# ArcCadastre

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by Lantmäteriet

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## **Getting Started with ArcCadastre**



## **Getting Started with ArcCadastre**

Layout: Gunilla Lundgren

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#### Legal disclaimer

Every effort has been made to correctly describe ArcCadastre in this document but development will continue and changes will be made both to the product and to this document. Lantmäteriet gives no warranties concerning the functions described in this document. Lantmäteriet will, therefore, not accept any claim for compensation based upon the use of ArcCadastre or its components as described in this document.

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## ArcCadastre by Lantmäteriet

### Welcome to ArcCadastre

Welcome to Getting Started with ArcCadastre. ArcCadastre is a unique, specially developed "all-in-one" software package for collecting, managing, processing and presenting geographic, cadastral and survey information.

## ArcCadastre

by Lantmäteriet

#### ArcCadastre version 2.1

Copyright<sup>©</sup>2007 Lantmäteriet, SWEDEN All rights reserved Welcome to Getting Started with ArcCadastre. ArcCadastre is a unique, specially developed "all-in-one" software package for collecting, managing, processing and presenting geographic, cadastral and survey information.

Getting Started is a short introduction to ArcCadastre for both first-time users of the program and for persons who have no previous experience of this type of software. Before installing or starting to use the program, we recommend that you take time to carefully read this handbook. It is designed to help you to quickly get started and understand some of the most important basic concepts in ArcCadastre, so that you can get the best out of the program. After you have read through the handbook you should have a general understanding of the structure and functionality of the program and be able to start using it with your own data. The handbook is in three parts.

#### • Part 1

Familiarizing yourself with ArcCadastre - is a description of the general structure of the program and explains how you can get help to use it.

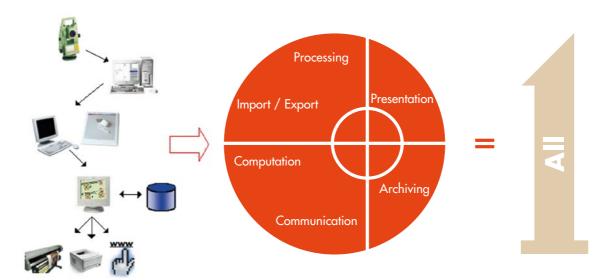
#### Part 2

In - ArcCadastre in detail - there are short descriptions of some important ArcCadastre concepts.

#### • Part 3

Getting started with ArcCadastre - which contains the "QuickStart" tutorials. Going systematically through these tutorials is the best way to learn how to use and understand the fundamentals of Arc-Cadastre.

It will take you about four hours to read through this booklet and do the exercises in Quick-Start, but it will be time well spent.



## ArcCadastre by Lantmäteriet

## Familiarizing yourselves with ArcCadastre

In this chapter

- What is ArcCadastre ? The technical platform What can you do with ArcCadastre?
- **Getting help** Getting started with ArcCadastre Help system Support More about ArcCadastre

ArcCadastre was initially developed as a replacement for Lantmäteriet's well-proven cadastral and mapping software AutoKa-PC. ArcCadastre has been designed as a software package for worldwide use and can be supplied with country-adapted customization.

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## What is ArcCadastre?

ArcCadastre is a replacement for Lantmäteriet's well-proven cadastral and mapping software AutoKa-PC, which was introduced about ten years ago. During this period both our research and development staff and our user community have accumulated a wealth of competence and experience in developing and using this type of software. This knowledge base has been used when developing ArcCadastre.

Lantmäteriet has developed ArcCadastre in close cooperation with the international, marketleading GIS company ESRI Inc.

Particular attention has been given to analytical functionality as well as to data capture and computational functionality. Our combined experience of software development and maintenance is a guarantee that users of ArcCadastre will not run the risk of purchasing an incomplete product with a short lifetime. ArcCadastre has been designed as a software package for worldwide use and can be supplied with country-adapted customization. Because of ArcCadastre's comprehensive functionality, you can use the program in unified production lines ranging from data collection - including field survey data - processing, presentation of different maps and documents, through to the storage of the data in an object-oriented database environment from which other applications and systems can retrieve information for processing in different ways. Work processes can be designed as workflows.

Thanks to the technology that has been chosen for the development of ArcCadastre, you can easily customize and build systems to satisfy your own special needs in a variety of ways. The various functionality that may be needed in different countries, or by different user groups to satisfy the requirements of local legislation and regulations, can be easily added to ArcCadastre.

#### The technical platform

Lantmäteriet is the owner and has been responsible for the overall design and development of ArcCadastre.

The development strategy that was adopted involved the use of the latest industry standard products such as C++ compilers and software creation using Component Object Model (COM) methods to facilitate maintenance of ArcCadastre and, at the same time, be a sound foundation for future development of the software.



You can find more information and explanation of specific ArcCadastre concepts in Part 2 ArcCadastre in detail.

#### What can you do with ArcCadastre ?

ArcCadastre has been designed to satisfy a wide range of users and uses including:

- Local authority survey and mapping organizations.
- Real property formation.
- The production of cadastral index maps.
- Public utilities mapping.
- Surveying and mapping companies.
- Property management groups.
- Property tax assessment and property valuation.
- National, regional and local planners.

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#### What can you do with ArcCadastre Sverige ?

ArcCadastre Sverige is the Swedish version of Arc-Cadastre and has been produced for the Swedish market, primarily for use by Lantmäteriet's and Swedish municipal cadastral authorities. ArcCadastre Sverige comprises the "core" version of Arc-Cadastre specially customized for use with Swedish cadastral applications and management routines. ArcCadastre Sverige has been designed to support the following activities:

- Producing and revising large-scale municipal maps.
- Producing site and plot maps.
- Producing simple cadastral maps.
- A prototype for a planning process support.

ArcCadastre contains an object-oriented model that supports these activities.

In ArcCadastre Sverige, all text is in Swedeish except the ArcCadastre Desktop Help.



## **Getting help**

You can get help when you are working with Arc-Cadastre in several different ways.

#### Getting started with ArcCadastre

This handbook will give you a good overview introduction to ArcCadastre. Some of the most important ArcCadastre concepts are explained and there is a number of QuickStart exercises.

#### Help system

ArcCadastre includes a comprehensive on-line Help system. When you want to learn how to perform a specific task or need more information about a related concept, you can always use the online Help system. You can access the Help system in a number of ways:

- In the application window, using ToolTips, status bar Help, and the *What's This?* button.
- In dialogs.
- In the Help viewer window, using the Contents, Index, Search and Favorites tabs.

You will find more about the Help system in Part 3.

#### Support

In addition to the comprehensive on-line Help system in the program itself, you can also get help from the support organization that has been built up around ArcCadastre. For more information about getting help, contact your software dealer.

#### More about ArcCadastre

You can find the latest information about ArcCadastre at www.arccadastre.com





## ArcCadastre by Lantmäteriet

## ArcCadastre in detail

#### In this chapter

- ArcCadastre General information ArcCadastre ArcCadastre/FileManager Workflow Editor Attribute Form Editor
- ArcCadastre Concepts Job Workflow Plotting styles Map templates Geodatabases Data models

Survey databases Survey and computation Import and export

• **COM based software** Customization Interacting with other software

You may encounter several new concepts in ArcCadastre. In this chapter there are short explanations of some of the most important of them, together with descriptions of some parts of the program. You can find more detailed information in the ArcCadastre Help system.

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## **ArcCadastre - General information**

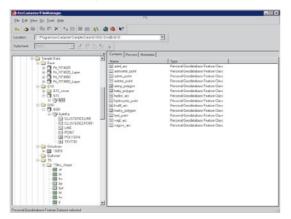
#### ArcCadastre

ArcCadastre is an all-in-one program package that has been built on the latest and most modern platforms. With ArcCadastre you already have tomorrow's solutions today. Lantmäteriet owns the ArcCadastre copyright although the program has been developed in close cooperation with ESRI Inc.

#### ArcCadastre/FileManager

ArcCadastre/FileManager is an integral part of Arc-Cadastre and functions in a similar way to Explorer in Microsoft Windows. In ArcCadastre/FileManager you can administer your data and you can also:

- Create new personal geodatabases.
- Create and administer survey databases.
- Rapidly check and administer geographic data and tables.
- Create connection to common (multi-user) geodatabases.
- Create and edit metadata.
- Search for data by searching in metadata or by reference to geographic position.



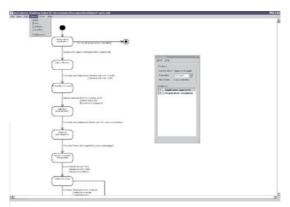
You can launch ArcCadastre/FileManager from the Start button on the Windows taskbar.

- From Windows Start button, select the program group ArcCadastre.
- 2 Click ArcCadastre/FileManager.

