CBT - Clean-up Blind TACLs
Version 100
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- What is a 'blind' TACL?
  A TACL is considered blind, when its home terminal is gone.

- How can a TACL made blind?
  By setting it in PAUSE, and stopping the dynamic TELNET window.

- What is wrong with a blind TACL?
  A blind TACL sits there, waiting for a BREAK, which wakes it up.
  But because the home terminal is gone, there is no way in sending a BREAK.
  A blind TACL wastes system resources!

- How to clean-up a blind TACL?
  The two possibilities to clean-up a blind TACL is by
  - sending a -20 (WAKE message), or by
  - stopping it through the STOP command.
  This might be a task…

  The GreenHouse FreeWare tool CBT makes life much easier:
   - it displays all blind TACL processes
   - it optionally sends a WAKE message to the blind TACL processes, causing them to stop
  - it even can be controlled by $ZZKRN and automatically clean-up blind TACLs e.g. every hour.

- What happens when a -20 is sent to a TACL?
  The wake message (-20) causes a paused TACL to wake up, and to display its prompt to the home terminal. In case the home terminal no longer exists, the write operation fails, causing TACL to stop. This is what we want to achieve!

- Who can send a wake message to TACL processes?
  TACL processes can be opened by everybody. When an OPEN is possible, sending the WAKE message is possible as well.
  The beauty of this method is, that CBT does not need any privilege to talk to a blind TACL: It simply opens the TACL, and sends the WAKE message. TACL then performs the rest itself.

CBT interactive
Command syntax for interactive use is:

```
CBT [LIST|SHOW] [DOIT|!] [-H]
```
where
`LIST|SHOW`	causes CBT to display all blind TACL processes
	this as well is the default
`DOIT|!`	Displays all blind TACL processes and kills them
`-H`	Displays help

When started interactively, the used configuration is displayed.

CBT automatic
CBT can be controlled by $ZZKRN. In this case, it runs every n minutes automatically.
To inform CBT about its Cycle time, it has to be configured as: **STARTUPMSG "<CYCLE TIME>"**.
- **`CYCLE TIME`** is the cycle time in minutes.
- Valid values are 1 .. 1440 (1 minute .. 1 day).
- Default is 60 minutes = 1 hour

For more details, please check TACL Macro STARTCBT.

Two TACL macros are part of the delivery:
1. STARTCBT   to attach and start CBT to $ZZKRN
2. STOPCBT   to detach and stop CBT from $ZZKRN

Please edit both files and modify them according to your needs and environment.
To execute these files successfully, you must be a member of the SUPER group.

CBTCONF
The program filenames to be checked can be configured in CBTCONF.
Up to 100 file name templates can be defined.
All file name parts (Vol, Subvol, File) have to be qualified, templates are supported.
e.g. $SYSTEM.SYS??.TACL represents all TACL objects from all SYSnn subvols.
In case CBTCONF does not exist, or in case it is empty, $SYSTEM.SYS??.TACL is used as default.
When CBT runs in automatic mode (=started from $ZZKRN), CBTCONF is automatically re-read when
it has changed.

CBTLOG/LISTLOG
Each event of killing a blind TACL is recorded in a log file named CBTLOG0.
The record structure can be found in CBTDDL.
The TACL Macro LISTLOG list a few of the recorded attributes. Feel free to change this macro.

CBT is FreeWare from GreenHouse.
Feel free to make use of it, and please report any bugs, or requests for enhancements, to:
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