ShowUser - a free ware tool from GreenHouse

ShowUser 203

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Wouldn't it be handy to have all processes displayed a given user has running? (OK - STATUS *,USER <user> does the trick - but does NOT work on Alias users!).

Wouldn't it be better to have the user processes sorted, e.g by
- CPU,PIN, or
- start time, or
- elapsed time, or
- actual busy time
- their last used time stamp
  (OK - there is no time stamp that comes with a process, reflecting the last time it process consumed CPU ticks; all what can be done is, to show the last used time relative to the start of ShowUser)

And what about having the shown processes refreshed each n seconds?

ShowUser does the trick for you.

ShowUser can display all process a user has running, sorted by
- CPU,PIN (default)
- start time (BY STARTTIME modifier)
- elapsed time (BY CPUTIME modifier)
- busy time (BY CPUBUSY modifier)
- process name (BY PROCNAME modifier)
- the last use time (BY LASTUSE modifier)

where the Evaluation results of the
- elapsed time (BY CPUTIME CYCLE <second> modifier)
- busy time (BY CPUBUSY CYCLE <second> modifier)

can be refreshed every 1 .. 300 seconds.

The shortest cycle time is dependent on the terminal output time, and the number of processes to be taken into account.

The cycle time is automatically set to: $MAX(CycleTime,TerminalOutputTime)

Processes NOT being taken into account:

ShowUser does NOT display the following types of processes:
- its own ShowUser process
- Backup processes of NonStop process pairs
- System processes

ShowUser restriction:

ShowUser actually supports 5000 processes, belonging to a user.
In case a user has more than 5000 active processes, SHOWUSER abends.

When in CYCLE-mode (an evaluated result has to be displayed each n

seconds), only up to 21 of the most important processes are displayed.

In case a user has more than a few hundred processes running it might be possible, that the data collecting phase is longer than one second. In this case, the cycle time has to be adjusted.

Command syntax:

The following ShowUser commands are available:

```
    [run] SHOWUSER [/OUT <file>/] [-H[ELP]]

    [run] SHOWUSER [/OUT <file>/] <user>

    [run] SHOWUSER [/OUT <file>/] <user> BY CPUBUSY
    [run] SHOWUSER                <user> BY CPUBUSY CYCLE <sec>

    [run] SHOWUSER [/OUT <file>/] <user> BY CPUTIME
    [run] SHOWUSER                <user> BY CPUTIME CYCLE <sec>

    [run] SHOWUSER                <user> BY LASTUSE CYCLE <sec>

    [run] SHOWUSER [/OUT <file>/] <user> BY PROCNAME

    [run] SHOWUSER [/OUT <file>/] <user> BY STARTTIME
```

