

Florida Department of Financial Services
Planning, Accounting, and Ledger Management Project

Independent Verification & Validation
Stage Gate Assessment Report
Ready to Begin System Testing Stage Gate

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Contract: 80101507-21-STC

Engagement: C3CDCF

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Executive Summary

The Florida PALM Independent Verification and Validation (IV&V) Team presents this Stage Gate Assessment Report, focusing on the Ready to Begin System Testing Stage Gate planned for the Florida PALM Project. The following summary highlights key points related to readiness for System Testing from the Florida PALM IV&V Team's perspective, with more detailed information provided in subsequent sections.

- The criteria for Stage Gate 2 – Ready to Begin System Testing have been met, and the completed Functional Design (FD) and Application Development (AD) documents contain high-quality and thorough content.
- The Florida PALM Project Team is actively engaged in the Design and pre-Build stages, ensuring a comprehensive review process for the remaining FDs and ADs. Agencies have also been actively participating, providing valuable feedback during Design Workshops.
- Unit Testing appears to be thoroughly documented within the AD documents.
- Both Build Segments I and II have experienced delays. If this trend continues into Segment III and IV (which have a larger scope), there is a potential risk to System Testing and Stage Gate 3 – Ready to Begin UAT.
- There is an overlap between the remaining Development activities and System Testing. Effective coordination and communication will be needed to ensure Testing does not outpace Development activities and to mitigate potential schedule delays.

Overall, the Florida PALM IV&V Team recommends approving the Stage Gate and continuing with the Florida PALM Project as planned. The IV&V Team has also identified additional considerations that could impact the start of System Testing execution, the availability of RICEFW Items for specific Testing Cycles, and potential resource constraints affecting the overall System Testing timeline. While these considerations are not barriers to entering Stage Gate 2 – Ready to Begin System Testing, the Project Team should develop mitigation strategies to ensure that System Testing execution proceeds smoothly and adheres to the prescribed timeline.

Assumptions and Constraints

Table 1 below describes any assumptions or constraints associated with the Florida PALM IV&V Team’s assessment of the Ready to Begin System Testing Stage Gate.

Table 1: Assumptions and Constraints

| Type | Description | Applicable Stage Gate Criteria |
|------------|---|--------------------------------|
| Assumption | Any Design specifications canceled from Segments I – V are excluded from the Stage Gate criteria. | 01, 02 |
| Assumption | The remaining FD specifications for Segment V will maintain the same high quality as those reviewed by the Florida PALM IV&V Team in Segments I-IV. | 02 |
| Constraint | Data on completed FD and AD documents is sourced from the Design Work Unit Tracker as of 7/26/24. | 01, 02 |
| Assumption | DW/BI designs are not included in the count for Criteria #1, as they follow a separate timeline from the Segment I-IV Design. | 01 |

Stage Gate Criteria Assessment

Table 2 below provides the criteria for the Stage Gate being assessed along with the Florida PALM IV&V Team’s assessment of the ability to meet the criteria and any recommendations to mitigate variances prior to the end of the Stage Gate. The criteria are cited from FP004-Florida PALM SSI, Amendment # 9, Attachment 1, Statement of Work (SOW), Section 1.5, Table 3.

