



# A sustainable work flow

for a multi-layer edition of the Chronicon by Romualdus Salernitanus

---

*Paolo Monella*

[paolo.monella@gmx.net](mailto:paolo.monella@gmx.net)



*Ursus*



*Graphematic  
Layer*



*Linguistic  
Layer*



*Romualdus*

## Ursus Beneventanus

- *De nomine*
- Grammar book
- IX Century
- 1 MS
- ALIM

## Romualdus Salernitanus

- *Chronicon*
- Universal / Normans South Italy
- XII Century
- 3 (4) MSS
- ALIM



# *Ursus*

---

## Definition of nomen

nomen et secundum sonum definitur, hoc est secundum superficiem  
nomen et secundū sonū definitur · hoc est secundū (secundū) superficiem  
sensus . secundum sonum , hoc est secundum superficiem , hoc modo . dictum  
sensus · Secundum | sonū · · hoc est | secundū | superficiem · hoc modo · dictum  
feminino , ut littera dicta est , dictum in neutro ut tempus dictum est . secundum  
feminino . ut littera | dicta | est , dictum | in neutro | ut tempus (secundū) dictū | est . Secundum  
sensus , hoc modo ponitur . nomen est in definitione et intelligitur esse certum  
sensus . hoc modo | ponitur . nomen | est | in definitione | et intelligitur | esse | certum  
uocis articulatae , et pes est syllabarum et temporum certa  
uocis | articulatę - Source edit | Source start et pes | est | syllabarū | et temporum | certa

<http://www.unipa.it/paolo.monella/ursus>

P. Monella. *Livelli di rappresentazione del testo...* AIUCD 2016



# *Ursus*

---

## Definition of nomen

nomen et secundum sonum definitur, hoc est secundum superficiem  
nomen et secundū sonū definitur · hoc est secundū (secundū) superficiem  
sensus . secundum sonum , hoc est secundum superficiem , hoc modo . dictum  
sensus · Secundum | sonū · · hoc est | secundū | superficiem · hoc modo · dictum  
feminino , ut littera dicta est , dictum in neutro ut tempus dictum est . secundum  
feminino . ut littera | dicta | est , dictum | in neutro | ut tempus (secundū) dictū | est . Se  
sensus , hoc modo ponitur . nomen est in definitione et intelligitur esse  
sensus . hoc modo | ponitur . nomen | est | in definitione | et intelligitur | esse |  
uocis articulatae , et pes est syllabarum et temporum certa  
uocis | articulatę - Source edit | Source start et pes | est | syllabarū | et temporum | certa

<http://www.unipa.it/paolo.monella/ursus>

P. Monella. *Livelli di rappresentazione del testo...* AIUCD 2016

*Textual  
layers*

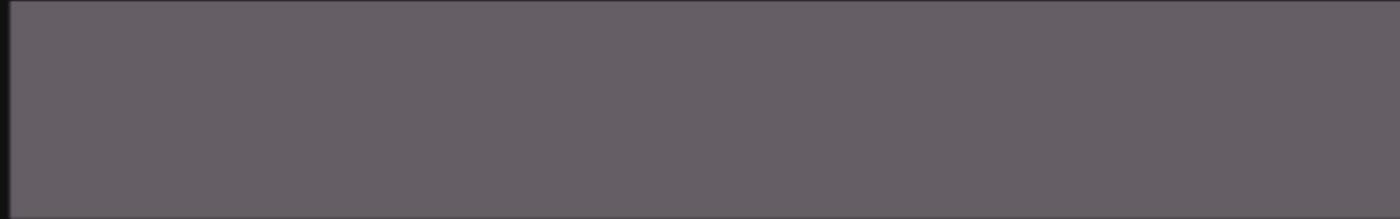
*Table  
of signs*



# *Textual layers*

---

## Semiotics



## *Textual layers*

---

- Linguistic
- Alphabetic
- Graphematic

"praepositio": [praepositio] Nominal,  
Positive, III decl, Singular Nominative,  
Feminine,

**prepositio**  
**propositio**

## *Table of signs*

Graphemes	Alphabemes	Grapheme Visualization	Type	Notes
a	a	a	Alphabetic	
b	b	b	Alphabetic	
c	c	c	Alphabetic	
d	d	d	Alphabetic	
e	e	e	Alphabetic	
æ	ae	ɛ	Alphabetic	An 'e' allophone
ɛ	ɛ	ɛ	Alphabetic	



