White Paper

embarcadero®

Zero to hero with SQL Server Management Studio

By Pinal Dave

For

Embarcadero Technologies

September 2014

INTRODUCTION

World is full of interesting challenges and we are in constant run every single day chasing our dreams. Especially in the Software ecosystem, it is not about literally our dreams but about the release scheduled in the next couple of months. We are on a constant run every single day and we stop appreciating the journey we are taking.

I am reminded of an interesting conversation I had with a friend few months back. In a casual visit with family, I saw his cousins had come over from out of country and they seemed to be really interested in a number local attractions in their short visit. I took a note of few names that came out in the interactions and promised my daughter to take her there soon. The whole incident made me think on a different way. Being almost in the city for more than 5 years, I am long way from exploring what the city has to offer. Our lives are always on the fast lane and as mentioned before, we forget to enjoy and relish the journey. This analogy has so much to do with this whitepaper.

As a developer or DBA, we have our share of time working with SQL Server. In this process of working with SQL Server, the default tool of our choice is always SQL Server Management Studio. Similar to the incident shared before, we spend so much time on this fun tool that we hardly appreciate or explore what the tool has to offer. In this whitepaper, we will look at some of the capabilities available with SQL Server Management Studio that will make each one of us more productive. We will discuss my favorite tips worth sharing about SSMS next.

SSMS STARTUP

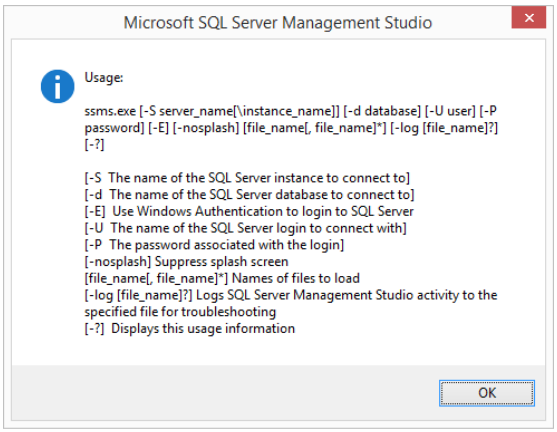
The most common way to invoke SSMS is using the shortcut from our start menu. If you are on Windows 8 machine, then we can search for SQL Server Management Studio to invoke the same –

There is yet another method to invoke SSMS is using the command prompt. Infact, the shortcut is ssms.

C:\> **ssms**

This will bring the SSMS just like the shortcut we invoked before. The more interesting way to look at this short cut is to check the various options available with SSMS command line parameters. To check them, use the following command:

C:\> ssms /?