Table 2: Stage Gate Criteria

| ID | Stage Gate Criteria | IV&V Assessment Rating ¹ | Rationale/Recommendations |
|----|--|-------------------------------------|---|
| 01 | #1 – Design is at least 95% complete | Met | <p>Rationale: With the approval of Segment IV FDs and only 18 FDs identified for Segment V (which is the final segment), 95% of the Design has been approved. The Florida PALM IV&V Team was involved in observing the Design sessions associated with each of the FDs, as well as participating in Design disposition reviews where key design options were discussed with the Florida PALM Project Director, Accounting & Auditing (A&A), Office of Information Technology (OIT), and Treasury. Finally, the Florida PALM IV&V Team reviewed the Segment I-IV FDs and found them to be complete, well-written, and of high quality.</p> <p>Recommendations: None</p> |
| 02 | #2 – Build Segment I is fully complete | Met | <p>Rationale: The last AD associated with Build Segment I was approved on 5/10/24 (approximately 7 weeks behind schedule), and the last AD for Segment II was approved on 7/22/24 (approximately 3 weeks behind schedule). The Florida PALM IV&V Team was involved in the pre-Build and Build review meetings associated with the Segment I and Segment II ADs. Additionally, the Florida PALM IV&V Team reviewed each of the Segment I ADs and found them to be of high quality, thorough, and complete.</p> <p>Although the criteria have been met, Segments I and II together account for 35.6% of the total RICEFW Items that need to be developed, leading to an overlap between the remaining Build activities and System Testing. Both Segment I and Segment II Build were completed behind schedule, and there are risks identified by both the Florida PALM IV&V Team (Finding #14) and the Florida PALM Project Team (Risk #8) that continued delays to Build Segments III and IV could potentially delay the completion of System Testing or Stage Gate 3 – Ready to Begin UAT.</p> <p>Recommendations: Due to the overlap between Development and System Testing, effective coordination will be needed between the</p> |

| ID | Stage Gate Criteria | IV&V Assessment Rating ¹ | Rationale/Recommendations |
|----|---------------------|-------------------------------------|---|
| | | | Development and Testing teams. The Florida PALM IV&V Team recommends developing a process and tool to track, manage, and coordinate the remaining Build Segments and associated Test Scripts at the individual RICEFW level throughout the various System Testing Cycles. |

¹ Likely to Meet, At Risk of Not Being Met, or Unlikely to Meet will be based on the risk priority matrix identified in Appendix B.

Recommendation

Based on the verification of the approved FDs as of 7/15/24, the number of remaining FDs, the completion and review of the Build Segments I and II, and the high quality of the FDs and ADs developed thus far, the Florida PALM IV&V Team recommends proceeding with the Ready to Start System Testing Stage Gate.

Detailed Stage Gate Criteria Assessment

1 - Design Is At Least 95% Complete:

Table 3 shows the status of the FDs as of 7/26/24.

Table 3: FD Status²

| Segment | FD Status | | | | | | | | Total |
|--------------------|-------------|----------------------|-------------------|-----------------|------------------|----------------|------------|------------------------|------------|
| | Not Started | Pre-Draft Discussion | Draft in Progress | Draft in Review | Pending Approval | Final Approval | Complete | Cancelled ³ | |
| I | 0 | 0 | 0 | 0 | 0 | 0 | 52 | 18 | 70 |
| II | 0 | 0 | 0 | 0 | 0 | 0 | 73 | 15 | 88 |
| III | 0 | 0 | 0 | 0 | 0 | 0 | 82 | 19 | 101 |
| IV | 0 | 0 | 0 | 0 | 0 | 0 | 133 | 22 | 155 |
| V | 0 | 0 | 0 | 11 | 4 | 0 | 3 | 0 | 18 |
| Grand Total | 0 | 0 | 0 | 11 | 4 | 0 | 343 | 74 | 432 |

² Does not include DW/BI Designs as they follow a separate timeline from the Segment I-IV FDs.

³ Cancelled status reflects that the FD was removed from the overall Project scope.

Excluding the canceled FDs, there are 358 FDs in total, of which 343 are complete. This means that 95.8% of all FDs have been completed, effectively meeting the criteria for Stage Gate 2 – Ready to Begin System Testing.

Quality of Functional Designs:

During the Design phase, the Florida PALM IV&V Team:

- Attended pre-draft and review sessions for the various FDs,
- Attended the Design review sessions with the various Agencies,
- Reviewed the Deliverables for Completion of Solution Design (Requirements) for Segments I-IV, and
- Reviewed the individual Segment I-IV FDs for completeness, quality, and thoroughness based on applicable industry standards and experience on other similar projects.

Based on these activities, the Florida PALM IV&V Team noted that, in general, the FDs are of high quality. The Florida PALM Project Team is:

- Participating in Design reviews,
- Providing feedback and thoroughly reviewing the documentation, and
- Hosting Design review workshops where Agencies can participate in Design discussions and provide feedback.

