle \text{lower base} \rangle \langle \text{upper base} \rangle$

information	repl.		ident FGS840613		page 7/16
			X RC8000		class EXT

subj.

CATSORT AND CAT, SW8010/2, SYSTEM UTILITY PACKAGE, RELEASE 1.0.

If, however, an auxiliary catalog is listed, the document name of area entries is replaced by:

-> <write access counter><read access counter> <-

and another line follows:

-> d.<latest changed>

<- d.<latest read>

1.4 Function

If an outfile is specified, this file is used for output, otherwise current output file is used.

The catalogs are copied, one by one, into a temporary work file, which is sorted according to the parameters.

The parameters are processed, one by one, before any catalog is accessed.

Any parameter being repeated is a modification to the previous one.

1.4.1 Sorting specifiers:

basesort.yes meaning sorted after the entry base
(which means grouped after project and users).

docsort.yes meaning that each area entry is followed by all subentries which have a document name equal to the entry name of the main entry.

 information	repl.		ident FGS840613		page 8/16
			X RC8000		class EXT

subj. CATSORT AND CAT, SW8010/2, SYSTEM UTILITY PACKAGE, RELEASE 1.0.

slicesort.yes meaning sorted according to first slice. This parameter will cancel the parameter docsort.yes and has the same priority.

The priority of the sorting parameters are basesort, docsort. The last sorting criterion will always be alfabetic sorting on entry name.

sort.no meaning that no sorting at all is performed. The total catalog will be listed, neglecting all other parameters but main and cat.

1.4.2 Catalog specifiers:

main.<yes/no> defines whether the main catalog is listed or not.
Default: main.yes

E information	repl.	ident	FGS840613	page	9/16
			X RC8000	class	EXT

subj. CATSORT AND CAT, SW8010/2, SYSTEM UTILITY PACKAGE, RELEASE 1.0.

cat.<integer> defines whether the auxiliary
.<name> catalog is listed or not.
.main An integer or a document name
.yes specifies an auxiliary catalog
.no to be listed.
The name 'main' specifies the disc
holding the main catalog.
The name 'yes' specifies all auxiliary
catalogs.
The name 'no' specifies no auxiliary
catalogs.
The option prevents the main catalog
from being listed, unless explicitly
specified by main.yes.
Default: cat.no.

1.4.3 Entry specifiers:

system.yes defining whether the system files
.no are listed or not.
.only Default: system.yes

name.<name>: only entries with the entry name
specified are listed.
Default: any name.

docname.<name>: only entries containing the docu-
ment name specified are listed.
Default: any document name.

 information		repl.	ident FGS840613		page 10/16
			X RC8000		class EXT
subj. CATSORT AND CAT, SW8010/2, SYSTEM UTILITY PACKAGE, RELEASE 1.0.					
base.<scope>: base.<lower>.<upper>: scope.<scope> scope.<lower>.<upper> before.<clock> after.<clock> only entries with an entry base contained in the base specified by the scope are listed. Default: base.system. only entries contained in the specified base are listed. A negative value of <lower> or <upper> must be given as the positive complement e.g. the integer -1000 is specified as 16777216-1000= 16776216. only entries with the specified scope are listed. only entries with entry base as specified are listed (cf. above). only entries updated before (or after) the clock specified are listed. In the main catalog, short-clock is used as latest update, i.e. only non procedure entries are candidates. In auxiliary catalogs, latest changed in the tail is used for area entries, shortclock for non procedure file descriptors. Default: after.zero before.infinity.					

E information	repl.		ident FGS840613		page 11/16
			X RC8000		class EXT
subj. CATSORT AND CAT, SW8010/2, SYSTEM UTILITY PACKAGE, RELEASE 1.0.					
size.<lower>.<upper> only area entries with a size in the interval specified are output, (lower and upper size included). Default: size.0.infinity. cont.<lower>.<upper> only entries with a contents key in the interval specified are output (lower and upper included). Default: cont.0.infinity. <u>1.5 Error Messages</u> *** catsort error param <erroneous and following parameters>. Parameter error in the call. *** catsort, create sortarea impossible. It was impossible to create an area for sorting. In case of any error message, the program termi- nates. <u>1.6 Further Examples</u> <u>1.6.1 Example 1</u> catsort sort.no will list the total main catalog segment by segment, in unsorted form, empty entries repre- sented by a line marked: - For each segment is stated the segment number and the number of non empty entries on the segment.					