If ArcCadastre is started, you can also start ArcCadastre/FileManager from ArcCadastre by clicking the Launch ArcCadastre/FileManager button on the Standard toolbar.

#### Workflow Editor

In ArcCadastre the Workflow Editor is used to create and edit workflows. In the Workflow Editor you work with graphical visualization of your workflows. The ArcCadastre Workflow editor follows the



UML standards and completed workflows are saved as XML files. The Workflow Editor is mainly intended for use by customizers and not by end users. The Workflow Editor is launched from the Start button on the Windows taskbar.

**1** From Windows Start button, select the program group ArcCadastre.

2 Click Workflow Editor.

#### Attribute Form Editor

The Attribute Form Editor is used to customize standard forms for classes in a geodatabase. It is for instance possible to add, change or delete fields.

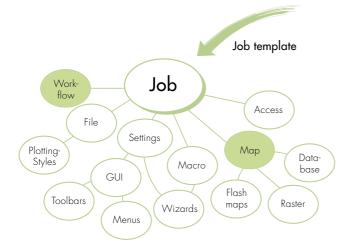
**1** From Windows Start button, select the program group ArcCadastre.

2 Click Attribute Form Editor.

## **ArcCadastre - Concepts**

#### Job

In most organizations the use of data is often strictly regulated by laws, regulations and instructions and its processing must follow a workflow based on set processes and routines. This is typically the case for real property formation where, in addition, a number of documents are generated and sent to the involved parties. Similarly, for cartographic purposes, there may be a need to create a number of objects in, or make changes to, a geographic database involving input and output files and large volumes of data. To keep track of processes and for quality assurance there is a need for organization and control of the workflow. ArcCadastre supports the handling of these types of processes through the Job concept.



In ArcCadastre a Job is the basic mechanism for handling work processes. All work in ArcCadastre is carried out within the framework of a Job. A Job has the following characteristics:

The function of a Job is to organize and keep track of all relevant information and settings that belong to it. These can include program settings, data sources and features in geodatabases, as well as references to documents belonging to it.

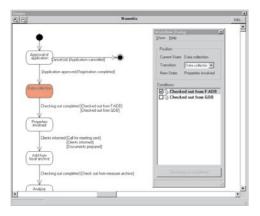
- In the cadastral process Jobs are used to manage the legal requirements so that, for example, a process will be automatically suspended where legal approval is required before it can proceed.
- A Job has a lifespan during which it supports the overall handling of all items affected by it.
- Jobs are created from a Job template and are saved with a unique designation (ID) in a Job database.
- A Job has a workflow, see Workflow below.
- A Job has at least one map document.
- Access to a Job is regulated by the overall access rights system. This facility can be used to restrict access to a complete Job, or parts of a Job, to specified users.
- A Job can have a relationship to other Jobs, Sub Jobs. For example it may not be possible to start a Job until it has received input data from another Job.
- The settings for a Job can be viewed by clicking on the Job tab in the table of contents.



#### Workflow

A workflow is an implementation plan that guides you through a Job. With the help of a workflow you can monitor the progress of your work. The simplest form of workflow is a checklist in which the user must check (tick) check boxes as the different stages in the process are completed. Complex workflows can also be created in ArcCadastre. An example of a complex workflow is a process in which some of the operations must be carried out in a given sequence or in a specific way before the process can continue. A workflow can be extended with plug-ins written in any COM-compliant language, such as Visual Basic, through which steps in the process can be automated. COM-compliant language also makes it possible to communicate with other external applications.

By using a workflow, parts of a procedure that contain the same elements, and which are frequently repeated, can be rationalized. With a workflow it is easy to monitor that legally defined processes and routines are followed.



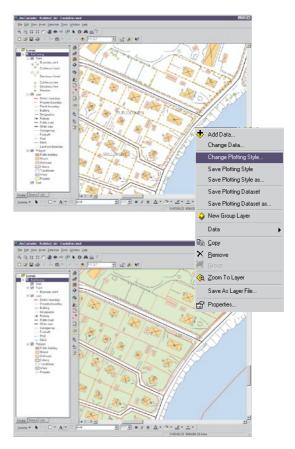
Workflows are normally created by a specialist customizers with the help of the Workflow Editor, which is included in the ArcCadastre package. The editor stores the information about the workflow in XML file format.

The editor is a graphical tool that can also simulate, generate new code and update existing code if the diagram is changed.

#### Plotting styles

ArcCadastre uses plotting styles to define how the presentation of data is to be done both on your screen and printer. A plotting style consists of a number of layer names with descriptions of how each layer is to be drawn. Plotting descriptions can be used for drawing points, lines, polygons or text. As a plotting style does not contain the data sources for the layers, the same plotting style can be used for different databases, which contain the same type of features.

One of the principal advantages of using plotting styles is that you can easily change the appearance of a map simply by changing the plotting style. For example, you can use one plotting style for editing a map and another for presenting it.



In addition to information about the different layers, a plotting style contains information about their drawing order, the reference scale and more. You can easily edit a plotting style description for a layer and copy a plotting description from one plotting style to another.

ArcCadastre comes with several predefined plotting styles, but you can also create your own.

#### Map templates

A map template is always the starting point for making a map. A typical map template contains one or several predefined layouts that arrange an assortment of map elements such as titles, scale bars, North arrow, legend and text fields. It is also possible to add tables, OLE documents, logotypes, etc. You can produce a map by simply adding geographic data. A template can be used to produce a single map or a series of maps that have the same appearance. If a map product always contains layers from a specific dataset these layers can be included in the template. All users in an organization can share templates.

The ArcCadastre package contains several different map templates with different layouts and for different applications. You can easily modify these templates by adding new map elements, changing existing ones or deleting old. You can also create your own templates.

#### Geodatabases

In ArcCadastre data is stored in geodatabases. A geodatabase is a relational or object-relational database that has been enhanced by adding geographic data storage and referential integrity constraints. Geodatabases on any relational database manager supported by ArcCadastre operate identically. This facilitates the use of a single database manager throughout a whole organization.

In ArcCadastre there are two types of databases: *Personal* and *Common* (multi-user).

#### Personal databases

Several users can import and export simultaneously but only one person at a time can edit features in the database. Storage is done in Microsoft Access format, in a file-based database or in a personal ArcSDE database. You can create and work with a personal database in ArcCadastre without the need for any other software.

#### Common (multi-user) databases

Data in common databases can be imported, exported and changed by several users simultaneously. This requires a database environment with a database manager. A Common database can be used with ArcCadastre, but requires the use of ArcSDE for making changes and handling schemas.

ArcCadastre comes with support for personal geodatabases. In addition ArcCadastre supports the following database managers via ArcSDE:

- Microsoft SQL-Server
- Oracle and Oracle Spatial
- IBM DB2
- Informix

#### Data models

Three different data models come with ArcCadastre: the model for ArcCadastre Sverige, the Basic Model and the AutoKa Model.

The data model for ArcCadastre Sverige is an object-oriented model designed for use by Swedish municipal cadastral authorities and within the four main cadastral processes that are supported by Arc-Cadastre. The model is divided into the following parts:

- Quality
- Land and water
- Properties
- Plans
- Buildings
- Fresh water and drains

control networks

- Transport
- Pipes and cables
- Historic sites and remains

Height and planimetric

A certain degree of extension and customization of the model is possible. As the functionality of the software is based on the contents and structure of the data model great care must be taken when changes are made to the model. Lantmäteriet will retain responsible for the model to ensure that all future modifications can be standardized for use by all users.

This model also has a number of general topological rules that are based on the rules that are defined in ArcGIS 9.2.

The Basic Model is object-oriented and is open for customization for use with a variety of areas of activity. This model contains some of the custom objects, which are of central importance for real property formation and map production.

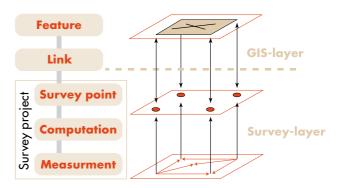
The AutoKa model is geometry-oriented and cannot be customized. The main purpose of this model is to facilitate the handling of data to and from AutoKa's transfer file format (FF).

ArcCadastre comes with comprehensive descriptions of the three data models and how to load data to a geodatabase. There are also class diagrams based on the Unified Modeling Language (UML). Making changes to these diagrams requires Visio software from Microsoft.

#### Survey databases

ArcCadastre is a unique solution that extends GIS functionality by adding survey functionality. In ArcCadastre, a Survey database is an extension of the geodatabase for storing field survey data with links between the stored data and survey points and features.

As all existing survey data and the associated computations are stored in the survey database, you can easily, at any time, go back and recompute points with old data or use new data to update them and features. In ArcCadastre there are data storage models and functions for handling survey measurements including point attributes, such as point names and numbers, mean square errors, quality information, method of determination, reliability etc. The survey database is fully integrated with ArcCadastre.

