



ARTS POSLog V6.0

Volume 23: Inventory Control Documents Technical

Specification

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1. Abstract

1.1 Overview

1.2 In Scope

1.3 Out of Scope

2. Referenced Documents

- **ARTS Technical Committees Development Process V6.0.4 2009/11/30**
- **ARTS XML Best Practices V2.2 2010/11/11**
- **ARTS Best Practice for Process Modeling V1.0.0 2011/01/04**
- **A RTS SOA Best Practices Technical Report V1.2**
- **ARTS XML Interface Conformance Tool Manual V1.0 2005/08/11**

These documents are available for download from <http://nrf.com>

3. ARTS Common Header

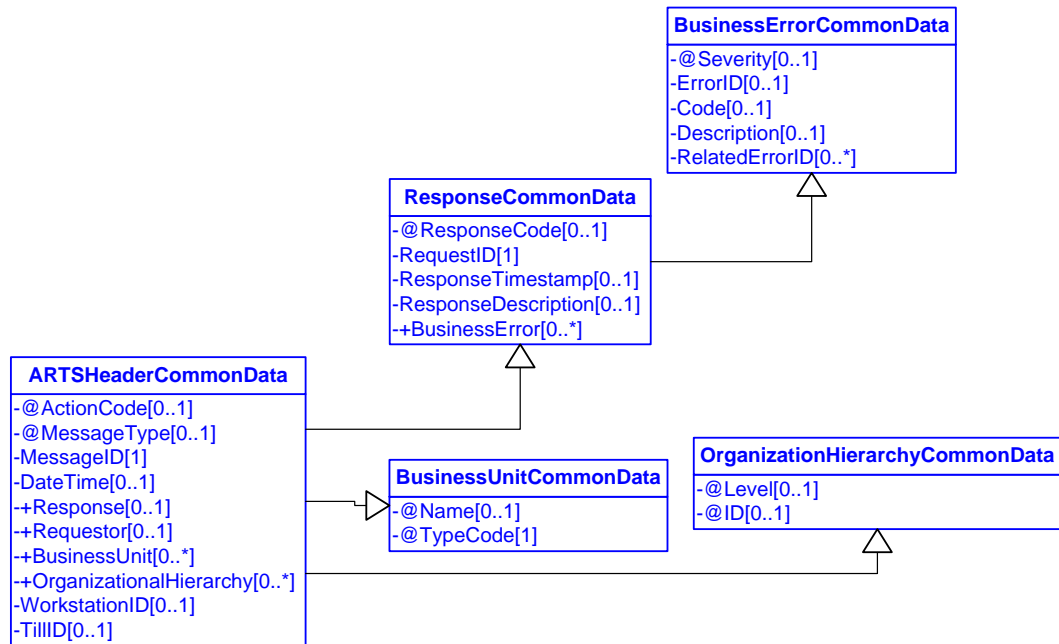


Figure 1: ARTS Common Header Domain View

The ARTS common header is used in all service name schemas. It provides the ability to set session level information and return business error information in one standard format to all SOA implementations.



Figure 2: ARTS Common Header Representation

Since this structure is common to all service name schemas, it will not be replicated below. In place of the details, the attached box will be used to represent this complex type structure.

4. Use Case: Receiving Business Unit

4.1 Scenario: Transfer between stores

Within a retail chain there is sometimes a need to transfer goods from one store to another. This might be due to one store being sold out of a popular item.

Brief Description

A manager from store X where a particular item is out of stock goes into store Y where there is a large inventory of that item. He selects several of the items that his store is out of and identifies himself to the store personnel. The items are entered into an inventory control transaction. Both the sending and receiving stores are identified.

Data

- Store transfer transaction - Transfer
 - Item information
 - Store ID of the store that is receiving the items – To Party.
 - Store ID of the store that is sending the items – From Party
- Store receipt transaction – Receipt
 - Item information
 - Store ID of the store that is receiving the items – To Party
 - Store ID of the store that is sending the items – From Party

4.1 Conformance XML Instance Document – Store Transfer

```
<?xml version="1.0" encoding="UTF-8"?>
<POSLog xmlns="http://www.nrf-arts.org/IXRetail/namespace/"
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
  xsi:schemaLocation="http://www.nrf-arts.org/IXRetail/namespace/
    ../POSLogV6.0.0.xsd"
  MajorVersion="6" MinorVersion="0" FixVersion="0">
  <Transaction>
    <BusinessUnit>
      <UnitID>RetailStoreID</UnitID>
    </BusinessUnit>
    <WorkstationID>WorkstationID</WorkstationID>
    <SequenceNumber>1234</SequenceNumber>
    <OperatorID OperatorName="Taro">e11111</OperatorID>
    <CurrencyCode>JPY</CurrencyCode>
    <InventoryControlTransaction>
      <Transfer>
        <SourceBusinessUnitID>123</SourceBusinessUnitID>
        <DestinationBusinessUnitID>456</DestinationBusinessUnitID>
        <LineItem>
          <ItemID>97</ItemID>
        </LineItem>
      </Transfer>
    </InventoryControlTransaction>
  </Transaction>
</POSLog>
```