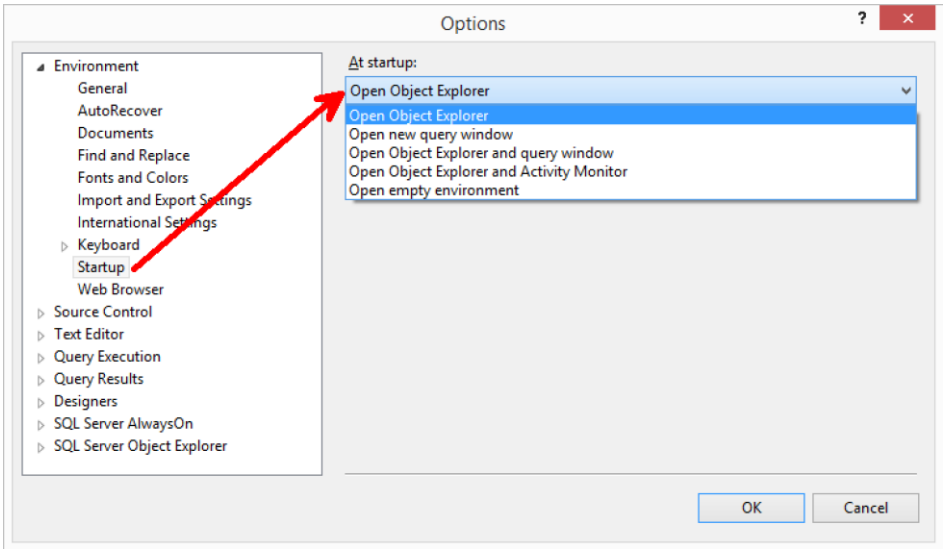


This bring us the various options as shown. The most interesting option here is the capability to use the –S option like SQL Server Name and the steps it normally takes to make an SSMS studio completely operational for work would include close to 3-4 clicks. If we is –E option, then we can load the SQL Server Management Studio directly with a query window. This is the simplest way to get productive in one go.

```
Invoke SSMS with Integrated Authentication to the default server.
C:\> ssms -E

Invoke SSMS using Server name, UserName and Pwd.
C:\> ssms –S BigSQL –U Pinal –P C0mp!exPwd
```

Another extension to this tip is the ability to change how the SSMS Window starts. If we check the Tools -> Options Dialog box we can see:

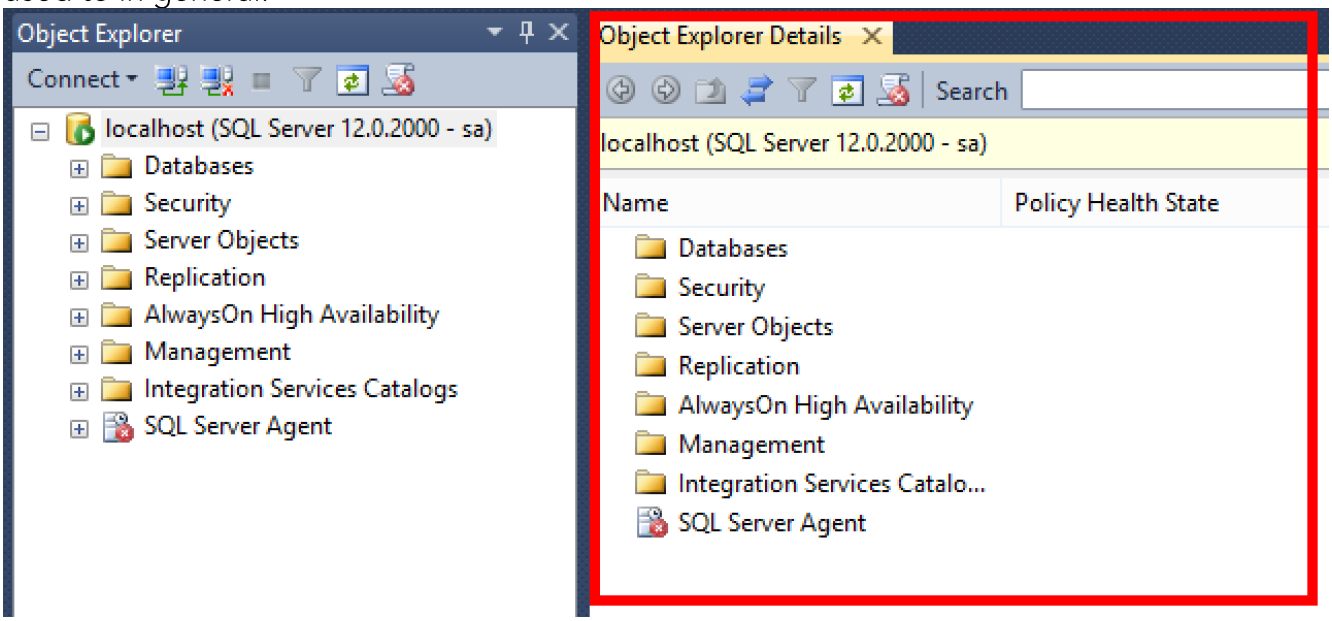


There are a number of options to choose from and the default is “Open Object Explorer”. We have the choice to change them to any of the other values, this will take effect next time we call SSMS.

