

This document highlights the major changes for Release 13.0 of Oracle Retail MICROS Retail-J.

## Overview

The Release Notes documents the changes and fixes for the 13.0 release of Oracle Retail MICROS Retail-J application.

## Introduction

The following describes the changes and fixes for Release 13.0.

## Changes

The following describes the changes for Release 13.0.

Issue #	Area	Files Changed	Description
59579	POS	rjSWT.jar	The SWT browser can use the Mozilla renderer by declaring the path to the location of XULRunner using the properties file. The new property is "Mozilla.XULRunnerPath".
59571	POS	rjBackOffice.war, rjJavaPOS.jar	Removed the third party javascript files from the RJ13 build in SVN. Standardised jsps that require a colour selection window to use the already existing jQuery: Content/Scripts/colorpicker.js
59570	Data Maintenance	rjRetailFoundationClasses.jar, rjJavaPOS.jar	Removed GPL Code from Retail-J - Password Entry: Removed masking of password entry.
59569	POS	rjUtilities.jar, rjThinClientPOS.jar	Removed GPL Code from Retail-J - String Function: Re-wrote replace() and replaceAll() StringFunctions methods.
59568	POS	rjUtilities.jar	Remove GPL Code from Retail-J - String Tokeniser: Removed the Powerful Tokeniser code from EnhancedTokeniser.
59567	Import / Export & Messaging	rjDataImporter.jar, rjRetailFoundationClasses.jar	Changed FTPConnector / FTPImporter to use the Enterprise DT FTP API.
59566	Licence	rjRetailFoundationClasses.jar, rjSubmissionService.jar, rjTokenisationService.jar	Removed Licence Key validation from Transaction Processing, Submission Service and Tokenisation Service.
59565	Chip & PIN	rjJavaPOS.jar, rjBackOffice.jar, rjBackOffice.war	See <a href="#">Ingenico IPP350 Device</a> .

Issue #	Area	Files Changed	Description
59564	EFT	rjBackOffice.jar, rjBackOffice.war, rjRetailFoundationClasses.jar, rjJavaPOS.jar	To support MasterCard Pre/Final Authorisation Standard, added "Set Final Auth Flag" to Card Type Maintenance which, if checked, will populate Field 15 in the APACS30Request with an "A".
59563	POS	rjBackOffice.jar, rjBackOffice.war, rjJavaPOS.jar, rjRetailFoundationClasses.jar, rjSWT.jar	Added functionality to allow the POS to use an alternative embedded browser, configurable in Terminal Profile Maintenance. The following alternative embedded browsers can be configured: <ul style="list-style-type: none"> <li>▪ SWT (Native): will use Internet Explorer for rendering</li> <li>▪ SWT (Mozilla): will use Mozilla for rendering and requires XULRunner.</li> <li>▪ SWT (Safari): will use Safari (WebBit) for rendering and requires Safari.</li> </ul> Each of these embedded SWT browsers will require SWT to be deployed.
59562	POS, BackOffice	rjRetailFoundationClasses.jar, rjBackOffice.jar, rjJavaPOS.jar	See <a href="#">Tax Free Shopping (Global Blue)</a> .
59557	POS	rjJavaPOS.jar, rjAppletPOS.war (DELETED)	Removed POSApplet, XYConstraints and XYLayout.
59556	POS	rjJavaPOS.jar, rjRetailFoundationClasses.jar	Enabled Pennies with DCC.
59555	Multi-Channel	rjRetailFoundationClasses.jar, rjJavaPOS.jar, rjBackOffice.jar, rjBackOffice.war	Added Relate specific rechargeable voucher classes, which connect to Relate web service.
59553	POS	rjJavaPOS.jar, rjRetailFoundationClasses.jar	Changed the discount modifier calculation to take PromotionSavingModifier values into consideration where applicable.
59551	Chip & PIN	rjJavaPOS.jar	Added logging message for Mastercard / Maestro NO_CVM.  Stop contactless Maestro cards from using signature as a CVM.  Derive the correct EMV Terminal Capabilities for the CVM from the Cardholder Verification Method Results.
59550			Removed MS SQLServer JDBC Drivers from Third Party Libraries.
59545	EFT	None	Amex mandate. No additional changes (beyond those already implemented for contactless for other schemes) were required.
59536	POS, BackOffice	rjBackOffice.war	Removed Dijkstra code.

Issue #	Area	Files Changed	Description
57225	Product Inventory	rjCore.jar, rjBackOffice.jar, rjProductInventory.jar, rjRetailFoundationClasses.jar, rjAuditManager.jar, rjBackOffice.war, rjWebServices.war	See <a href="#">Centralised Serial Number Tracking</a> .

## Fixes

The following describes the fixes for Release 13.0.

Issue #	Area	Files Changed	Description
59713	Data Maintenance	rjBackOffice.war	Licence details can no longer be viewed if the licence key is blank.
59712	POS	rjJavaPOS.jar	Fix for manager override not correctly displaying menu items on the POS.
59710	Database	rjBackOffice.war	Company Registration page now includes SQL 2012 and 2014 in the appropriate drop-down list.
59709	Multi Channel	rjJavaPOS.jar	No longer able to order more than the quantity available for a home delivery.
59708	POS	rjJavaPOS.jar	Changed the test to work when the promotional message is null. Changed all the isNotBlank calls to isEmpty in printCustomerMessage
59707	POS	rjRetailFoundationClasses.jar, rjBackOffice.war, rjWebServices.war	Use the end date from the job rather than the current date & time when checking for open sessions.
59706	POS	rjJavaPOS.jar	Fix to send the scanned, swiped flag through callCommand method to identify whether Gift Card number is scanned/swiped.
59705	POS	rjJavaPOS.jar, rjRetailFoundationClasses.jar	Removed changes made for 56430 which used the effectiveNetValue (the total including discounts / promotions, and so on for all items) instead of the unit price of the product sold.
59704	Messaging	rjBackOffice.war	Fix to avoid creating ActivityLogEntry broadcast message while deleting documents from AuditDocumentIn.
59702	Multi Channel	rjJavaPOS.jar	No longer able to order more than the quantity shown in the multi channel order. If quantity is higher than the order then a prompt will display to ask the user to re-enter the quantity.

