

Dynamics 365 Customer Service Implementation Resources

Presenters:

Michele Mazzucco – FastTrack Solution Architect

Daren Turner – FastTrack Solution Architect



TechTalk Series

- *Implementation Resources – introduction ([link](#))*
- *Channel Integration Framework 2.0 ([link](#))*
- *Samples and tools ([link](#))*
- **Testing for Service ←**
- Analytics for Service

Agenda

- Types of Testing
- Testing Considerations
- Test Plans, Scenarios and Timelines
- Testing Tools and Resources
- Next Steps

Dynamics 365 Customer Service

Implementation Optimization Resources



aka.ms/d365csresources

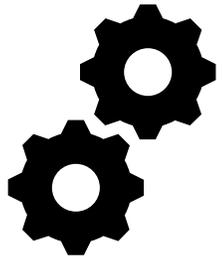
Customer Service Implementation Resources

- Are these resources officially supported by Microsoft?
 - ✓ This is community content, offered “as-is” and not part of Microsoft products
 - ✓ Meant to be a starting point for you to implement your project
 - ✓ All code and solutions are starter samples for your implementation, not a final product
 - ✓ All samples, tutorials and guidance are in line with Microsoft’s best practices
- Can I contribute to these resources?
 - ✓ Some of the items will have a corresponding GitHub repo (e.g., code samples)
 - ✓ We’ll evaluate other forms of collaboration
- Can I submit my ideas for new resources?
 - ✓ Submit your suggestions in the [Ideas portal](#)
 - ✓ Leverage any FastTrack engagement you have on your project

Types of Testing

Daren Turner





Unit Testing

Purpose

- Validate Units of Code

Applications

- Code Testing
 - Plug-ins
 - Integrations
 - Custom Applications
 - JavaScript (Web Resources)

13

0 references

```
public sealed class FollowupPlugin : IPlugin
```

```
{
```

```
    /// <summary>
```

```
    /// Execute method that is required by the IPlugin interface.
```

```
    /// </summary>
```

```
    /// <param name="serviceProvider">The service provider from wh
```

```
    /// tracing service, plug-in execution context, organization s
```

0 references

```
public void Execute(IServiceProvider serviceProvider)
```

```
{
```

```
    //Extract the tracing service for use in debugging sandbox
```

```
    ITracingService tracingService =
```

```
        (ITracingService)serviceProvider.GetService(typeof(ITr
```

```
    // Obtain the execution context from the service provider.
```

```
    IPluginExecutionContext context = (IPluginExecutionContext
```

```
        serviceProvider.GetService(typeof(IPluginExecutionCont
```

```
    // The InputParameters collection contains all the data pa
```

```
    if (context.InputParameters.Contains("Target") &&
```

```
        context.InputParameters["Target"] is Entity)
```

```
{
```

```
    // Obtain the target entity from the input parameters.
```

```
    Entity entity = (Entity)context.InputParameters["Targe
```

```
    // Verify that the target entity represents an account
```

```
    // If not, this plug-in was not registered correctly.
```

```
    if (entity.LogicalName != "account")
```

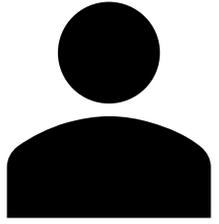
```
        return;
```

```
    try
```

```
        // Create a task activity to follow up with the ac
```

```
        'ity followup = new Entity("task");
```

```
        ["subject"] = "Send e-mail to the new cust
```



User Testing

Purpose

- Validate functionality through manual user interaction

Applications

- User Acceptance Testing
- Functional Testing
- Regression Testing
- Integration Testing





Automation

Purpose

- Validate functionality through UI Automation

Applications

- Functional Testing
- Regression Testing
- Integration Testing
- Performance

ual Filter Show Global Filter Switch to Tile View + New Set As Default Refresh All

board

My Resolved Cases


No data available.

