SL Variants Builder

Build and bulk-import complex WooCommerce variable products

Version 1.5.9 | WordPress Plugin User Manual

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1. Overview

SL Variants Builder lets you build, edit, and bulk-import WooCommerce variable products without wrestling with WooCommerce's native variation interface. Create 100+ variations in minutes, merge simple products into variable ones, import thousands of rows from CSV, and manage per-variation image galleries — all from one admin area.

- **Create / Edit Variants** — a full product form: info, attributes, variations, stock, pricing, images
- **Combine Products** — merge multiple simple products into one variable product
- **Advanced Import** — CSV import with batching, pause/resume, and error reporting
- **Custom Galleries** — multiple drag-and-drop images per variation
- **Review Tracking** — mark products reviewed and filter by status
- **Data Integrity** — SKU validation, deduplication, and attribute sync, including a dedicated SKU Conflict Checker

Component	Minimum
WordPress	5.8
WooCommerce	5.0 (tested up to 9.0)
PHP	7.4

> **WooCommerce required:** the plugin shows an admin notice and will not initialize if WooCommerce is not installed and active.

2. Installation

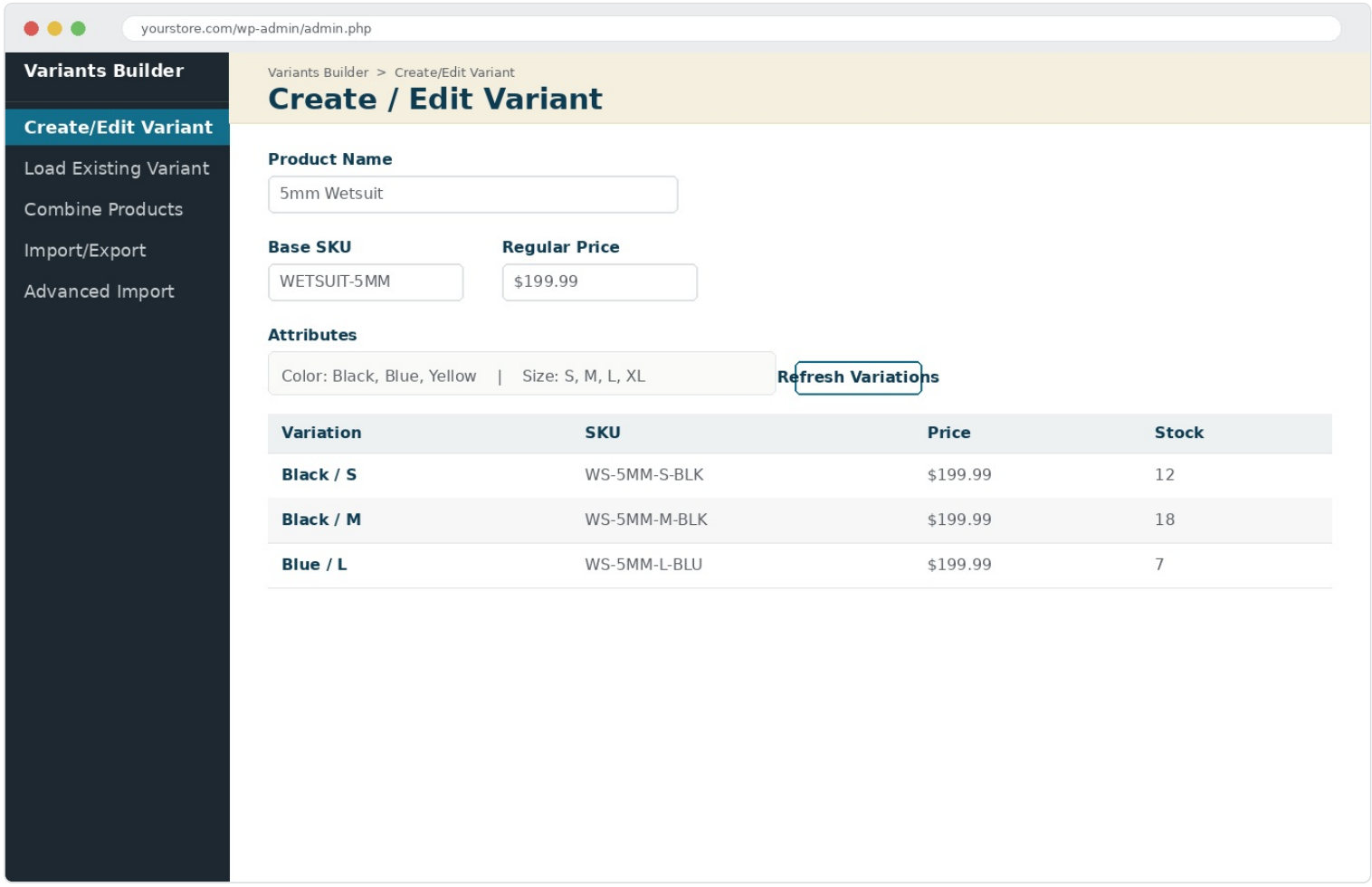
1. Go to **Plugins → Add New → Upload Plugin** and select the ZIP (or upload the `streamline-variants-builder` folder via FTP).
2. Find **SL Variants Builder** on the Plugins page and click **Activate**.
3. Confirm you see the **Variants Builder** menu with three sub-pages:

