CadTracker user guide

Control > Author > Deliver

CadTracker
Take control, deliver more

CadTracker is an innovative drawing and document control solution.

CadTracker has been created specifically for design, detail and manufacturing offices within the architectural, engineering and construction industry.

Take control and deliver more with CadTracker.

CadTech Software
Creating real world solutions

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CadTracker

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Table of Contents

Introduction

1 Introduction

The topics in this section provide some basic information about CadTracker, what it is for and what you can do with it.

How to get started

See Getting help for details on using the help system and how to get more help if you need it.

Study this Introduction chapter and the Getting started sections to familiarise yourself with the application.

1.1 About CadTracker

CadTracker is a drawing and document control solution created for design, detail and manufacturing offices in the architectural, engineering and construction industry. It is specifically designed to meet the needs of small to medium enterprises (SMEs) which produce documentation using AutoCAD®.

Create, track, and deliver your in- and outbound documents with greater speed and precision, through CadTracker's cloud-ready, SQL database system.

Take control of your projects.

Control

CadTracker lets you take control and organise your projects, by helping you:
- Preview, open, categorise and track document revisions with a complete issue history in and out
- Enforce CAD standards such as:
  - drawing and plot name formats
  - revision codes
  - status descriptions
  - file locations

Author

CadTracker makes it easy to create deliverable AutoCAD drawings. You can:
- Create drawings using in-house or client title blocks and borders
- Assign plot settings for PDF, DWF and physical printers for each drawing type
- Batch process drawings to update, revise, supersede and print

Deliver

CadTracker improves efficiency by streamlining the delivery of documents:
- You can rapidly create, zip and e-mail issues with drawings, documents and files, complete with transmittal advice reports
- Keep your clients up-to-date with comprehensive and flexible document registers and spreadsheets

1.2 Getting started

The CadTracker application has three main components: the menu, the Explorer, and the window area.

The menu

File

Connect to primary database
Connect to secondary database
Disconnect
-
Set up database connections
-
Exit

View
Show archived records
Single document interface
-
Start page
Virtual drives

Tools
E-mail manager
-
Document
Areas
Categories
Subcategories
Titles
Related file codes
Revision statuses
Drawing
Categories
Revision descriptions
Templates
Titles 3
Titles 4
Types
Generic data
Categorical data types
Generic classes
Property types
Unit types
Issue
In
Subjects
Out
Advice templates
Categories
Subjects
Scales
-
Address types
E-mail address types
Phone number types
-
Operators
-
Report templates
-
Configuration

Window

Help
View help
-
Check for updates
View change log
-
About CadTracker

The Explorer

The Explorer is a hierarchical list of the projects and companies in your CadTracker database.

The window area

The window area is where you view and edit most records. Window management options may be viewed by right-clicking a window's tab, or by clicking the Window menu.

The window area may be configured to show only one window at a time with the single document interface option.

TIP You can close a window by middle-clicking the window's tab.

1.2.1 Database connections

CadTracker stores its data in an SQL Server database.

In the **File** menu, there are two ways to connect to databases:
- Connect to primary database,
- Connect to custom database.

To disconnect from the current database, click **File** > **Disconnect**.

To set up up database connections, click **File** > **Set up database connections**.

Primary databases

Select the primary database connection from the list. The primary database connections are stored in CadTracker's connection strings configuration file.

TIP
IT/CAD managers should edit the configuration file and copy it to the shared deployment folder.

Custom database

Some operators may like to have their own local CadTracker database for small projects or for testing. The custom database connection is useful for these types of situations, as the connection details are stored in the user's application data.

Machine name
Enter the computer name or IP address, e.g.
- *xyz-server*
- *192.168.0.100*
- a single dot (.) for the current PC

- *tcp:<server name>.database.windows.net,1433* for Windows Azure SQL databases

IMPORTANT Leave out the slashes which are normally used for UNC paths.

Instance name
Enter the SQL Server instance, e.g. *CadTechSoftware* or *SqlExpress*.

Database name
Enter the database name, e.g. *CadTracker*.

Authentication
Select either *Windows Authentication* or *SQL Server Authentication*. *Windows Authentication* should work for databases installed to the local PC. *SQL Server Authentication* requires a user name and password.

User name
Enter an SQL Server user name, e.g. *sa*.

Password
Enter the SQL Server password.

NOTE The default password for CadTracker databases is *C4dTech*

Click **Test** to try to connect to the database.

Firewall settings for VPN connections

CadTracker can connect to databases over virtual private network (VPN), but by default Windows may block the connection.

To allow the connection:

1. Click **Start** > **Run**
2. Type *wf.msc*
3. Select **Inbound Rules**
4. Click **New Rule** (on the right-hand side)
5. Select **Port**
6. Click **Next**
7. Select **UDP**
8. Select **All local ports**
9. Click **Next**
10. Select **Allow the connection**
11. Select **Private**
12. Clear **Domain** and **Public** (the VPN is a private network location)
13. Click **Next**
14. Type a name, e.g. *All private UDP ports*
15. Click **Finish**
16. Restart CadTracker and test the connection again.

1.2.2 Explorer

The Explorer is a hierarchical list of the projects and companies in your CadTracker database.

Buttons

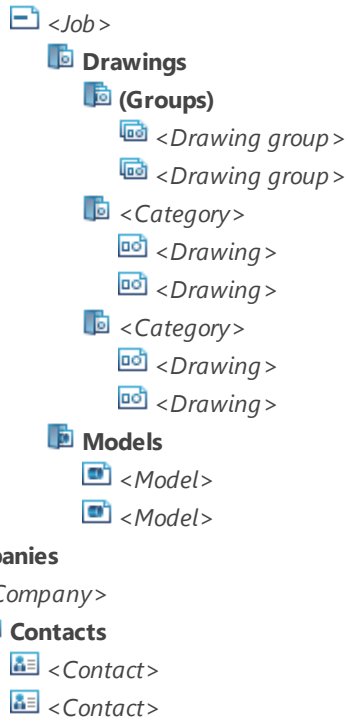
There are six buttons at the top of the Explorer:

New
View/Edit
Delete
Refresh
Set current project and job
Launch AutoCAD

The buttons are context sensitive, i.e. the item currently selected in the Explorer determines what action the button will perform. Tool tips display what action will be performed when a button is clicked.

The hierarchy of items

- **Projects**
  - *<Project>*
    - **Documents**
      - **(Groups)**
        - *<Document group>*
        - *<Document category>*
          - *<Document subcategory>*
            - *<Document area>*
              - *<Document>*
              - *<Document>*
    - **Generic data**
      - *<Generic objects folder>*
        - *<Generic object>*
        - *<Generic object>*
      - *<Generic objects folder>*
        - *<Generic object>*
        - *<Generic object>*
    - **Issues**
      - **In**
        - *<From>*
          - *<Issue in>*
          - *<Issue in>*
        - *<From>*
          - *<Issue in>*
          - *<Issue in>*
      - **Out**
        - *<Category>*
          - *<Issue out>*
          - *<Cancelled issue out>*
        - *<Category>*
          - *<Cancelled issue out>*
          - *<Issue out>*
    - **Jobs**



Items formatted like **this** are standard folders which cannot be renamed; items like <*this*> are editable items.

How to create new items

1. Select the appropriate folder for the item you want to create.
2. Do one of the following:
   - Click **New**.
   - Right-click the folder, and then click **New**.
3. The new item's property window will appear.

NOTE You may also create new items from the folder's list window.

IMPORTANT
The following items require different steps:
- Drawings
- Issues out
- Models

How to edit items

1. Select the item you want to edit.
2. Do one of the following:
   - Click **Edit**.
   - Right-click the item, and then click **Edit**.
   - Middle-click the item.

3. The item's property window will appear.

NOTE You may also edit items from the folder's list window.

How to delete items

1. Select the item you want to delete.
2. Do one of the following:
   - Click **Delete**.
   - Right-click the item, and then click **Delete**.
   - On the keyboard, press Delete.
3. Click **OK** to confirm the delete.

NOTE You may also delete items from the folder's list window.

1.2.3 Start page

Operator
Shows the current operator. Click **Change** or double-click the tile to view the Operators window.

Quick links
Provides easy access to common tasks.

Current project
Shows the current project and job. Click **Change** or double-click the tile to switch to a different project and job.

NOTE
This allows switching to a project that does not have any jobs. The Explorer only allows setting the current project and job by selecting a job.

Virtual drives
Shows the computer's currently mapped virtual drives. Click **Change** or double-click the tile to view the Virtual drives window. Click on a virtual drive letter or the physical path to open the folder in File Explorer.

Show page on startup
Select this check box to show the Start page when CadTracker starts.

1.2.4 Shortcuts

General shortcuts

KEY	MEANING
F1	Display context-sensitive help.
F3, **Ctrl**+**E**, **Ctrl**+**F**	Activate the Search box.
Ctrl+O	Open selected documents or drawings.
Ctrl+Shift+O	Open each selected drawing in a new instance of AutoCAD. If no drawings are selected, a new AutoCAD instance is launched with the working directory set to the current job.
Ctrl+**S**	Save the active record.
Ctrl+**F4**	Close the active window.

Text box and drop-down list shortcuts

KEY	MEANING
Ctrl+**U**	Convert the selected text, or the next character if nothing is selected, to *lower case*.
Ctrl+**Shift**+**U**	Convert the selected text, or the next character if nothing is selected, to *UPPER CASE*.
Ctrl+**Shift**+**S**	Convert the selected text, or all characters if nothing is selected, to *Sentence case*.
Ctrl+**Shift**+**T**	Convert the selected text, or all characters if nothing is selected, to *Title Case*.
F8	Displays a drop-down to insert a common character such as the diameter or degrees symbol. Windows Character Map may also be opened from this drop-down.

Numeric text box shortcuts

KEY	MEANING
F9	Change the sign of the current number, i.e. equivalent to pressing +/- on a calculator.
+, **-**, *****, **/**	Open the calculator to add, subtract, multiply or divide.
=	Calculates the result in calculator mode.
Enter	Commits a number to the text box in calculator mode.
Escape	Cancel the calculation in calculator mode.

Selection list shortcuts

KEY	MEANING
spacebar	Check or uncheck the selected items.
double-click	Check or uncheck one item.
F4	Toggle *Show checked items only*.

1.2.5 View menu

Multi-line window tabs
Select this option to display more than one row of window tabs.

Prompt to import document data
Select this option to display more than one row of window tabs.

Show archived records
Select this option to show archived projects in the Explorer.

Single document interface
When this option is selected, only the Start page and one other window is shown in CadTracker. Opening a new window will automatically close the existing window. If there are unsaved changes, you will be prompted to save or discard the changes.

Start page
Shows the Start page.

Virtual drives
Shows the Virtual drives window.

1.2.6 Window menu

With single document interface switched off, you may open many windows at the same time.

Click **Window** to see the windows you currently have open or to switch to a different window.

TIP You can close a window by middle-clicking the window's tab.

1.2.7 Virtual drives

View > **Virtual drives**

A virtual drive is a physical or logical resource mapped to a local drive letter.

There are two types:
- subst - a drive substitution to a local resource, and
- net use - a drive substitution to a network resource.

Project, server, standards and job folders may be mapped as virtual drives.

1.2.8 Tips for managers

Deployment via a shared folder

IT/CAD managers should set up a shared folder to deploy CadTracker, e.g. *\\nas\Common\CadTracker*.

