Gravity Forms EN16931 (e)Invoices for Gravity-PDF

User Documentation

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Quick Setup

This add-on turns the invoice PDF that Gravity PDF already creates into an **electronic invoice** according to EN 16931 – in whichever format your recipient needs:

- **Factur-X / ZUGFeRD** – the EN 16931 XML is embedded into the PDF, and the document is rewritten as **PDF/A-3** hybrid;
- **XRechnung** – a standalone UBL XML file next to the PDF;
- **PEPPOL BIS Billing 3.0** – a standalone UBL XML file next to the PDF.

Any combination can be chosen per feed. All formats are built from the same invoice data, so they can never disagree. Your form, your PDF template and your workflow stay unchanged – the PDF looks exactly as before.

Requirements

- **WordPress 6.0** or later
- **PHP 8.2** or later
- **Gravity Forms 2.5** or later, with a product or payment field on the form
- **Gravity PDF 6.0** or later – the invoice template is recommended, but not required
- Nothing else: the XML library ships with the plugin. No API key, no external service, no per-invoice fee

INSTALL

1. Upload and activate the „EN16931 (e)Invoices for Gravity-PDF“ plugin.
2. Fill in the **EN16931 Seller Settings** under **Forms → Settings → (e)invoice Settings**. Company name, country and either a VAT identifier or a tax number are the minimum.
3. Open a form with a Gravity PDF, go to **Settings → EN16931 (e)Invoices** and add a feed: choose the PDF, the format(s) and map the buyer fields.
4. Submit the form and open the PDF. Download links for the generated files appear on the entry detail screen.

Upload and Activate

Upload

After you have downloaded and saved the „EN16931 (e)Invoices for Gravity-PDF“ plugin, upload it to your WordPress installation.

Go to **Plugins** → **Add New**, click **Upload Plugin** at the top and choose the downloaded ZIP file in the upload field.

After selecting the file, click the **Install Now** button.

Activate

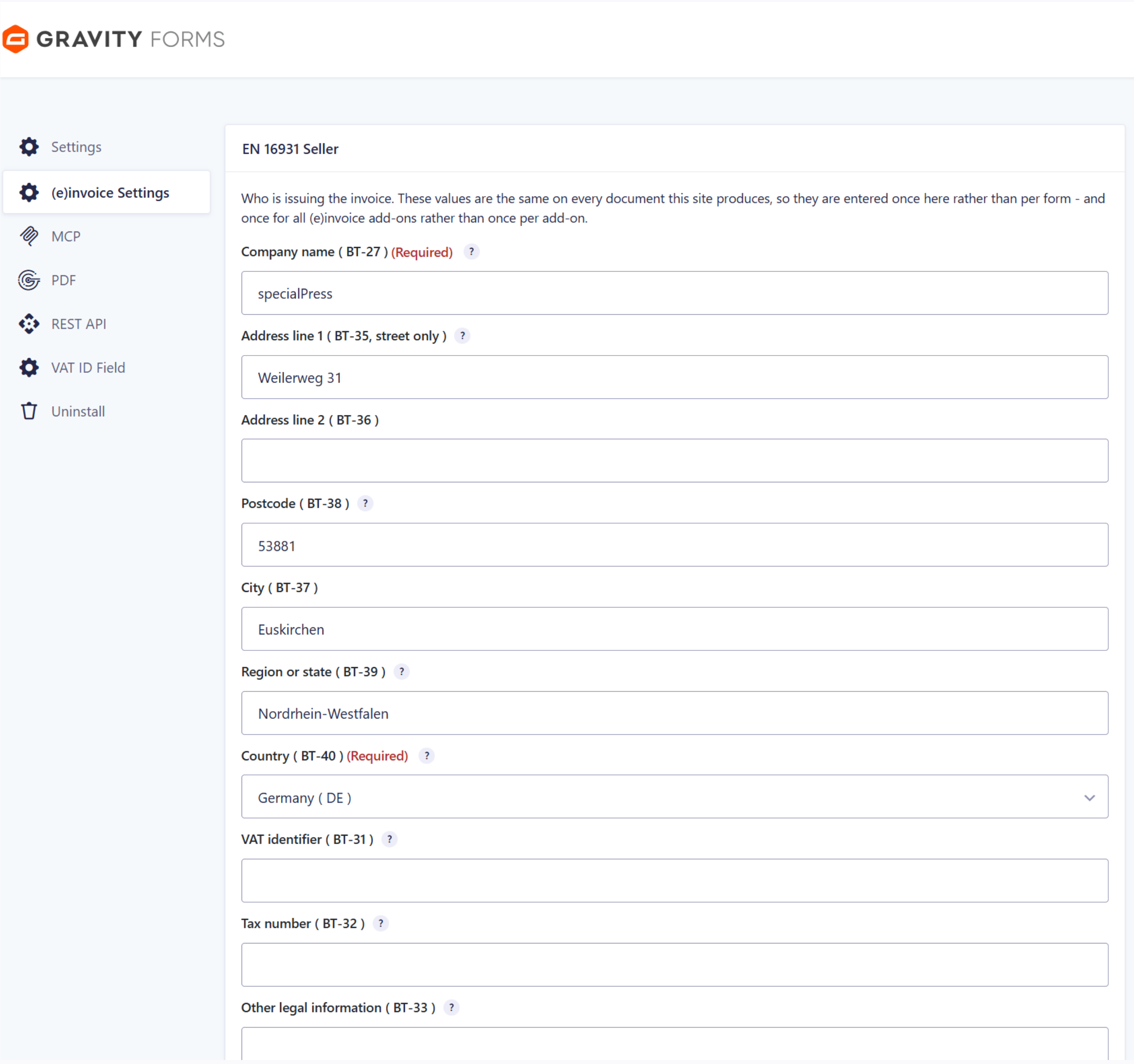
Once the plugin has been uploaded, WordPress shows a success screen. Click **Activate Plugin** to activate it.