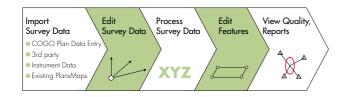


#### Survey and computation

ArcCadastre contains powerful tools for handling different kinds of measurements and computations including adjustment of triangulation and traverse networks, adjustment of leveling and height traverses and the computation of points fixed by polar or orthogonal methods. It is also possible to compute setting-out data and export it to field equipment for setting out details on the ground. Survey observations can be imported and computed automatically. You can import measurements made in the field using for example a TPS into ArcCadastre. Survey points are created and updated from these measurements through a set of computations.

Survey measurements are stored in a survey database and measured points are linked to features in the geodatabase. As observations of angles and distances are stored in ArcCadastre, points can always be computed when they are needed. Import and export between ArcCadastre and different types of survey instruments is done using a data converter.

You can create your own data converter and code translator for import and export using COMprogramming.



#### Import and export

An important requirement in the development strategy for ArcCadastre was easy exchange of data with different GIS and CAD systems via different file formats. ArcCadastre can handle the following formats: AutoKa Transfer File, DXF, DWG, MID/ MIF, DGN, MapInfo TAB, KF85 and ArcInfo (shape, coverage etc.). Other formats can be added by purchasing components from Safe Software Inc. Contact your software provider for more information.

Export	? 🛛
General Advanced	
Source Export	
All features	<b>_</b>
Destination Eormat:	
AutoCAD DWG/DXF	Settings
Output:	
C:\temp\Bebyggelse_Byggnad.dwg	
Datasets:	
Destination	Source
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Edit	
<u>C</u> oordinate System:	
RT90_25_gon_V <source/>	- 🖻
	OK Cancel

## **COM based software**

ArcCadastre is based on COM technology and the international ISO and OGC standards. The system can easily communicate with service-oriented applications and external databases. This creates the opportunity of integrating the solution into host systems or control subordinate systems (e.g. automated creation of Office documents).

#### Customization

ArcCadastre is based on the Component Object Model (COM) which is a technique for communication between objects within the program and between other programs. By using this technique it makes it easy for both program developers and endusers to extend and customize the software. Using COM makes it possible to create reusable program components. These components can be reused on a binary level, which means that there is no need for access to source code and object libraries to extend the system. Any kind of tool that supports COM techniques, such as Visual Basic, Visual C++, C# or Delphi, can be used for developing components.

ArcCadastre comes with a plug-in wizard for Visual Basic programming. To facilitate programming, the wizard contains a complete skeleton program with error management functions. With the support of the wizard you can customize Arc-Cadastre without having to be a fully accomplished Visual Basic programmer.

These features make ArcCadastre completely open for customization and use together with other programs.



#### Interacting with other software

ArcCadastre has been designed to be very flexible in its ability to work with other programs. Via the underlying COM-technology it provides simple and easily accessible interfaces that can be used in building communication solutions to other software.

## ArcCadastre by Lantmäteriet

## Getting started with ArcCadastre

In this chapter:

- Starting ArcCadastre
- Getting help ToolTips What's This Online Help Support

Getting Started with ArcCadastre - which contains the "Quick Start" tutorials. Going systematically through these tutorials is the best way to learn how to use and understand the fundamentals of ArcCadastre.

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• QuickStart tutorials Exercise 1-9

## **Starting ArcCadastre**

ArcCadastre can be started in one of the following ways:

#### From the Start menu:

- 1 From Windows Start button, select the program group ArcCadastre.
- 2 Click on 🔶 ArcCadastre.

### From ArcCadastre/FileManager (if the program is started):

1 In ArcCadastre/FileManager, click the Launch ArcCadastre button.

## **Getting help**

You can get help when you are working with ArcCadastre in several different ways. In addition to the comprehensive Online Help system in the program itself, you can also get help from the support organization that has been built up around ArcCadastre. For more information about getting help, please contact your software dealer.

You can access the built-in Help system in one of the following ways:

#### ToolTips

To find out what a button, tool or menu command does:

 Place the mouse pointer over the item, but do not click. For a few seconds you will see a short description. At the same time you will see a fuller description in ArcCadastre's status field at the bottom of the program window.

#### What's This

Getting more help about buttons and menu commands in the application window

1?

?

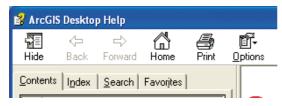
- 1 Click the What's This? button on the Standard toolbar.
- 2 Click the Help pointer on the item you want to learn more about.
- 3 Click anywhere on the screen to close the Help description box.

#### Getting help about items in a dialog box

- 1 Click the What's This? button on the upper-right corner of the dialog box.
- 2 Click the Help pointer on the item you want to learn more about.
- 3 Click anywhere on the screen to close the Help description box.

ArcCadastre - Untitled - Untitled																		
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Create a New Job from a Template									-229,	167 8	83,772	2 Unkn	own l	Jnits				_ //

#### Online Help



#### Using the Contents tab to get help

- Click the Help menu and then click ArcCadastre Help.
- 2 Click the Contents tab.
- 3 Click the plus sign next to a book to see a list of topics in it.
- 4 Click the topic you want to read.
- 5 View the topic in the topic pane on the right.

#### Searching the Index for help

- Click the Help menu and then click ArcCadastre Help.
- Click the Index tab.
- In the text box, type one or more keywords that best represent the topic you are looking for.
- 4 Double-click the keyword you want to read more about.
- 5 If several topics are related to your selection, the Topics Found dialog box appears. Click the topic you want to see and click Display.
- 6 View the topic in the topic pane on the right.

### Searching for Help topics containing specific words

- Click the Help menu and click ArcCadastre Help.
- Click the Search tab.
- 3 Type the word or words that should be contained in the topics you want to find.

- 4 Click List Topics.
- 5 Double-click the topic you want to read more about.
- 6 View the topic in the topic pane on the right.

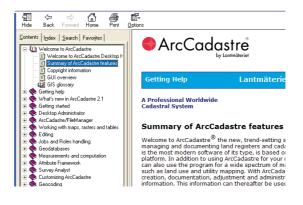
The word or words you specified are highlighted in the topic.

Searching for Help topics using wildcard ex- pressions

- Click the Help menu and click ArcCadastre Help.
- 2 Click the Search tab.
- In the text box, type an expression using an asterisk (\*) to represent several characters or a question mark (?) to represent one character.
- 4 Click List Topics to see a list of topics matching the query.
- 5 Double-click a topic in the list to view it in the topic pane on the right.

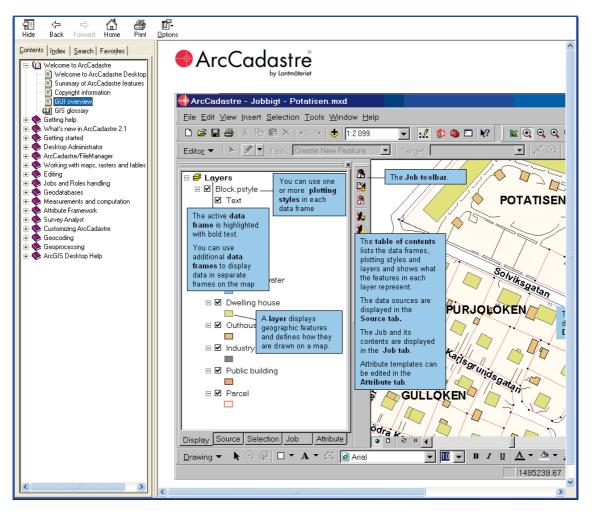
The words resulting from the search query are highlighted in the topic.

To get more information and tips for using the Help system, double-click on the text Getting Help.



#### Support

Should you need more help, please contact your software dealer.



## **QuickStart tutorials**

This chapter will take you through your first practical experience of working with ArcCadastre. You will do nine exercises and work with a Job called QuickStart. You will create this Job from a Job template and then follow the workflow through to the completed printout. In the exercises you will learn how to use simple tools, such as how to zoom in and out on a map, as well as more advanced functions such as how to edit objects in the database. When you have completed the exercise you should have a general understanding of working with ArcCadastre and have familiarized yourself with some specific ArcCadastre concepts.

To get the maximum benefit from later exercises we strongly recommend that you carefully go through **part 2**, ArcCadastre in detail, before you begin the exercises.

To do the exercises you must have ArcCadastre installed on your computer. If you need help doing an installation refer to the Readme.pdf on the Arc-Cadastre program DVD.