Remember setup path
When CadTracker is launched, it checks for updates from the internet. In the CadTracker installer, there is an option to **Remember setup path**, which should be selected for shared folder deployments. With this option selected, CadTracker will only check for updates of the setup file in the shared folder; internet updates will be ignored. IT/CAD managers can then decide when to deploy a new version. When CadTracker starts, if a new version of the setup file is detected, the operator will be prompted to install it.

Connection strings configuration file

CadTracker's connection strings configuration file stores a list of primary database connections. By default, the configuration file is installed to:

%ProgramFiles%\CadTech Software\CadTracker\CadTechSoftware.CadTracker.ConnectionStrings.config

There may already be a connection strings configuration file in the shared deployment folder. If a config file is present in this folder, it will be copied automatically by CadTracker's client application installer.

Edit the XML configuration file and enter the connection strings for all of the CadTracker databases that will be used in your company.

To connect to an SQL Server database:
<add name="<*connection name*>" connectionString="Data Source=<*machine name*>\<*instance name*>;Initial Catalog=<*database name*>;uid=<*user name*>;pwd=<*password*>;" providerName="System.Data.SqlClient"/>

To connect to an Azure SQL database:

<add name="*<connection name>*" connectionString="Data Source=tcp:*<server name>*.database.windows.net,1433;Database=*<database name>*;uid=*<user name>*@*<server name>*;pwd=*<password>*;Trusted_Connection=False;Encrypt=True;Connection Timeout=30;" providerName="System.Data.SqlClient"/>

TIP
In the CadTracker installation folder, there is a console application named **CadTechSoftware.ConnectionStringsEditor** which can help you create or edit connection string configuration files. There may also be a copy of this application in the shared deployment folder. Double-click the application or run *CadTechSoftware.ConnectionStringsEditor /?* to display help.

1.3 Getting help

There are a number of different sources of help in CadTracker. In addition to this help file you can also access video tutorials, the user forum and CadTech Software support.

This help file is the best way to get started. It will provide all the information you need to learn and use CadTracker.

Before contacting support, please search for the information here or on the user forum.

Displaying the help

The quickest way to display the help is to press F1 or click **Help** > **View help**. If context-sensitive help is available it will be displayed automatically.

IMPORTANT
The following internet resources are not yet available.

Video tutorials
You can view video tutorials for some of more complex CadTracker processes at:

cadtracker.com.au/home/support

Contacting CadTech Software support

Support is available from the team at:

cadtracker.com.au/home/contact

Print the user guide

The CadTracker PDF user guide is included in the CadTracker installation folder, or you can download it from:

cadtracker.com.au/userguide

Tools menu

2 Tools menu

The Tools menu contains many configuration items and some commands, too.

2.1 Common values

Lists of common values may be set up for many properties via the **Tools** menu.

Document
- Areas
- Categories
- Subcategories
- Titles
- Related file codes
- Revision statuses

Drawing
- Categories
- Revision descriptions

Issue
- In > Subjects
- Out > Categories
- Out > Subjects

Address types

E-mail address types

Phone number types

2.2 Drawing titles 3 and 4

Drawing titles are usually mapped to border attributes. Titles 1 and 2 are usually the project and job names, respectively. Common values for drawing titles 3 and 4 may also be set up.

There is a list of standard drawing titles, and each project also has its own list of drawing titles. When a new project is created, all of the standard titles are copied into the project. Changes made to a project's drawing titles do not affect the standard list, or any other project's drawing titles.

Standard drawing titles

Tools > **Drawing** > **Titles 3**
Tools > **Drawing** > **Titles 4**

Project drawing titles

To add, edit or delete project drawing titles, edit the project, and select the **Drawing titles** tab.

When creating or editing a drawing record, project drawing titles may be selected from the lists. They are shown in the same order as they appear in the **Drawing titles** tab, so move the most common titles to the top of the list.

2.3 Drawing types

A drawing type associates a border DWG file to plot settings for physical, DWF and PDF plots.

There is a list of standard drawing types, and each project also has its own list of drawing types. When a new project is created, all of the standard drawing types are copied into the project. Changes made to a project's list of drawing types do not affect the standard list, or any other project's drawing types.

Standard drawing types

Tools > **Drawing** > **Types**

Project drawing types

To add, edit or delete project drawing types, edit the project, and select the **Drawing types** tab.

When creating or editing a drawing record, project drawing types may be selected from the list. They are shown in the same order as they appear in the **Drawing types** tab, so move the most common types to the top of the list.

Border path
The path to the DWG file to be used as the border for this drawing type.

The path may be:
- *Absolute path*
- *Relative to project*
- *Relative to server*

Subfolders are acceptable for relative paths, e.g. *Borders\A1Standard.dwg*.

IMPORTANT
The selected DWG file must match an existing border record name. Only the file name must match, not the full path.

For example, the following border paths will use the same border setup:
- *\\NAS\Borders\A1Standard.dwg*
- *\\Server\Common\A1Standard.dwg*
- *Title blocks\A1Standard.dwg* (Relative to project)

If the border has not been set up, do that first. Then click **Re-validate border path**.

Plot settings

Physical plotter
Select a plot setting to be used when drawings of this type are plotted to a physical plotter.

PDF
Select a plot setting to be used when drawings of this type are plotted to PDF.

DWF
Select a plot setting to be used when drawings of this type are plotted to DWF.

2.4 Issue advice templates

Tools > **Issue** > **Out** > **Advice templates**

Issue advice documents may be customised using templates.

Template name
Type a name that briefly describes the template. This will help your operators choose the correct template when creating an issue. Each project can also set a default issue advice template.

Show line number
Select this check box to show a line number for each transmittal item. This can be useful when manually checking large numbers of items.

Show type
Select this check box to show the **Type** column, which describes the type of the transmittal item, i.e. *Drawing*, *Document*, or *Attachment*.

Show file name
Select this check box to show the **File name** column, which displays the file name of the transmittal item.

NOTE
Some offices prefer not to show the file name column, as it may be inferred from the number and revision code. However, the file name may be unrelated to the number and revision code. For example, consider a paper space drawing in a 2D model. If you select the DWG file to send, it is very unlikely that the file name will match the drawing number. In cases like this, it is better to choose a template which displays the file name.

Show title 1
Select this check box to show the **Title 1** field. For drawings and documents, title 1 is usually the project name. For a particular issue, if you know that none of the drawings have used different values for title 1, you could use an advice template which does not show title 1.

Show title 2
Select this check box to show the **Title 2** field. For drawings and documents, title 2 is usually the job name. For a particular issue, if you know that none of the drawings have used different values for title 2, you could use an advice template which does not show title 2.

Show title 3
Select this check box to show the **Title 3** field. For a particular issue, if you know that none of the drawings have values for title 3, you could use an advice template which does not show title 3.

Show title 4
Select this check box to show the **Title 4** field. For a particular issue, if you know that none of the drawings have values for title 4, you could use an advice template which does not show title 4.

Title display style
Select one of the following:
- *Separate cells in columns* to create columns for each of the visible title columns, or
- *One cell with multiple lines* to create one title column and display the visible titles vertically.

Page orientation
Portrait works well for templates that do not display every column. If the template has many columns, or a project has long number or column values, *Landscape* may be a better choice.

Additional columns

Additional columns are added to the right-hand side of the transmittal table in the issue and transmittal advice documents.

Additional columns may be useful for handwritten notes, annotations or stamps.

Column name
The name that will appear in the column header.

Width (mm)
Use Auto to let the table auto-size the column, or specify the width of the column in millimetres.

Left border
Prints a vertical border on the left-hand side of the column. Borders may be useful for handwritten notes, annotations or stamps.

2.5 Scales

Tools > **Scales**

These are standard scales for drawing **Scale factor** values.

2.6 Operators

Tools > **Operators**

Each drawing and revision has a list of operators. These values may be entered manually, but are usually entered by selecting an operator from the list. Contacts may be set up as operators with codes, a certification number, and a signature.

Click **Add new** to select contacts to set up as operators.
Click **Delete** to delete a contact from the operators list.

Code for drawings
This code is used for drawing operator properties, e.g. **Drawn by** or **Checked by**. Many borders allow sufficient space for the drawing operator codes to use a full surname, e.g. *C.S. LEWIS*. This code may be up to 20 characters.

Code for revisions
Codes for revisions may be up to 20 characters, but are typically only two or three, i.e. the person's initials. Long codes may not fit in the space allocated in drawing borders.

IMPORTANT UPPER CASE codes are recommended, as this is usually required to meet national drafting standards.

TIP
Use full stops with no spaces when abbreviating a first or second name, but with a space before the surname, e.g. *C.S. LEWIS*. Eschew the full stops when using initials alone, e.g. *CSL*.

Certification
This property may be used to record an operator's industry certification or license number.

Signature
The signature may be the name or initials of the operator entered as text, or a link to an image of a scanned signature or company logo.

To set the current operator on a workstation, select the appropriate check box in the **Current operator** column.

2.7 Report templates

Tools > **Report templates**

CadTracker reports may be configured with templates. Extension applications may also provide their own report templates.

TIP
Don't drown in the data! It may be tempting to include every available property in every report template, but this is not necessarily a good idea. Too much information can be overwhelming to the reader, and it is also more difficult to print the reports as they become too wide Think about who will be reading your reports and which properties are valuable to them. You may create as many different report templates as you wish, so design your templates for particular use cases.

Name
Enter a descriptive name for the template. The template name forms part of the default report file name when it is saved, e.g.
<project number> <project name> - <report template name> - <timestamp>.xlsx

Properties
Select the properties to include in the report. Click **Move up (Ctrl + U)** or **Move down (Ctrl + D)** to order the columns.

Options
Each type of report template may provide various options relating to data or presentation.

Configuration

3 Configuration

Tools > **Configuration**

The Configuration has many important options. Most of the options serve as default values for new projects. Setting up the Configuration correctly will allow you to create new projects more quickly.

There is only one Configuration for each CadTracker database, which is shared by all users.

3.1 Drawings + revisions

The **Drawings + revisions** tab in the Configuration is used to define default values for new projects.

When a new project is created, all of the values are copied from the Configuration into the project. Each project may use different values.

3.1.1 Drawing name format

The drawing name format defines the default format for new drawing names.

When a new project is created, the drawing name format is copied from the Configuration. Each project may have a different default format, and the project's format may be changed for any drawing when it is first created.

Every drawing name format must have one <*DrawingNo*> (drawing number) and one <*RevCode*> (revision code) keyword placeholder. Click **Insert keyword placeholder** to see a list of standard keyword placeholders that may be inserted.

Drawing name formats cannot contain any of the following characters:
\ / : ; , * ? < > | = " `

When a border is added and a new drawing is created in the model space layout tab, the DWG file is saved as the drawing name plus the .dwg file extension. Alternatively, when a new drawing is created in a paper space layout tab, the layout tab is renamed to match the drawing name.

NOTE For most projects, the drawing name format is simply <*DrawingNo*><*RevCode*>. Occasionally, there may be a requirement to add other values that are not part of the drawing number, such as a project number or discipline code; these values are typically added to the start of the format.

3.1.2 Plot name format

The plot name format defines the file name format for drawings plotted to file-based plotters.

When a new project is created, the plot name format is copied from the Configuration. Each project may have a different format.