> **Upgrading from the ZUGFeRD / Factur-X Extension:** the plugin was renamed in version 2.1.1 to "EN16931 (e)Invoices for Gravity-PDF", because it now also creates XRechnung and PEPPOL files. PHP 8.2 is required since then.

Setup your Settings

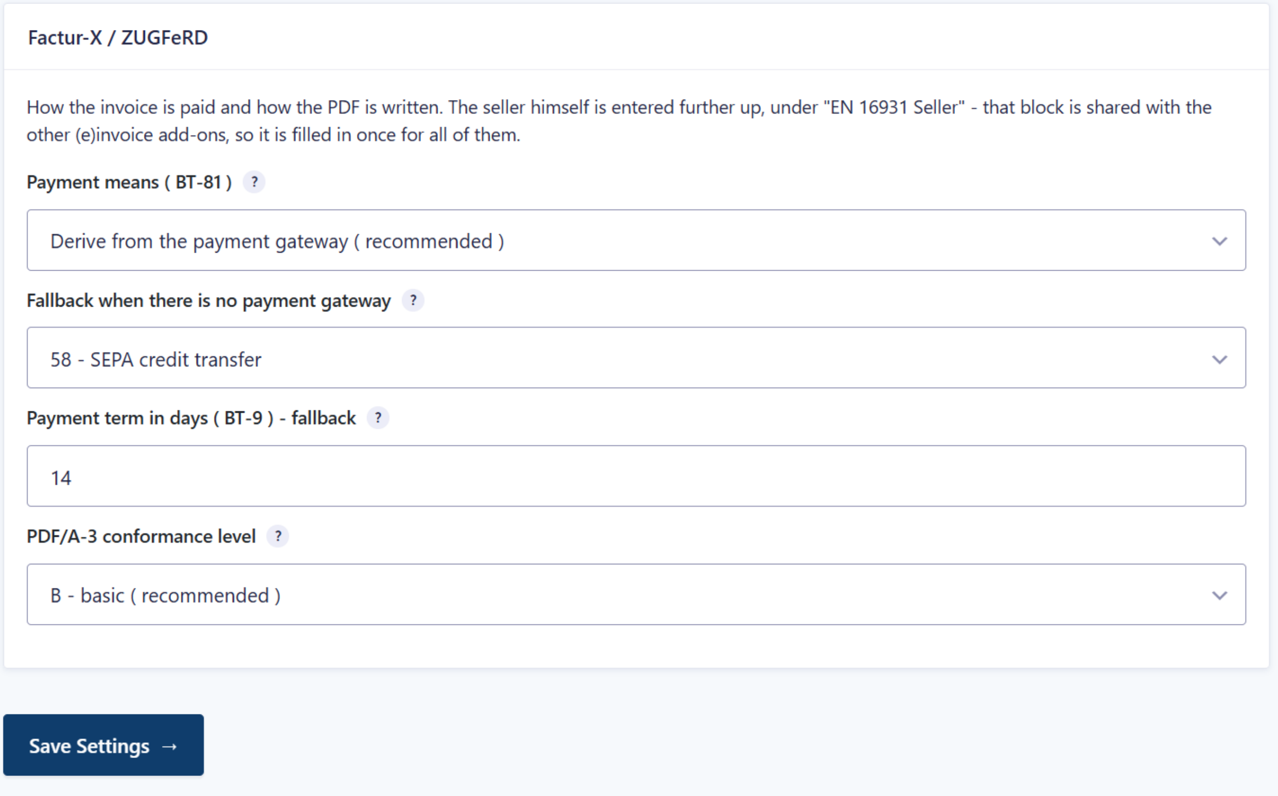
The seller is the same on every invoice, so it is entered **once** – not per form or feed. Go to **Forms → Settings → (e)invoice Settings** and fill in the section **EN16931 Seller Settings (BG-4, BG-5 and BG-6)**. The page is shared with the other (e)invoicePress add-ons such as EPC-QR and Swiss QR-Bill.

