



# Deep Dive into the SSIS Catalog

**Tim Mitchell**, Tyleris Data Solutions





Please silence  
cell phones

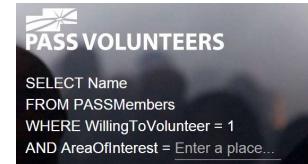
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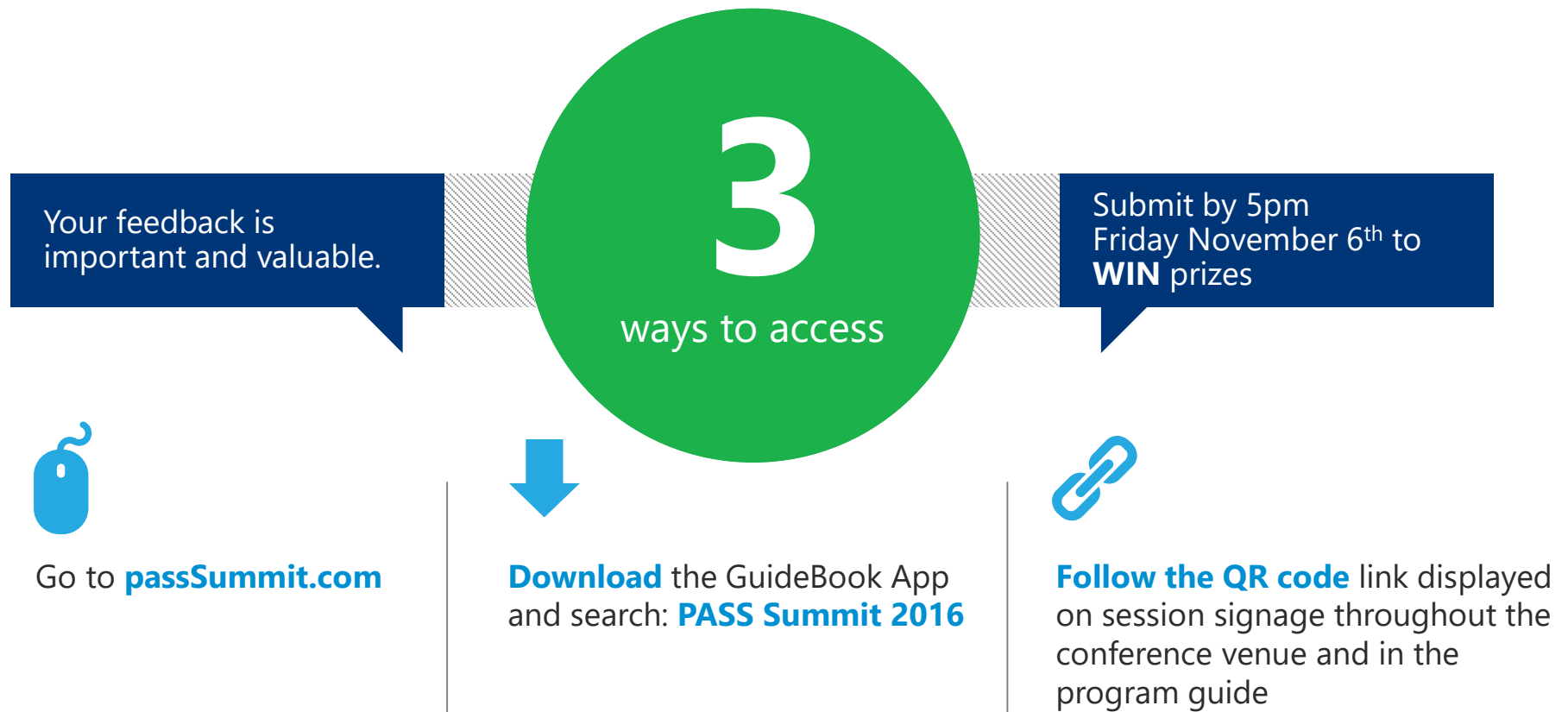
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# Session Evaluations





# Tim Mitchell

## Data Architect, Tyleris Data Solutions

Microsoft Data Platform MVP  
Coauthor, SSIS Design Patterns  
Dallas, Texas area  
Does not like piña coladas or getting caught in the rain



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# Agenda

- Catalog overview
- Deployment
- Execution
- Logging
- Demos



# Catalog overview

- Package Storage History
- MSDB (DTS and SSIS)
- File system



# Catalog overview

- New in 2012
- Central point for deployment, execution, logging
- Project-level deployment





# Catalog overview

- SSISDB database
- Dedicated to SSIS
- MSDB -> SSISDB



# Catalog overview

It's just a database (sort of)

- No more MSDB storage
- Dedicated database, tables, views, and sprocs
- Not installed by default



# Catalog overview

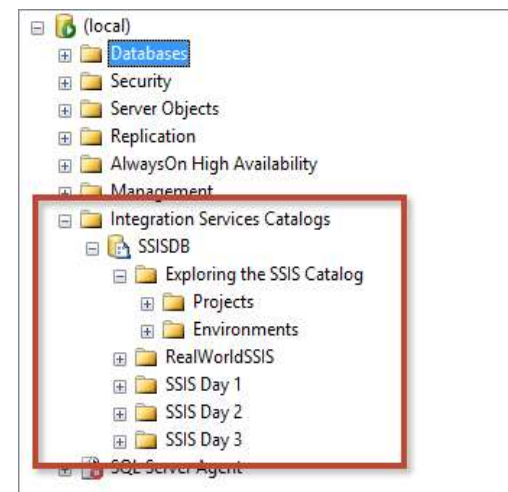
## Database structure

- Modifications possible but not recommended
- Custom objects

# Catalog overview

## Integration Services Catalog

- Browsing node in SSMS
- One catalog per instance
- Folder structure
- Environments





# Catalog overview

Deployment granularity = project, not package

- Application vs. component
- Requires careful attention to source control



# Catalog overview

## Versioning

- Maintains a brief history of deployed projects
- Not a substitute for source control!



