Why MATLAB?

1. Analytics increasingly require **both business and engineering data**

DATA
- Engineering, Scientific, and Field
- Business and Transactional

2. Enable **Domain Experts to be Data Scientists**

3. Develop **embedded systems** with analytics powered functionality

4. Develop analytics to run on **both enterprise and embedded platforms**

Embedded Systems

Data Scientist

Business Systems
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Smarter Embedded Systems

Data Scientist

Business Systems
Why MATLAB?

Quantitative Analysts → MATLAB → Programmers of the calculation rules → IT-specialists for front-end visuals → MATLAB production server
Write Your Programs Once
Then Share To Different Targets

MATLAB

MATLAB Compiler

MATLAB Compiler SDK

Apps
Files
Custom Toolbox
Standalone Application
Excel Add-in
Hadoop
C/C++
Java
.NET
Python
MATLAB Production Server

With MATLAB Users

With People Who Do Not Have MATLAB

MATLAB EXPO 2016
Share with MATLAB Users

- Package an App
- Package Entire Toolboxes
- Directly share MATLAB files
Share with People Who Do Not Have MATLAB

Share Applications Built Completely in MATLAB

Integrate MATLAB Programs With Your Own Software

- IP Protection via Encryption
- Royalty-free Sharing
Share Applications Built Completely in MATLAB

1. Application Author
   - MATLAB
   - Toolboxes
2. MATLAB Compiler
   - Standalone Application
   - Excel Add-in
   - Hadoop
3. End User
   - MATLAB Runtime
Integrate MATLAB Programs With Your Own Software

1. Application Author

MATLAB Toolboxes

S=31; X=30
C=blsprice
P=C-S+X*ex

MATLAB Compiler SDK

C/C++, .NET, Python, Java

MATLAB Production Server

Application author and software developer *might* be same person

2. MATLAB

3. Software Developer

MATLAB Runtime

4. MATLAB EXPO 2016
Scale Up with MATLAB Production Server

Most efficient path for creating enterprise applications

Deploy MATLAB programs into production
- Manage multiple MATLAB programs and versions
- Hot Deployment: Update programs without server restarts
- Reliably service concurrent requests

Integrate with web, database, and application servers
Share with People Who Do not Have MATLAB

- Program once, then choose your target:
  - Desktop, Web, Enterprise applications
  - C++, Java, Python, .NET

- Royalty-free distribution

- Encryption to protect your IP