Issue #	Area	Files Changed	Description
59701	Database	rjCore.jar, rjBackOffice.war	Added debug to the ConnectionPool to log the creation of all currently active connections when DBDataSource.getConnection() throws an exception: ConnectionPool.Debug.59112 needs to be added to the Debug.Classes property in the com.retailJava.javaPOS.properties file.  Synchronized methods in DBConnection which modify the DB Connection Manager and Transaction Level: this will prevent NullPointerExceptions when multiple threads (caused by double clicking) use the same DBConnection object.  Modified Product Inventory Request jsps to prevent double clicks.
59700	Data Maintenance	rjBackOffice.war	Fix to list out Employee Absence/ Time Clock Event Adjustment reason for the trading region of corresponding selected location.
59699	Product Inventory	rjBackOffice.war	Modified all Goods In pages to prevent double clicks.
59698	POS	rjJavaPOS.jar	Restored code that printed out the reason details in the header section for income / expense reports. This was incorrectly moved under an old TTP ticket.
59697	POS	rjJavaPOS.jar	Changed the code to match Tip - which uses the trading region from the reason code rather than the basket to determine which tenders are valid.
59696	POS	rjGivex.jar	Modified Givex Rechargeable Voucher Items to return standard RJ Rechargeable Voucher Item XML if the Acquirer ID isn't set on the Rechargeable Voucher Item.
59694	Data Maintenance	rjCore.jar, rjUtilities.jar	Fixed NullPointerException in LocaleFunctions when using ICU4J 54: caused by Locales with the same Display Name, "Serbian (Serbia)", but different Countries (Serbia / Serbia & Montenegro).  Fixed validation exception in MultiTypeStringParser when parsing an Azerbaijani Currency: caused by a non-breaking space (ASCII 160) between the currency symbol and the amount in the formatted value.
59693	POS	rjRetailFoundationClasses.jar	The basket totals are recalculated correctly following a voided discount.
59692	POS	rjBackOffice.jar, rjJavaPOS.jar, rjRetailFoundationClasses.jar, rjBackOffice.war	Fix to configure socket linger time in terminal Profile -- Edit Devices.

Issue #	Area	Files Changed	Description
59691	POS	rjRetailFoundationClasses.jar	Promotions now fire correctly for non employee sales. The 'affect employee balance' flag is checked in conjunction with a check that the sale is an employee sale.
59683	POS	rjJavaPOS.jar	Fixed NullPointerException when using Premier Tax Free.
59682	POS	rjJavaPOS.jar	Fixed issue with StarLineModePrinter hanging for 10s on close after reading status bytes from the printer. Also applied to this fix to the other printers listed below: <ul style="list-style-type: none"> <li>▪ EPSONTM88SerialPrinter</li> <li>▪ EPSONTM950SerialPrinter</li> <li>▪ EpsonTMH6000SerialPrinter</li> <li>▪ IBM4610SerialPrinter</li> <li>▪ NCR7197SerialPrinter</li> <li>▪ StarLineModePrinter</li> </ul>
59681	POS	rjRetailFoundationClasses.jar	Returns performed for transactions prior to a change of tax rate will now calculate the correct amount of tax when the item is added. Note that in the config, this requires that a new Tax Rate is added with the same ID as the previous Tax Rate but a different Effective Date and Percentage.
59680	POS, BackOffice	rjJavaPOS.jar, rjBackOffice.war	Added user roles to restrict access to Remote Collect, Sell Item & Back Order via POS Locate Inventory. The following are the User Roles: <ul style="list-style-type: none"> <li>▪ Allow Remote Collect</li> <li>▪ Allow Sell Item</li> <li>▪ Allow Back Order</li> </ul>
59679	POS	rjJavaPOS.jar, rjRetailFoundationClasses.jar	Fix to display the float value in Terminal cash drawer report.
59677	POS	rjRetailFoundationClasses.jar	Overlapping fixed bundle price promotions now fire correctly.
59676	SUP	rjBackOffice.war	Fixed NullPointerException in PageNotFound.jsp when the context is null.
59675	Operations	rjHttpUtilities.jar	Now PaginationTag is extending BodyTagSupport instead of TagSupport.
59674	Data Maintenance	rjBackOffice.war	Fix done by replacing getServletContext() with pageContext.getServletContext() in the below jsp files to resolve the issue.
59673	POS	rjJavaPOS.jar	Fixed issue with Voids / Returns not subsequently working after performing a Receipt Return from the Flight menu.

Issue #	Area	Files Changed	Description
59672	Import/Export	rjRetailFoundationClasses.jar	Fixed issue with importing 'DeleteAll' XML for MMGroups.
59669	Stock Counting	rjBackOffice.war	Indentation displays properly in MMGroup drop-down list.
59668	Cash Management	rjBackOffice.jar, rjBackOffice.war	Fix to control overriding the available safe amount by cash management role "Override Available Safe Amount" for all safe cash management actions
59666	POS	rjJavaPOS.jar	Servlet POS will now display the "Return Receipt" button when returning from receipt and the original transaction only contains a single merchandise item.
59665	Product Inventory	rjProductInventory.jar	Modified Product Inventory Request processing to not post the Product Inventory Request from the Store to the Source Location if the Source Location's Server Device ID is the same as the Store's Head Office Server Device ID.
59664	Transaction Processing	rjRetailFoundationClasses.jar	Fixed issue with multiple XML Document Processing Threads potentially re-processing the same document after a failure and subsequent re-submission of the failed document.
59663	Database	rjCore.jar	Fixed issue with closed connections not being promptly removed from the collection of active connections if garbage collection is running infrequently.
59662	Product Inventory	rjBackOffice.war	Removed unnecessary casting of objects, such that Goods In will be processed successfully.
59660	EFT	rjEFTLink.jar	Modified RJ code to attempt to use the new AcquirerTransactionReference EPSResult property which persists the STAN as a String, rather than the AcquirerTransactionNumber property which persists the STAN as an int.
59659	POS	rjJavaPOS.jar	Removed code setting format entry type to Tax Free Items.
59657	Data Maintenance	rjBackOffice.war	Modified Stock Count, Product Inventory Request, Inventory Reservation Request and Expected Delivery to prevent user's double clicking in order to avoid create duplicate messages.
59651	Data Maintenance	rjBackOffice.war	Fixed the issue of the blank page when returning from EditRemotePOSScreenDefinitions.jsp. Now terminal profile maintenance is displayed as expected.
59650	Database	rjAuditManager.jar	Made the columns in the CustomerDimension table consistent with those in the CustomerExtendedInformation table.

