



Library of Latin Texts – Series B

DATABASE
FOR THE WESTERN LATIN TRADITION

User's Guide

2019

under the direction of
Paul Tombeur

Centre
« *Traditio Litterarum Occidentalium* »

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Preface

Since 2009, the *Library of Latin Texts* (LLT, formerly called CLCLT) consists of two databases, *Library of Latin Texts – Series A* and *Library of Latin Texts - Series B*, in short LLT-A and LLT-B.

As the softwares are identical, the functional differences between these databases are limited. Therefore, if you are already familiar with the functionalities of LLT-A's new software, you may choose to skip the section of this manual called 'The software' – which is largely identical to the same section in the manual for LLT-A, but presents examples specific to the LLT-B – and concentrate on the Foreword and the first section ("The Data"), which point out the peculiarities of the LLT-B. The last part of this document contains a list of authors and works present in the database.

LLT-B was produced by Brepols Publishers and the CTLO (Centre «*Traditio Litterarum Occidentalium*») under the scholarly direction of Professor Paul Tombeur.

Foreword

In order that the Library of Latin Texts could grow at a more rapid pace while maintaining a high scientific quality, it has been split into two parts: the *Library of Latin Texts – Series A* (LLT-A) and the *Library of Latin Texts – Series B* (LLT-B). While LLT-A forms a continuation of the CLCLT, a slightly different approach has been chosen for LLT-B, an approach which makes it possible to capture new texts on a significantly larger scale and in a much shorter time than has previously been the case. For this purpose, notably, much of the analytical work involved in preparing the texts has been dropped. So, although presently much smaller, LLT-B is expected to surpass LLT-A in this respect in the future.

Large parts of this user's guide were taken directly from the user's guide for LLT-A. The software used to access this database is the same, and almost all functionalities offered in LLT-A are also available in LLT-B. However, there are a few important **structural and conceptual** differences which should always be kept in mind when consulting this database. Three of these differences are related to LLT-B's ambition of becoming a fast-growing database encompassing ever greater portions of the Latin tradition:

1. In general, texts are selected using different **criteria**; in comparison with LLT-A, priority is given to **large corpora of homogeneous texts** with a more **uniform structure**, enabling capture of large quantities of texts in a relatively short time.

2. The amount of **preparatory research** involved in preparing texts for inclusion in the database is less extensive for LLT-B than for LLT-A. Particularly, the information provided in the 'Background on the Text' for each work is in principle based on the material furnished by the editor of the critical edition from which the text was captured.

3. In preparing texts for LLT-B, the examination of word-forms, which involves the detection and correction of possible editorial mistakes and the separation of enclitics from the 'real' forms (i.e. those possessing lexical potentiality), is taken less thoroughly and to a less detailed level than is the case with LLT-A. As in LLT-A, however, most *formae* of the LLT-B are checked against the general corpus of word-forms that we published under the title *Thesaurus formarum totius latinitatis a Plauto usque ad saeculum XX^{um}*⁽¹⁾. As far as enclitics are concerned, the especially frequent forms of the type *quique*, *quoque*, *quibusque* etc., are nearly systematically left unmodified although they can represent both word-forms in their own right (e.g. *quoque*, 'also') and combinations of a word-form and an enclitic (*quo+que*).

In view of what has been said above, a notable exception should be made for the works from the *Bibliotheca Teubneriana Latina* (BTL) integrated in LLT-B, which were prepared separately and which have been the subject of a more exhaustive examination.

⁽¹⁾ *Thesaurus formarum totius latinitatis a Plauto usque ad saeculum XX^{um}* (TF), ed. by Paul TOMBEUR (Turnhout, 1998), pp. xcix + 1099 and *Cetedoc Index of Latin Forms: Database for the Study of the Vocabulary of the Entire Latin World. Base de données pour l'étude du vocabulaire de toute la latinité*, CD-Rom ed. by Paul TOMBEUR (Turnhout, 1998) + Paul TOMBEUR, *Guide de l'Utilisateur - User's Guide* (Turnhout, 1998), 78 pages.

In terms of **functionality**, there are two main differences between this database and LLT-A:

1. In LLT-B's search screen, in place of the 'Clavis' filter which appears in LLT-A, and which enables the user to select patristic texts from their serial numbers in Dom Eligius Dekkers' *Clavis Patrum Latinorum*, is to be found a filter labelled HLL/LLA, which applies to the serial numbers assigned by the *Handbuch der Lateinischen Literatur der Antike* to the texts it quotes. (See below, I.1.4).

2. The **periodization** in the **Period Filter** comprises only five of the eight subdivisions used in LLT-A, i.e. the 'real' periods of LLT-A to the exclusion of the other categories. Thus for LLT-B, we distinguish *Antiquitas*, *Aetas Patrum I*, *Aetas Patrum II*, *Medii aevi scriptores* and *Recentior latinitas*.

General features

Like LLT-A, LLT-B offers the following features:

- the possibility to examine the distribution of word-forms through the entire database using each of the filters, i.e. the different periods of Latin, the individual authors and their works, and, consequently, to find out the exact number of their occurrences on each of these levels (and not only the number of contexts that contain the queried object); one can now, for instance, find out the distribution of a given word-form in each of the works of Spinoza available in the LLT-B where it is attested;

- the analysis of the vocabulary within an individual work with the help of an exhaustive concordance of every form that is part of the text under examination;

- an easy way of navigating through the lists of results by jumping from one logical unit to another: by period, by author or by title;

- in the display of results, a distinction between the textual elements that have been indexed and by consequence are searchable, and the paratextual elements, which are not part of the text properly speaking;

- an indication of the number of filters applied for each level (authors, titles etc.).

- the possibility not only to conduct searches which lead to results corresponding exactly to the criteria introduced (the 'regular search'), but also to search for results which correspond only partially to the criteria introduced (the 'similarity search'). This type of search enables one to find the origin of quotations, paraphrases, allusions, etc. without knowing the exact terms of the reference text and/or the order of the words. **This option has been introduced in 2011.**

Details on these functionalities can be read in the section of this manual called 'The software'.

Additionally, LLT-B offers a clear and agreeable interface, which will make research easy to carry out.

Finally, as LLT-A, LLT-B is directly linked to the **DLD** or *Database of Latin Dictionaries*.

Overview of the new texts for 2019

As of November 2019, the LLT-B comprises some 1,116 works, together with 5,804 diplomatic charters, thus allowing searches to be made across more than 49.3 million words. Since December 2018, over 4.3 million words, spread across 52 different works, have been added to the database. As a result, the current version of the LLT-B allows scholars to consult 6,920 works and charters.

The additions made since December 2018 have focused on material from the Middle Ages and the sixteenth and seventeenth centuries. Central to this expansion has been the incorporation of several sixteenth-century works for which no modern edition exists; we have therefore encoded these texts based on their original, early modern editions.

The *Oratio de uariarum linguarum cognitione paranda* of Petrus Mosellanus (c. 1493–1524) constitutes one such case. In this text, published in 1518, the German humanist violently attacked the scholastic system of theological studies and argued that learning ancient languages was a necessary precondition for studying theology. He thus provoked a reaction from the theologian Jacobus Latomus, who took on Mosellanus in his *De trium linguarum et studii theologici ratione dialogus*. In doing so, however, Latomus also implicitly engaged in argument with Erasmus and the *Collegium trium linguarum*, which was founded in Louvain in 1517. Erasmus therefore responded in turn with an *Apologia in Iacobum Latomum*. All three of these texts are now included in the current database update.

The polemical talent of Latomus (c. 1475 – 1544) contributed significantly to the value of his writings. Apart from his polemic against Erasmus, his most well-known such works consist of his arguments against the writings of Martin Luther. In 1521, Latomus published the *Articulorum doctrinae fratris Martini Lutheri per theologos Louanienses damnatorum ratio*, in which he explained why the reformer's *opera*, published by Froben in 1518, had been condemned by the Louvain theologians in 1519. There is, as yet, no modern edition of this important text; we have therefore encoded the version of the work that was published in Latomus' *opera* by the author's nephew in 1550. Luther's response, the *Rationis Latomianae pro incendiariis Louaniensis scholae sophistis redditae Lutheriana confutatio*, can be consulted in the LLT-A. We have also incorporated Latomus' two last writings against Luther into our database: these are the *De primatu Romani pontificis aduersus Lutherum* and the *Ad Lutherum responsio*.

The theologian Matthias Flacius Illyricus (1520–1575), an avid admirer of Luther, composed the *Clavis Scripturae Sacrae seu De sermone Sacrarum Literarum* in order to provide a concrete and clear rulebook of Protestant exegesis based on the Lutheran principle of 'Scriptura sui ipsius interpres'. In this most recent update to our database, we have added the second part of this work, which provides numerous general rules *de sermone sacrarum literarum*. We have based our text on a revised version of the text encoded by the *Croatiae auctores Latini Project* (CroALa) at the University of Zagreb's Faculty of Humanities and Social Sciences.

