
Suprtool 5.9.10 for HP e3000:

Change Notice

by Robelle Solutions Technology Inc.



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Introducing Suprtool Version 5.9.10

Introduction

Suprtool provides fast access to your data on the HP e3000. With Suprtool, you can perform many necessary DP functions easily, with just a few simple commands. At Robelle we are constantly working on your enhancement requests so that we can include them every year when we release an updated version of Suprtool.

Highlights in Suprtool 5.9.10

- STExport has a new set command called Set Excel Leadzero On which tells the Excel command to add leading zeroes to the fields specified in the Excel Preserve command.
- Suprtool has a new function available to the if/extract commands called \$inrecnum, which expects a double integer result.
- Suprtool has a new function called \$leadzeroz, which will add leading zeroes to a display field and will optionally justify the field.
- Suprtool has a four new string handling functions, specifically, \$justifyl, \$justifyr, \$leadzerob and \$respace.

Highlights in Suprtool 5.9

- A new \$month function in the if / extract option allows you to add or subtract a number of months from a given date.
- STExport has a new command called Excel command which allows you to format a field in a format that allows leading zeroes or spaces to be preserved.
- A new option called JSON will output SD data in Java Script Object Notation.
- Suprtools new banner would show the incorrect day and day of week in certain circumstances. This was cosmetic only.
- Suprtool previously may have found “bad” records in jumbo master datasets under certain conditions.

- Suprtool/Open now has the option to read MySQL databases. We are looking for feedback on where to take this feature.

Highlights in Suprtool 5.8

- Set CleanChar to a single character, after a Set CleanChar “<null>” would not come into effect due to the special null flag not being reset. This was in both Suprtool and STExport.
- The input command now accepts the keywords(\$first/\$last) when inputting a range of records.
- Suprtool would lose track of Table data field information, on tables held with the hold option in subsequent tasks.

Highlights in Suprtool 5.7

- STExport now has a “suprmgr” file similar to Suprtool. STExport will process all the commands found in STEXPMGR.PUB.SYS.
- Suprlink now has a “suprmgr” file similar to Suprtool. Suprlink will process all the commands found in LINKMGR.PUB.SYS.
- Suprtool now has the \$proper function which will shift the first character in a string and any first character after a space or ampersand.

Highlights in Suprtool 5.6

- 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.

Highlights in Suprtool 5.5

- Set XLTRIM On now tells Suprtool to close a file and release the disc space between EOF and the Flimit.
- STExport's Escape command has been re-engineered to fix some corner cases that didn't work previously.
- Due to an issue with Btrees, Suprtool would incorrectly select records when doing an update or delete, and if using chain with a btree index on a master dataset.
- The \$edit function did not work properly with alpha based edit masks and if the target was greater than 32 characters.

- Suprtool now treats KSAM64 files with labels as SD files, in the same manner as KSAMXL files are.
- A warning will print if a non-regular SD file is loaded into a Table with the data option. The data is not loaded into the table.
- An error will print if an extract command attempts to reference data when loaded from table that in turn was loaded when using a non-regular SD file, such as KSAM/XL, KSAM64 and CM KSAM.
- Suprtool did not print out a warning message when attempting to combine sort with output,else.

Known Problems

Set Itemlock does not work in one particular case.

Compatibility

Suprtool/iX is compatible with MPE V, MPE XL, and MPE/iX, including MPE/iX 6.5, 7.0 and MPE/iX 7.5.

Suprtools default prefetch value has been changed from 2 to zero.

Ksam64 files were not assumed to be Self-describing like CM KSAM and KSAMXL files when it was the input file and had labels.

A warning will print if a non-regular SD file is loaded into a Table with the data option.

An error will print if an extract command attempts to reference data when loaded from table that in turn was loaded when using a non-regular SD file, such as KSAM/XL, KSAM64 and CM KSAM.

CPU Serial Number and CPU Name (HPSUSAN & HPCPUNAME)

Suprtool and its associated products run only on CPUs whose serial numbers have been encoded ("showvar hpsusan" on MPE/iX). They also may be encoded with your HPCPUNAME values. If it fails to run and you get an "invalid HPCPUNAME" or "invalid HPSUSAN" error message, contact Robelle for assistance.

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, or see the change notice.