Sub-page	Purpose
Create/Edit Variant	Build or edit variable products — Create/Edit, Combine Products, Separate Variant Product, and Load Existing tabs
Import/Export	Standard CSV export of existing products and a simple import
Advanced Import	Batch CSV import for large catalogs with progress tracking, pause/resume, and error logs

3. Create/Edit Variant

This is the main builder screen (**Variants Builder → Create/Edit Variant**) — the first of the plugin's four tabs, and where you build a variable product from scratch, field by field.

3a. Creating a New Variable Product



Create/Edit Variant — attributes, a Refresh Variations step, and the generated variation rows.

1. Go to **Variants Builder → Create/Edit Variant**.
2. Fill in basic product info: Name, Description, SKU, Categories, Price, Brand, Cost of Goods, GTIN/UPC/EAN, stock settings.
3. Click **Add Attribute** and choose a global attribute or create a custom one, then add its values.
4. Click **Refresh Variations** to sync attributes to the variation rows below.
5. Fill in each variation — attribute values, SKU, price, stock, images.
6. Upload product images in the images section; drag to reorder.
7. Click **Save Variant Product**.

> **Always click Refresh Variations after editing attributes:** skipping this means attribute changes won't reach the variation rows, and your save may produce inconsistent data.

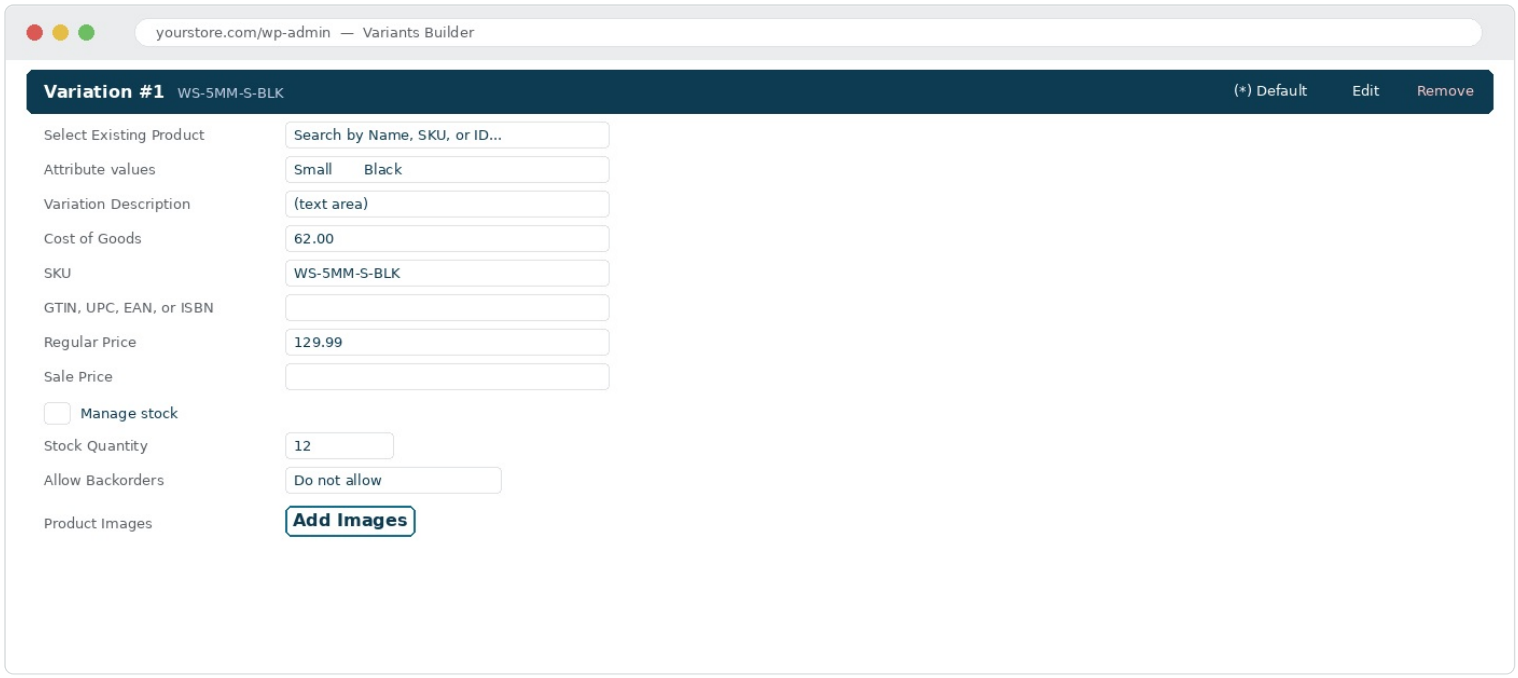
3b. Attributes & Variations

Step 1: Add an Attribute

1. Click **Add Attribute**. A new numbered attribute row appears, with a drag handle (☰) for reordering it against other attributes.
2. Set **Attribute Type**: **Use Existing Attribute** (a global WooCommerce attribute like Color or Size, shared across your whole store) or **Create Custom Attribute** (one-off, product-specific, typed by name — e.g. "Size, Color" as a hint — and not available to other products).
3. For an existing attribute, pick it from **Select Attribute**. For a custom one, type its name.
4. Add its **Values**: type into the search box and press Enter to add a value as a chip (existing attributes suggest matching terms as you type). Drag chips to reorder them, or click a chip's × to remove it.
5. Check **Use WordPress attribute order** if you'd rather the chip order match the term order already defined under WooCommerce's own attribute settings, instead of the order you're arranging them in here.
