

# The Square Capitals fonts\*

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## Abstract

The `sqrcaps` and `allsrc` packages provide a set of Square Capitals book-hands as used for manuscripts from the 1st to the 16th century. This is one in a series of manuscript fonts.

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## 1 Introduction

The `sqrcaps` and `allsrc` packages provide a PostScript Type1 version (based on a Metafont [Knu92] design) of the Square Capitals manuscript book-hand that was in use between about the first and sixteenth centuries AD. It is part of a project to provide fonts covering the major manuscript hands between the first century AD and the invention of printing. The principal resources used in this project are listed in the Bibliography.

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This manual is typeset according to the conventions of the  $\text{\LaTeX}$  `DOCSTRIP` utility which enables the automatic extraction of the  $\text{\LaTeX}$  macro source files [GMS94]. The `docmfp` package is used for documenting the Metafont portions of the distribution [Wil99].

Section 2 describes the usage of the package. Commented code may be in later sections.

## 1.1 Manuscript book-hands

Before the invention of printing all books were written by hand. The book-hands used by the scribes and copyists for the manuscripts changed as time went on. Table 1 lists some of the common book-hands which were used between the 1st and 15th centuries. The later book-hands formed the basis of the fonts used by the early printers, which in turn form the basis of the printing fonts in use today.

The manuscript book-hands were written with a broad nibbed reed or quill pen. Among the distinguishing characteristics of a hand, apart from the actual shape of the letters, are the angle of the pen (which controls the variation between thick and thin strokes) and the height of a letter compared to the width of the nib. The lower the ratio of the letter height to nib width, the more condensed is the script. The scripts also varied in their typical height.

Table 1 gives an ‘average’ x-height for each script, which I obtained by measuring a sample of photographs of manuscripts written in the various hands. About a dozen examples of each book-hand were measured. This figure should not be taken too seriously.

There was not a sharp division between the use of one hand and another. Many manuscripts exhibit a variety of hands in the same document. For example, the scribe writing in an Uncial hand may have used Roman Rustic letters for capitals. Usually the same pen was used for the two different scripts.

Generally speaking, as a hand got older it became more embellished, and therefore took longer to write. As this happened a new hand would appear that was faster, and which would eventually make the earlier one obsolete.

Many of the book-hands were single-cased; that is, they did not have an upper- and lower-case as we do nowadays in Western scripts. On the other hand, a script might be majuscule or minuscule. A *majuscule* script is one, like our upper-case, where the letters are drawn between two lines and are of a uniform height with no ascenders or descenders. A *minuscule* script, like our lower-case, is drawn between four lines and has ascenders and descenders.

During the period under consideration arabic numerals were effectively not used. At the beginning they were unknown and even though some knew of them towards the end, the glyphs used for them are not recognisable — to me they look somewhat like cryllic letters — and each locality and time had its own highly individualistic rendering. The general rule when using one of these book-hands is to write all numbers using roman numerals.

The Roman alphabet consisted of 23 capital letters — the J, U and W were absent. The book-hands initially used both a ‘u’ and a ‘v’ interchangeably but by the 10th century the practice had become to use the ‘v’ before a vowel and the ‘u’

Table 1: The main manuscript book-hands

Name	Century	x-height (mm)	Height (nib widths)	Pen angle	Normalised height
Roman Rustic	1–6	5.7	4–6	45	1.90
Uncial	3–6	4.1	4–5	30	1.37
Half Uncial	3–9	3.2	3–6	20–30	1.07
Artificial Uncial	6–10	4.2	3–6	10	1.40
Insular majuscule	6–9	4.2	5	0–20	1.40
Insular minuscule	6 onward	4.1	5–6	45–70	1.37
Carolingian minuscule	8–12	3.0	3–5	45	1.00
Early Gothic	11–12	3.8	4–6	20–45	1.27
Gothic Textura	13–15	3.9	3–5	30–45	1.30
Gothic Prescious	13 onward	3.3	4–5	45	1.10
Rotunda	13–15	3.2	4–6	30	1.07
Humanist minuscule	14 onward	3.0	4–5	30–40	1.00

otherwise. The letter corresponding to the W sound appeared in England around the 7th century in the form of the runic *wen* character and by about the 11th century the ‘w’ character was generally used. The ‘J’ is the newest letter of all, not appearing until about the mid 16th century.

In the first century punctuation was virtually unknown, and typically would not even be any additional space between individual words, never mind denoting ends of sentences. Sometimes a dot at mid-height would be used as a word separator, or to mark off the end of a paragraph. Effectively a text was a continuous stream of letters. By the time that printing was invented, though, all of our modern punctuation marks were being used.

Among all these manuscript hands, the Carolingian minuscule is the most important as our modern fonts are based on its letter shapes, and it is also at this point in time where the division occurred between the black letter scripts as used even today in Germany, and the lighter fonts used elsewhere. The Rotunda and Humanist minuscule hands were developed in Italy and were essentially a rediscovery of the Carolingian minuscule. Gutenberg took the Gothic scripts as the model for his types. Later printers, such as Nicholas Jenson of Venice, took the Humanist scripts as their models.

## 1.2 The Square Capitals script

The Square Capitals hand was in use from the first century onwards. It is a majestic hand and very time-consuming to use; there are only two known manuscripts written in it. However, characters from the script were used as capital letters for many other hands throughout the whole period.

Some calligraphers say that it is easier to draw or paint the characters rather than use a broad nibbed pen. If a pen is used, then the nib is used in a variety of angles, and for some parts of a character just a corner might be used to fill in an

awkward space.

## 2 The `srcaps` and `allsrc` packages

The Square Capitals font family is called `src`. The font is supplied in both OT1 and T1 encodings.

### 2.1 The `srcaps` package

This is intended for the occasions when some short pieces of text have to be written in Square Capitals while the majority of the document is in another font. The normal baselineskips are used.

`\srcfamily` The `\srcfamily` declaration starts typesetting with the Square Capitals fonts. Use of the Square Capitals font will continue until either there is another `\...family` declaration or the current group (e.g., environment) is closed.

`\textsrc` The command `\textsrc{<text>}` will typeset `<text>` using the Square Capitals fonts.

### 2.2 The `allsrc` package

This package is for when the entire document will be typeset with the Square Capitals font. The baselineskips are set to those appropriate to the book-hand.

This is a minimalist package. Apart from declaring Square Capitals to be the default font and setting the baselineskips appropriately, it makes no other alterations. Vertical spacing before and after section titles and before and after lists, etc., will be too small as the L<sup>A</sup>T<sub>E</sub>X design assumes a font comparable in size to normal printing fonts, and the book-hand is much taller. To capture more of the flavour of the time, all numbers should be written using roman numerals. The `romannum` package [Wil99b] can be used so that L<sup>A</sup>T<sub>E</sub>X will typeset the numbers that it generates, like sectioning or caption numbers, using roman numerals instead of arabic digits.

`\cmrfamily` The `\...family` declarations start typesetting with the Computer Modern Roman (`\cmrfamily`), the Computer Modern Sans (`\cmssfamilly`), and the Computer Modern Typewriter (`\cmttfamily`) font families. The `\textcm. .{<text>}` commands will typeset `<text>` in the corresponding Computer Modern font.

`\cmttfamily` The `allsrc` package automatically loads the `srcaps` package, so its font commands are available if necessary.

`\textcmtt`

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