



The Global Language of Business

# Cash Processing Business Message Standard (BMS)

*Release 3.5.1, Draft, Jan 2022*



## Document Summary

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## Business Requirements Document (BRAD) Reference

| BRAD Title                             | BRAD Issue Date | BRAD Version |
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## Document Change History

| Date of Change | Version             | Changed By    | Reason for Change | Summary of Change      |
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| 05-Jan-2022    | BMS 3.5.1 – Issue 1 | Miklos Bolyky | BMS Release 3.5.1 | See summary of changes |

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# 1 Business Domain View

## 1.1 Introduction

### Message Definition

#### Cash Count Notification Message Definition

The Cash Count Notification message provides report on counting the cash article and possible discrepancies (variances) between despatched and accepted articles, per cash deposit.

#### Cash Count Report Message Definition

The Cash Count Report message provides information about cash counting per reporting criteria, e.g. single count, multi count, etc.

#### Cash Count Statistic Report Message Definition

The Cash Count Statistic Report message provides statistics information about cash counting per reporting criteria, e.g. runtime statistics, deposit statistics, etc.

#### Cash Packaging Report Message Definition

The Cash Count Report message provides information about cash packaging system activities.

## 1.2 References

| Reference Name                                     | Description  |
|--|--|
| Cash Processing Machines Communication (GS1, 2017) | The document describes the business process and data requirements to create the set of reporting messages for Cash Processing Machines |
| BMS Shared Common Library 3.5.1                    | Provides the shared common artefacts   |
| BMS eCom Common Library 3.5.1                      | Provides the eCom common artefacts   |

# 2 Business Context

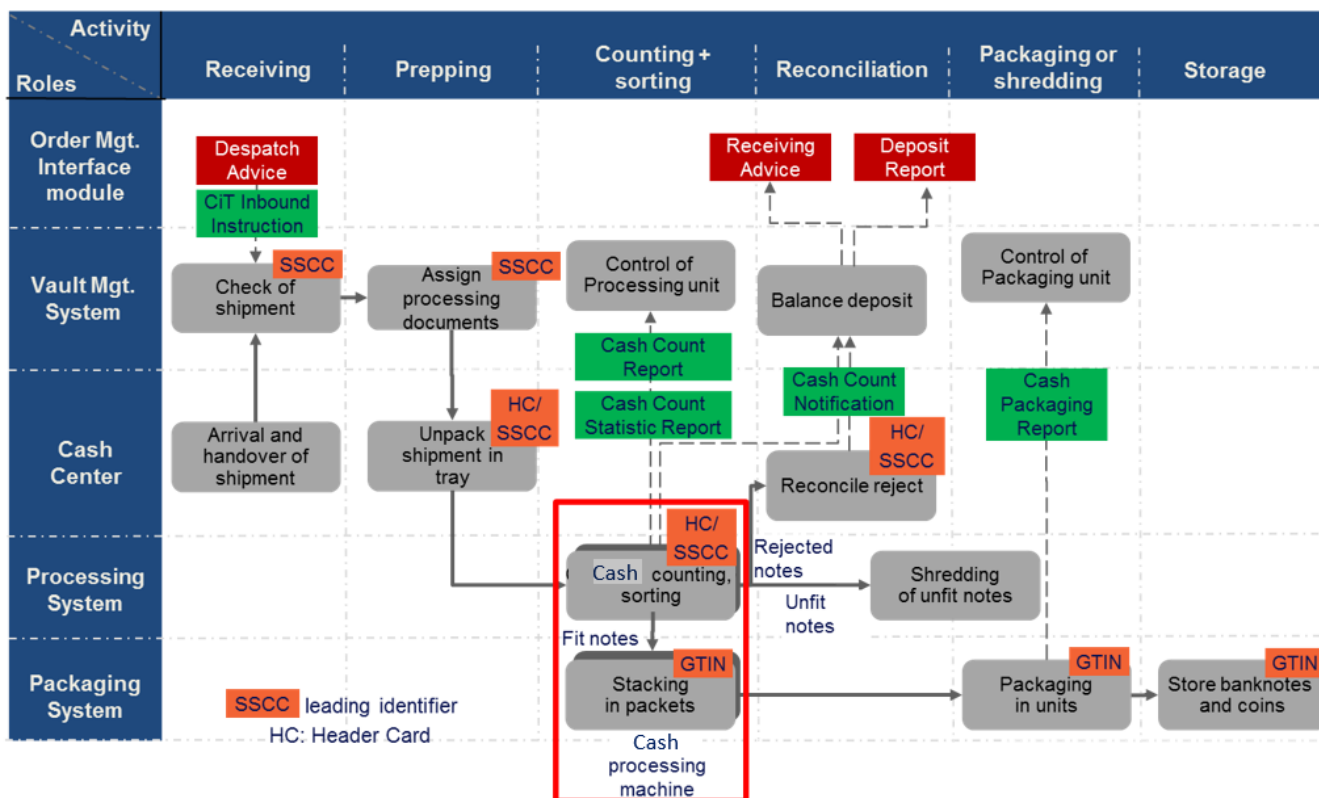
| Context category     | Value(s)                 |
|----------------------|--------------------------|
| Industry             | Cash Logistics           |
| Geopolitical         | All                      |
| Product              | Cash articles            |
| Process              | Deliver / Cash Logistics |
| System capabilities  | GS1 System               |
| Official constraints | None                     |

### 3 Business Transaction View

#### Business scenario general overview

The process under consideration focuses on deposit processing with online interfaces for EDI communication between

- processing systems for banknotes/coins
- packaging systems for banknotes/coins wrapping machines and linked vault management system.

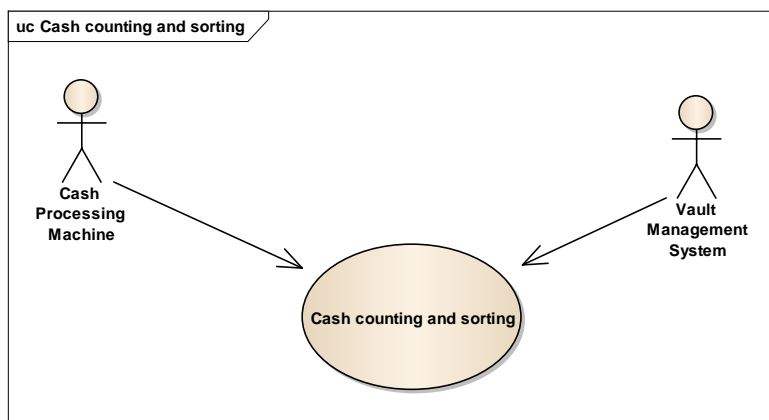


The Processing System workstations send notifications about the cash counting results and statistics information to the Vault Management System of the Cash Centre.

The Processing System workstations send report about cash packaging process to the Vault Management System of the Cash Centre.

### 3.1 Business Transaction - counting, sorting and stacking of cash

#### Use Case Diagram



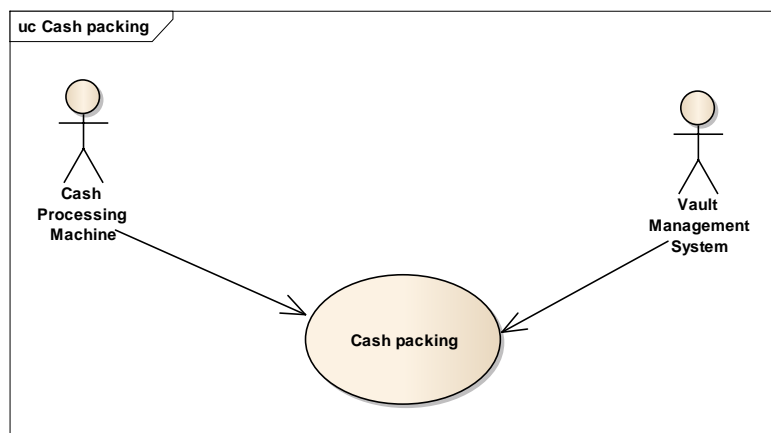
#### Use Case Description

| Use case ID          | UC-1   |  |  |
|----------------------|--|--|--|
| Use case name        | Cash counting and sorting  |  |  |
| Use case description | <p>Cash (banknotes and/or coins) deposit is fed into the automated processing systems for singling, verification, counting per piece and optional fitness sorting.</p> <p>Verified (genuine) cash articles are stacked in packets and separated per denomination, fit or unfit or rejected category. If case cash processing machine is equipped with shredding unit, the unfit banknotes are destroyed automatically.</p> <p>The machine reports the processing results and statistics to VMS/SM in classified EDI messages depending on content and trigger.</p> |  |  |
| Actors (Goal)        | Cash Processing Machine (CPM)<br>Vault Management System (VMS)   |  |  |
| Performance goals    |  |  |  |
| Preconditions        | Cash deposit has been delivered to the Cash Centre   |  |  |
| Post conditions      | VMS received cash count information from CPM   |  |  |
| Scenario             | Begins when... cash articles are fed into the CPM.   |  |  |
|                      | Continues with...  |  |  |
|                      | Step #   | Actor  | Activity step  |
|                      | 1  | CPM  | Sends Cash Count Notification of accepted currency per deposit   |
|                      | 2  | CPM  | Sends Cash Count Report about processed currency per machine in a defined reporting period, e.g. mainly per shift or day |
| 3                    | CPM  | Sends Cash Count Statistic Report with statistics parameters, e.g. runtime, reject reasons per machine in a defined reporting period, e.g. mainly per shift or day |  |
|                      | Ends when... VMS has received cash count, sorting and (optionally) shredding information.  |  |  |
| Alternative scenario |  |  |  |
| Related requirements | Not applicable   |  |  |
| Related rules        | Not applicable   |  |  |



## 3.2 Business Transaction - packing of cash

### Use Case Diagram



### Use Case Description

| Use case ID          | UC-2  |                  |   |
|----------------------|---|------------------|---|
| Use case name        | Cash packing  |                  |   |
| Use case description | Cash articles are packed in different units for storage. Packaging systems can be connected with multiple cash processing machines via conveyors to pack smaller packaging type units into next bigger units. The packaging system can be fed also manually.<br>Several levels of cash packing may be applied, e.g. from packets to bundle, from bundles to cardboard box, from cardboard boxes to container or pallet. |                  |   |
| Actors (Goal)        | Cash Processing Machine (CHM)<br>Vault Management System (VMS)  |                  |   |
| Performance goals    |   |                  |   |
| Preconditions        | Cash deposit has been counted and sorted by CPM   |                  |   |
| Post conditions      | VMS received cash packing information from CPM  |                  |   |
| Scenario             | Begins when... cash articles are fed into the packaging unit of CPM.  |                  |   |
|                      | Continues with...   |                  |   |
|                      | Step #  | Actor            | Activity step   |
|                      | 1   | Packaging System | Packs cash articles in pre-defined units per denomination |
|                      | 2   | Packaging System | Sends Cash Packaging Report                               |
|                      | Ends when... VMS has received Cash Packaging Report   |                  |   |
| Alternative scenario |   |                  |   |
| Related requirements | Not applicable  |                  |   |
| Related rules        | Not applicable  |                  |   |

### Activity Diagram(s)

Not Applicable

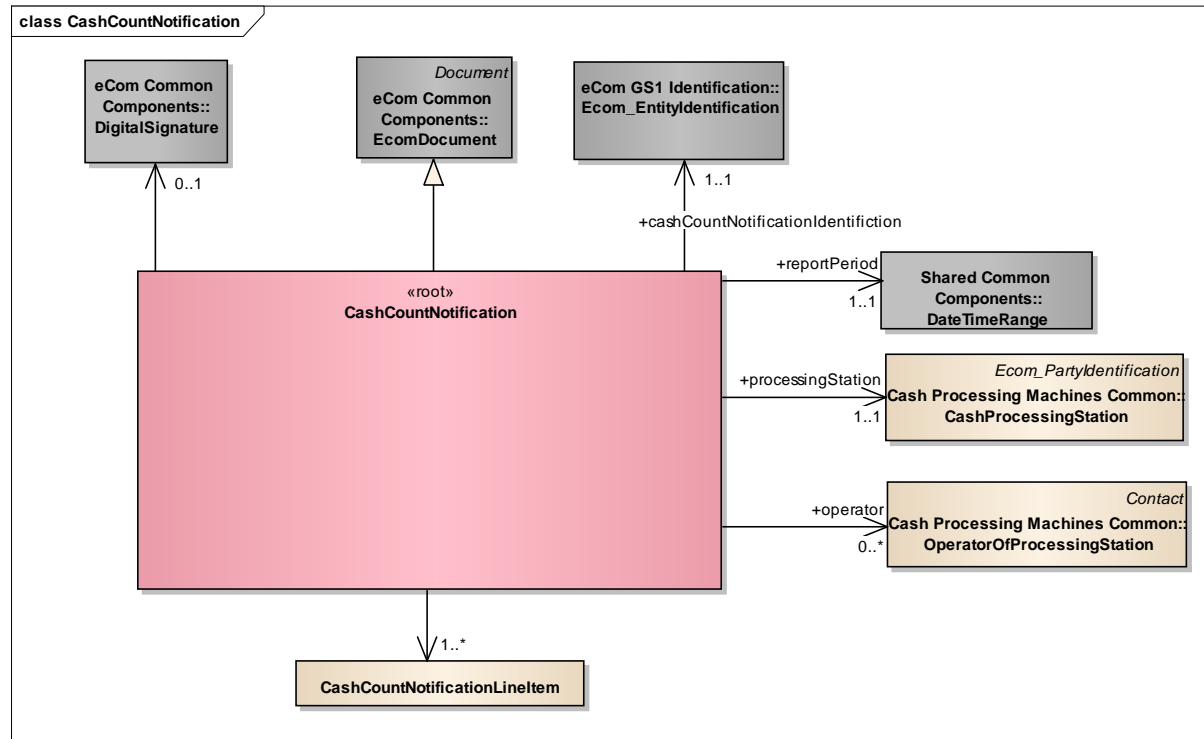
### Business Transaction Sequence Diagram(s)

