

# Technical Specifications Final Fantasy XII Completion Sheet Script

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# 1. History

Version	Date	Subject
1.0	14/08/2024	Initial version of the document
1.1	26/08/2024	Adjustments for improvement of “Sell Up To” cell value and small fixes
1.2	28/08/2024	Added SellCheckboxValueConverter

## 2. Information

### 2.1 UpdateBazaarSheet Flow

- ❖ BazaarSheetCoordinator::updateBazaarSheet
  - BazaarSheetSheetReader::getBazaarNames()
    - SheetReaderBase::getSingleColumnRangeValues()
  - BazaarSheetHandler::getBazaarOutput()
    - HandlerBase::getOutput()
    - BazaarSheetHandler::getOutputFor()
    - BazaarSheetDatabaseReader::getBazaarLoot()
    - BazaarSheetFactory::createBazaarOutput()
  - BazaarSheetWriter::writeBazaarInformation()
    - SheetWriteBase::clearRange()
    - SheetWriterBase::writeInformation()
    - BazaarOutput->getUpdateRow()
      - LootNeededValueConverter::convertToLootString()

## 2.2 UpdateLootSheet Flow

- ❖ LootSheetCoordinator::updateLootSheet
  - LootSheetSheetReader::getLootNames()
    - SheetReaderBase::getSingleColumnRangeValues()
  - LootSheetHandler::getLootOutput()
    - HandlerBase::getOutput()
    - LootSheetHandler::getOutputFor()
    - LootSheetFactory::createLootOutput()
      - LootSheetDatabaseReader::getBazaarLoot()
      - LootOutput::addBazaarLoot()
  - LootSheetWriter::writeBazaarInformation()
    - SheetWriteBase::clearRange()
    - SheetWriterBase::writeInformation()
    - LootOutput->getUpdateRow()
      - SellUpToValueConverter::convertToSellUpToString()
      - NeededToTurnInValueConverter::convertToNeededToTurnInString()

## 3. Class description

### 3.1 Introduction

This chapter writes out all classes present in the FF12 Completion Script, including its intended goal, class it extends, classes using it, properties, functions and classes it uses. For the classes it uses, every class that is created via a factory class is noted with an \*.

### 3.2 Base classes

#### 3.2.1 DatabaseReaderBase

##### Goal

Base class for the database reader classes

##### Used by

BazaarSheetDatabaseReader

LootSheetDatabaseReader

##### Functions

*protected function runGetBazaarLoot(array \$select, string \$bazaarName): array*

##### Uses

Framework\Databases\MySqlWrapper \*

Framework\Databases\Join \*

Framework\Databases\MySqlSelectQuery \*

### 3.2.2 FactoryBase

#### Goal

Base class for the factory classes

#### Used by

BazaarSheetFactory

LootSheetFactory

#### Functions

*protected function createBazaarLoot(string \$lootName, int \$amount, int \$lootSheetRow, int \$bazaarSheetRow): BazaarLoot*

#### Uses

BazaarLoot

### 3.2.3 HandlerBase

#### Goal

Base class for the handler classes

#### Used by

BazaarHandler

LootHandler

#### Functions

*protected function getOutput(array \$list): array*

*abstract protected function getOutputFor(string \$elementName): OutputBase*



### 3.2.4 OutputBase

#### Goal

Base class for the output data classes

#### Used by

BazaarOutput

LootOutput

#### Functions

*abstract public function getUpdateRow(): array*

### 3.2.5 SheetReaderBase

#### Goal

Base class for all sheet reader classes

#### Used by

BazaarSheetSheetReader

LootSheetSheetReader

#### Functions

*protected function getSingleColumnRangeValues(string \$range): array*

#### Uses

Framework\Google\SheetsWrapper \*

SheetResultConverter

### 3.2.6 SheetWriterBase

#### Goal

Base class for all sheet writer classes

#### Used by

BazaarSheetSheetWriter

LootSheetSheetWriter

#### Functions

*protected function writeInformation(string \$sheetRange, array \$output)*

#### Uses

Framework\Google\SheetsFactory \*

## 3.2 Converters

### 3.2.1 DatabaseResultConverter

#### Goal

Convert database results to a format that is handled more clearly

#### Used by

DatabaseReader

#### Functions

*public static function convertSingleColumnValue(array \$databaseResult, string \$columnName): array*