#### Let's get started

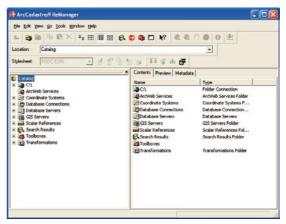
In the following exercises you will use different functions in ArcCadastre ranging from basic functions such as zooming to more advanced functions such as editing and subdividing an existing property and placing a building on the newly created property unit. You will follow a simple workflow in which you successively tick check boxes as individual tasks in the workflow are completed. The result of the exercises will be a map ready for printing.

### Exercise 1 - Copying the data for the exercise using ArcCadastre/FileManager

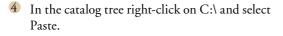
In the exercises that follow you will, amongst other things, edit the data and make changes to the contents. So that you, or someone else, can repeat the exercises you must be able to copy the data to a folder on your computer and retrieve it from that folder.

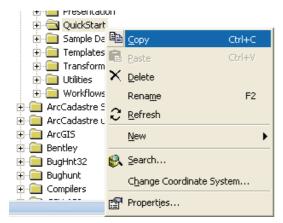
 Start ArcCadastre/FileManager from the Windows Start button.
 Select the program group ArcCadastre and click ArcCadastre/FileManager.

ArcCadastre/FileManager will start and you will see the ArcCadastre/FileManager window divided into two panes on your screen. The catalog tree on the left pane of the ArcCadastre/FileManager window is for browsing and organizing your data. The contents of the current branch are displayed on the right pane of the ArcCadastre/FileManager window. If you want more information about the contents of the data, click the Contents, Preview and Metadata tabs.



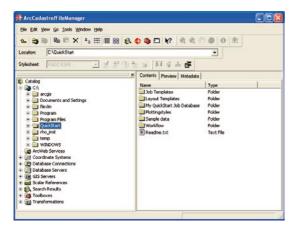
- 2 In the catalog tree navigate to the folder in which you installed ArcCadastre. The contents of the folder are shown in the right pane.
- 3 In the right pane, right-click the folder called QuickStart and select Copy.





If you don't have access rights to C:\ you can paste the folder in another location. You will then have to browse for files in this location when doing the exercises.

You have now placed a copy of the folder called QuickStart on C:\. This is the folder that we mean when we refer to the QuickStart folder. All you need to do the exercises is in this folder.



#### Exercise 2 - Starting ArcCadastre

You will now start ArcCadastre. You can start the program in two different ways:

 From ArcCadastre/FileManager (if the program is started):

Click the Launch ArcCadastre button on the upper row of buttons in ArcCadastre/ FileManager.

From the Start menu:

- Start ArcCadastre by clicking the Start Start button on the Windows taskbar.
- 2 From the program group ArcCadastre, click on ArcCadastre.

ArcCadastre will start and you will see the Start dialog on your screen. Here you have the choice of starting ArcCadastre with no Job open, by creating a new Job or by opening an existing Job.

ArcCadastre 🛛 🛛 🔀
Start using ArcCadastre with No Job open A new Job A new Job An existing Job This dialog, and the splash screen, can be turned off/on from the Tools - Options - General Tab
$\Box$ Do not show this dialog again $\Box$ K

Click No Job open and then click OK.You can now close ArcCadastre/FileManager.

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The ArcCadastre program window is now opened and in the upper part of the window you will see dropdown menus and buttons for functions and tools. The program window is divided into two panes. The pane to the left - the table of contents - lists all the layers in the map and shows what features each layer represents. The pane to the right - the map window - contains the map that you have chosen to show. In the map window you can show the map in two different ways: Data View or Layout View. You should use the Data View when you are working with your data. With this option other map elements, such as north arrow, scale bar and others, will not be shown. You should use the Layout View when you want to work with the layout or make a print out of your final map. In this mode the other map elements, for instance north arrows and scale bars, are shown. You will learn more about layout views in later exercises.

### Exercise 3 - Creating a Job from a Job template

In this exercise you will create a Job from a predefined Job template. Job templates are created by specialist customizers and they contain all the necessary settings for a specific type of Jobs, for instance links to data and workflows. A Job is created from a Job template and is stored in a Job database.

Job database is a geodatabase enhanced with a data model for handling Jobs. You can have several Job databases for storing your Jobs. For example, you can have a local Job database on your own computer, which only you can use, and you can have a connection to another Job database on a server to which several persons have access rights and can view or work with the same Job.

	1 Click the button Create a New Job from
2	a Template on the Job toolbar that
7	is used for managing Jobs. You will see
-	these buttons between the two panes.
-0	eate a New Job from a Template
	The Create Job from a Template dia-
<b>I.</b>	log is opened. You will see some of the
2	Job templates that are available (it is
×	also possible to browse to use other
	templates). If there is a description of
Ð.	the Job template it will be shown in
в.	the Description pane to the right. The
<b>b</b>	Table second and all as an and the second se

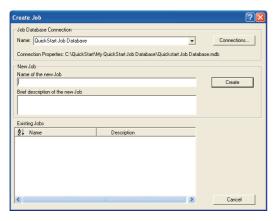
Job template that you will use for this exercise is in the folder called Quick-Start. You will now retrieve the Job template from the folder.

Create Job from a Template		? 🔀
Templates  Bdm   Samples	- Description	
		Cancel

- 2 Click the Open Folder button 🖻
- 3 Click the Look in dropdown arrow and browse to the folder C:\QuickStart\ Job Templates. Select the file called Quickstart.acejt and click Open.

The Job Database Connections dialog is opened.

Note! If a Job database previously has been opened, the Job Database Connections dialog will not be opened automatically. You will instead see this dialog which shows all available Jobs in the previously opened Job database:



To continue, open the Job Database Connections dialog by clicking on the Connections button.

You will now open the Job database by creating a connection to your local Job database. This base is located in the folder QuickStart.

Jo	b Database Conne	ctions				? 🛛
	New Connection Name:					
	Connection Properties:					
	Existing Connections					
	Name	Туре	Server	Service	Version	Table 👌
	<					>
				/	Add Delet	Close

- 1 Type the name of your connection to the Job database in the Name input field. In this example we will give it the name QuickStart Job Database.
- 2 Next to the Connection Properties field click the browse button.
- In the Databace connections dialog, click the Look in dropdown arrow and browse to C:\QuickStart\My QuickStart Job Database. Select QuickStart Job Database.mdb and click Select.
- 4 Click the button Add and a connection to your Job database will be created.
- 5 Close the dialog.

The Create Job dialog is opened.

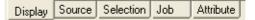
6 In the Job Database Connection panel, select QuickStart Job Database.

You have now created a connection to your local Job database and opened it. The next step is to give

the Job a name and, optionally, a short description. The description will be shown when you, or another user, open the Job.

- In the Name of the new Job input field, type e.g. QuickStart.
- In the Brief Description of a new Job input field, type a descriptive text, e.g. Subdivision of a property and then create a new building Job.
- 3 Click Create.

You have now created a new Job. Data is added in the map window, and you can see the layer structure for this data in the table of contents. A window that contains a workflow dialog is opened. You will learn more about this later in this exercise. If someone else has been working with the program you might not see the Workflow window. To display it, click the last button in the Job toolbar (Show/hide Workflow dialog). At the bottom of the table of contents there are a few tabs, the ones we will use in this exercise are Display, Source and Job.

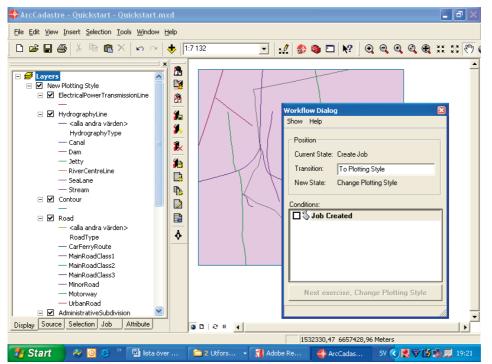


#### Display

The Display view shows the layers in each data frame sorted in drawing order. Layers at the top of the list are drawn on top of layers lower down in the list. You can drag and drop layers in the list to rearrange the drawing order.

#### Source

The Source view shows the data that is included in the Job. It shows where the data is located, for instance paths to databases and other files. If there are tables in the Job they will be listed in this view (they are not visible in the Display view).



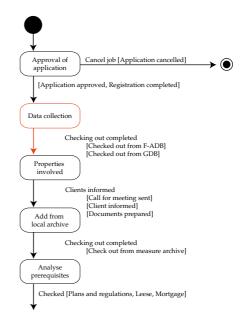
#### Job

The Job view shows the current settings for each Job. In this view, there is information about map documents, plotting styles, attached files and whether the Job is connected to or has its own sub-Jobs. Under this tab you can also change the settings for a Job.

 Take a moment to explore the tabs at the bottom of the table of contents.