Not Applicable

## 4 Business Information View

### 4.1 Cash Count Notification

#### Class diagram



#### GDD report

The content of the CashCountNotification class, its structure and component definitions can be accessed in the Global Data Dictionary:  
[http://apps.gs1.org/GDD/bms/Version3\\_4/Pages/bieDetails.aspx?semanticURN=urn:gs1:gdd:bie:CashCountNotification](http://apps.gs1.org/GDD/bms/Version3_4/Pages/bieDetails.aspx?semanticURN=urn:gs1:gdd:bie:CashCountNotification)

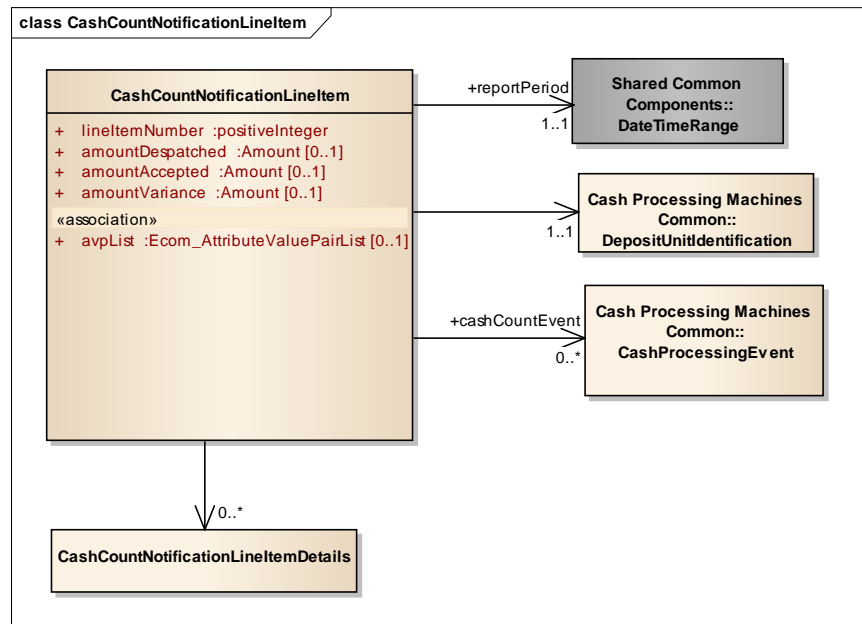
| Content               | Attribute / Role                    | Datatype / Secondaryclass     | Multiplicity | Definition  | Requirements |
|-----------------------|-------------------------------------|-------------------------------|--------------|---|--------------|
| CashCountNotification |                                     |                               |              | Message reporting the results of counting the cash article and possible discrepancies (variances) between despatched and accepted articles, per cash deposit. | WR 16-000428 |
| Generalization        |                                     | EcomDocument                  |              | Basic information about the content of the message including version number, creation date and time and the placeholder for non-standard attributes.          |              |
| Association           | reportPeriod                        | DateTimeRange                 | 1..1         | Provides the start and finish of the reporting period for which the Cash Count Notification is being sent.  |              |
| Association           | processingStation                   | CashProcessingStation         | 1..1         | Person, Machine or place where the cash is processed (e.g. Cash Processing Machine, Workstation, Cash Centre ...)   |              |
| Association           | operator                            | OperatorOfProcessingStation   | 0..*         | Provides identification and contact information of responsible persons during the cash processing. E.g. Quality Coordinator.                                  |              |
| Association           | cashCountNotificationIdentification | Ecom_EntityIdentification     | 1..1         | Provides the identification of the Cash Count Notification.   |              |
| Association           |                                     | DigitalSignature              | 0..1         | Digital signature for signing the message.  |              |
| Association           |                                     | CashCountNotificationLineItem | 1..*         | Provides detailed information about currency counting results.  |              |



**Note:** Reference Shared Common Library Business Message (BMS) Release 3.5.1 and eCom Domain Common Library Business Message (BMS) Release 3.5.1 for all common information.

### 4.1.1.1 Cash Count Notification Line Item

#### Class diagram



#### GDD report

The content of the CashCountNotificationLineItem class, its structure and component definitions can be accessed in the Global Data Dictionary: [http://apps.gs1.org/GDD/bms/Version3\\_4/Pages/bieDetails.aspx?semanticURN=urn:gs1:gdd:bie:CashCountNotificationLineItem](http://apps.gs1.org/GDD/bms/Version3_4/Pages/bieDetails.aspx?semanticURN=urn:gs1:gdd:bie:CashCountNotificationLineItem)

| Content                       | Attribute / Role | Datatype /Secondary class             | Multiplicity | Definition   | Requirements |
|-------------------------------|------------------|---------------------------------------|--------------|--|--------------|
| CashCountNotificationLineItem |                  |                                       |              | Specifies the information related to each line item. Each CashCountNotification will contain one or more line items. |              |
| Association                   |                  | CashCountNotificationLineItem Details | 0..*         | Specifies detailed information per cash article in a deposit unit.   |              |

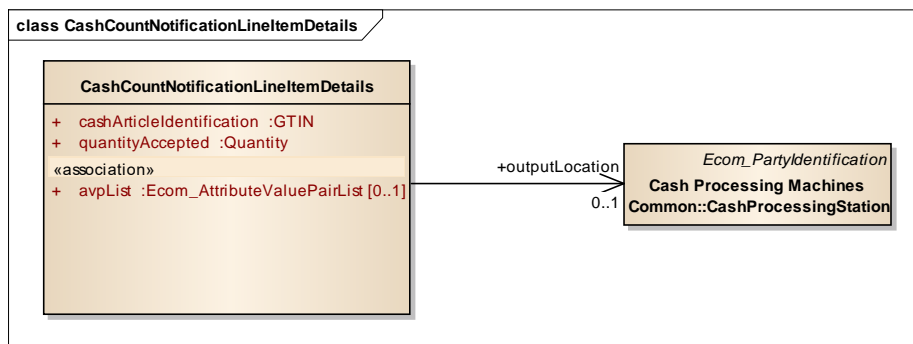
| Content     | Attribute / Role | Datatype /Secondary class   | Multiplicity | Definition   | Requirements |
|-------------|------------------|-----------------------------|--------------|--|--------------|
| Association | reportPeriod     | DateTimeRange               | 1..1         | Specifies the report period of the processed deposit unit.                                       |              |
| Association | cashCountEvent   | CashProcessingEvent         | 0..*         | Specifies event that occurred during deposit unit processing.                                    |              |
| Association |                  | DepositUnitIdentification   | 1..1         | Provides details of deposit unit.  |              |
| Attribute   | lineItemNumber   | positiveInteger             | 1..1         | Provides the line number associated to the CashCountNotification Line Item.                      |              |
| Attribute   | amountDespatched | Amount                      | 0..1         | Despatched value of deposit/ SSCC, calculated from Despatch Advice.                              |              |
| Attribute   | amountAccepted   | Amount                      | 0..1         | Accepted - verified amount of each Header Card or SSCC.  |              |
| Attribute   | amountVariance   | Amount                      | 0..1         | Variance between despatched (Said to contain) and accepted amount value per Header Card or SSCC. |              |
| Attribute   | avpList          | Ecom_AttributeValuePairList | 0..1         | Temporary attributes introduced between minor versions.  |              |



**Note:** Reference Shared Common Library Business Message (BMS) Release 3.5.1 and eCom Domain Common Library Business Message (BMS) Release 3.5.1 for all common information.

## 4.1.2 Cash Count Notification Line Item Details

### Class diagram



## GDD report

The content of the CashCountNotificationLineItemDetails class, its structure and component definitions can be accessed in the Global Data Dictionary:

[http://apps.gs1.org/GDD/bms/Version3\\_4/Pages/bieDetails.aspx?semanticURN=urn:gs1:gdd:bie:CashCountNotificationLineItemDetails](http://apps.gs1.org/GDD/bms/Version3_4/Pages/bieDetails.aspx?semanticURN=urn:gs1:gdd:bie:CashCountNotificationLineItemDetails)

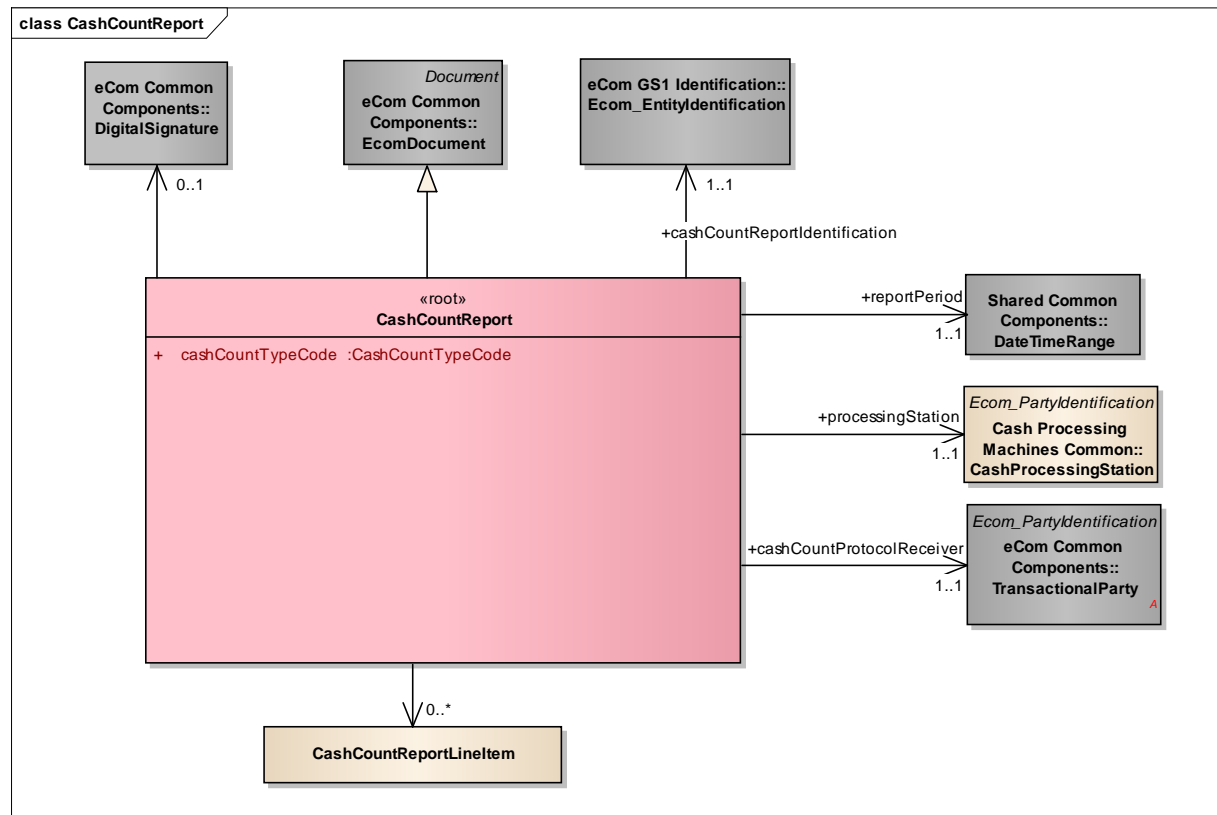
| Content                              | Attribute / Role          | Datatype / Secondaryclass   | Multiplicity | Definition  | Requirements |
|--------------------------------------|---------------------------|-----------------------------|--------------|---|--------------|
| CashCountNotificationLineItemDetails |                           |                             |              | Specifies detailed information per cash article in a deposit unit.  |              |
| Attribute                            | cashArticleIdentification | GTIN                        | 1..1         | Identifies cash article being processed.<br>Note: In Eurosystem a.k.a. euro zone The GTINs are assigned to cash articles by the European Central Bank. For other currencies, the local Central Banks need to create the GTIN list assigned to respective cash articles. |              |
| Association                          | outputLocation            | CashProcessingStation       | 0..1         | Identifies the output stacker in the processing station.<br>NOTE: The output stacker should be identified by the GLN, but if it is not assigned, an additional identification can be provided.  |              |
| Attribute                            | quantityAccepted          | Quantity                    | 1..1         | Specifies accepted quantity of a given cash article.  |              |
| Attribute                            | avpList                   | Ecom_AttributeValuePairList | 0..1         | Temporary attributes introduced between minor versions.   |              |



**Note:** Reference Shared Common Library Business Message (BMS) Release 3.5.1 and eCom Domain Common Library Business Message (BMS) Release 3.5.1 for all common information.

## 4.2 Cash Count Report

### Class diagram



### GDD report

The content of the CashCountReport class, its structure and component definitions can be accessed in the Global Data Dictionary:  
[http://apps.gs1.org/GDD/bms/Version3\\_4/Pages/bieDetails.aspx?semanticURN=urn:gs1:gdd:bie:CashCountReport](http://apps.gs1.org/GDD/bms/Version3_4/Pages/bieDetails.aspx?semanticURN=urn:gs1:gdd:bie:CashCountReport)

| Content         | Attribute / Role              | Datatype / Secondaryclass | Multiplicity | Definition   | Requirements |
|-----------------|-------------------------------|---------------------------|--------------|--|--------------|
| CashCountReport |                               |                           |              | The Cash Count Report message provides information about cash counting per reporting criteria, e.g. single count, multi count, etc.                  | WR 16-000428 |
| Generalization  |                               | EcomDocument              |              | Basic information about the content of the message including version number, creation date and time and the placeholder for non-standard attributes. |              |
| Association     | reportPeriod                  | DateTimeRange             | 1..1         | Provides the start and finish of the reporting period.   |              |
| Association     |                               | CashCountReportLineItem   | 0..*         | Provides detailed information about currency counting results.   |              |
| Association     | cashCountReportIdentification | Ecom_EntityIdentification | 1..1         | Provides the identification of the Cash Count Report.  |              |
| Association     |                               | DigitalSignature          | 0..1         | Digital signature for signing the message.   |              |
| Association     | processingStation             | CashProcessingStation     | 1..1         | Information about the cash processor. This can be for instance a cash processing machine, a manual operated workstation or a back office system.     |              |
| Association     | cashCountProtocolReceiver     | TransactionalParty        | 1..1         | Identification of receiver for Cash Count protocol.  |              |
| Attribute       | cashCountTypeCode             | CashCountTypeCode         | 1..1         | Type of cash processing, e.g. single count, multi count, shredding.  |              |

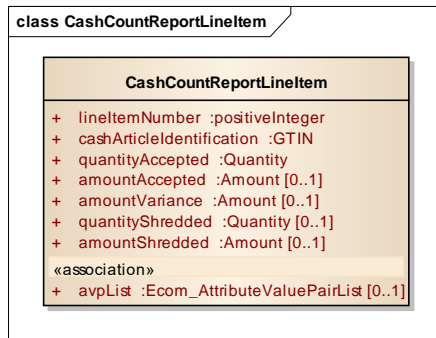


**Note:** Reference Shared Common Library Business Message (BMS) Release 3.5.1 and eCom Domain Common Library Business Message (BMS) Release 3.5.1 for all common information.



