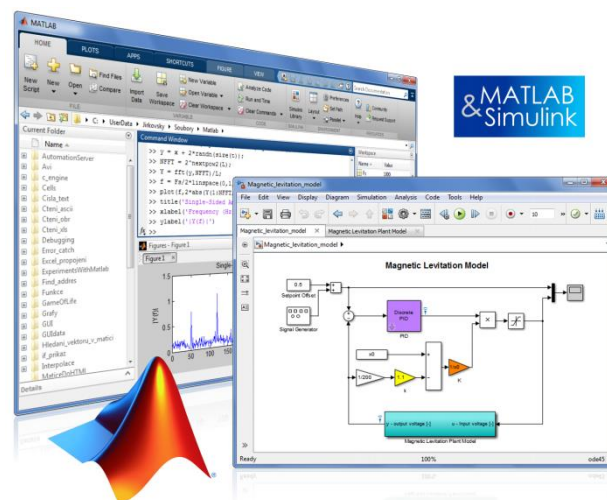


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# TCC 2020

## Novinky, tipy a triky pro vytváření grafů v prostředí MATLAB



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# Obsah

- **Nové a aktualizované grafické funkce**
- **Chart Classes**
- **App Building (App Designer / uifigure)**

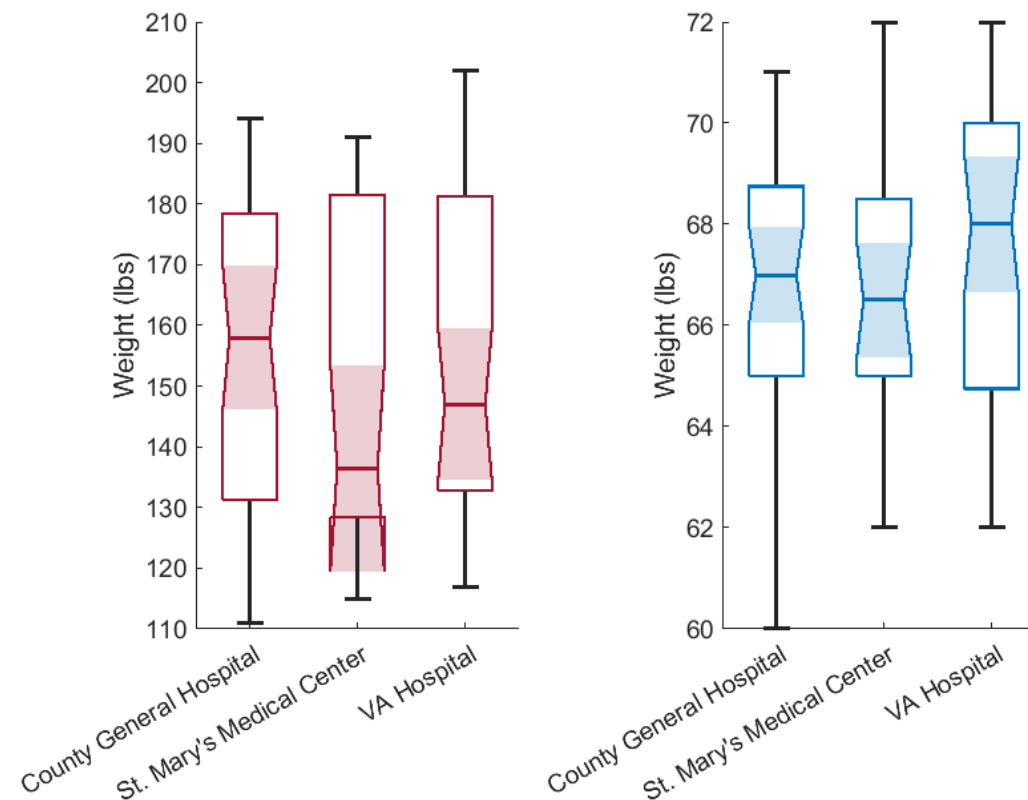
# Organize, manage, and share your code with MATLAB projects

- **Configure your environment**
- **Analyze dependencies**
- **Track and control changes with source control integration**
- **Package and share projects**

TOOLS			ENVIRONMENT		SOURCE CONTROL									
Search	Custom Tasks	Run Checks	References	Details	Project Path	Startup Shutdown	Git Details	Refresh	Commit	Fetch	Push	Pull	Remote	Branches
All   <b>Project (226)</b>   Modified (344)														
Name	Status	Git	Classification											
+Test	✓	■	Test											
ACI	✓	·												
Dashboard	✓	·												
Documents	✓	·												
Elasticsearch	✓	·												
MachineLearning	✓	■												
MATLAB_Kafka_Producer_Java	✓	·												
mps_stream	✓	■												
SimExecutable	✓	·												
Simulation	✓	·												
DocExample_MultiClassFaultDetectionUsi...	✓	●	Design											
genPumpData.m	✓	●	Design											
javasetup.m	✓	+	Design											
Main_ExampleWorkflow.mlx	✓	●	Design											
MLModels.mat	✓	●	Design											
rawdata.mat	✓	●	Design											
README.md	✓	●												