Issue #	Area	Files Changed	Description
59649	Data Maintenance	rjBackOffice.jar	The 'Customer Segment Association' roles are now visible in Role Maintenance and can be ticked to allow access to the Customer Segment Associations sub-page within Customer Maintenance.
59648	Database	rjRetailFoundationClasses.jar	Changed Attribute_Values column type in the CustomerAttributeValues table. <ul style="list-style-type: none"> <li>▪ SQL: nvarchar - text,</li> <li>▪ MySQL: varchar - longtext,</li> <li>▪ Oracle: varchar - clob,</li> <li>▪ DB2: varchar - clob.</li> </ul>
59647	Product Inventory	rjBackOffice.war	Modified Stock Adjustments to prevent user's double clicking and to try to ensure that DB Connections are rolled back and closed in the event of an exception when processing a Stock Adjustment Event.
59646	Data Maintenance	rjBackOffice.jar	Fixed for duplicate IDs in Cash Management Messages.
59645	EFT	rjJavaPOS.jar	This was happening because in SoftCardAndReceiptVoucherPrint, the cardType was being made null as the cardType had not been added to the cardTypes HashMap. This has been fixed so that when a card type is set, it is also populated in the HashMap.
59644	POS	rjJavaPOS.jar	Fixed issue with "Enter" being treated as "OK" when performing POS Cash Management and the input box is not visible.
59642	Product Inventory	rjCore.jar, rjRetailFoundationClasses.jar, rjBackOffice.war	Fixed "Transaction Sequence Error" in MessageDBServer.collectForAll() method. Fixed NullPointerException in ConnectionFactory when it is passed a null context. Fixed data lock errors in IMessagingChannelServer.getMessagingChannel() methods. Connection not rolled back when handling known SQLException in ProductMovementsDBServer. Modified Goods Out to try to ensure that DB Connections are rolled back and closed in the event of an exception when processing a Goods Out Event.
59641	POS	rjRetailFoundationClasses.jar	Fixed issue with Cash Tenders not rounding up / down if the ID of the Rounding Denomination is 0.

Issue #	Area	Files Changed	Description
59640	POS	rjJavaPOS.jar	Fixed issue with "Sales" button being disabled in Cash Management and Manager Menus when Terminal not flagged as "In Use".
59639	POS	rjJavaPOS.jar	Fix so that Cancel button (F8) is working at dispatch prompt at delivery instruction.
59638	POS	rjRetailFoundationClasses.jar, rjJavaPOS.jar	Changed the EndTransactionPOSBasketProcessor to handle difference baskets for layaways so CM totals are correct.
59636	Import/Export	rjRetailFoundationClasses.jar	Fixed issue with CSF Broadcast by Trading Region using wildcard target address.
59635	Transaction Processing	rjRetailFoundationClasses.jar, rjWebServices.war	Prevent transaction getting sent twice if sending to HTTPXMLProcessor times out. Also removed unnecessary fixes for 22024 as this fix supersedes those.
59634	Product Inventory	rjProductInventory.jar	Now the goods out is generated properly.
59632	Messaging	rjAuditManager.jar	Dispatch Transactions containing Delivery Charge Items will now be successfully processed into the AuditItems table.
59631	POS	rjRetailFoundationClasses.jar	Fixed ClassCastException in BasketCalculations when Basket contains an AdminChargeItem.
59629	Reporting	rjHTTPUtilities.jar	RowsTag was re-encoding back to browser character set even after the ProcessBodyTag which resulted in the incorrect coding for the excel file.
59626	Card Submission	rjBackOffice.war	Fix to not roll over transaction into new audit session.
*59623	POS	rjUtilities.jar, rjJavaPOS.jar, rjEFTLink.jar	Replaced the hard-coded timeout value in the Rechargeable Voucher commands with a value that can be specified (in seconds) in the RJ properties file. The new property & its default value is: RechargeableVoucher.MaximumAuthWaitTimeSecs=60
59621	EFT	rjJavaPOS.jar	Fixed issue with VSP MSR Expiry Date workaround.
59620	Card Submission	rjAuditManager.jar	Improved performance of Audit Transaction Processing and Validation. Database lock errors now handled correctly by Audit Cash Management / POS Basket Transaction Processing.
59619	Reporting	rjRetailFoundationClasses.jar, rjBackOffice.war	Fix for errors when running Issued Serial Number Report.

Issue #	Area	Files Changed	Description
59618	EFT	rjJavaPOS.jar	Modified CardTenderCommand to validate the PAN against the Formatted PAN: if the length of the Formatted PAN differs from the length of the PAN, or the Formatted PAN does not match the PAN, an error message will be displayed and the tender cancelled.
59617	EFT	rjJavaPOS.jar	Modified CardTenderCommand to prevent an authorisation request being sent if a card is removed during authorisation before the request has been sent. Added logging to the APACS 30 Authorisation Clients to log any responses which are deemed to have "Invalid Parameters".
59616	Software Update Process	rjSoftwareVersionControl.jar, rjUtilities.jar	Modified how the SUP process looks up folders in order to accommodate folder names which include spaces.
59615	Chip & PIN	rjJavaPOS.jar	Modified Tax Refund Processors to use Card Token / Formatted PAN if the Card PAN is not set on the Card Tender Item.
59614	EFT	rjJavaPOS.jar	Stopped the EMV Terminal Type field being included in the APACS30 request message if the PAN was keyed.
59613	POS	rjRetailFoundationClasses.jar	Options Product Return Items are now handled correctly when calculating promotions and now updating corerct values in database.
59612	POS	rjRetailFoundationClasses.jar	Promotions are now calculated correctly for options product items when the promotion includes product item option items.
59610	EFT	rjJavaPOS.jar	Modified CardTenderProcessor to not update Card Tender Item with Acquirer details when performing manual authorisation.
59609	EFT	rjJavaPOS.jar	Moved the call to testing the security checks to a position that will be called for both contactless and non contactless enabled systems.
59607	EFT	rjEFTLink.jar	Fixed thread synchronisation issue in the processing of requests / responses in the EFTLinkClient.
59606	POS	rjJavaPOS.jar	Time to get a response from the PED during an update process was increased.
59605	EFT	rjJavaPOS.jar	Modified ICCIngenico driver to send a DF68 tag in the Start Transaction Command which results in progress messages being returned to the POS to signify ICC Retry / Fallback.