Jesuit Father Roberto Bellarmino (1542–1621) was one of the main players of the Counter-Reformation and his *Disputationes de controuersiis christianae fidei aduersus huius temporis haereticos* form some of the most important writings of this movement. In the current update,

we have added the three first *controuersiae* to the database; these are entitled respectively *De Verbo Dei scripto et non scripto*, *De Christo*, and *De summo pontifice*.

Friedrich Spee von Langenfeld (1591–1635), another Jesuit Father and an important German lyrical poet, is perhaps best known for his resistance to trials for witchcraft. This opposition can be seen in his *Cautio criminalis seu de processibus contra sagas liber, ad magistratus Germaniae*, which was published anonymously for the first time in 1631 and again in 1632. In the first 2019 update, we have added Theo G. M. van Oorschot's critical edition, which is based on the 1632 edition.

Let us now move on to the Middle Ages. The *Registers* of Innocent III are a prime witness for the study of medieval history. The 2019 database updates include the letters from the eighth, ninth, and tenth years of Innocent III's papacy, covering the years 1205–1206, 1206–1207, and 1207–1208 respectively. As a reference text, we have chosen the critical edition published by the *Österreichisches Kulturinstitut in Rom*.

The philosopher and theologian Walter Chatton wrote two commentaries on the *Sentences* of Peter Lombard. In database updates in 2011 and 2012, we included Chatton's first series of lectures on the *Sentences*, reflecting his teachings between 1321 and 1323. This text followed the critical edition edited by J. C. Wey and G. C. Etzkorn, published by *Pontifical Institute of Mediaeval Studies* in Toronto. In our first 2019 update, we have been able to add the second series of lectures — the *Lectura* from the years 1323 to 1324 — edited by the same scholars. The *Lectura* is incomplete, ending as it does with distinction 17, question 7 of Chatton's commentary on Lombard's first book.

Thanks to an agreement with the *Frati Editori di Quaracchi (Fondazione Collegio San Bonaventura)*, we have now been able to include the four books of the theological summa, best known as the *Summa aurea*, composed by William of Auxerre between 1215 and 1229. As with the writings of Walter Chatton, this work bears witness to the importance of teaching on the *Sentences* of Peter Lombard.

In 2016, we started to add to our database the Latin works of the theologian John Wycliffe; his writings were to have a profound influence, particularly on the Czech reformer Jan Hus. In this current update, we have included the *Tractatus de potestate papae*, published in 1907 by J. Loserth for the Wyclif Society.

In the field of scholastic literature, we have continued to incorporate the works of Henry of Ghent. For this update, we have added the *Quodlibet XV*, as well as two works that can probably, but not yet definitively, be attributed to Henry: the *Quaestiones uariae* and the *Syncategoremata*.

We have also added the *Quaestiones super Priora Analytica Aristoteles* by Radulphus Brito, following the *editio princeps* of the complete text, as established by Gordon A. Wilson.

In addition, we have continued to add to the writings of Denis the Carthusian. This year, we have included two large collections of Bible commentaries by the Carthusian: these are the *Enarrationes in quinque libros sapientiales* (commenting the *Book of Proverbs*, *Ecclesiastes*, the *Song of Songs*, the *Book of Wisdom*, and the *Book of Ecclesiasticus*), and the *Enarrationes*

in quatuor prophetas maiores (containing Denis' commentaries on Isaiah, Jeremiah, Baruch, *Lamentations*, and Ezekiel).

Petrus Helias (c. 1100–1166?) is perhaps the most famous grammarian of the Middle Ages, a reputation that is owed largely to his *Summa super Priscianum*, a vast commentary on Priscian. For this update, we have adopted the text published in 1993 by Father Leo Reilly.

The story of Alexander the Great was of tremendous interest in the Middle Ages. In the tenth century, Archpriest Leo composed a Latin translation of Pseudo-Callisthenes' *Life of Alexander*, based on a Greek manuscript that he had brought back to Italy from Byzantium. In its various adaptations, this translation became one of the most important sources for medieval epic poetry on the topic of Alexander. We have included the text from the 1913 edition by Friedrich Pfister.

Shortly after 141 BC, Claudius Ptolemy composed his *Tetrabiblos*, a manual of astrology that exercised an enormous influence right up until the seventeenth century. In the thirteenth century, William of Moerbeke translated the *Tetrabiblos* directly from the Greek, although in the Middle Ages, the work was in fact known through translations from the Arabic. We have now incorporated the first edition of Moerbeke's text, published in 2015 by G. Vuillemin-Diem and C. Steel with the assistance of P. De Leemans.

Petrus Riga, who originated from Reims, is the author of the *Aurora*, a verse commentary on the Bible that was one of the most wide-spread books of the Middle Ages, and yet that only received its first modern edition in 1965. Between 1170 and 1200, Petrus Riga consistently worked on and revised the text, and his pupil, Giles of Paris, continued this, composing two 'modified and enlarged' versions of the *Aurora* between 1200 and 1208. Based on the edition by Father Beichner, we have added to our database a complete version of both Petrus Riga's text and the complete text by Giles of Paris, making it possible to read and search the latter for the first time as an independent work.

Finally, we have this year incorporated the text of the famous *Carmina Burana*. We have adopted the text published by B. K. Vollmann, who edited the text of the *Codex Buranus* as it stands, without taking into account the entire manuscript tradition of each separate text outside the anthology of Benediktbeuern.

For more details on this version of the LLT-B, users can consult the list of authors and titles at the end of this manual. The LLT-B is conceived as a complement to the LLT-A.

I. THE DATA

Our aim has been to integrate scholarship and computing. This database is therefore the fruit of a series of scholarly steps. We will list the most important of them here.

1. Where possible, we performed a modest **investigation of the secondary literature** in order to classify each text, referring to the current *status quaestionis* to distinguish, for example, the authentic works from the *dubia* and the *spuria* and locating each work by its century of composition.

2. Relying heavily on the opinion of the editor of the textual entity in question, for each text, we have tried to separate non-authorial elements from the authorial text as best as possible. If these issues were neglected, the user might be unable to recognize immediately that the word *apologeticum*, for example, is not used by Tertullian, or that *consolatio* never appears in Boethius' *De consolazione philosophiae* – to quote two notorious examples of the LLT-A. Therefore we had to try to distinguish between the titles written by the author, those made by contemporaries of the author, and later and modern titles. In the same perspective, many indications of subdivisions of works have been made by modern editors. The issue is important, since the dating of the lexical data with the highest possible certainty is, for us, a major concern.

3. We present *formae* and not just graphic units (these being sets of characters separated by blank spaces or punctuation marks). The concept of a *forma*, or word-form, corresponds to a lexical potentiality; consequently, enclitics, when combined with an independent word-form, are generally separated out, with a few exceptions (see below, point 2, Word-forms).

4. Although in some cases we have corrected a number of word-forms that represented obvious errors in the editions, texts are in general presented to the user largely unmodified, i.e. as they appear in the edition used.

5. We have established for each work a series of short notes called '**Background on the Text**', which will help the reader make a well-informed use of the database. The dating elements included there, for instance, will contribute to the didactic function of the LLT-B. This corresponds indeed to our goal of fostering information and training.

6. The sequences of *formae* are grouped in **contexts** or **sentences** (*sententiae*). The discourse, therefore, is not a simple sequence of bits and bytes: it is organized according to the overall presentation of the editors.

7. The potentialities of the software, which will be presented in the second section of this Guide, have also been chosen with a view to **the requirements of scholarship**.

Since the main working screen offers the user five filters, *Period*, *Author*, *Title*, *Century* and *HLL/LLA*, as well as a query panel called Full text (as will be seen), it will be appropriate to also follow this order here and first discuss the filters, next the word-forms.

1. Filters

1) Authors and titles of works

The names of authors and the titles of works included do not necessarily appear in the index list given at the end of this guide (nor in the database references) in the form used by the editors. We have, indeed, normalized certain spellings; we have standardized others, or combined various titles of the same work in order to facilitate their finding. For instance, a title such as *Expossitio* would be transformed into *Expositio* in the index.

We have avoided the simple denomination *Anonymous* whenever it has been possible to classify the work under a specific genre. Similarly, we have tended to classify a work under an appellation *Pseudo-* rather than *Anonymous* whenever it seemed appropriate, and we have tended to adopt the name most commonly found in contemporary scholarship. The indication *Pseudo-* comes in this case after the name of the usurped author.

For some letter-collections, it should be borne in mind that several authors can be found together under a generic title of the kind *Epistulae ad N*. In this case, the title of the work specifies the name of the author.