Screenshot: (e)invoice Settings – EN16931 Seller Settings



[Forms → Settings → (e)invoice Settings, section "EN16931 Seller Settings"]

Screenshot: (e)invoice Settings – EN16931 Seller Settings



[Forms → Settings → (e)invoice Settings, section "EN16931 Seller Settings"]

Fieldname	BT	Description
Company name (required)	BT-27	The seller name. Mandatory in the standard.
Other legal information	BT-33	Free text, e.g. legal form, register court and number.
Address line 1 / 2	BT-35 / BT-36	Street and additional address line.
Postcode / City	BT-38 / BT-37	
Country (required)	BT-40	The country list is taken from Gravity Forms.
VAT identifier	BT-31	Validated for country prefix and length.
Tax number	BT-32	The alternative for businesses without a VAT identifier.
Contact person	BT-41	
Telephone / E-mail	BT-42 / BT-43	

Fieldname	BT	Description
Electronic address + scheme	BT-34	Required in practice for XRechnung and PEPPOL - see note below.
Payment means	BT-81	Default: derive from the payment gateway.
Fallback payment means	-	Used when an entry has no payment gateway; 58 (SEPA credit transfer) by default.
Payment term in days	BT-9	Fallback only - the Gravity PDF invoice template wins.
Factur-X profile	BT-24	EN 16931 (Comfort), EXTENDED, BASIC or XRechnung 3.0.
PDF/A-3 conformance level	-	B, U or A. B is the recommended default.
IBAN / BIC / Account holder	BT-84 / 86 / 85	Bank details, shared with the EPC-QR add-on.

> **Seller identification:** the standard requires at least one of VAT identifier or tax number (rule BR-CO-26). Neither field is marked required on its own – the feed screen tells you if both are empty.
>
> **XRechnung / PEPPOL:** fill in **Electronic address** and **Electronic address scheme**. Without them, recipients that validate against the PEPPOL rule set may reject the invoice, even though the EN 16931 core rules do not require it.

