

languages. Never before has so much flexibility and precision been available to scholars and students of the Hebrew Bible and the Greek New Testament.

A Selection of Titles Available from Logos

(There are more than 5,000 titles available for the Libronix Digital Library System - the technology behind Logos Bible Software. This is just a small sampling of the titles available through Logos.)

- Exegetical Dictionary of the NT
- New International Greek Testament Commentary Series
- Jouon/Muraoka's Grammar of Biblical Hebrew
- Text of the Earliest NT Greek Manuscripts
- Blass/Debrunner/Funk's Greek Grammar of the NT & Other Early Christian Literature
- The Targums
- Old Syrian Gospels: Codex Curetonianus
- Keil & Delitzsch's Commentary on the OT
- Linguistics and Biblical Hebrew
- Burton's Syntax of the Moods and Tenses in NT Greek
- Anchor Bible Dictionary
- The Peshitta, NT
- The Verbless Clause in Biblical Hebrew
- Louw-Nida's Greek-English Lexicon Based on Semantic Domains
- Pulpit Commentary Series
- Critical Review of Books in Religion: 1988-1998
- Newberry's Interlinear Literal Translation of the Greek NT
- God, Revelation and Authority
- Liddell & Scott Greek-English Lexicon, Unabridged
- Barclay's Daily Study Bible Series NT
- Believers Church Bible Commentary Series
- Greek-English Lexicon of the NT and Other Early Christian Literature
- Dictionary of Paul and His Letters
- Oxford Latin Dictionary
- Saint Paul's Epistle to the Galatians - Lightfoot
- Hebrew and Aramaic Lexicon of the OT
- Dictionary of Deities & Demons in the Bible
- Baker NT Commentary Series
- Lexham Hebrew-English Interlinear Bible
- Nag Hammadi Library in English
- A. T. Robertson's Grammar of the Greek NT
- Early Church Fathers, Edinburgh Edition
- Dictionary of the Vulgate NT
- Encyclopaedia of Judaism
- Context of Scripture
- Lichtheim's Ancient Egyptian Literature
- Analytical Lexicon of the Greek NT
- Semeia: An Experimental Journal for Biblical Criticism
- UBS Handbook Series, NT
- Ancient Christian Commentary on Scripture
- Synonyms of the NT
- New Bible Dictionary
- Grudem's Electronic Systematic Theology
- The Complete Word Study Dictionary
- Davidson's Hebrew Syntax
- Theological Journal Library
- Word Biblical Commentary Series
- Dictionary of NT Background
- Oxford Dictionary of the Christian Church
- UBS Handbook Series, OT
- New Dictionary of Biblical Theology
- Driver's Notes on the Hebrew Text of the Books of Samuel
- New Bible Commentary
- Qumran Sectarian Manuscripts
- Works of Philo in English
- Lust's Greek-English Lexicon of the Septuagint
- Young's Literal Translation
- Concordia Electronic Theological Library
- Nestle-Aland Greek NT, with Gramcord Morphology
- Shedd's Dogmatic Theology
- IVP Bible Background Commentary: NT
- Tov's Parallel Aligned Hebrew-Aramaic and Greek Texts of Jewish Scripture
- Studies in Hebrew and Aramaic Orthography
- Theological Dictionary of the NT, Unabridged
- Deissmann's Light from the Ancient East
- The Dictionary of Biblical Imagery
- Lake's Earlier Epistles of St. Paul
- Luther's Works
- Wallace's Greek Grammar Beyond the Basics
- Saint Paul's Epistle to the Philippians - Lightfoot
- Saint Paul's Epistles to the Colossians and to Philemon - Lightfoot