Textual variants have not, thus far, been stored in the database. In most cases, texts which are extant in several versions have only been registered under one version. Where such multiple versions exist but only one is presented, this is explained in the commentaries to the texts (the 'Background on the Text'), as are any exceptions to this rule.

The titles of works or of parts of works, the *capitula*, or other divisions of the text have been generally retained only after their status has been thoroughly checked. Thus, non-authorial *incipit* and *explicit* have not been indexed. Everything is conceived for the benefit of textual analysis, and, in most cases, the *incipit* and *explicit* offer insights into the transmission of the original works.

We have avoided including twice the same text published in different volumes. This can be the case, for example, when some letters of an author appear at the beginning of a work as a preface, while they are also found in a letter-collection. The opposite situation, extremely rare, is duly justified.

Eras

LLT-B distinguishes five chronological periods of Latin literature :

- *Antiquitas (Ant.)*, which contains the works dating from what is called Classical Antiquity (from the beginning until, roughly, the end of the second century);
- *Aetas patrum I (Patr. 1)* for works of Late Antiquity (until 500);
- *Aetas patrum II (Patr. 2)* for works composed between 501 and the death of the Venerable Bede (735);
- *Medii aevi scriptores (Med.)* for medieval works (736-1500);
- *Recentior latinitas (Rec.)* for works composed between 1501 and 1965.

The notes contained in the 'Background on the Text' for each work and consultable within the database do not constitute a history of Latin literature. If an editor has attributed a work to

a particular author and another scholar has indicated his disagreement in a study or a review, without it being ‘approved’ by other authorities (e.g. the *Clavis* or Frede-Gryson), we follow the indications of the editor. We are aware of how many provisional statements are found in this field, and here, it would be illusory to try to trace all the meanderings of scholarship, and it is up to each scholar to form his or her own judgement.

2) Centuries

The search criterion ‘century’ is based on the exact dating of each work. A distinction is made between a century established with certainty, a century as the latest possible date (*terminus ad quem*), and a dubious century (*dubium*). There is a further category, the so-called ambiguous century (*ambiguum*), which applies to works consisting of more than one chronological layer (e.g. compilations, texts interspersed with later interpolations, etc.). It has seemed preferable to indicate these levels of doubt in the dating, to draw attention to an entry whose text or texts can be assigned to more than one century, rather than to cut up texts, which would be extremely difficult, if not downright problematic methodologically. This is the same policy as was adopted for the *Thesaurus formarum totius latinitatis*.

3) HLL/LLA number

A fifth button, labelled **HLL/LLA**, enables you to choose texts from the serial numbers assigned to them in the *Handbuch der Lateinischen Literatur der Antike* (HLL, alternatively referred to as LLA).

In the selection index of the HLL/LLA numbers, each entry begins with at least three numeric characters, which are followed by the title of the work and the author’s name.

Note that the HLL/LLA number also appears in the reference and in the background on the text of each work concerned.

2. Word-forms

The introduction *Méthodologie et informatique: du texte aux analyses* (published in 1986 in the first volume of our *Thesaurus Linguae Scriptorum Operumque Latino-Belgicorum Medii Aevi*) clearly defines the different components, real or potential, of a textual set. They are, essentially, the graphic units, the word-forms, and the lemmas. The object one can directly query in this database is a word-form or a set of word-forms, an expression containing *x* word-forms, contiguous or not, which may or may not be situated in a specific order. A word-form is a lexical potentiality: it is defined as a unit capable of occurring under a lexical entry or lemma and thus constitutes the actualization of the lemma within the discourse.

The enclitics, thus, have generally been set aside, and the ambiguous cases checked individually (for example, *suaue* = *suaue* or *sua ue*, *donique* = *donec* or *doni que*), except for the especially frequent forms of the type *quique*, *quoque*, *quibusque* etc., which have been nearly systematically left unmodified although they can represent both word-forms in their own right (e.g. *quoque*, ‘also’) and combinations of a word-form and an enclitic (*quo+que*). In particular cases the very context prohibits cutting. The same applies to the insertion of the *est*-ending (*locutust*) or to forms where the passive future infinitive includes *iri* (*exortuiri*). Given

the graphic variations, not only the cases of *-ne*, *-ue*, *-que*, and *-cum* but also *-nae*, *-uae*, *-quae*, and *-qui* have been checked.

The word-forms one can query in our database are the *real forms*: those that are actually attested in the texts, with their divergences, their graphic characteristics, even their oddities. The first thing one must keep in mind, therefore, is that *there is no such thing as Latin orthography* and that numerous spelling variants can appear both in the classic era and in the patristic, medieval and modern eras.

The uniform orthography which distinguishes some of the texts is the reflection of modern editors' preferences rather than any real spelling consistency in the original works; their texts, however, are mixed with others and many differences are seen in editorial principles. Thus, for example, most editors of a certain author may write, for instance, *cur*, whereas another editor may respect the spelling *quur*. We note in this regard that the *Thesauri Patrum Latinorum* (with exception of the first *Thesaurus* dedicated to Gregory the Great) present normalized forms in the *Enumeratio formarum*. Thus, they provide, also from this point of view, complementary information to what is found in this database.

In fact, any spelling variant is possible and therefore, the basic rules of changes in spelling must always be borne in mind. They have to be part of the body of knowledge indispensable to the reader of Latin texts. This would also be the case for classical texts, if we were not misled by modern editors: one need only refer to papyri, to inscriptions, and to grammatical treatises. In the *De institutione oratoria* (I, 7, 30), Quintilian himself cited the rule simply of writing according to the pronunciation: '*Ego, nisi quod consuetudo optinuerit, sic scribendum quidque iudico, quomodo sonat.*'

The forms one can query contain neither *v* nor *j*, but only *u* and *i*; however, the forms appearing in the database normally follow the usage of the editor.

The statement of some reflexes one must have in this regard will doubtless be of service to point to some reflexes one must have in this regard. If a word-form commences with a vowel, supply an aspiration; remove it in the opposite cases. Similarly, always consider the possibility of an aspiration between two vowels.

E.g.: *abundantia* - *habundantia* or *Abrahae* - *Habrahae*

hymno - *ymno* , *habitatores* - *abitatores*

laicus - *lahicus*, *retrahat* - *retraat*

If a form contains two identical consonants, consider the possibility of one of them being suppressed; supply a consonant in the opposite case.

E.g.: *appellauit* - *appelauit*

glutine - *gluttine*

The same applies for vowels.

E.g.: *eleemosyna* - *elemosyna*

Note that we have automatically converted *j* to *i*, which involves the possibility of a double *i* (resulting from *ji*).

A consonant may be inserted between two others, as in the case of *dampnum*.

A recurring problem is that of dissimilation and assimilation (e.g., *-dm-*, *-mm-* or *-dp-*, *-pp-*).

For the vowels, the most common substitutions are the following:

e - ae - oe - i

E.g.: *nomene* for *nomine*, *aeiectus* for *eiectus*, *praesbyter* for *presbyter*, *fidaei* for *fidei*, *aeo* for *eo*, *penitentia - paenitentia - poenitentia*

i - e

E.g.: *inletteratum* for *illiteratum*, *Aristotiles* and *Aristoteles*

o - u

E.g.: *dibulae* for *diabole*

u - y - i - o

E.g.: *doctur* for *doctor*, *agnusci* for *agnosci*, *martur* for *martyr*

y - i

E.g.: *cybo* for *cibo*, *Ysidorus* for *Isidorus*.

The diphthongs *ae* and *oe* are interchangeable and can be represented by the letter *e*.

The letter *e* with a cedilla has been transcribed *e-* or *e+* (or also *ae*). Searching for a word-form containing *e+* or *e-* is done simply on the letter *e*.

Peculiar cases include *eocharistia* for *eucharistia*, *clustra* for *claustra*.

For the consonants, the most common substitutions are the following:

b - u - p

E.g.: *aberiens* for *aperiens*, *benae* for *uenae*, *octaba* for *octaua*, *Iobis* for *Iouis*, *uisum* for *byssum*

c - t - k - ch - qu

E.g.: *screpitu* for *strepitu*, *cam* for *quam*, *amiticiam* for *amicitiam*, *patriarca* for *patriarcha*, *Kain* for *Cain*, *kareamus* for *careamus*

cx - x

E.g.: *sanxhit* for *sanxit*

d - t

E.g.: *inquid* for *inquit*, *adre* for *atrae*

f - ph

E.g.: *filosophia* for *philosophia*

g - c

E.g.: *sagramentum* for *sacramentum*, *sagros* for *sacros*; similarly
sagrilege, *sagralegis*, *sagrilico*

g - i

E.g.: *magestas* for *maiestas*, *ienitum* for *genitum*

h - ch

E.g.: *adnichilare* for *adnihilare*

k - c

E.g.: *kapaciter* for *capaciter*

n - m

E.g.: *menbra* for *membra*

p - b

E.g.: *Iacop* for *Iacob*

ph - f

E.g.: *ruphus* for *rufus*

qu - c

E.g.: *quooperta* for *cooperta*

r - l

E.g.: *plurariter* for *pluraliter*

s - c

E.g.: *seruicum* for *ceruicum*

s - t - x

E.g.: *iusta* for *iuxta*, *persuatione* for *persuasione*

t - d

E.g.: *aliut* for *aliud*

uu - u - w

E.g.: *Uandalorum* - *Uandalorum* - *Wandalorum*

x - ch - c

E.g.: *xpistus* for *christus* (*xp = xr*), *sextentur* for *sectentur*

z - s

E.g.: *Zmyrna* – *Smyrna*⁽²⁾

The combination of various kinds of spelling variants requires particular attention, but it is, after all, indispensable for the reader of Latin texts. Recourse to Romance languages will often help in imagining different spelling possibilities (such as the variants *auct-*, *aut-*).

