



Test Plan

Copernicus Power Platform Solution (Outside ERP)

Prepared by the Psiog-QA Test Team

Version 0.1



Document History

- Document Location - [AGC](#)

Revision History

Version	Date	Authors	Objective/Scope of changes	Distribution
0.1	22/12/2023	Muthukumaran.D	Requirement for Mail Notification	QA team
0.2	31/12/2024	Muthukumaran.D	Create APC list	QA team
0.3	29/01/2024	Muthukumaran D	Customer and vendor master additional field for power automate in Thai requirement	QA team



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1. Introduction

1.1 Purpose

The test plan will help the team ensure all Functional, Design Requirements and enhancements are implemented. It also provides a procedure for Testing throughout the software life cycle and helps in identifying more Defects and Test Cases.

It also helps in identifying the documentation process and serves as a valuable record of what testing activities was done. Please note that the test plan document is a live document and would be updated per milestone / Phase accordingly.

1.2 Objectives

The AGC Group creates new value in the fields of glass, electronics, chemicals and ceramics. AGC Inc. formerly Asahi Glass Co Ltd., is a Japanese global glass manufacturing company, headquartered in Tokyo.

Power Platform enhancements will streamline workflow for external and internal users, enabling them to raise requests in Power Apps and manage master data in D365. This update also includes guided business rules and process guidelines for approves and operators. Testing is ongoing to ensure proper functionality of flows and UI changes.

Core Objectives:

- **Verify Functionality:** Ensure all features work as intended, handle data correctly, and produce accurate results.
- **Identify Defects:** Uncover any bugs that impact functionality, user experience, or data integrity.
- **Track Defect Resolution:** Ensure identified issues are fixed throughout testing and development.
- **Optimize User Experience:** Evaluate ease of use, intuitiveness, and clarity of information. Recommend improvements to enhance user satisfaction and productivity.



2. Test Items

The test items include all features and components of Copernicus Power Platform Solution outlined in the project documentation.

Data Storage	Dynamics365 F&O Microsoft Dataverse SharePoint Lists
Input	Application form in Excel
Customer Facing Tools-PowerApps (PA)	Application form – PA Registration form – PA
Process Automation	Data sync Workflow - PA Customer Approval Workflow - PA Registration Workflow – Vendor, Customer, Common. Customer and Common - PA

3. In Scope

- The application is a (web/mobile) application and testing would be performed in Latest Edge browser.
- The Requirement for mail notification, Approval Progress Confirmation and Thai requirements are the features to be tested.
- Only Manual testing is in scope for this project.
- Integration testing, Smoke testing, Regression testing, Feature regression testing as part of manual testing.

4. Out of Scope

- The other browsers like Firefox, IE, Edge are not in scope for this application.
- Performance testing and Security testing will not be done as part of Nonfunctional testing only Manual testing is in scope for this application.
- Automation testing / API testing are not in scope.



5. Test Environment

- Testing here is done using a local setup in the windows laptop with (all the required software for the app to run)
- It is a Shared Environment between the Developer/Tester.

6. Features

6.1 Requirement for mail notification

- The mail notification is sent to a group of members called approval, Recipient confirmation and Requestors to get notified about the registration process.
- Distribution lists maintained by the admin/operator is used to manage the groups of users in Recipient approval and Recipient confirmation identified by an email address to send email notifications.
- Two new Columns (Registration Confirmation Recipients and Registration Approval Recipients) in the Approval Flow Master SharePoint list and Data verse
- New Key/value pair in the Multi Language Master Data verse table and SharePoint for the Email Subject
- Make sure you enter valid email IDs in the Approval Flow Master SharePoint list for RC and RA
- Make sure DL has one user added as member.
- A (;) needs to be used as a separator between the mail address
- Below are the account and new connection details used in Power Automate.

6.2 APC

- The Approval Progress Confirmation (APC) List allows users to view the status of applications. APC List tracks the overall status of the application, with details on approval, registration and confirmation status.
- The list will be updated every time when there is progress in the application or operation.
- Every item will contain attachment of excel application form.
- Flow will be able to accommodate new companies.
- The list will be visible only to the corresponding company to which the user belongs to Data verse to share point will be synced so that the existing status will be updated in Share point as well.



6.3 Thai requirements

- The application form submitted for company code 2007 will only be populated in D365 with new mandatory fields for customer and vendor. The new entity created will have 2007 as Area ID in D365.
- Power automates will be extended to read the fields in the excel and update it in D365 through automation.
- There will changes made in approval workflow's power automate for extended version.
- There will be changes made in registration workflow's power automate for extended version.

7. Quality Metrics

Metrics	Formula	Metrics Calculation	Description
Defect Density	Defect Density = Defect count/size of the release	≤ 0.5	Defect Density is the number of defects confirmed in software/module during a specific period of operation
Defect Rate %	(No. of valid defects in current build / No. of test cases executed) x 100	0 for P0/P1	The formula for defect rate is the number of defective products observed divided by the number of units tested
Passed Test Cases %	(No. of successful test cases / No. of test cases executed) x 100	100	The number of test cases passed based on number of executed test cases
Defect Removal %	(No. of defects resolved by Dev / No. of overall defects reported) x 100	100	The defects resolved by the Dev team in the current build



Requirement Coverage %	(No. of requirements mapped to test cases / Total no. of requirements) x 100	100	Test cases written based on the available requirement and its coverage
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Refer Link- [Test Document](#)

8. Test Schedule

- Scheduling the time for testing depends up on the projects, for the current Copernicus Power Platform Solution, we estimate around 2 months to complete the In-scope features after development and bug fixes.