Recommendation:

The Florida PALM IV&V Team recommends continuing with the current processes and approach for the review and approval of the remaining FDs associated with Segment V.

2 – Build Segment I is Complete:

Table 4 below shows the status of Build Segment I based on the approval of the AD documents associated with it. The Table also shows the status of the remaining Builds.

Table 4: Build Segment Status

| Build Segment Status | | | | | | | | | |
|----------------------|-------------|----------------------|-------------------|-----------------|------------------|----------------|------------|-----------|------------------------|
| Segment | Not Started | Pre-Draft Discussion | Draft in Progress | Draft in Review | Pending Approval | Final Approval | Complete | Cancelled | Total |
| I | 0 | 0 | 0 | 0 | 0 | 0 | 52 | 0 | 52 |
| II | 0 | 0 | 0 | 0 | 0 | 0 | 75 | 1 | 76 |
| III | 7 | 5 | 108 | 9 | 0 | 0 | 0 | 2 | 131 |
| IV | 105 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 105 |
| Total | 110 | 5 | 108 | 9 | 0 | 0 | 127 | 3 | 363⁴ |

⁴ Build includes 5 items that did not require a FD.

All AD documents for Build Segments I and II have been completed and approved, meeting the Stage Gate 2 criteria. Segments I and II account for 35.6% of the total RICEFW Items, and there is significant overlap between the remaining Build activities and System Testing Cycles 1-7.

Quality of Application Designs:

The Florida PALM IV&V Team reviewed all the AD documents for Build Segment I and found them to be of high quality, thoroughly documented, and complete. Additionally, the unit test results were very well documented and exceeded the standards seen in other similar projects.

Recommendation:

The Florida PALM IV&V Team recommends using the existing templates for documenting future AD documents, maintaining the thorough review processes and the level of detail provided for unit test results.

Additional Considerations for Stage Gate Assessment

The Florida PALM IV&V Team has identified several considerations that may impact System Testing execution. These include the availability of RICEFW Items for specific Testing Cycles due to overlap between Development and System Testing, entry criteria for beginning System Testing execution as outlined in D643 – Updated System Testing Plan, and potential resource constraints caused by overlapping Testing Roles and Responsibilities. Further details and the Florida PALM IV&V Team's recommendations are provided below.

Coordination of RICEFW Items for Development and Testing

As shown in Figure 1 below, the timeframes for Development, System Testing, Interface Testing, and Mock Conversion significantly overlap.