We also like to draw attention to variations of the type *lucri facere* – *lucrifacere*, *quo usque* – *quousque*, *procul dubio* – *proculdubio* etc.

To solve the problem of alternatively written forms, the software offers the capability of querying and visualizing multiple forms at once. One can use the wildcards ‘?’ (substituting for any character) and ‘*’ (substituting for any set of characters), and request the display of lists of possible word-forms. Scholars who regularly use this capability are those who are well aware of this kind of problem. Even the specialist will often be surprised by the results. Our database can play an important role here in the training of students and researchers.

Correct and optimum use of a textual database obviously requires the linguistic knowledge appropriate for that database. Some strange word-forms are due to the context and to the nature of the work of which they are a part. Thus, *nulluse*, *nestin*, and others, are forms attested to in Bede’s *De arte metrica* and are explained by the presentation of the scansion. Others are elided forms, still others correspond to abbreviations, which generally appear as they are given in the edition. There are also word-forms which represent Roman numerals. The endings of numerals are noted when appropriate. For example: *iiii-or*. Finally, we find words which remain enigmatic, such as *belgalic*, *margaleth*, *lutamiron*, *tamimon*, *raphalut*, *thors*, etc. quoted by Virgil the Grammarian.

Words written in Greek characters in the editions are now displayed in Greek characters (with breathings and accents), and can be searched for with Greek characters, with the exception of the Erasmian *Epistularium*, where, for the moment, Greek words still appear under a transliterated form and are tagged with the code ~g.. Note that in the index, these words appear without breathings and accents and that, therefore, these diacritic signs are not relevant for the interrogation. For instance, in the index, the form τῖς represents τῖς as well as τῖς, and whether you type the one or the other in the search screen, you will obtain the same result, namely both the contexts containing τῖς and those which contain τῖς.

As to the code ~gtr, which applies to Greek words transliterated knowingly by an author (such as Lawrence of Brindisi in the LLT-A), it remains in use.

For transliterations from Hebrew, the code ~h is used. At present, the forms containing this code cannot be queried.

Each special situation – such as, the coding of Greek symbols for numerals – is explained in the ‘Background on the Text’.

Regarding the French, German, Italian and Spanish forms appearing in some works, they were respectively tagged with ~f, ~al, ~i and ~es,

⁽²⁾ See also the examples given under the title ‘Orthographe’ in A. BLAISE, *Dictionnaire latin-français des auteurs chrétiens* (Turnhout, 1954), or the new edition with *corrigenda* (Turnhout, 1967), pp. 30-31.

Please note that the language codes are considered part of the queried form by the software and should therefore be entered in the input field when searching for a form tagged with one of these codes, or these word-forms should be followed by the wildcard * (see below, section II.3.4).

*

The statistical enumerations of the word-forms are furnished in the ‘Background on the Text’ for each work:

number of word-forms (*summa formarum*)

number of different word-forms (*summa formarum dissimilium*)

number of bytes (*summa notarum*).

Information on the frequencies of each form within the corpus can be obtained by querying the ‘distribution of word-forms’. The software also enables the user to find out the frequency of a given form for each of the periods within Latinity, for each author and for each work. These frequencies are often a mere practical indication. Many forms are indeed ambiguous: only the context or even the text itself allows us to know what lexical entry is concerned.

3. A discourse cut into sentences (*sententiae*)

The word-forms are grouped in so-called **contexts** or sentences (*sententiae*). The demarcation of the ends of sentences, nevertheless, is not self-evident. Indeed, the editions offer many ambiguities: full-stops can be abbreviation signs, question marks and exclamation points can be inserted within a sentence, and the capital letters that follow do not obviously allow one to automatically mark the ends of sentences. Naturally, we could not verify all these punctuation marks. Therefore (apart from the terminations corresponding to the logical divisions of a work), we have normally not considered as sentences very short phrases that are followed by a question mark (which, sometimes, will involve a certain ‘noise’); exclamation marks generally do not indicate the end of a sentence. In some rare cases a full-stop can involve an unwarranted demarcation, because it does not terminate a sentence but has a different meaning in its context. The cases of ‘false’ full-stops can have an unwanted effect when one searches for the simultaneous appearance of several forms within one and the same sentence. This phenomenon occurs very rarely; yet, we offer an additional option to deal with it: researching in groups of three sentences.

The response to the queries formulated enables you to learn the number of *sententiae* attesting the queried term, as well as the absolute frequency of that term.

As for contexts, they are not necessarily presented uniformly, because editors adopt different policies regarding punctuation and capitalization, and also because some of the files themselves may have been encoded differently in the course of the long lapse of time before this database was compiled. Thus, some texts distinguish upper-case letters and lower-case letters or use extensive punctuation, while others do not. One should keep in mind that all these things are incidental, because they correspond to modern presentations. Apart from rare exceptions, the published texts were not originally written, or even presented in the manuscripts, in the form used by modern editors.

Finally, the contexts can contain elements such as (*fig.*) or (*sig.*) for *figura* or *signum*. These are elements that we could not include but the existence of which had to be noted within the contexts. The contexts also display, in the case of dialogues, the name of the person speaking.

In the grammatical treatises, the long syllables are indicated by ‘—’ and the short syllables by ‘.’; in the same way, the ends of feet within a form are coded ‘=’. The same code is used for tmeses.

II. THE SOFTWARE

1. Four ways of accessing texts

When you enter the **Library of Latin Texts – Series B (LLT-B)** for the first time, the **‘Welcome’ screen** offers three lines of approach to the texts:

1) The **Quick search** was developed to provide a more natural and efficient access to the database. It focuses on the principal search fields (author, work and text) without distracting the user with other options. The author and work field will autocomplete as you type while the full text field provides the same possibilities (wildcards or even more complex syntax) as the one on the Advanced search screen.

Depending on the number of results, the results of a quick search will be displayed in different ways. When the number of results is less than 10 the user immediately gets access to the results. When there are more than 10 results, the results will be grouped by author / title and by century. This way the user gets a better overview in time and distribution.

More grouping and filtering options will be added in the following updates.

2) The **Advanced search** screen allows you to execute searches based on **word-forms** or **groupings of word-forms**. You can use Boolean operators and wildcards. You can conduct a search across all the texts in the database or, with the help of **filters**, define a subset and limit your search to one or more **periods** within the Latin corpus or to one or more **authors**, as well as to one or more **titles** of works. Other criteria for formulating your queries are the **century** of composition and the **HLL/LLA number** (see above, I.1.4).

3) The **Table of Contents** allows you to access specified passages from individual texts and to display these by means of their explicit references. This approach assumes that the enquirer is beginning with a bibliographical reference and wishes to find and display the work(s), passage(s) or word(s) so identified, rather than the opposite (that is, beginning with a specified piece of Latin and proceeding to identify where in the database it may be found). The table of contents reflects the structure of the works in minute detail and can be used to navigate through the texts and to access them at any given point.

4) The fourth approach allows you to access texts by examining the **distribution of word-forms** across the entire database, within different periods of Latin literature, or for specific authors or works. The study of the word-forms can provide an analysis of the vocabulary within an individual work, by calling to the screen an exhaustive **concordance** for each form that is part of that work.

2. Navigating through the ‘Library of Latin Texts – Series B’

The tabs at the top of each screen allow you to access the following functions:

1) The tab **BREPOLiS** redirects you to the main page of the ‘Brepolis’ website.

2) By means of the tab **All Products**, you get the list of all the databases available on Brepolis. You can reach the one of your choice by clicking on its name, provided that you subscribed to it.

3) The tabs **EN**, **FR**, **DE** and **IT** allow you to choose English, French, German or Italian as your working language in the course of your session.

4) The tab **Home** will take you to the ‘Quick search’ screen.