S. No	Feature Name	Start Date	End Date	Comments
1	Feature 1 (Mail notification)	22/12/2023	3/1/2024	Completed the testing on these days
2	Feature 2 (APC)	31/12/2024	17/01/2024	Completed the testing on these days
3	Feature 3 (Thai requirements)	29/01/2024	07/02/2024	In-progress due to there is a change in the client requirement
4	Feature 4 (Reg ID)	07/02/2024	09/02/2024	Completed the testing on these days

9.Tools Used

- There is no specific tool for AGC project, but the team is currently using the below mentioned tools.

Project management Tool	Microsoft planner	Planner
Test Case Management Tool	Excel document XLSX	TestCases



10. Test Execution

10.1 Test Procedures

- **Test Case Preparation:**
 - After developer unit testing, testers analyse requirements and prepare test scenarios, cases, and steps with expected results.
- **Test Execution:**
 - **Smoke testing:** Execute basic tests to ensure core functionality.
 - **Regression/Feature regression testing:** Verify workflow (approval flow master, update request list, SharePoint, data sync flow). Capture evidence and attach to Excel sheet for reference.
- **Defect Management:**
 - Report identified issues/defects via Teams and document them in Excel.
 - Retest resolved issues to confirm fixes.

10.2 Test Data Management

- **New/updated data:** Provided in existing SharePoint/Data verse/D365 tables.
- **No changes to existing data:** New tables created for new companies with data provided accordingly.
- **User-provided data:** Attached to Copernicus approval form (submitted state) for specific company/request/application types.
- **Operator role:** Fills registration form and uploads data to Dynamics365.
- **Microsoft Data verse:** Primary data storage.
- **SharePoint Lists:** Temporary data storage.

10.3 Defect Reporting

Priority Legend for Test Cases and Defects:

P0	Critical features or functionalities without which a software user will not be able to achieve its goal
P1	Features or functionalities without which software might still serve its purpose but customer might face losses
P2	Features or functionalities without which the software can be used successfully with some work around, but customer will be unhappy



P3	Features or functionalities which add very minor value to the software like a text in UI
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- Once any issue/defect is identified it will be informed through teams and the evidence will be captured in excel sheet. Once it is resolved it will be retested by the testing team.

11. Entry Criteria

Before starting of the testing, the following criterion should be satisfied:

- **Tester Access:**
 - Provide login access to the Virtual Desktop (Remote desktop).
 - Grant access to Mail and Teams applications.
 - Assign an M365 license for Power Apps and Power Automate testing.
 - Provide credentials for Approver and Operator roles.
- **Test Items:**
 - After developer completion, unit-tested requirements are delivered for testing.
 - Smoke, sanity, and regression testing are performed based on requirements and needs.

12. Exit Criteria

The following exit criteria must be satisfied before considering the entry criteria fulfilled:

- **Test Execution:**
 - All test cases are executed with their expected results documented in an Excel sheet.
 - Screenshots are captured as evidence and embedded in the Excel sheet upon completion.
- **Test Reporting:**
 - Pass and fail test case counts are calculated to determine the overall test pass percentage.
 - QA metrics are collected, including bug count, severity distribution, and regression testing results.
 - This report is shared with AGC teams for client analysis.



➤ **Release Decision:**

- With all critical and high-priority bugs addressed (excluding P0 and P1), the application undergoes a risk assessment based on the test pass percentage and QA metrics.
- If the risk is acceptable, the release proceeds.
- Otherwise, remaining issues are resolved before release.

13. Risks and Assumptions

S.no	Issue	Risk	Impact	Mitigation
1	Performance	Slow response times	Reduced user productivity and frustration.	1.Data optimization: minimize data displayed, use pagination, implement filtering/search. 2. Performance testing and bottleneck identification. 3. Consider alternative data sources.
2	Limited Testing Time	Rushed testing, potential gaps in coverage	Increased risk of undetected issues, post-release problems	Allocate sufficient time for thorough testing based on complexity and risk.
3	Customization	Limited UI flexibility	Compromised user experience or application functionality.	1. Thorough requirements analysis and prioritization. 2. Explore alternative customization approaches or platforms.



4	Assumption	System rejection due to incorrect labels	Inefficiency, wasted resources, and user frustration.	1. Implement robust validation rules for data accuracy. 2. Use clear and concise labels and error messages. 3. User training on proper data entry.
5	Download of APC List (older than 6 months)	Security concerns: sensitive data exposure.	Data breaches, compliance violations.	1. Implement role-based access controls for download permissions. 2. Consider data before download (if necessary).
6	Multiple Company Code Requests	Increased load on the system, performance degradation	Slow response times, potential system instability	Implement load balancing strategies, consider asynchronous processing for high-volume requests.

14. Test Deliverable

- Test deliverable are the documents that describe the testing process and can be used to document your efforts.

Test Plan	Naveed Akhtar, Lakshmi Sivakumar
Test Results	Lakshmi Sivakumar
Bug Report	Dinesh Ganesh & Naveed
Metrics	All team members (Dev & QA)



15. Approvals

- In the project approval name has been mentioned accordingly to the AGC account and Psiog account.

QA Project Lead	Naveed Akhtar
SPOC (Project Manager)	Lakshmi Sivakumar
Test Cases(Review)	BA- Ashmitha Yeshwanth
Test Cases(Sign-Off)	PM- Lakshmi Sivakumar