# Subject: operatingDay <br> Posted by tobias on Tue, 23 Aug 2005 08:29:04 GMT 

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In section 2.3.2 of the timetable specifications, the operatingDay element is described. I feel the specifications does not fully explain how the dayTypes element should be interpreted. In particular, I don't quite understand the priority order of the dayTypes.

1. First consider Christmas. The 25th and 26th of December are both holidays. The 27th is both afterHoliday and afterAfterHoliday. I presume that in this case, afterHoliday takes preference?
2. Next consider Easter. Both Good Friday (in 2005 the 25/3) and Easter Day (27/3) are holidays. Is the 26/3 afterHoliday or beforeHoliday?

Regards,
Tobias Bende

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Subject: Re: operatingDay
Posted by Joachim.Rubröder on Thu, 25 Aug 2005 13:53:41 GMT
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<br><font size=2 face="sans-serif">l agree that this is a week point if
you use this kind of description instead of bitmasks. <br>
But this is unfortunately the way, the daytypes are used within DB.<br>
<br>
It's still better than within SBB, there the 27th of December is an afterHoliday
and therefore must be a monday. ;-)</font>
<br>
<br><font size=2 face="sans-serif">The right order should be (strongest
first):</font>
<br><font size=2 face="sans-serif"><br>
1. holiday<br>
2. afterHoliday</font>
<br><font size=2 face="sans-serif">3. beforeHoliday</font>
<br><font size=2 face="sans-serif">4. afterAfterHoliday</font>
<br>
<br><font size=2 face="sans-serif">Regards,</font>
<br><font size=2 face="sans-serif">Joachim Rubröder</font>
```

Joachim, please stop to send messages in HTML-format, only plain text will be allowed at the RailML-Newsserver to avoid active or executable parts of messages (may be virus or spyware!)

I have translated your message in plain text:
On Thu, 25 Aug 2005 13:53:41 +0000 (UTC), j.rubroeder@sma-partner.ch wrote:
> I agree that this is a week point if you use this kind of description instead of bitmasks.
$>$ But this is unfortunately the way, the daytypes are used within DB.
$>$
> It's still better than within SBB, there the 27th of December is an afterHoliday and therefore must be a monday. ;-)

```
>
```

> The right order should be (strongest first):
$>$
$>1$. holiday
$>2$. afterHoliday
$>3$. beforeHoliday
> 4. afterAfterHoliday
$>$
> Regards,
> Joachim Rubröder
Best regards,
Dipl.-Ing. Vasco Paul Kolmorgen
RailML-Konsortium
Telefon: +49-351-46676939 Telefax: +49-351-46676940
Zeunerstrasse 38; D-01069 Dresden www.railml.org

## Subject: Re: operatingDay <br> Posted by martin.weichert on Thu, 01 Sep 2005 16:01:25 GMT <br> View Forum Message <> Reply to Message

Hello,
I hope it is OK to just step into the discussion as a newcomer with some questions about railML.

I am reacting to the message (originally by Joachim Rubröder):
>> I agree that this is a week point if you use this kind of description instead of bitmasks.
>> But this is unfortunately the way, the daytypes are used within DB.
>>
>> It's still better than within SBB, there the 27th of December is an afterHoliday and therefore must be a monday. ;-)
>>
>> The right order should be (strongest first):
$\gg$
>> 1 . holiday
>> 2. afterHoliday
>> 3 . beforeHoliday
>> 4. afterAfterHoliday
>>
>> Regards,
>> Joachim Rubröder
Now my comments/questions:
Thus:

- $\mathrm{X}=$ holiday $\quad$ : if X is listed as a <holiday> entry
- $\mathrm{X}=$ afterHoliday : if X != holiday, $\mathrm{X}-1=$ holiday.
- $\mathrm{X}=$ beforeHoliday : if X and $\mathrm{X}-1$ ! $=$ holiday, $\mathrm{X}+1=$ holiday.
- $\mathrm{X}=$ afterAfterHoliday: if X and $\mathrm{X}-1$ and $\mathrm{X}+1$ != holiday, $\mathrm{X}-2=$ holiday.
- $\mathrm{X}=$ regularday $\quad$ : if X and $\mathrm{X}-1$ and $\mathrm{X}+1$ and $\mathrm{X}-2$ != holiday.

Do I understand this correctly?
Then the following problem remains: I cannot distinguish between

- "holiday-before-holiday" (a holiday that is followed by another holiday), and
- "holiday-not-before-holiday" (a holiday that is followed by a non-holiday).

Consider a timetable with a simple rule that a "free-day" (any Saturday, Sunday
or holiday) shall be run as a Saturday if it is followed by another free-day;
but as a Sunday if it is followed by "work-day" (any day that is not a
Saturday,
Sunday or holiday).
I try to define something like this:

```
<operatingPeriods>
    <holidays>
```

<holiday holidayDate="2006-12-25" description="1st Christmas day, 2006 (a Monday)" />
<holiday holidayDate="2006-12-26" description="2nd Christmas day, 2006 (a Tuesday)" />
<holiday holidayDate="2007-12-25" description="1st Christmas day, 2007 (a Tuesday)" />
<holiday holidayDate="2007-12-26" description="2nd Christmas day, 2007 (a Wednesday)" />
<!-- and some more... -->
</holidays>
<service servicelD="free-day" description="any Saturday, Sunday or holiday" startDate="2006-01-01" endDate="2008-01-01"> <operatingDay operatingCode="1111111" dayType="holiday"/> <operatingDay operatingCode="0000011" dayType="afterHoliday"/> <operatingDay operatingCode="0000011" dayType="beforeHoliday"/> <operatingDay operatingCode="0000011" dayType="regularday"/>
</service>
<service servicelD="work-day" description="anything that is NOT a free-day" startDate="2006-01-01" endDate="2008-01-01"> <operatingDay operatingCode="0000000" dayType="holiday"/> <operatingDay operatingCode="1111100" dayType="afterHoliday"/> <operatingDay operatingCode="1111100" dayType="beforeHoliday"/> <operatingDay operatingCode="1111100" dayType="regularday"/>
</service>
<service serviceID="free-day before free-day" description="(includes Saturdays and 1st Christmas day...)" startDate="2006-01-01" endDate="2008-01-01"> <!-- NOTE the question marks here! -->
<operatingDay operatingCode="????11?" dayType="holiday"/> <operatingDay operatingCode="000001?" dayType="afterHoliday"/> <operatingDay operatingCode="0000011" dayType="beforeHoliday"/> <operatingDay operatingCode="0000010" dayType="regularday"/>
</service>
<service servicelD="free-day before work-day" description="(includes most Sundays and 2nd Christmas day...)" startDate="2006-01-01" endDate="2008-01-01">
<!-- NOTE the question marks here! -->
<operatingDay operatingCode="????00?" dayType="holiday"/> <operatingDay operatingCode="000000?" dayType="afterHoliday"/> <operatingDay operatingCode="0000000" dayType="beforeHoliday"/> <operatingDay operatingCode="0000001" dayType="regularday"/>
</service>
</operatingPeriods>
But I still have question marks in some places.
Both dates 2006-12-26 and 2007-12-25 are Tuesdays, and both of them are holiday. By any definition that is based on dayType and day of week, they will be treated the same.
Yet 2006-12-26 should fall into "free-day before work-day" and 2007-12-25 into "free-day before free-day".
It seems that the definitions with "holiday", "beforeHoliday", etc.
cannot make this distinction. Correct?
The rules are complicated, but still not complicated enough!?
Maybe I should just skip all the <holiday> definitions and restrict
myself to only using explicit bitmasks?

- Another question about dayTypes:

If I am not interested in the dayType "afterAfterHoliday" and want to treat
all such days as "regularday", can I define that in a simple way or do I
always have to list an element
<operatingDay ... dayType="afterAfterHoliday" />
alongside the
<operatingDay ... dayType="regularday" />
with the same operatingCode?
If I don't list "afterAfterHoliday" in the <service ...> element, will all "afterAfterHoliday" days be excluded from that service?

Best regards,
Martin Weichert

## Subject: Re: operatingDay <br> Posted by Joachim. Rubröder on Wed, 14 Sep 2005 16:42:29 GMT <br> View Forum Message <> Reply to Message

Hello Martin,

- $\mathrm{X}=$ holiday $\quad$ : if X is listed as a <holiday> entry
- $\mathrm{X}=$ afterHoliday : if X != holiday, $\mathrm{X}-1=$ holiday.
- $\mathrm{X}=$ beforeHoliday : if X and $\mathrm{X}-1!=$ holiday, $\mathrm{X}+1=$ holiday.
- $\mathrm{X}=$ afterAfterHoliday: if X and $\mathrm{X}-1$ and $\mathrm{X}+1$ ! $=$ holiday, $\mathrm{X}-2=$ holiday.
- $\mathrm{X}=$ regularday $\quad$ : if X and $\mathrm{X}-1$ and $\mathrm{X}+1$ and $\mathrm{X}-2$ != holiday.
seems to be a correct definition.
Now to your Problem with "holiday-before-holiday" and
"holiday-not-before-holiday":
The 25.12. is both a holiday and a beforeHoliday but holiday is stronger.
If you like to define a train driving on all holidays but not on the holidays followed by other holidays, you have to use:
<operatingDay operatingCode="1111111" dayType="holiday"/> (on all holidays)
<special type="exclude" date="2005-12-24"/> (but not on 25.12.)
Your "free-day before free-day" should look like:
<service serviceID="free-day before free-day" description="(includes
Saturdays and 1st Christmas day...)" startDate="2006-01-01"
endDate="2008-01-01">
<operatingDay operatingCode="0000011" dayType="beforeHoliday"/>
(all Saturdays and Sundays before Holidays)
<operatingDay operatingCode="0000010" dayType="regularday"/> (all regular Saturdays)
<special type="include" date="2005-12-24"/> (also on holiday
25.12., even on Mo-Fr)
</service>
Maybe you should just skip all the <holiday> definitions and restrict yourself to only using explicit bitmasks?

Now to your second question. Every day is either a holiday (if listed as holiday) or a regularday.
If a service has no other operatingDay defined - that's it. If a service has a beforeHoliday definiton, then every day can be (for this sevice) either holiday or beforeHoliday or regularday.
Kind regards, Joachim