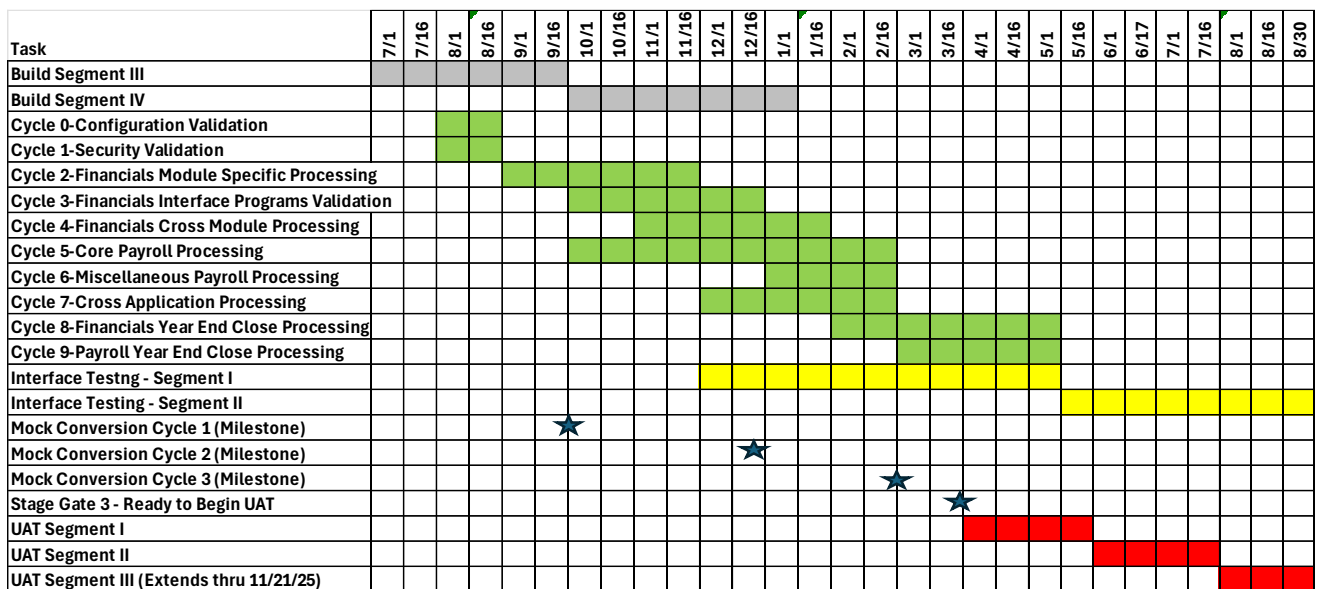


Figure 1: Combined Development, System Testing, Conversion Timeline

The overlap of these activities will require coordination between the Development, Testing, and Conversion teams to mitigate potential risks to the System Testing timeline or to Stage Gate 3 – Ready to Begin UAT. Table 5 below identifies the percentage of RICEFW Items that will be available at the start and finish of each Testing Cycle for both the Financials and Payroll functionality. This table demonstrates the amount of overlap between the Development phases and the System Testing Cycles and the need for coordination between Development and Testing.

Table 5: Percent of RICEFW Items Available for Each Testing Cycle

| Cycle | Name | Testing Dates | Financial % RICEFW Approved (Start of Cycle) | Financial % RICEFW Approved (Finish of Cycle) | Payroll % RICEFW Approved (Start of Cycle) | Payroll % RICEFW Approved (Finish of Cycle) |
|---------|--|---------------------|--|---|--|---|
| Cycle 0 | Configuration Validation | Aug-2024 | 53.5% | 70.4% | 0.0% | 21.6% |
| Cycle 1 | Security Validation | Aug-2024 | 53.5% | 70.4% | 0.0% | 21.6% |
| Cycle 2 | Financials Module Specific Processing | Sep–Nov 2024 | 70.4% | 89.6% | 21.6% | 70.3% |
| Cycle 3 | Financials Interface Programs Validation | Oct–Dec 2024 | 82.6% | 95.7% | 45.9% | 88.3% |
| Cycle 4 | Financials Cross Module Processing | Nov 2024–Jan 2025 | 82.6% | 100.0% | 45.9% | 100.0% |
| Cycle 5 | Core Payroll Processing | Oct 2024–Feb 2025 | 82.6% | 100.0% | 45.9% | 100.0% |
| Cycle 6 | Miscellaneous Payroll Processing | Jan–Feb 2025 | 95.7% | 100.0% | 88.3% | 100.0% |
| Cycle 7 | Cross Application Processing | Dec 2024 – Feb 2025 | 89.6% | 100.0% | 70.3% | 100.0% |
| Cycle 8 | Financials Year-End Close Processing | Feb-Apr 2025 | 100.0% | 100.0% | 100.0% | 100.0% |
| Cycle 9 | Payroll Year-End Close Processing | Mar–Apr 2025 | 100.0% | 100.0% | 100.0% | 100.0% |

Delays in Build activities may necessitate changes to the Testing schedule, which could, in turn, potentially delay the Testing Cycles and Stage Gate 3 – Ready to Begin UAT. This risk is documented in Finding #14, opened by the Florida PALM IV&V Team, and Risk #8, opened by the Florida PALM Project Team. Both Build Segments I and II were completed behind schedule, and Build Segments III and IV will be much larger. As part of Finding 14, the Florida PALM Project Team identified several mitigation strategies to consider in order to address this risk, including:

- Onboarding additional Development staff to supplement the existing staff (25% increase in Development staffing from July through December 2024),
- Holding daily Build update meetings to discuss the current progress of Build activities, including any delays,
- Increasing the involvement of Enterprise Resource Planning (ERP) Support Services team members to speed up reviews of AD documentation, and
- Reducing the number of reviewers for each AD document.

