

Sort, merge and join your files the mainframe way.

nssort speaks the /OPTION syntax of SyncSort: external sorting, merging, joining and reformatting, with a static binary and no intermediate files.

[SEE THE FEATURES](#) →

[SyncSort syntax](#) · [External sorting](#) · [Merge and join](#) · [One single binary](#)



Input files

fixed length or delimited



Sorted and joined

/FIELDS, /MERGE, /JOIN



THE PROBLEM

Mainframe sort scripts do not travel to Linux

The code that sorts, merges and joins files has been running for years on the mainframe, and there is nothing to replace it with after migrating to Linux.

1

Jobs that will not compile

A JCL with SORT and MERGE has no Linux equivalent, and rewriting it is a months-long project.

2

Intermediate copies

Sorting with shell tools means going through temporary files: disk, time and errors.

3

Format differences

EBCDIC, fixed lengths, positional fields: every adaptation is a new source of errors.

nssort accepts the same /OPTION syntax and runs it on Linux, with a single binary and no intermediate files.

WHAT IT IS

Nacarsoft's SyncSort-compatible sorting engine

nssort implements the operational subset of SyncSort: copy, external sorting, merge, join, reformat, derived fields and aggregation.

The syntax is the one your team already knows: /INFILE, /OUTFILE, /FIELDS, /MERGE, /JOIN, /KEYS. And because it is a static binary, it runs on any Linux with nothing to install.

1

static binary

0

intermediate files

100%

SyncSort syntax



nssort

Sorting, merging and joining

- SyncSort abbreviations accepted
- External sorting by fields and keys
- Merging (/MERGE) and joining (/JOIN)
- Reformatting, derived fields and aggregation

HOW IT WORKS

From the command to the result, with no intermediate steps

A single process reads, sorts and writes: workspace is only used when the file does not fit in memory.

1 · Read

Fixed record (RECORDLAYOUT FIXED) or delimited (DELIMITEDRECORDLAYOUT), with the coding you declare.

2 · Sort

By fields (/FIELDS), by keys (/KEYS) or by SyncSort logical order, with adjustable memory and workspace.

3 · Write

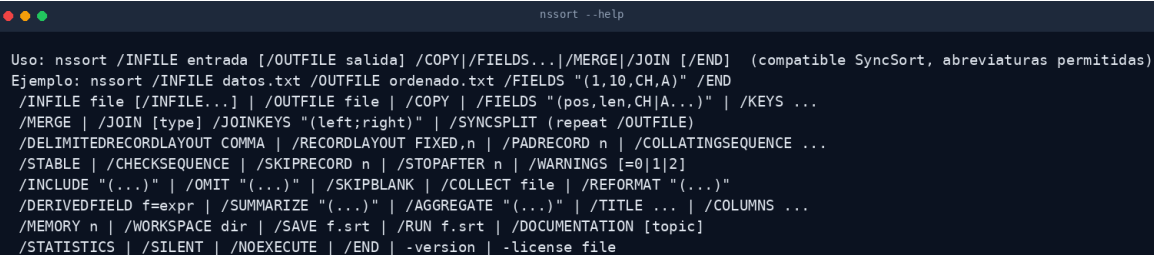
Writes straight to the /OUTFILE, and merges or joins the files you pass in.

With /STATISTICS you get the detail of the run: records read, skipped and written.