You can download our manuals and change notices in various formats and you can order printed (hardcopy) manuals from our web site at:

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

Installation

Overview

We have two types of Installations, Tape and Download. We provide links to the Installation instructions on our web site for each type of Install.

Ecometry Users

Users of the Ecometry application need to use the installation instructions supplied by Ecometry Corporation. Those instructions have extra steps for updating the Ecometry code accounts.

You will find the Ecometry version of these instructions at <http://www.robelle.com/ecometry/>

Types of installations, tape, download combined qedit and suprtool tape.

Installation Instructions

If you received a production release tape from Robelle, then you can install using the instructions on this web page:

<http://www.robelle.com/support/install/tape/stprod.html>

If you downloaded the Suprtool production release from our web site then the instructions can be found here for the ftp download method:

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

and here for the WRQ download method:

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

Installation Assistance

If you have any questions about the upgrade process 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 289.480.1060 or you can e-mail your question to support@robelle.com.

Enhancements in Version 5.9.10

Introduction

Suprtool is constantly being updated with new features. The following section describes the new enhancements to Suprtool since Suprtool 5.9

\$INRECNUM

The if / extract commands can now utilize a new function called \$INRECNUM, which allows you to use the input record number in certain tasks. For example, the task below would find record number 11.

```
In somefile
If $inrecnum=11
```

You can also, utilize the \$inrecnum function in the extract command:

```
In somefile
Def recnum,1,4,double
Ext recnum=$inrecnum
```

The \$inrecnum function was designed to find records especially in the instance where duplicate records are in a particular data source and cannot be isolated by any other means.

describes the new enhancements to Suprtool since Suprtool 5.9

\$LEADZEROZ

The if / extract commands can now utilize a new function called \$LEADZEROZ, which allows you to add leading zeroes to a specific display field. This was designed specifically for the extract command and fixing up data but can be used in the if command as well.

\$NUMBER is capable of fixing up numbers, but the new \$LEADZEROZ function is more lightweight and simply adds leading zeroes, and has an option to justify right as shown below:

```

/PRINT LEADZERO
1
2
3
4
5
6
7
8
9
10
12
12345
220
RUN SUPRTOOL.PUB.ROBELLE

SUPRTOOL/Copyright Robelle Solutions Technology Inc. 1981-2017.
(Version 5.9.10 Internal) Mon, Feb 27, 2017, 3:48 PM Type H for
help.
>IN LEADZERO.SUPRTEST
>DEF A,1,12,DISPLAY
>EXT A
>OUT *
>XEQ
1
2
3
4
5
6
7
8
9
10
12
12345
220
IN=13, OUT=13. CPU-Sec=1. Wall-Sec=1.

>IN LEADZERO.SUPRTEST
>DEF A,1,12,DISPLAY
>EXT A=$LEADZEROZ (A,J)
>out *
>xeq
000000000001
000000000002
000000000003
000000000004
000000000005
000000000006
000000000007
000000000008
000000000009
000000000010
000000000012
000000012345
000000000220
IN=13, OUT=13. CPU-Sec=1. Wall-Sec=1.

```

The \$LEADZEROZ function cannot fix issues like commas and decimal places in a display field, this can be handled by the \$number function.

\$LEADZEROB

The if / extract commands can now utilize a new function called \$LEADZEROB, which allows you to add leading zeroes to a specific byte field. This was designed

specifically for the extract command and fixing up data but can be used in the if command as well.

```
/PRINT LEADZERO
1
2
3
4
5
6
7
8
9
10
12
12345
220
RUN SUPRTOOL.PUB.ROBELLE

SUPRTOOL/Copyright Robelle Solutions Technology Inc. 1981-2017.
(Version 5.9.10 Internal) Mon, Feb 27, 2017, 3:48 PM Type H for
help.
>IN LEADZERO.SUPRTEST
>DEF A,1,12,byte
>EXT A
>OUT *
>XEQ
1
2
3
4
5
6
7
8
9
10
12
12345
220
IN=13, OUT=13. CPU-Sec=1. Wall-Sec=1.

>IN LEADZERO.SUPRTEST
>DEF A,1,12,byte
>EXT A=$LEADZEROB(A,J)
>out *
>xeq
000000000001
000000000002
000000000003
000000000004
000000000005
000000000006
000000000007
000000000008
000000000009
000000000010
000000000012
000000012345
000000000220
IN=13, OUT=13. CPU-Sec=1. Wall-Sec=1.
```

