



GS520 – Tax Calculation Service Basics in Globalization Studio

Tax compliance across multiple regions is one of the biggest challenges in ERP systems—especially for businesses that sell within the UK, across the EU, and internationally. Different VAT rates, reverse charge rules, exemptions, and country-specific laws demand a flexible, scalable solution. This is where the **Tax Calculation Service (TCS)** steps in.

In this article, you'll learn how to:

- ✓ Configure tax logic using Globalization Studio
- ✓ Support UK, EU, and Rest-of-World scenarios without X++
- ✓ Replace hardcoded tax logic with maintainable rules
- ✓ Use no-code tax rules for real transactions

🔗 Closely related to [GS504 – Applicability Rules](#) and [GS505 – Creating Custom Features](#)

What Is the Tax Calculation Service?

TCS is a Microsoft-hosted, no-code tax engine that calculates taxes dynamically based on:

- Transaction details (customer, item, shipping address)
- Applicability rules
- Configurable tax codes and conditions

It works across all legal entities and countries—perfect for distributed businesses needing consistent, auditable tax outcomes.

💡 Think of TCS as the rules-based “brain” that tells D365 how to apply tax—based on *who* you're selling to, *where*, and *what you're selling*.

When Should You Use TCS?

Use TCS when:

- You sell in multiple countries or have multi-VAT registration
 - You deal with reverse charge, intra-community supply, or zero-rated exports
 - You want to eliminate custom tax coding
 - You require audit-ready tax rules and traceability
-



Real-World Tax Scenarios (UK–EU–RoW)

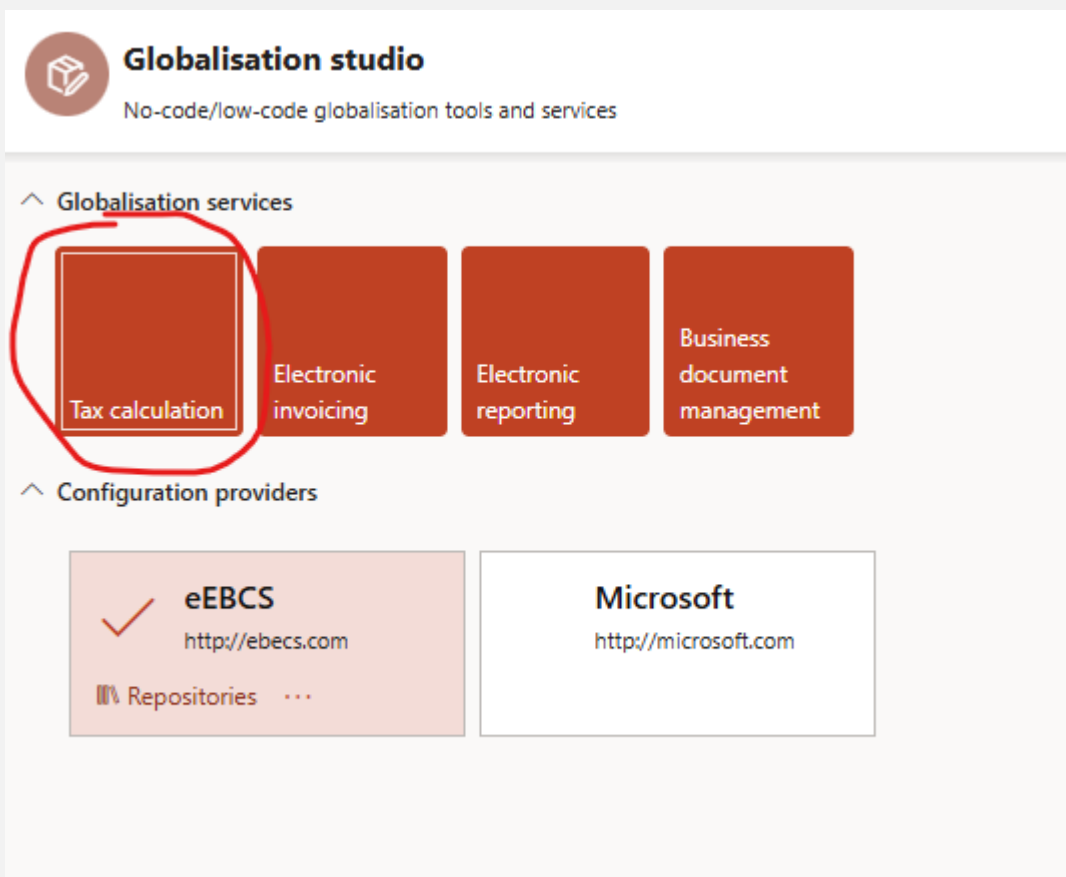
Scenario	TCS Rule Outcome
Sale from UK to a UK consumer	20% VAT applied
Sale from UK to an EU VAT-registered customer	0% VAT (Reverse Charge)
Sale from UK to customer outside the EU (RoW)	0% VAT (Export)
Intercompany transfer from UK to Spain	Use tax logic per destination

