Technical Design Document

**Created By : <Author Name>**

**Creation Date: <MM/DD/YYYY>**

**Last Updated: <MM/DD/YYYY>**

**Version: 1.0**

### *Document Control*

**Change Record**

| Date | Author | Version | Change Reference |
| --- | --- | --- | --- |
|  |  |  |  |
|  |  | 1.0 | Initial Version |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |

### Reviewers & Approvals

| Name | Representing | Role | Signature | Date |
| --- | --- | --- | --- | --- |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |

### Document References

| Document Title | Type of Reference | Document Location |
| --- | --- | --- |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |

Contents

[*Document Control* 2](#_Toc411941194)

[Reviewers & Approvals 2](#_Toc411941195)

[Document References 2](#_Toc411941196)

[1. High Level/Logical Technical Design 4](#_Toc411941201)

[1.1. Technical Overview 4](#_Toc411941202)

[1.2. Assumptions and Dependencies 4](#_Toc411941203)

[1.3. Risks 4](#_Toc411941204)

[1.4. Security Design 4](#_Toc411941205)

[1.5. Integration Considerations 4](#_Toc411941206)

[1.6. Archive/Purge Strategy 4](#_Toc411941207)

[1.7. System Diagrams](#_Toc411941208) 5

[1.7.1. Overview](#_Toc411941209) 5

[1.7.2. Description of System Diagram](#_Toc411941210) 5

[1.7.3. Hardware & Software Requirements 5](#_Toc411941211)

[1.7.4. Architecture Diagram 5](#_Toc411941212)

[2. Detail/Physical Technical Design 5](#_Toc411941213)

[2.1. Volume and Performance Consideration 5](#_Toc411941214)

[2.2. Detail Module Design](#_Toc411941222) 5

[2.2.1. Database Design 5](#_Toc411941223)

[2.2.2. Detail Data Mapping](#_Toc411941225) 7

[2.2.3. PL/SQL Design 1](#_Toc411941226)0

[2.2.4. Workflow Design 12](#_Toc411941228)

[2.2.5. Alert Design 12](#_Toc411941231)

[2.2.6. Exception Design 1](#_Toc411941233)2

[3. Glossary 14](#_Toc411941235)

[4. FAQ 14](#_Toc411941236)

[5. Open/Closed Issues 14](#_Toc411941237)

[5.1. Open Issues 14](#_Toc411941238)

[5.2. Closed Issues 1](#_Toc411941239)5

# High Level/Logical Technical Design

## Technical Overview

Current 17 Pasture Process only handles one fulfillment type of 1. 1 means ship to customer which needs to be processed by 17 Pasture and shipped to customer.

When a customer order is shipped from 17 Pasture it triggers the settlement process to capture funds.

* **Current process**
* **New Process Change for DTS Order Processing.**
* Based on the new requirement the 17 Pasture should be able to accept fulfillment type 4, which means Ship to Customer selected store from 17 Pasture. Direct to Store (DTS).
* For the DTS Order the Settlement Process will be triggered only if the customer picks up the Order from the store.

## Assumptions and Dependencies

* Assumption is that all DTS Orders which are packed will be sent to 10/12 Whatney and from there it will be shipped to store.
* Settlement Process for a DTS Order will be triggered only when store confirms that the order has been picked up by the customer.

## Risks

* Delay in Shipping the Order to 10/12 Whatney from 17 Pasture.
* Delay in Shipping the Order to Store from 10/12 Whatney.
* LIT (Lost In Transit).
* Misplacement in 17P/10-12 Whatney.

## Security Design

* None.

## Integration Considerations

#### Changes Required

Batch Runner configuration needs to be changed, so that DTS Order needs to bypass

Locate.

## Archive/Purge Strategy

Provide what is the Archive Purge Strategy as applicable. Provide details like how the data growth going to be and how often the tables need to be purged etc.

## System Diagrams

### Overview

In this section include the system diagram, description of the system diagram and other system impacts. Include hardware and software requirements of the system, tool and/or programs.

### Description of System Diagram

Describe the system diagram in detail indicating the system, names of systems, software and hardware versions, etc.

### Hardware & Software Requirements

Include the requirements needed for this application, tool and/or system needed in the hardware and software arena for successful installation.

### Architecture Diagram

In diagram form show all systems, applications, tools, etc and their relationships.