\$JUSTIFYL

The if / extract commands can now utilize a new function called \$JUSTIFYL, which allows you to left justify text to the left side of a field.

```
>in leadzero
>def b,1,12,byte
>ext b=$justifyl(b)
>out *
>xeg
1
2
3
4
5
6
7
8
9
10
12
12345
220
IN=13, OUT=13. CPU-Sec=1. Wall-Sec=1.
```

\$JUSTIFYR

The if / extract commands can now utilize a new function called \$JUSTIFYR, which allows you to right justify text to the right side of a field.

```
>in leadzero.suprtest
>def a,1,12,byte
>ext a=$justifyr(a)
>out *
>xeg
      1
      2
      3
      4
      5
      6
      7
      8
      9
     10
     12
    12345
    220
IN=13, OUT=13. CPU-Sec=1. Wall-Sec=1.
```

\$RESPACE

The if / extract commands can now utilize a new function called \$RESPACE, which allows you to fixup byte data that has multiple spaces in between text.

```

>in respace.suprtest
>def text,1,40
>ext text
>out *
>xeq
this is a test
  this is a test
this is a test
this is a test
this is a test
  please note this is a test
this is a test
this is a test
this is a test
  this is a test
  this is a test
this is a test
dummy record
this is a not test
silly record
IN=30, OUT=30. CPU-Sec=1. Wall-Sec=1.

>in respace.suprtest
>ext text=$respace(text,J)
>out *
>xeq
this is a test
this is a test
this is a test
this is a test
this is a test
this is a test
please note this is a test
this is a test
this is a test
this is a test
this is a test
this is a test
this is a test
this is a test
dummy record
this is a not test
silly record
IN=30, OUT=30. CPU-Sec=1. Wall-Sec=1.

```

Enhancements in Version 5.9

Introduction

Suprtool is constantly being updated with new features. The following section describes the new enhancements to Suprtool since Suprtool 5.8.10

\$Month

The if / extract commands can now utilize a new function called \$Month, which will add a given number of months to a given date in the format of ccyyymmdd or yyyyymmdd.

For Example:

```
In somefile
Item mydate, date, ccyyymmdd
Def targetdate, 1, 4, double
Ext targetdate=$month(mydate, +4)
```

The above task will take the field mydate and add four months to it. Suprtool will check if the date is valid and adjust the date within reason. For example if the given month for mydate has 31 days and the day is 31, and the month mydate becomes when the date is added to has only 30 days. The date will be adjusted to have the 30th for the day.

Excel Command

The Excel command can be used to produce columns of data that when imported will preserve spaces or leading zeroes.

EXCEL PRESERVE <fieldname>

Example

STExport can generate columns that are imported into Excel in such a way that leading zeroes are preserved. While the format produced is not traditional CSV, the format will produce a field in the form:

```
= "00055555"
```

This form when imported into Excel will preserve the leading zeroes. In order to invoke this format the Excel command has very simple syntax:

```
$in fileexcel
$col fixed
$quote double
$zero leading
$excel preserve newchar int-field
$out *
$xeq
```

These simple commands will generate a file that will have the usually formatted fields as well as some fields formatted specifically for preserving spaces and leading zeroes in Excel.

The result of such an STExport task will look as follows:

```
= " 1111 ",=" 0111", 00001111,+000001111
=" 1111 ",=" 0222", 00002222,+000002222
```

Json Output

The JSON command specifies STExport to generate Json output. Use the JSON to produce Java Script Object Notation documents for either Internet or Intranet applications.

JSON

OBJECT "string"

ONEPERLINE

Example

STExport can generate JSON output with just a few commands.

```
$input file1sd
$JSON
$output myJSON
$xeq
```

These four simple commands will generate a file that can be read by various applications. The result of such an STExport task will look as follows:

```
[{"CHAR-FIELD": "11111", "INT-FIELD": 1111, "ZONED-FIELD": 11111}]
```

Object

The Object option allows the JSON data to be wrapped in a specific Object description.

```
JSON Object "Json object"
```

Looks like this:

```
{"Json object":
[{"CHAR-FIELD": "11111",
  \ "INT-FIELD" \ : 1111,
  \ "DBL\FIELD" \ : 11111,
  \ "PACKED\FIELD" \ : +1111,
  \ "PACKED\.-FIELD" \ : +11111,
  \ "QUAD\FIELD" \ : 11111,
  \ "ID\FIELD" \ : 1,
  \ "LOGICAL\FIELD" \ : 111,
  \ "DBLLOG\FIELD" \ : 11111,
  \ "ZONED\FIELD" \ : 11111
}]
}
```

Note that the example of the Output has one field per line with data. Normally this would have to be specified via the command line but the data is shown this way simply due to space constraints.