Every plot name format must have one <*DrawingName*> (drawing name) keyword placeholder. Click **Insert keyword placeholder** to see a list of standard keyword placeholders that may be inserted.

Drawing plot name formats cannot contain any of the following characters:
\ / : ; , * ? < > | = " ` [ ]

NOTE For most projects, the plot name format is simply <*DrawingName*>. Some offices append -<*ModelName*>, which can make it easier to identify which model a drawing belongs to.

3.1.3 Revision options

When a new project is created, all of the following values are copied from the Configuration. Each project may use different values.

Revision code prefix
This value is displayed before the revision code in DWG, PDF and DWF file names, and in paper space layout tab names. The default value is *[*.

Revision code suffix
This value is displayed after the revision code in DWG, PDF and DWF file names, and in paper space layout tab names. The default value is *]*.

Work in progress

Check print

Check approved

Preliminary revisions use:
- *For approval revision code*
- *P1, P2, P3, etc.*

For tender revisions use:
- *For approval revision code*
- *T1, T2, T3, etc.*

For construction revisions use:
- *Numbers*
- *Letters*

Revision letters to omit

Single-letter prefix
Some offices require single-letter revisions to be preceded by a specific character in file names, such as zero, to make files sort in a certain way.

Numeric revisions start at:
- *Zero*
- *One*

Minimum digits
Numeric revisions may be configured with or without leading zeroes, e.g. *1*, *02*, *003*, or *0004*.

New revisions default to:
- *Work in progress*
- *Current revision type*

If *Current revision type* is selected, when the **Rev Up This Drawing** dialog is displayed in AutoCAD, the **Rev up to** box will default to the drawing's current revision type, e.g. For approval -> For approval, For construction -> For construction.

As built revisions display:
- *All public issue history lines*
- *As built revision only*

If *As built revision only* is selected, when a drawing is revised to *As built*, all previous revision history lines will

not be displayed in the border.

3.1.4 Work in progress character

The work in progress character is appended to the revision code when a drawing is revised to *Work in progress*. The default value is *w*.

For example, if a drawing is revised from revision *A* to *Work in progress*, and the project's work in progress character is *w*, the drawing's new revision code would be *Aw0*. The next work in progress revision would be *Aw1*, etc.

When a new project is created, the work in progress character is copied from the Configuration. Each project may use a different work in progress character.

The work in progress character cannot be any of the following characters:
*1 2 3 4 5 6 7 8 9 0 \ / : * ? < > | "*

3.1.5 Check print character

The check print character is appended to the revision code when a drawing is revised to *Check print*. The default value is *c*.

For example, if a drawing is revised from revision *A* to *Check print*, and the project's check print character is *c*, the drawing's new revision code would be *Ac*.

When a new project is created, the check print character is copied from the Configuration. Each project may use a different check print character.

The check print character cannot be any of the following characters:
*1 2 3 4 5 6 7 8 9 0 \ / : * ? < > | "*

3.1.6 Check approved character

The check approved character is appended to the revision code when a drawing is revised from *Check print* to *Check approved*. The default value is *a*.

For example, if a drawing is revised from check print revision *Ac* to *Check approved*, and the project's check print character is *c*, the drawing's new revision code would be *Aa*.

When a new project is created, the check approved character is copied from the Configuration. Each project may use a different check approved character.

The check approved character cannot be any of the following characters:
*1 2 3 4 5 6 7 8 9 0 \ / : * ? < > | "*

3.1.7 Revision letters to omit

Letters in the list of revision letters to omit will not be used as revision codes for any revision of a drawing in the project. The default values are *IOW* to avoid confusion with the numbers *1* and *0*, and the letter *w*, which is the default work in progress character.

For example, if a project defines *I* as a revision letter to omit, and a drawing is revised from revision *H* to the next letter revision, the drawing's new revision code would be *J*; letter *I* would be automatically skipped.

When a new project is created, the revision letters to omit are copied from the Configuration. Each project

may use different revision letters to omit.

3.1.8 Static revision codes

Static revision codes may be defined for *As built* or *Redundant* revisions.

For example, if a project has enabled *AB* as the static revision code for as built revisions, all drawings revised to *As built* will have the revision code *AB*, regardless of what the previous construction revision codes were.

When a new project is created, the static revision codes are copied from the Configuration. Each project may use different static revision codes.

Static revision codes cannot contain any of the following characters:
\ / : ; , * ? < > | = " `

3.2 Folders

NOTE Standard folders can be particularly useful to help managers enforce standard folder structures for drawings, documents, and transmittals, and to quickly copy common files such as spreadsheets, documents, borders or other AutoCAD blocks.

Project

Standard folder
When a new project is created, you have the option to copy all folders and files from the standard project folder into the new project's folder.

Map drive
When a project is set as the current project, the project folder may optionally be mapped to a drive letter, e.g. *P:*.

Issue folder
The issue folder defines the name of the folder where issues and transmittals are saved. The path is relative to the project folder. Subfolders are acceptable, e.g. *Issues\Out*.

Reports folder
The reports folder defines the name of the folder where reports are saved.

The path may be:
- *Absolute path*
- *Relative to project*
- *Relative to server*

Subfolders are acceptable for relative paths, e.g. *Documents\Reports*.

Server

Folder (optional)
The server folder may be used as a common resource for a project. Reports folders, superseded folders, and drawing type border paths may be relative to the server folder.

Map drive
When a project is set as the current project, the server folder may optionally be mapped to a drive letter, e.g. *S:*.

Standards

Folder (optional)
The standards folder may be used as a common resource for a project.

The path may be:
- *Absolute path*
- *Relative to project*

Subfolders are acceptable for relative paths, e.g. *Common\Standards*.

Standard folder
When a new project is created, you have the option to copy all folders and files from the standard standards folder into the new project's folder.

Map drive
When a project is set as the current project, the standards folder may optionally be mapped to a drive letter, e.g. *V:*.

Job

Standard folder
When a new job is created, you have the option to copy all folders and files from the standard job folder into the new job's folder.

Map drive
When a job is set as the current job, its folder may optionally be mapped to a drive letter, e.g. *J:*.

Reports folder
The reports folder defines the name of the folder where reports are saved.

The path may be:
- *Absolute path*
- *Relative to job*
- *Relative to project*
- *Relative to server*

Subfolders are acceptable for relative paths, e.g. *Documents\Reports*.

Superseded folder
The superseded folder defines the name of the folder where superseded drawings, models and file-based plot files are moved when a drawing is revised.

The path may be:
- *Absolute path*
- *Relative to job*
- *Relative to project*
- *Relative to server*

Subfolders are acceptable for relative paths, e.g. *Drawings\Superseded*.

3.3 Operators

Operator aliases

Each drawing may have up to seven operators. Your company may use different names for one or more operator roles, or there may be a special operator role that is unique to a particular client or project. Drawing edit and rev up windows will display these aliases in place of the standard names.

For example, a client may require two approvals per drawing: *Project approved by* and *Technical approved by*. You could use the **Approved by** property for *Project approved by* and the **Directed by** property for *Technical approved by*.

When a new project is created, the operator aliases are copied from the Configuration. Each project may use different values.

Default public issue operators

When a drawing is revised to a public issue revision, i.e. *Preliminary*, *For approval*, *For tender*, *For construction*, *As built*, or *Redundant*, the following values may be entered:

- **Issue drawn by**
- **Issue checked by**
- **Issue approved by**
- **Issue verified by**

The **Operators** tab lets you define the default operator for each of these fields. The default operator may be the *(Current operator)* or a contact from your company or another company who has been set up as an operator.

3.4 Status descriptions

When a new project is created, all of the following status descriptions are copied from the Configuration. Each project may use different values.

Status descriptions are required for the following revision types:

- **Work in progress**
- **Preliminary**
- **For approval**
- **For tender**
- **For construction**
- **As built**
- **Redundant**
- **Check print suffix**
- **Check approved suffix**

The **Check print suffix** and **Check approved suffix** values are appended to the current status description of a revision.

IMPORTANT UPPER CASE status descriptions are recommended, as this is usually required to meet national drafting standards.

3.5 E-mail

If you want to e-mail issues and transmittals directly from CadTracker, you must set up an e-mail account.

E-mail address
The from address for the e-mail message. If *Send with Outlook* is selected as the issue e-mail type, CadTracker will search for this e-mail account in Outlook. If the account is not set up for the current user, the default e-mail account will be used.

Display name
The display name associated with the e-mail address. This is typically your company name.

User name
The user name for the SMTP server credentials.

Password
The password for the user name associated with the SMTP server credentials.

SMTP server
The name or IP address of the host computer used for SMTP transactions, e.g. *mail.bigpond.com*.

Issue e-mail type
When a new project is created, the issue e-mail type is copied from the Configuration. Each project may use a different issue e-mail type. This is the default value for a new issue; it may be changed for any issue.

Issue advice Outlook template
When a new project is created, the issue advice Outlook template value is copied from the Configuration. Each project may use a different template. If *Send with Outlook* is selected as the e-mail type for an issue, the project's Outlook template will be used. The issue advice and each transmittal e-mail may be previewed and edited in Outlook before being sent. There is a sample Outlook template in the CadTracker installation folder.

The following keyword placeholders may be used in issue advice Outlook templates:

%issue number%	The issue's number
%project number%	The project's number
%project name%	The project's name
%client%	The client's company name
%subject%	The issue subject
%memo%	The issue memo
%message%	The issue advice e-mail message

TIP
The fastest way to create your own Outlook template is to copy and edit the sample from the CadTracker installation folder. Alternatively, create a new e-mail in Outlook. Do not enter any recipients or a subject. When you are ready to save the template, click **File** > **Save As**. Under **Save as type** select *Outlook Template (*.oft)*. Browse to the folder where you wish to save your template, type a file name, and click **Save**.

Outlook automatic signatures on templates and custom forms
When you use an e-mail template, Outlook will add your default signature to the bottom. This is usually not desirable, as the template will typically contain a signature. Outlook has a hidden option to enable or disable this feature. CadTracker allows you to enable or disable automatic signatures for the current user. Outlook must be restarted for the change to take effect.

3.6 Reports

The following values are used to set up reports generated by CadTracker, such as issue and transmittal advice documents, drawing registers and document registers.

Company logo file name
Select an image file to use as your company logo.

NOTE For best results, use a PNG file that is at least 250 pixels wide or 100 pixels high, and has a transparent background.

Supported file types are:
- Bitmap (*.bmp)
- Device independent bitmap (*.dib)
- MS Paint (*.msp)
- Tagged Image File Format (*.tif, *.tiff)
- Joint Photographic Experts Group (*.jpg, *.jpeg)
- Portable Network Graphics (*.png)
- MacPaint (*.mac)
- Macintosh Pict (*.pct)

Company contact details

Address
Select *(Not used)* or one of your company addresses.

Phone
Select *(Not used)* or one of your company phone numbers.

Fax
Select *(Not used)* or one of your company phone numbers.

E-mail
Select *(Not used)* or one of your company e-mail addresses.

Include website
Select this option to include the website entered into your company record.

3.7 Miscellaneous

AutoCAD

Command line switches
In the **Explorer**, when you click **Launch AutoCAD**, these command line arguments are used when starting the application.