Issue #	Area	Files Changed	Description
59603	Reporting	rjBackOffice.jar, rjJavaPOS.jar, rjBackOffice.war	HTTP connection timeout for POS Thin Client commands can now be configured in Menu Maintenance. If the timeout is not configured, or 0, the default timeout of 30s will be used.
59602	Product Inventory	rjBackOffice.war	It is now possible to edit / view prices in options products.
59600	POS	rjJavaPOS.jar	Fixed issue with DCC refund when using a PED with contactless support / Card Tender not flagged as "Force Amount Entered?".
59599	POS	rjJavaPOS.jar	IOExceptions when sending messages to the ICC VerifoneVX Devices are now handled correctly.
59598	POS	rjJavaPOS.jar	Now, the numeric pad will appear during toggle on/off and the TOTAL box will appear in the configured position.  For the Advanced Configurable UI, you should configure button colours from BackOffice-Form Definition Maintenance-Field Properties. You should not configure button colours with POS.Properties or menus.
59597	Card Submission	rjCore.jar, rjSubmissionService.jar, rjWebServices.war	Delete the detokenised file, if Submission Service fails to update the history status.
59596	POS	rjJavaPOS.jar	Fixed issue with "Processing, please wait" prompt being displayed and never subsequently destroyed when cancelling EFT Link card authorisation.
59595	EFT	rjBackOffice.jar, rjJavaPOS.jar, rjRetailFoundationClasses.jar, rjBackOffice.war	Added "ICC Reader NFC CVM Timeout" to Terminal Profile Maintenance (default 120s): this is the POS timeout which is used in response to the 9F35 response from the PED.
59594	Data Maintenance	rjCore.jar	Line spacing, "Leading", for PDF Receipt Cells can now be configured in the properties file using one of the following properties:  PDFFunctions.ReceiptCell.Leading property (float) will explicitly set the "Leading" on the PDF Receipt Cell: default is 18.  PDFFunctions.ReceiptCell.LeadingMultiplier property (float) will multiply the font size by the "Leading Multiplier" to set the "Leading" on the PDF Receipt Cell: default is 1.5.
59593	POS	rjRetailFoundationClasses.jar, rjEReceipt.jar	Fixed issue with duplicate EReceipt being sent when original basket updated by Item Returns Processor.
59589	POS	rjComms.jar	Refactored the Comms RJ13 Delta (trunk-Deltas-Comms-RJ13) so that it no longer has a dependency on both comm.jar and RXTXcomm.jar being in the classpath.

Issue #	Area	Files Changed	Description
59580	Data Maintenance	rjBackOffice.jar, rjRetailFoundationClasses.jar, rjBackOffice.war	Removed redundant flags from Customer Order Reason.
59577	Multi Channel	rjJavaPOS.jar	Implemented 2 new roles to allow skipping of confirmation of the delivery name & address for MCO items. Copy the customer / delivery details if they already exist in the transaction. Added check to hide the order MCO item button if you have already begun an order.
59532	Database	rjRetailFoundationClasses.jar	This fix increases the User ID in the Detokenisation Table to from nvarchar(10) to nvarchar(20) which resolves the exception and allows the detokenisationlogentry table User ID field to accept 20 characters.
59047	Chip & PIN	rjJavaPOS.jar	"Y1" auth response code for offline approved ICC transactions.
58866	Documentation	rjhelp.war	Added legal notices and attributions for third party software.
56516	Chip & PIN	rjJavaPOS.jar	Now uses AuthResponseCode from the iccitem and allowed refunds to generate offline auth codes where required.

## Ingenico IPP350 Device

A new ICC Device Type has been added to Terminal Profile Maintenance: Ingenico Telium Serial. This is intended for the newer family of Ingenico devices, of which the iPP350 is one.

Two new settings are now available in ICC Configuration Maintenance for the Ingenico type:

- **Firmware Update Directory:** Device update files will be read from here, these should be the .ZIP files as supplied by Ingenico. Multiple update files can be stored in this directory, because only the file with the version matching the current device version will be used.
- **Firmware Version:** Optional. If set, this version will be compared against the version reported by the device when the POS starts, and also when a card tender is initiated. If the versions do not match, then the message "The ICC Device needs updating" will be displayed.

Also, the current device firmware version is now written out to

<RJ\_Home>/ICC/ICCDeviceDetails.xml when the POS starts up and after a PED upgrade.

## Tax Free Shopping (Global Blue)

Global Blue tax free shopping has been completely redeveloped in conjunction with Global Blue SA. The new functionality is presented in the context of the other tax free shopping merchant services providers supported by Retail-J.

## Glossary

Term	Definition
BIN	Bank Identification Number (superseded as a term by IIN)
Global Refund	Global Blue Tax Free Shopping merchant service provider.
GRIPS	Global Refund Server
I3	Global Blue server, located in the retailer's network, to capture offline transactions (issues and voids).
IIN	Issuer Identification Number; the first six digits of a bank card; previously known as Bank Identification Number (BIN).
MSR	Magnetic Stripe Reader
PAN	Personal Account Number or payment card number.
TFS	Tax Free Shopping is the Global Blue name for its tax free shopping service.
TRED	Tax Free Eligibility Detection; when a credit card is used as a tender, its IIN/BIN is looked up to determine if the card was issued in a location for which a tax refund would be valid.

