

Script error or incorrect results

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Self-help content presented in Azure Portal

Script error or incorrect results

Resolve script errors or incorrect results

The following sections describe how to identify and resolve script errors and incorrect results.



Scan the following headings, and select one or more that will help resolve your issue.

Troubleshooting R script errors

Valid script fails in T-SQL or in stored procedures


Before wrapping your R code in a stored procedure, it is a good idea to run your R code in an external IDE, or in one of the R tools such as RTerm or RGui. By using these methods, you can test and debug the code by using the detailed error messages that are returned by R.

However, sometimes code that works perfectly might fail to run in a stored procedure or in SQL Managed Instance. If this happens, there are a variety of issues to look for:

- Review messages to see whether either the input data or output data contains columns with incompatible or unsupported data types. For example, queries on a SQL database often return GUIDs or RowGUIDs, both of which are unsupported. See R [libraries and data types](#) .
- Review the help pages for individual R functions to determine whether all parameters are supported for the SQL Server compute context. For ScaleR help, use the inline R help commands, or see [Package Reference](#) .

Related troubleshooting information

How is Resource Governance managed when we enable Machine Learning Services for Azure SQL Managed Instance

- It is not possible to limit R resources through Resource Governor and external resource pools. R resources are set to a maximum of 20% of the SQL Managed Instance resources, and depend on which service tier you choose. See Azure SQL Database purchasing models [Resource Governance](#) 

What if I get message "External script execution for 'R' script ran out of resources" or "A R' script error occurred during execution of 'sp_execute_external_script" ?


- If there is insufficient memory available for R, you will get an error message. Common error messages are:
 - "Unable to communicate with the runtime for 'R' script for request id: *****. Please check the requirements of 'R' runtime"
 - "'R' script error occurred during execution of 'sp_execute_external_script' with HRESULT 0x80004004. ...an external script error occurred: ..could not allocate memory (0 Mb) in C function 'R_AllocStringBuffer'"
 - "An external script error occurred: Error: cannot allocate vector of size."

If you receive one of these errors, resolve it by scaling your database to a higher service tier.



- Memory usage depends on how much is used in your R scripts and the number of parallel queries being executed. If you receive the errors above, scale your database to a higher service tier to resolve this. In case of a Service Level Objective (SLO) update, update the SLO and raise a support ticket to re-enable the dedicated resource limits for R/Python.

[Script errors due to insufficient memory](#) .

Using sp_execute_external_script stored procedure


sp_execute_external_script stored procedure executes a script provided as an input argument to the procedure, and is used with Machine Learning Services and Language Extensions. For Azure SQL Managed Instance, only Python and R are supported. External languages such as Java cannot be added. See [sp_execute_external_script](#) 





How do I install a new package?

Most common open-source R packages are pre-installed in Machine Learning Services. In addition to the pre-installed packages, you can also install additional packages. - [Install new R packages with sqlmlutils](#)  - [Install Python packages with sqlmlutils](#) 

Resources

- Key differences between Machine Learning Services in Azure SQL Managed Instance and SQL Server: The functionality of Machine Learning Services in Azure SQL Managed Instance is nearly identical to SQL Server

Machine Learning Services. The key differences are listed in [Key differences between Machine Learning Services in Azure SQL Managed Instance and SQL Server](#) .

- [Quickstart: Run simple R scripts with SQL machine learning](#) 
- [Quickstart: Run simple Python scripts with SQL machine learning](#) 
- [R tutorials for SQL machine learning](#) 
- [Python tutorials for SQL machine learning](#) 

How good have you found this content?



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