6. Leave **Visible on product page** checked to show this attribute on the storefront, and **Used for variations** checked so it actually drives variation combinations — uncheck Used for variations for something you want displayed as information only (like "Material: Neoprene") without generating a variation dropdown for it.

> **Click Refresh Variations after changing attributes:** the button next to "Variant Products" (with a tooltip reading exactly this) regenerates the variation list to match your current attribute values — always click it after adding, removing, or reordering attribute values, before you start filling in each variation's own fields.

Step 2: Add or Edit Variations



A single variation row, expanded — every field it can hold.

Click **Add Variation** for a blank row, or let Refresh Variations generate one row per attribute combination automatically. Each variation row collapses to a single summary line (its number, SKU, and a Default radio button) until you click **Edit** to expand it:

Field	Notes
Select Existing Product	Search by Name, SKU, or ID to pull an already-existing simple product's data straight into this variation slot — a fast way to convert simple products you already have into variations without re-entering everything
Attribute values	The specific combination that identifies this variation (e.g. Large / Blue) — one dropdown per attribute marked "Used for variations"
Use parent values for all fields	A shortcut checkbox that copies the parent product's price, stock settings, and other fields down onto this one variation — handy when every variation shares the same price and only the attribute combination differs
Variation Description	Variation-specific text shown on the product page, separate from the parent's own description
Cost of Goods	Internal cost tracking, not shown to customers
SKU	This variation's own SKU — must be unique across your entire store. Not affected by the parent's SKU Generation Method (Section 3); type it directly or leave blank.
GTIN, UPC, EAN, or ISBN	Barcode field for this specific variation
Regular Price / Sale Price	Leave Sale Price blank if there's no discount on this variation
Manage stock	Enable to reveal Stock Quantity and an Allow Backorders dropdown (Do not allow / Allow, but notify customer / Allow) — set independently per variation
Product Images	One or more images specific to this variation (e.g. the photo for the Blue option specifically), separate from the parent product's own gallery (Section 3)