5. Use Case: Cycle Count

Electronic Product Code (EPC)

Electronic Product Code (EPC), developed by Massachusetts Institute of Technology, is a 96-bit code which is used for assigning a number to individual items in the EPC Network System and controlled by EPCglobal. Inc. In the current barcode system, the same items have been assigned the same number, even if the size and the colors differ. Accordingly, the addition of another numbering system such as serial number is required to identify individual items. Meanwhile, the EPC assigns a specific number to individual items, which enables you to collect and track detailed data. The spread of the EPC may take time, however, the operation is about to start. The EPC storage in the POSLog will be required in the near future.

5.1 Scenario: Entry of the EPC-assigned item

Brief Description

The operator scans and registers EPC-assigned items. The EPC is supposed to be attached to each item with the RFID and read by an RFID reader. Installation methods of these equipments are beyond the scope of this document. The read EPC is stored in the POSLog and is transferred to the host system for future analysis.

Data

- The following entities could contain the EPC.
 - Inventory management
 - Item sales
 - Disposal of items

5.1 Conformance XML Instance Document – Electronic Product Code

```
<?xml version="1.0" encoding="UTF-8"?>
<POSLog xmlns="http://www.nrf-arts.org/IXRetail/namespace/"
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
  xsi:schemaLocation="http://www.nrf-arts.org/IXRetail/namespace/
  ../POSLogV6.0.0.xsd"
  MajorVersion="6" MinorVersion="0" FixVersion="0">
  <Transaction>
    <BusinessUnit>
      <UnitID>RetailStoreID</UnitID>
    </BusinessUnit>
    <WorkstationID>WorkstationID</WorkstationID>
    <SequenceNumber>1234</SequenceNumber>
    <OperatorID OperatorName="Taro">e11111</OperatorID>
    <CurrencyCode>JPY</CurrencyCode>
    <InventoryControlTransaction>
      <InventoryCount>
        <ItemCount>
          <ItemID>55555555</ItemID>
          <EPC>01.0000A89.00016F.000169DC0</EPC>
          <Quantity>1.0</Quantity>
        </ItemCount>
        <ItemCount>
          <ItemID>22222222</ItemID>
```

```
      <EPC>01.0000BAA.000FFF.00033321F</EPC>
      <Quantity>0.0</Quantity>
    </ItemCount>
  </InventoryCount>
</InventoryControlTransaction>
</Transaction>
</POSLog>
```


6. Use Case: Inventory Receipt

6.1 Scenario: Store Goods Receipt

Brief Description

100 shirts were received and logged into inventory through the POS.

6.1 Conformance XML Instance Document - Store Goods Receipt

```
<?xml version="1.0" encoding="UTF-8"?>
<POSLog xmlns="http://www.nrf-arts.org/IXRetail/namespace/"
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
  xsi:schemaLocation="http://www.nrf-arts.org/IXRetail/namespace/
  ../POSLogV6.0.0.xsd"
  MajorVersion="6" MinorVersion="0" FixVersion="0">
  <Transaction>
    <BusinessUnit>
      <UnitID>HighStreet</UnitID>
    </BusinessUnit>
    <WorkstationID>POS5</WorkstationID>
    <SequenceNumber>4294967295</SequenceNumber>
    <OperatorID>John</OperatorID>
    <InventoryControlTransaction>
      <ReceiveInventory>
        <DocumentID>12341234</DocumentID>
        <ActualDeliveryDate>2001-08-13</ActualDeliveryDate>
        <LineItem>
          <ItemID>1234</ItemID>
          <QuantityReceived>100</QuantityReceived>
        </LineItem>
      </ReceiveInventory>
    </InventoryControlTransaction>
  </Transaction>
</POSLog>
```

7. Use Case: Inventory Disposition

7.1 Scenario: Inventory Breakage

Brief Description

Customer dropped a vase and broke it.

7.1 Conformance XML Instance Document – Inventory Breakage

```
<?xml version="1.0" encoding="UTF-8"?>
<POSLog xmlns="http://www.nrf-arts.org/IXRetail/namespace/"
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
  xsi:schemaLocation="http://www.nrf-arts.org/IXRetail/namespace/
  ../POSLogV6.0.0.xsd"
  MajorVersion="6" MinorVersion="0" FixVersion="0">
  <Transaction>
    <BusinessUnit>
      <UnitID>HighStreet</UnitID>
    </BusinessUnit>
    <WorkstationID>POS5</WorkstationID>
    <SequenceNumber>4294967295</SequenceNumber>
    <OperatorID>John</OperatorID>
    <CurrencyCode>USD</CurrencyCode>
    <InventoryControlTransaction>
      <InventoryLoss TypeCode="Breakage">
        <ItemID>1231234</ItemID>
        <Quantity>1</Quantity>
      </InventoryLoss>
    </InventoryControlTransaction>
  </Transaction>
</POSLog>
```

7.2 Scenario: Inventory Spoilage

Brief Description

A freezer broke and 100 turkeys were spoiled.