OBJECT EXPLORER DETAILS – LESSER KNOWN GEM

The best way to learn about the various capabilities of "Object Explorer Details" is by using them daily at your work. But how can one use them, if we are not sure of their capabilities? I have personally seen this Explorer as a productivity enabler.

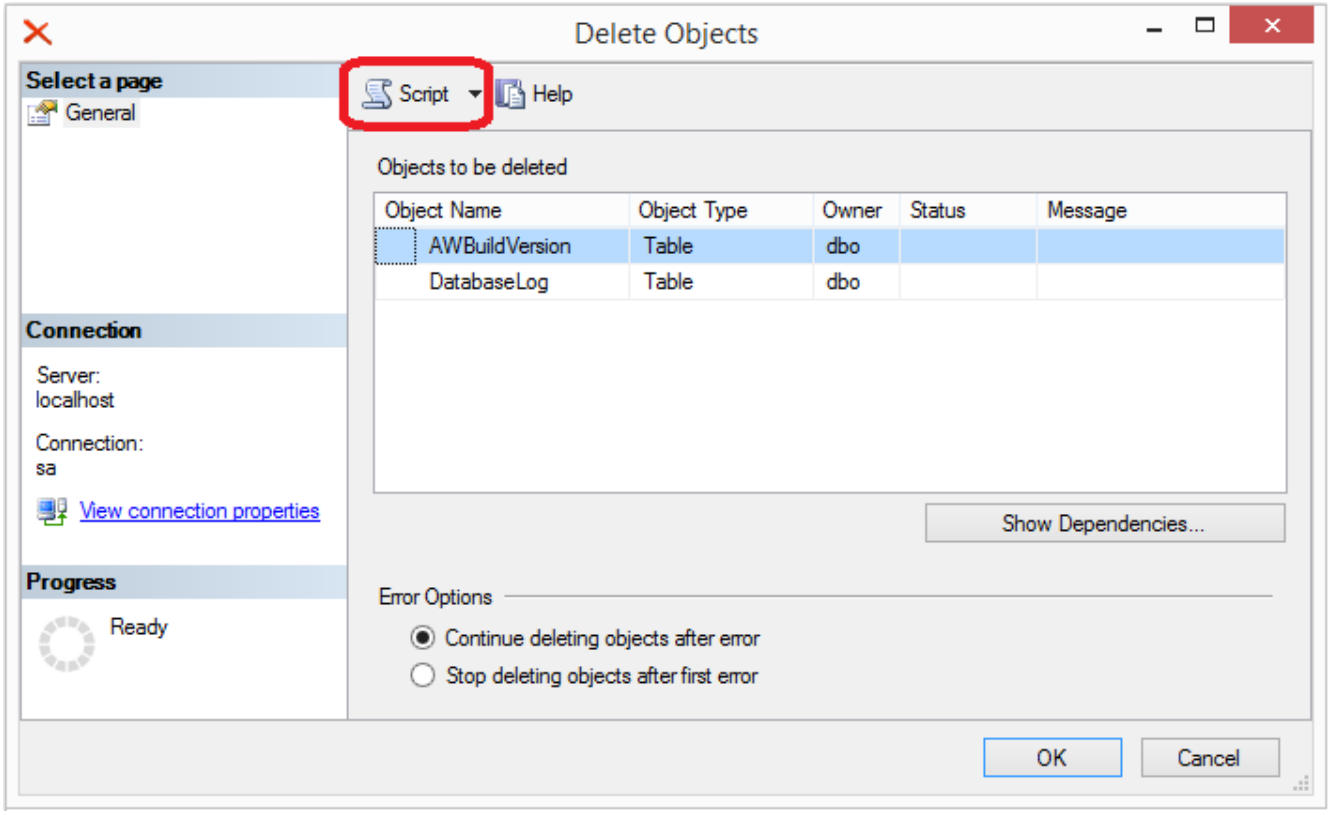
To bring up the Object Explorer Details pane, use the F7 shortcut or it can be accessed from Toolbar -> View -> Object Explorer Details. Whenever I talk about the Details pane, developers sometimes get confused with the standard Object Explorer Pane that they are used to in general.