Each variation row also has its own **Default** radio button (which variation is pre-selected when a customer first lands on the product page), an **Edit**/collapse toggle, a **Remove** link, and a drag handle for reordering. Use **Sort by SKU (A→Z / Z→A)** above the variation list to reorder every variation at once by its SKU instead of dragging them individually.

3c. Images & Galleries

Upload one or more images in the parent product's images section — the first is the featured image, and dragging reorders them (order saves automatically).

Mode	Behavior
Single Image	One image per variation; replaces the main product image when that variation is selected

Custom Gallery	Multiple images per variation, forming a full gallery that updates on selection — compatible with Blocksy theme galleries

Replace Mode overwrites the existing image set with new uploads; **Append Mode** adds to the existing set; **Delete Images** removes selected images from the parent or a variation.

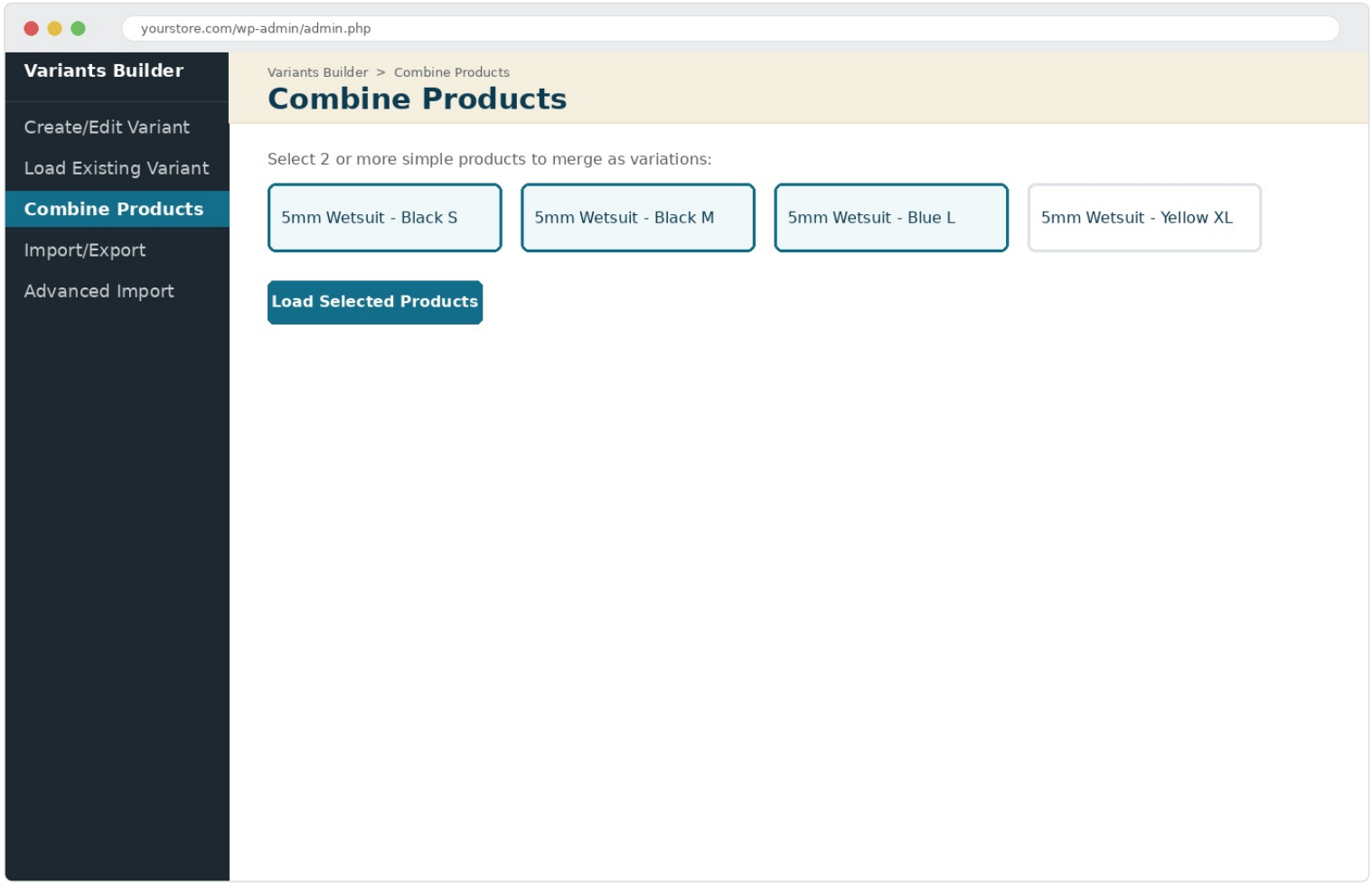
> **Tip:** click and hold any thumbnail, then drag — a blue border and shadow mark the item being moved, with a placeholder showing the drop position.