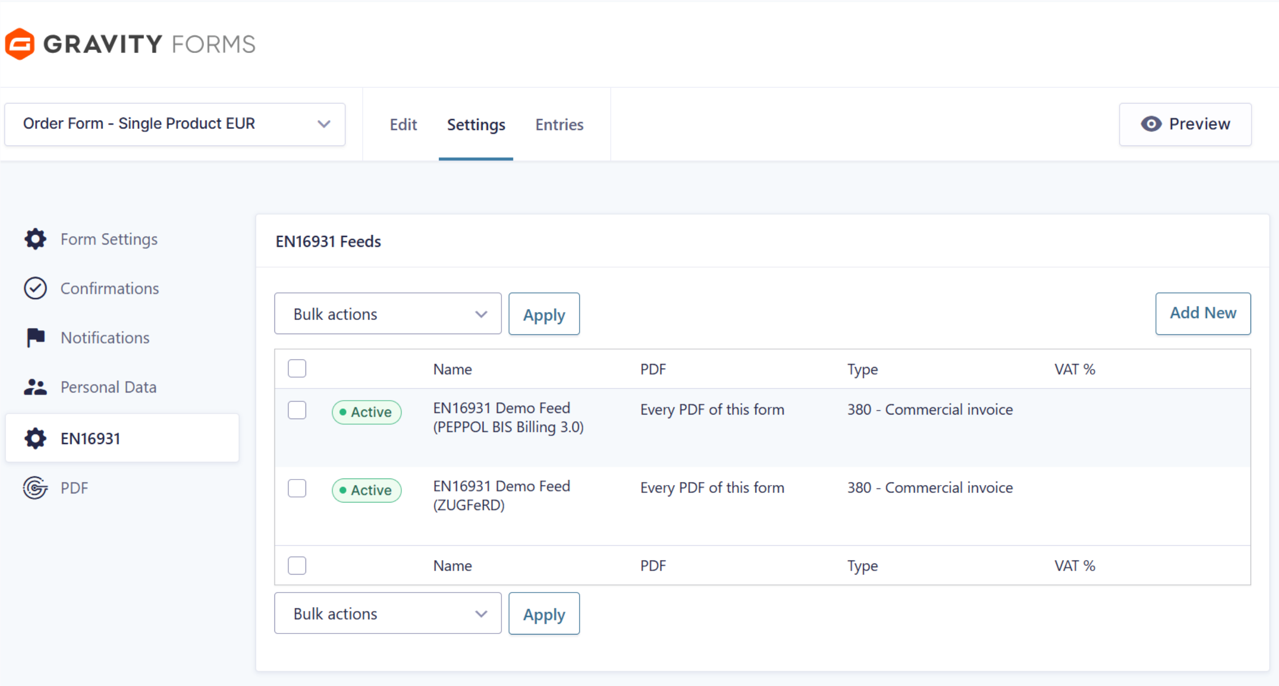
Further optional fields

The page also offers optional fields used by other add-ons of the family – short name, legal form, trading name, register details, GLN/DUNS, a SEPA Creditor Identifier (stored encrypted), numbering patterns and tolerances. You can leave them empty for this add-on.

Setup your Feed

You create one feed per PDF that should become an invoice. Open the form, go to **Settings → EN16931 (e)Invoices** and click **Add New**.

Screenshot: EN16931 (e)Invoices feed list



[Form → Settings → EN16931 (e)Invoices with the "Add New" button]

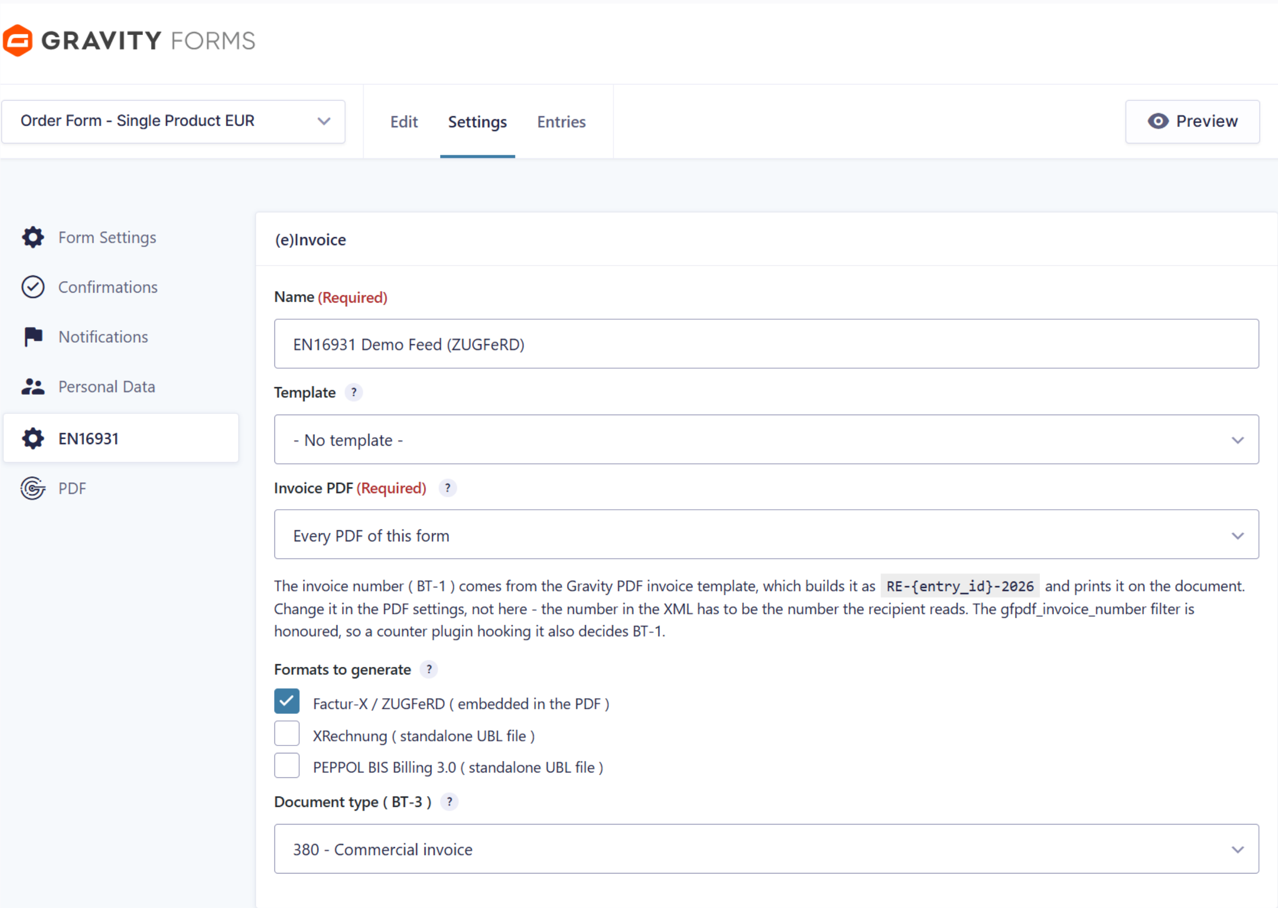
The feed is organised in the following sections:

Section	Contents
This feed cannot run yet	Only shown when something is missing - the list of blockers (see "Checks and Troubleshooting").
Invoice	Name, the PDF that is the invoice, invoice number, document type and the format(s) to generate.
VAT	VAT category code, exemption reason code and text, VAT rate, gross/net pricing.
Buyer	Name, reference, address, VAT identifier and contact details of the buyer.
Notes, period and charges	Free text and its qualifier, billing period, document-level charge.

Section	Contents
Behaviour	Force regeneration and intercept display/download.
Conditional logic	Standard Gravity Forms conditional logic.

INVOICE AND FORMATS

Screenshot: Feed section "Invoice"



[PDF selection and the format checkboxes Factur-X / XRechnung / PEPPOL]

Format	Result
Factur-X / ZUGFeRD	The XML is embedded into the PDF, which is rewritten as PDF/A-3. The customer receives one file.
XRechnung	A standalone UBL XML file next to the PDF.
PEPPOL BIS Billing 3.0	A standalone UBL XML file next to the PDF.

For XRechnung and PEPPOL you can additionally attach the invoice PDF to the XML file as a **supporting document** (BG-24). For Factur-X this is not offered – the PDF already is the container.

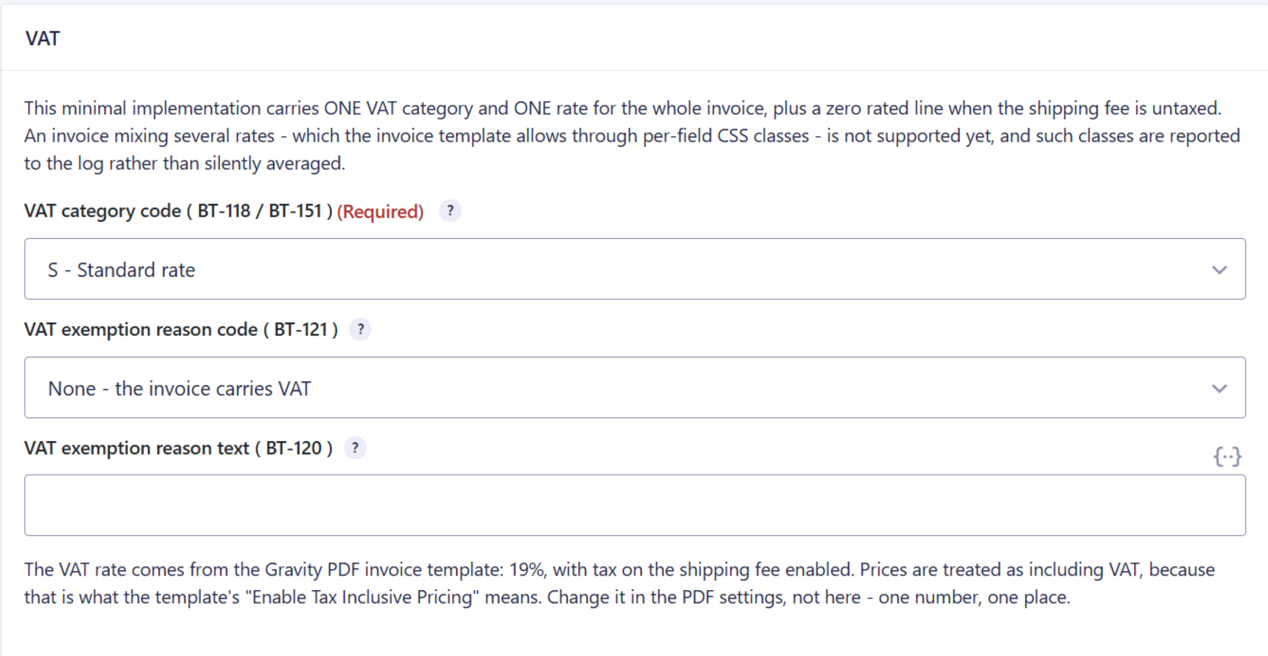
VAT

The invoice carries **one** VAT category and **one** rate:

- **VAT category code** (BT-118, required) – S, Z, E, AE, K or G;
- **VAT exemption reason code** (BT-121) – from the VATEX code list;
- **VAT exemption reason text** (BT-120) – free text, merge tags supported.

