Signs Your SQL Server Execution Plan Needs You
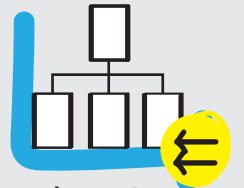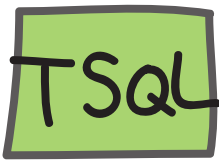
Right click on the SELECT operator and view the properties. Was there an optimization timeout? Implicit conversion warnings? The warning sign appears in Management Studio for SQL 2012 and higher.

SELECT

Two arrows in a yellow circle indicate parallelism. Parallelism is great when you really need it. Test breaking large queries with tons of parallel operators into smaller steps.

Index Scan

Scalar functions love to hide.
Look for them in estimated plans.
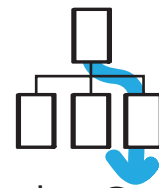Scalar functions may each run a subquery once per every row returned by your query.

UDF

Missing Index (Impact 88.9845): CREATE NONCLUSTERED INDEX [<Name of Missing Index, sysname,>] ON [SomeSchema].[Sometable] ([It's],[Always],[A],[Nonclustered],[Index])

Script execution plan XML to see if there's secretly more than one index request. Check existing indexes before adding new ones!
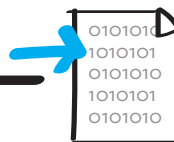
Check the properties of key lookups. Look at columns in the output list and identify if modifying an index to "cover" the columns of the query might eliminate the key lookup and reduce IO.

Nested Loop

Index Seek

Key Lookup

Key Lookup
Object
Schema.Table.
ClusteredIndex-
Name

Output List
Schema.Table.
Column1

Can you eliminate the sort with an index change? Should this sorting happen in the calling application?

SORT

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