Some common AutoCAD switches include:

/nologo	No product logo screen
/p "<profile name>"	Set current profile
/t "<template file name>"	Create new DWG file with this template

Border layer name

When you add a border and create a new drawing, the border block will be inserted onto this layer. If the layer does not exist, CadTracker will create it.

Enable DWF options
When DWF options are disabled, CadTracker will hide options related to DWF files in drawing context menus and the issue wizard.

If your office does not issue drawings in DWF format, you may want to clear this check box.

Preview handler

File types to display as text
There are many different file types which are actually plain text files, e.g. CSV, XML. Many of these file types do not have preview handler controls. If a preview handler could not be found for a particular file and the file extension is listed here, CadTracker will attempt to display the file as text.

Project

4 Project

The project property window has several tabs:

- Project
- Folders
- Drawing titles
- Drawing types
- Drawings + revisions
- Status descriptions
- Related companies

4.1 Project

Number (required)
The project's human-readable identifier. The number is displayed in the Explorer, on issue and transmittal advice documents, and on reports. It is usually mapped to an attribute in drawing borders.

Numbers cannot contain any of the following characters:
\ / : ; , * ? < > | = " `

Alternative number
For some projects, clients may provide their own project numbers. The alternative number may be mapped to an attribute in drawing borders.

Alternative numbers cannot contain any of the following characters:
\ / : ; , * ? < > | = " `

Name (required)
The project name is displayed on issue and transmittal advice documents, and on reports. It is usually mapped to an attribute in drawing borders. The name is displayed in the Explorer if the project does not have an internal name.

Internal name
If a project has an internal name, the internal name is displayed in the Explorer instead of the project name. Internal names can be useful when you want to abbreviate very long names, or when you simply refer to the project internally by a different name.

Client
If the project has a client, select it from the box. If no company record exists for the client, you may create one by clicking  .

When a project has a client assigned, the company e-mail addresses, addresses, and contact e-mail addresses may be selected as recipients in the issue wizard.

Issue advice template
The default template for a new issue; it may be changed for any issue.

Issue e-mail type
The default e-mail type for a new issue; it may be changed for any issue. When a new project is created, this value is copied from the Configuration.

Issue advice Outlook template

Date created
The date and time when the project was first saved.

Archived
When a project is archived, it will not be visible in the Explorer, unless the **View** menu has **Show archived records** selected.

Edit all drawings in this project
Opens the Multiple Drawings Editor for all drawing records in the project.

4.2 Folders

Project

Folder
The root folder where all of the project's files and folders are stored.

If you have entered a server folder, or it has been copied from the server folder in the Configuration, CadTracker may suggest a project folder in the form *<server folder>\<project number> <project name>* or *<server folder>\<project number> <project internal name>* if the project has an internal name. Click **Create project folder** to create the suggested project folder.

If a standard folder has been set up in the Configuration, you may click **Copy files and folders from the standard project folder**.

Map drive
Select this check box and choose a drive letter if you want to map a drive to the project folder when the project is set as the current project. Type a drive label or click **Generate a project drive label**.

Issue folder
The issue folder defines the name of the folder where issues and transmittals are saved. The path is relative to the project folder. Subfolders are acceptable, e.g. *Issues\Out*.

Reports folder
The reports folder defines the name of the folder where reports are saved.

The path may be:
- *Absolute path*
- *Relative to project*
- *Relative to server*

Subfolders are acceptable for relative paths, e.g. *Documents\Reports*.

Server

Folder (optional)
The server folder may be used as a common resource for a project. Reports folders, superseded folders, and drawing type border paths may be relative to the server folder.

Map drive
Select this check box and choose a drive letter if you want to map a drive to the server folder when the project is set as the current project. Type a drive label or click **Generate a server drive label**.

Standards

Folder (optional)
The standards folder may be used as a common resource for a project.

The path may be:
- *Absolute path*
- *Relative to project*

Subfolders are acceptable for relative paths, e.g. *Common\Standards*.

Map drive
Select this check box and choose a drive letter if you want to map a drive to the standards folder when the project is set as the current project. Type a drive label or click **Generate standards drive label**.

Job

Map drive
Select this check box and choose a drive letter if you want to map a drive to the job folder when a job is set as the current job. Type a drive label or click **Generate a job drive label**.

4.3 Related companies

Related companies are other companies that are associated with the project.

When a project has related companies, the company e-mail addresses, addresses, and contact e-mail addresses may be selected as recipients in the issue wizard.

4.4 Alternative revision code seed

The alternative revision code seed is assigned to the first public issue revision for each drawing.

Subsequent public issue revisions will try to automatically increment the last used alternative revision code.

4.5 Generic data

Enter topic text here.

Document

5 Document

In its simplest form, a document is a record of a file that is associated with a project. A document has a number, it may have titles, and it may be categorised to three levels. Each document has one or more revisions. Documents may be linked to an issue in, and document files may be included as part of an issue out.

The document property window has several tabs:

- Document
- Revisions
- Related files
- Issues out

5.1 Document

Category
Subcategory
Area
It can be helpful to organise documents into categories, subcategories and areas. Type or select values from the lists. The lists shows all of the standard document categories, subcategories and areas, plus the non-standard values that have been used in this project.

Number (required)
The document's primary identifier. It is usually related to the document's file name.

Alternative number
For some projects, clients may provide their own document or drawing numbers.

Title
Type or select up to four title lines.

Click one of the **Edit titles** buttons to edit multiple title lines together.

If you are copying title values from a document register or a drawing title block, click one of the **Paste clipboard contents to titles** and CadTracker will attempt to split the titles into multiple lines automatically.

Notes
Document notes may be included in document register reports. Notes may also be edited with the Multiple Documents Editor.

5.2 Revisions

The revisions tab shows a full history of the document's revisions. The grid is read-only; to edit a revision, select a row and use the controls below.

Auto-sort revisions
Click **Auto-sort revisions** to sort the revisions using the most common revision code sequence, i.e. alpha codes followed by numeric codes.

Revision code (required)
The document's revision code, e.g. *A* or *1.1*.

Description
Type or select a description from the list. The list shows all of the standard document revision descriptions plus the non-standard descriptions that have been used in this project.

Date
The date on which the document revision was created.

Status
The status of the document for this revision.

File name (required)
The absolute or project-relative path to the file.

Notes
Revision notes may be included in document register reports.

IMPORTANT
If the document has already been issued and you need to edit any of these values, you may need to re-issue the document. You can check if a revision has been issued in the Issues out tab.

Transmittals in
The list shows every time the selected document revision was received via a transmittal in.

Select a transmittal in and click **Edit transmittal** to open the transmittal in record.

5.3 Related files

Documents may have one or more related files which need to be reviewed or updated when a new revision of the document is created or received.

For example, let's say you have received a drawing, *123[A].pdf*, which you have recorded as a document. Based on the information in *123[A].pdf* you have drawn a background DWG called *Background.dwg* which is used as an external reference in other drawings. You receive a new revision, *123[B].pdf*, and now *Background.dwg* needs to be reviewed, and possibly updated. Document related files can help manage this scenario.

Code
It may be helpful to organise related files with a code. Type or select a code from the list. The list shows all of the standard related file codes plus the non-standard codes that have been used in this project.

File name (required)
The absolute or project-relative path to the related file.

Review required
When a new revision of a document is recorded, all of the document's related files are automatically flagged as **Review required**. When new document revisions have been recorded, you should also review related files. Select or clear this check box to manually set this value.

5.4 Issues out

This tab lists the full issue history for this document. Click **View out issue** to open the issue property window for the selected row.

5.5 Multiple Documents Editor

Many properties may be edited quickly with the Multiple Documents Editor. The Multiple Documents Editor can be used to add new or edit existing documents.

To launch the Multiple Documents Editor, right-click a documents in the Explorer, and doing one of the

following:
- Click **New** > **Open Multiple Documents Editor** to add new documents
- Click **Edit** > **Open Multiple Documents Editor** to edit existing documents

NOTE The Multiple Documents Editor can also be launched from the Documents tab in the transmittal in property window.

Editable properties:
- Category
- Subcategory
- Area
- Number
- Alternative number
- Title 1
- Title 2
- Title 3
- Title 4
- Notes
- Revision code
- Revision description
- Revision date
- Revision status
- Revision file name
- Revision notes
- Related file code
- Related file name
- Related file review required

Auto-sort revisions

Click **Auto-sort revisions** to sort the revisions for all of the selected documents.

Create PDF binder

Click **Create PDF binder** to create a PDF file containing all of the selected documents.

NOTE This only works for PDF files.

Edit multiple values simultaneously

To edit multiple values at the same time, select multiple rows and edit a property.

Copy values to selected items

To copy a property value from one item to other items, select multiple rows and click the appropriate **Copy to selected items** button.

NOTE The last item selected shows the value which will be copied.

Import data from spreasheet

Document properties may be set by importing data from a CSV, XLS or XLSX file. If you have received a document register you may be able to format it and save it as one of these spreadsheet file types.

The following document properties may be set with a spreadsheet file:

Property	Alternative column names
Number (required)	Name, Document number, DocumentNumber, DocumentNo, Drawing number, DrawingNumber, DrawingNo
Alternative number	Alternative number, AlternativeNumber, Client number, ClientNumber
Category	
Subcategory	Discipline
Area	Job
Title 1	Title1
Title 2	Title2
Title 3	Title3
Title 4	Title4
Title	Titles (automatically split into separate titles)
Notes	Note, Comments, Comment
Revision code	RevisionCode, Rev, Revision
Revision description	RevisionDescription, Description
Revision date	RevisionDate, Date
Revision status	RevisionStatus, Status, Document status
Revision notes	RevisionNotes
File name	FileName, Revision file name, RevisionFileName, Drawing file name, DrawingFileName

The columns in the spreadsheet file must match a property name, or one of the allowable alternative names. Column names must be in the first row of the spreadsheet; they are not case sensitive.

NOTE
To import data for documents with file names that are unrelated to their numbers, you will need to use the file name column. If there is a file name column in the spreadsheet file, CadTracker will first look for a matching record using the file name. If a match cannot be found, it will then search by the number column.

IMPORTANT Avoid using merged cells whenever possible, as they may produce unexpected results.

XLS and XLSX files
XLS and XLSX files will only work if Microsoft Excel 2007 or later is installed. If an XLS or XLSX file is selected, CadTracker will attempt to convert the file to a CSV file first. If you have trouble importing data from an XLS or XLSX, check the formatting of the spreadsheet, save it as a CSV file, and try again with the CSV file.

Don't show this again
Select this option to suppress this message in the future. The message may be switched on again by clicking **Prompt to import document data** in the View menu.

Adding new documents

The Multiple Documents Editor is the fastest way to add new documents or new revisions of documents.

CadTracker will attempt to parse the document number and revision code from the file name using the most common naming conventions. If the number matches an existing document record in the project, the file will be added as a new revision of that document. It will be displayed in the **New revisions** tab. If a file has not been matched to an existing document, it will be displayed in the **New documents** tab.

If you know a file is a new revision of an existing document, but it was not correctly matched to an existing document, select the row in the **New documents** tab and click **Move to new revisions tab**. Select the correct document and the file will be added as a new revision.

If you know a file is a new document, but it was incorrectly matched to an existing document, select the row in the **New revisions** tab and click **Move to new documents tab**.

5.6 Review related files

To review related files which have been flagged for review, in the Explorer, right-click a documents item and click **Review related files**.