OnePerLine

For files that have many fields you may want to consider using the OneLine option of the JSON command:

```
JSON OnePerLine
```

STExport will put each field and data on one line with the appropriate beginning and end notation.

```
[{"CHAR\FIELD": "11111",  
  "INT\FIELD": 1111,  
  "DBL\FIELD": 11111,  
  "PAC\KED\FIELD": +11111,  
  "PAC\KED\.-FIELD": +11111,  
  "QUAD\FIELD": 11111,  
  "ID\FIELD": 1,  
  "LOGICAL\FIELD": 1111,  
  "DBL\LOG\FIELD": 11111,  
  "ZONED\FIELD": 11111  
}]
```

Multiple Json Commands

You can enter multiple JSON commands per task to set the JSON options you require.

```
$in file1sd  
$JSON Object "Json object"  
$JSON OnePerLine  
$out *  
$xeq
```

An example of the output generated by the above commands is as follows:

```
{"Json object":  
  [{"CHAR\FIELD": "11111",  
    "INT\FIELD": 1111,  
    "DBL\FIELD": 11111,  
    "PACKED\FIELD": +11111,  
    "PACKED\.-FIELD": +11111,  
    "QUAD\FIELD": 11111,  
    "ID\FIELD": 1,  
    "LOGICAL\FIELD": 1111,  
    "DBLLOG\FIELD": 11111,  
    "ZONED\FIELD": 11111  
  ]  
}
```

Enhancements in Version 5.8

Introduction

Suprtool is constantly being updated with new features. The following section describes the new enhancements to Suprtool since Suprtool 5.7.11

Input (\$first/\$last)

Suprtool now has \$first and \$last mnemonics, which can be used on a range selection of records on the input command. It was designed to handle a request to list the last N number of records in a file as in:

```
Input somefile($last-10/$last)
```

Suprtool will parse the Range selection and semantically check if the record range entered is logical. For instance, \$first-2 and \$last+10, which do not make logical sense would throw an error. Similarly if a record only has 5 records in it then \$last-10 or \$first+7, would also throw an error.

Stexpmgr

STExport now has a “suprmgr” file similar to Suprtool. STExport will process all the commands found in STEXPMGR.PUB.SYS.

Enhancements in Version 5.7

Introduction

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

Linkmgr

Suprlink now has a “suprmgr” file similar to Suprtool. Suprlink will process all the commands found in LINKMGR.PUB.SYS.

Stexpmgr

STExport now has a “suprmgr” file similar to Suprtool. STExport will process all the commands found in STEXPMPGR.PUB.SYS.

\$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
>xeq
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
>xeq
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. (5.6.12)

\$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 touread
>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. (5.6.12)

Enhancements in Version 5.6

Introduction

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

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
xeq
```

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.

\$SubCount

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

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

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

Bugs Fixed In Suprtool 5.7.11

Set CleanChar. Set CleanChar to a single character, after a Set CleanChar “<null>” would not come into effect due to the special null flag not being reset. This was in both Suprtool and STEXport.

Bugs Fixed In Suprtool 5.7.10

Table, Data and Hold. Suprtool would lose track of Table data field information, on tables held with the hold option in subsequent tasks.

Bugs Fixed In Suprtool 5.5

Ksam64 files. Ksam64 files were not assumed to be Self-describing like CM KSAM and KSAMXL files when it was the input file and had labels.

\$edit function. The \$edit function did not work well with alpha based edit masks and if the target was greater than 32 characters.

Table File Data Load. A warning will print if a non-regular SD file is loaded into a Table with the data option. The data is not loaded into the table.

Table File Data Lookup. An error will print if an extract command attempts to reference data when loaded from table that in turn was loaded when using a non-regular SD file, such as KSAM/XL, KSAM64 and CM KSAM.

BTrees and Chain. Due to an issue with Btrees, Suprtool would incorrectly select records when doing an update or delete, and if using chain with a btree index on a master dataset.