

RE: New JDBC 1.2 driver runs slower than JDBC 1.1; my db definition

Source:

<http://www.tech-archive.net/Archive/SQL-Server/microsoft.public.sqlserver.jdbcdriver/2008-03/msg00010.html>

- *From:* Bob Heingartner <BobHeingartner@xxxxxxxxxxxxxxxxxxxxxxxxxxxxx>
 - *Date:* Mon, 17 Mar 2008 05:58:01 -0700
-

I do think this would happen in general, not just for my database; however, I do not have time right now to reproduce against a generic database. Both queries are against a single table (the person table)
Here is the definition of this table:

```
USE [ccc_glasgow_spey]
GO
/***** Object: Table [dbo].[Person] Script Date: 03/17/2008 08:51:21
*****/
SET ANSI_NULLS ON
GO
SET QUOTED_IDENTIFIER ON
GO
CREATE TABLE [dbo].[Person](
  [HomeServerCID] [int] NULL,
  [PersonEUID] [nvarchar](40) COLLATE SQL_Latin1_General_CP1_CI_AS NULL,
  [PersonGID] [decimal](19, 0) NOT NULL CONSTRAINT [DF_Person_PersonGID]
  DEFAULT ((0)),
  [FirstName] [nvarchar](63) COLLATE SQL_Latin1_General_CP1_CI_AS NOT NULL
  CONSTRAINT [DF_Person_FirstName] DEFAULT ("),
  [MiddleName] [nvarchar](60) COLLATE SQL_Latin1_General_CP1_CI_AS NOT NULL
  CONSTRAINT [DF_Person_MiddleName] DEFAULT ("),
  [LastName] [nvarchar](63) COLLATE SQL_Latin1_General_CP1_CI_AS NOT NULL
  CONSTRAINT [DF_Person_LastName] DEFAULT ("),
  [PersonType] [int] NOT NULL CONSTRAINT [DF_Person_PersonType] DEFAULT ((0)),
  [PIN] [int] NOT NULL CONSTRAINT [DF_Person_PIN] DEFAULT ((0)),
  [BadgeLayoutID] [int] NOT NULL CONSTRAINT [DF_Person_BadgeLayoutID]
  DEFAULT ((0)),
  [FacilityCode] [int] NOT NULL CONSTRAINT [DF_Person_FacilityCode] DEFAULT
  ((0)),
  [Inactive] [bit] NOT NULL CONSTRAINT [DF_Person_Inactive] DEFAULT ((0)),
  [Disabled] [bit] NOT NULL CONSTRAINT [DF_Person_Disabled] DEFAULT ((0)),
  [ADA] [bit] NOT NULL CONSTRAINT [DF_Person_ADA] DEFAULT ((0)),
  [Deleted] [bit] NOT NULL CONSTRAINT [DF_Person_Deleted] DEFAULT ((0)),
  [Noticed] [bit] NOT NULL CONSTRAINT [DF_Person_Noticed] DEFAULT ((0)),
  [LastModDT] [int] NULL CONSTRAINT [DF_Person_LastModDT] DEFAULT ((0)),
  [GlobalLastModDT] [int] NULL CONSTRAINT [DF_Person_GlobalLastModDT]
```

