Subject: Re: [RFC][PATCH 0/4] Object creation with a pre-defined id (v2) Posted by serue on Wed, 02 Apr 2008 15:56:53 GMT

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Quoting Oren Laadan (orenl@cs.columbia.edu):
>
> On Fri, 28 Mar 2008, Nadia.Derbey@bull.net wrote:
> >
> > 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.
>
> I suggest that there be a way for the process to reset its task->next id
> discarding previous settings, e.g. to recover from an error condition and
> prevent subsuguent syscalls from using the task->next id unintentionally.
> Something like "echo RESET > /proc/self/next id" (or s/RESET/0/ ... etc).
Makes sense, and should be trivial enough.
If there are no objections to this approach on this list, should you be
sending this patchset (addressing Oren's comments) on to lkml? Or is it
too soon for that?
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thanks, -serge

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> > 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 proofs 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
> >
>> --
> >
> Containers mailing list
> Containers@lists.linux-foundation.org
> https://lists.linux-foundation.org/mailman/listinfo/containers
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