3d. SKU Generation

Method	Result	Example
Custom SKU	You enter the parent SKU manually	WETSUIT-5MM
Auto Generate	Unique timestamp-based SKU created automatically	VAR-1709123456-42
SKU+XXXX	Your base SKU with a literal `-XXXX` suffix	ABC123-XXXX
SKU-VAR	Your base SKU with a literal `-VAR` suffix	ABC123-VAR

The base SKU field stays visible for reference no matter which method is selected. Variations always keep their own individual SKUs — only the parent SKU is affected by this setting.

4. Combining Simple Products

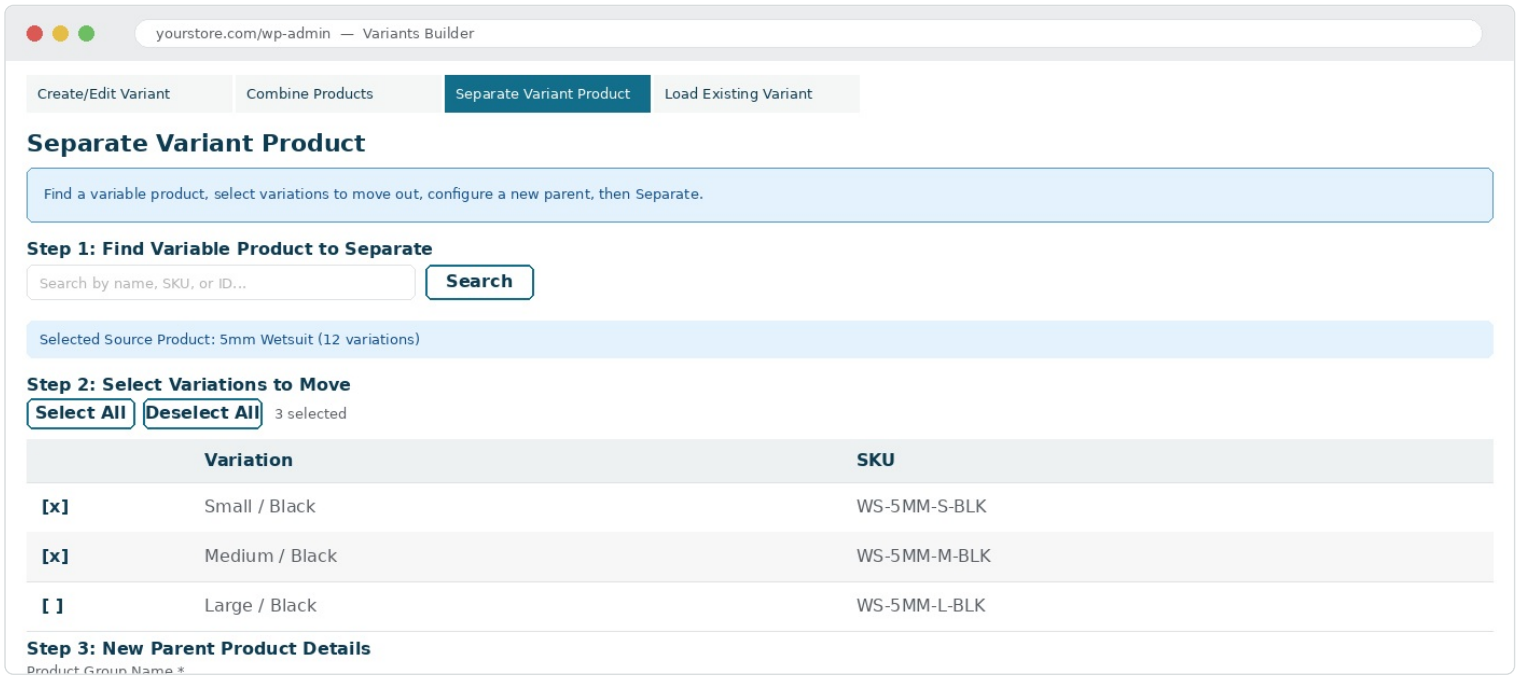


Combine Products — select simple products to merge into one variable product.

1. Filter or search for the products you want to combine.
2. Click products to select them (a green border marks selected — pick 2 or more).
3. Drag selected products to reorder them; the first product is treated specially in the next step.
4. Choose a parent mode: **Use First Product as Parent** (its Product ID becomes the variable parent; the rest become variations) or **Create New Parent** (a fresh parent is created from the first product's data; all selected products, including the first, become variations).
5. Click **Load Selected Products** to populate the Create/Edit form.
6. Add attributes (e.g. Color, Size) and click **Refresh Variations**.
7. Set each variation's attribute values, review SKUs, prices, and images.
8. Click **Save Variant Product** to complete the merge.

> **Attributes are not auto-added:** products load into the form for review — you still need to manually add attributes and click Refresh Variations before saving.

5. Separate Variant Product



Separate Variant Product — the reverse of Combine: pull specific variations out into their own new product.

This tab does the opposite of Combine Products (Section 4): instead of merging simple products together, it splits specific variations *out* of an existing variable product and turns them into a brand new variable product of their own.

Step 1: Find the Variable Product to Separate

1. Type into **Search Product** by name, SKU, or ID, and click **Search**.