My Draft Emails

5 Modified On

 [Ali Youssefi](#)
Draft

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Timeline Email

 [Ali Youssefi](#)
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Halo Marketing Materials

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Dynamics 365 Administration 1 Day with Lab

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Draft



Performance

Purpose

- Validate functionality and performance at Scale

Applications

- Performance
- Validation



Things to Consider

Daren Turner



Environments

Clients

Data

Security

Scenarios

Types of Testing



Things to consider

Clients



Web

- Unified Client
- Web Client
- Browser Type

Mobile

- Android vs iOS
- Version

Tablet

- Android vs iOS
- Version

Outlook

- Client Add-In
- App for Outlook

USD

- Integrations



Environments



- First release environment is the first station
- Sandbox and Production orgs are same



Data



Origin of Data
• Dynamic vs Storage

Should never have a net negative impact on environment

Consider the Security of the User that you're testing



Security



Users

User account for each End User Profile
Number of Users needed for Performance Testing
Data for testing maps to User account



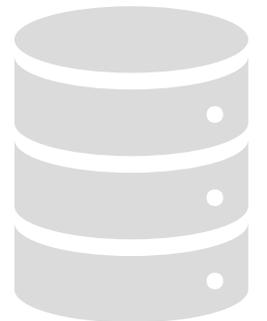
Roles & Business Units

All roles are setup in testing environment
Roles have required privileges
Business Units are setup



Credentials

Test credentials are securely stored
Browser caching credentials



Additional Testing Considerations



Security

Security assessment (e.g. VeriScan and AppScan)
Work with Microsoft perform penetration test



Data Validation

Perform extracting, transforming, and moving
data into Dynamics 365
End User Data Validation



