

# Centralizing Static Site Generators

**Title:** Centralizing Static Site Generators

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**Classification:** Reference Manual

## 1. Purpose

To ensure consistency, scalability, and maintainability across all digital publishing projects at MGU, static site generators (Eleventy, Hugo, etc.) are centralized in a dedicated workspace:

```
C:\mgu\software
```

This standard prevents tool sprawl across individual project folders and enables multiple projects to share a single, stable set of site-building utilities.

## 2. Directory Structure

```
C:\mgu\software
├── eleventy
├── hugo
└── other-build-tools
```

```
C:\mgu\library
├── eleventy
│   ├── src          ← Markdown, templates, CSS
│   └── _site        ← Generated HTML output
├── hugo
│   └── content      ← Project-specific assets
```

- **Software** → tools and dependencies.
- **Library** → content, templates, and published artifacts.

## 3. Installing Eleventy

Open PowerShell and execute:

```
cd C:\mgu\software\eleventy
npm init -y
npm install @11ty/eleventy --save-dev
```

**Explanation:**

- `cd ...` → navigate to the Eleventy workspace.
- `npm init -y` → initialize `package.json` for dependency tracking.
- `npm install @11ty/eleventy --save-dev` → install Eleventy locally.

## 4. Building a Site

To generate HTML from source Markdown and templates:

```
npx @11ty/eleventy --input "C:/mgu/library/eleventy/src" --output "C:/mgu/library/eleventy/_site"
```

### Parameters:

- `--input` → source folder (`src`) containing Markdown, templates, CSS.
- `--output` → target folder (`_site`) for the compiled website.

### Optional (live preview):

```
npx @11ty/eleventy --input "C:/mgu/library/eleventy/src" --output "C:/mgu/library/eleventy/_site" --serve
```

- Rebuilds automatically on file edits.
- Serves locally at `http://localhost:8000`.

## 5. Automated Build Script

Create a script in `C:\mgu\software\eleventy\build-eleventy.ps1`:

```
# Navigate to Eleventy folder
cd C:\mgu\software\eleventy

# Start Eleventy in serve mode
Start-Process powershell -ArgumentList {
    npx @11ty/eleventy --input "C:/mgu/library/eleventy/src" --output "C:/mgu/library/eleventy/_site" --serve
}

# Wait a few seconds for the server to start
Start-Sleep -Seconds 5

# Open the site in your default browser
Start-Process "http://localhost:8000"
```

### Run via PowerShell:

```
cd C:\mgu\software\eleventy
.\build-eleventy.ps1
```

## 6. Shortcut for One-Click Builds

1. Right-click inside `C:\mgu\software\eleventy`.
2. Select **New** → **Shortcut**.
3. Enter the following target:

```
powershell.exe -ExecutionPolicy Bypass -File "C:\mgu\software\eleventy\build-eleventy.ps1"
```

4. Name the shortcut: **Build Eleventy**.
5. Double-click to serve and open the site in the browser automatically.

## 7. Benefits of Centralization

- **Consistency:** All developers use the same tool versions.
- **Efficiency:** Prevents duplication across projects.
- **Scalability:** New projects reference existing tools immediately.
- **Governance:** Simplifies updates, patching, and dependency management.
- **Maintainability:** Clean separation between *tools* (software) and *content* (library).
- **Interoperability:** Supports multiple site generators under one standardized structure.