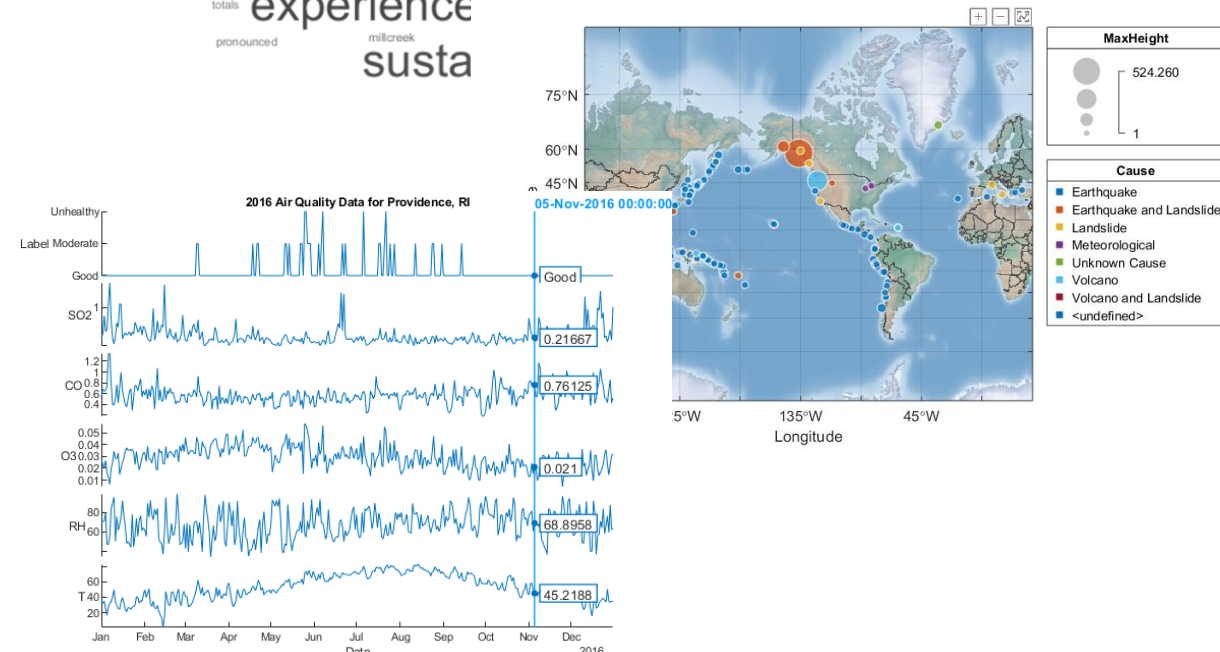
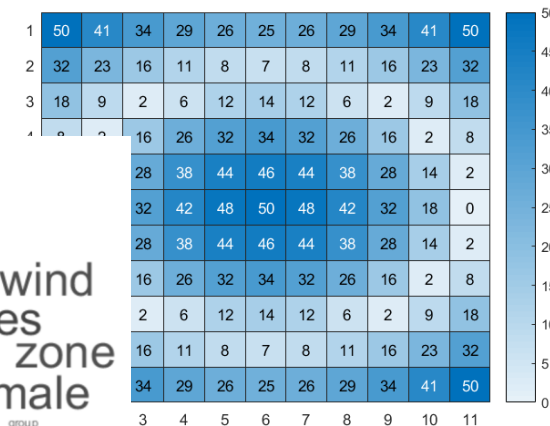
# Nové grafické funkce

- **Box plots**
  - **boxchart**
- **Position, nest, and change the grid size of layouts**
  - **tilayout**
- **Save and copy graphics with improved support for publishing workflows**
  - **exportgraphics, copygraphics**