DELETE MULTIPLE OBJECTS

Personally, I have seen this as a neat trick to ask at the Local user group meetups every now and then. The question I ask is – "Is there a way to Drop multiple objects in one key stroke?". And the bonus trick question is "Is there a way to Script Drop of multiple objects in one key stroke?" Either ways, the simple answer to this is with Object Explorer Details.

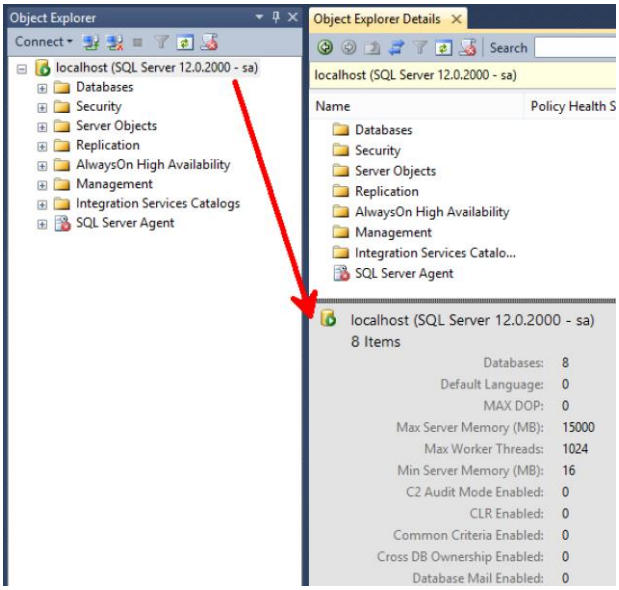
To achieve this, get to the correct folder from your Object Explorer – let us assume this to be the Table node. From the Object Explorer Details Pane, select the two objects and press Delete Key. We will be presented with a dialog to delete and from the top toolbar, we can also script them out easily.

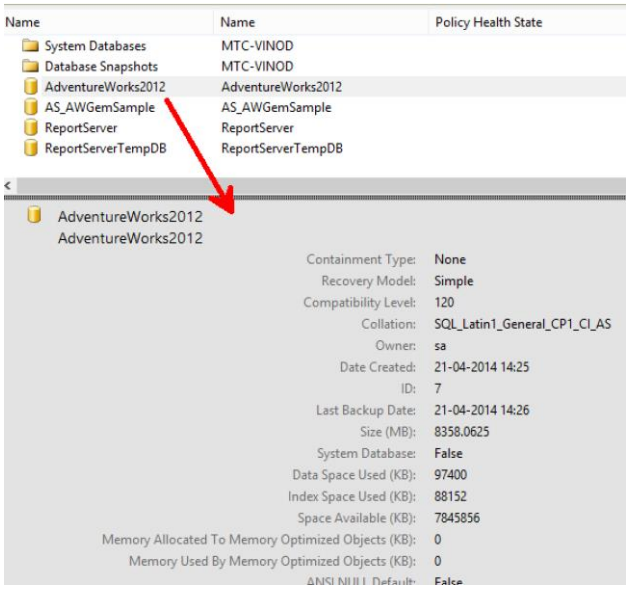


PROPERTIES FOR OBJECTS / NODE

Depending on where the Object Explorer details node is, we can get some interesting and additional information which might take us a lot of time. Here are couple of these details which I thought is worth to share.

The next two images show us completely different data because the first one is around Server Level information and the second at an individual DB level.





All these data are available in DMVs. But as a DBA, having these handy in a single click via SQL Server Management Studio is really powerful. Think about questions like:

- How much RAM is on the Server?
- How many Databases are available on a given instance of Server?
- What is the Data Space used by each Database?
- How much free space is available on a given Database?
- When was the last backup taken for a given database?
- What are the recovery models and compatibility Levels for current databases?

