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Subject: Re: [Announce] Checkpoint-restore tool v0.1  
Posted by [Pavel Emelyanov](#) on Mon, 23 Jul 2012 08:53:42 GMT  
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Fixing the bogus containers@ ml and adding cgroups@ one. Sorry :(

== Original message ==

Hi!

I'm glad to announce the first release of the checkpoint-restore tool.

This project is an attempt to implement the checkpoint-restore functionality for processes and containers without driving too much code into the kernel tree, but putting there "various oddball helper code" instead.

The tool can already be used for checkpointing and restoring various individual applications. And the greatest thing about this so far is that most of the below functionality has the required kernel support in the recently released v3.5!

So, we support now

- \* x86\_64 architecture
- \* process' linkage
- \* process groups and sessions (without ttys though :\\ )
- \* memory mappings of any kind (shared, file, etc.)
- \* threads
- \* open files (shared between tasks and partially opened-and-unlinked)
- \* pipes and fifos with data
- \* unix sockets with packet queues contents
- \* TCP and UDP sockets (TCP connections support exists, but needs polishing)
- \* inotify, eventpoll and eventfd
- \* tasks' sigactions setup, credentials and itimers
- \* IPC, mount and PID namespaces

Though namespaces support is in there, we do not yet support an LXC container c/r, but we're close to it :)

I'd like to thank everyone who took part in new kernel APIs discussions, the feedback was great! Special thanks goes to Linus for letting the kernel parts in early, instead of making them sit out of tree till becoming stable enough.

Tarball with the tool sources is at

<http://download.openvz.org/criu/crtools-0.1.tar.bz2>

The git repo is at

<http://git.criu.org/>

And some sort of docs growing at

<http://criu.org/>

There are still things for which we don't have the kernel support merged (SysVIPC and various anon file descriptors, i.e. inotify, eventpoll, eventfd) yet. We have the kernel branch with the stuff applied available at

<https://github.com/cyrillos/linux-2.6.git>

Thanks,  
Pavel

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