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DEFAULT ((0)),
[LastModPersonEUID] [nvarchar](40) COLLATE SQL_Latin1_General_CP1_CI_AS NULL,
[LastModPersonGID] [decimal](19, 0) NULL CONSTRAINT
[DF_Person_LastModPersonGID] DEFAULT ((0)),
[Text1] [nvarchar](255) COLLATE SQL_Latin1_General_CP1_CI_AS NULL
CONSTRAINT [DF_Person_Text1] DEFAULT ("),
[Text2] [nvarchar](255) COLLATE SQL_Latin1_General_CP1_CI_AS NULL
CONSTRAINT [DF_Person_Text2] DEFAULT ("),
[Text3] [nvarchar](255) COLLATE SQL_Latin1_General_CP1_CI_AS NULL
CONSTRAINT [DF_Person_Text3] DEFAULT ("),
[Text4] [nvarchar](255) COLLATE SQL_Latin1_General_CP1_CI_AS NULL
CONSTRAINT [DF_Person_Text4] DEFAULT ("),
[Text5] [nvarchar](255) COLLATE SQL_Latin1_General_CP1_CI_AS NULL
CONSTRAINT [DF_Person_Text5] DEFAULT ("),
[Int1] [decimal](28, 0) NULL CONSTRAINT [DF_Person_Int1] DEFAULT ((0)),
[Int2] [decimal](28, 0) NULL CONSTRAINT [DF_Person_Int2] DEFAULT ((0)),
[Int3] [decimal](28, 0) NULL CONSTRAINT [DF_Person_Int3] DEFAULT ((0)),
[Int4] [decimal](28, 0) NULL CONSTRAINT [DF_Person_Int4] DEFAULT ((0)),
[Int5] [decimal](28, 0) NULL CONSTRAINT [DF_Person_Int5] DEFAULT ((0)),
[Logical1] [bit] NOT NULL CONSTRAINT [DF_Person_Logical1] DEFAULT ((0)),
[Logical2] [bit] NOT NULL CONSTRAINT [DF_Person_Logical2] DEFAULT ((0)),
[Date1] [datetime] NULL,
[Date2] [datetime] NULL,
[ActivateAPEvent] [bit] NOT NULL CONSTRAINT [DF_Person_ActivateAPEvent]
DEFAULT ((0)),
[AssetAdministrator] [bit] NOT NULL CONSTRAINT
[DF_Person_AssetAdministrator] DEFAULT ((0)),
[ImageCaptureDT] [int] NULL CONSTRAINT [DF_Person_ImageCaptureDT] DEFAULT
((0)),
[BadgePrintDT] [int] NULL CONSTRAINT [DF_Person_BadgePrintDT] DEFAULT ((0)),
[SignatureCaptureDT] [int] NULL CONSTRAINT [DF_Person_SignatureCaptureDT]
DEFAULT ((0)),
[TransactionNum] [int] NOT NULL CONSTRAINT [DF_Person_TransactionNum]
DEFAULT ((0)),
[IsCcmUser] [bit] NOT NULL CONSTRAINT [DF_Person_IsCcmUser] DEFAULT ((0)),
[HasBeenCcmUser] [bit] NOT NULL CONSTRAINT [DF_Person_HasBeenCcmUser]
DEFAULT ((0)),
[ImageReplicationCategory] [int] NOT NULL CONSTRAINT
[DF_Person_ImageReplicationCategory] DEFAULT ((2)),
[ImageLastModDT] [int] NULL CONSTRAINT [DF_Person_ImageLastModDT] DEFAULT
((0)),
[Temp] [bit] NOT NULL CONSTRAINT [DF_Person_Temp] DEFAULT ((0)),
[CardLastModDT] [int] NULL CONSTRAINT [DF_Person_CardLastModDT] DEFAULT
((0)),
[PersonIdentifier] [decimal](20, 0) NOT NULL CONSTRAINT
[DF_Person_PersonIdentifier] DEFAULT ((0)),
[OrganizationalCategory] [decimal](20, 0) NOT NULL CONSTRAINT
[DF_Person_OrganizationalCategory] DEFAULT ((0)),
[OrganizationalIdentifier] [decimal](20, 0) NOT NULL CONSTRAINT
[DF_Person_OrganizationalIdentifier] DEFAULT ((0)),
[POAssociatCategory] [decimal](20, 0) NOT NULL CONSTRAINT