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*Ursus*



*Graphematic  
Layer*



*Linguistic  
Layer*



*Romualdus*

# Graphematic Layer

2 years  
11 folios



*Loneliness  
& novelty*

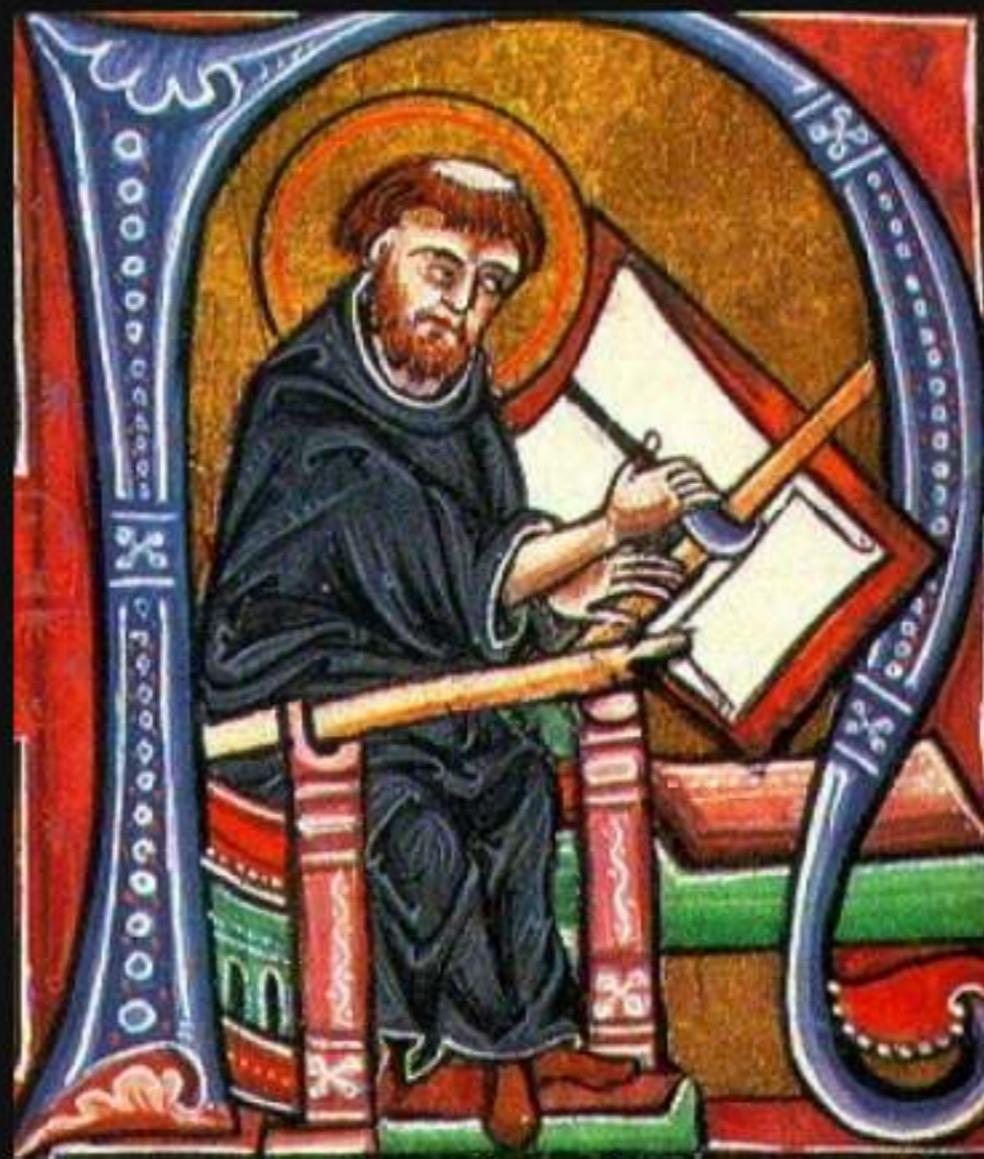
*Editio  
princeps*

*Punctuation*

*Abbreviations*

# *Loneliness & novelty*

---



*One man  
show*

*New  
edition  
model*

*Coding*

# *One man show*

---

Only contributor on the project

## New edition model

T. Orlandi, *Informatica testuale* (2010)  
T. Orlandi, Machiavelli edition (2006)

# Coding

```
503 function tableOfSignsToHTMLTable() {  
504     // This function transforms the table of sign into an HTML table.  
505     // It should be called by a gtos.html file  
506     for (var igx = 0; igx < gtos.length; igx++) {  
507         gtosTr = document.createElement('tr');  
508         document.getElementById('gtosHtmlTable').appendChild(gtosTr);  
509         for (var igy = 0; igy < gtos[igx].length; igy++) {  
510             // Create THs for first row, TDs for the next rows  
511             if ( igx == 0 ) { gtosTd = document.createElement('th'); }  
512             else {  
513                 gtosTd = document.createElement('td');  
514                 gtosTd.setAttribute('class', 'td'+igy);  
515             }  
516             // Set column width  
517             if ( igy == 4 ) { gtosTd.setAttribute('width', '400px'); }  
518             else if (igy == 2) { gtosTd.setAttribute('width', '10px') }  
519             // Insert <img>s  
520             if ( igy == 5 && typeof(gtos[igx][igy]) != 'undefined' && igy > 0 ) {  
521                 var imagesList = gtos[igx][igy].split(' '); // Filenam
```