Lifecycle Management

Release cycle
Build Process Integration

Test Plan, Scenarios and Timeline

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Plan



Scenarios to Consider Testing



Upgrades and Releases



Performance Testing



Validating functionality



Confirming
Requirements



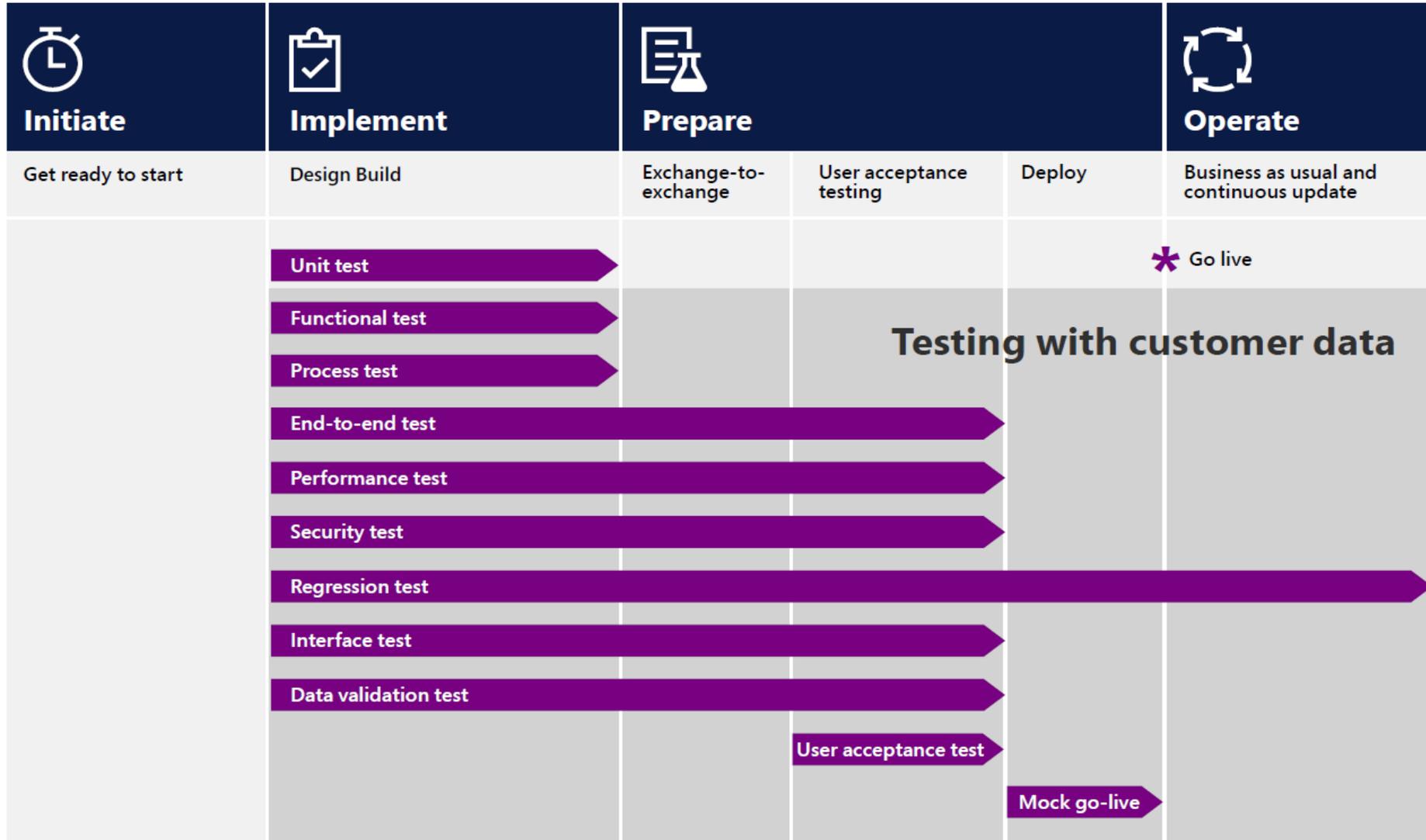
Example Test Case

Update Account

1. Login
2. Navigate to Sales then Accounts
3. Change view to Active Accounts
4. Search for Account "Microsoft"
5. Validate Account exists
6. Open First Record
7. Update Phone Number to "555-555-5555"
8. Validate that phone number is following format "(555) 555-5555"



Test Timeline



Testing Tools & Resources

Daren Turner



Unit Testing



```
CheckingAccountTests.cs*
AccountsTests
  Accounts.Tests.Check
    WithdrawTest()
      using Microsoft.VisualStudio.TestTools.UnitTesting;
      using Accounts;
      using System;
      using System.Collections.Generic;
      using System.Linq;
      using System.Text;
      using System.Threading.Tasks;

      namespace Accounts.Tests
      {
        [TestClass]
        0 references
        public class CheckingAccountTests
        {
          [TestMethod]
          0 references
          public void WithdrawTest()
          {
            Assert.Fail();
          }
        }
      }
    }
  }
```

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FakeXrmEasy - Microsoft Visual Studio

File Edit View Project Build Debug Team Tools Test Analyze Window Help

Debug Any CPU Start

Test Explorer

Painful regression bugs?

Boost productivity with the test automation framework for Dynamics 365

Easy. Fast. Free. Forever.

Get Started with Fake Xrm Easy

Backed by 1800+ Tests



Fake XRM Easy



Automation Frameworks

Playwright



Selenium



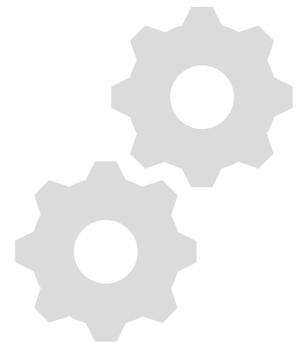
Performance Tools

Azure Load
Testing



3rd Party Tools

● ■ leapwork ✓



Leapwork

Automation Samples

- 8 Flows
- 11 Sub Flows

The screenshot displays the Leapwork Enterprise Edition 2024.1.192 - Trial interface. On the left is a dark green sidebar with navigation options: Flows, Run Lists, Reporting, Dashboards, Agents, Settings, and Support. The main area is divided into a left-hand 'Flows' list and a right-hand 'Flow Designer' canvas.