2. Click the matching product. It's confirmed under **Selected Source Product**, with a **Clear** link if you picked the wrong one.

Step 2: Select Variations to Move

Every variation on the source product is listed. Check the ones you want to pull out into the new product — use **Select All** / **Deselect All** for convenience. The count of currently selected variations is shown next to those buttons.

Step 3: Configure the New Parent Product

Fields here are pre-filled from the source product, but every one is editable before you commit:

Field	Notes
Product Group Name	Required — the name for the new variable product
SKU Generation Method	The same four choices as on the main Create/Edit tab (Section 3d): Custom SKU, Auto Generate, SKU+XXXX, or SKU-VAR
Description, Categories, Brand/Vendor	For the new product
Regular Price	The new product's own base price
Enable stock management at product level, Stock Quantity	Independent of the source product's own stock settings
Cost of Goods, GTIN/UPC/EAN/ISBN	For the new parent product

Step 4: Separate

1. Click **Separate Variations**.

> **This is permanent:** the selected variations are removed from the original product and moved into a newly created variable product. The original product is updated to no longer include them. This cannot be undone automatically — double-check your selection in Step 2 before clicking Separate.

> **When to use this:** a product line that's grown too large or mixed (for example, splitting a wetsuit's kids' sizes off into their own product separate from the adult sizes), or undoing an earlier Combine that grouped things together in a way that no longer makes sense.

6. Loading an Existing Product & Reviewed Status

The **Load Existing Variant** tab shows a card browser of all your variable products.

Control	Function
Search box	Filter by product name, SKU, or product ID
Filter dropdown	Show All, Reviewed Only, or Unreviewed Only
Sort dropdown	By ID (newest/oldest), Name (A–Z/Z–A), or SKU (A–Z/Z–A)

Clicking a card opens it in the Create/Edit form (new window). **Edit WooCommerce** opens it in the standard WooCommerce editor, and **View Frontend** opens the live product page.