For exempt or reverse-charge categories (E, AE, K, G, O) the standard requires **either** the reason code **or** the reason text. Category Z (zero rate) needs no reason.

Screenshot: Feed section "VAT"

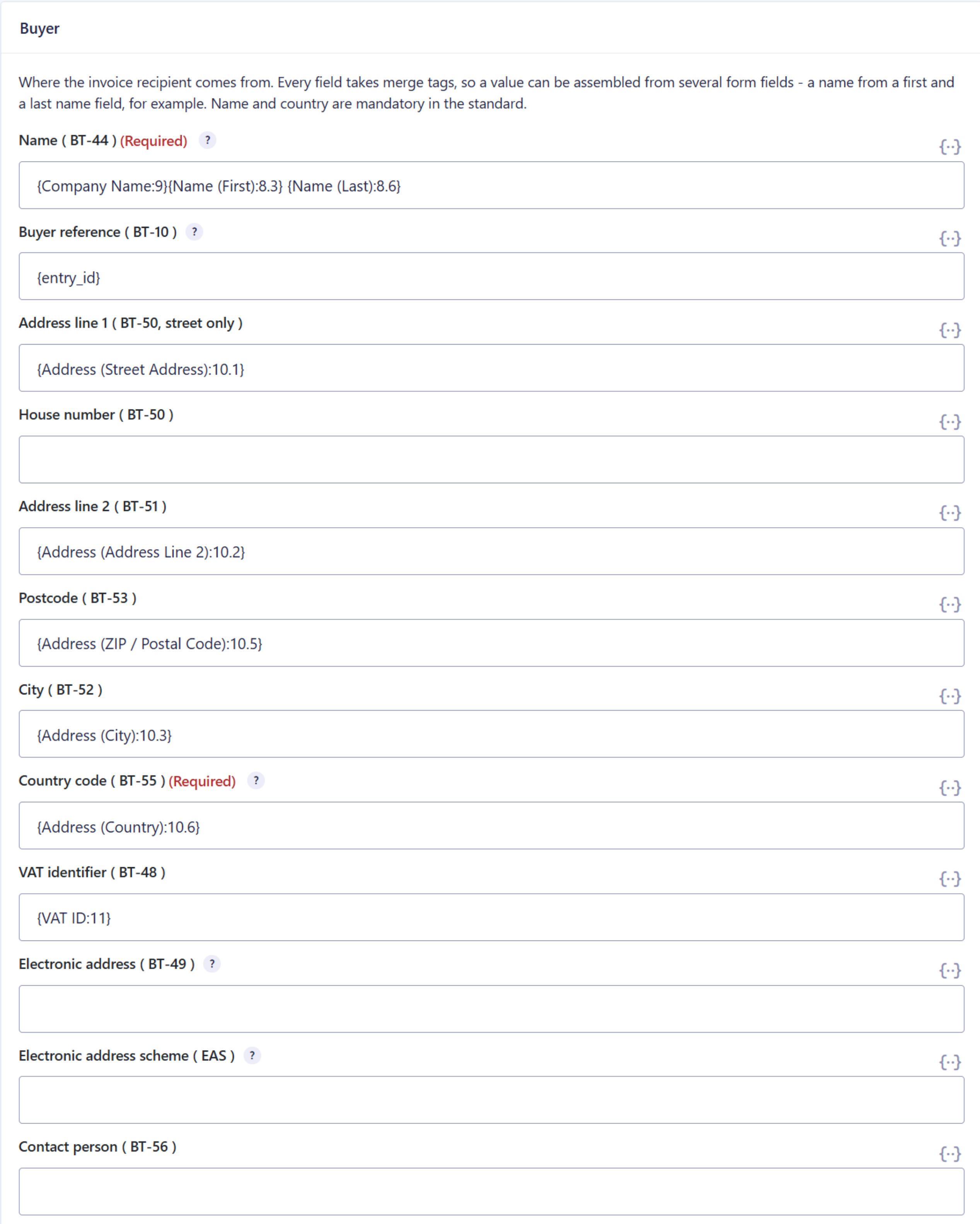


[VAT Section]

> **Untaxed shipping:** if shipping is not taxed, the add-on automatically adds a second VAT breakdown line with category Z at 0 %, so the XML never claims VAT on an amount that the PDF shows as untaxed.

