Application Deployment with MATLAB

MATLAB-EXPO, Bangalore
10-Jul-2014

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Recap…

**Access**
- Files
- Software
- Hardware

**Explore and Discover**
- Data Analysis and Modeling
- Algorithm Development
- Application Development

**Share**
- Reporting and Documentation
- Outputs for Design
- Deployment

**Automate**
Ways to share your work using MATLAB

1. Create Project Reports

2. Sharing MATLAB programs with **MATLAB Users**

3. Share MATLAB programs with people who **do not have MATLAB**
   
   I. Create Standalone Executable
   
   II. Integrate MATLAB programs with other applications
   
   III. Deploy MATLAB application on large scale
2. Sharing MATLAB programs with MATLAB Users

1. Create Zip-
   • Share source code

2. Create MATLAB App-
   • Source code is hidden
2. Sharing MATLAB programs with MATLAB Users Continued...

- Share Apps directly with the user community

- Get Apps directly from user community
3. Share MATLAB programs with people who do not have MATLAB

I. Create a StandaloneExecutable: .exe, .dll

II. Create a Library to Integrate MATLAB programs with other applications: Excel/.NET/Java

III. Compile to a server for large scale distribution
Deploying Applications with MATLAB

1. MATLAB Desktop

2. MATLAB Compiler

3. MATLAB Compiler Runtime (MCR)

Toolboxes

MATLAB Application

.exe
Customizations for your Applications

- **Metadata**
- **Graphics for splash screen**
- **Icons**
- **Installed applications accessible from Windows Start menu and Add/Remove Programs**
- **Graphics for installer**

Select icon

![Select icon](image)

- Use mask
- Use border

Save and Use

**Application Information**

- Application Name
- Author Name
- Email
- Company
- Summary
- Description

![Application Information](image)

- Runtime downloaded from web
- Standalone Application

![Runtime downloaded from web](image)

- Add main file

![Add main file](image)

- MyAppInstaller_web

![MyAppInstaller_web](image)

- Runtime included in package

![Runtime included in package](image)

- MyAppInstaller.msi

![MyAppInstaller.msi](image)

- 5 MB

![5 MB](image)

- 410 MB

![410 MB](image)

- Settings

![Settings](image)

- Package

![Package](image)
Integrate MATLAB programs with other applications

- Generate add-ins, components, and libraries to integrate with Microsoft Excel®, .NET, and Java™
- Support web technologies such as ASP.NET, SOAP, XML, JavaScript, and HTML
- Scalable applications via Java RMI and .NET remoting
Deploy MATLAB application on large scale

- Capabilities scale to support desktop, web, or enterprise applications
  - MATLAB Production Server™ provides most efficient path to scalable, secure enterprise applications
Scale up with MATLAB Production Server

- Most efficient path for enterprise applications
- Deploy MATLAB programs into production
  - Manage multiple MATLAB programs and versions
  - Update programs without server restarts
  - Reliably service large numbers of concurrent requests
- Integrate with web, database, and application servers
Summary: MATLAB Application Deployment

1. Share Project Work in form of REPORTS

2. Share MATLAB programs:
   a. Create MATLAB apps for MATLAB users
   b. Create standalone applications for people who don’t have MATLAB
   c. Create shared libraries to integrate with other application
   d. Deploy to MPS for large scale, concurrent usage
Thank you