where

<file>	OUT file ShowUser sends its output to. In case <file> does not exists, it becomes created as an EDIT type file.
-H[ELP]	keyword, directing ShowUser to display some help information.
<user>	Is one of the following user definitions: - ID format, e.g. 100,5 - name format, e.g. ghs.carl - Alias name, e.g. Carlito
BY CPUBUSY	directs ShowUser to display the processes in order of their actual busy time (most first)
CYCLES <n>	when NOT present, causes ShowUser to display CPUBUSY once for a 5 second measurement period. when present, causes ShowUser to display CPUBUSY every n seconds; CYCLES does NOT allow an OUT other than a terminal device.
BY CPUTIME	directs ShowUser to display the processes in order of their elapsed time (most first)
CYCLES <n>	when present, causes ShowUser to display CPUTIME every n seconds; CYCLES does NOT allow an OUT other than a terminal device.
BY LASTUSE	directs ShowUser to display the processes in order of their last used time.
CYCLES <n>	has to be present, and causes ShowUser to check the processes each n seconds; CYCLES does NOT allow an OUT other than a terminal device.

```
 BY PROCNAME    directs ShowUser to display the processes in order of
                their process name.

 BY STARTTIME   directs ShowUser to display the processes in order of
                their start time (oldest first).



When in CYCLE mode, the terminal buffer is erased, and up to 21
processes are displayed.

To terminate the CYCLE mode, press the
 - BREAK key, or the
 - CTRL-Y key combination.



Examples:
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Display all processes, sorted by CPU,PIN
----------------------------------------

  SHOWUSER [/OUT <file>/] <user>

  e.g.
$GHS1 SHOWUSER 10> showuser ghs.carl
ShowUser (100) - T7172G06 - (09Feb2000)   System \BEECH                14:23:05
CPU PIN  Name     Start Time          CPU Time           Program File Name
  0,48  $Z00P  10Feb00 08:01:44  00:00:00:00.672520  $SYSTEM.SYS00.TACL
  0,58  $Z01L  10Feb00 08:03:28  00:00:00:00.531441  $SYSTEM.SYS00.TACLH
  0,60  $Z01S  10Feb00 08:03:42  00:00:00:00.641309  $SYSTEM.SYS00.TACLH
  0,323 $Z01F  10Feb00 08:02:32  00:00:00:44.124047  $SYSTEM.SYSTEM.VIEWSYS
  1,32  $Z00B  10Feb00 08:00:43  00:00:00:00.561453  $SYSTEM.SYS00.TACL
  1,77  $Z01J  10Feb00 08:03:17  00:00:00:05.262438  $SYSTEM.SYS00.TACLH
  1,79  $Z01N  10Feb00 08:03:32  00:00:00:00.472772  $SYSTEM.SYS00.TACLH
  1,81  $Z01Q  10Feb00 08:03:39  00:00:00:01.108539  $SYSTEM.SYS00.TACLH
  1,229        10Feb00 14:06:32  00:00:00:02.511044  $SYSTEM.SYSTEM.EDIT
  1,230        10Feb00 14:06:46  00:00:00:00.940969  $SYSTEM.SYSTEM.VS
$GHS1 SHOWUSER 11>


Display all processes, sorted by start time
-------------------------------------------

  SHOWUSER [/OUT <file>/] <user> BY STARTTIME

e.g.

$GHS1 SHOWUSER 11> showuser ghs.carl by starttime
ShowUser (100) - T7172G06 - (09Feb2000)   System \BEECH                14:23:43
CPU PIN  Name     Start Time          CPU Time           Program File Name
  1,32  $Z00B  10Feb00 08:00:43  00:00:00:00.561453  $SYSTEM.SYS00.TACL
  0,48  $Z00P  10Feb00 08:01:44  00:00:00:00.672520  $SYSTEM.SYS00.TACL
  0,323 $Z01F  10Feb00 08:02:32  00:00:00:44.193596  $SYSTEM.SYSTEM.VIEWSYS
  1,77  $Z01J  10Feb00 08:03:17  00:00:00:05.262438  $SYSTEM.SYS00.TACLH
  0,58  $Z01L  10Feb00 08:03:28  00:00:00:00.531441  $SYSTEM.SYS00.TACLH
  1,79  $Z01N  10Feb00 08:03:32  00:00:00:00.472772  $SYSTEM.SYS00.TACLH
  1,81  $Z01Q  10Feb00 08:03:39  00:00:00:01.108539  $SYSTEM.SYS00.TACLH
  0,60  $Z01S  10Feb00 08:03:42  00:00:00:00.670417  $SYSTEM.SYS00.TACLH
  1,229        10Feb00 14:06:32  00:00:00:02.511044  $SYSTEM.SYSTEM.EDIT
  1,230        10Feb00 14:06:46  00:00:00:01.006804  $SYSTEM.SYSTEM.VS
$GHS1 SHOWUSER 12>
```

Display all processes, sorted by elapsed time

```
  SHOWUSER [/OUT <file>/] <user> BY CPUTIME
```