5) The tab **Settings** allows you, while your session is under way, to define the working language that is to be selected by default on any future startup. Select the language of your choice by clicking on the appropriate tick-box. You can also determine which startup screen is to be opened by default when entering the application in future working sessions. Tick the screen of your choice and validate your choices by clicking on the button **Save Settings**.

6) The tab **Help** gives access to this User’s Guide, which offers explanations necessary for working with the software and using it with a maximum of effectiveness.

7) Clicking on **Exit** will close the application and take you to the **Brepolis** homepage.

A second series of tabs, located directly underneath the application’s title banner, allows you to switch to any one of the three working screens (labelled **Quick Search**, **Advanced Search**, **Table of Contents** and **Distribution of Word-forms**) at any time during your session.

3. *Quick search*

1) **Search screen**

Quick search allows you to search for an author, work, word/phrase or any combination of these. The results will always match all the provided criteria. If you want to make more complex queries, please use the advanced search.

In order to simplify and speed up the selection of the author and work, Quick search displays a **list of suggestions** based on the user input. The system will automatically search for all authors that match, start with or contain any part of the provided string of characters. This way one can make a selection without the need of any wildcards or even mouse-clicks.

The author and work field are **linked**. When you select an author, the suggested works will be limited to the works of this author.

Only one author and one work can be selected.

The Full text field can be used in the same way as it is in de the Advanced search screen. Please see below for more information and query syntax.

Similarity search can be selected by simply checking the ‘include similar’ checkbox. As in the Advanced search, similarity will only work on normal word or phrase queries. Wildcards and complex queries are not supported.

Please remember that you have to provide at least 1 search criterion.

2) **Results**

The results screen has 3 main zones:

On the left you can find a button to modify your query, a checkbox to include or exclude ‘similar’ results and a list of all centuries in wich hits were found.

On the top-right there is a small box where all the applied filters can be found and/or removed

In the results pane, 2 types of results can be shown. When less than 10 hits are found, all hits will be displayed in detail. When more than 10 hits are found, you will see a synopsis where results are collapsed and sorted by author / title. These results will be ranked in descending order of the number of hits.

4. Executing a search in the Advanced search screen

Clicking on **Search Screen** will take you to the most important of the three working screens.

The **search screen** allows you to conduct queries based on **word-forms** or **groups of word-forms**. You can use Boolean operators and wildcards. You can conduct a search across all the texts in the database or, with the help of **filters**, define a subset in order to limit your search to one or more **periods** within Latin literature or to one or more **authors**, as well as to one or more **titles** of works, the **century** of composition, and the **HLL/LLA number** (see above, I.1.4).

By default, the field to which a query is applied is the **context**, i.e. the textual environment in which a given word-form occurs. For the purpose of this database, a ‘context’ is understood as a complete **sentence** (a *sententia*) as delimited in the edition of the text in question. Launching a query with regard to a word-form or a group of word-forms, therefore, entails searching for contexts that contain this word-form or group of word-forms. The field to which a query is applied can be widened to three contexts (see below).

1) Formulating a simple query for a single word (a form)

The most simple query consists of launching a *query for a single word (also called word-form or form)*, which is entered in the input field of the panel **Full text**.

To launch a search, you enter a form, for example *grammatica*, and then click on the **Search** button in the panel called **Actions** at the bottom of the screen or simply press **ENTER**. This will generate a response of contexts, generally consisting of complete sentences in which the queried word is attested.

You can *erase the parameters entered* in the word-forms field by clicking on the button **Clear All**.

2) Using Boolean operators

When launching *queries pertaining to a combination of word-forms*, it is important to define the logical relationships between the different word-forms in your query. To that effect, you can use the three Boolean operators **AND**, **OR** and **NOT**.

- The operator ‘+’ represents **AND**; the software searches for contexts that contain all of the word-forms connected by this operator; the order of appearance of these word-forms in the targeted context is not relevant.

- The operator ‘,’ represents OR; the software searches for occurrences of each on its own; a single context may contain several of the word-forms queried.

- The operator ‘#’ represents NOT; the software excludes from your search the form marked by the operator.

When working with complex search formulas, it is important carefully to specify the hierarchical structure of the query:

- parentheses should be used for grouping together terms that represent an expression or a common concept within a complex query;

- it is strongly recommended that you organise the order of precedence of the search terms by using parentheses.

Example.

Entering the expression **((aqua + calida), (aqua + frigida)) # potum** in the input field of the panel **Word-forms** will enable you to see all the sentences in which the forms *aqua* and *calida* (common concept 1) OR the forms *aqua* and *frigida* (common concept 2) are attested, with the exception of those contexts which also contain the form *potum*.

3) Using proximity operators

Boolean operators, while enabling you (among other things) to search for the collocation of several word-forms in a single context, do not allow you to exert any influence over the proximities and the order of appearance of these forms. To this end you must use the two **proximity operators**, which help you specify the proximity between the word-forms and the desired order of appearance:

- the **operator ‘/’ followed by a numeral** specifies the number of unmatched terms which may separate the first and the last of the queried forms, defining the degree of proximity between the queried forms but not their order of appearance (**unordered proximity**);

- the **operator ‘%’ followed by a numeral** defines the degree of proximity between the queried forms as well as a particular order of appearance (**ordered proximity**).

Rules of syntax.

- The group of word-forms for which you wish to specify proximity (unordered or ordered) must be placed between parentheses.

- The proximity operator must be placed immediately after the opening parenthesis.

- The numeral specifying proximity must always be directly attached to the codes ‘/’ or ‘%’.

Examples.

- The query **((/2 aqua calida) , (/2 aqua frigida)) # potum** allows you to find the sentences in which the forms *aqua* and *calida* OR the forms *aqua* and *frigida* occur, while excluding the sentences which also contain the form *potum*. A maximum of two word-forms

may separate *aqua* from *calida* or *aqua* from *frigida* (as the case may be). The order of appearance is not relevant.

- The query ((%2 *aqua calida*), (%2 *aqua frigida*)) # potum allows you to find the sentences in which the forms *aqua* and *calida* OR the forms *aqua* and *frigida* occur, while excluding the sentences which also contain the form *potum*. A maximum of two word-forms may separate *aqua* from *calida* or *aqua* from *frigida* (as the case may be). Within either combination, the order of appearance is determined by the query.

Important remarks.

- *Searching for a particular expression.*

If no Boolean operator is placed between the word-forms, the software assumes an ordered proximity operator ‘%0’ in its place; a series of word-forms separated by spaces will therefore result in a search for these forms in that exact order. Thus entering the query *Orpheum vatem renarrant ut priorum litterae* will result in a search for that exact expression.

- *Ambiguity of punctuation marks and diacritical marks.*

Whenever you copy/paste an expression to the word-forms field, you must be careful to remove punctuation marks and diacritical marks lest these elements be interpreted as operators (the comma, for instance, corresponds to the Boolean **OR**), or as other significant codes. (The full stop would be interpreted as an abbreviation sign.)

The possibility to combine Boolean operators with proximity operators is limited: you can specify ordered and unordered proximity for a series of forms but not for more complex groupings containing parentheses and Boolean operators. It is important to ensure that a proximity operator is always placed at the lowest level in the hierarchy.

Example.

The software cannot resolve a query such as:

(/7 (aqua calida) + (aqua frigida)) # (/7 nocturn* diurn*)

In this case, the operator ‘/7’ will not be applied to the content of the complex expression “(aqua calida) + (aqua frigida)”, which contains both parentheses and the Boolean operator ‘+’. The query should be rephrased as:

((/7 aqua calida) + (/7 aqua frigida)) # (/7 nocturn* diurn*)

Here the operator ‘/7’ is applied to groups of two forms each (forming ‘simple’ expressions in both cases); the operator is placed at the lowest hierarchical level and the software can resolve the query. Observe that the expressions determined by the operators can be located within a more complex assembly with several hierarchical levels indicated by parentheses.

4) Using wildcards and the Select filter of the Word-forms panel.

a) Wildcards

You can use the following *wildcards* to extend your query:

- the code * represents any character or string of characters as well as the absence of characters;

- the code ? represents exactly one character (and not the absence of a character).

Both of these codes can be used at the beginning, at the end or in the interior of any 'word'. You can use several wildcards within a single form. If your query becomes too complex for the system to handle, the program will alert you to this by showing an error message.

A query can only be executed if the number of responses it would generate does not exceed 25,000. You will receive an error message if it does.

You can use wildcards within a group of word-forms for which you want to specify proximity and order by using the relevant operators.

Comment.

The **Syntax** button, to the right of the input field of the **Word-forms** panel, gives access to a summary of all the rules of syntax for the use of Boolean operators, wildcards, and proximity and order operators.

b) The Select filter of the Word-forms panel







You can enter a query in the input field of the **Word-forms** panel using wildcards and cause it to be executed immediately by clicking on the **Search** button in the **Actions** panel at the bottom of the screen, or simply by pressing **ENTER**.

