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Suprtool/Open 5.7

# Change Notice

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# Introducing Suprtool Version 5.7

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## Overview

Suprtool/Open is a new version of Suprtool designed to be platform independent. Suprtool/Open is designed to read, select, and sort data from Oracle, and Eloquence databases and data files with fixed-length records. Suprtool/Open is designed to be similar to Suprtool for MPE and Suprtool for HP-UX.

Suprlink/Open provides high-speed data-file linking based on a sort key. Use STExport to convert fields in a self-describing input file into an output file that can be imported into different applications.

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## Highlights in Suprtool 5.7

- Suprlink now has it's own "Suprmgr" file. Suprlink will process all the commands in /opt/robelle/linkmgr on startup.
- STExport now has it's own "Suprmgr" file. STExport will process all the commands in /opt/robelle/stexpmgr on startup.
- The list command Reclen verb will now impact the Record size for stdout, where previously it was ignored unless a **FILE** was specified. (Build 9)
- Suprtool would lose track of Table data field information, on tables held with the hold option in subsequent tasks. (Build 9)
- Suprtool would fail on a sort of a large input source with the error Invalid argument. (Build 9)
- Set Comlog On has been added to Suprtool, Suprlink and STExport to log all commands entered in Suprtool, Suprlink or STExport are logged in it's own file.
- Suprtool would potentially have problems with system commands in variable-length scripts if the command ended in a number that had a length of eight numbers.
- Suprtool would fail with a write error in the case of an Input SD file with BigEndian Fields, Set EndianInt BE and if the output was to an SQL Table via the Add command and the output was sorted.
- Suprtool would lose track of Table data field information, on tables held with the hold option in subsequent tasks.

- Suprtool now has the \$proper function which will shift the first character in a string and any first character after a space or ampersand.
- Suprtool now has the Translate command and a \$translate function to obfuscate test data or any byte field from being readable.
- Suprtool/Open 5.7 Build 6 and higher supports the Oracle 12 client.
- Suprtool/Open would not parse a negative number into a quad integer container.
- Suprtool for Itanium and Suprtool/Open would not properly convert negative, single and double integers when output/,display is invoked.
- Suprtool for Itanium and Suprtool/Open incorrectly reallocated if/extract code space on subsequent tasks, which would eventually cause Suprtool to fail with the error, “Unable to allocate heap space.”

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## Highlights in Suprtool 5.6

- Suprtool for Itanium and Suprtool/Open did not properly handle sorting of display type with over punch.
- Suprtool, Suprlink and STExport now handle 512 fields on HP-UX and Open platforms.
- Suprtools' extract command now has three special keywords to help with extract using a range, which is designed to make your Suprtool scripts more easily maintained. Suprtool now has \$all, \$first and \$last which respectively means all fields, the first field or the last field. Note that \$first and \$last may only be used in a range extract.
- \$subcount has been added to keep a running count for a given sort break.
- Suprtool had problems with brackets and arithmetic expressions for packed-decimal and display data-types. (Build 12)
- Suprtool had problems with improper rounding for Packed-decimal, Quad and Zoned-Decimal data types and arithmetic expressions. (Build 12)
- Suprtool would use an incorrect field definition when copying a file where the input file had a duplicate field name with different field definition, the second field would utilize the first definition.
- Suprtool/Open would potentially incorrectly set the decimal or date attribute on a straight copy of an SD file. This was introduced by the fix to copying SD files with duplicate fieldnames and was in 5.5.04 pre-release and 5.5.11 and 5.6 Build 1. This is fixed in Suprtool/Open 5.6 Build 3.

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## Compatibility

Suprtool/Open first release is designed to be compatible with Suprtool for HP-UX.

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## Documentation

The user manual contains the full description of all the Suprtool suite of products including Dbedit, Suprlink, STExport, and Suprtool2, as well as usage tips and commands for each. The manuals are up-to-date with all the latest changes. To see only the changes in the latest version, see the "What's New" section of the manual.

