

PubSubApp v1.0.36 — Change Report

Date: February 2, 2026 | Branch: `latest1` | Files Changed: 2 | +365 / -169 lines

Summary: Corrected SLFTTP/SLFLNT transaction type mappings, added Customer and TaxJurisdiction models, implemented TBLFLD TAXTXC tax authority to line type mapping, enhanced ORAE 2.0.0 validation with Money type checks, and updated multiple SDISLF field mappings (SLFNUM, SLFACD, SLFTCD, SLFRSN, SLFSCN, SLFUPC, TNFRDS).

1. SLFTTP — Transaction Type Mapping

CORRECTED

Corrected all transaction type codes to match the SDISLF specification:

Transaction Type	Old Code	New Code	Description
SALE	01	01	Regular Sale (unchanged)
SALE (Employee)	01 (temp)	04	Employee Sale (restored)
RETURN	02	11	Return
AR_PAYMENT	(missing)	43	AR Payment (new)
VOID	11	87	Current Transaction Void
POST_VOID	(was CLOSE=88)	88	Post Void

Default changed from `"Unknown: " + input` to `"01"`.

```
private string MapTransTypeSLFTTP(string input, bool hasEmployeeDiscount)
{
    if (input == "SALE" && hasEmployeeDiscount)
        return "04";

    return input switch
    {
        "SALE"      => "01",
        "RETURN"     => "11",
        "AR_PAYMENT" => "43",
        "VOID"       => "87",
        "POST_VOID"  => "88",
        _             => "01"
    };
}
```

2. SLFLNT — Line Type Mapping

CORRECTED

Updated line type logic and removed unused transaction types (LAYAWAY_*, SPECIAL_ORDER, etc.):

Condition	Old Code	New Code	Description
SALE (regular)	01	01	Unchanged
SALE + Customer ID	02	02	Unchanged
SALE + Employee	01 (temp)	04	Restored
SALE/RETURN + Gift Card	45	45	Unchanged
RETURN (regular)	11	11	Unchanged
RETURN + Customer ID	12	12	Unchanged
VOID	(via switch)	87	Current Void
POST_VOID	(via switch)	01	Post Void

3. MapTaxAuthToLineType — TBLFLD TAXTxC

NEW METHOD

Tax record SLFLNT is now determined by the TBLFLD TAXTxC mapping table instead of hardcoded "XH":

Tax Authority	Line Type	Description
BC	XR	British Columbia PST
FED	XG	Federal GST
HNB	XN	New Brunswick HST
HNF	XF	Newfoundland HST
HNS	XV	Nova Scotia HST
HON	XH	Ontario HST
HON1	XI	Ontario GST Portion
HPE	XP	PEI HST
MB	XM	Manitoba PST
PQ	XQ	Quebec QST
SK	XS	Saskatchewan PST
(default)	XH	Default to Ontario HST

4. Original Transaction Fields (SLFOTS/SLFOTD/SLFOTR/SLFOTT)

UPDATED

Updated all references to use corrected SLFTTP codes. Applied to order records, Ontario tax records, and non-Ontario tax records:

SLFTTP Codes	SLFOTS	SLFOTD	SLFOTR	SLFOTT
01, 04, 43 (Sale, Employee, AR)	"00000"	"000000"	"000"	"00000"
11 (Return)	StoreId	yyMMdd	RegisterId	SourceTransactionId (fallback: SequenceNumber)
87, 88 (Void, Post Void)	StoreId	yyMMdd	RegisterId	SequenceNumber

5. New Model Classes

5a. Customer Model

NEW

Added to `Actor` class for SLFNUM customer number mapping:

```
public class Customer
{
    [JsonPropertyName("customerIdToken")]
    public string? CustomerIdToken { get; set; }
}
```

5b. TaxJurisdiction Model

NEW

Added to `TaxDetail` class for SLFACD and SLFTCD tax record mapping:

```
public class TaxJurisdiction
{
    [JsonPropertyName("country")]
    public string? Country { get; set; }

    [JsonPropertyName("region")]
    public string? Region { get; set; }

    [JsonPropertyName("locality")]
    public string? Locality { get; set; }

    [JsonPropertyName("authorityId")]
    public string? AuthorityId { get; set; }

    [JsonPropertyName("authorityName")]
    public string? AuthorityName { get; set; }
}
```

6. SDISLF Field Mapping Changes

Field	Record Type	Change	Source / Logic
SLFNUM Customer Number	Order	NEW	<code>actor.customer.customerIdToken</code> 10-digit with leading zeros; blank if no customer
SLFACD Tax Auth Code	Order Tax	UPDATED	Order: always blank "" Tax: <code>taxes.jurisdiction.region</code> (was

			DetermineTaxAuthority)
SLFTCD Tax Rate Code	Order Tax	UPDATED	Order: always blank "" Tax: first <code>taxes.taxCode</code> that has a <code>jurisdiction</code> object (was HST detection)
SLFRSN Reason Code	Order	UPDATED	Default: 16 blank spaces RETURN→RRT0, VOID→VOD0, Override→POV0, Manual Discount→IDS0
SLFSCN Item Scanned	Order Tax	UPDATED	Order: Y if item.gtin > 0, N otherwise Tax: always blank (was UOM-based)
SLFUPC UPC Code	Order	UPDATED	<code>item.gtin</code> padded to 13 digits; "0000000000000" if no value
TNFRDS Reference Desc	Tender	UPDATED	Always blank for all tender types (was TenderId for non-credit/debit)

7. ValidateOraeCompliance — Enhanced

UPDATED

Updated to align with ORAE 2.0.0 JSON schema specification:

- **New `ValidateMoney()` method** — validates `currency` (ISO-4217, 3 uppercase letters) and `value` (signed decimal pattern `^-?[0-9]{1,18}(\.[0-9]{1,4})?[$]`)
- **Money validation applied to:**
 - `totals.gross`, `totals.discounts`, `totals.tax`, `totals.net`
 - `pricing.unitPrice`, `pricing.extendedPrice`
 - `tender.amount`
 - `taxes[].amount` (per TaxComponent)
- `store.currency` — ISO-4217 format check (3 uppercase letters)
- `workstation.sequenceNumber` — must be ≥ 0 if present
- **Error messages improved** — enum values listed (e.g., "Must be one of: ORIGINAL, CORRECTION...")
- **Schema comments** — added throughout for traceability

8. Error Handling

UPDATED

Messages that fail validation (> 10 errors) are now **ACKed** instead of NACKed/thrown, preventing infinite redelivery loops in Pub/Sub.

9. GetCustomerId — Updated

UPDATED

Previously returned empty string with a TODO comment. Now extracts customer ID from ORAE:

```
private string GetCustomerId(RetailEvent retailEvent)
{
    return retailEvent.Actor?.Customer?.CustomerIdToken ?? "";
}
```

10. Version & README

- Version bumped: `v1.0.35` → `v1.0.36`
- Date updated: `01/30/26` → `02/02/26`
- README.md updated with corrected mapping tables, new TBLFLD TAXTAXC table, v1.0.36 version history

Commits

Hash	Message
<code>cb3dc63</code>	Update SLFTTP/SLFLNT mappings, add Customer/TaxJurisdiction models, tax auth line type mapping
<code>1a8d05e</code>	Update (user edit)
<code>3a4c8fe</code>	Update README with v1.0.36 changes and corrected field mapping tables

Files Modified: PubSubApp/Program.cs (+279/-129), README.md (+84/-39)

Total: 365 insertions, 169 deletions