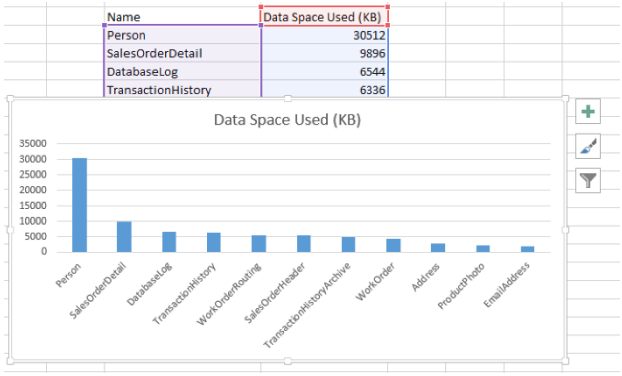
These are simple yet powerful answers we can get quickly using the details pane.

Exploring Copy Data Capability

Think about a requirement to beautifully represent data about our database in a graphical form. For example, we want to build a graph of top 10 tables by size within our database. This can be easily achieved using the following Steps:

1. Get to the Databases and then Tables Folder in Object Explorer Details.
2. Right click the top ribbon and add column – "Data Space Used (KB)" to the details pane.
3. Remove other columns not of interest from the Object Explorer Details just like how we added a column in the previous step.
4. Now click on this column to sort data in descending order.
5. Next Select the top 10 or how many every rows as desired.
6. Press Ctrl + C to copy the contents into Clipboard. If you were wondering, yes – this does work.
7. Open Excel and paste the data.
8. Press Alt+F1 to build a graph.

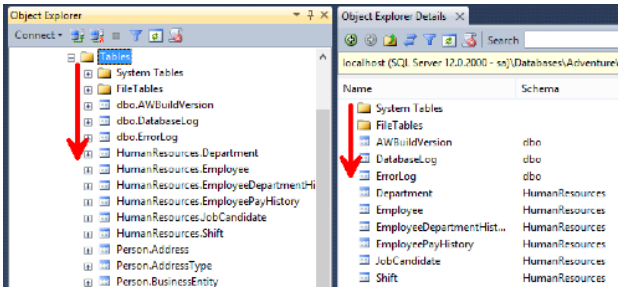
Shown is an output of the above steps from my AdventureWorks Database.



Type and Navigate

I have had my opportunity to work on databases that have few 1000s of tables and it is sometimes difficult to get to the object from the Object Explorer and Object Explorer Details because we need to scroll through tons of data. Lesser known is the trick that we can type the object name and both Object Explorer and Object Explorer Details can take us to that point directly.

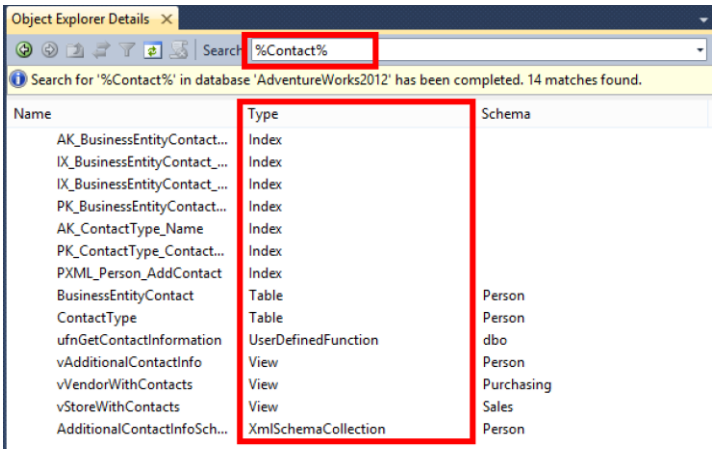
In this example, we can either type from the Tables node under "Object Explorer" or we can select the "Object Explorer Details" Pane and type the object name. The end result for both are the same. We will automatically get scrolled to the point where the object is. The only difference being, in Object Explorer we need to



also type the Schema name followed by the object, while in the Details pane we can directly type the Object name. Neat isn't it?