You can download our manuals and Change Notices in various formats and order printed (hardcopy) manuals from our web site at:

<http://www.robelle.com/library/manuals/>.

# Installation

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## Overview

The following instructions describe the installation process of a new Suprtool release. The new version overwrites an existing version of Suprtool on your system.

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## Installation Instructions

There are typically two main types of installations. The first and most often utilized is the Download instructions. You can find the download install instructions here:

<http://www.robelle.com/downloads/install-soprod.html>

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## Installation Assistance

If you have any questions or run into any problems, please call us. Technical support is available on weekdays from 8 a.m. to 4 p.m. Pacific time at 1.800.453.8970.

Technical support can also be obtained via e-mail at: [support@robelle.com](mailto:support@robelle.com)

# Enhancements in Version 5.7

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## Introduction

Suprtool is constantly being updated with new features. The following section describes the new enhancements to Suprtool since Suprtool 5.6.

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## Linkmgr

Suprlink now has a “suprmgr” file similar to Suprtool. Suprlink will process all the commands found in /opt/robelle/linkmgr or \$ROBELLE/linkmgr.

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## Stexpmgr

STExport now has a “suprmgr” file similar to Suprtool. STExport will process all the commands found in /opt/robelle/stexpmgr or \$ROBELLE/stexpmgr.

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## Set ComLog

Suprtool, Suprlink and STExport can now log all commands in each product. Every command will be logged if the setting Set ComLog, is on. Commands will not be logged if the user does not have write access to the comlog file. There are three separate log files, one for each product. The stlog file for Suprtool, sllog for Suprlink and sxlog for STExport. The files are by default located in /opt/robelle/log/suprtool directory. If the \$ROBELLE variable is set, the log files would be in the directory \$ROBELLE/log/suprtool.

The format of the log file is as follows:

DateTime, UID, PID, command entered

The Date and Time is 16 bytes in the format Year, Month, Day, Hours, Minutes, Seconds.

UID/PID are six digit numbers, followed by the command with a line feed at the end.

Please note that if this command is global the log files can expand quickly, taking up disc space by default in the /opt/robelle directory. You can redirect where the commands are logged by using linked files.

```
ln -s /log/robelle/suprtool/stlog /opt/robelle/log/suprtool/stlog
ln -s /log/robelle/suprtool/sxlog /opt/robelle/log/suprtool/sxlog
ln -s /log/robelle/suprtool/sllog /opt/robelle/log/suprtool/sllog
```



The user running any of the products must have write access to the log files whether Link files or directly.

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## \$Proper

Suprtool now has the \$proper function which will shift to upper case the first character of a byte type field and after any space or ampersand. It will also shift to lower case any other characters in the byte-field.

```
>in mprod
>list stan
>xeg
Apr 29, 2014 13:00                               File: mprod                               Page 1

PRODUCT-DESC

skil 3/8" variable speed drill
b&d router
skil var. sp. auto-scroll saw
skil 8 1/2" circular saw
b&d cordless screwdriver
makita 8 1/4" circular saw
b&d variable speed jigsaw
makita 1/2" router
makita 3/8" var. speed drill
skil router
b&d 7 1/4" circular saw
b&d 3/8" variable speed drill
makita 1" jigsaw
```

Considering the following data, you can fix all of the product names with one simple task:

```
>in mprod
>ext product-desc=$proper(product-desc)
>list stan
>xeg
May 01, 2014 11:40                               File: MPROD                               Page 1

PRODUCT-DESC

Skil 3/8" Variable Speed Drill
B&D Router
Skil Var. Sp. Auto-Scroll Saw
Skil 8 1/2" Circular Saw
B&D Cordless Screwdriver
Makita 8 1/4" Circular Saw
B&D Variable Speed Jig Saw
Makita 1/2" Router
Makita 3/8" Var. Speed Drill
Skil Router
B&D 7 1/4" Circular Saw
B&D 3/8" Variable Speed Drill
Makita 1" Jig Saw
```