## 4.2.1 Cash Count Report Line Item

### Class diagram



### GDD report

The content of the CashCountReportLineItem class, its structure and component definitions can be accessed in the Global Data Dictionary:  
[http://apps.gs1.org/GDD/bms/Version3\\_4/Pages/bieDetails.aspx?semanticURN=urn:gs1:gdd:bie:CashCountReportLineItem](http://apps.gs1.org/GDD/bms/Version3_4/Pages/bieDetails.aspx?semanticURN=urn:gs1:gdd:bie:CashCountReportLineItem)

| Content                 | Attribute / Role          | Datatype /Secondary class | Multiplicity | Definition  | Requirements |
|-------------------------|---------------------------|---------------------------|--------------|---|--------------|
| CashCountReportLineItem |                           |                           |              | Provides detailed information about currency counting results.  |              |
| Attribute               | lineItemNumber            | positiveInteger           | 1..1         | Identification of the line item.  |              |
| Attribute               | cashArticleIdentification | GTIN                      | 1..1         | Identification of the verified banknote or coin article by GTIN.<br><br>NOTE: In Eurosystem a.k.a. euro zone The GTINs are assigned to cash articles by the European Central Bank. For other currencies, the local Central Banks need to create the GTIN list assigned to respective cash articles. |              |
| Attribute               | quantityAccepted          | Quantity                  | 1..1         | Quantity of accepted cash articles.   |              |
| Attribute               | amountAccepted            | Amount                    | 0..1         | The total amount (monetary value) of the accepted cash articles per GTIN.   |              |
| Attribute               | amountVariance            | Amount                    | 0..1         | Variance between despatched (Said to contain) and accepted amount value per Header Card or SSCC.  |              |



#### Cash Processing Business Message Standard (BMS)

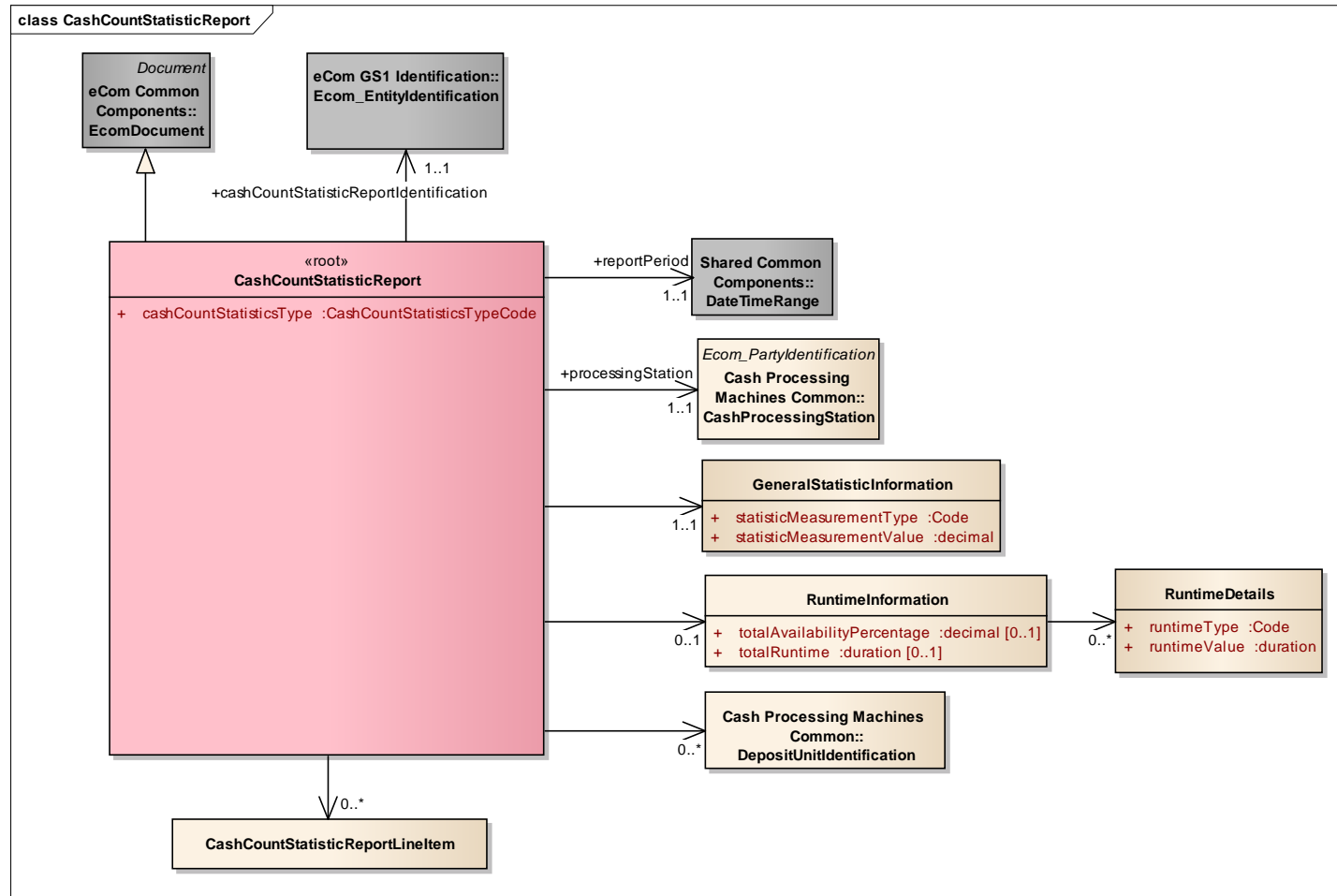
| Content   | Attribute / Role | Datatype /Secondary class   | Multiplicity | Definition  | Requirements |
|-----------|------------------|-----------------------------|--------------|---|--------------|
| Attribute | quantityShredded | Quantity                    | 0..1         | Quantity of shredded / destroyed cash articles per GTIN<br>NOTE:<br>If there is no GTIN for shredded banknotes used, the information is always mandatory. |              |
| Attribute | amountShredded   | Amount                      | 0..1         | The total amount (monetary value) of the shredded / destroyed cash articles per GTIN.   |              |
| Attribute | avpList          | Ecom_AttributeValuePairList | 0..1         | Temporary attributes introduced between minor versions.   |              |



**Note:** Reference Shared Common Library Business Message (BMS) Release 3.5.1 and eCom Domain Common Library Business Message (BMS) Release 3.5.1 for all common information.

## 4.3 Cash Count Statistic Report

### Class diagram



## GDD report

The content of the CashCountStatisticReport class, its structure and component definitions can be accessed in the Global Data Dictionary:  
[http://apps.gs1.org/GDD/bms/Version3\\_4/Pages/bieDetails.aspx?semanticURN=urn:gs1:gdd:bie:CashCountStatisticReport](http://apps.gs1.org/GDD/bms/Version3_4/Pages/bieDetails.aspx?semanticURN=urn:gs1:gdd:bie:CashCountStatisticReport)

| Content                     | Attribute / Role                       | Datatype /Secondary class        | Multiplicity | Definition  | Requirements |
|-----------------------------|--|----------------------------------|--------------|---|--------------|
| CashCountStatisticReport    |  |                                  |              | The Cash Count Statistic Report message provides statistics information about cash counting per reporting criteria, e.g. runtime statistics, deposit statistics, etc. | WR 16-000428 |
| Generalization              |  | EcomDocument                     |              | Basic information about the content of the message including version number, creation date and time and the placeholder for non-standard attributes.                  |              |
| Association                 | reportPeriod                           | DateTimeRange                    | 1..1         | Provides the start and finish of the reporting period.  |              |
| Association                 | processingStation                      | CashProcessingStation            | 1..1         | Information about the cash processor. This can be for instance a cash processing machine, a manual operated workstation or a back office system.                      |              |
| Association                 |  | RuntimeInformation               | 0..1         | Information about different periods of time while the machine was running.  |              |
| Association                 |  | GeneralStatisticInformation      | 1..1         | Specifies the value of statistic measurement.   |              |
| Association                 | cashCountStatisticReportIdentification | Ecom_EntityIdentification        | 1..1         | Identification of the Cash Count Statistic Report Identification.   |              |
| Association                 |  | DepositUnitIdentification        | 0..*         | Provides details of deposit unit.   |              |
| Association                 |  | CashCountStatisticReportLineItem | 0..*         | Provides detailed information about currency counting results.  |              |
| Attribute                   | cashCountStatisticsType                | CashCountStatisticsTypeCode      | 1..1         | Type of statistics related to cash processing.  |              |
| GeneralStatisticInformation |  |                                  |              | General statistic information, such as number of deposits processed.  |              |
| Attribute                   | statisticMeasurementType               | Code                             | 1..1         | Specifies the type of statistic measurement e.g. number of deposits processed.  |              |



#### Cash Processing Business Message Standard (BMS)

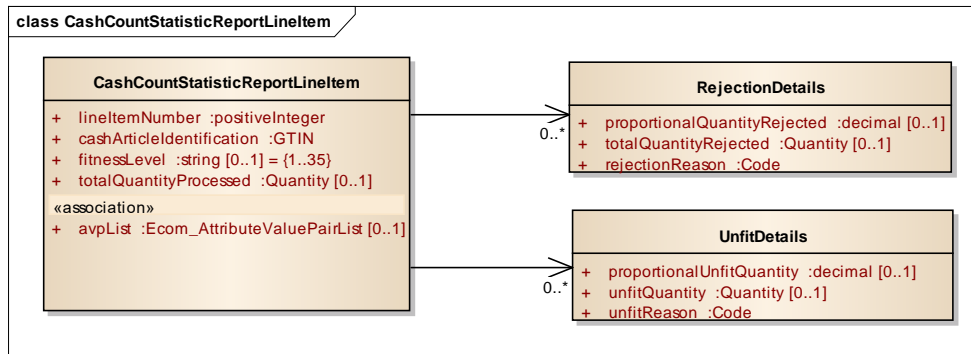
| Content            | Attribute / Role            | Datatype /Secondary class | Multiplicity | Definition   | Requirements |
|--------------------|-----------------------------|---------------------------|--------------|--|--------------|
| Attribute          | statisticMeasurementValue   | decimal                   | 1..1         | Specifies the value of statistic measurement.                              |              |
| RuntimeInformation |                             |                           |              | Information about different periods of time while the machine was running. |              |
| Association        |                             | RuntimeDetails            | 0..*         | Provides details of each runtime: type and duration.                       |              |
| Attribute          | totalAvailabilityPercentage | decimal                   | 0..1         | Information about the total availability while the machine was running.    |              |
| Attribute          | totalRuntime                | duration                  | 0..1         | Total runtime from power on until power off.                               |              |
| RuntimeDetails     |                             |                           |              | Provides details of each runtime: type and duration.                       |              |
| Attribute          | runtimeType                 | Code                      | 1..1         | Specifies the type of runtime event, e.g. Power-up.                        |              |
| Attribute          | runtimeValue                | duration                  | 1..1         | Duration of the runtime event type.  |              |



**Note:** Reference Shared Common Library Business Message (BMS) Release 3.5.1 and eCom Domain Common Library Business Message (BMS) Release 3.5.1 for all common information.