SEARCHING OBJECTS FROM WHOLE DB

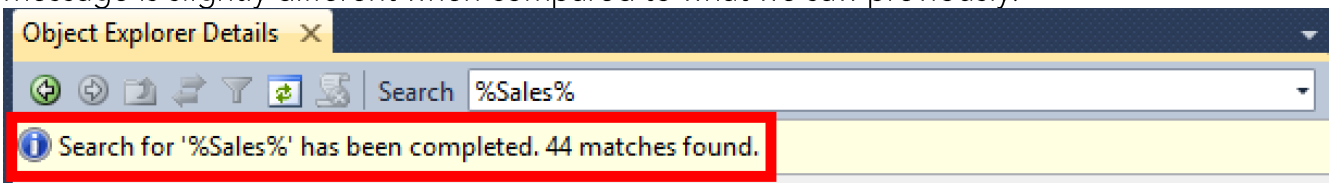
Let us take a scenario where we need to search for a keyword and search it across our database for objects having this keyword? Now we need to search across object types like Tables, Stored Procedures, Triggers, Synonyms etc? This can be achieved using Object Explorer Details Pane. There is a search bar right on the top and type with keywords to find the same.



In this example, we have gone ahead searching for a keyword "Contact" and to we are using "%" as a wildcard character. This tells SQL Server Management Studio to display all the objects that are having the word "Contact" in their name.

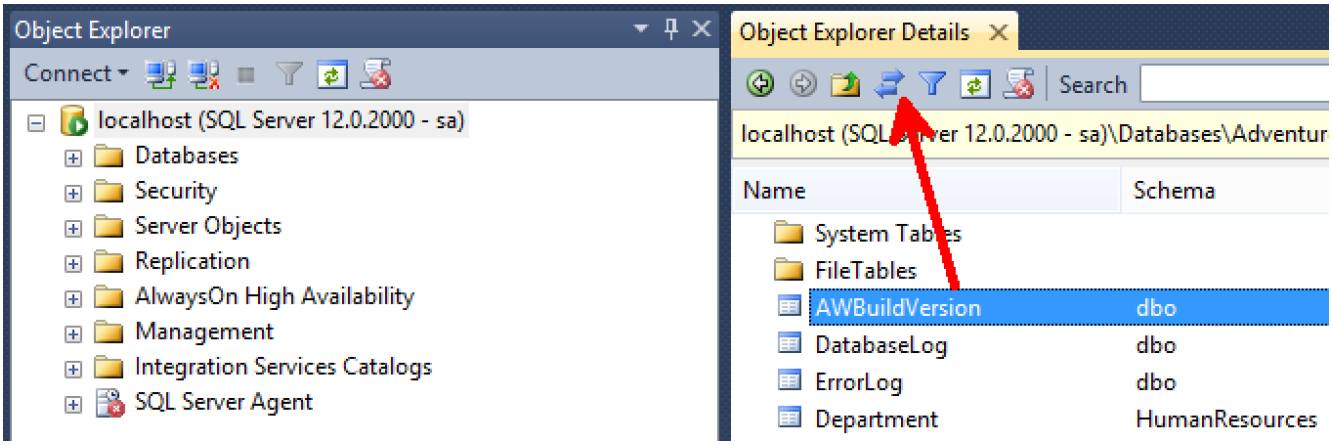
As we can see from the "Type" column, we have a mix of Indexes, Table, userDefinedFunctions, Views and XML Schema Collection as part of the search we just performed. The top bar shows an interesting information – it says "Search for '%Contact%' in database 'AdventureWorks2012' has been completed.

If you want, we can expand on this search capability and do the same search at an instance level. If we select the Server name under Object Explorer and perform a search here with wildcard – this search will happen across databases, across all objects. As you can see, the message is slightly different when compared to what we saw previously.