Nonetheless, in the majority of cases, before launching your query it may be more fruitful to acquaint yourself with the actual forms that result from resolving the wildcards, by recourse to the **filter for selecting word-forms**; this is opened with the **Select** button located to the right of the input field inside the **Word-forms** panel.

This selection filter shows a picklist of all word-forms present in LLT-B's index. You can enter a search formula in the input field called **Wildcard Query** and request the list of corresponding forms by clicking **Query**. Resolving the asterisk in the query '**gramm***', for instance, will return a list of matching forms.

The query to be entered in the **Wildcard Query** field can include several word-forms with or without wildcards, for example ***gramm*, musica, geomet***; you can use Boolean operators and structure your query by using parentheses, for example **(*gramm*, musica, geomet*) # epi*** [thus excluding examples of *epigramm-*].

The results obtained by clicking on **Query** are presented on a series of successive pages, with each page displaying a maximum of 40 word-forms. You can navigate through the picklist with the help of the arrow buttons located above it to the right:

-  allows you to go to the next page;
-  allows you to jump forward ten pages (= 400 forms);
-  allows you to jump to the last page of the list;
-  allows you to return to the previous page;
-  allows you to jump backward ten pages (= 400 forms);
-  allows you to return to the start of the list.

You can select any of the word-forms shown by clicking on it. Selecting a form will copy it to the input field underneath the list. This field serves for fine-tuning your query. It will be found already to contain any search terms previously entered in the input field of the **Word-forms** panel.

When in the filter screen, clicking on **Select Page** will copy all forms from the list currently displayed to the field below.

You can position yourself on a specific entry of the index by entering a form (or the first characters of it) in the **Position at** input field located underneath the **Wildcard Query** field and then clicking on **Position**. This results in the display of the portion of the index of forms that starts with the selected form. You can now familiarize yourself with the alphabetic environment of that form (using the arrow buttons to navigate if needed) and, by making your selections, complete your search formula.

The formula can be fine-tuned by typing in more forms manually and by (for example) introducing Boolean operators. By clicking on **OK** you copy your query to the input field in the search screen so that it can be executed. Clicking on **Cancel** will close the filter without copying the query.

5) Regular search

Several options are available for modifying and specifying your query. You can:

- proceed to a **verification of the forms** entered in your query;
- modify the target field of your **query** by extending it to **groups of three *sententiae***;
- choose to **seek contexts containing the forms** corresponding to your search criteria, or **contexts that exclude the forms corresponding to those criteria**.

These options are available in the **Options** section located directly below the input field of the **Word-forms** panel.

a) *Verification of word-forms (Check Word-forms)*

If your query **does not return any results**, it may be that a typing error has slipped into it. In order to detect forms that may have been affected by such errors, the software can proceed to a verification of the forms in your query using the **Check Word-forms** option. Before displaying a list of contexts (or before showing the message ‘Unknown words’, as the case may be), it starts checking the forms from the query against the exhaustive list of word-forms present in LLT-B’s index.

This verification results in an enumeration of the queried forms that were not found in the index (the list of ‘unknown word-forms’). It is particularly useful to use this option if you are querying groups of forms that were entered manually. Queries containing one or more truncated forms (e.g. *aqu**) are not submitted to the verification of word-forms.

Check Word-forms is activated by default and can be deactivated by clicking on the corresponding tickbox in the **Options** section.

b) Extending the target field of a query to groups of three contexts

By default, the **context** (or sentence, *sententia*) is the target field for queries. Launching a query for a group of words therefore means searching for contexts which contain that group of words. The option **Word-forms matched within a block of 3 sentences** enables you to extend the target field of a query to blocks of three sentences.

When you activate this option by clicking the corresponding box, your query is applied to units composed of three sentences each. In a work consisting of sentences 1 to 5, the sentences will be grouped 1-2-3, 2-3-4, 3-4-5. Applying a query to a group of three sentences would obviously be useless unless it contained the operator '+' (**AND**) or the operator '#' (**NOT**). While the list of contexts found will inevitably almost always contain cases of redundancy, applying this option guards you against negative responses due to variable, disputable or erroneous placement of punctuation marks in the texts as captured.

c) Requesting the inclusion of forms in the queried contexts and requesting their exclusion from the queried contexts

A standard query normally means searching for contexts which contain a form or group of forms within a chosen body of texts. Nonetheless, it can prove useful to search for contexts that **do not contain** certain forms. LLT-B allows you to execute both types of query simply by ticking the box before the option **Word-forms must appear in the contexts** or **Word-forms must NOT appear in the contexts**, respectively.

The option **Word-forms must appear in the contexts** is activated by default.

6) Similarity Search

The LLT-A offers the possibility to quickly search for text that is similar to that which is entered in the **Full text** panel. Simply select the option "Similarity Search" and the system will execute a complex query based on proximity, similar word-forms, etc. In typical cases you will find that the results increase by 25-50%.

This type of search was developed to assist the researcher to find the origin of quotations or other text without the knowledge of the exact words and/or their order.

Similarity does not use synonyms, but will expand each provided word-form with all the word-forms of its lemma. So, for example, verbs will be replaced by all their derived forms, or, when the morphology of a word has changed through time or place, different forms of the same word will be searched for.

Examples:

deus => dei, deis, deo, deos, deum, deus, di, dii, dium, dyis ...

erat => ens, essent, est, forent, fueras, fuisse, futura, sint, sum ...

As texts tend to change through time, word order may change, words may be added, or they can disappear. These three cases are fully supported by the Similarity Search. The "Automatic settings" will suggest option-values based on the number of words in the query. The "Manual settings" allow you to provide your own values.

When the word-order option is **checked**, all words must appear in the same order. Possible results for "aqua et terra" may be: "aqua et terra" or "aquam et terram" or "aquae et terrae"

When the word-order option is **unchecked**, the number of possible results is greatly expanded: “aqua et terra” would allow for “terra et aqua”, “aqua terra et”, “terram et aquam”, ...

Increasing the “Number of words from the **query** which may be missing from the **result**” allows for some words of the query to be omitted. If we provide a value of “1” for this option, a query like “aqua, terra, anima et sol” may result in “aqua anima et sol”, “aqua, terra et anima”, ...

Increasing the “Number of words from the **result** which may be missing from the **query**” allows for words to intervene in the result. If we provide a value of “1” for this option, a query for “aqua et terra” may result in “aqua, aer et terra”, “aqua, sol et terra”, “aqua, anima et terra”

7) Saving queries and loading saved queries

a) *Saving*

LLT-B offers the option of **saving your queries** and reusing them in a later session. This can be especially convenient when a query consists of complex search formulas. Click on the **Save** button to open the system window for downloading files.

Click on the **Save** button and choose a name for your file. You can use the name suggested, or formulate one corresponding more closely to your query. It is important always to leave the extension **.qry** unchanged in order to enable the software to recognise the file when you want to load a saved query.

b) *Loading*

In order to load a previously saved query, simply click on **Load**, which will open the window **Load Query**. Next click on the **Browse** button and select the desired query in the classic Explorer window. After selection, the name of the file along with its access path appears in the input field. Now click on **Load** to load and execute the selected query.

Note.

The working language used in the different windows that you are invited to open for saving and loading queries primarily depends on the language settings stored in your web browser and is independent from the working language you have chosen for LLT-B.

5. Displaying and utilizing the results

1) **Displaying the results in a single list**

After having typed a search formula in the **query screen**, you can retrieve the results in the form of a list of contexts corresponding to the criteria entered. These contexts will be displayed by clicking on the **Search** button in the **Actions** panel near the bottom of the screen, or simply pressing **ENTER**.

The panel containing the **results** shows the total number of contexts answering to your search criteria in its title bar, above the first element of the response displayed. It is the number of **sentences** or *sententiae* that is shown here. This number is not necessarily equal to the number of forms in the database that correspond to the query. A context can in fact

contain several occurrences of the queried forms. If you want to find the number of occurrences of a form as such, you must use the screen called **Distribution of Word-forms**, which will be described below.

2) Showing the results in relation to the different periods of Latin

Instead of showing the results in a single list, you can click on **Hits/Period** in order to distribute the contexts of your answer over the different periods of Latin. Each list is identified by its name, which is inscribed in the tab providing access to it.

LLT-B distinguishes five chronological periods of Latin:

- *Antiquitas (Ant.)*, which contains the works dating from what is called Classical Antiquity (from the beginning until, roughly, the end of the second century);
- *Aetas patrum I (Patr. 1)* for works of Late Antiquity (until 500);
- *Aetas patrum II (Patr. 2)* for works composed between 501 and the death of the Venerable Bede (735);
- *Medii aevi scriptores (Med.)* for medieval works (736-1500);
- *Recentior latinitas (Rec.)* for works composed between 1501 and 1965.