### 4.3.1 Cash Count Statistic Report Line Item

#### Class diagram



#### GDD report

The content of the CashCountStatisticReportLineItem class, its structure and component definitions can be accessed in the Global Data Dictionary:

[http://apps.gs1.org/GDD/bms/Version3\\_4/Pages/bieDetails.aspx?semanticURN=urn:gs1:gdd:bie:CashCountStatisticReportLineItem](http://apps.gs1.org/GDD/bms/Version3_4/Pages/bieDetails.aspx?semanticURN=urn:gs1:gdd:bie:CashCountStatisticReportLineItem)

| Content                          | Attribute / Role          | Datatype /Secondary class | Multiplicity | Definition  | Requirements |
|----------------------------------|---------------------------|---------------------------|--------------|---|--------------|
| CashCountStatisticReportLineItem |                           |                           |              | Provides detailed information about currency counting results.  |              |
| Attribute                        | lineItemNumber            | positiveInteger           | 1..1         | Identification of the line item.  |              |
| Attribute                        | cashArticleIdentification | GTIN                      | 1..1         | Identification of the verified banknote or coin article by GTIN.<br>NOTE: In Eurosystem a.k.a. euro zone The GTINs are assigned to cash articles by the European Central Bank. For other currencies, the local Central Banks need to create the GTIN list assigned to respective cash articles. |              |
| Attribute                        | fitnessLevel              | string                    | 0..1         | The fitness level thresholds are defined by the operation and configuration mode of the system.   |              |
|                                  |                           |                           |              |   |              |

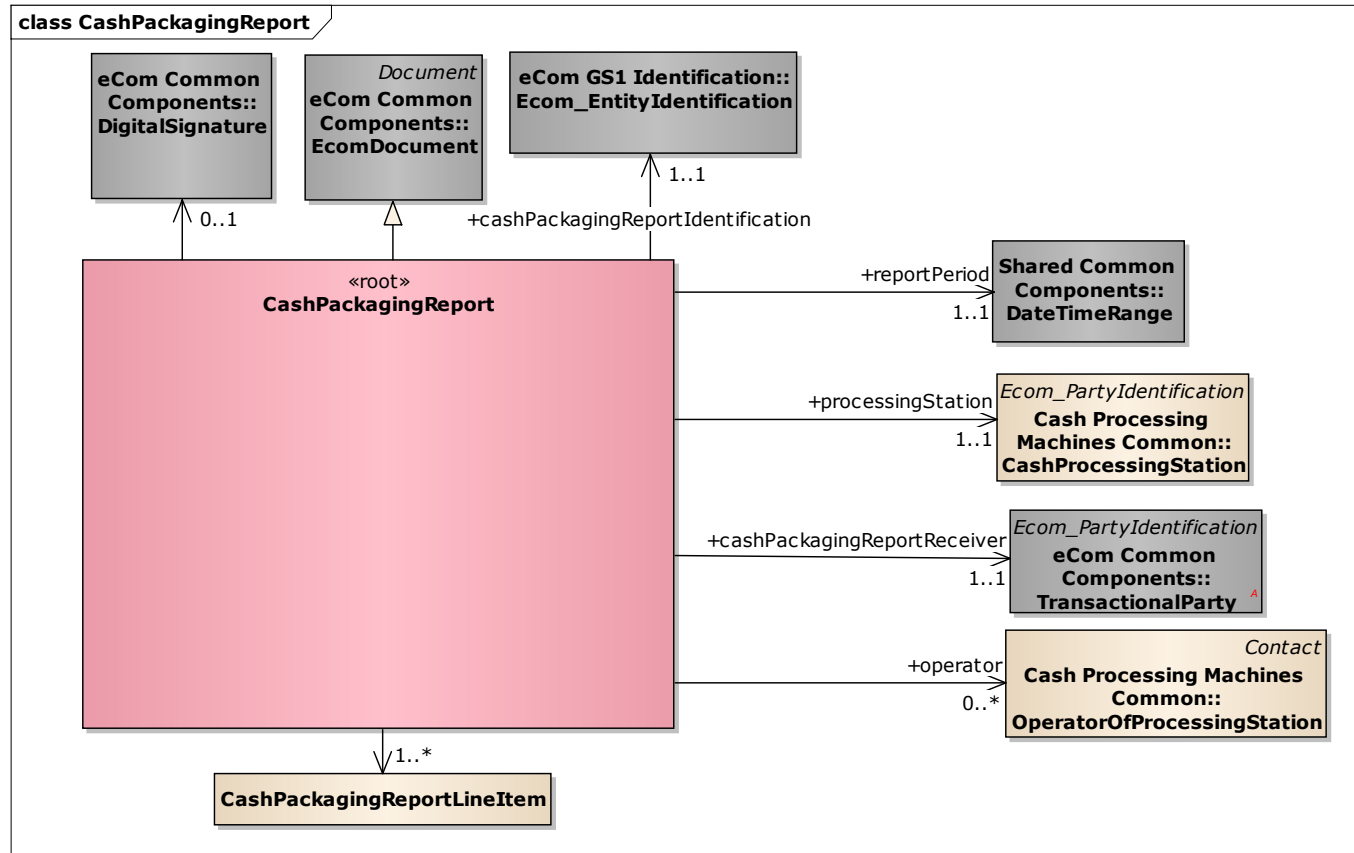
| Content          | Attribute / Role             | Datatype /Secondary class   | Multiplicity | Definition  | Requirements |
|------------------|------------------------------|-----------------------------|--------------|---|--------------|
| Attribute        | totalQuantityProcessed       | Quantity                    | 0..1         | Quantity of processed cash articles per cash article (GTIN).                        |              |
| Association      |                              | RejectionDetails            | 0..*         | Provides details about rejected cash articles.                                      |              |
| Association      |                              | UnfitDetails                | 0..*         | Provides details about unfit cash articles.   |              |
| Attribute        | avpList                      | Ecom_AttributeValuePairList | 0..1         | Temporary attributes introduced between minor versions.                             |              |
| RejectionDetails |                              |                             |              | Provides details about rejected cash articles.                                      |              |
| Attribute        | proportionalQuantityRejected | decimal                     | 0..1         | Percentage of rejected notes in all processed ones per GTIN.                        |              |
| Attribute        | rejectionReason              | Code                        | 1..1         | List of reason for cash articles rejection, e.g. missing watermark                  |              |
| Attribute        | totalQuantityRejected        | Quantity                    | 0..1         | Quantity of cash articles rejected during processing per GTIN.                      |              |
| UnfitDetails     |                              |                             |              | Provides details about unfit cash articles.   |              |
| Attribute        | proportionalUnfitQuantity    | decimal                     | 0..1         | Percentage of unfit group in relation to processed banknotes / coins.               |              |
| Attribute        | unfitQuantity                | Quantity                    | 0..1         | Quantity of unfit cash articles per GTIN (units).                                   |              |
| Attribute        | unfitReason                  | Code                        | 1..1         | List of reason for cash articles unfitness, e.g. missing edge in upper left corner. |              |



**Note:** Reference Shared Common Library Business Message (BMS) Release 3.5.1 and eCom Domain Common Library Business Message (BMS) Release 3.5.1 for all common information.

## 4.4 Cash Packaging Report

### Class diagram



### GDD report

The content of the CashPackagingReport class, its structure and component definitions can be accessed in the Global Data Dictionary:  
[http://apps.gs1.org/GDD/bms/Version3\\_4/Pages/bieDetails.aspx?semanticURN=urn:gs1:gdd:bie:CashPackagingReport](http://apps.gs1.org/GDD/bms/Version3_4/Pages/bieDetails.aspx?semanticURN=urn:gs1:gdd:bie:CashPackagingReport)



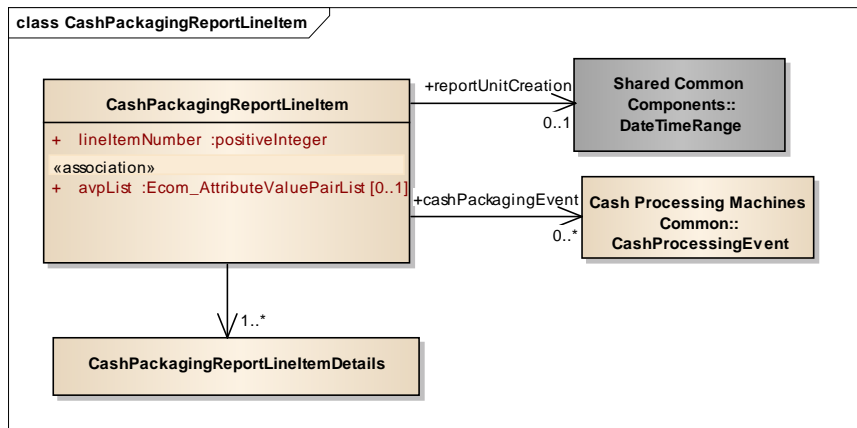
| Content             | Attribute / Role                  | Datatype /Secondary class   | Multiplicity | Definition   | Requirements |
|---------------------|-----------------------------------|-----------------------------|--------------|--|--------------|
| CashPackagingReport |                                   |                             |              | The Cash Count Report message provides information about cash packaging system activities.   |              |
| Generalization      |                                   | EcomDocument                |              | Basic information about the content of the message including version number, creation date and time and the placeholder for non-standard attributes. |              |
| Association         |                                   | CashPackagingReportLineItem | 1..*         | Provides detailed information about currency packaging process.  |              |
| Association         | operator                          | OperatorOfProcessingStation | 0..*         | Provides identification and contact information of responsible persons during the cash processing. E.g. Quality coordinator contact.                 |              |
| Association         | reportPeriod                      | DateTimeRange               | 1..1         | Provides the start and finish of the reporting period.   |              |
| Association         |                                   | DigitalSignature            | 0..1         | Digital signature for signing the message.   |              |
| Association         | cashPackagingReportReceiver       | TransactionalParty          | 1..1         | Identification of the receiver of the packaging report protocol.   |              |
| Association         | processingStation                 | CashProcessingStation       | 1..1         | Person, Machine or place where the cash is processed (e.g. packaging system, a manual operated workstation or a back office system...).              |              |
| Association         | cashPackagingReportIdentification | Ecom_EntityIdentification   | 1..1         | Identification of the Cash Packaging Report.   |              |



**Note:** Reference Shared Common Library Business Message (BMS) Release 3.5.1 and eCom Domain Common Library Business Message (BMS) Release 3.5.1 for all common information.

### 4.4.1 Cash Packaging Report Line Item

#### Class diagram



#### GDD report

The content of the CashPackagingReportLineItem class, its structure and component definitions can be accessed in the Global Data

Dictionary: [http://apps.gs1.org/GDD/bms/Version3\\_4/Pages/bieDetails.aspx?semanticURN=urn:gs1:gdd:bie:CashPackagingReportLineItem](http://apps.gs1.org/GDD/bms/Version3_4/Pages/bieDetails.aspx?semanticURN=urn:gs1:gdd:bie:CashPackagingReportLineItem)

| Content                     | Attribute / Role   | Datatype /Secondary class          | Multiplicity | Definition  | Requirements |
|-----------------------------|--------------------|------------------------------------|--------------|---|--------------|
| CashPackagingReportLineItem |                    |                                    |              | Provides detailed information about currency packaging process.                                     |              |
| Association                 | reportUnitCreation | DateTimeRange                      | 0..1         | Provides the start and finish of the creation of the reported unit, for individual packaging level. |              |
| Association                 |                    | CashPackagingReportLineItemDetails | 1..*         | Detailed information on processed currencies.   |              |
| Association                 | cashPackagingEvent | CashProcessingEvent                | 0..*         | Specifies event that occurred during cash packaging.  |              |
| Attribute                   | lineItemNumber     | positiveInteger                    | 1..1         | Identification of the line item.  |              |



#### Cash Processing Business Message Standard (BMS)

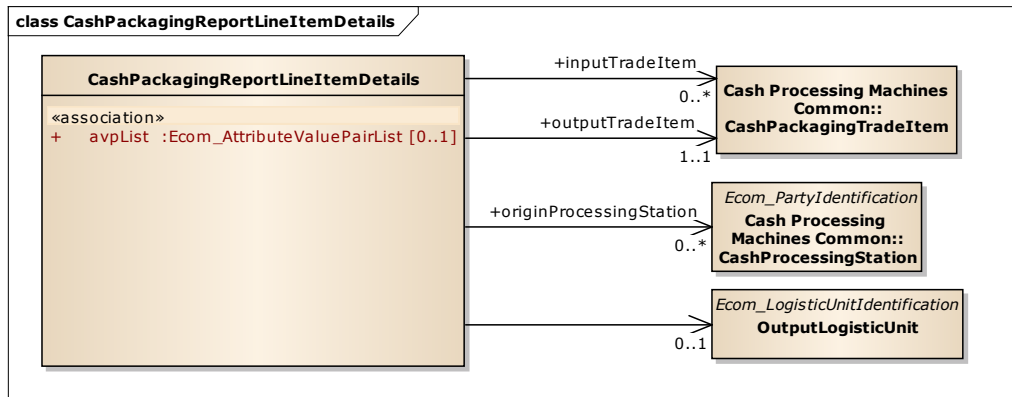
| Content   | Attribute / Role | Datatype /Secondary class   | Multiplicity | Definition  | Requirements |
|-----------|------------------|-----------------------------|--------------|---|--------------|
| Attribute | avpList          | Ecom_AttributeValuePairList | 0..1         | Temporary attributes introduced between minor versions. |              |



**Note:** Reference Shared Common Library Business Message (BMS) Release 3.5.1 and eCom Domain Common Library Business Message (BMS) Release 3.5.1 for all common information.

## 4.4.2 Cash Packaging Report Line Item Details

### Class diagram



### GDD report

The content of the **CashPackagingReportLineItemDetails** class, its structure and component definitions can be accessed in the Global Data Dictionary:

[http://apps.gs1.org/GDD/bms/Version3\\_4/Pages/bieDetails.aspx?semanticURN=urn:gs1:gdd:bie:CashPackagingReportLineItemDetails](http://apps.gs1.org/GDD/bms/Version3_4/Pages/bieDetails.aspx?semanticURN=urn:gs1:gdd:bie:CashPackagingReportLineItemDetails)

| Content                             | Attribute / Role        | Datatype /Secondary class | Multiplicity | Definition  | Requirements |
|-------------------------------------|-------------------------|---------------------------|--------------|---|--------------|
| CashPackagingReportLineItem Details |                         |                           |              | Detailed information on processed currencies.   |              |
| Association                         | outputTradeItem         | CashPackagingTradeItem    | 1..1         | Identification of the packed banknote or coin article by GTIN.  |              |
| Association                         | originProcessingStation | CashProcessingStation     | 0..*         | Identification of Cash processing Station that produced the input trade item.   |              |
| Association                         |                         | OutputLogisticUnit        | 0..1         | Identification of logistic unit, in case of "one piece flow" production for individual order with defined cash article. |              |



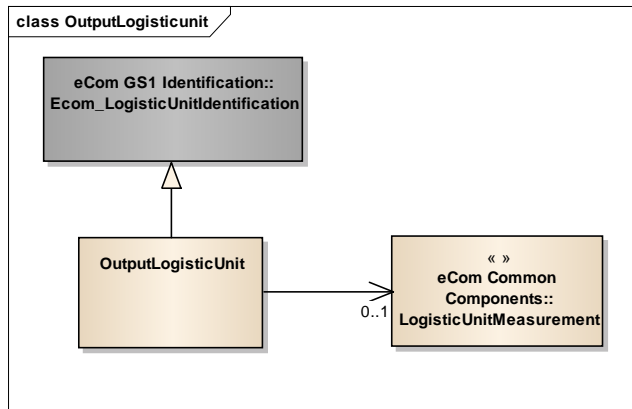
| Content     | Attribute / Role | Datatype /Secondary class   | Multiplicity | Definition   | Requirements |
|-------------|------------------|-----------------------------|--------------|--|--------------|
| Association | inputTradeItem   | CashPackagingTradeItem      | 0..*         | Identification of the packed banknote or coin article by GTIN. |              |
| Attribute   | avpList          | Ecom_AttributeValuePairList | 0..1         | Temporary attributes introduced between minor versions.        |              |



**Note:** Reference Shared Common Library Business Message (BMS) Release 3.5.1 and eCom Domain Common Library Business Message (BMS) Release 3.5.1 for all common information.