Select a row, click Open related file and Open document to open the files and review them. Clear **Review required** when you are satisfied that the related file is up-to-date.

5.7 Document revision code styles

Revision code styles may be selected and edited to help CadTracker parse document numbers and revision codes. Any changes or new styles are remembered only for the current CadTracker session. This means you can add, remove or edit styles to suit a particular set of documents that you wish to import.

CadTracker will attempt to parse each document using the selected styles in the order in which they appear, until a value is found for both the number and revision code. Sometimes you may need to break up a large group of documents into smaller groups with similar file name formats.

The **Preview** shows how the documents will be parsed with the selected styles.

TIP If you are importing documents that do not have revision codes, such as photos, uncheck all styles.

Use prefix/suffix

Most file name formats use one or more characters before the revision code, and sometimes one or more characters after the revision code.

Prefix
One or more characters that mark the start of the revision code.

Suffix
One or more characters that mark the end of the revision code.

Require preceding digit
This option ensures that a number occurs immediately before the revision code prefix.

For example, with a dash as the prefix, "123-A - Model" would be parsed as:

Number: *123*
Revision code: *A*

Use format

A custom format allows a greater degree of control of the file name format.

The format characters are:

*	Specifies zero or more characters at the start of the file name which do not form part of the number or revision code. This effectively forces CadTracker to parse the file name in reverse order. Format may only contain one * character at the start.
?	Specifies a single character which does not form part of the number or revision code, and should be ignored.

N	Specifies a single character which forms part of the number. At least one *N* character is required if no * character is present. Multiple *N* characters must be in a single sequence.
R	Specifies a single character which forms part of the revision code. At least one *R* character is required.

Examples:

FILE NAME	FORMAT	NUMBER	REVISION CODE
ABCD-1234X.pdf	**NNNNR*	1234	X
ABCD-1234X.pdf	*?????NNNNR*	1234	X
1234B.docx	**R*	1234	B
1234XYZAA.dwg	*NNNN???RR*	1234	AA
01X123.txt	*RRNNNN*	X123	01
ABC 123 001.xlsx	**NNN?RRR*	123	001

5.8 Document group

Document groups make it easy to perform many actions, such as:
- Creating an issue
- Opening documents
- Printing documents
- Creating PDF binders
- Creating reports

NOTE The current revision for each document is used.

Name
Type a group name or select and update an existing group name. The new group name must be unique; the list of existing names makes it easier to create sequentially numbered groups.

Documents
Select one or more documents to be included in the group.

Job

6 Job

A job is logical unit of work for a project.

It can be helpful to divide large projects into several jobs. Consider creating jobs based on one of the following criteria:

- Discipline
- Service
- Floor (for multi-storey projects)
- Area
- Stage

IMPORTANT Spend some time planning your jobs before you start adding models and drawings, because you cannot move them later.

The job property window has two tabs:

- Job
- Folders

6.1 Job

Number (required)
The job's human-readable identifier. The number is displayed in the Explorer, and optionally on reports. It may be mapped to an attribute in drawing borders.

Numbers cannot contain any of the following characters:
\ / : ; , * ? < > | = " `

Alternative number
For some projects, clients may provide their own job numbers. The alternative number may be mapped to an attribute in drawing borders.

Alternative numbers cannot contain any of the following characters:
\ / : ; , * ? < > | = " `

Name (required)
The job name is optionally displayed on reports. It is usually mapped to an attribute in drawing borders. The name is displayed in the Explorer if the job does not have an internal name.

Internal name
If a job has an internal name, the internal name is displayed in the Explorer instead of the job name. Internal names can be useful when you want to abbreviate very long names, or when you simply refer to the job internally by a different name.

Date created
The date and time when the project was first saved.

Use project name as title 1
Drawings may have title 1 values which are not identical to the project name. Click this button to use the project name for all drawing title 1 values.

Use job name as title 2
Drawings may have title 2 values which are not identical to the job name. Click this button to use the job name for all drawing title 2 values.

Edit all drawings in this job

Opens the Multiple Drawings Editor for all drawing records in the job.

6.2 Folders

Folder
The root folder where all of the job's files and folders are stored.

CadTracker may suggest a job folder relative to the project folder in the form *<job number> <job name>* or *<job number> <job internal name>* if the project has an internal name. Click **Create folder** to create the suggested job folder.

If a standard folder has been set up in the Configuration, you may click to copy files and folders from the standard job folder.

Drive label
If the project has set up a mapped drive for jobs, type a drive label or click **Generate default drive label**.

Reports folder
The reports folder defines the name of the folder where job reports are saved.

The path may be:
- *Absolute path*
- *Relative to job*
- *Relative to project*
- *Relative to server*

Subfolders are acceptable for relative paths, e.g. *Documents\Reports*.

Superseded folder
The superseded folder is where superseded drawings, models and file-based plot files are moved when a drawing is revised.

The path may be:
- *Absolute path*
- *Relative to job*
- *Relative to project*
- *Relative to server*

Subfolders are acceptable for relative paths, e.g. *Drawings\Superseded*.

Drawing

7 Drawing

A drawing is a record of a deliverable item with a border.

A drawing record represents one of the following:
- a DWG file with a border in model space, or
- a border in a paper space layout tab, inside a model.

Drawing records can only be created through AutoCAD.

The drawing property window has several tabs:
- Drawing
- Operators
- File info
- Notes
- Revisions
- Issues out

7.1 Drawing

Category
It can be helpful to organise drawings into categories. Type or select a category from the list. The list shows all of the standard drawing categories plus the non-standard categories that have been used in this project.

Number
The drawing's primary identifier. It should be mapped to an attribute in drawing borders.

Alternative number
For some projects, clients may provide their own drawing numbers. The alternative number may be mapped to an attribute in drawing borders.

When drawings are issued, they may be sent using alternative numbers for zip item names.

Title 1
Title 1 defaults to the project name, but it may be edited. If title 1 differs from the project name, you may click **Use project name as title 1**. If title 1 is identical to the project name, this button will be disabled. Title 1 is usually mapped to an attribute in drawing borders.

Title 2
Title 2 defaults to the job name, but it may be edited. If title 2 differs from the job name, you may click **Use the job name as title 2**. If title 2 is identical to the job name, this button will be disabled. Title 2 is usually mapped to an attribute in drawing borders.

Title 3 (optional)
Type or select a title from the list. Title 3 is usually mapped to an attribute in drawing borders.

Title 4 (optional)
Type or select a title from the list. Title 4 is usually mapped to an attribute in drawing borders.

Drawing type
The drawing type controls which plot settings are used for physical, DWF and PDF plots.

Scale factor
When you add a border and create a new drawing, the scale factor is pre-filled with the *dimscale* of the DWG. If you change the DWG's *dimscale* later, the drawing record will not be automatically updated. The scale factor

may be mapped to an attribute in drawing borders.

7.2 Operators

Each drawing may have up to seven operators:

- Drawn by
- Checked by
- Approved by
- Designed by
- Verified by
- Directed by
- Authorised by

Operator aliases may be set up in the Configuration or in each project.

Each operator has the following properties:

Name
The name of the operator, or blank if the code does not match an operator.

Code
The code of the operator. This is usually mapped to an attribute in drawing borders.

Date
The date on which the operator performed this action. This may be mapped to an attribute in drawing borders.

Certification
The certification number of the operator. This may be mapped to an attribute in drawing borders.

Signature
The signature may be the name or initials of the operator entered as text, or a link to an image of a scanned signature or company logo.

Recommendations for signature images

If the signature property is mapped to an attribute in a drawing border, the image is attached to the DWG at the insertion point of the attribute definition, and scaled to the scale factor of the border block reference. Images should be sized for 300 DPI output, so that they look crisp when plotted to paper, PDF or DWF. The following formulae can be used to work out the required pixel dimensions of the image:

Millimetres

```
Width  = (desired width in mm)  ÷ 25.4 × 300
Height = (desired height in mm) ÷ 25.4 × 300
```

Inches

```
Width  = (desired width in inches)  × 300
Height = (desired height in inches) × 300
```

For example, if you want a signature image to fill a space that is 20mm wide and 5mm high, the image dimensions must be no larger than:

```
20mm ÷ 25.4 × 300 = 236 pixels width
 5mm ÷ 25.4 × 300 =  59 pixels height
```

7.3 File info

Name
The current name of the drawing.

Folder
The absolute or relative path of the folder where the drawing's DWG is located. If the DWG file has been moved, click **Browse folder** to re-select the DWG's folder. If the folder is an *Absolute path*, you may click **Scan for relative path** to scan for a path relative to the project or job folders.

File path
The full path of the drawing's DWG, or the model DWG if it is a paper space drawing.

Border path
The full path of the border DWG.

7.4 Notes

Drawing notes may be included in drawing register reports. Notes may also be edited with the Multiple Drawings Editor.

7.5 Revisions

The revisions tab shows a full history of the drawing's revisions. The grid is read-only; to edit a revision, select a row and use the controls below.

Notes
Revision notes may be included in drawing register reports.

Alternative revision code
For some projects, clients may provide their own drawing revision codes. This property may also be used as a public issue counter. The alternative revision code may be mapped to attributes in drawing borders.

Alternative revision codes can be automatically assigned and incremented by setting up the project's alternative revision code seed.

When drawings are issued, they may be sent using alternative numbers & revs for zip item names.

NOTE The As built, Description, Drawn by, Checked by, Approved by, Date returned and Resolved properties may only be edited for public issue revisions, i.e. *Preliminary*, *For approval*, *For tender*, *For construction*, *As built*, or *Redundant*.

As built
This check box may be selected or cleared for any construction revision.

Description
Type or select a description from the list. The list shows all of the standard drawing revision descriptions plus the non-standard descriptions that have been used in this project.

If the description differs from the project's status description for this revision type, you may click **Use default description**. If the description is the default description, this button will be disabled. The description is usually mapped to a public issue history line attribute in drawing borders.

Drawn by

The code of the operator who drew this public issue revision. This is usually mapped to an attribute in drawing borders.

Checked by
The code of the operator who checked this public issue revision. This is usually mapped to an attribute in drawing borders.

Approved by
The code of the operator who approved this public issue revision. This is usually mapped to an attribute in drawing borders.

Verified by
The code of the operator who verified this public issue revision. This is sometimes mapped to an attribute in drawing borders.

Date
The date and time when the revision was created.

IMPORTANT
If the drawing has already been issued and you need to edit any of these values, you may need to re-issue the drawing. You can check if a revision has been issued in the Issues out tab.

7.6 Issues out

This tab lists the full issue history for this drawing. Click **View out issue** to open the issue property window for the selected row.

7.7 Multiple Drawings Editor

Many properties may be edited quickly with the Multiple Drawings Editor.

To open the editor, in the Explorer, right-click a project or job item, or a drawings folder and click **Multiple Drawings Editor**.

Editable properties:
- Category
- Alternative number
- Title 1
- Title 2
- Title 3
- Title 4
- Drawing type
- Scale factor
- Drawn by
- Drawn date
- Checked by
- Checked date
- Notes

Edit multiple values simultaneously

To edit multiple values at the same time, select multiple rows and edit a property.

Copy values to selected items

To copy a property value from one item to other items, select multiple rows and click the appropriate **Copy to selected items** button.

NOTE The last item selected shows the value which will be copied.