e.g.

```
$GHS1 SHOWUSER 12> showuser ghs.carl by cputime
ShowUser (100) - T7172G06 - (09Feb2000)   System \BEECH                14:24:47
CPU PIN  Name     Start Time          CPU Time           Program File Name
  0,323 $Z01F  10Feb00 08:02:32  00:00:00:44.321368  $SYSTEM.SYSTEM.VIEWSYS
  1,77  $Z01J  10Feb00 08:03:17  00:00:00:05.262438  $SYSTEM.SYS00.TACLH
  1,229        10Feb00 14:06:32  00:00:00:02.520042  $SYSTEM.SYSTEM.EDIT
  1,230        10Feb00 14:06:46  00:00:00:01.144793  $SYSTEM.SYSTEM.VS
  1,81  $Z01Q  10Feb00 08:03:39  00:00:00:01.108539  $SYSTEM.SYS00.TACLH
  0,60  $Z01S  10Feb00 08:03:42  00:00:00:00.699951  $SYSTEM.SYS00.TACLH
  0,48  $Z00P  10Feb00 08:01:44  00:00:00:00.672520  $SYSTEM.SYS00.TACL
  1,32  $Z00B  10Feb00 08:00:43  00:00:00:00.561453  $SYSTEM.SYS00.TACL
  0,58  $Z01L  10Feb00 08:03:28  00:00:00:00.531441  $SYSTEM.SYS00.TACLH
  1,79  $Z01N  10Feb00 08:03:32  00:00:00:00.472772  $SYSTEM.SYS00.TACLH
$GHS1 SHOWUSER 13>
```

Display all processes, sorted by elapsed time, every n seconds
---

```
  SHOWUSER <user> BY CPUTIME CYCLE <seconds>
```

e.g.

```
$GHS1 SHOWUSER 14> showuser ghs.carl by cputime cycle 5

ShowUser (113) - T7172G06 - SA.CARL                          (5 s)    15:11:32
CPU PIN  Name        CPU Time       % CPU       Program File Name       Pri
  1,44          00:00:07:51.090296   0.49   $GHS1.SHOWUSER.ZZBI0000     168
  0,305 $Z00F   00:00:03:35.652556   0.23   $SYSTEM.SYSTEM.VIEWSYS      168
  1,99  $Z03G   00:00:00:02.846327   0.00   $SYSTEM.SYS00.TACLH         159
  1,72  $Z025   00:00:00:02.135499   0.00   $SYSTEM.SYS00.TACLH         159
  0,90  $Z023   00:00:00:01.980532   0.00   $SYSTEM.SYS00.TACLH         159
  1,69  $Z01Z   00:00:00:00.840998   0.00   $SYSTEM.SYS00.TACLH         159
  0,88  $Z01X   00:00:00:00.675791   0.00   $SYSTEM.SYS00.TACLH         159
  1,66  $Z01V   00:00:00:00.596869   0.00   $SYSTEM.SYS00.TACLH         159
  1,35  $Z00M   00:00:00:00.572749   0.00   $SYSTEM.SYS00.TACL          169
  1,33  $Z00D   00:00:00:00.553931   0.00   $SYSTEM.SYS00.TACL          169
  1,135         00:00:00:00.227380   0.00   $SYSTEM.SYSTEM.EDIT         158
  1,136         00:00:00:00.215417   0.00   $SYSTEM.SYSTEM.VS           158
```

Display all processes, sorted by CPU busy time, every n seconds
---

```
  SHOWUSER <user> BY CPUBUSY CYCLE <seconds>
```

e.g.

```
$GHS1 SHOWUSER 15> busyuser ghs.carl by cputime cycle 5

ShowUser (113) - T7172G06 - SA.CARL                          (5 s)    15:12:34
CPU PIN  Name        CPU Time       % CPU       Program File Name       Pri
```

```
  1,44          00:00:07:51.406303   0.52   $GHS1.SHOWUSER.ZZBI0000     168
  0,305 $Z00F   00:00:03:35.773437   0.12   $SYSTEM.SYSTEM.VIEWSYS      168
  1,99  $Z03G   00:00:00:02.846327   0.00   $SYSTEM.SYS00.TACLH         159
  1,72  $Z025   00:00:00:02.135499   0.00   $SYSTEM.SYS00.TACLH         159
  0,90  $Z023   00:00:00:02.013859   0.00   $SYSTEM.SYS00.TACLH         159
  1,69  $Z01Z   00:00:00:00.840998   0.00   $SYSTEM.SYS00.TACLH         159
  0,88  $Z01X   00:00:00:00.675791   0.00   $SYSTEM.SYS00.TACLH         159
  1,66  $Z01V   00:00:00:00.596869   0.00   $SYSTEM.SYS00.TACLH         159
  1,35  $Z00M   00:00:00:00.572749   0.00   $SYSTEM.SYS00.TACL          169
  1,33  $Z00D   00:00:00:00.553931   0.00   $SYSTEM.SYS00.TACL          169
  1,136         00:00:00:00.387176   0.00   $SYSTEM.SYSTEM.VS           158
  1,135         00:00:00:00.227380   0.00   $SYSTEM.SYSTEM.EDIT         158
```