## Tax Free Shopping Merchant Services

Retail-J supports the following tax free shopping merchant services from Global Blue.

	Global Blue	Comment
Refund Voucher	✓	Providers rely on a refund voucher. The voucher needs to be validated by customs before the customer cashes in the voucher at locations nominated by the provider.
Tax Free Shopping Card	✓	For Global Blue, the card provides a means of identity and information to automatically complete the refund voucher. A Global Blue card is not defined as another card type within Retail-J.
Tax Free Transaction Notification	GRIPS Service	Transactions are notified to the service provider, either at the time of the transaction using a web based service, or are batched up and a file supplied at an agreed frequency.
TRED	✓	Credit or debit card payments can automatically alert the POS operator to the eligibility of the customer for a tax free refund depending on the BIN/IIN of the card.
Set Terminal ID	✓	Global Blue needs individual Terminal IDs for each terminal. This means this provider needs to be configured by terminal not by terminal profile.
Reference Data Accepted for Input by Retail-J		

	<b>Global Blue</b>	<b>Comment</b>
TRED BIN/IIN	✓	
Refund Tables	✗	Global Blue calculates the refund at the time of the tax free transaction.
Terminal Configuration	✓	Terminal configurations can be imported for Global Blue.

## Tax Free Terminal Maintenance

Service providers requiring individual Terminal IDs are configured from Terminal Maintenance.

Global Blue is configured from Data Maintenance - POS Support - Terminals - Select Terminal - Terminal Maintenance - Edit Tax Refund Configuration.

Tax free terminal maintenance for Global Blue comprises the following fields and options:

<b>Field/Option</b>	<b>Description</b>
Provider	Global Blue.
Processor Class Name	Retained for backward compatibility. From Retail-J 12, the processor is related to the provider. Leave blank.
Merchant ID	The Merchant ID allocated by Global Blue.
Terminal ID	The Terminal ID of this terminal allocated by Global Blue.
Capture Name	Not required
Capture Address	Not required
Capture Reference Number	Not required
Tax Refund Eligibility Detection	Check box; detects tax refund eligibility from the card number.
Eligibility Threshold	Value below which a tax refund does not apply (leave as default; this value is downloaded from the Global Blue server)
Print Shop Copy	Check box
Receipt Logo	Select from a drop down list of stored receipt logos.
Upload Receipt Logo	Browse and select a bmp file for upload. This is not part of the downloaded terminal configuration, it is supplied by Global Blue separately.
Server URL	The address of the Global Blue server.
User Name	The user name to use for access to the Global Blue server.
Password	The password to use for access to the Global Blue server
Sender ID	The Sender ID supplied by Global Blue.

Service ID	The Service ID supplied by Global Blue
Country Code	The ISO 3166 country code of the terminal's location (for example 826 for Great Britain)
Online Help URL	Location of online help where used
Traveller Lookup	Tick check box
Check Traveller ID	Tick check box
I3 Connection URL	Offline server address
I3 Username	Offline server username
Tax Refund Countries	Downloadable from Global Blue
Blocked Country Codes	Downloadable from Global Blue
Applicable Tender Types	One or more from: Cash, Cheque, Card, Gift Voucher, Customer Account, Credit Note, Travellers Cheque, Coupon, Loyalty Points, Deposit Account, Local Account, Employee Account, Rechargeable Voucher, Product Coupon, Manufacturer Coupon, Interest Free Credit, Simple Voucher, Simple Account, Local Authority Voucher, Business Account, Health Service Voucher, Discount Voucher, Promotion Voucher, Loan.

## Global Blue Configuration Download Process

This process can be run on any tier, that is, the POS, BackOffice or Estate Manager. If you are running a configuration update on the POS or BackOffice you need to update Broadcast Targets for Terminal and AlternateIINRange to ensure the changes are sent up to the Estate Manager.

To download Global Blue configuration, add the Global Blue Config Download Process to your device using Administration - Processes - Process Management - Select Device - Add Process.

The screenshot shows a configuration page titled "Process Config Maintenance" for the process "Global Blue Config Download Process" on device "ALL.DOC". The page contains a table of configuration fields and their values:

Field	Value
Process ID	GlobalBlueConfigDowr
Device ID	ALL.DOC
Cluster Node	
Enabled	<input checked="" type="checkbox"/>
Auto Start	<input type="checkbox"/>
Start Time	00 : 00
End Time	00 : 00
Frequency (minutes)	10
Desk Configuration Download Frequency	Daily
Global Configuration Download Frequency	Monthly
Global Configuration Download Runtime	1
Blocked Countries Download Frequency	Weekly
Blocked Countries Download Runtime	Sunday
Condensed TRED Download Frequency	Monthly
Condensed TRED Download Runtime	Penultimate Day Of Month

At the bottom, there is a button labeled "Edit Applicable Locations" with an arrow pointing right.

The following Global Blue specific fields and options are available:

Field/Option	Description
Desk Configuration Download Frequency	Desk configuration is visible from Data Maintenance - POS Support - Terminal Maintenance - Edit Tax Refund Configuration. Specifically, as the Eligibility Threshold and Service Type.
Desk Configuration Download Runtime	Not available when the Desk Configuration Download Frequency selected is daily. Otherwise, where the download selection is weekly, the drop down list enables the selection of a day of the week. When the frequency selected is monthly, the drop down list enables the selection of a day of the month to download.
Global Configuration Download Frequency	Global configuration is visible from Data Maintenance - POS Support - Terminal Maintenance - Edit Tax Refund Configuration - Tax Refund Countries.