Generate numbers

Multiple drawings can be sequentially numbered using the **Alternative number**, **Title 3** or **Title 4** properties.

To sequentially number multiple drawings, select multiple rows and click the appropriate button:

- **Generate alternative numbers**
- **Generate Title 3 numbers**
- **Generate Title 4 numbers**

Enter the first number in the sequence and click **OK**.

NOTE
You may use separators and leading zeroes. Only the last part of the sequence is incremented. For example:

- *A1 > A2 > A3*
- *XYZ-123-001 > XYZ-123-002 > XYZ-123-003*
- *25.9 > 25.10 > 25.11*
- *FRAME DETAILS - SHEET 1 > FRAME DETAILS - SHEET 2 > FRAME DETAILS - SHEET 3*

7.8 Drawing group

Drawing groups make it easy to perform many actions, such as:

- Creating an issue
- Opening DWG, PDF or DWF files
- Printing DWG, PDF, or DWF files
- Creating PDF binders
- Creating reports

NOTE The current revision for each drawing is used.

Name
Type a group name or select and update an existing group name. The new group name must be unique; the list of existing names makes it easier to create sequentially numbered groups.

Drawings
Select one or more drawings to be included in the group.

7.9 Printing

To print a drawing to the Windows default printer , do one of the following:

- Right-click a <*Drawing*> in the Explorer and click **Quick print DWG**, **Quick print PDF**, or **Quick print DWF**
  NOTE
  The PDF and DWF options are hidden if the files do not exist. You can create PDF and DWF plots through AutoCAD.
- View the **Drawings** list window, select one or more drawings and then click **Quick print**.

You may also create a PDF binder and print.

Model

8 Model

A model is a record of a DWG file.

Models may contain drawings with borders in paper space layout tabs, but cannot have borders in model space. A model with paper space drawings is often called a 2D model. Conversely, 3D models do not normally have 2D drawings in paper space. CadTracker does not make a distinction between 2D and 3D models, but understanding the terminology can be helpful.

How to create a new model

Model records can only be created through AutoCAD.

File name

The file name that is recorded for this model. If the file name is an *Absolute path*, you may click **Scan for relative path** to scan for a path relative to the project or job folders.

File path

The full path that the file name resolves to. If the DWG file has been moved or renamed, click **Re-select DWG file**.

Issue in

9 Issue in

An issue in is a collection of files that have been received.

Number
The official issue number or a description of the issue.

From
Type or select the sender's name, or select one from the list.

NOTE In the Explorer, issues in are organised into folders by the sender's name.

Date created
The date on which the issue was created.

Date received
The date on which the issue was received.

Subject (optional)
The subject, or reason, for the issue.

Advice memo (optional)
The message that was displayed on the issue advice.

Advice file name (optional)
The issue advice file.

E-mail message (optional)
If there was important information in the body of the e-mail message, you may wish to copy and paste it here.

9.1 Transmittal in

Each issue is made up of one or more transmittals, and each transmittal has one or more transmittal item files. A transmittal item may be a document revision, or any other file.

The transmittal in property window has several tabs:
- Transmittal
- Documents
- Other items

9.1.1 Transmittal

Number
The official transmittal number or a description of the issue. If the issue contains multiple transmittals, the transmittal number is usually the issue number plus a suffix, e.g. *1234-01*.

Date received
The date on which the transmittal was received.

Advice file name
The transmittal advice file. For issues with only one transmittal, this may be the same as the issue advice file.

9.1.2 Documents

Transmittal items are usually recorded as new documents or new revisions of existing documents.

The Multiple Documents Editor is the fastest way to record transmittal items as new documents or new revisions. Click **New** > **Select document files** to get started.

If you have already entered the documents, then you may select a document revision to link it to this transmittal. Click **New** > **Include an existing document revision in this transmittal** and select the documents to be linked.

9.1.3 Other items

If there were any other files that were received with the transmittal, but you do not want to record them as documents, you may record the files as other items.

Issue out

10 Issue out

An issue out is a collection of files to be sent to one or more recipients. Each issue is made up of one or more transmittals, and each transmittal has one or more transmittal items. A transmittal item may be a drawing, a document, or any other file.

To create a new issue, launch the create issue wizard.

10.1 Create issue

The issue wizard leads you through steps required to create a new issue.

How to create a new issue out

Do one of the following:

- On the **Start page**, under **Quick links**, click **Create issue** or
- In the **Explorer**, right-click the project item, then click **Create issue**

The steps in the wizard are:
1. Select or type a subject
2. Select drawings to send
3. Select documents to send
4. Create reports to send
5. Add other attachments to send
6. Select the e-mail recipients
7. Select e-mail options
8. Select the postal recipients
9. Summary
10. Creating issue

10.1.1 Select or type a subject

Select or type a subject for the issue. The list shows all of the standard issue out subjects.

Memo for issue and transmittal advice documents (optional)
On advice documents, the memo is shown directly below the issue subject.

NOTE
This box accepts very long memos. If you need more space, there is a splitter below the subject list which may be dragged up to increase the size of this box.

Issue advice template
Select the issue advice template.

Category (optional)
It can be helpful to organise issues into categories. Type or select a category from the list. The list shows all of the standard issue out categories plus the non-standard categories that have been used in this project.

Save issue to category subfolder
Select this check box if you want to save the issue files inside a category subfolder in the project's issue folder, i.e.
<issue folder>\<category>\<issue number>

Maximum transmittal size (MB)

Transmittal items are packaged in zip files. If the issue will e-mailed, it is best to use an upper limit for the transmittal size. The issue will be divided into multiple transmittals no larger than the specified size. Select *No limit* to save all of the transmittal items to a single zip file.

NOTE If a transmittal item is larger than the maximum transmittal size it will be packaged in its own transmittal zip.

10.1.2 Select drawings to send

Select the drawing DWG, PDF or DWF files to be issued.

TIP You can select multiple rows and hit spacebar to toggle a selection, or use the context menu.

Click **Load group** to load one or more drawing groups.

Filter by job
If there are multiple jobs in the current project, you may use the filter to hide drawings from jobs that you are not interested in. If you already have some drawings selected, select **Uncheck drawings that are not in the selected jobs** to remove the unwanted drawings from the issue.

Show checked items only
Select this check box to hide the drawings that have not been included in this issue.

Use alternative drawing numbers & revs for zip items
Occasionally, a client may require you to issue drawings using their alternative drawing numbers and revision codes. Select this check box to rename the files to be issued. This does not affect the original files, only the copies included in the zips.

10.1.3 Select documents to send

Select the documents to be issued.

TIP You can select multiple rows and hit spacebar to toggle a selection, or use the context menu.

Click **Load group** to load one or more document groups.

Show current revisions only
If you want to issue an old revision of a document, clear this check box.

10.1.4 Create reports to send

Reports may be generated and sent as attachments with the issue advice e-mail.

1. Click **Add report** and select a report type.
2. Select a report template, or create a new one.
3. Select a report data filter. For example:
   - Select *Project* if you want to report on all items in the project.
   - Select *Jobs* if you want to report on all items in one or more jobs.
   - If you selected a document report, select *Documents* if you want to report on one or more documents.
   - If you selected a drawing report, select *Drawings* if you want to report on one or more drawings.

     NOTE The drawings to be issued will be pre-selected.

4. Click **OK**.

Reports are created in a *Reports* subfolder in the issue folder. The reports are not listed in the issue or transmittal advice documents, nor are they included the transmittal zips. As they are sent with the issue advice e-mail, recipients who are selected as advice only will also receive the reports.

10.1.5 Add other attachments to send

Add any other file to be included in the issue.

10.1.6 Select the e-mail recipients

Select the company and/or contact e-mail addresses to send the issue to. Recipients may be *To*, *Cc* (carbon copy) or *Bcc* (blind carbon copy).

Advice only
Some recipients need to be advised when new revisions have been issued, but do not need to receive the drawing or document files. Advice-only recipients are sent the issue advice e-mail, but not the transmittal e-mails. The issue advice e-mail also includes any reports that have been created for the issue.

NOTE Only e-mail addresses from the project's client and related companies are shown.

10.1.7 Select e-mail options

E-mail type
Select *Send now with CadTracker* to send the issue using the Configuration e-mail account.
Select *(Don't send)* if you want to create the issue without e-mailing it. The e-mails may be sent at any time from the issue's property window.
Select *Send with Outlook* to use Outlook. Issue advice and transmittal e-mails may be previewed and edited in Outlook before being sent. Outlook issue advice e-mails will use the project's Outlook template.

Include CSV data file
A CSV data file is always generated with each issue. Recipients may use it to import data into their own document management systems.

Issue advice e-mail message (optional)
Type a message for the issue advice e-mail. This message only appears in the e-mail. If you want the message to appear on the issue and transmittal advice documents, use the memo box.

10.1.8 Select the postal recipients

Select the company addresses to send the issue to.

NOTE Only addresses from the project's client and related companies are shown.

10.1.9 Summary

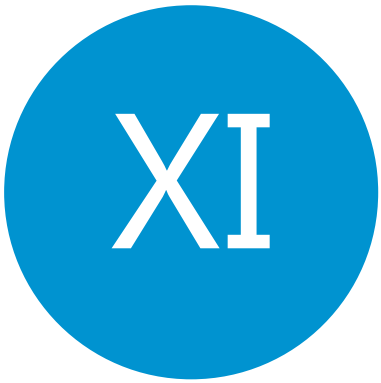
The summary page shows the selected recipients and how many transmittals will be created.

Set quantity
If you will be sending multiple hard copies of drawings or documents, you may want to set the quantities. Enter a number, select one or more rows and click **Set quantity**. The **Quantity** column is not displayed in the issue or transmittal advice documents if all of the quantities are *1*.

10.1.10 Creating issue

This page allows you to monitor the progress of the issue as it is created. You may also open or print the issue and transmittal advice documents, or open the issue folder location.

AutoCAD



11 AutoCAD

All of the commands in this section are only available in AutoCAD, on the **Plug-ins** tab, in the **CadTracker** group. Less common commands may not be visible until you click the **CadTracker** slideout.

11.1 Add border and create new drawing

Add border and create new drawing
Adds a border to the current layout and creates a new drawing record in the CadTracker database.
CTRK_AddBorder

TIP
If you have not set the current operator, you should do that before you add a border and create a new drawing. CadTracker remembers the last new drawing each operator created in each job. When this window is displayed, the number and several other values are pre-filled based on the last new drawing created by the current operator.

Number
Enter the drawing's primary identifier, or click **Select an existing drawing number to follow** and select a drawing from the list shown. The next available number in the sequence will be selected. You may also select values to copy from the selected drawing such as category, drawing type, titles, or folder.

Alternative number

Category

Drawing type
The drawing type also determines the default plot device and paper size for paper space layouts. These values are copied from the drawing type's first available plot setting: physical, PDF or DWF.

Scale factor
The scale factor is pre-filled with the *dimscale* of the DWG.

Borders in model space are automatically scaled to match the scale factor selected.

NOTE
Each paper space layout tab has a page setup which defines the default plot device and paper size. Therefore, it is best to scale layout viewports rather than the border itself. For paper space drawings, design your border DWG file to fit the target paper size, and scale the border at *1:1*. If you want to use a border DWG file that is not the correct size, i.e. it was designed to be scaled in model space, you may select **Scale border** to force the border to be scaled. However, setting up a new border would be considered best practice.