The 'Flows' list on the left includes:

- Sub flows (11)
 - Set Lookup Value
 - Login
 - Open Customer Service Hub
 - Update Case Fields
 - Save Record
 - Click Ribbon Button
 - Resolve Case
 - Navigate To Entity
 - Search for Record
 - Open Grid Row by Number
 - Open Grid Row by Name
- Control Tests (2)
 - Grid Search
 - Open Grid Record
- Open Account (locked)
- Open Case (locked)
- Open Contact
- Update Case
- Create Case
- Close Case

The 'Flow Designer' canvas shows a flow titled 'Open Account' with the following steps:

- Start** (Action: No action)
- Start Web Browser** (Browser to start: Chrome; Web address (URL): https://orgp486aac0.crm.dynamics.com/)
- Login** (Username: Value from; Password: Value from)
- Open Customer Se...** (Label: Value from)
- Navigate To Entity** (Label: Value from)
- Search for Record** (Search Cr...: Value from)
- Open Grid Row by...** (Search Cr...: Value from)

Below the flow steps are three data capture boxes:

- Entity** (Text value: Accounts; Text fields: + Add field)
- Search Value** (Text value: Coffee; Text fields: + Add field)
- Row** (Text value: Coffee Lab; Text fields: + Add field)

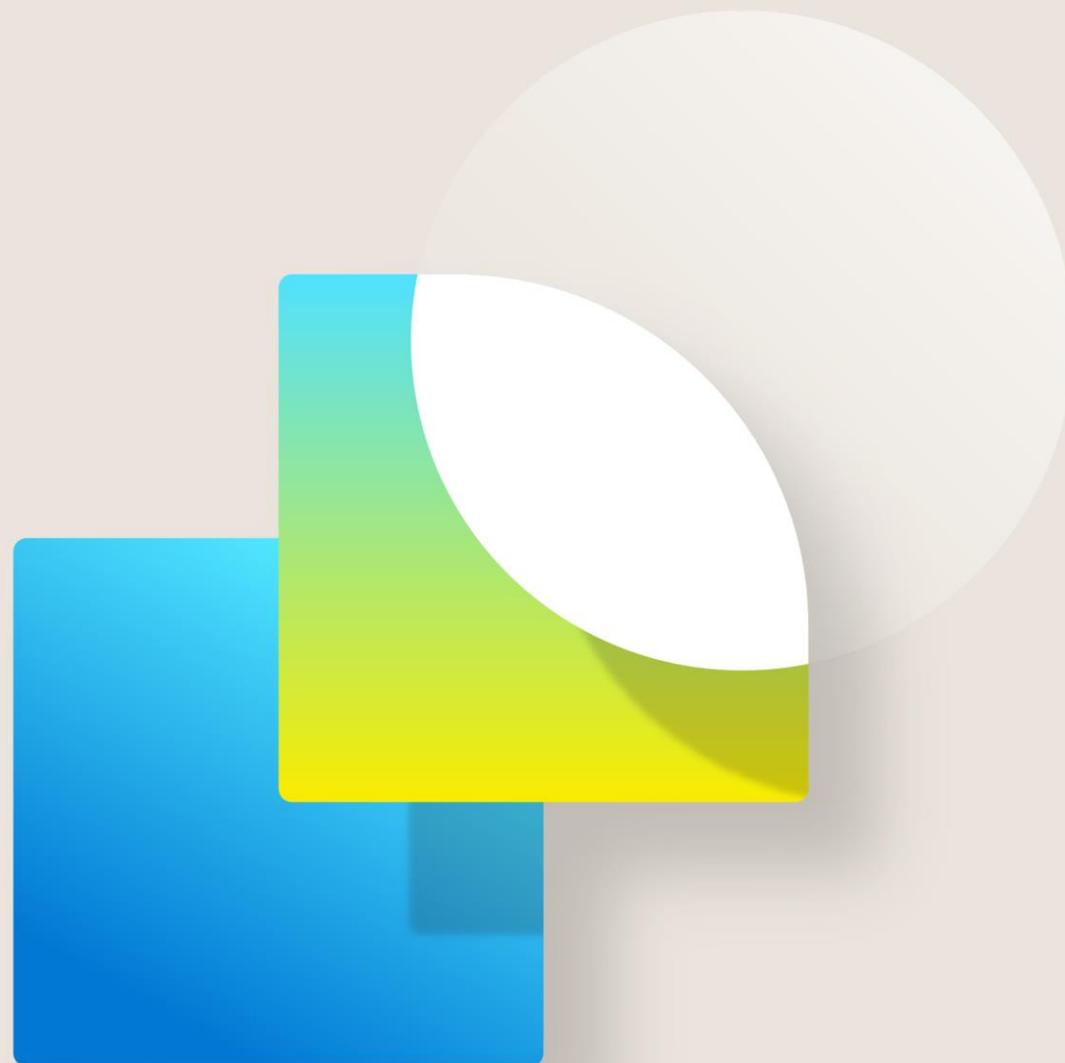
The status bar at the bottom indicates: Connected to localhost controller. Authorized by admin [Administrator].