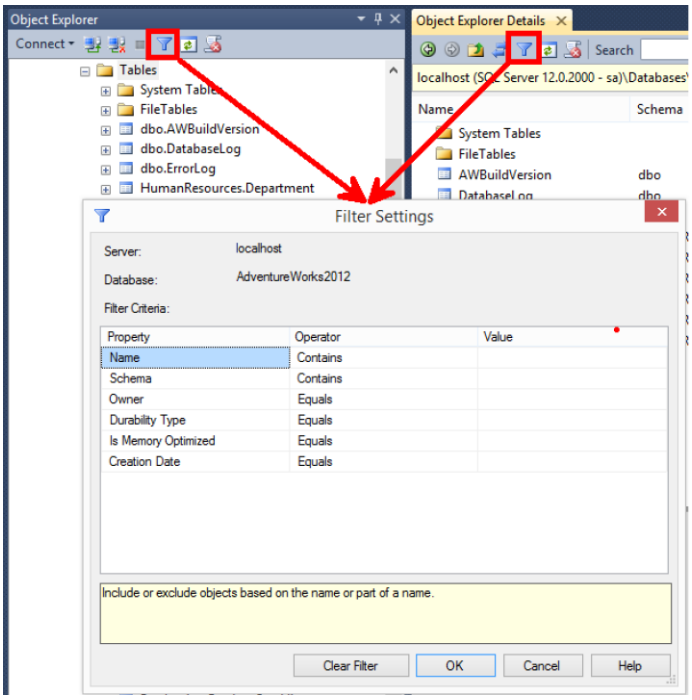
SYNC WITH OBJECT EXPLORER DETAILS

A lot of times when we start our work using Object Explorer Details, we can see working inside a shell that is not in sync with the "Object Explorer" pane. Sometimes we would love to get to that node on our Object Explorer pane and this can be easily achieved using the Sync button on top of "Object Explorer Details" pane.



KNOW YOUR FILTERS

If you work with enterprise level software, the chances of you dealing with 100s of tables if not 1000s is quite possible. I have seen developers and DBA's struggle scrolling through this tons of data. Earlier in this whitepaper we showed you ways to search, type and get to the location. There is yet another method to work with the same, which is using Filters.



There are couple of ways we can invoke the same.

1. Use the Object Explorer to get to the given node and in the above example we are at the "Tables" node and we have used the "Filter" icon available in Object Explorer.
2. We can get the same effect of filter and the dialog from our "Object Explorer Details" pane. Similar to earlier point, drill down to the node under question and then click on the "Filter" icon from the toolbar.

Adding a filter for object like 'Person', 'Sales' or anything else will filter both on the "Object Explorer" pane and "Object Explorer Details" pane at the same time.

I highly recommend using this technique because we are not having a need to scroll through tons of data before narrowing down to our desired content.

CONCLUSION

Personal productivity is one of the key things a developer or a DBA loves to know about. In this whitepaper, I have covered some of the simplest of tricks using "Object Explorer" and

"Object Explorer Details" that you can start using in your environment. These are simple yet powerful shortcuts that each one of us can start using effectively immediately at our work. This is a journey and in future whitepapers we will look into other productivity techniques available with SQL Server Management Studio and will explore over them. Do let me know if you used any of these in your environment and found it useful.

NEXT STEPS

For more information about Embarcadero award-winning database tools and to try them for free, visit www.embarcadero.com/products/database-tools.

About the Author

Pinal Dave is a Developer Evangelist. He has authored 11 SQL Server database books, 14 Pluralsight courses and has written over 2900 articles on the database technology on his blog at http://blog.sqlauthority.com. Along with 10+ years of hands on experience he holds a Masters of Science degree and a number of certifications, including MCTS, MCDBA and MCAD (.NET). His past work experiences include Technology Evangelist at Microsoft and Sr. Consultant at SolidQ.

Embarcadero Technologies, Inc. is the leading provider of software tools that empower application developers and data management professionals to design, build, and run applications and databases more efficiently in heterogeneous IT environments. Over 90 of the Fortune 100 and an active community of more than three million users worldwide rely on Embarcadero's award-winning products to optimize costs, streamline compliance, and accelerate development and innovation. Founded in 1993, Embarcadero is headquartered in San Francisco with offices located around the world. Embarcadero is online at www.embarcadero.com.