Title 1

Title 2

Title 3 (optional)

Title 4 (optional)

Operators

Each drawing may have up to seven operators.

Folder
If you are adding a border to model space, select the folder where the DWG will be saved.

IMPORTANT
You may select any folder you wish, but it is best to choose a folder that is relative to the project or job folders.

Drawing name format

11.2 Create new model

Create new model
Creates a new model record for the current DWG in the CadTracker database.
CTRK_CreateModel

You will be prompted to confirm the project and job, and then to select a folder and file name for the model.

11.3 Rev up

Rev up this drawing
Creates a new revision record for the drawing in the current layout, and supersedes the DWG.
CTRK_RevUp

Rev up multiple drawings
Creates new revision records for multiple drawings, and supersedes their DWGs.
CTRK_RevUpMultiple

As drawings are revised, the old DWG, PDF and DWF files are superseded to the job's superseded folder.

Rev up to
Select the revision type for the new revision.

NOTE
When revising the current drawing, only allowable revision types will be shown. For example, you may not revise a drawing *For construction* before revising it *For approval*.
When revising multiple drawings, all revision types are shown, but only the drawings which may be revised to the selected revision type will be shown. For example, if you select *Check approved*, only drawings with a current revision of *Check print* will be selectable.

Operators

Each drawing may have up to seven operators.

Public issue

When a drawing is revised to a public issue revision, i.e. *Preliminary*, *For approval*, *For tender*, *For construction*, *As built*, or *Redundant*, the following values are required:

Description
Enter the description for the revision. The default value is the status description for the revision type. Common revision descriptions may be selected from the list. Click **Use default description** to reset the value.

Drawn by
Select the operator who drew this revision, or type an operator code.

Checked by
Select the operator who checked this revision, or type an operator code.

Approved by
Select the operator who approved this revision, or type an operator code.

Alternative revision code

Plot

Select the plot options.

Save new group (Rev up multiple drawings only)
You may save a new drawing group for the selected drawings. Type a group name or select and update an existing group name. The new group name must be unique; the list of existing names makes it easier to create sequentially numbered groups.

Purge items not used in the drawing
Select this check box to run the AutoCAD *purge* command as the drawing is revised.

Revision notes
Optionally, record notes about the new revision. Revision notes can be included in drawing register reports.

Drawings (Rev up multiple drawings only)
Select the drawings to revise. You may select drawings by loading one or more drawing groups.

11.4 Plot

Plot to PDF
Plots the drawing in the current layout using the PDF plot setting assigned to the drawing's type.
PlotToPdf

Plot to DWF
Plots the drawing in the current layout using the DWF plot setting assigned to the drawing's type.
PlotToDwf

Plot this drawing
Plots the drawing in the current layout to a physical plotter, PDF or DWF.
CTRK_Plot

Plot multiple drawings
Plots multiple drawings to a physical plotter, PDF or DWF.
CTRK_PlotMultiple

Plot

Select the **Physical plottor**, **PDF** or **DWF** plots you wish to produce. Plots will be produced using the plot settings assigned to the drawing's type.

Custom
Occasionally, you may want to produce one or more plots using different settings, e.g. using a different physical plotter, or a different style sheet.

11.5 Refresh border

Refresh this border
Refreshes the attributes in this drawing's border with the current values from the CadTracker database.
CTRK_RefreshBorder

Refresh multiple borders
Refreshes the attributes in multiple drawing borders with the current values from the CadTracker database.
CTRK_RefreshMultiple

Refresh multiple borders

Select one or more drawings. You may select drawings by loading one or more drawing groups.

Purge items not used in the drawing
Select this check box to run the AutoCAD *purge* command as the drawing is revised.

Plot

Select the plot options.

11.6 Replace border

CadTracker > **Replace border**

Replace this border
Replaces the border for the drawing in the current layout with a different border block.
CTRK_ReplaceBorder

Replace multiple borders
Replaces the borders for multiple drawings with a different border block.
CTRK_ReplaceMultiple

New border

Name
The name of the new border file. The name must match an existing border record name.

Path
Click **Browse border** to select the new border DWG file.

Replace:
- *All borders*
- *Matching borders*

Select *Matching borders* if you want to replace only borders with existing block names that match the new border's block name. For example, let's say you have updated border *A1Standard.dwg* with a client logo and some new attribute mappings, and every drawing in the job that used *A1Standard* needs to be updated with the new border, so you select all the drawings. With *Matching borders* selected, every drawing that has a border block named *A1Standard* will have its border replaced with the new one; all other borders will remain unchanged.

11.7 Re-number drawing

CadTracker > **Re-number drawing**

Re-number this drawing
Re-numbers the drawing in the current layout, and renames the DWG if necessary.
CTRK_ReNumber

Re-number multiple drawings
Re-numbers multiple drawings, and renames the DWGs if necessary.
CTRK_ReNumberMultiple

New number
Enter the drawing's new number.

Drawing name format
Optionally, modify the drawing name format.

11.8 Import drawing

Sometimes you may need to import drawings that were not created with CadTracker.

CadTracker > **Import drawing**

Import this drawing
Imports the drawing in the current layout to the CadTracker database.
CTRK_ImportDrawing

Import multiple drawings
Imports multiple drawings to the CadTracker database.
CTRK_ImportMultiple

The import process

1. The current layout is searched for a border block reference that has a matching border record in the CadTracker database.
   IMPORTANT If the border has not been set up, do that first.
2. The attribute values are copied into a new drawing record.
3. The Import Drawing window is displayed where you may edit values before saving them to the database. (**Import this drawing** only)
   TIP Importing one drawing at a time gives you more control over the values that are imported.
4. Identity data is added to the DWG file.
5. The border is refreshed.
6. If the border is in model space, the DWG is saved as a new DWG in the selected folder.
   NOTE
   If you are importing drawings with borders in model space, it is best to move the DWG files out of the job folder first. As each DWG file is successfully imported, it is saved into the job folder with the correct drawing name format and current revision code.

Import multiple drawings

Use this command if you need to import many drawings with borders in model space, and you do not need to preview the attribute values before the drawing records are saved.

Import to folder
Select the folder to save the imported DWG files.

Issue date format
For some borders, the public issue history lines do not allow very much room for dates. Consequently, the date values may use a non-standard format. If the drawings you are importing have an unusual date format, specifying the format can help CadTracker parse the values.

This field is optional - leave blank for typical date formats.

Valid format strings:

d	The one- or two-digit day.
dd	The two-digit day. Single-digit day values are preceded by a 0.
ddd	The three-character day-of-week abbreviation.
dddd	The full day-of-week name.
M	The one- or two-digit month number.
MM	The two-digit month number. Single digit values are preceded by a 0.
MMM	The three-character month abbreviation.
MMMM	The full month name.
y	The one-digit year (2001 is displayed as "1").
yy	The last two digits of the year (2001 is displayed as "01").
yyyy	The full year (2001 is displayed as "2001").

Delete existing identity data
By default, drawings which contain CadTracker identity data will not be imported.

Use this option to automatically delete the existing data and import the drawings as new records.

File names
Select the DWG files you want to import.

11.9 Import model

Sometimes you may need to create a model record for a DWG that already has identity data. This is quite different to importing a drawing with a border, which would not normally have any identity data.

Some example scenarios:
- The model record has been deleted from your database
- The database has been restored to a point in time before the model record existed
- The model record existed in a different CadTracker database

CadTracker > **Import drawing** > **Import this model**
Imports this DWG as a model in the CadTracker database.
CTRK_ImportModel

NOTE If you need to edit the project, job, or model Ids stored in the DWG's identity data, do that first.

11.10 Identity data

Each model and drawing created with CadTracker has the following identity data saved inside the DWG file:
- Project Id
- Job Id
- Model Id
- Drawing Id

Each drawing in a paper space layout tab records its own drawing Id.

The following commands may be used to manually manage identity data.

CadTracker > **Identity data**

Audit identity data
Compares the project, job, model and drawing Ids saved in DWGs with the values in the CadTracker database.
CTRK_AuditIdentityData

Edit identity data
Allows the project, job, model and drawing Ids to be manually edited for the model or drawing in the current layout.
CTRK_EditIdentityData

Add identity data to this drawing
Searches for a matching model or drawing record with the same file name as the current DWG, and adds the project, job, model and drawing Ids to the DWG.
CTRK_AddIdentityData

Add identity data to multiple drawings
Searches for matching model or drawing records with the same file names as the selected DWG files, and adds the project, job, model and drawing Ids to the DWGs.
CTRK_AddIdentityDataMultiple

Delete identity data
Deletes the project, job, model and drawing Ids from the model or drawing in the current layout.
CTRK_DeleteIdentityData

11.11 Console

CadTracker > **Console**

Show console
Shows the CadTracker console tool palette, where information or error reports may appear.
CTRK_Console

Reset console position
Moves the CadTracker console tool palette back onto the primary monitor.
CTRK_ConsoleResetPosition

11.12 Set up borders

Border records define mappings between drawing record properties and DWG attributes.

Recommendations

1. When you start a new project, spend some time organising your border DWG files before you start creating new drawings.
2. Copy your border DWG files into a subfolder of each project, e.g. *Borders*.
3. Add any client logos, or static text values to the project's local copy of the border.
4. Whenever possible, use the same attribute names for your borders.
5. If the border uses different attribute names to the standard border, rename the DWG and set it up as a new border in CadTracker.

6. If a client has provided a border to be used for a project, check with the client before adding or renaming any attributes.

CadTracker > **Set up borders**
Sets up border attribute mappings and paper sizes.
CTRK_SetUpBorders

Copy another border
If you are setting up a border that has some attributes that match an existing border record, save time by copying the attribute mappings from the existing border. You may still make changes to the new border record before saving it.

Create border attributes
This command allows you to create new AutoCAD attributes in the current DWG document, and map them automatically into the current border record. Select the attributes you wish to create from each tab, and enter the number of issue lines to create if you have selected any issue line attributes. Click **OK** and the attributes will be added to the current layer. Move, recolour, or switch the layer of the attributes if necessary.

Border

Name (read-only)
The border name is the name of the DWG file without the *.dwg* extension.

Last file path (read-only)
The full path of the DWG file that was last used to edit this border record.

Paper size
Enter a paper size for this border. If the **Paper size attribute** property is mapped to an attribute, the attribute is populated with this value. Showing the original paper size is important if you are mapping the **Scale factor** property.

Project

The following project properties may be mapped to attributes:
- Number
- Alternative number
- Name
- Internal name
- Extended data

Job

The following job properties may be mapped to attributes:
Number
Alternative number
Name
Internal name
Number - name

Drawing

The following drawing properties may be mapped to attributes:
- Category
- Number

- Alternative number
- Title 1
- Title 2
- Title 3
- Title 4
- Sheet number
- Sheet total
- Sheet number / total
- Drawing type
- Scale factor
- Notes
- Drawn by
- Drawn date
- Checked by
- Checked date
- Revision code
- Alternative revision code
- Revision status
- Scale factor
- Paper size

Public issue history lines

Public issue revisions, i.e. *Preliminary*, *For approval*, *For tender*, *For construction*, *As built*, or *Redundant*, are usually mapped to a history table in the border.