E information	repl.	ident FGS840613	page 12/16
		X RC8000	class EXT

subj. CATSORT AND CAT, SW8010/2, SYSTEM UTILITY PACKAGE, RELEASE 1.0.

1.6.2 Example 2

catsort cat.yes
will list all entries in the auxiliary catalogs
sorted according to base and entry name.

1.6.3 Example 3

catsort name.pip docname.pip basesort.no
will list all entries in the main catalog with
entry name pip or document name pip, sorted
according to entry name.

1.6.4 Example 4

catsort docname.disc
will list all entries in the main catalog with
document name disc, sorted according to base and
entry name.

1.6.5 Example 5

catsort cat.discl
will list all entries in the auxiliary catalog with
document name discl sorted according to base and
entry name.

information	repl.	ident FGS840613	page 13/16
		X RC8000	class EXT

subj. CATSORT AND CAT, SW8010/2, SYSTEM UTILITY PACKAGE, RELEASE 1.0.

1.6.6 Example 6

catsort main.yes cat.yes size.5000.8000000
will list all area entries from the main catalog
and all auxiliary catalogs which have a size
greater than 5000 segments.

1.6.7 Example 7

catsort after.840506.174500 before.840506.240000
will list all entries in the main catalog opdated
since the date 1984.0506 at 174500 until the date
840506 at 240000, i.e. entries with a shortclock (all
entries which are not procedure entries) set in the
interval given.

1.6.8 Example 8

catsort cat.disc3 after.840601.000000
will list all entries in the auxiliary catalog on the
disc 'disc3' which have been updated since the date
840601 at 000000 hours, i.e. area entries (last
changed in the tail is used) or file descriptors which
are not procedure entries (the shortclock of the tail
is used).

 information	repl.	ident	FGS840613	page	14/16
			X RC8000	class	EXT
subj. CATSORT AND CAT, SW8010/2, SYSTEM UTILITY PACKAGE, RELEASE 1.0.					
<u>2. Cat</u> The program works as catsort, except no sorting of entries prior to output takes place, i.e. the entries specified in the call are listed in the order in which they are found in the catalog. <u>2.1 Examples</u> <u>2.1.1 Example 1</u> The call cat scope.system will list all entries in main catalog of scope system in the order they are found in the catalog. <u>2.1.2 Example 2</u> The call cat will list all entries in the main catalog in the order they are found in the catalog. <u>2.1.3 Example 3</u> The call cat cat.disc3 name.pip docname.pip will list all entries in the catalog with document name disc3 which have either the name 'pip' or the documentname 'pip'.					

information	repl.	ident FGS840613	page 15/16
		X RC8000	class EXT

subj. CATSORT AND CAT, SW8010/2, SYSTEM UTILITY PACKAGE, RELEASE 1.0.

2.2 Call

Exactly as for catsort, except in spite of sorting parameters, no sorting takes place.

2.3 Format of output

Exactly as for catsort.

Note that the parameter basesort.no will influence the format of the output.

Since the entries appear unsorted, entries of different bases cause an additional line stating the entry base and permkey in case of basesort.yes.

2.4 Function

As for catsort, except the temporary work file is not sorted.

2.5 Error messages

As for catsort.

E information	repl.	ident FGS840613	page 16/16
		X RC8000	class EXT

subj. CATSORT AND CAT, SW8010/2, SYSTEM UTILITY PACKAGE, RELEASE 1.0.

2.6 Further examples.

2.6.1 Example 1

cat sort.no
will list all entries in the main catalog, disregarding the parameter sort.no

2.6.2 Example 2-8

The examples in 1.6.2-1.6.8 go for cat as well, except the entries are listed in the order they are found in the catalogs.