

# R Support for Microsoft Azure Machine Learning

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# Agenda

- **Intro to Microsoft Azure ML**
- **Intro to ML Studio**
- **R Support**
- **What can you do with Azure ML & R?**
- **Demo**

# Intro to Azure ML

- Powerful cloud-based predictive analytics platform
- Designed for new and experienced users
- Proven algorithms from MS Research, Xbox and Bing
- Seamless connection to HDInsight/Hadoop for big data solutions
- Deploy models to production in minutes
- Pay only for what you use. No hardware or software to buy
- First class support for the open source language R

# Intro to ML Studio

Build, Test and Deploy to production just by clicks

The screenshot displays the Microsoft Azure Machine Learning Studio interface. The main workspace shows a workflow titled "Demo-EvaluateModel" in draft status. The workflow starts with "Breast cancer data", followed by "Transform Data By Scaling" and "Split". The data is then split into two paths: one leading to "Two-Class Logistic Regression" and another to "Two-Class Decision Forest". Both paths include "Train Model" and "Score Model" steps, which all show green checkmarks indicating successful completion. The final step is "Evaluate Model", also with a green checkmark. A right-hand sidebar shows the "Properties" for the selected "Two-Class Decision Forest" model, with settings such as "Resampling method" set to "Bagging", "Number of decision trees" set to 8, and "Maximum depth of the decision..." set to 32. The status is "Finished" with a "Task output was present in" message. The bottom of the interface features a toolbar with icons for "NEW", "VIEW RUN HISTORY", "SAVE", "SAVE AS", "DISCARD CHANGES", "REFRESH", "CANCEL", "RUN", and "PUBLISH WEB SERVICE". The Windows taskbar at the very bottom shows the time as 6:11 AM on 14/08/2014.

# R Support

- Execute R Code
- Module: Execute R Script
  - Embed R code
  - Call a uploaded R Script file
- More than 400 packages (as of today) available out of the box
- R Device Support
  - Graphic packages available (ggplot2)
- Can install your favourite package through your script
- Consume the published model thru R (Sample code auto generates)

# What can you do with Azure ML & R?

- **Extend the existing Model thru R**
  - Build New model
  - Data Exploration on Azure ML
  - Validate, Test with R
- **Use it just a cloud based platform to deploy your R code to Production**
- **Data Limit**
  - 10 GB if uploading as data file (as of now!)
  - No limit if pulling data from Hadoop/NoSQL etc

# Demo

- [Demo1 – 3 min](#)
- [Demo2 – 7 min](#) (Tutorial `Execute R Script` Module)

# Thank You!



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