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Subject: Re: Scherzo news...

Posted by [EK Sound](#) on Wed, 19 Nov 2008 23:49:28 GMT

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I just put this text into Babblefish and I still can't understand it... ;-)

Everyone repeat after me.... We're not worthy!

David.

Mike Audet wrote:

> Hi All,

>

> I've just past a really important milestone. In order to make the Scherzo  
> thread-safe, I had to replace the circular arrays used by the original Scherzo  
> with special Microsoft defined linked lists. I figured that would be the  
> hardest part. It didn't turn out to be all that hard. I was just afraid  
> of it because I had never worked with anything like the Microsoft linked  
> lists.

>

> Anyway, I'm playing audio on a new build that uses the linked lists. :)

>

> The next step is moving the functionality of the delayed procedure call into  
> the ISR and placing the ISR spinlock around the functions that change the  
> IRQ masks.

>

> We're making progress.

>

> Mike

>

>

>

>

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Subject: Re: Scherzo news...

Posted by [Aaron Allen](#) on Thu, 20 Nov 2008 00:07:28 GMT

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We're not worthy... but man, I'm sure happy Mike's on the case!

AA

"EK Sound" <ask\_me@nospam.net> wrote in message news:4924aa07\$1@linux...

> I just put this text into Babblefish and I still can't understand it... ;-)

>

> Everyone repeat after me.... We're not worthy!

>  
> David.  
>  
> Mike Audet wrote:  
>> Hi All,  
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>>  
>> Mike  
>>  
>>  
>>

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Subject: Scherzo news...

Posted by [mike audet\[1\]](#) on Thu, 20 Nov 2008 00:31:11 GMT

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Hi All,

I've just past a really important milestone. In order to make the Scherzo thread-safe, I had to replace the circular arrays used by the original Scherzo with special Microsoft defined linked lists. I figured that would be the hardest part. It didn't turn out to be all that hard. I was just afraid of it because I had never worked with anything like the Microsoft linked lists.

Anyway, I'm playing audio on a new build that uses the linked lists. :)

The next step is moving the functionality of the delayed procedure call into the ISR and placing the ISR spinlock around the functions that change the IRQ masks.

We're making progress.

Mike

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Subject: Re: Scherzo news...

Posted by [Tom Bruhl](#) on Thu, 20 Nov 2008 01:07:03 GMT

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Hey there Milestone Mike,

Now, what does thread-safe mean?

Tom

"Ted Gerber" <tedgerber@rogers.com> wrote in message  
news:4924ae54\$1@linux...

>

> Thanks Mike!

>

> Ted

>

>

> "Mike Audet" <mike@....> wrote:

>>

>>Hi All,

>>

>>I've just past a really important milestone. In order to make the Scherzo  
>>thread-safe, I had to replace the circular arrays used by the original  
>>Scherzo

>>with special Microsoft defined linked lists. I figured that would be the  
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>>the ISR and placing the ISR spinlock around the functions that change the  
>>IRQ masks.

>>

>>We're making progress.

>>

>>Mike

>>

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>

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Subject: Re: Scherzo news...  
Posted by [Ted Gerber](#) on Thu, 20 Nov 2008 01:24:52 GMT  
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Thanks Mike!

Ted

"Mike Audet" <mike@....> wrote:

>  
>Hi All,  
>  
>I've just past a really important milestone. In order to make the Scherzo  
>thread-safe, I had to replace the circular arrays used by the original Scherzo  
>with special Microsoft defined linked lists. I figured that would be the  
>hardest part. It didn't turn out to be all that hard. I was just afraid  
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>Anyway, I'm playing audio on a new build that uses the linked lists. :)  
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>The next step is moving the functionality of the delayed procedure call  
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>the ISR and placing the ISR spinlock around the functions that change the  
>IRQ masks.  
>  
>We're making progress.  
>  
>Mike  
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Subject: Re: Scherzo news...  
Posted by [Tom Bruhl](#) on Thu, 20 Nov 2008 02:12:16 GMT  
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Hi Mike,

That sounds really great. Now we're talking about the Scherzo drivers not the whole Paris app right? What benefit will this give us when you get it ready for prime time? Will this eliminate some of the multicore hurdles we have to jump now?

I am totally ready for whatever it is you can do for us and will gladly pay you for your service.

Thankfully yours,  
Tom

"Mike Audet" <mike@....> wrote in message news:4924bd52\$1@linux...  
>  
> Hi Tom,  
>  
> Thread-safe means that the code can be running on multiple CPUs at once  
> without  
> crashing.  
>  
> Cheers!  
>  
> Mike  
>  
>  
> "Tom Bruhl" <arpeggio@comcast.net> wrote:  
>> Hey there Milestone Mike,  
>>  
>> Now, what does thread-safe mean?  
>>  
>> Tom  
>>  
>>  
>>  
>> "Ted Gerber" <tedgerber@rogers.com> wrote in message  
>> news:4924ae54\$1@linux...  
>>>  
>>> Thanks Mike!  
>>>  
>>> Ted  
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>>>  
>>> "Mike Audet" <mike@....> wrote:  
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>>>> Hi All,

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Subject: Re: Scherzo news...  
Posted by [mike audet\[1\]](#) on Thu, 20 Nov 2008 02:28:50 GMT  
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Hi Tom,

Thread-safe means that the code can be running on multiple CPUs at once without crashing.