When you do the remaining exercises you will follow a workflow. The workflow will help you to follow the working process. The simplest form of workflow is a set of check boxes in which you check the different steps in the process as they are completed. In more complex workflows it may be mandatory to carry out some operations in a given sequence, or in a specific way, before the process can continue. A workflow can contain macros and program loops, which automate steps in your work. Workflows are created by specialist customizers.

If you want to learn more about workflows you can read the document Workflows.rtf. The document can be found in the folder Documentation where ArcCadastre is installed.



The workflow that is included in this exercise is a simple workflow in which you will check the various steps as they are completed.

Workflow Dialog	X
<u>S</u> how <u>H</u> elp	
Position Current State: Create Job Transition: <u>To Plotting Style</u> New State: Change Plotting Style Conditions: D S Job Created	
Next exercise, Change Plotting Style	

The workflow is opened in a dialog of its own which you can drag to a suitable position on your screen.

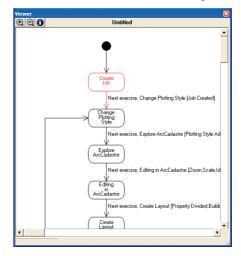
In the Workflow Dialog you have an overview of the working process. In the upper panel you can see where you currently are in the process. If there are alternative ways to move forward to the next step you make your choice in the Transition dropdown menu. In the Conditions pane you can see the requirements that must be satisfied before you can move forward through the workflow. When these requirements have been met, the button at the bottom of the Workflow Dialog lights up. When you click the button the process takes you to the next State. In some cases the Transition takes place automatically.

Whilst you are working with the workflow you can also view the workflow as a UML diagram.

Click Show in the Workflow Dialog.

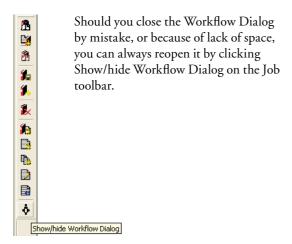


2 Click Viewer and a new window is opened.



In the Viewer window you can see your workflow as a UML diagram. You can use the Viewer to get a general overview of the working process. Your current position in the process is shown in red on the diagram.

3 Close the Viewer window.



If you want to halt and close a Job to continue later, or to let someone else take over where you left off:

 Click the button Close the Job that is currently open on the Job toolbar between the two panes.

The Job will be saved and closed. The next time you, or someone else, open the Job it will look exactly as it was when it was closed. The workflow position will be the same, the map extent will be the same, the table of content will have the same content etc.

An existing Job is opened as follows:

- Click the button Open an Existing Job This button is on the Job toolbar between the two panes.
- 2 The dialog Select a Job to Open opens.

Select a Job to Open		? 🛛
Job Database Connection Name: QuickStart Job Database Connection Properties: C:\QuickStart\M Filter Settings	y QuickStart Job Database	Change
Existing Jobs	Description	

All Jobs in the selected Job database are shown in the Existing Jobs pane.

- 4 Select the Job you want to open in the Existing Job pane.
- 5 Click Open.

You have now created your first Job in ArcCadastre and are ready to do the next exercise. Before you can continue you must check the steps that you have just completed in the workflow checklist located in the Workflow Dialog.

1 Click the Job Created check box.

When all conditions are completed it is possible to continue and the button at the bottom of the dialog is now enabled. You can now continue to the next State by clicking the button Next Exercise, Change Plotting Style.

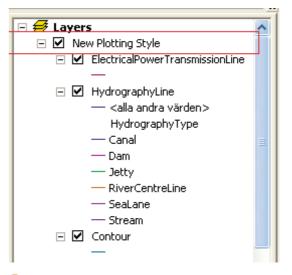
Workflow Dialo	]	X
<u>S</u> how <u>H</u> elp		
Position Current State:	Create Job	
Transition:	To Plotting Style	
New State:	Change Plotting Style	
Conditions:	eated	
Next exe	rcise, Change Plotting Style	
		//

2 Click the Next Exercise, Change Plotting Style button.

You are now ready to go on to the next exercise in which you will continue through the working process.

#### Exercise 4 - Changing Plotting Style

In this exercise you will add a plotting style for your map. ArcCadastre uses plotting styles to define how the presentation of data is to be done either on screen or on a printer. A plotting style consists of a number of layer names with descriptions of how each layer is to be drawn. The plotting layer descriptions can be for drawing points, lines, polygons or text. Because a plotting style does not contain any information about data sources, you can use the same plotting style for different data sources. This makes it possible for an organization to build up a library containing ready-to-use plotting styles that can be used by several users. The great advantage of using a plotting style is that you can easily and quickly change the appearance of a map. For example, you can use one plotting style for editing a map and a second for presentation. You can see which plotting style is currently active on the row under Layers in the table of contents (when the Display tab is highlighted).



 Click the Job tab at the bottom of the table of contents. The settings for your Job will be shown. 2 Right-click PlottingStyles and then click Add Plotting style.



- 3 Click the Look in dropdown arrow and browse to C:\QuickStart\Plottingstyles.
- 4 Select QuickStart.pstyle.

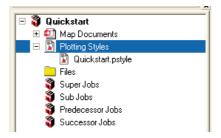


You now have two different alternatives for adding plotting styles to a Job. You have the option of either saving a copy of the plotting style in the Job database or saving a link to the file. The advantage of saving a link to a file is that you only need to save the plotting style in one place, which can then be accessed by all users. Furthermore, when the plotting styles are updated or changed, all of the changes will automatically be made the next time the Job is opened. If you choose to save a copy of the plotting style in the Job database the link to the original plotting style will be removed and it can only be modified from within the Job.

- 6 At the bottom of the dialog, click the alternative Save a link to the file in the Job Database.
- 7 Click Open.

You have now added the plotting style to your Job.

8 Click the plus sign to the left of Plotting Styles. The tree structure expands and you see the plotting style that has been added to your Job.

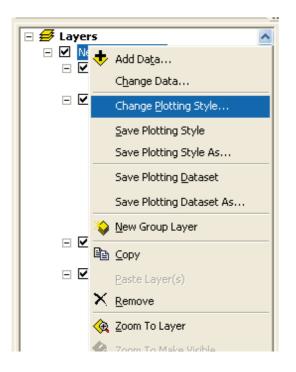


You have now completed another step in your work-flow.

9 Check the Plotting Style Added check box in the Workflow Dialog to show that this step has been completed.

You will now change to the plotting style that you have just added to your Job.

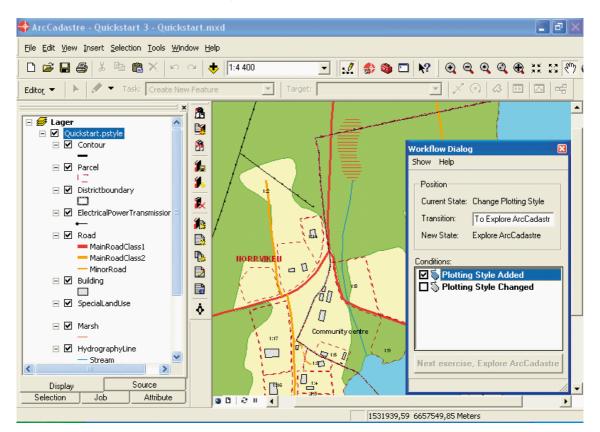
- Change to the Display view again by clicking the Display tab at the bottom of the table of contents.
- 2 Right-click New Plotting Style (the line below Layers in the table of contents).
- 3 Click Change Plotting Style.



- 4 In the Change Plotting Style dialog choose Quickstart.pstyle.
- 5 Click Change.

Select not to save the plotting style if prompted.

The map is redrawn with the new plotting style.



You can also change to a plotting style that is not in the Job. Choose Change Plotting Style as above and, instead of selecting it from a list, browse to the plotting style and select it. You have now completed this exercise and are ready to continue to the next one, Explore ArcCadastre.

- Click the Plotting Style Changed check box in the Workflow Dialog.
- 2 Click the Next exercise, Explore ArcCadastre button.

#### Exercise 5 - Exploring ArcCadastre

You have now created a Job and added map data to it and are ready to look more closely at the program itself and its tools and functions. In this exercise you will learn how to use some of the basic functions in ArcCadastre. These functions are common to both ArcCadastre and several other programs, so if you have previously used any of them you can treat this section as a refresher.

In the upper part of the ArcCadastre's program window you will see dropdown menus and buttons that contain tools and functions. Take a few minutes to look at the contents of the dropdown menus at the top of the program window.

In ArcCadastre there are many ways of finding a wide range of information that you will find useful in different situations. You will now get to know about and use some of them.

On the Tools toolbar there are several tools that you will find useful for navigating on maps.

1 Click the Zoom In button

The pointer will change to a magnifying glass when you move the cursor over the map.

Click and create a frame around an area on the map.