All of the above can be modeled using **applicability rules**, **tax group mappings**, and **custom tax codes**—without writing a single line of code.

Step-by-Step: Configuring TCS in Globalization Studio

☒ Step 1: Enable the Tax Calculation Service

1. Go to **Feature Management**
2. Enable **Tax Calculation Service** (preview or GA depending on version)





☑ Step 2: Create a Tax Calculation Feature

1. Go to **Globalization Studio > Features**
2. Create a new feature (e.g., UK-EU-RoW Tax Logic)
3. Choose **Tax Calculation** as the feature type

☑ Step 3: Configure Tax Codes

- Define tax codes: TS_STD (For Local Sales), TS_ZER (For EU sales with VAT number), TS_IE_REV (For EU sales with VAT Number)

■ No scripting or expressions required—just a clean designer UI



☑ Step 4: Configure Tax Groups

- Define Tax group as below

← Save Options 🔍

FEATURE VERSION
V3_Tax Calculation Feature-V.7 Draft

SOURCE LEGAL ENTITY
Source Legal Entity
[Dropdown]

ROUNDING PARAMETER
Enable rounding parameter
☐ No

Tax codes and groups
Tax codes Tax group Item tax group

+ Add Remove Manage columns Adjust execution sequence

Lines.Tax Group	Header.Business Process	Tax codes
<input checked="" type="radio"/> TS_EU	Sales	TS_IE_REV
TS_ZER	Sales	TS_ZER
TS_DOM	Sales	TS_STD

Used for sales to EU customers where reverse charge VAT logic applies.

Used for zero-rated sales (e.g., exports to RoW or special zero-rated goods).

Used for domestic UK sales, applying standard VAT rate.

- You can apply your logic to any of the following fields available for header and lines

Finance and Operations Search for a page

← Save Options

FEATURE VERSION
V3_Tax Calculation Feature-V.7 Draft

SOURCE LEGAL ENTITY
Source Legal Entity
[Dropdown]

ROUNDING PARAMETER
Enable rounding parameter
☐ No

Tax codes and groups
Tax codes Tax group Item tax group

+ Add Remove Manage columns Adjust execution sequence

1. Click Here to Manage columns for conditions

2. Available Fields Header and Lines

3. Your Chosen Columns

Use Arrows to make or Deselect columns

OK Cancel



✓ Step 5: Configure Item Tax Group

- Define Item Tax Group: I included all tax code under one Item Sales Tax Group as my scenarios is **driven by customer/tax group/location** than the product itself.

✓ Step 6: Configure Tax Applicability Group

- These rules enable D365 to pick the correct tax group (and thus tax codes) based on the **direction of goods** (domestic, EU, or RoW), ensuring tax logic aligns with UK VAT regulations.

From Country	To Country	Tax Group	Purpose
GBR	BIH	TS_ZER	Applies zero-rated tax for exports from the UK (GBR) to Bosnia and Herzegovina (non-EU country – treated as RoW)
GBR	ESP	TS_EU	Applies EU-specific tax logic (likely reverse charge) for sales from UK to Spain
GBR	GBR	TS_DOM	Applies domestic UK tax rules for local sales within the UK



FEATURE VERSION
V3_Tax Calculation Feature-V.7 Draft

Tax jurisdiction group

Applicability rules

Tax group applicability Item tax group applicability List code applicability Customer Tax Registration Number Applicability Vendor Tax Registration Number Applicability

+ Add Remove Manage columns Adjust execution sequence

Header:Business Process	Header:Ship From Country/Region	Header:Ship To Country/Region	Tax Group
Sales	GBR	BIH	TS_ZER
Sales	GBR	ESP	TS_EU
Sales	GBR	GBR	TS_DOM