The following revision properties may be mapped to attributes:
- Revision code
- Alternative revision code
- Description
- Drawn by
- Checked by
- Approved by
- Date

TIP
When you add a new public issue history line, CadTracker tries to automatically assign the attributes based on the number format of the previous row. To take advantage of this feature, number your attributes sequentially, e.g. *RevCode1*, *RevCode2*, etc.

11.13 Plot settings

CadTracker > **Plot settings**

Name
Type a descriptive name for the plot setting.

Device
Select the physical or file-based plot device.

Paper size
Select the target paper size. The paper sizes listed are provided by the selected device.

Style sheet
Select the CTB or STB style sheet to use.

Plot to file
Select this check box if the device selected is a file-based plotter. This is automatically selected for some devices.

Plot rotation
Select the rotation for the plots.

Plot scale
Select the plot scale. Plot settings for model space drawings typically use *Scale to fit*, while paper space drawings are commonly *1:1*.

TIP
Using a virtual private network (VPN), you can send plots to a physical plotter in another office. This can be helpful when the DWG files are in one office, and you need to plot drawings for checking or archiving in another office. When revising or plotting drawings, you may select multiple custom plot settings to plot hard copies simultaneously in multiple offices.

Create PDF binder and print

12 Create PDF binder and print

When you want to print a drawing or document PDF file, CadTracker checks which application is associated with PDF files. If the default application is Adobe Reader or Adobe Acrobat, a Print window will be displayed where you can select options before sending the document to the printer. If you need to print multiple files, confirming the print options for every document quickly becomes tiresome. To overcome this, CadTracker can create a temporary PDF file containing all of the documents you wish to print. The Print window is displayed once, and then all of the documents are sent to the printer as one document with multiple pages.

NOTE

This may produce unexpected results if you are trying to print documents with different paper sizes or orientations. In the Print window, select the appropriate size option and orientation, and preview each page before clicking **Print**.

Create report

13 Create report

Reports may be created from various places throughout CadTracker.

To create a report, do one of the following:

- Select an item in the Explorer, right-click the item, click **Create report**, and then click the desired report type.
- View an item folder's list window, click **Create report**, and then click the desired report type.

The reports are context sensitive, i.e. the item currently selected in the Explorer determines what data will be included in the report.

For example, if you right-click a project item in the Explorer and create a document register, the report will include every document in the project. For example, if you right-click an **Administration** documents folder and create a document register, only documents categorised as *Administration* will be included in the report.

The **Create Report** window allows you to select an existing template, create, edit, delete and customise templates.

Customise template
Click **Customise template** to make changes to an existing report template. The edited template may only be saved as a new template to prevent the original template from being accidentally overwritten. Click **Create report** to see how the changes will look.

TIP
When you are happy with your report templates, encourage your CadTracker operators to use the **Customise template** option to make one-off reports, rather than editing the templates.

Generic data

14 Generic data

CadTracker includes a comprehensive system which allows you to define your own data structures.

The following topics explain the components of the generic data system:

- Unit types
- Data types
- Categorical data types
- Property types
- Generic classes
- Generic objects

The Walkthrough ties all of these concepts together.

You can also add extended data to projects.

14.1 Unit types

Each unit type has a name and may have a symbol. Property types may have a unit type.

NOTE
The International System of Units (SI) is the world's most widely used system of measurement. Most of the common SI units and their derivatives are included in CadTracker by default.

14.2 Data types

Each property type is set up as one of the following data types:

NAME	DESCRIPTION
Categorical	Categorical data type
Date	Calendar date
Decimal	Positive or negative number with a decimal value
GUID	Globally unique identifier
Image URL	Path to an image file or web address
Integer	Positive or negative whole number
Multi-line text	One or more lines of text
Text	A single line of text
True/false	Displayed as a check box
URL	Path to a file or web address

14.3 Categorical data types

Tools > **Generic data** > **Categorical data types**

A categorical data type is a set of possible values. Categorical data types help ensure that data is valid and consistent, as operators may only select from the list of possible values.

Typically, a categorical property requires exactly one value to be selected, but in some cases zero or more values may be independently selected. When only a single value is allowed, all possible values are displayed in a list, and one value must be selected.

Examples of single-value categorical properties include:
- The profile of a piece of air-conditioning duct: *Rectangle*, *Circle*, or *Flat oval*
- The blood type of a person: *A*, *B*, *AB*, or *O*
- The state of a postal address in Australia: *ACT*, *NSW*, *NT*, *QLD*, *SA*, *TAS*, or *WA*

Allow multiple values to be selected
When multiple values may be selected, each possible value is displayed as a check box, and each value may be independently selected or cleared.

Examples of multiple-value categorical properties include:
- Blank-off plates for an air-conditioning grille: *North*, *South*, *East*, *West*
- Car accessories: *Headlamp protectors*, *Roof racks*, *Towbar*

NOTE Codes are automatically generated for categorical data types which allow multiple values to be selected.

Code
The code is the integer that is stored in the database to represent the selected value.

Value
The value is the human-readable text that is displayed to the operator.

14.4 Property types

Generic classes can contain zero or more property types. Property types may be shared between many generic classes. For example, a *Mass (kg)* property type could be included as a property for *Beam*, *Car*, and *Fan* classes.

Name
The name of the property. This is the value that is displayed to the operator in the generic object property window.

RECOMMENDED Include the unit type in the property name to distinguish similar properties, e.g. *Mass (g)*, *Mass (kg)*, *Mass (t)*.

Data type
The data type that this property may store.

Categorical data type
If *Categorical* is selected as the data type, a categorical data type must be selected.

Unit type
The unit type of the property.

14.5 Generic classes

A generic class is a template which describes a type of object.

Name
The name of the generic class. The singular form of the noun is recommended, e.g. *Fan*, rather than *Fans* or *Fan data*.

Properties
A generic class can contain zero or more property types. Each property may enforce minimum and maximum values based on the property's data type. When a generic object property has an invalid value, an error icon and message is displayed.

Generic object properties are displayed in the order that they appear in the generic class. Use the **Move up** and **Move down** buttons to sort the properties.

Integer value
Integer properties may enforce minimum and maximum values.

For example, an *Air quantity (L/s)* property for a *Fan* class may specify a range of valid values of *5* - *100* L/s.

Decimal value
Decimal properties may enforce minimum and maximum values.

For example, a *Mass (kg)* property for a *Fan* class may specify a range of valid values of *0.1* - *500* kg.

String length
String properties have a data type that is stored as text, i.e. *Image URL*, *Multi-line text*, *Text*, or *URL*. String properties may enforce a minimum and maximum length.

For example, a *Reference number* property for a *Fan* class may specify a minimum length of *1*, and a maximum length of *20*. A minimum length of *1* forces the operator to enter a value before the record may be saved.

Deprecated
By default, deprecated properties are not shown in property dialogs or reports.

Deprecating properties may be more desirable than deleting them when there are existing values which you wish to keep.

14.6 Generic objects

A generic object is an instance of a generic class.

Show deprecated properties
Deprecated properties are hidden by default, but may be displayed when needed.

Name
The name of this generic object. This is the value that is displayed in the Explorer tree and other lists.

TIP
It is common for the value of the first property of a generic object to be identical to the name property, e.g. *Reference number*. Click to copy the name to the first property.

Copy properties from another object
This allows you to copy values from an object defined in another project with similar or identical property values, e.g. an off-the-shelf item from a particular manufacturer.

Get organised

Generic objects can be dragged and dropped within the Explorer tree, inside their own project. This allows you to organise your objects into folders, and/or create complex hierarchies.

14.7 Walkthrough

In this walkthrough, we will create a new generic class to record data about fan units for ducted air-conditioning systems, and create two new fan records in a project.

For each fan unit, we want to record the following data:

PROPERTY	DATA TYPE
Reference number	Text
Fabricator name	Text
Catalogue number	Text
Air quantity (L/s)	Decimal
Power (kW)	Decimal
Mass (kg)	Decimal
Power phase	Categorical
Technical data sheet	URL
Comment	Multi-line text

NOTE
Some of the unit types, categorical data types and property types may already be included in CadTracker by default. For the purposes of this walkthrough, we will assume they are not present and need to be added.

Unit types

First, we will add *litre per second*, *kilowatt* and *kilogram* to the list of unit types.

1. Go to **Tools** > **Generic data** > **Unit types**

2. Click **Add new**
3. In the **Name** box, type *litre per second*
4. In the **Symbol** box, type *L/s*

5. Repeat steps 2 to 4 for *kilowatt (kW)* and *kilogram (kg)*

6. Click **OK** to save the changes

Categorical data types

Next, we will add a new categorical data type for *Power phase*.

1. Go to **Tools** > **Generic data** > **Categorical data types**

2. Click **New**
3. Type *Power phase* in the **Name** box

4. Click **Add new**
5. In the **Code** box, type *1*
6. In the **Value** box, type *Single*

7. Repeat steps 4 to 6 for **Code** *3*, **Value** *Three*

8. Click **OK** to save the changes

Property types

Now, we will add new property types.

1. Go to **Tools** > **Generic data** > **Property types**

2. Click **Add new**
3. In the **Name** box, type *Reference number*
4. For the **Data type**, select *Text*
5. For the **Unit type**, select *(None)*

6. Repeat steps 3 to 5 for the remaining properties listed in the table above, selecting the appropriate data types and unit types

7. Click **OK** to save the changes

Generic class

Now, we are ready to define a *Fan* class.

1. Go to **Tools** > **Generic data** > **Generic classes**

2. Click **New**
3. Type *Fan* in the **Name** box

4. Click **Add new**
5. Select the *Reference number* property and click **OK**, or double-click the row
6. In the **Minimum string length** box, type *1*
7. In the **Maximum string length** box, type *20*

8. Repeat steps 4 to 7 for the remaining properties listed in the table above. For the decimal properties, add a minimum value of *1* and maximum value of *100*.

9. Click **OK** to save the changes

Folder

Let's create a *Fans* generic object folder.

1. In an existing project, right-click the **Generic data folder** and click **New generic object**
2. Select *(Folder)* and click **OK**, or double-click the row
3. In the **Name** box, type *Fans*

4. Click **OK** to save the changes

Generic object

Now we can create a new *Fan* object inside our *Fans* folder.

1. Right-click the *Fans* folder and click **New generic object**
2. Select *Fan* and click **OK**, or double-click the row

3. In the **Name** box, type *SAF-1*
4. Click **Copy to Reference number**
5. Note that the properties that have minimum and maximum value rules are displayed with error icons and messages
6. Enter values for the remaining properties

7. Repeat steps 1 to 6 for fan *SAF-2*

8. Click **OK** to save the changes

14.8 Project extended data

There is a special generic class, *(Project extended data)*, which allows extended data to be added to projects. For example, you may wish to add properties to record the project's address, a URL to specifications, a website, etc. Extended data may be mapped to attributes in drawing borders.

Edit project extended data class

1. Create new property types that you want to include in the project extended data

2. Go to **Tools** > **Generic data** > **Generic classes**
3. Select *(Project extended data)* and click **Edit**

4. Click **Add new**
5. Select the desired property and click **OK**, or double-click the row

6. Repeat steps 4 and 5 for any other properties you wish to include

7. Click **OK** to save the changes

Add extended data to a project

1. Edit the project
2. Click the **Extended data** tab
3. Click **Add extended data**
4. Add values for the properties

Index

A

B

C

D

E

F

I

J

L

M

O

P

R

S

T

U

V

W

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