THE TOOL

The same syntax as always

SyncSort options with abbreviations accepted: exactly what your JCL uses, with no adaptation.



```
Uso: nssort /INFILE entrada [/OUTFILE salida] /COPY[/FIELDS...]/MERGE[/JOIN [/END] (compatible SyncSort, abreviaturas permitidas)
Ejemplo: nssort /INFILE datos.txt /OUTFILE ordenado.txt /FIELDS "(1,10,CH,A)" /END
/INFILE file [/INFILE...] | /OUTFILE file | /COPY | /FIELDS "(pos,len,CH|A...)" | /KEYS ...
/MERGE | /JOIN [type] /JOINKEYS "(left;right)" | /SYNCSPLIT (repeat /OUTFILE)
/DELIMITEDRECORDLAYOUT COMMA | /RECORDLAYOUT FIXED,n | /PADRECORD n | /COLLATINGSEQUENCE ...
/STABLE | /CHECKSEQUENCE | /SKIPRECORD n | /STOPAFTER n | /WARNINGS [=0|1|2]
/INCLUDE "(...)" | /OMIT "(...)" | /SKIPBLANK | /COLLECT file | /REFORMAT "(...)"
/DERIVEDFIELD f=expr | /SUMMARIZE "(...)" | /AGGREGATE "(...)" | /TITLE ... | /COLUMNS ...
/MEMORY n | /WORKSPACE dir | /SAVE f.srt | /RUN f.srt | /DOCUMENTATION [topic]
/STATISTICS | /SILENT | /NOEXECUTE | /END | -version | -license file
```

Real output of nssort --help

- Unchanged /FILE options
- A static binary
- No dependencies

The whole catalogue, inside the binary

nssort ships its own documentation: every option with its description and its example, available offline.

```
nssort /DOCUMENTATION

/AGGREGATE: COUNT más (SUM|MIN|MAX,ámbito[,TIPO]) sobre campos/trozos.
/CENTURYWINDOWSTART: Inicio (4 dígitos) de la ventana de 100 años para claves YY (defecto: año actual - 50).
/CHECKSEQUENCE: Verifica el orden: sale 0 ordenado, 1 desordenado.
/COLLATINGSEQUENCE: Orden CH: ASCII (defecto), EBCDIC o FOLD (insensible a caso).
/collect: Extensión nssort: escribe los registros filtrados a este fichero.
/COLUMNS: Columnas de informe: alias de /REFORMAT (usar ambos es error).
/CONDITION: Alias de /INCLUDE (usar ambos es error).
/COPY: Copia en streaming respetando SKIPRECORD/STOPAFTER y selección.
/DATASIZE: Registros esperados; dimensiona buffers internos.
/DELIMITEDRECORDLAYOUT: Delimitador: COMMA SEMI TAB PIPE SPACE o un carácter; comillas dobles soportadas.
/DERIVEDFIELD: Valores calculados: ADD SUB MUL DIV SUBSTR UPPER LOWER MASK CASE o 'const'. Repetible.
/DOCUMENTATION: Este catálogo: /DOCUMENTATION [tema].
/END: Terminador (opcional).
/FIELDS: Claves: (pos,len,tipo,orden[,...]) en líneas, o (campo,tipo,orden[,...]) con layout. Tipos CH NUM YY; órdenes A D.
/IGNORE: Extensión nssort: omite N registros extra (suma a /SKIPRECORD).
/INCLUDE: Conserva registros que cumplan condiciones con AND/OR/NOT.
/INFILE: Fichero de entrada (debe existir). Repetible para MERGE/JOIN.
/JOIN: Join de dos entradas: INNER (defecto), LEFT, RIGHT o FULL. Requiere /JOINKEYS.
/JOINKEYS: Claves de join: (specizq:specder), cada una como /FIELDS.
/KEYS: Alias de /FIELDS.
/MEMORY: Máximo registros en RAM (entero, sufijos K/M); el exceso va a spill.
/MERGE: Mezcla k-way de entradas pre-ordenadas (repetir /INFILE); requiere claves /FIELDS.
/NOEXECUTE: Valida opciones sin ejecutar.
/NOINTERRUPT: Ignora SIGINT/SIGTERM en vez de abortar.
/OMIT: Descarta registros que cumplan la condición.
/OUTFILE: Fichero de salida (se crea/trunca); stdout si se omite o es -. Repetible con /SYNCSPLIT.
_ (salida truncada)
```

- Every option
- Usage examples
- Reference document

Real output of nssort /DOCUMENTATION

FEATURES

What it does, point by point

The operational subset of SyncSort, in a binary that depends on nothing.



Compatible /OPTION syntax

With abbreviations accepted: /INFILE, /OUTFILE, /FIELDS, /KEYS, /MERGE, /JOIN... exactly as on the mainframe.



