

# Pseudo-Constants in SQL



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# PASSMN – News/Info



Thanks to all our sponsors of 2019!

We need Speakers & Sponsors for 2020 PASSMN Meetings!

- Sign up to present at one of the monthly meetings!

Monthly Meetup: 3<sup>rd</sup> Tuesday of Each Month (except Oct) at Microsoft MTC in Edina (food usually provided)

Signup on Meetup: <https://www.meetup.com/MN-SQL-Server-User-Group-PASSMN/>

Board Member Elections in November/December:

- Your chance to help out the MN SQL community!





Join the brightest data professionals focused  
on the Microsoft Data Platform!

November 3<sup>rd</sup> Through November 8<sup>th</sup>

- Pre-Conference Sessions – Monday/Tuesday
- Conference – Wednesday through Friday



# SQLSaturday #913 – After Party



Location: 4th Floor of Mall of America

Time: 6:30PM – 10PM

There will be drinks and appetizers as well as free game cards and bowling!

Hang out with some new friends you've made.



# Pseudo-Constant Candidates

3.1415926535

821480865144

288109757245

870066330572

703698336733

620005681271

120199561150

Infrequently  
Changed

Frequently  
Referenced

These digits are misleading.

[http://en.wikipedia.org/wiki/Washington\\_Park\\_MAX\\_Station](http://en.wikipedia.org/wiki/Washington_Park_MAX_Station)

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# They're everywhere...



- Sizes
- Order Statuses
- DEFCON Levels

# Whole mess o' strings...

- So much data.
- Performance problems.
- Consistency Issues.
- Inflexible names.



# Use Lookup Tables

- Less Space
- Better Performance
- Cleaner Data
- Numeric ID / Textual ID / Description



# Magic Numbers

- Codes
- Enums
- Constants
- IDs



# Traditional Option: Hard Coding

- Fast
- Easy
- Maintenance Nightmare

A close-up photograph of a needle and thread being used to sew through a dense, tangled mess of thin, yellowish-brown fibers, possibly dried plant material or twine. The needle is silver and has just pierced a loop of thread.

Did you find them all?

# Better Option: JOINs to Lookup Tables

- Text Codes
- Slightly Slower
- More Complex Query Plans



# Best Option: Pseudo-Constant Functions

- Fast
- Compiler Enforcement
- IntelliSense





Let's dive in...

# Pseudo-Constants



Inline Table-Valued  
User Defined  
Functions with a  
Column Per Value

SELECT  
FROM  
CROSS JOIN  
WHERE

\*

dbo.CalcConstOrderStatuses() os  
Orders AS o  
o.OrderStatusID = os.OrderStatusAssigned;



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A photograph of a young girl with dark hair, smiling, wearing a blue swimsuit with a white floral pattern. She is sitting on a white surface, applying white lotion or sunscreen to her legs. The lotion is visible on her skin and hands.

# Apply Liberally

- Ad-Hoc SQL
- Stored Procedures
- Views
- User-Defined Functions
- Persisted Calculated Columns



# Do not take with...

- Filtered Indexes
- OPTIMIZE FOR

# Riley Wheeler Major

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Director of Technology, PASSMN

[mnssug.org](http://mnssug.org)



pass mn  
SQL Server User Group

## Photo Credits

Day 187: Tilt-Shift Miniature Fake  
Snugg LePup  
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Very excited for cake  
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Everybody's Diving at the Beach  
Diana Robinson  
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## Photo Credits (continued)

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Jeff Krause

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Reflections on the new Machine Age – technology,  
inequality and the economy

Steve Jurvetson

<https://www.flickr.com/photos/jurvetson/16620787618>

apply liberally for best results

Ryan M. Follow

<https://www.flickr.com/photos/vancityscapes/2499792217>

pills

Dominique Godbout

<https://www.flickr.com/photos/dominiquegodbout/5180502739>

Additional References:

SQL Saturday Link:

<https://www.sqlsaturday.com/913/Sessions/Details.aspx?sid=96622>

Misleading Engraved Pi Digits

[http://www.o4sr.org/publications/pf\\_v4n3/PiUnderground.htm](http://www.o4sr.org/publications/pf_v4n3/PiUnderground.htm)

Wisconsin PASS Chapters:

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