Implementation Resources

- [Implementation Guide – Testing Strategy](#)
- [Automation Testing with Playwright](#)
- [Load Testing a Solution](#)

- Accelerator Resources for Automation and Scale Testing
 - [GitHub Repo](#)
 - Documentation/Guidance
 - Templates
 - Samples

DEMO



Next Steps

Daren Turner



Additional Resources

FastTrack Test Strategy Guidance:

- [Implementation Guide – Testing Strategy](#)
 - [Github Repo](#)

Online Resources:

- [Test Automation and EasyRepro: 01 - Overview and Getting Started \(microsoft.com\)](#)
- [Power Apps Availability Testing Overview, Strategy and Samples](#)
- [Recording Tests with Power Apps Test Studio](#)
- [Model Driven Power Apps UI Testing Execution and Results Locally](#)



QUESTIONS

FastTrack for Dynamics 365

Dynamics 365 FastTrack - Upcoming TechTalks

Dynamics 365 Community / Blogs / FastTrack for Dynamics 365 / Dynamics 365 FastTrack - Upcoming TechTalks

Topics FastTrack for Dynamics 365 ▾

Blogs Dynamics 365 FastTrack - Upcoming TechTalks ▾

Featured



20 May 2024

FastTrack for Dynamics 365

[Upcoming TechTalk: Copilot Capabilities in Dynamics 365 Finance and Supply Chain M...](#)

Alejandra Cabrales

♥ (3)



16 May 2024

FastTrack for Dynamics 365

[Upcoming TechTalk: Implementation Optimization resources - D365 Customer Service \(...\)](#)

LutzE

♥ (0)

Most liked

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[Upcoming TechTalk: Copilot Capabilities in Dynamics 365 Finance and Supply Chain Management](#)

Review the Copilot features that are currently available in Dynamics 365 Finance and SCM or will be released with the 10.0.40 Update.

PRESENTERS Beatriz Nebot Garcia, Senior Product Manager Jodi Christiansen, Senior Program Manager Eric Wang,

20 May 2024 Alejandra Cabrales

♥ (3)

[Upcoming TechTalk: Dynamics 365 finance and operations apps UI performance testing with JMeter](#)

Before attending this event, take some time to explore our Performance testing with Jmeter blog series

[https://nam06.safelinks.protection.outlook.com/?url=https%3A%2F%2Fcommunity.dynamics.com%2Fblogs%2Fpost%2F%3Fpostid%3D587b9524-30c9-422c-a5f8-4e37

29 Mar 2024 Alejandra Cabrales

♥ (2)

[TechTalk: Dynamics 365 Automated Regression Testing with Leapwork | August 30 or 31, 2023](#)

Regression testing is an absolute must in the Dynamics 365 ecosystem. It enables teams to accelerate release cycles, increasing testing coverage, improve time and cost efficiency and ensure bugs are detected proactively as early as possible. There ar



Dankie Faleminderit **Shukran** Chnorakaloutioun Hvala Blagodaria
Děkuji **Tak** Dank u **Tānan** Kiitos **Merci** Danke Ευχαριστώ A dank
Mahalo הודות. **Dhanyavād** Köszönöm Takk **Terima kasih** **Grazie** Grazzi

Thank you!

감사합니다 Paldies Choukrane Aċiū Благодарам ありがとうございます
谢谢 Баярлалаа **Dziękuję** Obrigado Mulțumesc **Спасибо** Ngiyabonga
Ďakujem **Tack** Nandri **Kop khun** Teşekkür ederim Дякую **Хвала** Diolch