☑ Step 7: Configure Tax Calculation Parameters

Field	Purpose
Enable advanced tax calculation	Turns on the use of the Tax Calculation Service instead of the standard D365 tax engine.
Name (Feature)	Selects the specific Tax Calculation feature version that contains your configured tax logic (e.g., rules, codes, applicability).
Version	Displays the version of the selected feature; it's automatically set and non-editable.
Business process	Indicates which business processes (e.g., Sales, Purchase) this tax calculation setup applies to.
Rounding precision	Defines the number of decimal places used when rounding tax amounts (e.g., 0.000000 for exact precision).
Rounding method	Determines how rounding is done — e.g., <i>Normal</i> (standard mathematical rounding) or <i>Round up/down</i> .
Rounding by	Specifies at what level tax rounding should occur — e.g., <i>Tax codes</i> means each tax code is rounded independently.
Calculation method	Defines whether tax is calculated per line (<i>Line</i>) or for the entire document total (<i>Document</i>).



Standard view

Save Options

Tax calculation parameters

General

Error handling

Multiple VAT registrations

Set up general information

Advanced tax calculation

Enable advanced tax calculation ☒ Yes

FEATURE	VAT ROUNDING RULE
Name V3_Tax Calculation Feature	Rounding precision 0.000000
Version 5	Rounding method Normal
Business process SalesPurchaseFre...	Rounding by Tax codes
	Calculation method Line

☑ Step 8: Run a Test

Local Sales (Legal company is set to Country UK)

Sales from UK to UK

- Create Sales order with Delivery within UK

← ≡ Edit + New Delete Sales order Sell Manage Pick and pack Invoice Commerce General

Sales order details | My view (1)

SO518292 :

Lines Header

Summary by Copilot

Sales order header

DELIVERY ADDRESS

Name
ABC UK

Delivery address
ABC UK

Address
ABC Street
tt12ss
GBR

Options

DEFAULT FINANCIAL DIMENSIONS

Brand
M

BusinessUnit
t00

Department

Brand

Brand



- The correct Tax combination picked for 20% calculation

Sales order details | My view (1) ▾

SO518292 : [REDACTED]

Lines Header

Sales order lines

+ Add line + Add lines Add products [X] Remove Deferrals Sales order line ▾ Financials ▾ Stock ▾ Product and supply ▾ Update line ▾ Warehouse ▾ Retail ▾ Add revenue split child item ▾ Billing sche

Type	Type	Variant number	Delivery type	Line number	Item number	Sub Range	Available physical	Warehouse
Sales order			Stock	1.0000000000	[REDACTED]	[REDACTED]	3.00	[REDACTED]

Total
1 rows

Line details

Trade Agreements General **Setup** Address Product Packing Delivery Sourcing Price and discount Project Foreign trade Financial dimensions Loads Financial tags

STOCK
Lot ID L00117108337
Reservation Manual

Auto batch reservation
☐ No
Same batch selection
☐ No

RETURNED ORDER
Return lot ID

Return cost price
3.32

Scrap
☐ No

POSTING
Main account

VAT
Item VAT group
TCL_All

VAT group
TS_DOM
Override VAT
☐ No

Sales from UK to BIH (Bosnia)

- The correct combination picked for 0% tax



Sales order details | My view (1) ▾

SO518292 : [REDACTED]

Lines Header

Sales order lines

+ Add line + Add lines Add products Remove Deferrals Sales order line Financials Stock Product and supply Update line Warehouse Retail Add revenue split child item Billing sched

Type	Type	Variant number	Delivery type	Line number	Item number	Sub Range	Available physical	Warehouse
Sales order			Stock	1.0000000000	5000		3.00	Luton

Total
1 rows

Line details

Trade Agreements General Setup Address Product Packing Delivery Sourcing Price and discount Project Foreign trade Financial dimensions Loads Financial tags

STOCK
Lot ID: L00117108337
Reservation: Manual

Auto batch reservation: No
Same batch selection: No

RETURNED ORDER
Return lot ID:

Return cost price: [REDACTED]
Scrap: No

POSTING
Main account: [REDACTED]

VAT
Item VAT group: TCLAII

VAT group: TS_ZER
Override VAT: No

Sales from UK to ESP (Spain)

- The correct combination of reverse VAT is calculated



Sales order details | My view (1) ▼

SO518292 : [REDACTED]