Based on the current pace of completion for Segment II AD documents and the updated Florida PALM SSI Staffing Plan, the Florida PALM IV&V Team currently estimates that Build Segment III may not be completed until mid-October 2024, whereas the Florida PALM Project Schedule has a targeted completion date of 9/30/24. Additionally, the IV&V Team projects that Build Segment IV will be finished by the end of January 2025, compared to the Project Schedule’s targeted completion date of 1/6/25. This represents a 4-week delay from the current targeted dates, highlighting the need for coordinated Test planning and sequencing with Development priorities.

It will be crucial for the Florida PALM Project Team to ensure consistent communication and tools to align and synchronize Development and Testing efforts.

Recommendation

The Florida PALM IV&V Team recommends implementing steps to manage and coordinate the overlap between Development and System Testing activities, including:

- Synchronizing the Testing and Development activities as part of Test planning to ensure Testing does not get ahead of Development,
- Developing a process and tool to track, manage, and coordinate the remaining Build Segments and associated Test Scripts at the individual RICEFW level throughout the various System Testing Cycles,
- Defining a clear set of responsibilities and separation of duties between the various teams involved in Development and Testing activities.

System Testing Entry Criteria Outlined in the Updated System Testing Plan

According to the entry criteria for System Test Execution outlined in D643 – Updated System Testing Plan, User Security Roles must be set up for Test Executors in the Testing environment before System Testing can begin. Additionally, Cycle 1 – Security Validation of System Testing, which the Florida PALM Project Team plans to begin executing on 8/5/24, requires that the WP405 – Security Roles Matrix be completed and approved as a prerequisite for each Test Script. This highlights the importance of configuring user roles in the appropriate environment(s) prior to beginning System Testing Cycle 1. This preparation is crucial to avoid delays and potential issues during System Testing, thereby contributing to the integrity and efficiency of the Testing process and the overall Florida PALM Project Schedule.

Recommendation

The Florida PALM IV&V Team recommends configuring user roles in the appropriate environment(s) before executing System Testing Cycle 1 and any subsequent Testing Cycles that depend on role-based security.

Overlapping Roles for System Testing and Defect Management Teams

According to the Roles and Responsibilities outlined in D643 – Updated System Test Plan, the same resources are proposed for Test Planning, Test Execution, and System Investigation Request (SIR) Management. This overlap may introduce risks due to potential resource constraints, as these activities could occur simultaneously. Consequently, resources might be spread thin, leading to delays and reduced productivity, which could ultimately impact the Florida PALM Project timeline and the overall quality of the testing. No additional Test Executors (including functional staff transitioning to Testing and dedicated System Testing staff) are planned to onboard when System Testing starts, as per the SSI Staffing Plan. Therefore, the current staffing levels will need to accommodate concurrent Test Script development for future Test Cycles, Test Execution for current Testing Cycles, and support for SIR management processes.

Recommendation

To clarify and address potential resource constraints, the Florida PALM IV&V Team recommends that the Florida PALM SSI Vendor defines how Testing resources (including functional staff transitioning to Testing and dedicated System Testing staff) will be allocated to handle overlapping tasks, such as Test Script development, Test Execution, and SIR management processes. Alternatively, the IV&V Team recommends that distinct resources be assigned to each management activity to avoid any overlap.

Appendix A – Documents Reviewed

The Table below shows documents and deliverables reviewed by the Florida PALM IV&V Team in performing their assessment of the Stage Gate.

