
Subject: [RFC][PATCH 0/4] Object creation with a pre-defined id (v2)

Posted by [Nadia Derby](#) on Fri, 28 Mar 2008 09:53:09 GMT

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Hi,

Here is a second version of what has been proposed 2 weeks ago to create an object with a pre-defined id (this feature would be used during the restart operation) - see thread

<https://lists.linux-foundation.org/pipermail/containers/2008-March/thread.html#10287>

Main changes since last version:

- . Pavel's suggestion has been integrated; this makes things more readable: `alloc_pidmap()` is unchanged and a `alloc_fixed_pidmap()` is added for the predefined ids.

- . Oren's suggestion has been integrated:

We now have a single file under `/proc/self` (`/proc/self/next_id`).

When this file is filled, a structure pointed to by the calling task struct is filled with the id(s).

Then, when the object is created, the id(s) present in that structure are used, instead of the default ones.

The syntax is one of:

- . `echo "LONG XX" > /proc/self/next_id`

next object to be created will have an id set to XX

- . `echo "LONG<n> X0 ... X<n-1>" > /proc/self/next_id`

next object to be created will have its ids set to XX0, ... X<n-1>

This is particularly useful for processes that may have several ids if they belong to nested namespaces.

The objects covered here are ipc objects and processes.

The patches are still against 2.6.25-rc3-mm1, in the following order:

[PATCH 1/4] adds the `procfs` facility for next object to be created, this object being associated to a single id.

[PATCH 2/4] enhances the `procfs` facility for objects associated to multiple ids (like processes).

[PATCH 3/4] makes use of the specified id (if any) to allocate the new IPC object (changes the `ipc_addid()` path).

[PATCH 4/4] uses the specified id(s) (if any) to set the `upid nr(s)` for a newly allocated process (changes the `alloc_pid()` path).

Any comment and/or suggestions are welcome.

Regards,
Nadia

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