7.2 Conformance XML Instance Document – Inventory Spoilage

```
<?xml version="1.0" encoding="UTF-8"?>
<POSLog xmlns="http://www.nrf-arts.org/IXRetail/namespace/"
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
  xsi:schemaLocation="http://www.nrf-arts.org/IXRetail/namespace/
  ../POSLogV6.0.0.xsd"
  MajorVersion="6" MinorVersion="0" FixVersion="0">
  <Transaction OfflineFlag="false" TrainingModeFlag="false">
    <BusinessUnit>
      <UnitID>HighStreet</UnitID>
    </BusinessUnit>
    <WorkstationID>POS5</WorkstationID>
    <SequenceNumber>4294967295</SequenceNumber>
```

```
<InventoryControlTransaction>
  <InventoryLoss TypeCode="Spoilage">
    <ItemID>1231234</ItemID>
    <Quantity>100</Quantity>
  </InventoryLoss>
</InventoryControlTransaction>
</Transaction>
</POSLog>
```

8. USE Case: Merchandise for Store Use

8.1 Scenario: Employee Takes an Item Off the Shelf For Use in the Store (V2.1)

Brief Description

An employee takes an item off the shelf to use in the store. The store charges the purchase against the store account.

Data

- Transaction header data, including:
 - Identifiers for Store, Workstation, & Operator performing the transaction.
 - The date & time the transaction was performed
 - A workstation assigned sequence number identifying the transaction
- Item sale data, including:
 - An identifier for the item being sold.
 - The number of multiples of the item being sold.
 - Unit price for the item being sold.
 - The extended amount (i.e. Unit price * the number of items being sold)
- The Tender Information
 - Store Account Number
 - Amount of the Sale

8.1 Conformance XML Instance Document - Merchandise for Store Use

```
<?xml version="1.0" encoding="UTF-8"?>
<!-- UseCase: Sale of Item for Store use -->
<!-- Note: Tender of sale to HouseAccount -->
<POSLog xmlns="http://www.nrf-arts.org/IXRetail/namespace/"
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
  xsi:schemaLocation="http://www.nrf-arts.org/IXRetail/namespace/
    ../POSLogV6.0.0.xsd"
  MajorVersion="6" FixVersion="0" MinorVersion="0">
  <Transaction>
    <BusinessUnit>
      <UnitID>HighStreet</UnitID>
    </BusinessUnit>
    <WorkstationID>POS5</WorkstationID>
    <SequenceNumber>4294967295</SequenceNumber>
    <OperatorID>John</OperatorID>
    <RetailTransaction>
      <LineItem>
        <Sale ItemType="Stock">
          <POSIdentity>
            <POSItemID>01234567890123</POSItemID>
          </POSIdentity>
          <ExtendedAmount>4.89</ExtendedAmount>
          <Quantity>3</Quantity>
        </Sale>
        <SequenceNumber>1</SequenceNumber>
      </LineItem>
```

```
<LineItem>
  <Tender TenderType="HouseAccount" TypeCode="Sale">
    <Amount>4.89</Amount>
    <StoreAccount>
      <AccountID>5678</AccountID>
    </StoreAccount>
  </Tender>
  <SequenceNumber>2</SequenceNumber>
</LineItem>
</RetailTransaction>
</Transaction>
</POSLog>
```

8.2 Scenario: Return To Vendor

Brief Description

Track inventory return to the vendor for credit

Scenario Description

10 loaves of day-old bread was returned to the bread distributor.

8.2 Conformance XML Instance Document – Return To Vendor

```
<?xml version="1.0" encoding="UTF-8"?>
<POSLog xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
  xsi:schemaLocation="http://www.nrf-arts.org/IXRetail/namespace/
../POSLogV6.0.0.xsd"
  xmlns="http://www.nrf-arts.org/IXRetail/namespace/" MajorVersion="6"
  MinorVersion="0" FixVersion="0">
  <Transaction>
    <BusinessUnit>
      <UnitID>HighStreet</UnitID>
    </BusinessUnit>
    <WorkstationID>POS5</WorkstationID>
    <SequenceNumber>4294967295</SequenceNumber>
    <InventoryControlTransaction>
      <ReturnToVendor>
        <LineItem>
          <ItemID>1234</ItemID>
        </LineItem>
      </ReturnToVendor>
    </InventoryControlTransaction>
  </Transaction>
</POSLog>
```

9. Document History

10. Version History

Version 1.0

Overview

New Features

Sections	Description of Change
	-

Minor fixes

Deprecation

Sections	Description of Change
	-

Compatibility/Dependencies Issues

Previous Document

11. GLOSSARY

Term	Definition