Table 6: Documents Reviewed

| Document Name | Date | Version |
|--|---------|---------|
| Florida_PALM_Project_Schedule.mpp | Weekly | Working |
| Florida PALM Smartsheet Dashboards | Weekly | Working |
| D636 – Completion of Solution Design Segment I | 7/22/24 | Draft |
| D637 – Completion of Solution Design Segment II | 7/22/24 | Draft |
| D641 – Completion of Solution Design Segment III | 7/22/24 | Draft |
| D644 – Completion of Solution Design Segment IV | 7/22/24 | Draft |
| D643 – Updated System Test Plan | 7/22/24 | Draft |
| D646 – Completion of Build Segment I | 7/22/24 | Draft |
| WP408 – System Test Scripts Cycle 0 | 7/24/24 | Working |
| WP408 – System Test Scripts Cycle 1 | 7/24/24 | Working |
| RICEFW Inventory | 7/26/24 | Working |
| Requirements Traceability Matrix | 7/26/24 | Working |

Appendix B – Risk Priority Matrix

The Florida PALM IV&V Analysts will use the following table to assign a Risk probability rating for each Stage Gate criteria.

Table 7: Risk Priority Matrix

| Risk Probability Rating | Probability of Occurrence | Probability Description |
|-------------------------|---------------------------|--|
| 1 | Improbable | Risk has between a 1%-19% likelihood of occurring. |
| 2 | Unlikely | Risk has between a 20%-39% likelihood of occurring. |
| 3 | Possible | Risk has between a 40%-59% likelihood of occurring. |
| 4 | Likely | Risk has between a 60%-79% likelihood of occurring. |
| 5 | Probable | Risk has between an 80%-99% likelihood of occurring. |

The Risk Impact Criteria the Florida PALM IV&V Analysts will use to assign a Risk impact rating to each identified Stage Gate criteria are described in the Table below.

Table 8: Risk Impact Matrix

| Risk Impact Rating | Magnitude of Impact | Impact Description |
|--------------------|---------------------|--|
| 1 | Negligible | Risk will have an impact so small that it can be ignored when studying the larger effect. |
| 2 | Minor | Risk will have a small impact on the Project that should not be ignored when studying the larger effect. |
| 3 | Moderate | Risk will have a noticeable impact on the Project. |
| 4 | Significant | Risk will have a large impact on the Project |
| 5 | Critical | Risk will have a large impact and may jeopardize the success of the Project. |

The Table below outlines the Risk Priority Ratings for each Stage Gate criteria based on a combination of impact and probability of occurrence.

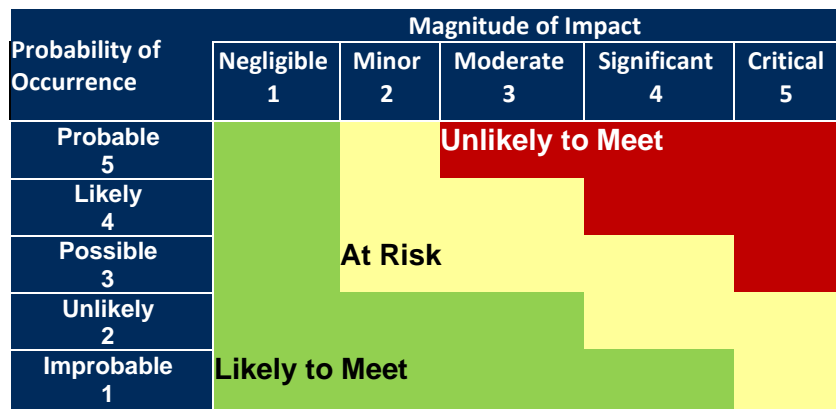


Figure 2: Risk Matrix

The Table below defines the levels of the Risk Priority Ratings.

Table 9: Risk Definitions

| Rating | Definition |
|-------------------------|--|
| Unlikely to Meet | The possibility of substantial impact to product quality manageability cost or schedule. Major disruption is likely, and the consequences would be unacceptable. A different approach is required. Mitigation strategies should be evaluated and acted upon immediately. |
| At Risk | The possibility of moderate impact to product quality manageability cost or schedule. Some disruption is likely, and a different approach may be required. Mitigation strategies should be evaluated and implemented as soon as feasible. |
| Likely to Meet | The possibility of a slight impact to product quality manageability cost or schedule. Minimal disruption is likely, and some oversight is needed to ensure that it remains low. Mitigation strategies should be evaluated and considered for implementation when possible. |