You will now have zoomed in on the area you chose. If you want to zoom in further, all you need to do is click again and create a new frame. You can also zoom in steps by repeatedly clicking in the map window.

You can use the Zoom Out button in the same way as Zoom In. You use the panning tool if you want to move around in the map without zooming.

3 Click the Pan button

4 The pointer will change to a hand when you move the cursor over the map. Click, hold the button depressed, and pan over the map.

5 Release the mouse button when you are satisfied.

To undo zooming or panning and return to the previous extent, use the Go Back To Previous Extent button.

6 Click the Go Back To Previous Extent button.



In a similar way, you can click the Go To Next Extent button to move forward a step through the sequence of extents you have been browsing.

You have now learnt how to use some of the zoom functions in ArcCadastre and can now check the box for this step in the workflow.

 Click the Zoom check box in the Workflow Dialog.

You can also set the scale for your map either by typing a scale value or by selecting one of the fixed values in the Scale dropdown menu in the upper part of the program window.

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- Click in the Map Scale dropdown menu (the text will be highlighted in blue.
- 2 Type 2000 and press Enter.

Your map will be redrawn at the scale you selected. Another step in the workflow has been completed, check it in the list.

 Click the Scale check box in the Workflow Dialog. To get more information about a feature in the map you can for instance use the Identify tool.

- Click the Identify button on the Tools toolbar.
- 2 Click on a feature on the map.

The Identify window opens. In this window all of selected feature's attributes and relations to other features are shown. If the tool finds several features at the point where you click, they will all be listed in the left pane of the window. If you then click a feature in the list you will see the attributes and relations in the right pane.

(i) Identify			? 🔀
Identify from: <top-me< th=""><th>ost layer&gt;</th><th></th><th>•</th></top-me<>	ost layer>		•
Districtboundary     BERGVIKEN	Location: 1 531	933,336 6 657 307,719 Meters	
	Field	Value	
	OBJECTID	11	
	Shape	Polygon	
	AceID		
	Name	BERGVIKEN	
	SubdivisionPurpose	State	
	SubdivisionState	Living	
	Shape_Length	2071,879477	
	Shape_Area	262094,797357	
Identified 1 feature			

3 Close the window Identify window.

You have now almost reached the end of this exercise.

 Click the Identify check box in the Workflow Dialog.

If you have zoomed in on your map and now want to see the whole map, you can rapidly zoom out to the full extent.

2 Click the Zoom to Full Extent button

You have now checked all of the items in the checklist for this exercise and are ready to start the next.

Workflow Dialog	]	X
<u>S</u> how <u>H</u> elp		
Position	Explore ArcCadastre	
Transition:	To Editing in ArcCadastre	
New State:	Editing in ArcCadastre	
Conditions:	,	
Next exercia	se, Editing in ArcCadastre	•

3 Click Next Exercise, Editing in ArcCadastre, in the Workflow Dialog.

## Exercise 6 - Editing with ArcCadastre

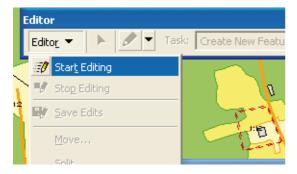
You have now created a Job and learnt how to use some of the basic functions in ArcCadastre. In this exercise you will begin to use your map data, create new features and edit existing ones.

ArcCadastre contains an editor, which has several functions and tools that you will find useful when you are working with map data. In this exercise you will only use a few of them, but as they are all used in a fairly similar way you will get a good idea of how to work with them. Try using some of the other tools when you get to the end of these exercises.

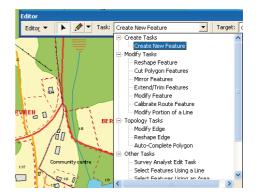
1 Click the Editor Toolbar button on the ArcCadastre standard toolbar.

The Editor toolbar opens. In this mode all buttons and dropdown menus are dimmed. Before you can start editing you must start the Editor.

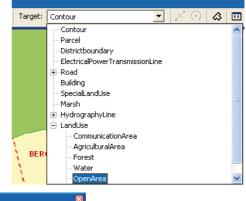
 Click Editor on the Editor toolbar and then click Start Editing.



You are now in the editing mode and will see that the buttons and dropdown menus are active and can be used for editing. You use the Editor in the following way. In the Task dropdown list, choose the function that you want to implement, for example, Create New Feature. If you browse through the list you will see that there are several functions to choose from.

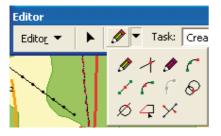


The type of feature you create is steered by the setting in the Target dropdown list. This list contains the names of all of the layers in the datasets with which you are working, together with all existing Subtypes. For instance, if you set the target layer to





Land Use: Open Area, any features you create will have the Subtype OpenArea in the Land Use layer. The Sketch Tool is the main tool for creating sketches. To create a point feature, click once on the map. To create line or polygon features, use the Sketch tool to digitize the vertices that make up the feature. To create the last vertex and finish the sketch, double-click mouse or right-click and select Finish sketch. After you have finished the sketch, ArcCadastre will create the final segment of the sketch to build a feature.

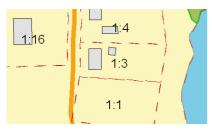


When you are in the editing mode

you can use the Undo and Redo buttons to undo or redo the last command or action. You cannot, however, undo or redo anything you did in the editing mode once you have saved your edits.

In the next part of this exercise you will first divide a property into two equal parts and then place a new building on the newly created unit by digitizing.

 Use the Zoom tool that you learnt to use in Exercise 5 to zoom in on the property Norrviken 1:1, which lies west of the lake in the southwest part of the map.



You will now use the Cut Polygon Using Area/ Length Constraint tool to divide the property into two equal parts.

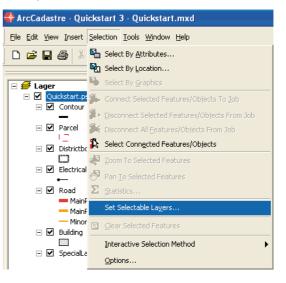
On the Editor toolbar:

- Click the Task dropdown arrow and choose Cut Polygon using Area/Length constraint.
- 2 In the Target dropdown list choose Parcel.
- 3 Click the Edit tool 上

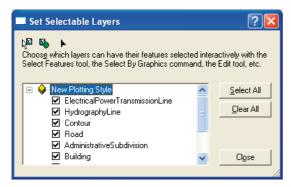
The pointer will now look like the figure on the Edit button.

To be able to select features from the Parcel layer you must make settings for the interactive selection tools. These settings can be done automatically but in this exercise you will learn how to manually make the settings.

4 On the Selection menu, select Set Selectable Layers.

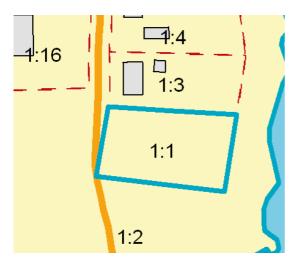


The Set Selectable Layers dialog will be shown on your screen.



- 5 In the dialog, click the Clear All button to uncheck all layers.
- 6 Click the Parcel check box.
- 7 Click Close.
- 8 Click on the property that you zoomed in on earlier in the exercise.

The property will be highlighted in blue.



 Click the Sketch tool on the Editor toolbar.

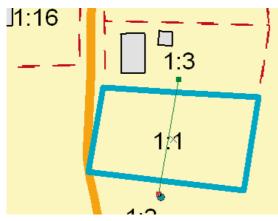
The pointer will look like this  $\clubsuit$ . You will now create a line which will divide the property into two parts.

- 2 Click and digitize the first point on the line just outside the existing boundary at the north side of the property.
- 3 Right-click on the boundary on the eastern side of the property. In the menu click Parallel.

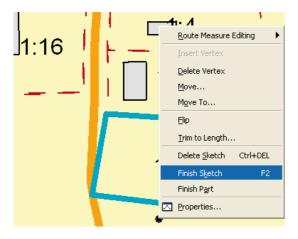


A line will be created parallel to the boundary on which you right-clicked.

4 Click to digitize a second point just outside the property boundary at the southern side of the property.



5 Right-click and then choose Finish Sketch.



The Cut Polygon using Area/Length constraint dialog is opened:

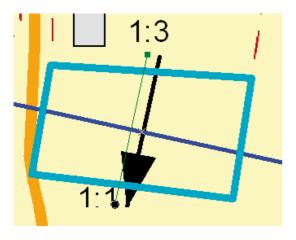
Cut Polygon Using Area/Length Constraint 🛛 🛛 🔀
Constrain polygon: Area 💌 Feature Area is 1821,6278
Constrain Left   part to be   985.3229 absolute value
Cut line adjustments
Move along direction     171,2378
C Rotate around vertex
Extend at <u>S</u> tart Point
Extend at End Point
Area of left polygon will be 985,3229 Left polygon will contain 1 part(s). Right polygon will contain 1 part(s).
OK Cancel <u>B</u> efresh

You will now use this tool to divide the property into two equal parts by defining the area of the newly created unit to the left as 50 % of the total area of the original property.