External sorting

Sorts files that do not fit in memory using workspace (/WORKSPACE) and sized buffers.



Streaming copy

/COPY with SKIPRECORD, STOPAFTER and field selection, without materialising the whole file.



Merge and join

/MERGE with several input files and /JOIN with type (INNER, LEFT, RIGHT) and /JOINKEYS.



Reformat and derived fields

/REFORMAT, /DERIVEDFIELD and /TITLE to build the output the next process expects.



Aggregation and summary

/SUMMARIZE and /AGGREGATE with COUNT, SUM, MIN and MAX over fields or slices.



Codepages and formats

EBCDIC/ASCII, RECORDLAYOUT FIXED or delimited, /PADRECORD, /COLLATINGSEQUENCE and /SKIPBLANK.



Control and traceability

/NOEXECUTE to validate without writing, /STATISTICS for the detail and /CHECKSEQUENCE to verify the order.

KEY OPTIONS

The parameters used every day

The full catalogue is in `nssort /DOCUMENTATION`.

`/IN FILE <file>`

Input file. It can be repeated to merge several files.

`/OUTFILE <file>`

Output file. With `/SYNCSPLIT` it is repeated for each input.

`/FIELDS "(pos,len,CH |A)"`

Sort fields: position, length and type (CH or A).

`/KEYS <key>`

Extra sort keys to order by several columns.

`/MERGE`

Merges several already sorted input files.

`/JOIN [type]`

Joins two files, with `/JOINKEYS "(left;right)"`.

`/RECORDLAYOUT FIXED,n`

Fixed-length record, or delimited with `/DELIMITEDRECORDLAYOUT`.

`/STATISTICS · /NOEXECUTE`

Run detail and validation without writing anything.

Where it is used every day

The same use cases we solve with customers in banking, healthcare and the public sector.

01

Migrating a sort job

Bring the SORT from a JCL to Linux without rewriting the logic.

02

Nightly processes

Chain sorting, merging and joining in cron, with the same code as always.

03

Joining catalogues

Join two files by key to build a reference table.

04

Mainframe interchange

Sort and format EBCDIC files to send them to the host system.

Install and sort in five minutes

Requirements

- Linux x86-64 (RHEL 8 or RHEL 9)
- Static binary: no dependencies
- Workspace for large sorts
- Fixed-length or delimited input files
- Product licence or the 30-day trial

Install and first run

```
# Install the suite
./installsh --prefix /opt/ns

# Sort by one field
nssort /NFILE data.txt /OFILE sorted.txt \
  /FIELDS "(1,10,CH A)" /END

# Merge and join
nssort /NFILE a.txt /NFILE b.txt \
  /OFILE c.txt /MERGE /END
```

The licence is resolved from \$NS_LICENSE_FILE, next to the product data or in /opt/ns/licenses/. Without one: 30-day trial.

FREQUENTLY ASKED QUESTIONS

What customers always ask

Is it SyncSort compatible?

It implements the operational subset: /INFILE, /OUTFILE, /FIELDS, /KEYS, /MERGE, /JOIN, /COPY, /REFORMAT, /SUMMARIZE and more, with abbreviations accepted.

Does it need intermediate files?

No. It sorts using memory and workspace (/MEMORY and /WORKSPACE) and writes straight to the /OUTFILE.

How do I validate it before running?

With /NOEXECUTE it checks the syntax and the selection without writing anything, and /CHECKSEQUENCE verifies the order of the output.

Does it work with EBCDIC?

Yes: /COLLATINGSEQUENCE accepts ASCII, EBCDIC and FOLD (case-insensitive), and /RECORDLAYOUT defines the record format.

NEXT STEP

Bring your jobs and stop rewriting the sorting.

Ask for a demo with your JCL: we show the very same job running on Linux,
with nssort.

REQUEST A DEMO →

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NSSort at a glance

- SyncSort /OPTION syntax
- External sorting with no intermediate copies
- Merge, join and reformat
- A static binary, no dependencies