### 4.4.3 Cash Packaging Report – Output Logistic Unit

#### Class diagram



#### GDD report

The content of the OutputLogisticUnit class, its structure and component definitions can be accessed in the Global Data Dictionary:

[http://apps.gs1.org/GDD/bms/Version3\\_4/Pages/bieDetails.aspx?semanticURN=urn:gs1:gdd:bie:OutputLogisticUnit](http://apps.gs1.org/GDD/bms/Version3_4/Pages/bieDetails.aspx?semanticURN=urn:gs1:gdd:bie:OutputLogisticUnit)

| Content            | Attribute / Role | Datatype /Secondary class       | Multiplicity | Definition   | Requirements |
|--------------------|------------------|---------------------------------|--------------|--|--------------|
| OutputLogisticUnit |                  |                                 |              | Identification of logistic unit, in case of "one piece flow" production for individual order with defined cash article.                    |              |
| Generalization     |                  | Ecom_LogisticUnitIdentification |              | The globally unique identification attached to a shipping container or shipping package and used for logistical and traceability purposes. |              |
| Association        |                  | LogisticUnitMeasurement         | 0..1         | Measurement of gross weight or gross volume per logistic unit.   |              |

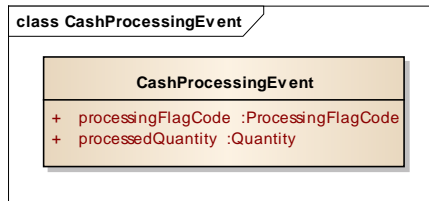


**Note:** Reference Shared Common Library Business Message (BMS) Release 3.5.1 and eCom Domain Common Library Business Message (BMS) Release 3.5.1 for all common information.

## 4.5 Cash Processing Machines Common

### 4.5.1 Cash Processing Machines Common – Cash Processing Event

#### Class diagram



#### GDD report

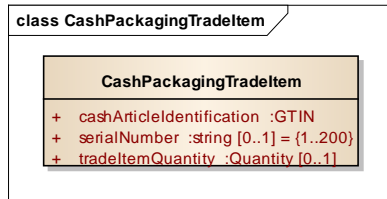
The content of the CashProcessingEvent class, its structure and component definitions can be accessed in the Global Data Dictionary:  
[http://apps.gs1.org/GDD/bms/Version3\\_4/Pages/bieDetails.aspx?semanticURN=urn:gs1:gdd:bie:CashProcessingEvent](http://apps.gs1.org/GDD/bms/Version3_4/Pages/bieDetails.aspx?semanticURN=urn:gs1:gdd:bie:CashProcessingEvent)

| Content             | Attribute / Role   | Datatype /Secondary class | Multiplicity | Definition   | Requirements |
|---------------------|--------------------|---------------------------|--------------|--|--------------|
| CashProcessingEvent |                    |                           |              | Specifies event that occurred during cash processing.                    |              |
| Attribute           | processingFlagCode | CashProcessingFlagCode    | 1..1         | Specifies the type of event that occurred during cash processing.        |              |
| Attribute           | processedQuantity  | Quantity                  | 1..1         | Quantity of cash articles to which the specific processing flag applies. |              |



**Note:** Reference Shared Common Library Business Message (BMS) Release 3.5.1 and eCom Domain Common Library Business Message (BMS) Release 3.5.1 for all common information.

## 4.5.2 Cash Processing Machines Common – Cash Packaging Trade Item



### GDD report

The content of the CashPackagingTradeItemclass, its structure and component definitions can be accessed in the Global Data Dictionary:

[http://apps.gs1.org/GDD/bms/Version3\\_4/Pages/bieDetails.aspx?semanticURN=urn:gs1:gdd:bie:CashPackagingTradeItem](http://apps.gs1.org/GDD/bms/Version3_4/Pages/bieDetails.aspx?semanticURN=urn:gs1:gdd:bie:CashPackagingTradeItem)

| Content                | Attribute / Role          | Datatype /Secondary class | Multiplicity | Definition  | Requirements |
|------------------------|---------------------------|---------------------------|--------------|---|--------------|
| CashPackagingTradeItem |                           |                           |              | Provides the identification and optional serial number of the Cash Packaging Item.  |              |
| Attribute              | cashArticleIdentification | GTIN                      | 1..1         | Identifies cash article being processed.<br>NOTE: In Eurosystem a.k.a. euro zone The GTINs are assigned to cash articles by the European Central Bank. For other currencies, the local Central Banks need to create the GTIN list assigned to respective cash articles. |              |
| Attribute              | serialNumber              | string                    | 0..1         | A unique identifier assigned to a specific trade item.  |              |
| Attribute              | tradeItemQuantity         | Quantity                  | 0..1         | The total number of individual trade items being specified.   |              |

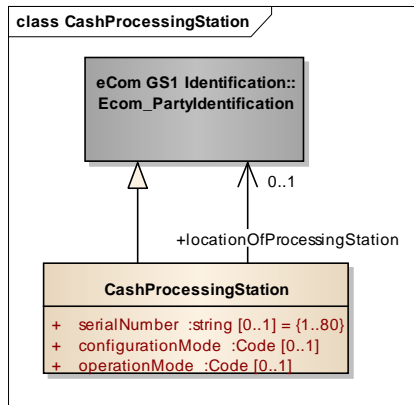


**Note:** Reference Shared Common Library Business Message (BMS) Release 3.5.1 and eCom Domain Common Library Business Message (BMS) Release 3.5.1 for all common information.



### 4.5.3 Cash Processing Machines Common – Cash Processing Station

#### Class diagram



#### GDD report

The content of the CashProcessingStation class, its structure and component definitions can be accessed in the Global Data Dictionary:

[http://apps.gs1.org/GDD/bms/Version3\\_4/Pages/bieDetails.aspx?semanticURN=urn:gs1:gdd:bie:CashProcessingStation](http://apps.gs1.org/GDD/bms/Version3_4/Pages/bieDetails.aspx?semanticURN=urn:gs1:gdd:bie:CashProcessingStation)

| Content               | Attribute / Role            | Datatype /Secondary class | Multiplicity | Definition   | Requirements |
|-----------------------|-----------------------------|---------------------------|--------------|--|--------------|
| CashProcessingStation |                             |                           |              | Information about the cash processor. This can be for instance a cash handling machine, a manual operated workstation or a back office system. |              |
| Association           | locationOfProcessingStation | Ecom_PartyIdentification  | 0..1         | Location of the processing station in the Cash Centre.   |              |
| Generalization        |                             | Ecom_PartyIdentification  |              | Information used to identify a party or location.  |              |
| Attribute             | serialNumber                | string                    | 0..1         | A unique identifier assigned to a specific Processing Station.   |              |
| Attribute             | configurationMode           | Code                      | 0..1         | Type of cash processing machine configuration, e.g. stacker configuration.   |              |



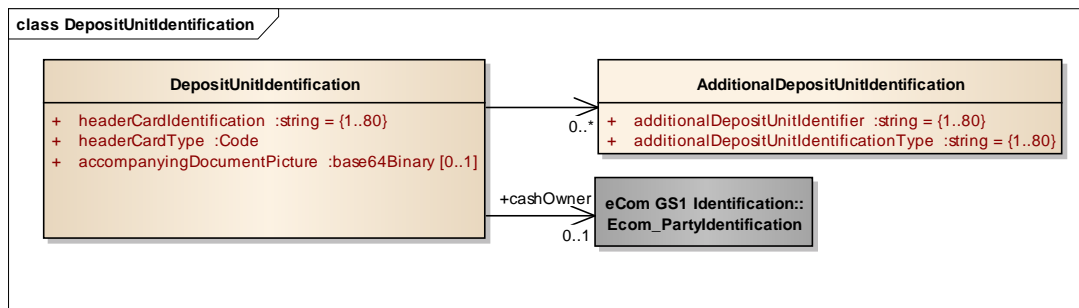
| Content   | Attribute / Role | Datatype /Secondary class | Multiplicity | Definition  | Requirements |
|-----------|------------------|---------------------------|--------------|---|--------------|
| Attribute | operationMode    | Code                      | 0..1         | Type of operation mode during processing, e. g. online-counting, offline/header card counting, shredding. |              |



**Note:** Reference Shared Common Library Business Message (BMS) Release 3.5.1 and eCom Domain Common Library Business Message (BMS) Release 3.5.1 for all common information.

#### 4.5.4 Cash Processing Machines Common – Deposit Unit Identification

##### Class diagram



##### GDD report

The content of the DepositUnitIdentification class, its structure and component definitions can be accessed in the Global Data Dictionary: [http://apps.gs1.org/GDD/bms/Version3\\_4/Pages/bieDetails.aspx?semanticURN=urn:gs1:gdd:bie:DepositUnitIdentification](http://apps.gs1.org/GDD/bms/Version3_4/Pages/bieDetails.aspx?semanticURN=urn:gs1:gdd:bie:DepositUnitIdentification)

| Content                   | Attribute / Role | Datatype /Secondary class           | Multiplicity | Definition                                     | Requirements |
|---------------------------|------------------|-------------------------------------|--------------|--|--------------|
| DepositUnitIdentification |                  |                                     |              | Provides details of deposit unit.              |              |
| Association               | cashOwner        | Ecom_PartyIdentification            | 0..1         | Submitter / owner of the cash being processed. |              |
| Association               |                  | AdditionalDepositUnitIdentification | 0..*         | Additional identification of the Deposit Unit. |              |

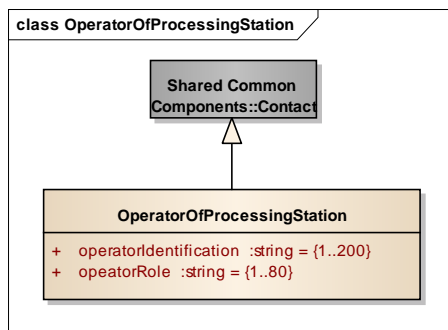
| Content                             | Attribute / Role                        | Datatype /Secondary class | Multiplicity | Definition  | Requirements |
|-------------------------------------|---|---------------------------|--------------|---|--------------|
| Attribute                           | headerCardIdentification                | string                    | 1..1         | Unique identifier of the Header Card.<br>NOTE: If header card is not used, the ID should be filled up with "0". |              |
| Attribute                           | headerCardType                          | Code                      | 1..1         | Type of the header card.  |              |
| Attribute                           | accompanyingDocumentPicture             | base64Binary              | 0..1         | Picture (photo) of the banknote straps in case of bundle count or other document accompanying a deposit slip.   |              |
| AdditionalDepositUnitIdentification |   |                           |              | Additional identification of the Deposit Unit.  |              |
| Attribute                           | additionalDepositUnitIdentifier         | string                    | 1..1         | Additional identifier of the deposit unit, e.g. SSCC  |              |
| Attribute                           | additionalDepositUnitIdentificationType | string                    | 1..1         | Specifies the type of additional deposit unit identification.   |              |



**Note:** Reference Shared Common Library Business Message (BMS) Release 3.5.1 and eCom Domain Common Library Business Message (BMS) Release 3.5.1 for all common information.

#### 4.5.5 Cash Processing Machines Common – Operator of Processing Station

##### Class diagram



##### GDD report

The content of the OperatorOfProcessingStation class, its structure and component definitions can be accessed in the Global Data Dictionary: [http://apps.gs1.org/GDD/bms/Version3\\_4/Pages/bieDetails.aspx?semanticURN=urn:gs1:gdd:bie:OperatorOfProcessingStation](http://apps.gs1.org/GDD/bms/Version3_4/Pages/bieDetails.aspx?semanticURN=urn:gs1:gdd:bie:OperatorOfProcessingStation)



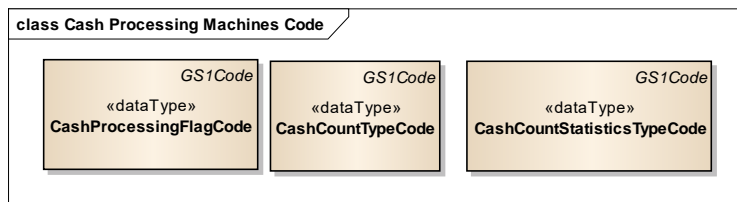
| Content                     | Attribute / Role       | Datatype /Secondary class | Multiplicity | Definition   | Requirements |
|-----------------------------|------------------------|---------------------------|--------------|--|--------------|
| OperatorOfProcessingStation |                        |                           |              | Information about a Cash Processing Station operator, including the operator's identification and role |              |
| Generalization              |                        | Contact                   |              | Information on an individual or department acting as point of contact for an organization.             |              |
| Attribute                   | operatorIdentification | string                    | 1..1         | Identification of the Cash Processing Machine operator.  |              |
| Attribute                   | operatorRole           | string                    | 1..1         | Specifies the role of the Cash processing Machine operator, e.g. Quality Coordinator.                  |              |



**Note:** Reference Shared Common Library Business Message (BMS) Release 3.5.1 and eCom Domain Common Library Business Message (BMS) Release 3.5.1 for all common information.