# Catalog overview

## Parameters

- Project parameters
- Package parameters



# Catalog overview

## Configurations

- “The old way” but still supported
- Package/project parameters





# Catalog overview

## Environments

- Collections of variables
- Many-to-many
- Set environment at runtime



# Catalog overview

## Environments

- Environments provide parameter values at runtime



# Catalog overview

## Logging

- Simplified – just 3 logging levels\*
- Integrated in SSISDB
- Runtime setting



# Catalog overview

## Logging

- Natively log row counts in data flow



# Deployment



# Deployment

## Tools

- SSMS
- T-SQL
- Visual Studio
- dtutil



# Package Execution



# Package Execution

## Tools

- SSMS
- T-SQL
- Visual Studio\*
- dtexec





# Package Execution

## Tools

- Schedule via SQL Server Agent
  - UI
  - T-SQL



# Logging



# Logging

- All operations are logged to SSISDB logging tables
- Convenient but inflexible



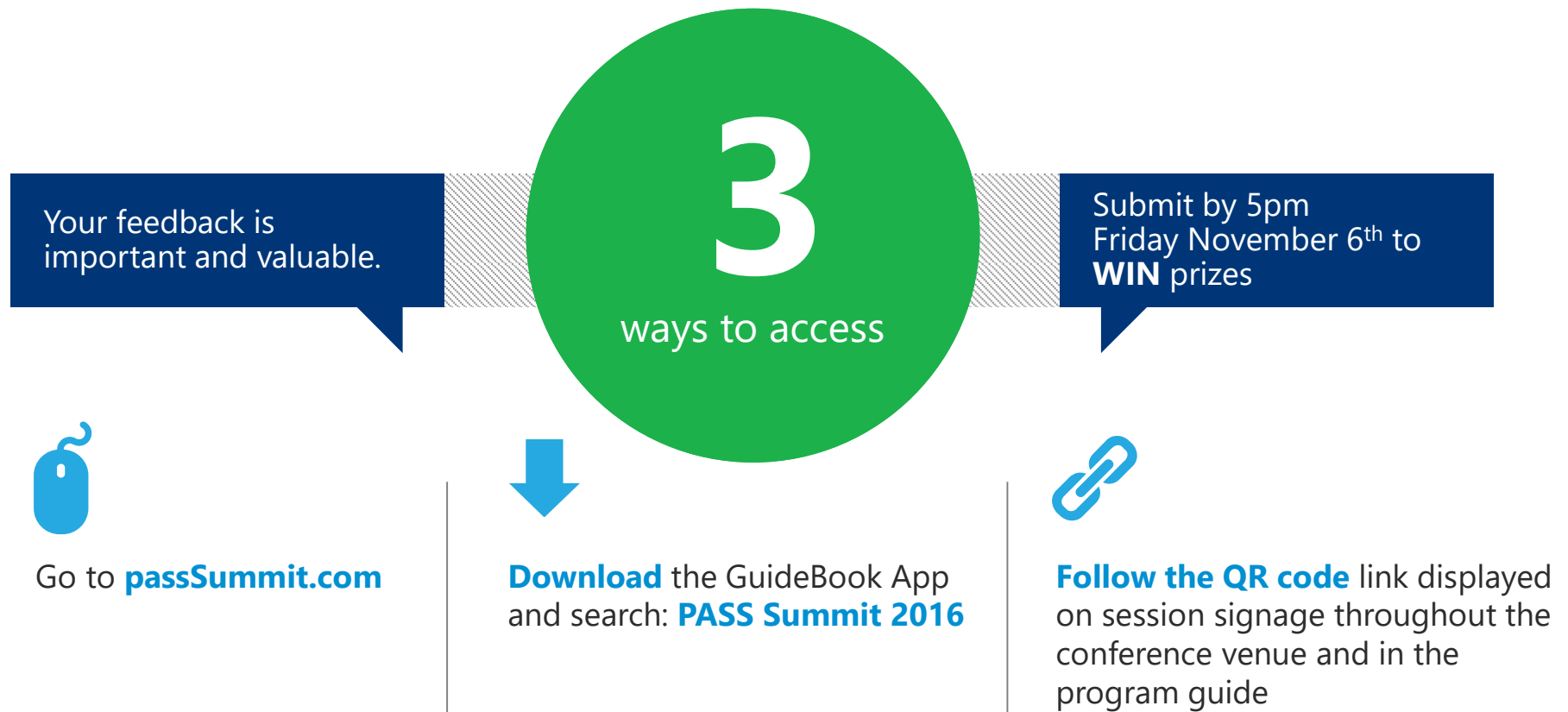
# Logging

- Four logging levels
  - Basic (default)
  - Performance
  - Verbose
  - None
- Custom logging levels (2016)
- Row counts



# Demos

# Session Evaluations





# Thank You

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Learn more from

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