# *Editio princeps*

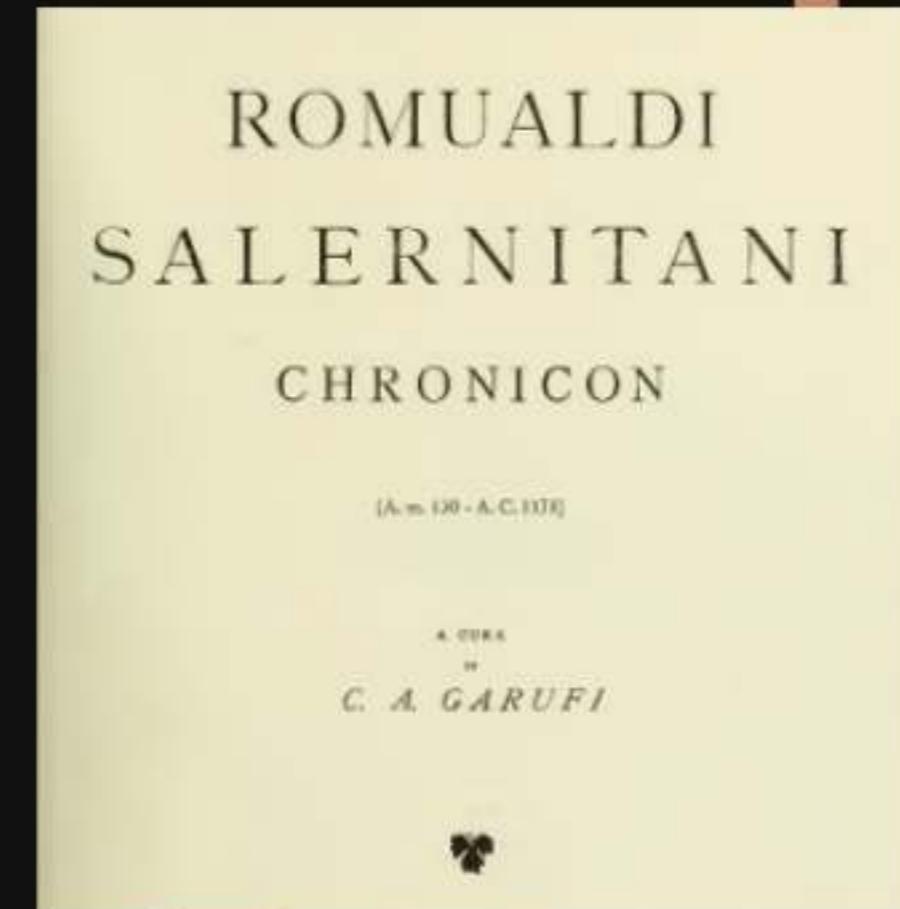
---

Ursus



*Ink*

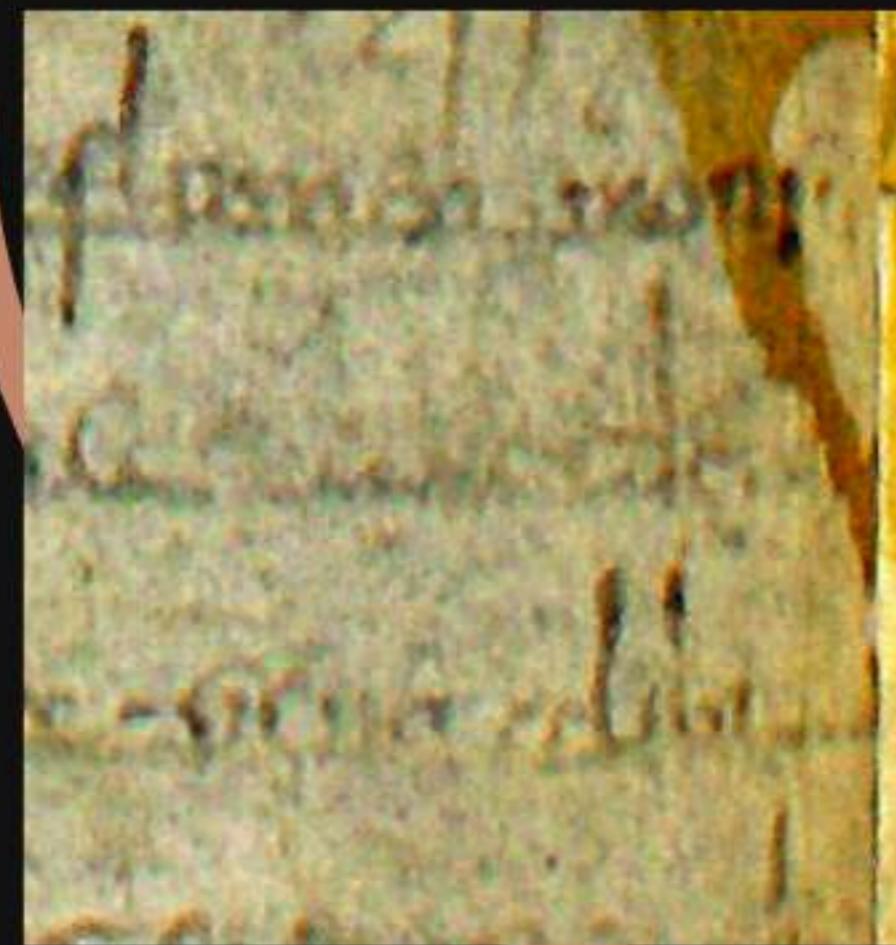
Romualdus



# Ink

---

Ursus



Romualdus

oɔrþj ði . 8180  
offe. Apruefjoc  
offe loqui. qui  
n poccit. Abæxi  
hebticem

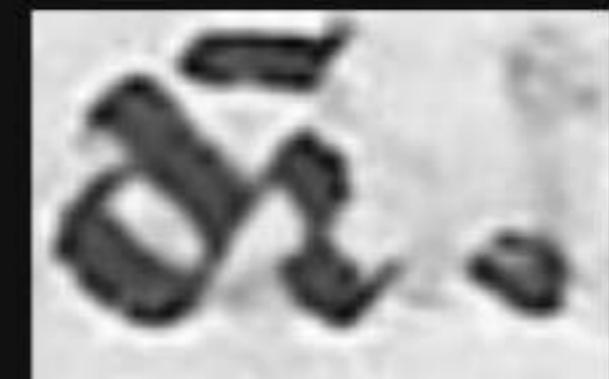
# Punctuation

---

Ursus



Romualdus



<pc n="0">·</pc>

# Abbreviations



Digitized by Google

# Abbreviations

Ursus

uerb

<choice>

<abbr type="superscription">u  
<am>2</am>  
</abbr>

<expan>um</expan>

</choice>



# Abbreviations

Ursus

Graphematic  
Layer

uerb

<choice>

<abbr type="superscription">**u**  
<am>**2**</am>  
</abbr>

<expan>**um**</expan>

</choice>



# Abbreviations

Ursus

Graphematic  
Layer

uerb

<choice>

<abbr type="superscription">u

<am>2</am>

</abbr>

Alphabetic  
Layer

<expan>um</expan>

</choice>



# *Abbreviations*

---

Ursus

**uerb**

<choice>

```
<abbr type="superscription">u  
<am>2</am>  
</abbr>
```

```
<expan>um</expan>
```

```
</choice>
```

