Subject: Date limited to 2020   and 2015 does not work ?!?
Posted by Didier on Thu, 02 Dec 2010 20:11:20 GMT

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Hi all,

Playing around with the StrToDate() fonction, I discovered that year 2015 doesn't work at all and after 2020, dates role back to 1900.

Some of us probably are making softwares that will last more than 5 years... so I think this point needs some consideration.

Just like the Year 2000 bug, we have our own Year 2015 and year 2020 BUG

Here is the bug in action:

```
 time = timeConverter.Scan("1/1/14 0:0:1");
 DUMP(time);
 DUMP(time.Get());
 time = timeConverter.Scan("1/1/2015:0:1");
 DUMP(time);
 DUMP(time.Get());
 time = timeConverter.Scan("1/1/15:0:1");
 DUMP(time);
 DUMP(time.Get());
 time = timeConverter.Scan("1/1/16 0:0:1");
 DUMP(time);
 DUMP(time.Get());

 time = timeConverter.Scan("1/1/19 0:0:1");
 DUMP(time);
 time = timeConverter.Scan("1/1/20 0:0:1");
 DUMP(time);
 time = timeConverter.Scan("1/1/21 0:0:1");
 DUMP(time);
```

Here is the output:

```
time = 01/01/2014 00:00:01
time.Get() = 63555753601
time =
time.Get() = -1034058182400
time =
time.Get() = -1034058182400
time = 01/01/2016 00:00:01
time.Get() = 63618825601
```

```
time = 01/01/2019 00:00:01
time = 01/01/1920 00:00:01
time = 01/01/1921 00:00:01
```

Subject: Re: Date limited to 2020   and 2015 does not work ?!?
Posted by koldo on Thu, 02 Dec 2010 22:54:04 GMT
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Hello Didier

I do not know the type of timeConverter. However doing this:

```
Time t;
int64 g;

StrToDate(t, "1/1/19 0:0:1");
int64 g1 = t.Get();
StrToDate(t, "1/1/20 0:0:1");
int64 g2 = t.Get();
StrToDate(t, "1/1/21 0:0:1");
int64 g3 = t.Get();
```

I get:

```
g1 = 63713520000
g2 = 60589296000
g3 = 60620918400
```

This is not important as using two digits years is very unsafe from 2000 year. Doing this:

```
Time t;
int64 g;

StrToDate(t, "1/1/2019 0:0:1");
int64 g1 = t.Get();
StrToDate(t, "1/1/2020 0:0:1");
int64 g2 = t.Get();
StrToDate(t, "1/1/2021 0:0:1");
int64 g3 = t.Get();
```

I get:

```
g1 = 63713520000
g2 = 63745056000
g3 = 63776678400
```

that looks better .

Subject: Re: Date limited to 2020   and 2015 does not work ?!?
Posted by Zbych on Fri, 03 Dec 2010 08:32:18 GMT
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Didier wrote on Thu, 02 December 2010 21:11Hi all,

Playing around with the StrToDate() fonction, I discovered that year 2015 doesn't work at all and after 2020, dates role back to 1900.

It's not a bug, it's feature
This part of code (from TimeDate.cpp) causes this behavior:

```
		case 'y':
			d.year = n;
			if(d.year < 20) d.year += 2000; // Check again in 2015....
			else
			if(d.year < 100) d.year += 1900;
			break;
```

Maybe it is time to change it?

Subject: Re: Date limited to 2020   and 2015 does not work ?!?
Posted by mr_ped on Fri, 03 Dec 2010 09:17:00 GMT
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Yep, I would suggest to remove the fallback completely.
(i.e. 20 is really year 20 A.D., not 1920 or 2020)

I think anybody sane already moved to 4 digit year, and others should finally fix their apps, so why not to force them.

Subject: Re: Date limited to 2020   and 2015 does not work ?!?
Posted by Didier on Fri, 03 Dec 2010 20:30:04 GMT
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Hi guys,

Thanks for you're replies.

Well it's the same with 4 digits and I had already seen the limitation to 2020, but the thing that really bothers me is that 2015 does not work at all.

See my previous post.

Subject: Re: Date limited to 2020   and 2015 does not work ?!?
Posted by Tom1 on Fri, 03 Dec 2010 21:20:44 GMT

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Hi Didier,

It appears, you have a colon immediately following both of your year 2015 representations. I think you should try to add a space and reformulate the time to the correct form. I did not test it, but maybe you should...

Best regards,

Tom

Subject: Re: Date limited to 2020   and 2015 does not work ?!?
Posted by Didier on Fri, 03 Dec 2010 22:45:22 GMT

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Ouupss

My eyes must have gotten blind from staring at the screen so late. Because not seeing what was so evident ....

Some rest will do some good to my brain I think.

By the way
ConvertTime timeConverter;

Subject: Re: Date limited to 2020   and 2015 does not work ?!?
Posted by mirek on Sat, 04 Dec 2010 19:07:57 GMT

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mr_ped wrote on Fri, 03 December 2010 04:17Yep, I would suggest to remove the fallback completely.
(i.e. 20 is really year 20 A.D., not 1920 or 2020)

I think anybody sane already moved to 4 digit year, and others should finally fix their apps, so why not to force them.

Actually, it is more about comfort when entering dates into EditDate..

Subject: Re: Date limited to 2020   and 2015 does not work ?!?
Posted by mr_ped on Mon, 06 Dec 2010 08:10:35 GMT

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mirek wrote on Sat, 04 December 2010 20:07mr_ped wrote on Fri, 03 December 2010 04:17Yep, I would suggest to remove the fallback completely.
(i.e. 20 is really year 20 A.D., not 1920 or 2020)

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Actually, it is more about comfort when entering dates into EditDate..

Yes, but that should be in "presenter" layer IMHO, it's not related to actual datetime type. So in U++ it should be part of EditDate control right in the UI related code, anything more deeper should work with full year. There's another spot in code where it may be handy, during import of external data. Otherwise I think the time_t and 4 digit string is the only acceptable form to work with date internally.

Subject: Re: Date limited to 2020   and 2015 does not work ?!?
Posted by mirek on Mon, 06 Dec 2010 09:02:37 GMT

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mr_ped wrote on Mon, 06 December 2010 03:10mirek wrote on Sat, 04 December 2010 20:07mr_ped wrote on Fri, 03 December 2010 04:17Yep, I would suggest to remove the fallback completely.
(i.e. 20 is really year 20 A.D., not 1920 or 2020)

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Well, you might be right - but that means splitting the Convert for Date/Time into two ('presentation' and 'core')...

Mirek