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```
[DF_Person_POAssociatCategory] DEFAULT ((0)),
[Int6] [decimal](28, 0) NULL,
[Int7] [decimal](28, 0) NULL CONSTRAINT [DF_Person_Int7] DEFAULT ((0)),
[Int8] [decimal](28, 0) NULL CONSTRAINT [DF_Person_Int8] DEFAULT ((0)),
[Int9] [decimal](28, 0) NULL CONSTRAINT [DF_Person_Int9] DEFAULT ((0)),
[Logical3] [bit] NOT NULL CONSTRAINT [DF_Person_Logical3] DEFAULT ((0)),
[Logical4] [bit] NOT NULL CONSTRAINT [DF_Person_Logical4] DEFAULT ((0)),
[Date3] [datetime] NULL,
[Date4] [datetime] NULL,
[Text6] [nvarchar](129) COLLATE Latin1_General_CI_AI NULL,
[Text7] [nvarchar](129) COLLATE Latin1_General_CI_AI NULL,
[Text8] [nvarchar](129) COLLATE Latin1_General_CI_AI NULL CONSTRAINT
[DF_Person_Text8] DEFAULT ("),
[Text9] [nvarchar](129) COLLATE Latin1_General_CI_AI NULL CONSTRAINT
[DF_Person_Text9] DEFAULT ("),
[Text10] [nvarchar](129) COLLATE Latin1_General_CI_AI NULL CONSTRAINT
[DF_Person_Text10] DEFAULT ("),
[Text11] [nvarchar](129) COLLATE Latin1_General_CI_AI NULL CONSTRAINT
[DF_Person_Text11] DEFAULT ("),
[Text12] [nvarchar](129) COLLATE Latin1_General_CI_AI NULL CONSTRAINT
[DF_Person_Text12] DEFAULT ("),
[Text13] [nvarchar](129) COLLATE Latin1_General_CI_AI NULL CONSTRAINT
[DF_Person_Text13] DEFAULT ("),
[Text14] [nvarchar](129) COLLATE Latin1_General_CI_AI NULL CONSTRAINT
[DF_Person_Text14] DEFAULT ("),
[Text15] [nvarchar](129) COLLATE Latin1_General_CI_AI NULL CONSTRAINT
[DF_Person_Text15] DEFAULT ("),
[Text16] [nvarchar](129) COLLATE Latin1_General_CI_AI NULL CONSTRAINT
[DF_Person_Text16] DEFAULT ("),
[Text17] [nvarchar](129) COLLATE Latin1_General_CI_AI NULL CONSTRAINT
[DF_Person_Text17] DEFAULT ("),
[Text18] [nvarchar](129) COLLATE Latin1_General_CI_AI NULL CONSTRAINT
[DF_Person_Text18] DEFAULT ("),
[Text19] [nvarchar](129) COLLATE Latin1_General_CI_AI NULL CONSTRAINT
[DF_Person_Text19] DEFAULT ("),
[Text20] [nvarchar](129) COLLATE Latin1_General_CI_AI NULL CONSTRAINT
[DF_Person_Text20] DEFAULT ("),
[Text21] [nvarchar](129) COLLATE Latin1_General_CI_AI NULL CONSTRAINT
[DF_Person_Text21] DEFAULT ("),
[Text22] [nvarchar](129) COLLATE Latin1_General_CI_AI NULL CONSTRAINT
[DF_Person_Text22] DEFAULT ("),
[Text23] [nvarchar](129) COLLATE Latin1_General_CI_AI NULL CONSTRAINT
[DF_Person_Text23] DEFAULT ("),
[Text24] [nvarchar](129) COLLATE Latin1_General_CI_AI NULL CONSTRAINT
[DF_Person_Text24] DEFAULT ("),
[Text25] [nvarchar](129) COLLATE Latin1_General_CI_AI NULL CONSTRAINT
[DF_Person_Text25] DEFAULT ("),
CONSTRAINT [PK_Person] PRIMARY KEY CLUSTERED
(
[PersonGID] ASC
)WITH (PAD_INDEX = OFF, IGNORE_DUP_KEY = OFF) ON [PRIMARY]
```

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```
) ON [PRIMARY]
```

```
GO
```

```
/** Many fields have indexes, they are all like this */
```

```
USE [ccc_glasgow_spey]
```

```
GO
```

```
/****** Object: Index [FirstName] Script Date: 03/17/2008 08:54:43 *****/
```

```
CREATE NONCLUSTERED INDEX [FirstName] ON [dbo].[Person]
```

```
(
```

```
[FirstName] ASC
```

```
)WITH (PAD_INDEX = OFF, SORT_IN_TEMPDB = OFF, DROP_EXISTING = OFF,
```

```
IGNORE_DUP_KEY = OFF, ONLINE = OFF) ON [PRIMARY]
```

```
/* Full list of fields with indexes, defined as above:
```

```
FirstName
```

```
FullName
```

```
GlobalLastModDT
```

```
Int1
```

```
Int2
```

```
Int6
```

```
Int7
```

```
LastModDT
```

```
PersonEUID
```

```
Text1
```

```
Text2
```

```
Text6
```

```
Text7
```

```
Text8
```

```
Text9
```

```
Text10
```