Alphabetic  
Layer



# Abbreviations

Ursus

Romualdus

uerb

<choice>

<abbr type="superscription">u

<am>2</am>

</abbr>

<expan>um</expan>

</choice>

<p xml:id="g3.2-3.6" decls="#a">  
quibus  
uerbum  
</p>

<p xml:id="g3.7-3.16" decls="#ag">  
quib9  
uerbu3  
</p>



# Abbreviations

@decls

Ursus

Romualdus



uerb

<choice>

<abbr type="superscription">u

<am>2</am>

</abbr>

<expan>um</expan>

</choice>

<p xml:id="g3.2-3.6" decls="#a">  
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# Abbreviations

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Ursus

Romualdus

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<choice>

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<p xml:id="g3.2-3.6" decls="#a">  
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<p xml:id="g3.7-3.16" decls="#ag">  
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</p>



# *Abbreviations*

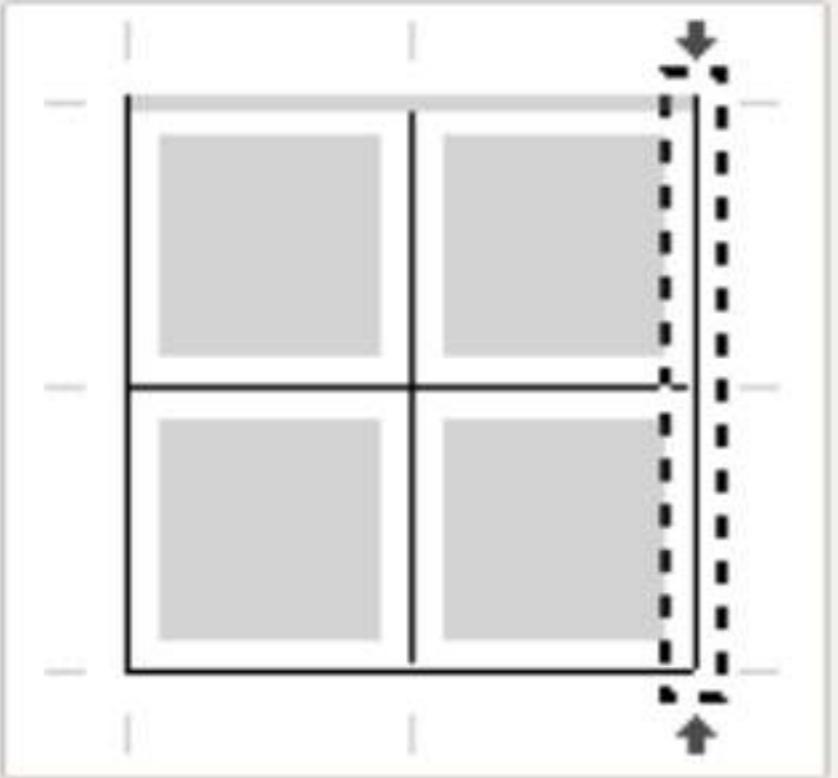
@decls

**Cornice**

Preimpostazioni:



Personalizzato:



```
<p xml:id="g3.2-3.6" decls="#a">  
quibus  
uerbum  
</p>
```

```
<p xml:id="g3.7-3.16" decls="#ag">  
quib9  
uerbu3  
</p>
```



# Abbreviations

Ursus

**uerb**

<choice>

<abbr type="superscription">**u**

<am>**2**</am>

</abbr>

<expan>**um**</expan>

</choice>

Romualdus

Graphemes	Alphabemes	Notes
b9	bus	Normally at the end of the word (i)
q9	que	
c0	con	
t0	ter	
t2	tur	Normally at the end of the word (i)
u2	uer	Normally found when when "r" is
[aeiouy]3	[aeiouy]m	A vowel + 3 = that vowel + m
[aeiouy]0	[aeiouy]m	A vowel + 0 = that vowel + m
<qd0>	quod	qd0, but only if it's a whole word



<p xml:id="g3.7-3.16" decls="#ag">  
**quib9**  
**uerbu3**  
</p>



# Abbreviations

Ursus

**uerb**

<choice>

<abbr type="superscription">**u**

<am>**2**</am>

</abbr>

<expan>**um**</expan>

</choice>

Romualdus

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<p xml:id="g3.7-3.16" decls="#ag">  
**quib9**  
**uerbu3**  
</p>

