Base Language - Bug #7643

memory leak in AssociatedThread

07/28/2023 02:58 PM - Constantin Asofiei

Status:	Test	**Start date:**	
Priority:	Normal	**Due date:**	
Assignee:	Constantin Asofiei	**% Done:**	100%
Category:		**Estimated time:**	0.00 hour
Target version:			
billable:	No	**case_num:**	
vendor_id:	GCD		
Description			

History

#1 - 07/28/2023 03:09 PM - Constantin Asofiei

In a large GUI application, in a thread dump SecurityManager.threadIds is reported to have a size of 120k (for reference, this is from the ~~thread~~ heap dump from #7490).

The problem is the AssociatedThread code. The context is assigned via (for i.e. a PSTimer thread):

```
SecurityManager.assignContext(SecurityContext) line: 8427
SecurityManager.setInitialSecurityContextWorker(boolean, SecurityContextStack) line: 5001
SecurityManager.forceSecurityContext(SecurityContextStack, boolean) line: 4823
AssociatedThread(ContextAwareThread).run() line: 130
AssociatedThread.run() line: 79
```

and the popAllSecurityContext code does not call dropInitialSecurityContext - instead it has this code:

```
    // exit the initial context
    endContext(cts, ctx);
```

We are missing something here. We can't just call dropInitialSecurityContext after endContext. We need another API I think which is a combination of both.

#3 - 07/31/2023 05:56 AM - Constantin Asofiei

- Status changed from New to Review

- Assignee set to Constantin Asofiei

- % Done changed from 0 to 100

Created task branch 7643a from trunk rev 14675.

The fix is in 7643a rev 14676.

#4 - 07/31/2023 07:23 AM - Greg Shah

Code Review Task Branch 7643a Revision 14676

Shouldn't we just change endContext() to remove the thread id as part of its cleanup?

#5 - 07/31/2023 07:36 AM - Constantin Asofiei

Greg Shah wrote:

> Code Review Task Branch 7643a Revision 14676
>
> Shouldn't we just change endContext() to remove the thread id as part of its cleanup?

Actually, I don't think we really need threadIDs map - we can replace this with a public static ThreadLocal<Integer> var.

#6 - 07/31/2023 07:41 AM - Greg Shah

Constantin Asofiei wrote:

> Greg Shah wrote:
>
> > Code Review Task Branch 7643a Revision 14676
> >
> > Shouldn't we just change endContext() to remove the thread id as part of its cleanup?
>
> Actually, I don't think we really need threadIDs map - we can replace this with a public static ThreadLocal<Integer> var.

I like it.

#7 - 07/31/2023 08:17 AM - Constantin Asofiei

I'm thinking of keeping this new ThreadLocal field set only once; previously, for a thread, the value got changed each time a new security context got assigned. This may create confusion in the logs - as there we already have the FWD Session ID, and the Thread ID just means what Java Thread logged this message.

#8 - 07/31/2023 08:18 AM - Greg Shah

Agreed.

#9 - 07/31/2023 08:24 AM - Constantin Asofiei

Fixed in 7643a rev 14677.

#10 - 07/31/2023 08:27 AM - Greg Shah

Code Review Task Branch 7643a Revision 14677

It looks good.

You can merge to trunk.

#11 - 07/31/2023 08:29 AM - Constantin Asofiei

Branch 7643a was merged to trunk rev 14677 and archived.

#12 - 07/31/2023 08:41 AM - Greg Shah

- Status changed from Review to Test