Display the last use time of processes every n seconds

```
  SHOWUSER <user> BY LASTUSE CYCLE <seconds>
```

e.g.

```
$GHS1 SHOWUSER 15> showuser ghs.carl by lastuse cycle 5

ShowUser (200) - T7172G06 - SA.CARL                          (5 s)    16:45:49
CPU PIN  Name     Start Time          Last Use          Program File Name
  0,50  $Z00R  26Jul01 09:03:56   26Jul01 16:45:49   $SYSTEM.SYSTEM.VIEWSYS
  0,40  $Z00G  26Jul01 09:02:54   26Jul01 16:45:24   $SYSTEM.SYS00.TACL
  1,328 $Z01X  26Jul01 09:05:08   26Jul01 16:44:54   $SYSTEM.SYS00.TACLH
  1,334 $Z026  26Jul01 09:05:14   26Jul01 16:43:59   $SYSTEM.SYS00.TACLH
  1,333 $Z025  26Jul01 09:05:13   26Jul01 16:43:59   $SYSTEM.SYS00.TACLH
  0,327 $Z027  26Jul01 09:05:14   26Jul01 16:43:59   $SYSTEM.SYS00.TACLH
  0,326 $Z024  26Jul01 09:05:13   26Jul01 16:43:59   $SYSTEM.SYS00.TACLH
  1,33  $Z00F  26Jul01 09:02:52  *26Jul01 16:43:19*  $SYSTEM.SYS00.TACL
  1,34  $Z00H  26Jul01 09:02:57  *26Jul01 16:43:19*  $SYSTEM.SYS00.TACL
  1,332 $Z023  26Jul01 09:05:13  *26Jul01 16:43:19*  $SYSTEM.SYS00.TACLH

  Processes, where the Last Use time is enclosed with asterisks, did not
  consume any CPU time since ShowUser was started: The shown time is the
  start time of ShowUser.
```

Installation:

SHOWUSER does not need to become installed: It can be run from any location.

Security Settings:

ShowUser does not run privileged code: It is a tool, running on application level.
The GUARDIAN Security should be set to: "OONO"
The owner can be anybody, but SUPER.SUPER is preferred.

In case you

- like the tool, or
- find a bug or glitch, or
- have a request for enhancement:

  Please let me know!

Changes in version 101/102

- Processes are now searched for their PAID, not the CAID.
- Heap sort got an extended array of pointers to speed it up.

Changes in version 110

- the command: [user] BY CPUBUSY now performs one measurement with
  a 5 second measurement time.

Changes in version 113

- when SHOWUSER cycles every n seconds, it now shows the actual priority
  of the displayed process as well:

```
$GHS1 SHOWUSER 15> busyuser ghs.carl by cputime cycle 5

ShowUser (113) - T7172G06 - SA.CARL                          (5 s)    15:12:34
CPU PIN  Name        CPU Time       % CPU       Program File Name         Pri
  1,44          00:00:07:51.406303   0.52   $GHS1.SHOWUSER.ZZBI0000     168
```

  In case this priority differs from the original priority, caused by
  a CPU bound loop, the actual PRI is displayed as well:

```
$GHS1 SHOWUSER 15> busyuser ghs.carl by cputime cycle 5

ShowUser (113) - T7172G06 - SA.CARL                          (5 s)    15:12:34
CPU PIN  Name        CPU Time       % CPU       Program File Name         Pri
  1,44          00:00:07:51.406303   0.52   $GHS1.SHOWUSER.ZZBI0000     165 170
```

  When the process is back inline, the minus sign disapears.

Changes in version 114

A classic day one bug caused SHOWUSER to enter ABEND when a non cyclic
disply ended.
This became fixed.

Changes in version 200

Introduction of LASTUSE attribute: User specific processes are
displayed according to their 'last use'. This helps to find 'dead'
(=ununsed) processes.

Changes in version 203

The screen management became optimized.
A bug in the display routine became fixed.

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