

AutoCAD and Its Applications **BASICS**

Template Development—Chapter 2

Initial Template Setup

Template Development Objectives

You will complete the following tasks during this stage of template development:

- ✓ Determine and set plot style behavior.
- ✓ Save mechanical, architectural, and civil drawing template files.
- ✓ Assign drawing properties.
- ✓ Set template-specific drawing units.
- ✓ Set up appropriate drawing limits.

The initial stage of template development includes adjusting the plot style behavior, creating the template file, and defining basic drawing properties and settings. The templates you create in this textbook focus on specific drafting discipline standards and use exact template setup values. You can use many different or alternative options based on specific school or company standards.

Determining and Setting Plot Style Behavior

The first step in creating a template is to consider the plot style table you will ultimately use when printing or plotting a drawing. It is best to identify the desired plot style behavior before you create your template to avoid having to convert the plot style table later. Chapter 6 introduces printing. Chapters 28 and 29 cover printing in greater depth.

You can choose to use a color-dependent plot style table or a named plot style table. The templates created in this textbook assume that drawings plot so that all objects appear dark and black, with different object linetypes and lineweights. You can use either a color-dependent plot style table or a named plot style table to achieve this effect. Default AutoCAD plot style behavior is set to use color-dependent plot styles. This textbook focuses on and recommends using color-dependent plot styles. Chapter 28 fully explains color-dependent and named plot styles. If you decide named plot styles are more appropriate for your drawings, refer to Chapter 28 for information on preparing your templates to use named plot styles.

Mechanical Drafting—Inch Template Development

Follow these steps to create a template to use for inch-unit mechanical drafting projects. This template uses ASME drafting standards and will eventually contain layouts for plotting on A-, B-, C-, D-, E-, and F-size sheets. This template uses a 1:1 drawing scale.

1. Access the **Select template** dialog box.
2. Pick the flyout next to the **Open** button and select the **Open with no Template – Imperial** option.
3. Save the file as an AutoCAD drawing template (.dwt) file using the name Mechanical-Inch.
4. In the **Template Options** dialog box, enter the description Mechanical Inch Template – A, B, C, D, E, F Size Sheets, Full Scale; select **English** from the **Measurement** drop-down list; and pick the **Save all layers as reconciled** radio button.
5. Adjust or create the following drawing properties in the **Properties** dialog box. Leave all other values blank, or add appropriate values.
 - Title: Type TITLE as a placeholder and to indicate the appropriate uppercase format
 - Author: Type your initials in uppercase letters
 - Hyperlink base: Type the address of your school or company website, or www.g-w.com
 - Custom properties:

| Name | Default Value |
|-----------|---|
| APPROVED | Type the initials of your instructor or supervisor in uppercase letters |
| CAGE CODE | |
| CHECKED | Type the initials of your instructor or supervisor in uppercase letters |
| COMPANY | Type the name of your school or company |
| FINISH | ALL OVER |
| MATERIAL | |
| REVISION | 0 |

6. Adjust the following settings and leave all other options set according to default values.
 - Drawing units (Length): Decimal, precision: 0.0000
 - Drawing units (Angle): Decimal degrees, precision: 0
 - Insertion scale: Inches
 - Drawing limits: Lower-left corner = 0,0; upper-right corner = 44,34
7. Resave and close the file.

Mechanical Drafting—Metric Template Development

Follow these steps to create a template to use for metric mechanical drafting projects. This template uses ASME and ISO drafting standards and will eventually contain layouts for plotting on A4-, A3-, A2-, A1-, and A0-size sheets. This template uses a 1:1 drawing scale.

1. Access the **Select template** dialog box.
2. Pick the flyout next to the **Open** button and select the **Open with no Template – Metric** option.
3. Save the file as an AutoCAD drawing template (.dwt) file using the name Mechanical-Metric.
4. In the **Template Options** dialog box, enter the description Mechanical Metric Template – A4, A3, A2, A1, A0 Size Sheets, Full Scale; select **Metric** from the **Measurement** drop-down list; and pick the **Save all layers as reconciled** radio button.
5. Adjust or create the following drawing properties in the **Properties** dialog box. Leave all other values blank, or add appropriate values.
 - Title: Type TITLE as a placeholder and to indicate the appropriate uppercase format
 - Author: Type your initials in uppercase letters
 - Hyperlink base: Type the address of your school or company website, or www.g-w.com
 - Custom properties:

| Name | Default Value |
|-----------|---|
| APPROVED | Type the initials of your instructor or supervisor in uppercase letters |
| CAGE CODE | |
| CHECKED | Type the initials of your instructor or supervisor in uppercase letters |
| COMPANY | Type the name of your school or company |
| FINISH | ALL OVER |
| MATERIAL | |
| REVISION | 0 |

6. Adjust the following settings and leave all other options set according to default values.
 - Drawing units (Length): Decimal, precision: 0.00
 - Drawing units (Angle): Decimal degrees, precision: 0
 - Insertion scale: Millimeters
 - Drawing limits: Lower-left corner = 0,0; upper-right corner = 841,594
7. Resave and close the file.