#### 4.5.6 Cash Processing Machines Common – Cash Processing Machines Code

##### Class diagram



##### GDD report

| Content                      | Attribute / Role | Datatype /Secondary class | Multiplicity | Definition   | Requirements |
|------------------------------|------------------|---------------------------|--------------|--|--------------|
| CashCountStatisticsType Code |                  |                           |              | Type of statistics related to cash processing. Allowed code values are specified in GS1 Code List CashCountStatisticsTypeCode. |              |
| Generalization               |                  | GS1Code                   |              |  |              |



| Content                | Attribute / Role | Datatype /Secondary class | Multiplicity | Definition  | Requirements |
|------------------------|------------------|---------------------------|--------------|---|--------------|
| CashCountTypeCode      |                  |                           |              | Type of cash processing, e.g. single count, multi count, shredding. Allowed code values are specified in GS1 Code List CashCountTypeCode. |              |
| Generalization         |                  | GS1Code                   |              |   |              |
| CashProcessingFlagCode |                  |                           |              | Type of event that occurred during cash processing. Allowed code values are specified in GS1 Code List CashProcessingFlagCode.            |              |
| Generalization         |                  | GS1Code                   |              |   |              |

## 4.6 Enumerations (message specific)

Not applicable

## 4.7 Code Lists

| Class                    | Codelist                    | Referenced in   |
|--------------------------|-----------------------------|---|
| CashProcessingEvent      | CashProcessingFlagCode      | <a href="http://apps.gs1.org/GDD/Pages/clDetails.aspx?semanticURN=urn:gs1:gdd:cl:CashProcessingFlagCode">http://apps.gs1.org/GDD/Pages/clDetails.aspx?semanticURN=urn:gs1:gdd:cl:CashProcessingFlagCode</a>           |
| CashCountReport          | CashCountTypeCode           | <a href="http://apps.gs1.org/GDD/Pages/clDetails.aspx?semanticURN=urn:gs1:gdd:cl:CashCountTypeCode">http://apps.gs1.org/GDD/Pages/clDetails.aspx?semanticURN=urn:gs1:gdd:cl:CashCountTypeCode</a>                     |
| CashCountStatisticReport | CashCountStatisticsTypeCode | <a href="http://apps.gs1.org/GDD/Pages/clDetails.aspx?semanticURN=urn:gs1:gdd:cl:CashCountStatisticsTypeCode">http://apps.gs1.org/GDD/Pages/clDetails.aspx?semanticURN=urn:gs1:gdd:cl:CashCountStatisticsTypeCode</a> |



**Note:** Refer to the Global Data Dictionary (GDD) for the code values.

# 5 Business Message Examples

## 5.1 Example 1

This is an example of the **Cash Count Notification** message.

The Cash Processing Machine generates one CashCountNotification file for each deposit report identified by unique shift number and batch number.

- The batch contained 2 parcels and 200 not enveloped banknotes in a parcel.
- No header cards were used, but the SSCC was labelled on each parcel. It was transmitted in the element additionalDepositUnitIdentifier.
- The not enveloped notes were assigned a dummy SSCC: 000000000000000000
- The reportPeriod represents the total processing time of the shift.
- The locationOfProcessingStation indicates the GLN of the branch where CPM machine is located.
- The machine is in the shredding mode (the shredder is active).
- The CPM room crew is composed by 2 operators and one supervisor.

The line items describe the two sorted parcels.

- The first parcel – line item 1:
  - The amountDespatched: 100 pieces of 10 EUR = 1000 EUR - the expected amount of the parcel
  - The amountAccepted: 99 pieces of 10 EUR = 990 EUR - the amount reported by the machine
  - The amountVariance: 1 piece of 10 EUR = 10 EUR
  - The reportPeriod represents processing time of the parcel
  - No header card used, the SSCC code of this parcel is: 400000100000123452
  - The detail of accepted amount: one itemDetail for each GTIN of accepted quantity:
 
$$50 + 40 + 8 + 1 = 102$$
    - LineItemDetails = 1.1
      - gtin of 10 EUR ES1 FIT banknote: 04107001000759
      - quantityAccepted: 50

- outputLocation: GLN is not assigned, output stacker is identified with additionalPartyIdentification = Stacker1-2
- LineItemDetails = 1.2
  - gtin of 10 EUR ES2 FIT banknote: 04107001001008
  - quantityAccepted: 40
  - outputLocation: GLN is not assigned, output stacker is identified with additionalPartyIdentification = Stacker3-4
- LineItemDetails = 1.3
  - gtin of 10 EUR ES1 shredded banknote: 04107001000773
  - quantityAccepted: 8
  - outputLocation: GLN is not assigned, output stacker is identified with additionalPartyIdentification = Shredder
- LineItemDetails = 1.4
  - gtin of 10 EUR ES1 counterfeit banknote: 04107001000827
  - quantityAccepted: 1
  - outputLocation: GLN is not assigned, output stacker is identified with additionalPartyIdentification = Manual Inspection stacker

The second parcel – line item 2:

- The amountDespatched: 100 pieces of 10 EUR = 1000 EUR - the expected amount of the parcel
- The amountAccepted: 98 pieces of 10 EUR = 980 EUR - the amount reported by the machine
- The amountVariance: 2 pieces of 10 EUR = 20 EUR
- The reportPeriod represents processing time of the parcel
- No header card used, the SSCC code of this parcel is: 400000100000123476
- The cashCountEvent: Jam occurred during the parcel processing
  - processingFlagCode: JAM
- The detail of accepted amount: one itemDetail for each GTIN of accepted quantity: 50 + 40 = 80
  - LineItemDetails = 2.1
    - gtin of 10 EUR ES1 FIT banknote: 04107001000759
    - quantityAccepted: 50
    - outputLocation: GLN is not assigned, output stacker is identified with additionalPartyIdentification = Manual Inspection stacker
  - LineItemDetails = 2.2
    - gtin of 10 EUR ES2 FIT banknote: 04107001001008
    - quantityAccepted: 48
    - outputLocation: GLN is not assigned, output stacker is identified with additionalPartyIdentification = Manual Inspection stacker

| Attribute                    | Value                |
|------------------------------|----------------------|
| <b>CashCountNotification</b> |                      |
| <b>Document</b>              |                      |
| creationDateTime             | 2014-04-24T09:41:10Z |

| Attribute   | Value                         |
|---|-------------------------------|
| documentStatus  | ORIGINAL                      |
| documentStructureVersion  | 3.4                           |
| documentActionCode  | ADD                           |
| <b>Entity Identification<br/>(+cashCountNotificationIdentification)</b> |                               |
| entityIdentification  | 555000321                     |
| <b>Party Identification (+contentOwner)</b>                             |                               |
| gln   | 1111111111116                 |
| cashCountTypeCode   | SINGLE_DENOMINATION_ COUNTING |
| <b>DateTimeRangeType (+reportPeriod)</b>                                |                               |
| date (+beginDate)   | 2014-04-24                    |
| time (+beginTime)   | 09:30:10                      |
| date (+endDate)   | 2014-04-24                    |
| time (+endTime)   | 09:40:20                      |
| <b>ProcessingStation</b>  |                               |
| Ecom_PartyIdentification  |                               |
| gln   | 8052198010318                 |
| Ecom_PartyIdentification<br>(+locationOfProcessingStation)              |                               |
| gln   | 8052198002313                 |
| Code (+configurationMode)   | STACKER_3X4                   |
| Code (+operationMode)   | SHREDDING                     |
| <b>OperatorOfProcessingStation (+operator)</b>                          |                               |
| contactTypeCode   | QC                            |
| personName  | John Brown                    |
| operatorIdentification  | 2345                          |
| operatorRole  | Operator                      |
| contactTypeCode   | QC                            |
| personName  | John Black                    |
| operatorIdentification  | 23456                         |
| operatorRole  | Operator                      |
| contactTypeCode   | MGR                           |



| Attribute  | Value              |
|--|--------------------|
| personName   | Kelly Koko         |
| operatorIdentification   | 1234               |
| operatorRole   | Supervisor         |
| <b>cashCountNotificationLineItem *1</b>                                    |                    |
| lineItemNumber   | 1                  |
| <i>Amount (+amountDespatched)</i>  | 1000               |
| currencyCode   | EUR                |
| <i>Amount (+amountAccepted)</i>  | 990                |
| currencyCode   | EUR                |
| <i>Amount (+amountVariance)</i>  | 10                 |
| currencyCode   | EUR                |
| <b><i>DateTimeRangeType (+reportPeriod)</i></b>                            |                    |
| date (+beginDate)  | 2014-04-24         |
| time (+beginTime)  | 09:30:40           |
| date (+endDate)  | 2014-04-24         |
| time (+endTime)  | 09:32:20           |
| <b>DepositUnitIdentification (+depositUnitIdentification)</b>              |                    |
| headerCardIdentification   | 0                  |
| headerCardType   | NO_HEADERCARD      |
| AdditionalDepositUnitIdentification (+additionalDepositUnitIdentification) |                    |
| additionalDepositUnitIdentifier  | 40000010000012345  |
| additionalDepositUnitIdentificationType                                    | SSCC               |
| <b>cashCountNotificationLineItemDetails *1.1</b>                           |                    |
| Quantity (+quantityAccepted)   | 50                 |
| measurementUnitCode  | H87                |
| GTIN (+cashArticleIdentification)  | 04107001000759     |
| CashProcessingStation (+outputLocation)                                    | Stacker1-2         |
| additionalPartyIdentification  | FOR_INTERNAL_USE_1 |
| <b>cashCountNotificationLineItemDetails *1.2</b>                           |                    |
| Quantity (+quantityAccepted)   | 40                 |
| measurementUnitCode  | H87                |

| Attribute   | Value                     |
|---|---------------------------|
| GTIN (+cashArticleIdentification)                             | 04107001001008            |
| CashProcessingStation (+outputLocation)                       | Stacker3-4                |
| additionalPartyIdentification                                 | FOR_INTERNAL_USE_2        |
| <b>cashCountNotificationLineItemDetails *1.3</b>              |                           |
| Quantity (+quantityAccepted)                                  | 6                         |
| measurementUnitCode   | H87                       |
| GTIN (+cashArticleIdentification)                             | 04107001000773            |
| CashProcessingStation (+outputLocation)                       | Shredder                  |
| additionalPartyIdentification                                 | FOR_INTERNAL_USE_3        |
| <b>cashCountNotificationLineItemDetails *1.4</b>              |                           |
| Quantity (+quantityAccepted)                                  | 3                         |
| measurementUnitCode   | H87                       |
| GTIN (+cashArticleIdentification)                             | 04107001000827            |
| CashProcessingStation (+outputLocation)                       | Manual Inspection Stacker |
| additionalPartyIdentification                                 | FOR_INTERNAL_USE_4        |
| <b>cashCountNotificationLineItem *2</b>                       |                           |
| lineItemNumber  | 2                         |
| Amount (+amountDespached)                                     | 1000                      |
| currencyCode  | EUR                       |
| Amount (+amountAccepted)                                      | 980                       |
| currencyCode  | EUR                       |
| Amount (+amountVariance)                                      | 20                        |
| currencyCode  | EUR                       |
| <b>DateTimeRangeType (+reportPeriod)</b>                      |                           |
| date (+beginDate)   | 2014-04-24                |
| time (+beginTime)   | 09:33:10                  |
| date (+endDate)   | 2014-04-24                |
| time (+endTime)   | 09:35:20                  |
| <b>DepositUnitIdentification (+depositUnitIdentification)</b> |                           |
| headerCardIdentification                                      | 0                         |
| headerCardType  | NO_HEADERCARD             |

| Attribute   | Value                     |
|---|---------------------------|
| AdditionalDepositUnitIdentification<br>(+additionalDepositUnitIdentification) |                           |
| additionalDepositUnitIdentifier   | 40000010000012374         |
| additionalDepositUnitIdentificationType                                       | SSCC                      |
| cashCountEvent  |                           |
| processingFlagCode  | JAM                       |
| Quantity (processedQuantity)  | 2                         |
| measurementUnitCode   | H87                       |
| <b>cashCountNotificationLineItemDetails *2.1</b>                              |                           |
| Quantity (+quantityAccepted)  | 50                        |
| measurementUnitCode   | H87                       |
| GTIN (+cashArticleIdentification)   | 04107001000759            |
| CashProcessingStation (+outputLocation)                                       | Manual Inspection stacker |
| additionalPartyIdentification   | FOR_INTERNAL_USE_4        |
| <b>cashCountNotificationLineItemDetails *2.2</b>                              |                           |
| Quantity (+quantityAccepted)  | 48                        |
| measurementUnitCode   | H87                       |
| GTIN (+cashArticleIdentification)   | 04107001001008            |
| CashProcessingStation (+outputLocation)                                       | Manual Inspection stacker |
| additionalPartyIdentification   | FOR_INTERNAL_USE_4        |

## 5.2 Example 2

This is an example of the **Cash Count Report** message.

One CashCountReport file for each deposit report identified by unique shift number and batch number.

- The reportPeriod represents the total processing time of the shift.
- The locationOfProcessingStation indicates the GLN of the branch where CPM machine is located.

The Receiver of this report is the Cash Management System identified with GLN: 8052198010004.

The line items describe the two sorted parcels.