Buyer

Screenshot: Feed section “Buyer”



Buyer

Where the invoice recipient comes from. Every field takes merge tags, so a value can be assembled from several form fields - a name from a first and a last name field, for example. Name and country are mandatory in the standard.

Name (BT-44) (Required) ?

{Company Name:9}{Name (First):8.3} {Name (Last):8.6}

Buyer reference (BT-10) ?

{entry_id}

Address line 1 (BT-50, street only)

{Address (Street Address):10.1}

House number (BT-50)

Address line 2 (BT-51)

{Address (Address Line 2):10.2}

Postcode (BT-53)

{Address (ZIP / Postal Code):10.5}

City (BT-52)

{Address (City):10.3}

Country code (BT-55) (Required) ?

{Address (Country):10.6}

VAT identifier (BT-48)

{VAT ID:11}

Electronic address (BT-49) ?

Electronic address scheme (EAS) ?

Contact person (BT-56)

[the buyer field mapping]

Map the buyer data to your form fields. Every buyer field accepts merge tags, so a value can be assembled from several form fields. **Buyer name** (BT-44) is required. In the address, **only the country** is mandatory according to the standard – street, postcode and city are optional.

Conditional logic

The feed does nothing at submission. The invoice is assembled when the PDF is created – when a notification is sent, a download link is clicked or an entry is opened. The condition is therefore checked **against the saved entry** at that moment.

How it works

Because everything happens while the PDF is being created, a **corrected entry produces a corrected invoice**: edit an entry in the backend, fetch the PDF again, and the document and all XML files are rebuilt from the current values.

1. Gravity PDF builds the PDF from your template, unchanged.
2. The add-on reads the entry, the feed, the shared settings and the PDF settings and assembles the invoice.
3. Totals and the VAT breakdown are checked against the rules of EN 16931.
4. For Factur-X, the XML is validated against the XSD, embedded, and the PDF is rewritten as PDF/A-3.
5. For XRechnung / PEPPOL, a standalone XML file is written next to the PDF.

> **Your PDF is never broken.** If the XML does not validate or anything else goes wrong, the original PDF is delivered unchanged and the reason is written to the Gravity Forms log.

Values from the invoice template

The Gravity PDF invoice template already prints an invoice number, a due date and a VAT rate. Where it does, the template decides and the corresponding feed field is hidden – so the printed invoice and the XML always agree.

Value	Taken from	Fallback
Invoice number (BT-1)	Template prefix + number + suffix, then the gfpdf_invoice_number filter	Feed field, then the entry ID
Due date (BT-9)	Template setting “due date” (days)	Shared setting “payment term”
VAT rate (BT-152)	Template tax settings	Feed field
Tax on shipping	Template setting	Feed field

A due date of **0** in the template means “do not print a due date” – the add-on then does not add one either. A counter plugin that renumbers the printed invoice via `gfpdf_invoice_number` renumbers the XML as well.

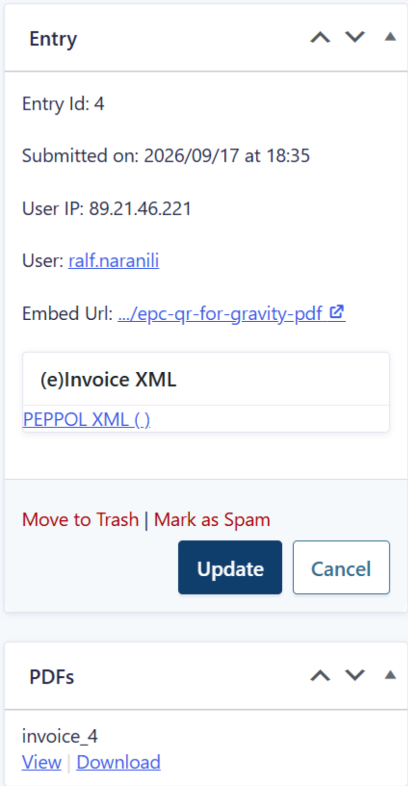
Products, shipping and payment means

- Products and quantities come from the Gravity Forms product fields.
- The shipping field becomes a **document-level charge** (BT-99), exactly as EN 16931 models it.
- The **payment means** follows the payment gateway: PayPal or Stripe become “online payment service”, a card payment “bank card”; entries without a gateway use the fallback from the settings.

Downloads and notifications

Any XRechnung or PEPPOL file a feed produces gets its own **download link on the entry detail screen**. In the Gravity Forms notification settings you can choose to **attach the generated file(s)** to the e-mail, alongside the PDF.