Architectural Drafting—US Customary Template Development

Follow these steps to create a template to use for US Customary (feet and inches) architectural drafting projects. This template uses common architectural drafting settings and standards derived from the US National CAD Standard. This template will eventually contain layouts for plotting on Architectural C-size and Architectural D-size sheets. This template uses a 1/4" = 1'-0" drawing scale.

1. Access the **Select template** dialog box.
2. Pick the flyout next to the **Open** button and select the **Open with no Template – Imperial** option.
3. Save the file as an AutoCAD drawing template (.dwt) file using the name Architectural-US.
4. In the **Template Options** dialog box, enter the description Architectural US Customary Template – Arch C, Arch D Size Sheets, 1/4" = 1'-0" Scale; select **English** from the **Measurement** drop-down list; and pick the **Save all layers as reconciled** radio button.
5. Adjust or create the following drawing properties in the **Properties** dialog box. Leave all other values blank, or add appropriate values.
 - Title: Type TITLE as a placeholder and to indicate the appropriate uppercase format
 - Author: Type your initials in uppercase letters
 - Hyperlink base: Type the address of your school or company website, or www.g-w.com

- Custom properties:

| Name | Default Value |
|----------------------|---|
| CHECKED | Type the initials of your instructor or supervisor in uppercase letters |
| COMPANY | Type the name of your school or company |
| COMPANY ADDRESS | Type the address of your school or company |
| COMPANY E-MAIL | Type your e-mail address |
| COMPANY FAX | Type your school or company fax number |
| COMPANY PHONE | Type your school or company phone number |
| COMPANY WEBSITE | Type the address of your school or company website |
| COPYRIGHT | Type your school or company name |
| CONSULTANT 1 | Type the name of the first common or hypothetical consultant |
| CONSULTANT 1 ADDRESS | Type the first consultant's address |
| CONSULTANT 1 E-MAIL | Type the first consultant's e-mail address |
| CONSULTANT 1 FAX | Type the first consultant's fax number |
| CONSULTANT 1 PHONE | Type the first consultant's phone number |
| CONSULTANT 2 | Type the name of the second common or hypothetical consultant |
| CONSULTANT 2 ADDRESS | Type the second consultant's address |
| CONSULTANT 2 E-MAIL | Type the second consultant's e-mail address |
| CONSULTANT 2 FAX | Type the second consultant's fax number |
| CONSULTANT 2 PHONE | Type the second consultant's phone number |
| OWNER | |
| OWNER ADDRESS | |
| OWNER E-MAIL | |
| OWNER FAX | |
| OWNER PHONE | |
| PROJECT | |
| PROJECT ADDRESS | |
| PROJECT NUMBER | |

6. Adjust the following settings and leave all other options set according to default values.
 - Drawing units (Length): Architectural, precision: 1/16"
 - Drawing units (Angle): Decimal degrees, precision: 0
 - Insertion scale: Inches
 - Drawing limits: Lower-left corner = 0,0; upper-right corner = 1728,1152
7. Resave and close the file.

Architectural Drafting—Metric Template Development

Follow these steps to create a template to use for metric architectural drafting projects. This template uses common architectural drafting settings and standards derived from the US National CAD Standard. This template will eventually contain layouts for plotting on A2- and A1-size sheets. This template uses a 1:50 drawing scale.

1. Access the **Select template** dialog box.
2. Pick the flyout next to the **Open** button and select the **Open with no Template – Metric** option.
3. Save the file as an AutoCAD drawing template (.dwt) file using the name Architectural-Metric.
4. In the **Template Options** dialog box, enter the description Architectural Metric Template – A2, A1 Size Sheets, 1:50 Scale; select **Metric** from the **Measurement** drop-down list; and pick the **Save all layers as reconciled** radio button.
5. Adjust or create the following drawing properties in the **Properties** dialog box. Leave all other values blank, or add appropriate values.
 - Title: Type TITLE as a placeholder and to indicate the appropriate uppercase format
 - Author: Type your initials in uppercase letters
 - Hyperlink base: Type the address of your school or company website, or www.g-w.com

- Custom properties:

| Name | Default Value |
|----------------------|---|
| CHECKED | Type the initials of your instructor or supervisor in uppercase letters |
| COMPANY | Type the name of your school or company |
| COMPANY ADDRESS | Type the address of your school or company |
| COMPANY E-MAIL | Type your e-mail address |
| COMPANY FAX | Type your school or company fax number |
| COMPANY PHONE | Type your school or company phone number |
| COMPANY WEBSITE | Type the address of your school or company website |
| COPYRIGHT | Type your school or company name |
| CONSULTANT 1 | Type the name of the first common or hypothetical consultant |
| CONSULTANT 1 ADDRESS | Type the first consultant's address |
| CONSULTANT 1 E-MAIL | Type the first consultant's e-mail address |
| CONSULTANT 1 FAX | Type the first consultant's fax number |
| CONSULTANT 1 PHONE | Type the first consultant's phone number |
| CONSULTANT 2 | Type the name of the second common or hypothetical consultant |
| CONSULTANT 2 ADDRESS | Type the second consultant's address |
| CONSULTANT 2 E-MAIL | Type the second consultant's e-mail address |
| CONSULTANT 2 FAX | Type the second consultant's fax number |
| CONSULTANT 2 PHONE | Type the second consultant's phone number |
| OWNER | |
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| OWNER FAX | |
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| PROJECT ADDRESS | |
| PROJECT NUMBER | |