"Evan T. Basalik (MSFT)" wrote:

Bob,

While we did not specifically target performance with the v1.2 driver beyond the Adaptive Buffering changes, I am surprised that you are seeing slower performance with the v1.2 driver. Do you only see the problem with your custom database? Do you think the problem would reproduce against a generic database?

Also, it looks like both your SELECT and UPDATE statement are restricted to a single table. If that is the case, then can you provide the definition for your table and your Java code? I should be able to use those to generate some sample data pretty easily so I can do a similar test in my environment.

Evan

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Thread-Topic: New JDBC 1.2 driver runs slower than JDBC 1.1 driver---
expected??

thread-index: Ach+02cBj6yAlt+wSw2Q7Yv4oIbaxA==

X-WBNR-Posting-Host: 63.69.129.2

From: =?Utf-8?B?Qm9iIEhlaW5nYXJ0bmVy?=
<BobHeingartner@xxxxxxxxxxxxxxxxxxxxxxxxxxxx>

<BobHeingartner@xxxxxxxxxxxxxxxxxxxxxxxxxxxx>

Subject: New JDBC 1.2 driver runs slower than JDBC 1.1 driver---
expected??

Date: Wed, 5 Mar 2008 07:13:01 -0800

Lines: 22

Message-ID:

<D64A11AB-06AA-4210-AA6C-0B2686ED5E08@xxxxxxxxxxxxxxxx>

MIME-Version: 1.0

Content-Type: text/plain;
charset="Utf-8"

Content-Transfer-Encoding: 7bit

X-Newsreader: Microsoft CDO for Windows 2000

Content-Class: urn:content-classes:message

Importance: normal

Priority: normal

X-MimeOLE: Produced By Microsoft MimeOLE V6.00.3790.2992

Newsgroups: microsoft.public.sqlserver.jdbcdriver

Path: TK2MSFTNGHUB02.phx.gbl

Xref: TK2MSFTNGHUB02.phx.gbl

microsoft.public.sqlserver.jdbcdriver:453

NNTP-Posting-Host: tk2msftibfm01.phx.gbl 10.40.244.149

X-Tomcat-NG: microsoft.public.sqlserver.jdbcdriver

I have some test programs I run which do repeated simple SQL Select and
SQL

update statements. These test programs consistently take 5 to 10% longer to
run with the new JDBC 1.2 driver than they do with the JDBC 1.1 driver. Is
this expected? I thought the new driver was supposed to be higher
performance, not lower performance. Here is the select statement I am doing:

```
SELECT HomeServerCID, FirstName, MiddleName, LastName,  
PersonType, Pin,  
FacilityCode, Inactive, Disabled, ADA, Deleted, Noticed, LastModDT,  
Text1,  
Text2, Text3, Text4, Text5, text6, text7, text8, text9, Int1, Int2, Int3,  
Int4, Int5, Logical1, Logical2, Logical3, Logical4, Date1, Date2,  
ActivateAPEvent, AssetAdministrator, ImageCaptureDT,  
SignatureCaptureDT,  
PersonGID, LastModPersonGID, IsCCmUSer, HasBeenCCMUser FROM  
person WHERE  
PersonGID = xxxx
```

Here is the update statement:

```
UPDATE person SET HomeServerCID = HomeServerCID WHERE  
PersonGID = xxxx
```

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(In both cases, xxxx varies in a loop so different records are selected.)

I can provide the complete java source code if needed, but you will also need a database backup to run them.

Evan T. Basalik

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