Global Configuration Download Runtime	Not available when the Global Configuration Download Frequency selected is daily. Otherwise, where the download selection is weekly, the drop down list enables the selection of a day of the week. When the frequency selected is monthly, the drop down list enables the selection of a day of the month to download.
Blocked Countries Download Frequency	Blocked countries are visible from Data Maintenance - POS Support - Terminal Maintenance - Edit Tax Refund Configuration - Blocked Country Codes.
Blocked Countries Download Runtime	Not available when the Blocked Countries Download Frequency selected is daily. Otherwise, where the download selection is weekly, the drop down list enables the selection of a day of the week. When the frequency selected is monthly, the drop down list enables the selection of a day of the month to download.
Condensed TRED Download Frequency	The download frequency for the list of IIN ranges that are not eligible for tax free shopping. This list is available to view from Data Maintenance - Tendering - Card Recognition IIN Range Maintenance. Options are daily, weekly, monthly.
Condensed TRED Download Runtime	Not available when the Condensed TRED Download Frequency selected is daily. Otherwise, where the download selection is weekly, the drop down list enables the selection of a day of the week. When the frequency selected is monthly, the drop down list enables the selection of a day of the month to download.
Edit Applicable Locations	This option appears only on the Estate Manager and enables the selection of location regions and location types to run the process.
Manual Download	The download process can be effected manually in whole or in part using the Manual Download menu. Manual downloads have no effect on the timing of scheduled downloads. Manual downloads are available for: Desk Configuration; Global Configuration; Blocked County Configuration and Condensed TRED configuration

## Void Tax Free Receipt

Global Blue sends issue/reissue receipt print information but not a void receipt format. To configure a void receipt format go to Data Maintenance - POS Support - Receipt Format - Add New - Document Type - Void Tax Free Receipt Slip with a new ID of, say, GB1.

There are two receipt format entries for selection, namely Void Tax Free Receipt Details and Trailer Information Line. Add both to the receipt.

### Void Tax Free Receipt Details

The following fields are available for positioning on the receipt for Void Tax Free Receipt Details:

Field	Length	Description
Shop ID Number	3	As allocated by Global Blue
Desk ID Number	3	As allocated by Global Blue

Doc ID Number Entered	8	Tax Free Doc ID entered or scanned by the operator.
Total Gross Amount Entered	10	Total tax inclusive amount entered by the operator.
Transaction Result	20	Returned from the Global Ble server; for example: Void Successful.

Field alignment and font style can also be chosen.

### Trailer Information Line

The following fields are available for positioning on the receipt for the Trailer Information Line:

Field	Length	Description
Date	10	Supplied by Retail-J
Time	10	Supplied by Retail-J
Branch Number	8	Supplied by Retail-J
Terminal Number	4	Supplied by Retail-J
Cashier Number	4	Supplied by Retail-J
Text		Free format text to the width of the line.
Notes		Free format text to the width of the line.

### POS Menu

The POS menu differs according to the tax free service provider. POS menus are maintained from Data Maintenance - General - Menus. The POS menu in use is set from Data Maintenance - POS Support - Terminal Profile - Menu Set ID.

### POS Roles

The following POS roles should be configured in Data Maintenance - Users - Roles for the menu options to appear at POS.

- Request Tax Free Receipt
- Print Tax Free Receipt
- Void Tax Free Receipt
- Reissue Tax Free Receipt



## Global Blue POS Commands

The following commands should be configured in the Global Blue POS sub menu from: Data Maintenance - General - Menus.

- Request Tax Free
- Print Tax Free Receipt
- Reissue Tax Free Receipt
- Void Tax Free Receipt

Options	Type	Position	Description
	Command	1	Request Tax Free
	Command	2	Print Tax Free Receipt
	Command	3	Void Tax Free Receipt
	Command	4	Reissue Tax Free Receipt
	Command	Max	Back
	Menu		
	Command		
	Menu Link		

These menu options have matching POS roles that need selecting in order to appear on the POS.

## POS

The POS sales workflow associated with a Global Blue tax refund form is triggered manually or by the tax free eligibility determined by the IIN range of the payment card. The following activities are associated with a Global Blue tax refund form:

### Issue

Where a customer presents a payment card with a country of issue eligible for tax free shopping, the POS operator is asked to confirm tax free shopping eligibility.

The screenshot shows a POS interface window titled "Retail-J ObjectPOS Style - version R13.0". At the top, it displays "Branch: 000001 Terminal: 0001 Transaction: 0034". Below this is a table listing items:

Jacket	x 7	£560.00
BALANCE DUE		£560.00
No. of Items		7

To the right of the table is a yellow button labeled "Yes". Below the table is a blue button with the text "Is traveller eligible for tax free shopping?". At the bottom of the interface, the text "Total: £560.00" is displayed in a large font, with the timestamp "09 June 2014 14:24:25" below it. To the right of the total is a yellow button labeled "No".

Once confirmed and the card transaction is complete, the POS presents the operator with a traveller identifier form for completion. A bar code may be scanned to enter the Global Blue Card Number if required.

Retail-J ObjectPOS Style - version R13.0

Branch: 000001 Terminal: 0001 Transaction: 0031

Global Blue Card Number

Mobile Phone Number

Passport Number

Country

Other Identifier

**OK**

Enter Traveller Details Manually

Please enter one traveller identifier. Passport numbers must be accompanied with a selected country.

**Total: £0.00**

09 June 2014 14:00:18

7	8	9
4	5	6
1	2	3
0	.	CLR

**Cancel**

The traveller details are retrieved from the Global Blue Host based on the identifier provided by the traveller. In case the traveller is not affiliated with Global Blue, these details have to be captured manually.

The retrieved details are presented at the POS for confirmation.