Note that any character after a space, "&", or "-" is upshifted for a proper name. Suprtool will also downshift those characters that do not qualify as needing proper capitalization and it is a capital character, the proper function will downshift those characters. See an example below:

```

>IN NAME
>LIST
>XEQ
>IN NAME.NEIL.GREEN (0) >OUT $NULL (0)
NAME                = NEIL ARMSTRONG

>IN NAME
>EXT NAME=$PROPER(NAME)
>LIST
>XEQ
>IN NAME.NEIL.GREEN (0) >OUT $NULL (0)
NAME                = Neil Armstrong

```

The \$proper function only works on byte type fields.

---

## \$Translate

Suprtool now has a \$translate function which in conjunction with the translate command allows you to build a translation table, whereby you can translate from any byte character to any character. We have also added a method to a supplied translate table which will allow you to obscure the data such that it can't be read.

```

>in newprod
>list
>xeq
>IN NEWPROD.NEIL.GREEN (0) >OUT $NULL (0)
PRODUCT-DESC      = Skil 3/8" Variable Speed Drill

>IN NEWPROD.NEIL.GREEN (1) >OUT $NULL (1)
PRODUCT-DESC      = B&D Router

>in newprod
>translate tounread
>ext product-desc=$translate(product-desc)
>out unread,link
>xeq
IN=13, OUT=13. CPU-Sec=1. Wall-Sec=1.

>in unread
>num 1
>list
>xeq
>IN UNREAD.NEIL.GREEN (0) >OUT $NULL (0)
PRODUCT-DESC      = Hzxo .2)? Epcxpqot Hatts Rcxoo
Warning: NUMRECS exceeded; some records not processed.
IN=2, OUT=1. CPU-Sec=1. Wall-Sec=1.

>in unread
>translate toread
>ext product-desc=$translate(product-desc)
>list
>xeq
>IN UNREAD.NEIL.GREEN (0) >OUT $NULL (0)
PRODUCT-DESC      = Skil 3/8" Variable Speed Drill

>IN UNREAD.NEIL.GREEN (1) >OUT $NULL (1)
PRODUCT-DESC      = B&D Router

```

You can make your own Translate table using the Translate command, where you can specify the character you want to translate and what you want to translate to, using Decimal Notation. So if you want to translate "A" to "Z", you would type the command:

```
Translate ``^65:^90``
```

So you specify the from character on the left in decimal which is the capital-A and the to-character is also in decimal format which is capital-Z, which is decimal 90. If you want to reverse the translation you can simply do the following command and translate the field back with:

```
Translate ``^90:^65``
```

This is not meant to be an encryption solution, but it will help obfuscate test data really quickly.



# Enhancements in Version 5.6

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## Introduction

Suprtool is constantly being updated with new features. The following section describes the new enhancements to Suprtool since Suprtool 5.5

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## Extract Command

Suprtool's extract command now has three new keywords, which can be used for extract range feature. You can now say `extract $all`, `extract $first / $last` on an SD file or Image/Eloquence dataset. The intention is to make your scripts more easily maintained. If you had a script that you wanted to put a sequence number at the beginning and then extract the rest of the dataset you previously had to specify the starting field and the ending field. For example if the first field in a dataset was `order-no` and the last field was `pst-code` you may have a script that looked like this.

```
base orddb
get customers
def seq-no,1,4,double
ext seq-no=$counter
ext order-no / pst-code
out newfile,link
xeq
```

If you added any fields to the beginning or end of the dataset you would have to re-write the script. Now you can write the script as being:

```
base orddb
get customers
def seq-no,1,4,double
ext seq-no=$counter
ext $all
out newfile,link
xeq
```