# Abbreviations

## *Table of standard abbreviation combinations*

Ursus

Romualdus

**uerb**

<choice>

<abbr type="superscription">**u**

<am>**2**</am>

</abbr>

<expan>**um**</expan>

</choice>

Graphemes	Alphabemes	Notes
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<p xml:id="g3.7-3.16" decls="#ag">  
**quib9**  
**uerbu3**  
</p>



# Abbreviations

Ursus

**uerb**

<choice>

<abbr type="superscription">**u**

<am>**2**</am>

</abbr>

<expan>**um**</expan>

</choice>



## *Table of standard abbreviation combinations*

Romualdus

Graphemes	Alphabemes	Notes
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<qd0>	quod	qd0, but only if it's a whole word

<p xml:id="g3.7-3.16" decls="#ag">  
**sec**<choice>  
 → <abbr>**u3**</abbr>  
 <expan>**un**</expan>  
 </choice>**da**  
 </p>

# Abbreviations

Ursus

```
<w ana="3-NA1--6---" lemma="sum" n="est" xml:id="w75">est</w>
<lb break="no" n="1r.a.5" />
<w ana="4-0-----" lemma="quantum" n="quantum" xml:id="w78">quant
  <choice>
    <abbr type="superscription">u<am>8</am></abbr>
    <expan>um</expan>
  </choice>
</w>
<w ana="3-KA1--6---" lemma="pertineo" n="pertinet" xml:id="w81">
  <choice>
    <abbr type="brevigraph">p</abbr>
    <expan>per</expan>
  </choice>
  tinet</w>
  <pc n="space"> </pc>
<w ana="4-S-----" lemma="ad" n="ad" xml:id="w84">ad</w>
<w ana="11D---D1---" lemma="sensus" n="sensum" xml:id="w87">sens
  <choice>
    <abbr type="superscription">u<am>8</am></abbr>
    <expan>um</expan>
  </choice>
```

Romualdus

```
<p xml:id="g3.2-3.6" facs="img/Vat.lat.397
3.pdf#page=21">
<pb n="29"/>
prima mundi etas e0 ab <rs>ada3</rs> usq9
ad diluuiu3, continens annos, iuxta
hebraica3 ueritate3, mille sexcentos
quinquaginta sex, iuxta septuaginta uero
interpretes duo milia ducentos quadraginta
duos; generationes uero iuxta utra3q9
editione3 numero dece3, que uniu2sali est
deleta diluuio, si<choice><abbr>c0</abbr>
<expan>cu</expan></choice>t prima3 cuiusq9
hominis obliuio demergere c0sueuit
estate3.
</p>
```





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*Ursus*



*Graphematic  
Layer*



*Linguistic  
Layer*



*Romualdus*

## *Linguistic Layer*

---

"*praepositio*": [praepositio] Nominal,  
Positive, III decl, Singular Nominative.  
Feminine,

**prepositio**

**p̄positio**

*Ursus*

*Romualdus*



# *Ursus*

---

```
<w n="praepositio" xml:id="w2679">  
    præpositio  
</w>
```

*Ursus*

---

```
<w n="praepositio" xml:id="w2679">  
    præpositio  
</w>
```



TreeTagger  
**LMU**

# *Ursus*

---

```
<w n="praepositio" xml:id="w2679">  
    præpositio  
</w>
```



```
<w n="praepositio" xml:id="w2679">  
    ana="11C---A2---"  
    lemma="praepositio">  
    præpositio  
</w>
```

*Ursus*

```
<w n="praepositio" xml:id="w2679">  
    præpositio  
</w>
```

TreeTagger  
LMU

```
<w n="praepositio" xml:id="w2679">  
    ana="11C---A2---"  
    lemma="praepositio">  
    præpositio  
</w>
```

"praepositio": [praepositio] Nominal,  
Positive, III decl, Singular Nominative,  
Feminine,

**prepositio**  
**propositio**



# *Ursus*

---

```
<w n="praepositio" xml:id="w2679">  
    præpositio  
</w>
```

TreeTagger  
LMU

```
<w n="praepositio" xml:id="w2679">  
    ana="11C---A2---"  
    lemma="praepositio">  
    præpositio  
</w>
```

## *Precision*

Test on	397 words
@lemma	82%
@ana	79%
Total	14 354 words

"praepositio": [praepositio] Nominal,  
Positive, III decl, Singular Nominative,  
Feminine,