In the Constrain panel:

- 6 Type 50 in the middle field.
- Click the dropdown arrow to the right and change the value in the dropdown list to % of total area.
- 8 Click Refresh in the bottom corner of the dialog.

Cut Polygon Using Area/Length Co	nstraint 🛛 🛛 🔀
Constrain polygon: Area 💌	Feature Area is 1821,6278
Constrain Left v part to be 50	% of total area ▼
Cut line adjustments	
<u>M</u> ove along direction     171,2378	

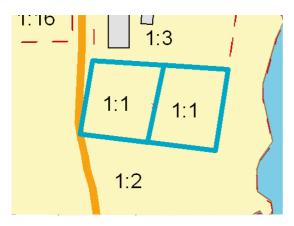


Next to the line you digitized there will now be a line with a black arrow which shows where the property will be divided in accordance with the values you entered.

9 Click OK to confirm the values for the division.

The original single property will be redrawn as two new units with exactly the same area.

The next step is to give the newly created property a new designation.



 Click the Attributes tool on the Editor tool bar.

The Attributes window opens and you can now inspect and modify attributes for selected features.

Attributes		×
Parcel 9 59 9 60	Property OBJECTID AceID Designation ParcelNumber RegisterArea Transient TitleID Shape_Length Shape_Area	Value 59 1:1 1 0 <null> 0 121,2046 910,7944</null>
2 features	Shape_Hica	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,

The selected features and their identities are shown in the left pane. When you click on one of the features in the list you will see its attributes in the right pane.

- 2 In the left pane click the first of the two selected features.
- 3 You will now enter the new designation, in this exercise this is done in the field Designation. Click to the right of this field (i.e. in the Value column).



- 4 Type 1:21 and press Enter.
- 5 Close the Attributes window.
- 6 Check the Property divided check box in the Workflow Dialog window.

You have now completed the first part of this exercise and have divided the property into two new units of exactly the same size.  Check the Property divided check box in the Workflow Dialog window.

You will now place a building on the new property by construction.

On the Editor toolbar:

- Click the Task dropdown arrow and choose Create New Feature in the list.
- 2 In the Target dropdown list choose Building.



You will now place the building on the new property unit Norrviken 1:21. It is to be located 6 meters from the north-west corner, 23 meters from the north-east corner and the size of the building is to be 9 x 15 meters.

Before you begin to create the building you must specify settings for snapping so that you can snap to the property boundaries.

3 Click Editor on the Editor toolbar and then click Snapping.

Layer	Vertex	Edge	End	^
Contour				
Parcel				
Districtboundary				
ElectricalPowerTran	£ 🗌			
Road				
Building				~
Edit sket	icular to s			

The Snapping Environment dialog is opened. You make the snapping settings by checking the respective check boxes.

There are three snapping options for each layer: Vertex, Edge and End. Vertex snapping snaps to the vertices of features. Edge snapping snaps to any part of the lines in the layer and is not affected by vertices. End snapping snaps to the endpoints of lines.

In this part of the exercise you will snap to vertices in the Parcel layer.

- 4 Click to check the Vertex check box for the Parcel layer (as in the previous picture).
- 5 Close the Snapping Environment window.

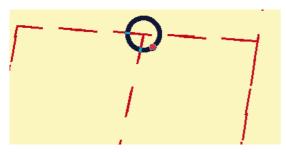
Vertex	Edge	End	~
✓			≣
			~
	ch vertice ch edges cular to s	ch vertices ch edges cular to sketch	ch vertices ch edges cular to sketch

You will now create the first corner of the building.

- Use the Zoom In tool to zoom in the property some additional steps.
- Click the Sketch tools dropdown arrow and then the Distance-Distance tool.



- Create the first vertex by entering the distance from the parcels upper left and right corners. Move the pointer towards the north-west corner of the property. As you move the pointer closer to the corner, the circle in the pointer moves automatically and snaps to the intended position.
- 4 Left-click on the "corner".

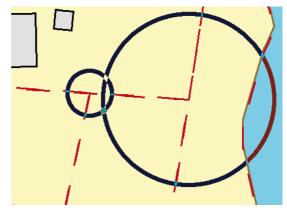


As you move the pointer away from the corner a circle appears the radius of which is the distance from the corner.

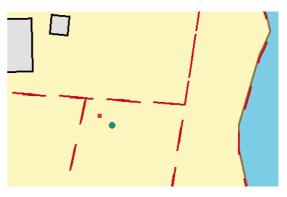
- 5 Press the D key on your keyboard.
- 6 Type 6 in the Distance dialog that appears on the screen, and press Enter.



- 7 Move the pointer towards the north-east corner of the property and click in the corner.
- 8 Press the D key on your keyboard.
- 9 Type 23 in the Distance dialog box and press Enter.
- 10 Left-click the lower of the two circle intersections.



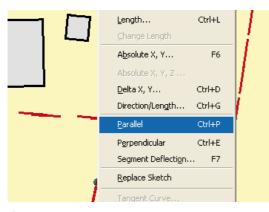
The first corner of the building has now been created.



The longest side of the building is to be parallel to the western boundary of the property.

- Click the Sketch tools dropdown arrow on the Editor toolbar and then the Pen tool.
- 2 Place the pointer over the western property boundary and right-click .

3 In the menu, click Parallel. The line will now be drawn parallel to the property boundary.

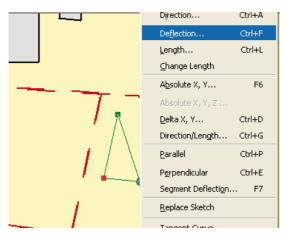


- 4 Right-click and choose Length.
- 5 Type 15 in the field of the Length dialog box and press Enter.

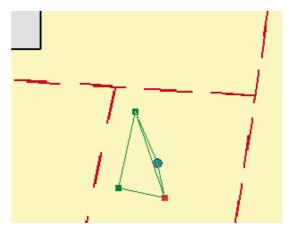


You will now make sure that the first corner of the building is right angular.

1 Right-click and choose Deflection.

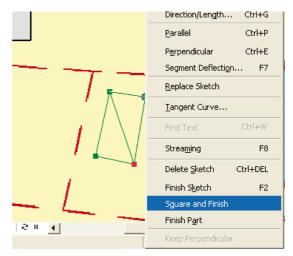


- 2 The Deflection Angle dialog appears on your screen.
- **3** Type 90 in the field and press Enter.
- 4 Right-click and choose Length.
- 5 Type 9 in the field and press Enter.

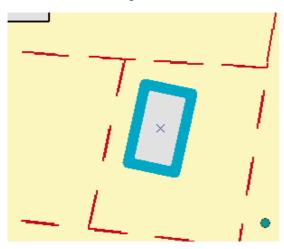


Complete the construction of the building by creating two sides that are exactly the same as the two that you have already created.

6 Right-click and choose Square and Finish.

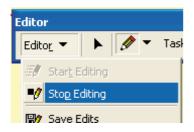


ArcCadastre automatically creates the last two sides, perpendicular to the previous two to finish the construction of the building.



You have now divided an existing property into two parts and on one of them you have placed a building by digitizing. To save the changes you have made you must now end the editing session.

- 1 Click Editor on the Edit toolbar.
- 2 Click Stop Editing.



- 3 Answer Yes when asked if you want to save your changes.
- 4 To redraw your map, click the Refresh View button <sup>2</sup>, at the bottom of the map window.

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R	efre	sh ۱	/iew

You have now almost reached the end of Exercise 6, and are ready to begin the next exercise in which you will create a layout.

5 Click the Zoom to Full Extent button with to zoom to the full extent of the map.

In the Workflow Dialog:

- 1 Click the Building digitized check box.
- 2 Click the Next Exercise, Create Layout button.

Workflow Dialog	×
<u>S</u> how <u>H</u> elp	
Position         Current State:       Editing in ArcCadastre         Transition:       To Create Layout         New State:       Create Layout         Conditions:       Image: Condition State         Image: Property Divided       Image: Condition State         Image: Property Divided       Image: Condition State         Image: Condition State       Image: Condition State         Image: Condit State	
Next exercise, Create Layout	

### Exercise 7 - Creating a layout from an existing template

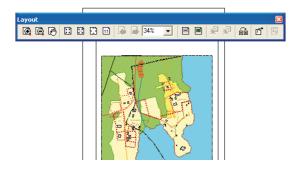
If you plan to create a series of maps and it is important that they have the same appearance, you can use a map template to standardize the layout. If the series contains the same background data, you can include that data in the template. Using a template saves time, as you do not have to manually repeat the production of the common parts of the maps. ArcCadastre contains a number of ready-to-use templates and you can easily make your own templates.