The responses for each period can be displayed by clicking on the tab bearing the name of the period and the number of contexts concerned.

3) The contexts shown in the list of results


Every context shown consists of two parts:

- First there is the **reference** for identification, giving the name of the author, the title of the work, and the reference properly so-called of the passage displayed: this reference is precise, is always clearly formulated, and applies to the first word of the sentence concerned (that first word not necessarily being one of the target forms of the executed query).

- Next follows the **context** properly speaking, which contains the target form or forms of the query. Normally there is at least one complete sentence. The discourse, therefore, is not a simple sequence of bits and bytes: it is organised according to the general structure of the text as determined by the editors.







- The reference for identification of each context is preceded by a **serial number** that can be used for navigation within the list of results (cf. below).

The targeted words are highlighted in yellow. Certain forms that are shown in the contexts are not part of the text properly speaking. In general, this concerns elements of reference added by copyists and editors, or unconnected punctuation marks. These elements have not been indexed and therefore cannot be the object of a query. They are highlighted in light blue.

The reference belonging to each context is presented in the form of a link: simply clicking on a reference brings up a popup-window which contains the **full text** of your work of choice. The arrow buttons permit you to move forward or backward one sentence at a time and to jump to the start or the end of the work. The button marked by an asterisk enables you to return to the passage of departure at any time. Clicking on **Close** will close the text window and bring you back to the list of results. The icon  allows you to create a **PDF file** of the selected context as well as the next ten sentences. This file also contains the **terms of the query** and the '**Background on the Text**' of the work from which the context was taken.

4) Navigating through the lists of results

The list of results is displayed in successive screenfuls of ten contexts each. You can navigate through the list with the help of the arrow buttons located on the right at the top and the bottom of the screen:




-  allows you to go to the next screenful;
-  allows you to jump forward ten screenful (= 100 contexts);
-  allows you to jump to the last screenful of the list;
-  allows you to return to the previous screenful;
-  allows you to jump backward ten screenful (= 100 contexts);
-  allows you to return to the start of the list.

The '**Position on**' panel, which you will find in the column to the left of the results panel, allows for other types of navigation:


- you can position yourself on a specific context by entering its serial number (cf. above) in the input field **Hit:** and clicking **Go**;
- you can jump to the first context of the next period, author or title by clicking on the relevant arrow button on the right side of the panel;
- you can return to the first context of the preceding period, author or title by clicking on the relevant arrow button on the left side of the panel.

Working with individual contexts

Within a list of results, each context is accompanied by four icons providing access to four tools which can be used to exploit the extract in question.

- The icon  enables you to switch to the **Table of Contents** and thence to access other passages from the work using precise location-references. For a detailed description of the table of contents, see below.
- The icon  enables you to display the '**Background on the Text**' of the work in question.
- The icon  enables you, in a separate window, to access the **full text** of the work of your choice by opening it on the passage indicated by the reference. Arrow buttons make it

possible to move forward or backward one sentence at a time and to jump to the start or the end of a work. The button marked by an asterisk allows you to return to the passage of departure at any time. The window can be left open while you continue to work on other contexts or while you execute other queries, and it is possible to open several context windows in order to compare them.

- The icon  enables you to create a **PDF file** containing the context accompanied by the terms of the query and the 'Background on the Text' of the work in question.

5) Exporting the list of results completely or partially

The software offers the option of exporting the list of results (partially or entirely) provided that the number of contexts does not exceed 500.

You can select the contexts you want to export individually by clicking the boxes underneath their serial numbers. If a greater number of contexts needs to be exported, the software allows you to apply parameters to the data. You can use the **Export** panel, located to the left of the Results panel, to this effect. This panel allows you to select, in one go,

- either all of the contexts in the list (**Select All**)
- or all of the contexts of the current screenful only (**Select Page**).

The option **Deselect All** enables you to cancel all selections that were made.

The section **Export** gives you the choice of including or not including, in your export file, the 'Background on the Text' of the works in question ; simply tick the appropriate option.

Concerning the format of the exported content, it is possible in every case to:

- create a PDF file which you can save immediately, or
- send an e-mail which contains the selected results in the form of an attachment.

Depending on your choice, click on the buttons **Export as PDF** or **Mail to**.

6) Switching from a context search to other types of approach

In order to continue the examination of a form, it is possible for you to switch to other types of approach, departing from the list of contexts. Using the **Search** panel in the left column will take you to:

- the LLT-B screen called **Distribution of Word-forms** (which will be described below); to bring up this screen, enter a form in the input field and click on the button **Distribution**;
- the application called **DLD** – Database of Latin Dictionaries, which is available at *Brepolis* as well. This application enables you to search in several dictionaries the entries corresponding to a given form. To enter the **DLD**, type the dictionary headword that you are looking for in the input field and click on the button **DLD**. Use wildcards if you do not know the exact form of the dictionary entry you want to query.

The link to these two tools is always constituted by the word-form you enter in the query field.

6. Using the filters

1) The five filters

Rather than working with the entire data, it may sometimes be useful to limit the subject of your query to an author, a group of works by that author, a period, or a century of composition. Such selections can be made by using the **filters**.

The five **filters** are located in the upper part of the **search screen**, in the panel called **Filters: Criteria**. You can open the filters by clicking on the corresponding buttons: **Period**, **Author**, **Title**, **Century**, and **HLL/LLA**.

These five filters may be collectively spoken of as the **filter for the selection of word-forms**, which has been mentioned when discussing the simple query. Each filter contains, in the form of a list, a **complete index**. You can *select entries*, which can be reached by *using the arrow buttons to navigate* and by positioning yourself on the chosen entry, or by *entering a search formula* in the field **Wildcard Query**.

2) Using a filter to make a selection

The procedure which must be applied for selecting entries is the same for all five filters. The way it functions will be described and explained by taking as an example the most important of the filters, that of the **titles**.

After clicking on the **Title** button, you can enter the desired title directly in the **'Position at'** input field, e.g., *De sideribus carmen*, and click on the **Position** button: you now arrive at a display of an extract from the index, with the first entry corresponding to *De sideribus carmen* of Pseudo-Priscian. You can select this entry by ticking it and then clicking on the **OK** button.

If you do not know the exact title under which the work you want to select has been classified – e.g., is it *De sideribus carmen* or *Carmen de sideribus*? – you can use the field **Wildcard Query** in which you can enter a search formula with or without wildcards. Enter the formula **carm* sider*** and press **Query**. You will obtain the titles containing both a word beginning with the character string 'carm' and a word beginning with 'sider', whatever their order of appearance.

This technique is to be recommended if you are searching for several works of which the titles contain a common element. If you are interested in works whose title refers to a *commentarium* or *commentum* on or of Donatus, you can enter the query **comment* donat***. After clicking on **Query**, you will obtain a list of 19 titles.

You can select each of the entries by ticking them individually. If you click on **Page**, you select all the entries of the list in the current page. If you click on **All**, you select all the entries that constitute the result of your query. Note however that **it is not possible to select more than 250 entries**.

After having made your selections, you can click on the **Current Selection** button to obtain a list of all the entries that you have just selected. If necessary, you can adjust this list

by unticking those elements which you do not want to retain in your query. By clicking on the **Search** button, you return to the complete index, and by clicking on **OK** you close the filter and return to the search screen.

Click on **OK**. Beneath the filter that you just applied, the program now indicates the number of selected entries, displaying, for example, '**Selection (3)**'. This indication serves as a link on which you can click in order to show the list of selected entries. If necessary, you can adjust this list by unticking those elements which you no longer want to be part of your query. Beneath the filters in which no selection has been made the indication '**(No Selection)**' is displayed.

To close a filter without keeping the selections that have been made, click **Cancel**.

3) Formulating queries in a selection filter: rules of syntax

To formulate your request in the field **Wildcard Query**, you can use wildcards, Boolean operators and parentheses.

When performing complex queries, it is important to have a thorough command of the Boolean operators and to keep in mind the differences between ordinary language and logical formulas.







If you wish to select two or more titles, your query, in a logical form, will use the operator ',' (**OR**) and not the operator '+' (**AND**): for example, if you are interested in Donatus' comment on both the Phormio **and** the Andria of Terence, you need to actually search, from a logical point of view, contexts that apply to **either** the first **or** the second of these works.

In complex search formulas, parentheses must be used to group terms that express a common concept. This is all the more important if you enter composite search terms. If, for example, you wish to examine the works of Bede and of Aelius Donatus, your query will be **Beda, (Aelius Donatus)**.

You can exclude certain results by using '#' (**NOT**) in your query.

4) Navigating through a selection filter

Navigation within the list is done by way of the arrow buttons located at the top right of the screen on display:

-  allows you to go to the next page;
-  allows you to jump forward ten pages (= 100 entries);
-  allows you to jump to the last page of the list;
-  allows you to return to the previous page;
-  allows you to jump backward ten pages (= 100 entries);
-  allows you to return to the start of the list.