# Detail/Physical Technical Design

## Volume and Performance Consideration

<Define the volume and performance requirements for the program/screen/form etc.,>

## Detail Module Design

<Customization name> includes the following components:

| <Module File Name> | Module Name | Module Description | Module Type |
| --- | --- | --- | --- |
|  |  |  |  |
|  | <Procedure Name> |  | Procedure |
|  | <Package Name> |  | Package |
|  | <Function Name> |  | Function |
|  | <Form Name> |  | Form |
|  | <Report Name> |  | Report |
|  | <Workflow Name> |  | Workflow |
|  | <Alert Name> |  | Alert |
|  |  |  |  |

### Database Design

Provide the database design details as per the tables given below. Please provide them even if the database objects have been existing and changed.

#### Tables

**Table Name: N/A**

| Column Name | Null? | Data Type | Description |
| --- | --- | --- | --- |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |

#### Indexes

| Index Name | Index Type | Sequence | Column Name |
| --- | --- | --- | --- |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |

#### Sequences

| Sequence Name | Derived Column |
| --- | --- |
|  |  |
|  |  |
|  |  |

#### Database Link

| Database Link Name | Source DB | Destination DB | Source  User Name | Destination  User Name |
| --- | --- | --- | --- | --- |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |

#### Views

**View Name: VW\_DC\_ReadyToWaveOrders**

| Column Name | Null? | Data Type | Description |
| --- | --- | --- | --- |
|  |  |  |  |
|  |  |  | Case statements have been added to capture fulfillment\_id =4 |
|  |  |  |  |

#### Synonyms

List down all synonyms defined for this design

| Synonym Name | Owner | Source Table/View | Source Table/View Owner |
| --- | --- | --- | --- |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |

#### Grants

Provide list of grants given to any tables/views as part of this development

| Grant Type | User | Database Object | Database Object Owner |
| --- | --- | --- | --- |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |

#### Open API

Provide if this particular design has any Application Interfaces where the data can be accessed by other application groups.

| API Name | Description |
| --- | --- |
|  |  |
|  | Provide in detail, how this API can be used and how it should be used. |
|  |  |

### Detail Data Mapping

#### Column to Field Mapping

| Target Table.Column | Data Size/Type | Options (Required, Optional, Unused) | Processing Rule | Translation Rule | Filter Rule | Foreign Key Rule | Data Source | \_\_\_ Source  \_\_\_ Intermediate  Source Table.Column | Data Size/Type |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |

#### Processing Rules

| Processing Rule | Target Table.Column | Data Source | Data Size/Type | Source Table.Column | Data Size/Type |
| --- | --- | --- | --- | --- | --- |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |

#### Processing Rule <x>

<Notes Here>

#### Processing Rule <Y>

#### Translation Rules

| Translation Rule | Target Table.Column | Data Source | Data Size/Type | Source Table.Column | Data Size/Type |
| --- | --- | --- | --- | --- | --- |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |

#### Translation Rule <x>

<Notes Here>

#### Translation Rule <Y>

#### Foreign Key Rules

| Foreign Key Rule | Target Table.Column | Data Source | Data Size / Type | Source Table.Column | Data Size/Type |
| --- | --- | --- | --- | --- | --- |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |

#### Foreign Key Rule <x>

<Notes Here>

#### Foreign Key Rule <Y>

#### Filters

| Filter Reference | Filter Location | Parameter | Value | Description | Include / Exclude |
| --- | --- | --- | --- | --- | --- |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |

#### Filter Rule <x>

<Notes Here>

#### Filter Rule <Y>

### PL/SQL Design

#### Overview

For each of the Module, please provide the detail design for the Module. Provide logic using pseudo code, structured English, flow chart as necessary.

#### Module Name

Provide the Module name here.

#### Module Type

Specify if it is a Procedure, Package, Function etc.

#### Parameters

| Parameter | Datatype | Description | In/Out |
| --- | --- | --- | --- |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |

#### Error Handling

| Error Conditions | Possible Reasons | Error Handling |
| --- | --- | --- |
|  |  |  |
| *<<State the error and warning conditions* | *<<State the possible reasons>>* | *<<State the program completion status ( error/warning ), messages to be reported to log/output>>* |

#### CRUD Matrix

List the process, tables and/or columns indicating the action for each event, i.e. create, read, update or delete.

| Table/View | Select | Insert | Update | Delete |
| --- | --- | --- | --- | --- |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |

#### File Details

List any file specific information such as location, permissions etc. for interfaces.