*public static function convertBazaarLootResult(array \$databaseResult): array*

*private static function getBazaarSheetRowValue(array \$record): string*

#### Uses

BazaarLoot \*

### 3.2.2 LootNeededValueConverter

#### Goal

Convert information for the bazaar items to values for the sheet

#### Used by

BazaarOutput

#### Functions

```
public static function convertToLootString(array $bazaarLoot): string  
private static function convertToLootStringSingle(array $bazaarLoot): string  
private static function convertToLootStringDouble(array $bazaarLoot): string  
private static function convertToLootStringTriple(array $bazaarLoot): string
```

### 3.2.3 NeededToTurnInValueConverter

#### Goal

Convert information for a loot item to values for the “Needed to turn in” cells

#### Used by

LootOutput

#### Functions

```
public static function convertToNeededToTurnInString(array $bazaarLoot): string  
private static function convertToNeededToTurnInStringSingle(array $bazaarLoot): string  
private static function convertToNeededToTurnInStringDouble(array $bazaarLoot): string  
private static function convertToNeededToTurnInStringTriple(array $bazaarLoot): string
```

### 3.2.4 SellCheckboxValueConverter

#### Goal

Convert information for a bazaar item to values for the “Sell” checkbox cells

#### Used by

BazaarOutput

#### Functions

```
public static function convertToSellCheckboxString(array $bazaarLoot): string  
private static function convertToSellCheckboxStringSingle(array $bazaarLoot): string  
private static function convertToSellCheckboxDouble(array $bazaarLoot): string  
private static function convertToSellCheckboxTriple(array $bazaarLoot): string
```

### 3.2.5 SellUpToValueConverter

#### Goal

Convert information for a loot item to values for the “Sell Up To” cells

#### Used by

LootOutput

#### Functions

```
public static function convertToSellUpToString(int $lootRow, int $sellUpTo): string  
public static function convertToSellUpToString(array $bazaarLoot): string  
private static function convertToSellUpToStringSingle(array $bazaarLoot): string  
private static function convertToSellUpToStringDouble(array $bazaarLoot): string  
private static function convertToSellUpToStringTriple(array $bazaarLoot): string  
private static function convertToSellUpToStringQuadruple(array $bazaarLoot): string  
private static function convertToSellUpToStringQuintuple(array $bazaarLoot): string
```

### 3.2.6 SheetResultConverter

#### Goal

Convert sheet results to a format that is handled more clearly

#### Used by

CompletionSheetReader

#### Functions

```
public static function convertSingleColumnValue(array $sheetResult): array
```

## 3.3 Coordinators

### 3.3.1 BazaarSheetCoordinator

#### Goal

Call class functions that perform parts of the updateBazaarSheet script

#### Used by

updateBazaarSheet

#### Functions

*public function updateBazaarSheet()*

#### Uses

BazaarSheetSheetReader \*

BazaarSheetHandler \*

BazaarSheetSheetWriter \*

### 3.3.2 LootSheetCoordinator

#### Goal

Call class functions that perform parts of the updateLootSheet script

#### Used by

updateLootSheet

#### Functions

*public function updateLootSheet()*

#### Uses

LootSheetSheetReader \*

LootSheetHandler \*

LootSheetSheetWriter\*



## 3.4 Data

### 3.4.1 BazaarLoot

#### Goal

Hold values for a piece of loot needed to unlock a Bazaar item

#### Used by

BazaarOutput

LootOutput

#### Properties

*string \$lootName*

*int \$amount*

*int \$lootSheetRow*

*int \$bazaarSheetRow*

#### Functions

*public \_\_construct(string \$lootName, int \$amount, int \$lootSheetRow, int \$bazaarSheetRow)*

*public function lootName(): string*

*public function amount(): int*

*public function lootSheetRow(): int*

*public function bazaarSheetRow(): int*

### 3.4.2 BazaarOutput

#### Goal

Hold values for a piece of loot needed to unlock a Bazaar item

#### Used by

BazaarSheetSheetWriter

#### Extends

OutputBase

#### Properties

*array \$bazaarLoot*

#### Functions

*public function getUpdateRow(): array*

#### Uses

LootNeededValueConverter

SellCheckboxValueConverter

### 3.4.3 LootOutput

#### Goal

Hold values for a piece of loot and other loot items used to unlock the same bazaar items

#### Used by

CompletionSheetWriter

#### Extends

OutputBase

#### Properties

*string \$lootName*  
*array \$bazaarLoot*

#### Functions

*public function addBazaarLoot(): array*  
*public function getUpdateRow(): array*