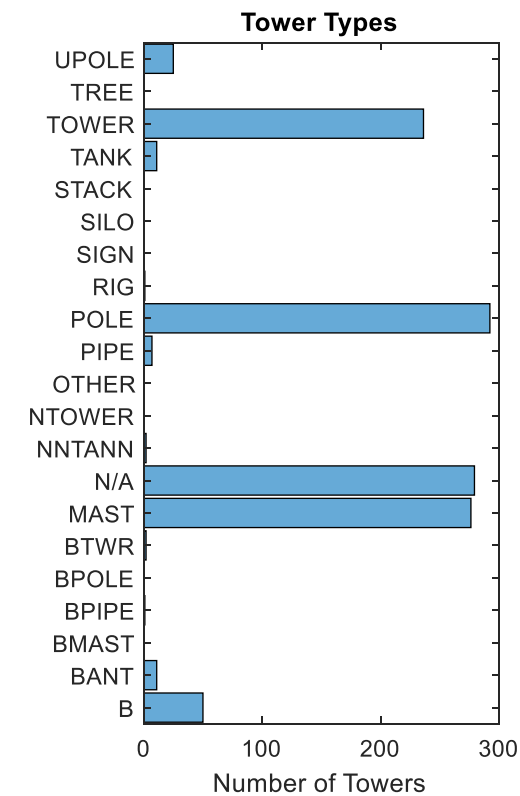
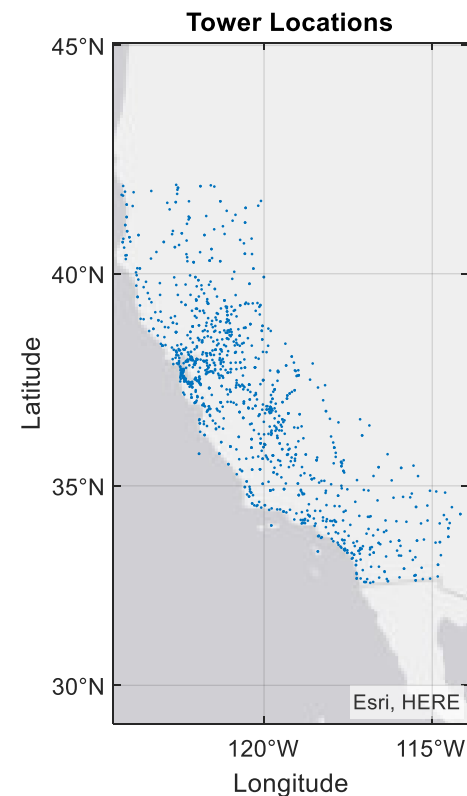
# Nové a aktualizované grafické funkce

- Updated polar plots and dual-axes support
- Animated lines
- Bivariate histograms
- Heat maps
- Word cloud
- Big data (**ta11**) support
- Geographic plots
  - Geographic bubble chart
  - Line, scatter, and point density plots on interactive maps
- Stacked plot
- Scatter histogram
- Parallel coordinates



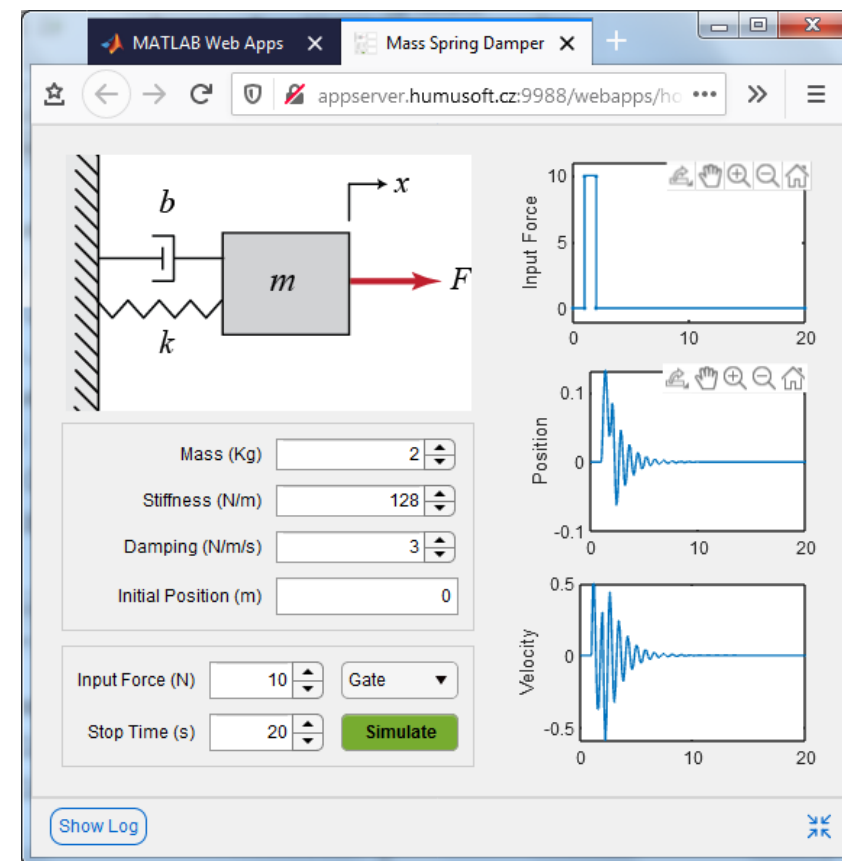
# Chart Classes

- A subclass of the *ChartContainer* base class
- If you write functions for creating specialized visualizations and share them with others, provide a convenient interface for users
  - user sets a property to customize chart
  - hide implementation details from users
  - *gca* and *findobj* functions can return instances of your chart



# App Designer

- **Toolbar, Context Menu**
- **UITable**
  - Cell styling
- **Graphs**
  - Create annotations, configure data tips, brush data
  - Save and copy graphics
- **HTML Component**
  - HTML, JavaScript®, CSS
- **Auto-reflowing app**
- **App Testing Framework**
- **Web App Server**
- **GUIDE to App Designer Migration Tool**



# App Designer

Image Component (19a)

UITable Performance & Cell Styling (19a, 19b)

HTML Component (19b)

Custom Chart (19b)



Built using Grid Layout Enhancements (18b, 19a, 19b)



**Děkuji za pozornost**