### Workflow Design

1. Copy a short description from the Functional Design, and add more technical description to it. It should also mention whether its a new workflow or modification of an existing workflow.

<Workflow Process> needs to be built to satisfy the following business needs:

<list business needs that will be satisfied by this module here>

#### Workflow Trigger

<describe how and from where the workflow will be launched. What business rules will trigger the workflow>

#### Item Type Attributes

This section describes all the item type attributes needed:

| Attribute | Display Name | Description | Attribute Type | Default Value |
| --- | --- | --- | --- | --- |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |

#### Function Activities

This section describes all the function activities needed:

| Name | Display Name | Function | Result Type |
| --- | --- | --- | --- |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |

#### Notification Activities

This section describes all the notification activities needed:

| Name | Display Name | Performer | Message | Result Type |
| --- | --- | --- | --- | --- |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |

#### Process Activities

This section describes all the process activities needed:

| Name | Display Name | Result Type |
| --- | --- | --- |
|  |  |  |
|  |  |  |
|  |  |  |

#### Process Diagrams

<Provide process diagrams for every process>

Process Diagram - <Process Activity Name>

#### Messages

This section describes all the messages needed:

| Name | Display Name | Subject | Body |
| --- | --- | --- | --- |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |

#### Lookups

This section describes all the lookups needed:

| Name | Display Name | Lookup Code | Lookup Description |
| --- | --- | --- | --- |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |

### Alert Design

1. Copy a short description from the Functional Design, and add more technical description to it. It should also mention whether its a new alert or modification of an existing alert.

The <Alert name> alert is designed to provide the following notification capability:

<list the business needs satisfied by this alert>

#### Trigger condition

<condition name>

<describe the trigger condition – what tables, what events>

When does the alert gets triggered?

#### Alert Type

Specify the alert type (Periodic or event), and specify the details of periodic and event based alert.

#### Frequency

<Event/Periodic; what frequency; what event>

#### Start Time

TBD

#### End Time

TBD

#### Inputs

| Input Name | Description | Default Values |
| --- | --- | --- |
|  |  |  |
|  |  |  |
|  |  |  |

#### Outputs

| Output Name | Description | Detail Length | Summary Length |
| --- | --- | --- | --- |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |

#### SQL Logic

Condition name

<sql statement>

Action/Response and Action/Response Sets

List all the action and response sets and their details.

#### Actions

**<Action>**

Description

<Description>

Action Level

Summary/Detailed

Action Type

Message

Action Details

Message layout:

#### Action Sets

**<action set>**

<steps in action set>

#### Recipient List

| Name | Email Address |
| --- | --- |
|  |  |
| &first\_name | &email\_address |
|  |  |

#### Performance Considerations

Trigger performance & Function performance

Note any special join conditions, query or updates to large tables, use of indexes, scheduling of the program etc. which may affect performance

Please also make sure that the programming satisfies all the guidelines set for both Performance and Best Practices.

#### Locking Considerations

1. List any considerations for Table Locking, concurrency control etc. Also mention is the Lock level (row, table) in the database has any implications.

### Exception Design

Explain “Exception handling” design to be followed for this particular design.

# Glossary

Provide the description of the terms used in the Design Document.

# FAQ

Provide any FAQ relevant for the Project, example would be, how does the support group handle a particular problem or case, what do they need to know etc.

# Open/Closed Issues

Indicate problems, concerns, issues that both IT and Business may have in this section in the ‘Open Issues’ section pertaining to your project that have not been resolved. Once you have addressed the issues and team members have signed off on the closed issue, move it to the ‘Closed Issues’ section.

## Open Issues

| **ID** | **Issue** | **Issue Owner** | **Assigned To** | **Identified Date** | **Target Date** |
| --- | --- | --- | --- | --- | --- |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |

## Closed Issues

| **ID** | **Issue** | **Resolution** | **Owner** | **Assigned To /Resolved By** | **Identified Date** | **Resolved Date** |
| --- | --- | --- | --- | --- | --- | --- |
|  |  |  |  |  |  |  |
| 1 |  |  |  |  |  |  |
| 2 |  |  |  |  |  |  |
|  |  |  |  |  |  |  |