#### Uses

SellUpToValueConverter  
NeededToTurnInValueConverter

## 3.5 Factories

### 3.5.1 BazaarSheetFactory

#### Goal

Create objects used by the BazaarSheet script

#### Used by

updateBazaarSheet  
BazaarSheetCoordinator  
BazaarSheetHandler

#### Extends

FactoryBase

#### Functions

```
public static function createBazaarSheetCoordinator(): BazaarSheetCoordinator  
public static function createBazaarSheetSheetReader(): BazaarSheetSheetReader  
public static function createBazaarSheetHandler(): BazaarSheetHandler  
public static function createBazaarSheetDatabaseReader(): BazaarSheetDatabaseReader  
public static function createBazaarOutput(array $bazaarLoot): BazaarOutput  
public static function createBazaarSheetSheetWriter(): BazaarSheetSheetWriter
```

#### Uses

BazaarSheetCoordinator	BazaarSheetDatabaseReader
BazaarSheetSheetReader	BazaarOutput
BazaarSheetHandler	BazaarSheetSheetWriter

## 3.5.2 LootSheetFactory

### Goal

Create objects used by the LootSheetSheet script

### Used by

updateLootSheet  
DatabaseResultConverter  
LootSheetCoordinator  
LootSheetFactory  
LootSheetHandler

### Extends

FactoryBase

### Functions

*public static function createLootSheetCoordinator(): LootSheetCoordinator*  
*public static function createLootSheetSheetReader(): LootSheetSheetReader*  
*public static function createLootSheetHandler(): LootSheetHandler*  
*public static function createLootSheetDatabaseReader(): LootSheetDatabaseReader*  
*public static function createLootOutput(string \$lootName): LootOutput*  
*public static function createLootSheetWriter(): LootSheetWriter*

### Uses

LootSheetCoordinator	LootSheetDatabaseReader
LootSheetSheetReader	LootOutput
LootSheetHandler	LootSheetWriter

## 3.6 Handlers

### 3.6.1 BazaarSheetHandler

#### Goal

Create an array of filled BazaarOutput object

#### Used by

BazaarSheetCoordinator

#### Extends

HandlerBase

#### Functions

*public function getBazaarOutput(array \$bazaarList): array*

*protected function getOutputFor(string \$bazaarName): BazaarOutput*

#### Uses

DatabaseSheetReader \*

BazaarOutput \*

### 3.6.2 LootSheetHandler

#### Goal

Create an array of filled LootOutput object

#### Used by

LootSheetCoordinator

#### Extends

HandlerBase

#### Functions

*public function getLootOutput(array \$lootList): array*

*protected function getOutputFor(string \$lootName): LootOutput*

#### Uses

LootSheetDatabaseReader \*

LootOutput \*

## 3.7 Readers

### 3.7.1 BazaarSheetDatabaseReader

#### Goal

Get information from the database for the BazaarSheet script

#### Used by

BazaarSheetHandler

#### Extends

DatabaseReaderBase

#### Functions

*public function getBazaarLoot(string \$bazaarName): array*



### 3.7.2 BazaarSheetSheetReader

#### Goal

Get information from the completion sheet for the BazaarSheet script

#### Used by

BazaarSheetCoordinator

#### Extends

SheetReaderBase

#### Functions

*public function getBazaarNames(): array*

### 3.7.3 LootSheetDatabaseReader

#### Goal

Get information from the database for the LootSheet script

#### Used by

LootSheetHandler

#### Extends

DatabaseReaderBase

#### Functions

*public function getBazaarNames(string \$lootName): array*

*public function getBazaarLoot(string \$bazaarName): array*

### 3.7.4 LootSheetSheetReader

#### Goal

Get information from the completion sheet for the LootSheet script

#### Used by

LootSheetCoordinator

#### Extends

SheetReaderBase

#### Functions

*public function getLootNames(): array*

## 3.8 Writers

### 3.8.1 BazaarSheetWriter

Goal

Write information to the Bazaar sheet

Used by

BazaarSheetCoordinator

Extends

SheetWriterBase

Functions

*public function writeBazaarInformation(array \$bazaarOutput)*

### 3.8.2 LootSheetWriter

#### Goal

Write information to the Loot sheet

#### Used by

LootSheetCoordinator

#### Extends

SheetWriterBase

#### Functions

*public function writeLootInformation(array \$lootOutput)*