6. Adjust the following settings and leave all other options set according to default values:
 - Drawing units (Length): Decimal, precision: 0
 - Drawing units (Angle): Decimal degrees, precision: 0
 - Insertion scale: Millimeters
 - Drawing limits: lower-left corner = 0,0; upper-right corner = 42050,29700
7. Resave and close the file.

Civil Drafting—US Customary Template Development

Follow these steps to create a template to use for US Customary (feet and inches) civil drafting projects. This template uses common civil drafting settings and standards derived from the US National CAD Standard. This template will eventually contain layouts for plotting on C- and D-size sheets. This template uses a 1" = 10'-0" drawing scale.

1. Access the **Select template** dialog box.
2. Pick the flyout next to the **Open** button and select the **Open with no Template – Imperial** option.
3. Save the file as an AutoCAD drawing template (.dwt) file using the name Civil-US.
4. In the **Template Options** dialog box, enter the description Civil US Customary Template – C, D Size Sheets, 1" = 10'-0" Scale; select **English** from the **Measurement** drop-down list; and pick the **Save all layers as reconciled** radio button.
5. Adjust or create the following drawing properties in the **Properties** dialog box. Leave all other values blank, or add appropriate values.
 - Title: Type TITLE as a placeholder and to indicate the appropriate uppercase format
 - Author: Type your initials in uppercase letters
 - Hyperlink base: Type the address of your school or company website, or www.g-w.com

- Custom properties:

| Name | Default Value |
|----------------------|---|
| CHECKED | Type the initials of your instructor or supervisor in uppercase letters |
| COMPANY | Type the name of your school or company |
| COMPANY ADDRESS | Type the address of your school or company |
| COMPANY E-MAIL | Type your e-mail address |
| COMPANY FAX | Type your school or company fax number |
| COMPANY PHONE | Type your school or company phone number |
| COMPANY WEBSITE | Type the address of your school or company website |
| COPYRIGHT | Type your school or company name |
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6. Adjust the following settings and leave all other options set according to default values.
 - Drawing units (Length): Engineering, precision: 0'-0.00"
 - Drawing units (Angle): Surveyor's Units, precision: N 0d00'00" E
 - Insertion scale: Inches
 - Drawing limits: Lower-left corner = 0,0; upper-right corner = 4080,2640
7. Resave and close the file.

Civil Drafting—Metric Template Development

Follow these steps to create a template to use for metric civil drafting projects. This template uses common civil drafting settings and standards derived from the US National CAD Standard. This template will eventually contain layouts for plotting on A2- and A1-size sheets. This template uses a 1:100 drawing scale.

1. Access the **Select template** dialog box.
2. Pick the flyout next to the **Open** button and select the **Open with no Template – Metric** option.
3. Save the file as an AutoCAD drawing template (.dwt) file using the name Civil-Metric.
4. In the **Template Options** dialog box, enter the description Civil Metric Template – A2, A1 Size Sheets, 1:100 Scale; select **Metric** from the **Measurement** drop-down list; and pick the **Save all layers as reconciled** radio button.
5. Adjust or create the following drawing properties in the **Properties** dialog box. Leave all other values blank, or add appropriate values.
 - Title: Type TITLE as a placeholder and to indicate the appropriate uppercase format
 - Author: Type your initials in uppercase letters
 - Hyperlink base: Type the address of your school or company website, or www.g-w.com

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| COMPANY FAX | Type your school or company fax number |
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| COPYRIGHT | Type your school or company name |
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| CONSULTANT 1 E-MAIL | Type the first consultant's e-mail address |
| CONSULTANT 1 FAX | Type the first consultant's fax number |
| CONSULTANT 1 PHONE | Type the first consultant's phone number |
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| CONSULTANT 2 ADDRESS | Type the second consultant's address |
| CONSULTANT 2 E-MAIL | Type the second consultant's e-mail address |
| CONSULTANT 2 FAX | Type the second consultant's fax number |
| CONSULTANT 2 PHONE | Type the second consultant's phone number |
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| OWNER FAX | |
| OWNER PHONE | |
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| PROJECT ADDRESS | |
| PROJECT NUMBER | |

6. Adjust the following settings and leave all other options set according to default values.
 - Drawing units (Length): Decimal, precision: 0
 - Drawing units (Angle): Decimal degrees, precision: 0
 - Insertion scale: Millimeters
 - Drawing limits: Lower-left corner = 0,0; upper-right corner = 84100,59400
7. Resave and close the file.