Retail-J ObjectPOS Style - version R13.0

Branch: 000001 Terminal: 0001 Transaction: 0031

Passport Number X7777777

Surname Traveller

Forename John

Street Global Street 1

Post Code 100001

Town Moscow

Country Code

Email Address john.traveller@12345.com

Arrival Date (yyyy/MM/dd)

Departure Date (yyyy/MM/dd)

I have verified the traveller's identity by checking their passport and country of residence

**Total: £0.00**

09 June 2014 14:01:51

7	8	9
4	5	6
1	2	3
0	.	CLR

OK

Cancel

Once the operator has confirmed, a tax free refund voucher is printed:



**Global Blue**

GLOBAL BLUE FORM  
Retail Export Scheme (VAT 407)

-----  
**STANDARD SERVICE**  
-----

Global Blue UK  
11th Floor, GW2, Great West House  
Great West Road  
Brentford, TW8 9HU  
Tel No 00800 32 111 111 (Toll Free)  
Tel No 00421 232 111  
Fax +44(0)8707 6669 91  
www.globalblue.com

-----  
**RETAILER DETAILS** 31313  
-----



Doc-ID 150144.31313.5448.47068  
Micros RetailJ 12  
Adress 1  
Adress 2  
zipcode  
city - United Kingdom  
VAT Reg.No. 1231312  
The details on this form are correct and  
I am satisfied that this customer is  
entitled to use the VAT Retail Export  
Scheme. The customer has completed and  
signed the form in my presence.  
Retailer signature                      Date of issue  
X    10.06.2014

---

-----  
**CUSTOMER DETAILS**  
-----

Credit Card

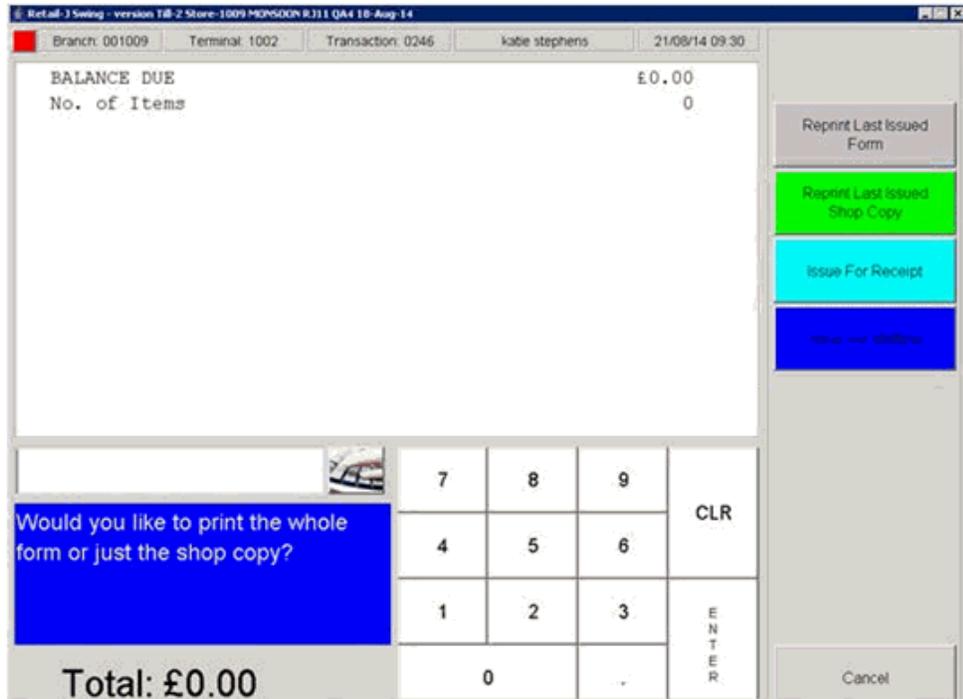
Passport/ID no.:  
X777777  
Full Name  
Traveller John  
Permanent Home Address  
Global Street 1  
Postcode/City  
100001/Moscow  
Country  
643 - RUSSIAN FEDERATION  
Arrival Date                              Departure Date

Final Destination Country  
643 - RUSSIAN FEDERATION

**DECLARATION:**  
I declare I am not resident in the EU or  
am an EU resident, student or migrant  
worker and intend to leave the EU for  
over 12 months. I intend to export the  
goods listed below from the EU within 3  
months after the month in which they  
were purchased and I understand that I  
am declaring this to UK Border Agency.  
I will delete any goods left in the EU  
before making a declaration to UK Border  
Agency.  
The information on this form is correct.

I confirm my acceptance of the Customer  
Declaration stated above.  
I consent to the processing of my  
personal data by Global Blue for refund  
of VAT as set out in the Privacy Policy  
overleaf or in a separate document  
hereby submitted to me.





If you attempt to use these options after that for example after automatic log out, at the end of each transaction no reprint facility is available.

### Reissue

To reissue the form, supply the original form's document ID and the total gross amount of the original transaction.

Reissuing the form creates a new form identical to the original but with a new document ID.

Retail-J ObjectPOS Style - version RJ13.0 - Offline

Branch: 000001 Terminal: 0001 **Transaction: 0038**

Original form Doc ID

Total gross amount

OK

Search

Please enter the Doc ID of the original form and the total gross amount.

**Total: £0.00**

10 June 2014 14:36:22

7	8	9
4	5	6
1	2	3
0	.	CLR

Cancel

## Void

A void tax free shopping receipt is produced manually or via a refund.

## Property Files

The following property file entries are available:

SwingComboBox.KeyStrokeInterval=NNNN - This allows you to override how long the POS retains your keystrokes when using the Hot Key facility within the drop-down country lists. It defaults to 300ms if you do not set it.

com.retailJava.javaPOS.taxrefund.globalBlue - Only add if you want debug info in the logfile.

## Centralised Serial Number Tracking

Centralised Serial Number tracking functionality is controlled by a new field, 'Central Serial Number URL', in Organisation Maintenance. If this URL is specified then Retail-J will point to this URL (typically the Estate Manager) to perform any Serial Number operations, rather than performing them on each local store server. The item/serial number combination is unique, that is, a particular item's serial number can only exist once, regardless of its location or inventory type.

A new maintenance page, 'Central Product Serial Numbers' is also available that shows the location and current status of any serial number in the system. This can be added to the Back Office menu using the following URL:

CentralProductSerialNumberEnquiry.jsp?enterOnLogin=true

Each Serial Number row lists the Serial Number, Location Name, Inventory Type and Date of Last Update. Clicking on any of the column headers will sort the data by that column.

A Data Conversion Utility is provided to merge all the existing serial number data into the central pool. The utility should be run once at the EM (or wherever the central pool

resides) and assumes that the database contains all the up-to-date serial number data for all serial numbers at all stores.