**prepositio**  
**p**positio



# *Romualdus*

---

*Standard  
spelling*

*No  
Linguistic  
Layer*



## Standard spelling

```
<w n="praepositio">  
    præpositio  
</w>
```

## Standard spelling

```
<w n="praepositio">  
    præpositio  
</w>
```

```
<choice>  
    <reg>praepositio</reg>  
    <orig>præpositio</orig>  
</choice>
```

## Standard spelling

```
<w n="praepositio">  
    præpositio  
</w>
```

```
<choice>  
    <reg>praepositio</reg>  
    <orig>præpositio</orig>  
</choice>
```

praepositio



prepositio

## *No Linguistic Layer*

---

"*praepositio*": [*praepositio*] Nominal,  
Positive, III decl, Singular Nominative,  
Feminine,

prepositio

ppositio

## *No Linguistic Layer*

---

"*praepositio*": [praepositio] Nominal,  
Positive, III decl. Singular Nominative,  
Feminine

prepositio

**p**positio

# *No Linguistic Layer*

~~"praepositio": [praepositio] nominal,  
Positive, III decl. Singular Nominative,  
Feminine~~

prepositio

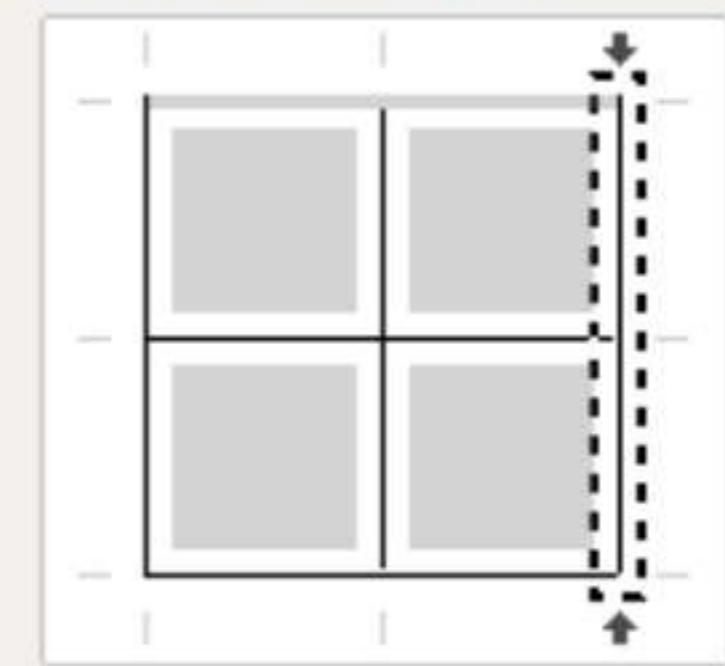
**p̄positio**

## Cornice

Preimpostazioni:



Personalizzato:





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*Romualdus*

# *Romualdus*

---

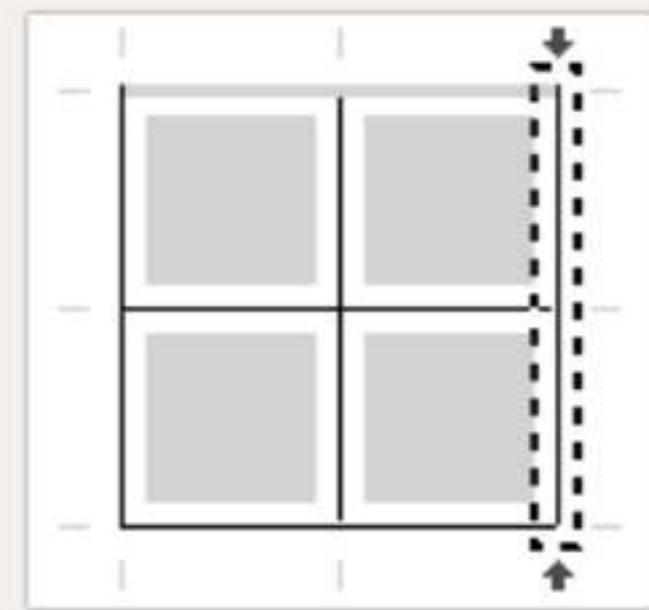
[http://www.unipa.it/  
paolo.monella/romualdus](http://www.unipa.it/paolo.monella/romualdus)

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