Lines Header

Sales order lines

Type	Type	Variant number	Delivery type	Line number	Item number	Sub Range	Available physical	Warehouse
Sales order			Stock	1.0000000000	5000		3.00	Luton

Total
1 rows

Line details

Trade Agreements General **Setup** Address Product Packing Delivery Sourcing Price and discount Project Foreign trade Financial dimensions Loads Financial tags

STOCK
Lot ID: L00117108337
Reservation: Manual

Auto batch reservation: No
Same batch selection: No

RETURNED ORDER
Return lot ID: [REDACTED]

Return cost price: [REDACTED]
Scrap: No

POSTING
Main account: [REDACTED]

VAT
Item VAT group: TCI_All

VAT group
TS_EU
Override VAT: No

Tax Jurisdiction and Tax Jurisdiction Parameters

Tax Jurisdiction

A **Tax Jurisdiction** defines the **geographical area** where specific tax rules apply — for example, a country, state, province, or even a city.

✓ Example:

Imagine company sells goods from the UK to Spain and the U.S.

- In the UK and Spain, you deal with **VAT**.
- In the U.S., tax is calculated based on **states and cities** (like California, New York, etc.).

By using **tax jurisdictions**, you can define these locations **separately** so that the system knows **which tax rate or rule to apply based on where you're shipping or selling**.

Tax Jurisdiction Parameters

Tax Jurisdiction Parameters control **how** the jurisdiction is determined during a transaction and which **data field** D365 should use to match it (e.g., delivery address, warehouse, customer registration, etc.).

✓ Example:



Let's say:

- You're delivering from **UK to France**.
- You want tax to be calculated **based on the customer's shipping address**.

With jurisdiction parameters, you tell the system:

"Use the *Ship-to Country* to determine the jurisdiction."

That way, tax logic will be driven by the **destination country**, not where the company is located.

All Applicability Rules

Tax group applicability

Purpose: Decides **which Tax Group** to apply based on conditions (e.g., country, business process).

Use Case:

If you're shipping from the UK to:

- Spain → apply **TS_EU**
- Bosnia → apply **TS_ZER**
- UK → apply **TS_DOM**

Item tax group applicability

Purpose: Controls which **Item Tax Group** applies depending on product or scenario.

Use Case:

Use "**TCl_Export**" only if the item is flagged as an export product, otherwise use "**TCl_Standard**".

List code applicability

Purpose: Uses **INTRASTAT list codes or commodity codes** to trigger specific tax behavior.

Use Case:

If a product belongs to a list code like "Medical Equipment", apply **reduced VAT** in France. Useful for industry-specific exemptions.

Customer Tax Registration Number Applicability

Purpose: Applies different tax logic based on **customer's VAT registration status**.



Use Case:

If the customer has a valid EU VAT number → apply **Reverse Charge** (0% VAT).

If not → apply **local VAT**.

Vendor Tax Registration Number Applicability

Purpose: Applies specific tax rules based on **vendor's VAT registration status**.

Use Case:

If a vendor is VAT-registered in a different EU country → **don't deduct VAT**, apply **reverse charge** logic.

Key Tools for Troubleshooting Tax Logic

Tool	Purpose
Tax Calculation Diagnostics	Shows how rules were evaluated and what matched
Transaction Tax Details	Shows final tax decisions and rates used
Posting Preview	Displays expected GL and tax entries before posting

Tips for Smooth Implementation

Tip	Why It Matters
Use Microsoft-delivered templates	Get started faster with baseline country rules
Avoid overlapping applicability	Prevents unexpected rule collisions
Simulate in UAT with real data	Reduces production surprises
Use naming conventions	Easier for audit trails and team understanding
Document business rules by country	Supports tax reviews and local authority audits

Related Articles in the Series

- [GS504 – Applicability Rules](#)
- [GS505 – Creating Custom Features](#)
- [GS511 – Localizing for Unsupported Countries](#)
- [GS514 – Routing and Storage for ER and TCS](#)



Coming Up Next

In [GS521 – Managing Providers and Repositories in Globalization Studio](#), we'll explore how to keep your compliance features organized and upgrade-safe using providers and repositories. You'll learn how to:

- Set up your own configuration provider (e.g., Contoso Ltd)
- Use Microsoft-delivered features without modifying them directly
- Connect and structure Dataverse repositories across Dev, UAT, and Prod
- Support ALM and team collaboration using Power Platform solutions

 Continue reading: [GS521 – Managing Providers & Repositories](#) →