The utility can be run by calling the following Java class:

```
com.retailJava.retailFoundationClasses.database.CentraliseSerialNumbers [device_id] [folder_name]
```

where [device\_id] specifies the Device ID to use to connect to the Retail-J database, and [folder\_name] specifies the name of a local folder where any log files will be generated with messages to indicate the result of the conversion utility. If a serial number cannot be successfully written to the new table, for example because it exists at multiple locations and/or with multiple inventory types, then it will be skipped, with details written to the log. This serial number can then be dealt with manually. Failure to process a specific serial number will not fail the utility, which will simply carry on with trying to process the next serial number.

## Deliverables

### Retail-J Files

- rjAuditManager.jar
- rjBackOffice.jar
- rjBroadcaster.jar
- rjCardSubmission.jar
- rjComms.jar
- rjCore.jar
- rjCustomMultiChannel.jar
- rjDataImporter.jar
- rjExternalUpdates.jar
- rjFlash.jar
- rjhttpUtilities.jar
- rjJavaPOS.jar
- rjPlugins.jar
- rjProductInventory.jar
- rjRetailFoundationClasses.jar
- rjSecurity.jar
- rjSimulator.jar
- rjSMS.jar
- rjSoap.jar
- rjSoftwareVersionControl.jar
- rjSWT.jar
- rjUtilities.jar
- rjWorkflowCore.jar
- rjWorkflowEngine.jar
- rjXMLDB.jar
- rjBackOffice.war
- rjContentManagement.war

- rjExternalUpdates.war
- rjHelp.war
- rjIPOS.war
- rjServletPOS.war
- rjWebServices.war
- rjWebShop.war
- com.retailJava.javaPOS.properties (configurable)
- com.retailJava.submission.properties (configurable)
- com.torex.security.properties (configurable)
- com.torex.tokenisation.properties (configurable)

## Optional Components

Optional components are supplied where there is an agreement for the provision of specific functionality.

- rjSubmissionService.jar
- rjThinClientPOS.jar
- rjTokenisationService.jar
- rjVerifone.jar

## Third Party Components Required for the System to Operate

Deliverable	Version	Notes
axis.jar	1.2.1	Web services
BeanShell.jar	1.0	POS scripting
BlueCove.jar	1.0	Bluetooth Functionality
comm.jar	2.0	Serial communications
commons-discovery-0.2.jar	0.2	Web services
commons-fileupload-1.0.jar	1.0	HTTP file upload
commons-logging-1.0.4.jar	1.0.4	Web services
FTP.jar	2.0	FTP client
FTP2.jar	1.0	FTP client
geronimo-jms_1.1_spec-1.1.1.jar		
IngenicoUSBSupport.jar	1.0	
itext-1.3.jar	1.3	PDF API
itextpdf-5.2.0.jar		
j2ee.jar	1.4	Java extensions
javax.comm.properties		
jaxrpc.jar	1.1	Web services

jdom.jar	1.0	SmartSwitch (optional)
jmf.jar	N/A	Media API
jmxremote.jar	1.0.1.01b47	Remote management
jmxri.jar	1.2.1b14	Remote management
jmxtools.jar	1.2.8	Remote management
jpos113.jar	1.1.3	
jpos-controls.jar		
jpos172.jar	1.7.2	JPOS API
js.jar	1.0	JavaScript
junit.jar		
LinearBarCode.jar	2.1	Bar code display
log4j-1.2.13.jar	1.2.13	Web services
lucene-1.4.3.jar	1.4.3	Fuzzy search
mail.jar	1.3.1	
msbase.jar	2.2.0022	SQL Server 2000 JDBC driver
mssqlserver.jar	2.2.0022	SQL Server 2000 JDBC driver
msutil.jar	2.2.0022	SQL Server 2000 JDBC driver
mysql-connector-java-5.1.34-bin.jar	5.1.34	MySQL JDBC driver
ojdbc14.jar	10.1.0.4.0	Oracle JDBC driver (JRE 1.4)
PDFRenderer.jar		
qas6.jar		
RXTXcomm.jar		
saaj.jar	1.2	Web services
servlet-api.jar		
soap.jar	2.2	
sound.jar		
sqljdbc4.jar		SQL Server 2008 JDBC driver for JDK 1.6
upos-jpos.jar		
wSDL4j-1.5.1.jar	1.5.1	Web services
xalan.jar	1.2	XSLT processor (required for JRE 1.5 compiled version)
xerces.jar		
xercesImpl.jar		
xml-apis.jar		

## Optional Third Party Components

Deliverable	Version	Notes
activation.jar	1.0.2	Required for EReceipts (if using Java 1.4; note Java 1.4 is deprecated for use with Retail-J).
jaxen-1.1.1.jar	1.1.1	Required for EReceipts for XML Element Matching
mail.jar	1.3.1	Required for EReceipts
SolveLink.jar	1.0	SmartSwitch (optional)

## Test Completion Report 13.0

### Test Environment

Operating System		Windows 8.1 Pro *64 bit
		Windows 7 Professional *64 bit
Database		Oracle 11g Express Edition (11.2.0.2.0)
		Microsoft SQL Server 2014 *64 bit
		MySQL6.2
Web Application Server		Tomcat7.0
JDK Version		JDK 1.7.0_55
PED	Make	Verifone
	Model	VX820 CTLS
	Application Version	4.0.4.7
	Operating System Version	QT820240.0
	Make	Ingenico
	Model	IPP350
	Application Version	RAM0902

### Summary of Testing Retail-J 13

Full Cycles	1(Plus failure retest)
-------------	------------------------

Coverage	816 manual test cases were executed plus 163 Automated Regression test Suite to verify core functionality. Features Tested; Global Blue Implementation Enhancement of serial Number Tracking New embedded Browser for Retail-J Relate Stored Value Card Functionality Relate Customer/Customer History implementation
Regression Cycles	30 (Automated Regression Suite)

## Summary of Testing Retail-J 13-Payment

Full Cycles	1(Plus failure retest)
Coverage	AMEX Mandate Implementation of the Ingenico IPP350 (contact only) Pennies Values Displayed for DCC Transaction

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#### **Value-Added Reseller (VAR) Language**

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