You can also write the script using `$first / $last` as your preference, but `$first` and `$last` are also useful if you need to add data into the middle of the fields you extract:

```

base orddb
get customers
def seq-no,1,4,double
ext $first / zip
ext seq-no=$counter
ext tax-code / $last
out newfile,link
xex

```

Please note that if a self-describing file has a fieldname that is a duplicate field and one of the duplicate fields is the last field in the file, then \$first / \$last and \$all, will only extract up to the first occurrence of the duplicate fieldname. This may seem as an issue but it is consistent with what Suprtool does currently with extract from a range. Currently and prior to the \$first / \$last enhancement Suprtool would have extracted only up to the first occurrence of the field if you had a file such as this:

```

>form
File: newfile      (SD Version B.00.00)  Has linefeeds
  Entry:
  CHAR-FIELD      X5      1
  INT-FIELD       I1      6
  DBL-FIELD       I2      8
  PACKED-FIELD    P12     12
  PACKED*-FIELD   P12     18
  QUAD-FIELD      I4      24
  ID-FIELD        I1      32
  LOGICAL-FIELD   K1      34
  DBLLOG-FIELD    K2      36
  ZONED-FIELD     Z5      40
  FILLER          X36     45
  FILLER          X36     81
Entry Length: 116  Blocking: 1

```

Notice that FILLER is a duplicate named field, so if you entered, extract char-field / filler, Suprtool would only extract up to and including the first FILLER field. For consistency, extract \$first / \$last behaves the same way.

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## Data Items Support

Suprtool now supports 512 data items in both Eloquence datasets and SD files and Oracle fields. STExport and Suprlink have also been updated to support the increased number of data items in the SD fields that they read, but please note that other limitations still exist. [5.5.10]

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## \$SubCount

\$SubCount has been added to provide a counter that only gets reset at a given sort break.

```

In filelsd
Sort char-field
Def control-count,1,4,double
Ext $first / $last
Ext control-count=$subcount(char-field)
Out newfile,link
xex

```

What Suprtool will do in this case is start incrementing a number starting with 1, and increase by 1 for any given char-field value. This way you can add a counter based on a sort break for a given field.



# Bugs Fixed

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## Bugs Fixed In Suprtool 5.6.11

**Output , Display Command.** Suprtool for Itanium and Suprtool/Open would not properly convert negative, single and double integers when output/,display is invoked

**Quad Integer Input Parsing.** Suprtool/Open would not parse a negative number into a quad integer container.

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## Bugs Fixed In Suprtool 5.6.10

**If Command.** Suprtool for Itanium and Suprtool/Open incorrectly reallocated if/extract code space on subsequent tasks, which would eventually cause Suprtool to fail with the error, “Unable to allocate heap space.”

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## Bugs Fixed In Suprtool 5.6

**Arithmetic Expressions.** Suprtool/Open had problems with arithmetic expressions with brackets for Packed-Decimal and Zoned-Decimal data types.

**Arithmetic Expressions.** Suprtool/Open had problems with rounding for arithmetic expressions with Quad Integers, Packed-Decimal and Zoned-Decimal data types.

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## Bugs Fixed In Suprtool 5.5.11

**Sort Display Over Punch.** Suprtool for Itanium and Suprtool/Open did not properly sort display type data with Over punch characters.

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## Bugs Fixed In Suprtool 5.5.04

**SD File Copy.** Suprtool would use an incorrect field definition on a straight copy of an SD file if the input file had a duplicate field name with different byte lengths. (HP-UX only)



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## Bugs Fixed In Suprtool 5.5.03

**Extract Command.** Suprtool would give an incorrect result when doing an Arithmetic Expression that has more than one set of brackets as in: extract amt-p=(packed-field + packed-field) – (packed-field \*2) (Itanium only)

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## Bugs Fixed In Suprtool 5.5.02

**Decimal to Ascii.** Suprtool and STExport would incorrectly assume a positive sign for a packed-decimal field that had an invalid sign value, when converting from Decimal to Ascii. (Itanium only)