The first item: 10 EUR ES2 FIT – line item 1:

- The quantityAccepted: 100 pieces of 10 EUR
- The amountAccepted: 1000 EUR
- gtin of 10 EUR ES1 FIT banknote: 04107001000759

The second item: 10 EUR ES1 FIT – line item 2:

- The quantityAccepted: 230 pieces 10 EUR - sorted amount
- The amountAccepted: 2300 EUR
- gtin of 10 EUR ES2 FIT banknote: 04107001001008

The third item: 10 EUR ES1 FIT – line item 3:

- The quantityAccepted: 50 pieces of 10 EUR
- The amountAccepted: 500 EUR
- The amountVariance: 0 EUR
- gtin of 10 EUR ES1 FIT banknote: 04107001001008

The fourth item: 10 EUR ES1 FIT – line item 4:

- The quantityAccepted: 1 piece of 10 EUR
- The amountAccepted: 10 EUR
- gtin of 10 EUR ES1 COUNTERFEIT banknote: 04107001000827

| Attribute   | Value                |
|---|----------------------|
| <b>CashCountReport</b>  |                      |
| <b>Document</b>   |                      |
| creationDateTime  | 2014-04-24T09:42:20Z |
| documentStatus  | ORIGINAL             |
| documentStructureVersion                                      | 3.4                  |
| documentActionCode  | ADD                  |
| <b>Entity Identification (+cashCountReportIdentification)</b> |                      |
| entityIdentification  | 555000321            |
| <b>PartyIdentification (+contentOwner)</b>                    |                      |
| gln   | 1111111111116        |
| cashCountTypeCode   | SHRED_ALL            |

| Attribute   | Value          |
|---|----------------|
| <b><i>DateTimeRangeType (+reportPeriod)</i></b>               |                |
| date (+beginDate)   | 2014-04-24     |
| time (+beginTime)   | 09:30:10       |
| date (+endDate)   | 2014-04-24     |
| time (+endTime)   | 09:40:20       |
| <b><i>ProcessingStation</i></b>                               |                |
| Ecom_PartyIdentification                                      |                |
| gln   | 8052198010318  |
| Ecom_PartyIdentification<br>(+locationOfProcessingStation)    |                |
| gln   | 8052198002313  |
| Code (+operationMode)   | SHREDDING      |
| <b><i>TransactionalParty (+cashCountProtocolReceiver)</i></b> |                |
| gln   | 8052198010004  |
| <b>CashCountReportLineItem *1</b>                             |                |
| lineItemNumber  | 1              |
| Quantity (+quantityAccepted)                                  | 100            |
| measurementUnitCode   | H87            |
| Amount (+amountAccepted)                                      | 1000           |
| currencyCode  | EUR            |
| GTIN (+cashArticleIdentification)                             | 04107001000759 |
| <b>CashCountReportLineItem *2</b>                             |                |
| lineItemNumber  | 2              |
| <i>Quantity (+quantityAccepted)</i>                           | 230            |
| measurementUnitCode   | H87            |
| <i>Amount (+amountAccepted)</i>                               | 2300           |
| currencyCode  | EUR            |
| GTIN (+cashArticleIdentification)                             | 04107001001008 |
| <b>CashCountReportLineItem *3</b>                             |                |
| lineItemNumber  | 4              |
| <i>Quantity (+quantityAccepted)</i>                           | 50             |
| measurementUnitCode   | H87            |

| Attribute                           | Value          |
|-------------------------------------|----------------|
| <i>Amount (+amountAccepted)</i>     | 500            |
| currencyCode                        | EUR            |
| <i>Quantity (+quantityShredded)</i> | 50             |
| measurementUnitCode                 | H87            |
| <i>Amount (+amountShredded)</i>     | 500            |
| currencyCode                        | EUR            |
| GTIN (+cashArticleIdentification)   | 04107001001008 |
| <b>CashCountReportLineItem *4</b>   |                |
| lineItemNumber                      | 6              |
| <i>Quantity (+quantityAccepted)</i> | 1              |
| measurementUnitCode                 | H87            |
| <i>Amount (+amountAccepted)</i>     | 10             |
| currencyCode                        | EUR            |
| GTIN (+cashArticleIdentification)   | 04107001000827 |

### 5.3 Example 3

This is an example of the **Cash Count Statistic Report** message.

This message contains statistics about the rejected cash articles in a specific period – report Period for a specific Processing Station.

There are two groups containing 4 and 5 reject reasons, respectively. The report is based on prioritized scheme, which means that if there are multiple problems with a banknote, only the one with highest priority is listed. The total sum of rejects may correspond to the total reject rate. But depending on the operation mode, the result may be misleading if rejected banknotes are reprocessed and rejected again.

The report is accumulated per CPM and is not structured by denomination and/or series, because the denomination is not known or uncertain.

| Attribute  | Value                |
|--|----------------------|
| <b>CashCountStatisticReport</b>  |                      |
| <b>Document</b>  |                      |
| creationDateTime   | 2017-07-17T09:30:47Z |
| documentStatus   | ORIGINAL             |
| documentStructureVersion   | 3.4                  |
| documentActionCode   | ADD                  |
| <b>Entity Identification (+cashCountStatisticReportIdentification)</b> |                      |
| entityIdentification   | 10885                |
| <b>PartyIdentification (+contentOwner)</b>                             |                      |
| gln  | 1111111111116        |
| cashCountStatisticTypeCode   | REJECT_STATISTICS    |
| <b>DateTimeRangeType (+reportPeriod)</b>                               |                      |
| date (+beginDate)  | 2017-06-01           |
| time (+beginTime)  | 09:00:47             |
| date (+endDate)  | 2017-06-30           |
| time (+endTime)  | 23:30:47             |
| <b>ProcessingStation</b>   |                      |
| Ecom_PartyIdentification   |                      |
| gln  | 1111111111185        |
| Ecom_PartyIdentification (+locationOfProcessingStation)                |                      |
| gln  | 1111111111994        |
| serialNumber   | 458gdfgy77K          |
| Code (+configurationMode)  | R_CDIL1              |

| Attribute                                  | Value   |
|--|---|
| Code (+operationMode)                      | ONLINE-COUNTING   |
| <b>GeneralStatisticInformation</b>         |   |
| Code (+statisticMeasurementType)           | PRIORITIZED SCHEME                                      |
| statisticMeasurementValue                  | 6650  |
| <b>RuntimeInformation</b>                  |   |
| totalAvailabilityPercentage                | 78.5  |
| Duration (+totalRuntime)                   | P1DT15H10M3S (1 day, 15 hours, 10 minutes, 3 seconds)   |
| <b>runtimeDetails</b>                      |   |
| Code (+runtimeType)                        |   |
| Duration (+runtimeValue)                   | P1DT12H18M12S (1 day, 12 hours, 18 minutes, 12 seconds) |
| <b>DepositUnitIdentification</b>           |   |
| headerCardIdentification                   | 0   |
| HeaderCardTypeCodeType (+headerCardType)   | NO_HEADER_CARD  |
| <b>AdditionalDepositUnitIdentification</b> |   |
| additionalDepositUnitIdentifier            | 400000100000123452                                      |
| additionalDepositUnitIdentificationType    | SSCC  |
| Ecom_PartyIdentification (+cashOwner)      |   |
| gln  | 99999999999994  |
| <b>CashCountStatisticReportLineItem *1</b> |   |
| lineItemNumber                             | 1   |
| <i>fitnessLevel</i>                        | SINGLER_TRANSPORT                                       |
| <i>Quantity (+totalQuantityProcessed)</i>  | 133   |
| measurementUnitCode                        | H87   |
| GTIN (+cashArticleIdentification)          | 04107001000742  |
| <b>RejectionDetails 1.1</b>                |   |
| proportionalQuantityRejected               | 1.0   |
| Quantity (+totalQuantityRejected)          | 32  |
| measurementUnitCode                        | H87   |
| Code (+rejectionReason)                    | CLOSE_FEED  |
| <b>RejectionDetails 1.2</b>                |   |



| Attribute                                  | Value          |
|--|----------------|
| proportionalQuantityRejected               | 1.0            |
| Quantity (+totalQuantityRejected)          | 74             |
| measurementUnitCode                        | H87            |
| Code (+rejectionReason)                    | ASYNCHRONOUS   |
| <b>RejectionDetails 1.3</b>                |                |
| proportionalQuantityRejected               | 0.0            |
| Quantity (+totalQuantityRejected)          | 10             |
| measurementUnitCode                        | H87            |
| Code (+rejectionReason)                    | JAM            |
| <b>RejectionDetails 1.4</b>                |                |
| proportionalQuantityRejected               | 0.0            |
| Quantity (+totalQuantityRejected)          | 17             |
| measurementUnitCode                        | H87            |
| Code (+rejectionReason)                    | TOO_LONG       |
| <b>CashCountStatisticReportLineItem *2</b> |                |
| lineItemNumber                             | 2              |
| <i>fitnessLevel</i>                        | SENSOR         |
| <i>Quantity (+totalQuantityProcessed)</i>  | 2486           |
| measurementUnitCode                        | H87            |
| GTIN (+cashArticleIdentification)          | 04107001000919 |
| <b>RejectionDetails 2.1</b>                |                |
| proportionalQuantityRejected               | 6.0            |
| Quantity (+totalQuantityRejected)          | 338            |
| measurementUnitCode                        | H87            |
| Code (+rejectionReason)                    | R_HIGHRUN      |
| <b>RejectionDetails 2.2</b>                |                |
| proportionalQuantityRejected               | 2.0            |
| Quantity (+totalQuantityRejected)          | 85             |
| measurementUnitCode                        | H87            |
| Code (+rejectionReason)                    | R_SKEWRUN      |
| <b>RejectionDetails 2.3</b>                |                |
| proportionalQuantityRejected               | 1.0            |

| Attribute                         | Value          |
|-----------------------------------|----------------|
| Quantity (+totalQuantityRejected) | 64             |
| measurementUnitCode               | H87            |
| Code (+rejectionReason)           | R_CDIL1        |
| <b>RejectionDetails 2.4</b>       |                |
| proportionalQuantityRejected      | 0.0            |
| Quantity (+totalQuantityRejected) | 4              |
| measurementUnitCode               | H87            |
| Code (+rejectionReason)           | R_CDIL2        |
| <b>RejectionDetails 2.5</b>       |                |
| proportionalQuantityRejected      | 0.0            |
| Quantity (+totalQuantityRejected) | 9              |
| measurementUnitCode               | H87            |
| Code (+rejectionReason)           | R_DENOMINATION |

## 5.4 Example 4

This is an example of the **Cash Packaging Report** message.

This is an example of creating a cardboard box from 10 bundles of ES1 20€ (5 created in the current shift and 5 created by the same machine in a previous shift) and manually inserted inside the machine.

- The reportPeriod represents the total processing time of the packaging shift.
- The locationOfProcessingStation indicates the GLN of the branch where CPM machine is located.
- The machine is in the standard processing mode, which is the processing of created bundles by the machine in the current/previous shift
- The Receiver of this report is the Cash Management System identified with GLN: 8052198010004.
- The CPM room crew is composed by 2 operators and one supervisor

The line items describe the bundle created in the current shift or manually inserted; one LineItem for each bundle.

The first bundle - line item 1:

- The reportUnitCreation: the shift when a new bundle was created
- The processingFlagCode: BUNDLE\_CREATION
- The processedQuantity: 1
- The cashPackagingReportLineItemDetails;
  - inputTradeItem GTIN of 20€ ES1 fit piece: 04107001001299
  - input tradeItemQuantity: 1000
  - outputTradeItem GTIN 20€ ES1 fit bundle: 04107001001435
  - output tradeItemQuantity: 1
  - output serialNumber: BUNDLECODE0000001
  - originProcessingStation GLN - the cash processing station that produced the input trade item: 8052198002153
  - outputLogisticUnit gross weight: 830 GRM

The second bundle - line item 2:

- The reportUnitCreation: the shift when a new bundle was created
- The processingFlagCode: BUNDLE\_CREATION
- The processedQuantity: 1
- The cashPackagingReportLineItemDetails;
  - inputTradeItem GTIN of 20€ ES1 fit piece: 04107001001299
  - input tradeItemQuantity: 1000
  - outputTradeItem GTIN of 20€ ES1 fit bundle: 04107001001435
  - output tradeItemQuantity: 1
  - output serialNumber: BUNDLECODE0000002
  - originProcessingStation GLN - the cash processing station that produced the input trade item: 8052198002153
  - outputLogisticUnit gross weight: 830 GRM
- The reportUnitCreation: the shift when a new bundle was created

The third bundle - line item 3:

Bundle created by the same machine in a previous/current shift: code readable from the machine

BUNDLE 4 - Created by machine BUNDLECODE00000004

BUNDLE 5 - Created by machine BUNDLECODE00000005

BUNDLE 6 - Created by machine BUNDLECODE00000006

BUNDLE 7 - Bundle created in a previous shift BUNDLECODE00000007

BUNDLE 8 - Bundle created in a previous shift BUNDLECODE00000008

BUNDLE 9 - Bundle created in a previous shift BUNDLECODE00000008

BUNDLE 10 - Bundle created in a previous shift BUNDLECODE00000010

Cardboard boxes section: each cashPackagingReportLineItemDetails represents a created cardboard box