Reviewed Status Workflow

For large catalogs (800+ products), track your audit progress: set the filter to **Unreviewed Only**, open each product to verify it, close it, then check the **Reviewed** box on its card — the card turns green and is hidden from the Unreviewed filter going forward. This status is stored in the database and persists across sessions and users.

7. Import / Export

Go to **Variants Builder → Import/Export**. This is the simpler of the plugin's two import tools — best for smaller batches. For hundreds or thousands of rows at once, use Advanced Import instead (Section 8), which uses a different, one-row-per-variation CSV layout better suited to bulk spreadsheet editing.

Exporting

Click **Export to CSV** under Export Variant Products to download every variable product in your store, in the same packed format described below — useful as a backup, or as a starting point you can edit and re-import.

Importing

1. Click **Download Template** first if you need a starting file with the correct headers already in place.
2. Click **Select CSV File** and choose your file.
3. Click **Import from CSV**.

CSV Format for This Page

Unlike Advanced Import's one-row-per-variation layout, this format packs an entire product group — parent info, every attribute, and every variation — onto a **single CSV row**:

Column	Description
Product ID	Leave empty to create a new product, or provide an existing product's ID to update it
Product Name	The parent product's name
Description	The parent product's description
SKU	The parent product's own SKU
Categories	Pipe-separated (e.g. `Clothing|Apparel`)
Brand	Brand/vendor name
Attributes	Semicolon-separates each attribute; within one attribute, a colon separates its name from its pipe-separated values — e.g. `Size:S|M|L;Color:Red|Blue`
Stock Qty, Backorders, Cost of Goods, GTIN	Same meaning as on the Create/Edit screen (Section 3), applied at the parent level
Variations	One packed entry per variation, separated by semicolons. Each entry lists its attribute values joined by `|`, then `@`-separated SKU and Price — e.g. `attribute_size=S|attribute_color=Red@TSHIRT-S-R@19.99`

Full example row:

```
Product ID,Product Name,Description,SKU,Categories,Brand,Attributes,Stock Qty,Backorders,Cost of Goods,GTIN,Variations
,T-Shirt,"Comfortable cotton t-shirt",TSHIRT-001,Clothing|Apparel,MyBrand,"Size:S|M|L;Color:Red|Blue",100,no,5.00,123456789012,"attribute_size=S|attribute_color=Red@TSHIRT-S-R@19.99;attribute_size=M|attribute_color=Blue@TSHIRT-M-B@19.99"
```

> **This format vs. Advanced Import's format:** this page's packed, single-row-per-product layout is quick to hand-edit for a handful of products, but gets unwieldy at scale — the long semicolon/pipe/@ packed values are easy to mistype in bulk. Advanced Import's one-row-per-variation layout (Section 9) is easier to manage in a spreadsheet for large catalogs, which is why the two tools use different formats rather than sharing one.

8. Advanced Import (Large Catalogs)

1. Go to **Variants Builder → Advanced Import**.
2. Click **Choose File**, select your CSV, then **Next** — the plugin parses and groups the file by `group_key`.
3. Review the grouped products and variation counts on the preview screen; errors and warnings show here.
4. Configure import options: **Batch Size** (smaller is safer on slow/shared hosting), **Update Existing Products**, **Preserve Existing Data**, and **Enable Custom Gallery** (processes image columns into per-variation galleries as a second pass).
5. Click **Start Import**. Pass 1 creates/updates products; Pass 2 (if enabled) attaches images. A real-time progress bar tracks both.
6. Download the successful-imports CSV and/or the failed-imports CSV with error details.

Rows in CSV	Recommended Batch Size
Under 500	10–25
500–2000	5
2000–5000	3
5000+	1

> **Pause & resume:** click Pause at any time — products already imported are saved. Click Resume to continue from where you left off.

> **Don't close the browser tab:** the import runs in the browser. Closing the tab stops it, though products processed before closure are retained.

9. Advanced Import — CSV Format Reference

This is the CSV layout used specifically by Advanced Import (Section 8) — one row per variation, not the packed single-row-per-product format used by the basic Import/Export page (Section 7).