Screenshot: Entry detail with download links



[entry detail screen with the PDF and XML download links]

Checks and Troubleshooting

Pre-conditions

The feed screen shows a list of blockers **before** you configure anything. The same checks run when the PDF is created and are written to the log:

1. the XML **library** is missing (it ships in the plugin's `vendor` folder);
2. the reference **code lists** cannot be read (they ship in the `data` folder);
3. **Gravity PDF** is not active, or the form has no PDF configured;
4. the **seller block** is incomplete – named field by field, including the VAT identifier / tax number rule.

Required fields

Only what EN 16931 really demands is marked required: company name, seller country, buyer name, buyer country, VAT category and – while visible – the VAT rate. Values the add-on already knows (invoice number, invoice date, document type, currency) are never demanded from you.

Before you go live

- The XML is validated against the **XSD**, which catches structural errors, but **not every business rule**. Run one generated invoice through a **Schematron / KoSIT validator** – and through the viewer your recipient uses.
- Check that the printed PDF and the XML show the same invoice number, due date and totals.
- Enable logging under **Forms** → **Settings** → **Logging** for the add-on to see every decision and error.

> **Note:** as soon as this add-on is active, Gravity PDF always saves generated PDFs to disk – this is a side effect of how Gravity PDF works, not a setting of the add-on.

Limitations of this version

- **One VAT category and one rate per invoice**, plus the zero-rated shipping line. Different rates per field (CSS classes `tax-{rate}-{label}` in the invoice template) are detected and logged, not averaged.
- **No credit notes** – only invoices are created.
- **No further document-level allowances or charges** beyond the shipping charge.
- **PDF/A-3 level B** is the level the add-on can guarantee. Level A requires a tagged PDF and depends on your template.
- The **buyer's electronic address** (BT-49) has no feed field yet. Recipients validating strictly against the PEPPOL rule set may still reject the buyer side.

For Developers

Reading the seller settings

```
EInvoicePress_Settings::get( 'en16931_seller_name' );
EInvoicePress_Settings::has( 'en16931_seller_vat_id' );
```

Seller keys are prefixed `en16931_seller_*` and are meant to be read by every add-on of the family. The plugin's own technical settings use the prefix `zugferd_*`.

Filters

Filter	Purpose
sp_zugferd_payment_means_map	Extend the mapping payment gateway → payment means code (UNTDID 4461).
sp_zugferd_full_code_lists	Offer a full code list instead of the curated subset.
gfpdf_invoice_number	Gravity PDF's own filter, respected for the invoice number (BT-1).

Example – map your own gateway to payment means 68 (online payment service):

```
add_filter( 'sp_zugferd_payment_means_map', function ( $map, $entry ) {
    $map['gravityformsmygateway'] = '68';
    return $map;
}, 10, 2 );
```

Building an invoice in code

The arithmetic and validation class is framework-free and never throws – every problem is returned as a string:

```
$result = SP_EInvoice_Invoice::build( array(
    'seller'  => array( 'name' => '…', 'country' => 'DE', 'vat_id' => '…' ),
    'buyer'   => array( 'name' => '…', 'country' => 'AT' ),
    'invoice' => array( 'number' => '…', 'date' => $timestamp, 'currency' => 'EUR' ),
    'lines'   => array( array( 'name' => '…', 'quantity' => 2, 'unit_price' =>
500.0 ) ),
) );
SP_EInvoice_Invoice::check_totals( $result['invoice'] );
// 'ok' => bool, 'invoice' => array, 'errors' => array, 'notes' => array
```

Changelog

2.1.2

- Fixed: the seller's electronic address (BT-34) is now included in XRechnung and PEPPOL XML – verified with the KoSIT Validator. Fill in the "Electronic address" fields under (e)invoice Settings if you send XRechnung or PEPPOL invoices.

2.1.1

- Renamed from "Gravity Forms ZUGFeRD / Factur-X Extension" to "EN16931 (e)Invoices for Gravity-PDF".
- New: XRechnung and PEPPOL BIS Billing 3.0 as standalone UBL files, selectable per feed; optional PDF as supporting document; download links and notification attachments. PHP 8.2 required.
- Bank details (BT-84/85/86) joined the shared seller settings.
- Code lists can come from a shared, centrally maintained package, with automatic fallback.
- New optional fields on the shared settings page used by other add-ons of the family.

1.0.0

- Initial release: EN 16931 CII XML embedded into a PDF/A-3 document with four profiles, assembled at render time.
- Invoice number, due date and VAT rate taken from the Gravity PDF invoice template.
- Payment means derived from the payment gateway; zero-rated VAT line for untaxed shipping.
- German and French interface.