In this exercise you will use an existing template to create a layout at a scale of 1: 3000, which will be ready to use for an A4 printout. The template, which is in the QuickStart folder, contains settings that steer paper size, frames, legend and more. Instead of working in the Data view you will now use the Layout view.

You switch between views using the buttons at the bottom of the map window.

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1 Click the Layout View button



The Map window changes to the Layout mode and you will see your map on a virtual sheet. The data that you previously worked with in the Data view is now shown as a data frame on the virtual sheet. You now also have access to a new toolbar.

## 

These tools can be used to change the size and position of the virtual sheet. The Zoom in and Zoom out buttons are now used for zooming in the virtual sheet, not the map data itself. There is also a tool for changing layout template.

- 2 Click the Zoom In button
- The pointer changes to a magnifying glass.
- 4 Click and create a frame around an area on the virtual sheet.

The sheet will zoom in to the area you selected. If you want to zoom in more, click and create a new frame on the virtual sheet. Try using the other buttons to see what you can do with them.



5 Click the Zoom Whole Page button to view the full extent of the sheet.

You can also use the buttons on the Tools toolbar to change the extent of the map in the data frame.

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Now you will load a ready-to-use layout template for your map.

1 Click the Change Layout button in the Layout toolbar.

The Select Template dialog opens.

Select Template				
My Templates General Industry Sta	ndard   USA   We	bh		
				<u> </u>
	< <u>F</u> öregående	Slutför	Avbryt	

You can now retrieve the template from the Quick-Start folder.

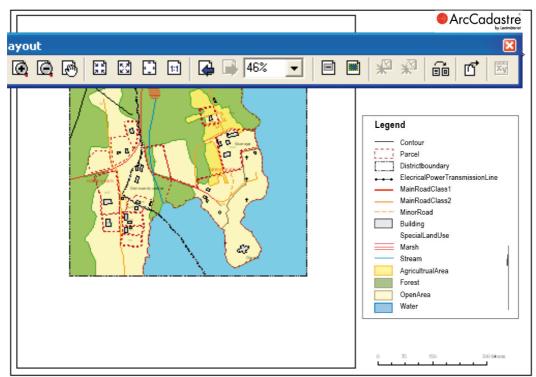
2 Click the Open Folder button 🖻



- 3 Click the Look in dropdown arrow and navigate to C:\QuickStart\Layout Templates. Select Quickstart.mxt and click Open.
- 4 In the Data Frame Order dialog click Finish.

nome Lover	
Move_Lip Move_Down	

The new layout template is added and is drawn on your screen.

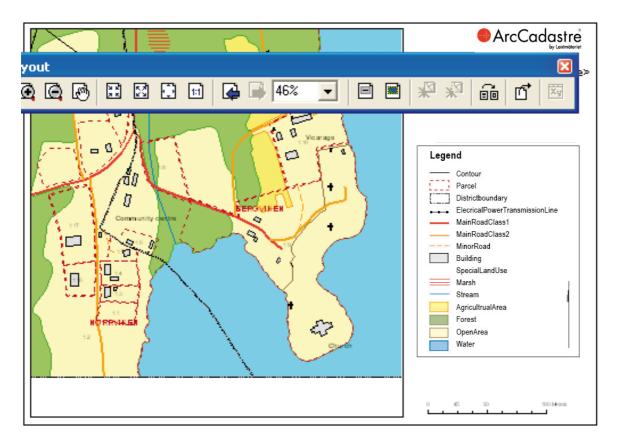


Finally, you will set the scale for your map in the data frame. Enter the scale as you did in Exercise 5 by typing the scale value in the Scale dropdown list field.



- 5 Click in the Map Scale field and it will be high lighted in blue.
- 6 Type 3000 and press Enter.

The map in the data frame on the virtual sheet will be redrawn at the scale that you set.



You have now learnt how to use a ready-to-use layout template to create a map for printing. Having several layout templates ready for use means that you can quickly and easily create uniform sets of maps for printing.

1 Click the Map Template Changed check box in the Workflow Dialog window.

Before you make a printout of your map you add a name and date to the layout. This has already been prepared and included in the Layout template.

1 On the virtual sheet, double-click the text string, <Double-click to enter map title>.

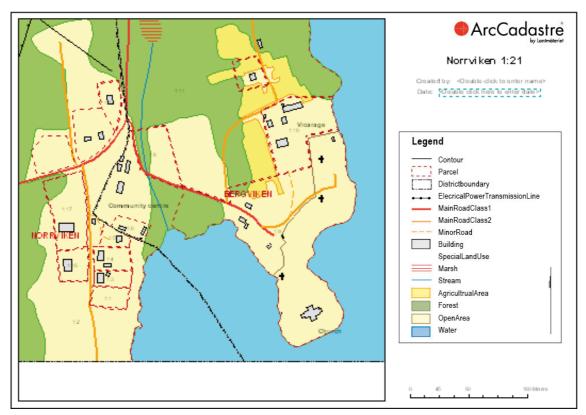
Properties ?X
Text Size and Position
<u>I</u> ext:
<double-click enter="" map="" title="" to=""></double-click>
×
Font: Arial 16,00
Angle: 0,00 - Character Spacing: 0,00 -
Leading: 0,00
About Formatting Text
OK Avbryt ⊻erkställ

- 2 In the Properties dialog, enter a name for the map in the Text field in the Text tab. You can for instance write the new property that was created in the exercise: Norrviken 1:21.
- 3 Click OK.

4 The name of the map is now shown on the virtual sheet.



Repeat this step, but this time fill in the name and the date by double-clicking on the two text strings <Double-click to enter name> and <Double-click to enter date> respectively.



You have finished creating a layout using a layout template and the map is ready for printing. In the Workflow Dialog:

- 1 Click the Text Added check box.
- 2 Click the Next Exercise, Print button.

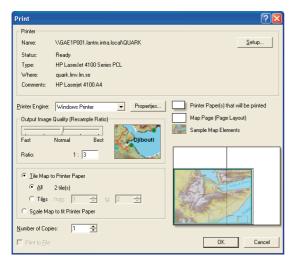
## Exercise 8 - Printing

In ArcCadastre it is easy to make a printout of a map.

 In the File menu click Print. You can also click the Print button in the upper part of the program window.



2 The Print dialog opens and the options available depends on the selected printer.



- 3 If necessary, change options for page orientation etc.
- 4 Click OK to start printing.

You have printed out your map and are now almost at the end of these exercises.

 Click the Print check box in the Workflow dialog.

Workflow Dialog 🛛 🛛 🛛		
<u>S</u> how <u>H</u> elp		
Position Current State: Transition: New State: Conditions:	To End 💌	
Exercise Completed		

## Exercise 9 - Closing ArcCadastre

Before finishing the exercises you might want to repeat or take another look at some of the exercises. You can start all over again from the exercise Change Plotting Style. The workflow will move back to the Change Plotting Style exercise and you can go through the exercises again. Note, however, that even though you have already done all of the exercise in this Job once, and all of the conditions in them have been satisfied (check boxes have been checked), you can still follow the instructions if you want to familiarize yourself more with the tools.

To start again from Exercise 4, Change Plotting Style:

In the Workflow Dialog:

1 Click the Transition dropdown arrow and select Repeat Exercises.

Workflow Dialog (		×
<u>S</u> how <u>H</u> elp		
Position Current State: Transition: New State: Conditions:	Print Repeat Exercises Change Plotting Style	
Repeat		

2 Click the Repeat button.

If you want to complete the exercises and finish your Job:

- 1 In the Workflow Dialog select To End in the Transition dropdown menu.
- Click the Exercise Completed button at the bot tom of the Workflow Dialog.

Workflow Dialog 🛛 🛛 🛛		
<u>S</u> how <u>H</u> elp		
Position Current State:	Print	
Transition:	To End 🗨	
New State:	End	
Conditions:		
Exercise Completed		

3 Click OK in the Information box that comes up on your screen.

**NOTE:** When you have clicked the button Exercise Completed, the Job is finished and can no longer be changed. Create a new Job if you want to repeat these exercises.

You have now completed your first Job and followed a workflow through the full working process. We hope that this has given you an insight into how to work with the program. You have also tried using a number of functions and we hope that you now feel confident enough to begin exploring other parts of the program on your own. If you need help, there is a wealth of detailed information in the ArcCadastre Help system. To get help, press the F1 key or click the Help menu and choose ArcCadastre Help.

If you want to close the Job:

 Click the button Close the Job that is currently open in the Job toolbar between the two panes.

If you want to close the Job and ArcCadastre

 Click the File menu and then Close Job and Exit Application.

# Notes