5) Alphabetical and logical sorting

The five selection filters enable you to display the entries in an **alphabetical order** or in a **'logical' order** at any time by checking the corresponding 'sort' option.

Sorting in **alphabetical order** allows you to position yourself on an exact index entry by entering the appropriate expression in the **'Position on'** field.

However, this way of sorting is not convenient for all filters in all circumstances: the list of centuries for instance, when sorted alphabetically, will display the 17th century before the 9th, the 10th before the second, and so on. This is why every filter offers a so-called **'logical sort'** option. This enables you to display the lists according to a sort criterion which is more convenient than a purely alphabetical order. Within each filter it is possible to consult the lists according to the sort of your choice.

With the **logical sort** option you can display the list of **periods** and that of **centuries** in chronological rather than alphabetical order.

6) Including and excluding data defined by the filters

The relationship between the filters for selection and the field of word-forms can be presented in two different ways:

- The selected entries in the filters can mark out a subset of the database within which one wishes to seek the contexts corresponding to a query which has been entered into the Full text section: this means **including** in the search-domain the works so defined. The filters and the forms are thus connected by the Boolean operator **AND**.

- The selected entries in the filters can also mark out a subset of the database outside of which one wishes to seek the contexts corresponding to a query which has been entered into the Full text section: this means **excluding** from the search-domain the works so defined. The filters and the forms are thus connected by the Boolean operator **NOT**.

To specify this relation of inclusion or exclusion between the filters and the forms, select the corresponding entry in the 'Include/Exclude' box which is located to the left of the screen section called **Filters: Criteria**.

7) Combining different filters

LLT-B allows for the use of five filters in order to refine your requests. To this end, all of the filters can be used not only separately but also in combination. Combining the filters will be useful in two respects:

- the combination facilitates working within different filters by reducing the lists you have to browse;

- it allows for the combination of criteria which you select in the different filters.

a) Simplifying working within the filters

As the arrows between the buttons indicate, four of the filters are organized in a hierarchical structure: each title is classified under an author, each author belongs to a period.

In the same way, each title is associated with a century in the course of which the relevant work was composed. Likewise, each entry of the period filter comprises one or more ‘author’ entries, each of which itself encompasses one or more ‘title’ entries. In the same way, each entry of the century filters comprises one or more titles.

By selecting one or more entries in a filter located at a higher level in the hierarchy, you only keep, in the lists of ‘lower’ filters, the entries corresponding to those selected in the ‘higher’ filter. The others are left out, which allows for a reduction of the list you have to go through.

Example.

If your query only concerns medieval works, you can select *Medii aevi scriptores* in the period filter in order to reduce the number of entries you need to browse. At the same time, you can reduce the list of authors by selecting only the period of your choice. Likewise, the list of titles to browse is reduced by selecting in advance the authors or the centuries of composition in which you are interested.

It is to note, however, that, as is suggested by the absence of arrows next to its button, the filter for selecting HLL/LLA numbers works independently and is not connected to the four other filters.

b) Combining criteria selected in different filters

Selections made in the five filters that are arranged in a horizontal line must always be in accordance with the hierarchical structure. At this level, it is not possible to combine incompatible criteria and to select for instance the author Iohannes Duns Scotus together with the title *De reditu suo* (the latter being a work by Rutilius Namatianus). For such combinations a different method is required.

In order to execute this type of selection, one must display a second, or even a third row of filters by clicking on **Add Criteria**. The selections which you make in the different rows will be linked by the Boolean operator **OR** (referred to as **Include** in the drop-down list to the left of the row of tabs).

Example.

In the first row, select the title *De reditu suo*, in the second row, the author Iohannes Duns Scotus and in the third row the entries belonging to the 11th century. If you combine these filters with the query *Roma*, you will find contexts that contain the form *Roma* and are attested in the *De reditu suo* **OR** in the texts of Duns Scotus **OR** in works of the 11th century.

If you select the option **Exclude** instead of **Include** in the box to the left of the row of filters, you introduce the logical operator **NOT**.

Example.

In the first row of filters, you select works dating from the 5th century; in the second row, you choose *De reditu suo* and this time you select the option **Exclude**. This way you search

the contexts from works composed in the 5th century, but exclude from these the *De reditu suo*.

7. Working with the Table of Contents: using a reference to display a passage

The **Table of Contents** allows you to access specified passages from individual texts and to display these by means of their explicit references.


The screen is subdivided into three panels or sections:

- The section **Selection** always shows the selections made. When you open the screen, the name of the active database is shown here, in this case **LLT-B**.
- The section **Contents** enables you to make selections.
- The section **Contexts** shows, one by one, the contexts which correspond to your selections.

In the **Contents** section, to start your query, you must click on the first letter of the name of the author from whom you want to display a passage. The selected letter is then copied to the **Selection** panel (the same procedure will apply to all your subsequent selections) and you are invited to select the author of your choice from the list shown in the **Contents** section, for example *Alcuinus*. The same procedure is followed with the selection of the specific work, for instance the *Orthographia*.

By continuing to click on the references to structural units that appear subsequently, you advance deeper and deeper into the structure of the work. The selections that are automatically copied to the **Selection** panel form a 'tree' of references showing the path you have followed. To the right-hand side, in the **Contexts** panel, an extract of the work under examination is displayed in the form of a referenced context, each time starting with the last reference selected.

The reference belonging to each context is presented in the form of a link: it is sufficient to *click on a reference* in order to obtain, for that passage, the **full text** of the chosen work. Arrow buttons enable you to move forward or backward one sentence at a time and to jump to the start or the end of the work. The button marked by an asterisk enables you to return to the passage you departed from. By clicking on **Close** you close the window showing the full text and return to the list of results.

The icon  allows you to create a **PDF file** of the selected context as well as of the ten sentences by which it is followed. This file will also contain **the terms of your query** and the **'Background on the Text'** of the work from which the context was taken.

8. Examining the Distribution of Word-forms

This screen allows you to access texts by examining the **Distribution of Word-forms** across the entire database, within different periods of Latin literature, or for specific authors or works. Among other things, the study of the word-forms can provide an analysis of the

vocabulary within an individual work, by calling to the screen an exhaustive **concordance** for each form that is part of that work.

1) Formulating a query concerning the entire database

The forms to be queried are selected in a manner comparable to the one in the filter for the selection of word-forms described above. You can:

- enter a search formula in the input field **Word-form** and open the list of corresponding forms by clicking on **Search**;

- position yourself on a specific entry by typing a form (or the first character(s) of a form) in the input field underneath the field **Word-form** and then clicking on **Position** in order to display an extract of the index beginning with the selected form.

Enter a form, for example *grammatica*, in the input field **Word-form** and click on **Search**. The response obtained gives the number of occurrences of the queried form throughout the database. This time, the list gives the number of occurrences of the form itself and not the number of contexts containing it (which you can obtain by querying a form in the **search screen**, cf. above).


You can also use a query containing wildcards (e.g.: **gramm***) in order to find a corresponding **list of forms** as well as, for each of these, the number of occurrences. Note however that the detailed information which you request on the basis of the list can only be obtained for one form at a time.

2) Examining the Distribution of Word-forms: from general distribution to the display of a concordance

Now click on a form in order to obtain further details. The first series of details gives the distribution of occurrences across the five periods distinguished within Latinity. You see that the form *grammatica* is represented in four of the five chronological divisions (*Patr. 1*, *Patr. 2 Med.* and *Recent.*, but not in *Ant.*).

From this point of departure, the information shown will be ever more detailed and concern ever more limited portions of the database. By clicking on the *Patr. 1* button, for example, you will gain access to the list of authors from the patristic era present in LLT-B, in whose work the form *grammatica* is attested. The number of occurrences is given for each author. Proceed in the same way for selecting an author and a work, for example *Marius Victorinus* and *Ars grammatica*.

The detailed results pertaining to a particular work are displayed in the form of a traditional **concordance** that gives the keyword embedded in the contextual elements which precede and follow it. This is done for each occurrence of the queried term. The immediate context never exceeds the limit of one sentence.

For each context, by clicking on **More**, you open a window containing the **full text**. Arrow buttons enable you to move forward or backward one context at a time and to jump to the start or to the end of the work. The button marked by an asterisk allows you to return to the passage you departed from at any time. By clicking on **Close** you close the window of the full text and return to the **concordance**. The icon  allows you to create a **PDF file** of the selected context as well as the ten sentences following it. This file will also contain the **terms**

of the query and the **'Background on the text'** of the work from which the context was taken.

Before entering a new query, it is advisable to erase all the information pertaining to the previous query by clicking on **Clear**.

III. AUTHORS AND TITLES OF WORKS

The list of authors and titles has been moved to the about section in the application.