Required Columns

Column	Description	Example
group_key	Unique identifier shared by every row belonging to the same parent product	WS-001
product_name	Parent product name — same value on every row in a group	5mm Wetsuit
sku	Unique SKU for this specific variation	WS-5MM-S-BLK

Attribute Columns

Pattern	Type	Example
attribute_pa_color	Global WooCommerce attribute (prefixed `pa_`)	Black
attribute_material	Custom product-specific attribute (no prefix)	Neoprene

Optional Columns

Column	Description
variation_description	Variation-specific description
regular_price / sale_price	Numbers only
stock_qty	Integer
cost_of_goods	Internal cost for profit tracking
category / tags	Product category name / comma-separated tags
image_1 ... image_10	Full image URLs or media library attachment IDs

Example row:

```
group_key,product_name,sku,attribute_pa_color,attribute_pa_size,regular_price,image_1
WS-001,5mm Wetsuit,WS-5MM-S-BLK,Black,Small,199.99,https://example.com/img1.jpg
```

10. SKU Conflict Checker

The **SKU Conflict Checker** (at the bottom of the Create/Edit Variant screen) scans your entire catalog for SKUs that are shared by more than one product or variation — a common source of checkout and inventory errors. Click **Check for SKU Conflicts** to run the scan; each conflict lists the SKU and every product/variation using it, with a direct edit link and a delete option for cleaning up the duplicate right from the results table. This same conflict-checking tool is shared with Streamline POS.

11. Troubleshooting & Quick Reference

Issue	What to check
Variations don't show on the frontend	Open the product in WooCommerce → Variations tab → click "Generate variations" → Save. If that doesn't resolve it, use the included Variation Sync Tool (upload `variation-sync-tool.php` to the plugin folder and visit it with `?product_id=XXXX`).
Attribute values disappear after saving	Usually a term ID/name mismatch — the current version resolves this automatically. If it persists, run the Variation Sync Tool for that product.
SKUs not saving on variations	Check for duplicate SKUs — failures log as "SVB: ✖ SKU failed:" in `/wp-content/debug.log`. Enable debug mode with `WP_DEBUG` / `WP_DEBUG_LOG` in wp-config.php to see them.
Import times out (503 error)	Reduce batch size to 1–3, and ask your host to increase `max_execution_time`.

Build a new variable product	Create/Edit Variant → add attributes → Refresh Variations → fill in rows → Save
Merge simple products into one	Combine Products → select 2+ → choose parent mode → Load Selected Products
Bulk import a catalog	Advanced Import → upload CSV → set batch size → Start Import
Find duplicate SKUs	Create/Edit Variant → SKU Conflict Checker → Check for SKU Conflicts
Track audit progress on a big catalog	Load Existing Variant → filter Unreviewed Only → check Reviewed per product

12. Version History

What's changed in each release of SL Variants Builder, in plain language — for reference and troubleshooting.

Version	Date	What Changed
1.5.9	—	Current version — reflected throughout this manual, including the SKU Conflict Checker (Section 10) and automatic handling of attribute term ID/name mismatches (Section 11).
1.1.4 – 1.1.1	—	Maintenance releases — compatibility and stability improvements, no documented user-visible changes.
1.1.0	—	Added Combine Products (Section 4), drag-to-reorder images for parent products and variation galleries (Section 3c), and enhanced SKU generation with Custom, Auto Generate, SKU+XXXX, and SKU-VAR methods (Section 3d). Also fixed GTIN/UPC/EAN/ISBN fields not populating on load, parent descriptions and images not loading correctly, and several other SKU and image-drag bugs.
1.0.0	—	Initial release: create and edit variable products, bulk attribute management, advanced CSV import with batch processing (Section 7, Section 8), a custom gallery system, auto-detection of existing variations, SKU validation, and WooCommerce HPOS compatibility.

About this table: the plugin's readme.txt changelog stops at 1.1.4, so the specific version each later feature shipped in (1.1.5–1.5.8) can't be individually verified — this includes real, substantial work such as the frontend variation-filtering rewrite for Blocksy theme compatibility and the SKU Conflict Checker. These are reflected in the manual body but not dated here. Every future update gets a dated row here going forward.