Cheers!

Mike

"Tom Bruhl" <arpeggio@comcast.net> wrote:  
>Hey there Milestone Mike,  
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>Now, what does thread-safe mean?  
>  
>Tom  
>  
>  
>  
>"Ted Gerber" <tedgerber@rogers.com> wrote in message  
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Subject: Re: Scherzo news...

Posted by [mike audet\[1\]](#) on Thu, 20 Nov 2008 02:40:26 GMT

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Hey, I'm not sure I'm worthy!

Well, to explain this better...

There is a block of code that runs every time a piece of hardware interrupts Windows to say "Hey, I'm ready for more data!" Microsoft has put severe restrictions on that code because if anything goes wrong with it, the whole computer crashes.

One of the restrictions is that you can't use the tools that you would usually use to allow code to run on more than one CPU at once. They left one, single type of list that you can use that is safe in a multiple CPU environment - and I guess everyone just uses it. It's really weird to me, but it works just fine.

So, to make a long story short, I had to replace all the code that stores the info sent between the cards and the PARIS app with this new kind of list. I just finished removing all of the old list code, and PARIS is still running fine. :)

I've been so swamped teaching that I haven't been able to work on this for two months. My report cards went in last week, so Sunday I spent 3 hours, and I've spent a few hours tonight. It's moving fast.

Mike

EK Sound <[ask\\_me@nospam.net](mailto:ask_me@nospam.net)> wrote:

>I just put this text into Babblefish and I still can't understand it...

;:-)

>

>Everyone repeat after me.... We're not worthy!

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>David.

>

>Mike Audet wrote:

>> Hi All,

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>> Mike  
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Subject: Re: Scherzo news...

Posted by [kerryg](#) on Thu, 20 Nov 2008 02:49:54 GMT

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I didn't have the faintest idea you'd get so far so fast - that's crazy talk :D

Congrats!

- K

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Subject: Re: Scherzo news...

Posted by [mike audet\[1\]](#) on Thu, 20 Nov 2008 03:40:38 GMT

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It's just the driver I'm working with. If all goes well, we won't have to jump through any hurdles to work on multi-core machines. It's possible that the PARIS app may have threading issues, in which case we will still need hoops for the PARIS app, but not for the ASIO driver.

Good times ahead. :)

"Tom Bruhl" <arpeggio@comcast.net> wrote:

>Hi Mike,

>

>That sounds really great. Now we're talking about the Scherzo drivers

>not the whole Paris app right? What benefit will this give us when

>you get it ready for prime time? Will this eliminate some of the

>multicore hurdles we have to jump now?

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>I am totally ready for whatever it is you can do for us and will gladly

>pay you for your service.

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>Thankfully yours,

>Tom

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>

>

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>"Mike Audet" <mike@....> wrote in message news:4924bd52\$1@linux...

>>

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>> crashing.

>>

>> Cheers!

>>

>> Mike

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>> "Tom Bruhl" <arpeggio@comcast.net> wrote:

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>>>Now, what does thread-safe mean?

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>>>Tom

>>>

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>>>"Ted Gerber" <tedgerber@rogers.com> wrote in message

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>>>> Thanks Mike!

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>>>> Ted

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>

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Subject: Re: Scherzo news...  
Posted by [Neil](#) on Thu, 20 Nov 2008 04:59:11 GMT  
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"Mike Audet" <mike@....> wrote:  
>

>It's just the driver I'm working with. If all goes well, we won't have  
to  
>jump through any hurdles to work on multi-core machines. It's possible  
that  
>the PARIS app may have threading issues, in which case we will still need  
>hoops for the PARIS app, but not for the ASIO driver.  
>  
>Good times ahead. :)

Geez, with all the work it looks like you've done, wouldn't it  
be easier just to write a new DAW app that works with the Paris  
hardware & incorporates your plugins? lol

Neil

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Subject: Re: Scherzo news...  
Posted by [Deej \[5\]](#) on Thu, 20 Nov 2008 05:34:32 GMT  
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EK Sound <ask\_me@nospam.net> wrote:  
>I just put this text into Babblefish and I still can't understand it...  
;-)  
>  
>Everyone repeat after me.... We're not worthy!  
>  
>David.

....some people are just born smart.....

<http://britneyspears.ac/physics/basics/basics.htm>

;)

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Subject: Re: Scherzo news...  
Posted by [rick](#) on Thu, 20 Nov 2008 09:42:37 GMT  
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and then there's peeps like us...the unworthy...

On 20 Nov 2008 15:34:32 +1000, "Deej" <noway@jose.net> wrote:

>  
>EK Sound <ask\_me@nospam.net> wrote:  
>>I just put this text into Babblefish and I still can't understand it...  
>;-)  
>>  
>>Everyone repeat after me.... We're not worthy!  
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>...some people are just born smart.....  
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><http://britneyspears.ac/physics/basics/basics.htm>  
>  
>;)

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Subject: Re: Scherzo news...

Posted by [Robert](#) on Thu, 20 Nov 2008 11:58:52 GMT

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Way to go Mike, thanks for breathing new life into our old work horse. Keep rockin that code on the front lines my man and we'll be out back, reedy for any beta testing you may need!

Rob

"Mike Audet" <mike@....> wrote in message news:4924a1bf\$1@linux...

>  
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>