- The reportUnitCreation: the shift when a new bundle was created
- The processingFlagCode: CARDBOX\_CREATION
- The processedQuantity: 1
- The cashPackagingReportLineItemDetails:
  - inputTradeItem – bundle 1 GTIN of 20€ ES1 fit bundle: 04107001001435
  - input tradeItemQuantity: 1
  - input serialNumber: BUNDLECODE00000001
  - inputTradeItem – bundle 2 GTIN of 20€ ES1 fit bundle: 04107001001435
  - input tradeItemQuantity: 1
  - input serialNumber: BUNDLECODE00000002
  - outputTradeItem GTIN of 20€ ES1 fit cardboard box: 04107001001473
  - output tradeItemQuantity: 1
  - originProcessingStation GLN - the cash processing station that produced the input trade item: 8052198002153
  - outputLogisticUnit SSCC: 380521980012302723
  - additionalLogisticUnitIdentification CASH-SSP: IT0100210123027271
  - outputLogisticUnit gross weight: 830 GRM

| Attribute   | Value                |
|---|----------------------|
| <b>CashPackagingReport</b>  |                      |
| <b>Document</b>   |                      |
| creationDateTime  | 2014-04-24T09:30:10Z |
| documentStatus  | ORIGINAL             |
| documentStructureVersion  | 3.4                  |
| documentActionCode  | ADD                  |
| <b>Entity Identification<br/>(+cashPackagingReportIdentification)</b> |                      |
| entityIdentification  | 7855000315           |
| <b>PartyIdentification (+contentOwner)</b>                            |                      |
| glN   | 1111111111116        |

| Attribute   | Value         |
|---|---------------|
| <b><i>DateTimeRangeType (+reportPeriod)</i></b>                     |               |
| date (+beginDate)   | 2014-04-24    |
| time (+beginTime)   | 09:30:10      |
| date (+endDate)   | 2014-04-24    |
| time (+endTime)   | 09:40:20      |
| <b><i>ProcessingStation</i></b>                                     |               |
| Ecom_PartyIdentification  |               |
| gln   | 8052198010318 |
| Ecom_PartyIdentification<br>(+locationOfProcessingStation)          |               |
| gln   | 8052198002313 |
| Code (+operationMode)   | STANDARD      |
| <b><i>TransactionalParty<br/>(+cashPackagingReportReceiver)</i></b> |               |
| gln   | 8052198010004 |
| <b><i>OperatorOfProcessingStation (+operator)</i></b>               |               |
| contactTypeCode   | QC            |
| personName  | John Brown    |
| operatorIdentification  | 2345          |
| operatorRole  | Operator      |
| contactTypeCode   | QC            |
| personName  | John Black    |
| operatorIdentification  | 23456         |
| operatorRole  | Operator      |
| contactTypeCode   | MGR           |
| personName  | Kelly Koko    |
| operatorIdentification  | 1234          |
| operatorRole  | Supervisor    |
| <b><i>CashPackagingReportLineItem *1</i></b>                        |               |
| lineItemNumber  | 1             |
| <b><i>DateTimeRangeType (+reportUnitCreation)</i></b>               |               |
| date (+beginDate)   | 2014-04-24    |
| time (+beginTime)   | 09:31:10      |

| Attribute  | Value              |
|--|--------------------|
| date (+endDate)                                  | 2014-04-24         |
| time (+endTime)                                  | 09:32:20           |
| <b>CashProcessingEvent</b>                       |                    |
| processingFlagCode                               | BUNDLE_CREATION    |
| Quantity (+processedQuantity)                    | 1                  |
| measurementUnitCode                              | H87                |
| <b>CashPackagingReportLineItemDetails*1.1</b>    |                    |
| TransactionalTradeItem (+inputTradeItem)         |                    |
| gtin   | 04107001001299     |
| Quantity (+tradeItemQuantity)                    | 1000               |
| <b>TransactionalTradeItem (+outputTradeItem)</b> |                    |
| gtin   | 04107001001435     |
| Quantity (+tradeItemQuantity)                    | 1                  |
| <b>TransactionalItemData</b>                     |                    |
| serialNumber                                     | BUNDLECODE0000001  |
| <b>OriginProcessingStation</b>                   |                    |
| Ecom_PartyIdentification                         |                    |
| gln  | 8052198002153      |
| <b>OutputLogisticUnit</b>                        |                    |
| <b>LogisticUnitMeasurement</b>                   |                    |
| UnitMeasurement                                  |                    |
| measurementType                                  | TOTAL_GROSS_WEIGHT |
| measurementValue                                 | 830                |
| measurementUnitCode                              | GRM                |
| <b>CashPackagingReportLineItem *2</b>            |                    |
| lineItemNumber                                   | 2                  |
| DateTimeRangeType (+reportUnitCreation)          |                    |
| date (+beginDate)                                | 2014-04-24         |
| time (+beginTime)                                | 09:33:10           |
| date (+endDate)                                  | 2014-04-24         |
| time (+endTime)                                  | 09:34:20           |

| Attribute  | Value                  |
|--|------------------------|
| CashProcessingEvent                                  |                        |
| <b>processingFlagCode</b>                            | <b>BUNDLE_CREATION</b> |
| Quantity (+processedQuantity)                        | 1                      |
| measurementUnitCode                                  | H87                    |
| <b>CashPackagingReportLineItemDetails*2.1</b>        |                        |
| <b>TransactionalTradeItem<br/>(+inputTradeItem)</b>  |                        |
| gtin   | 04107001001299         |
| Quantity (+tradeItemQuantity)                        | 1000                   |
| <b>TransactionalTradeItem<br/>(+outputTradeItem)</b> |                        |
| gtin   | 04107001001435         |
| Quantity (+tradeItemQuantity)                        | 1                      |
| <b>TransactionalItemData</b>                         |                        |
| serialNumber   | BUNDLECODE0000002      |
| <b>OriginProcessingStation</b>                       |                        |
| <b>Ecom_PartyIdentification</b>                      |                        |
| gln  | 8052198002153          |
| <b>OutputLogisticUnit</b>                            |                        |
| <b>LogisticUnitMeasurement</b>                       |                        |
| UnitMeasurement                                      |                        |
| measurementType                                      | TOTAL_GROSS_WEIGHT     |
| measurementValue                                     | 830                    |
| measurementUnitCode                                  | GRM                    |
| <b>CashPackagingReportLineItem *3</b>                |                        |
| lineItemNumber                                       | 3                      |
| DateTimeRangeType (+reportUnitCreation)              |                        |
| date (+beginDate)                                    | 2014-04-24             |
| time (+beginTime)                                    | 09:31:10               |
| date (+endDate)                                      | 2014-04-24             |
| time (+endTime)                                      | 09:45:24               |
| CashProcessingEvent                                  |                        |
| processingFlagCode                                   | CARDBOX_CREATION       |

| Attribute  | Value              |
|--|--------------------|
| Quantity (+processedQuantity)                        | 1                  |
| measurementUnitCode                                  | H87                |
| <b>CashPackagingReportLineItemDetails*3.1</b>        |                    |
| <b>TransactionalTradeItem<br/>(+inputTradeItem)</b>  |                    |
| gtin   | 04107001001435     |
| Quantity (+tradeItemQuantity)                        | 1                  |
| <b>TransactionalItemData</b>                         |                    |
| serialNumber   | BUNDLECODE0000001  |
| <b>TransactionalTradeItem<br/>(+inputTradeItem)</b>  |                    |
| gtin   | 04107001001435     |
| Quantity (+tradeItemQuantity)                        | 1                  |
| <b>TransactionalItemData</b>                         |                    |
| serialNumber   | BUNDLECODE0000002  |
| <b>TransactionalTradeItem<br/>(+outputTradeItem)</b> |                    |
| gtin   | 04107001001473     |
| Quantity (+tradeItemQuantity)                        | 1                  |
| <b>OriginProcessingStation</b>                       |                    |
| Ecom_PartyIdentification                             |                    |
| gln  | 8052198002153      |
| <b>OutputLogisticUnit</b>                            |                    |
| sscc   | 380521980012302723 |
| <b>LogisticUnitMeasurement</b>                       |                    |
| UnitMeasurement                                      |                    |
| measurementType                                      | TOTAL_GROSS_WEIGHT |
| measurementValue                                     | 8800               |
| measurementUnitCode                                  | GRM                |



## 6 Implementation Considerations

### 6.1 User Guide

The Functional User Guide contains more information about the structure and content of the Cash Processing Machines messages: <https://www.gs1.org/edi-xml/functional-user-guide/3-3/edi-other>

### 6.2 Message Specific Considerations

#### Code data types

A number of attributes in the Cash Processing Machines messages are defined as the Code data type. This type allows for use of bilaterally defined code lists, which should be mutually agreed between trading partners, GS1 does not specify the code list to be used. The Code type is used when there are multiple code lists that could be implemented depending e.g. on the individual agreement with the CPM device supplier or geopolitical region.

#### Cash Article Identification

The Cash Articles are identified using GS1 GTIN (Global Trade Item Number). It is preferred that these GTINs are assigned by the respective Central Banks – for consistency and to avoid misinterpretation of the identified cash items.

In the Eurosystem, a.k.a. euro zone GTINs are assigned to cash articles by the European Central Bank.

#### Cash Processing Station Identification

The output stacker should be identified by the GLN, but if it is not assigned, an additional identification can be provided.

#### Deposit Unit Identification

The Deposit Units are typically identified using Header Cards, hence the headerCard field is mandatory. However, if the Header Card is not used for any reason, the headerCardIdentification should be filled with "0" (one or more) and the headerCardType code value should be NO\_HEADER\_CARD.

The preferred option for the alternative Deposit Unit identifier will be the SSCC number, but if this is not feasible, an internal identifier provided by the customer can be used.

## 7 Summary of Changes

Any change in the GS1 standards is done based on the Work Request (WR) submitted by the GS1 User Companies or Member Organisations. All Work Requests are documented in the Work Request system available on the GS1 website: <http://wr.gs1.org>. The system is accessible to registered users. New visitors need to register first, to be able to access it. WRs can be searched by the number referenced in tables below, see: Search Work Requests. The number starts with the two last digits of the year when it was submitted, followed by the consecutive number within that year.

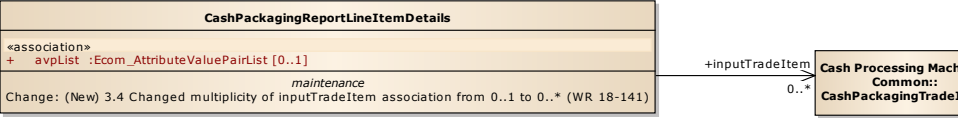


**Note:** WRs submitted earlier than February 2012 should be searched in Old Change Requests.

### 7.1 BMS Release 3.3

| Change        | Associated CR Number |
|---------------|----------------------|
| First release | Not Applicable       |

## 7.2 BMS Release 3.4

| Change   | Associated WR  |
|--|--|
| <p>Changed the occurrence of the inputTradeItem in the CashPackagingReportLineItemDetails class from 0..1 to 0..unbounded</p> <pre> class CashPackagingReportLineItemDetails - maintenance view     &lt;&lt;association&gt;&gt;     + avpList :Ecom_AttributeValuePairList [0..1]     maintenance     Change: (New) 3.4 Changed multiplicity of inputTradeItem association from 0..1 to 0..* (WR 18-141)         </pre>  | <p><b>18-000141</b></p> <p>Make the inputTradeItem in the Cash Packaging Report repeatable</p> |

## 7.3 BMS Release 3.5

No work requests. Document upgraded for release consistency.

## 7.4 BMS Release 3.5.1

No work requests. Document upgraded for release consistency.

# 8 Appendices

Not Applicable

# 9 Acknowledgements

## 9.1.1 Work Group

| Function | Name                   | Company / organisation       |
|----------|------------------------|------------------------------|
| Co-chair | Marc Matamoros         | GS1 Spain                    |
| Co-chair | Thierry de la Breteche | Banque de France             |
| Member   | Aihedan Dilimulati     | GS1 France                   |
| Member   | Alexandre Rieucan      | GS1 France                   |
| Member   | Alfred Schmidt         | Giesecke & Devrient GmbH     |
| Member   | Anders Grangard        | GS1 Global Office            |
| Member   | Anne-Claire Krid       | GS1 France                   |
| Member   | Benjamin Couty         | GS1 France                   |
| Member   | Branko Safaric         | GS1 Slovenia                 |
| Member   | Carrie Wilkie          | GS1 US                       |
| Member   | Christine Gil          | Banque de France             |
| Member   | Diana de Bernardy      | GS1 France                   |
| Member   | Ed Brindley            | Glory Global Solutions, Inc. |
| Member   | Edward Merrill         | GS1 Global Office            |
| Member   | Emanuela Casalini      | GS1 Italy                    |
| Member   | Emilie Sion            | GS1 France                   |

| Function | Name                          | Company / organisation                 |
|----------|-------------------------------|--|
| Member   | Ewa Iwicka                    | GS1 Global Office                      |
| Member   | Fany Palafox                  | GS1 Mexico                             |
| Member   | Frank Pitter                  | Giesecke & Devrient GmbH               |
| Member   | Giada Necci                   | GS1 Italy                              |
| Member   | Grzegorz Sokolowski           | Institute of Logistics and Warehousing |
| Member   | Jean-Luc Champion             | GS1 Global Office                      |
| Member   | Jochen Boy                    | Deutsche Bundesbank                    |
| Member   | Jorge Fernandez Lara          | Banco de México                        |
| Member   | José Vélez Hernández          | Banco de México                        |
| Member   | Juergen Niemann               | Deutsche Bundesbank                    |
| Member   | Karl Cegner                   | GS1 Austria GmbH                       |
| Member   | Manuel López                  | Banco de España                        |
| Member   | Maria Angeles Marques         | Banco de España                        |
| Member   | Maria Elena Fernandez         | Banco de España                        |
| Member   | Martin Beno                   | GS1 Slovakia                           |
| Member   | Mirko Fucci                   | Banca d'Italia                         |
| Member   | Mirko Repetto                 | GS1 Italy                              |
| Member   | Natascha Rossner (Pottier)    | GS1 France                             |
| Member   | Oscar Gerardo Gutiérrez Gómez | Banco de México                        |
| Member   | Patric Bornschein             | Deutsche Bundesbank                    |
| Member   | Raoul Ngele                   | Deutsche Bundesbank                    |
| Member   | Roman Strand                  | GS1 Germany                            |
| Member   | Salima Bekraoui               | GS1 Italy                              |
| Member   | Salvatore Vassallo            | Banca d'Italia                         |
| Member   | Sergio Zuniga                 | GS1 Mexico                             |
| Member   | Steven Rosenberg              | GS1 US                                 |
| Member   | Tom Depoorter                 | GS1 Belgium & Luxembourg               |
| Member   | Valérie Dumez                 | GS1 France                             |
| Member   | Valerie Marchand              | GS1 France                             |
| Member   | Xavier Pujol Xargay           | GS1 Spain                              |

### 9.1.2 Development Team Members

| Function                   | Name            | Organisation      |
|----------------------------|-----------------|-------------------|
| GSMP Process Lead          | David Buckley   | GS1 Global Office |
| Technical Development Lead | Miklos Bolyky   | GS1 Global Office |
| Peer Review                | Mark Van Eeghem | GS1 Global Office |