- Dictionary of the Later NT and Its Developments
- Collegeville Catholic Reference Library
- Kairos: A Beginning Greek Grammar & Workbook
- Old Syrian Gospels: Codex Sinaiticus
- IVP Bible Background Commentary: OT
- Nunn's Syntax, Elements, and Key to the Elements of NT Greek
- Dictionary of Jesus and the Gospels
- Waltke/O'Connor's Introduction to Biblical Hebrew Syntax
- Biblical Archaeology Review Archive: 1975-2001
- Strong's Systematic Theology
- The New American Commentary Series
- Metzger's Textual Commentary on the Greek NT
- Pillar NT Commentary Series
- Stuttgart Electronic Study Bible
- Foundations of Pentecostal Theology
- Tischendorf's Greek NT
- Tischendorf's Novum Testamentum Graece, with Critical Apparatus
- New Dictionary of Theology
- Gesenius' Hebrew Grammar
- Encyclopedia of Christianity
- Newman's Greek-English Dictionary of the NT
- Biblical Hebrew Reference Grammar
- Daily Study Bible Series OT
- Gesenius' Hebrew-Chaldee Lexicon to the OT
- Analytical Lexicon of the Syriac NT
- Charles' Apocrypha & Pseudepigrapha of OT in English
- Dead Sea Scrolls Study Edition
- Liddell & Scott Greek-English Lexicon, Intermediate
- Interpretation Bible Commentary Series
- Chafer's Systematic Theology
- Greenspahn's Introduction to Aramaic
- OT Greek Pseudepigrapha, with Morphology
- Works of Philo: Greek Text with Morphology
- International Critical Commentary Series
- Apostolic Fathers in Greek & English, Three Editions with Morphology



Tools For Scholars

Logos Bible Software introduces syntactical databases for Greek and Hebrew

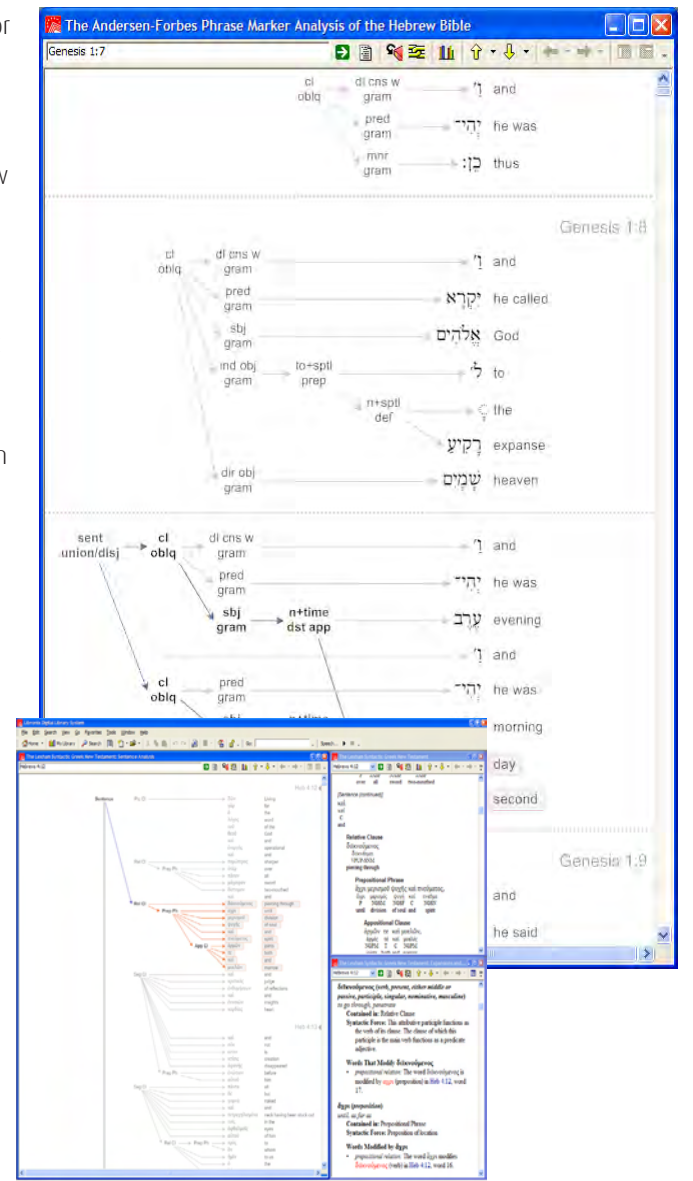
Logos Bible Software's new visualized syntax graphs and searchable syntax databases represent a breakthrough for teaching and research in biblical Hebrew and Greek via your computer. Just as morphological searching on the word level revolutionized Bible study and classroom instruction in the languages years ago, Hebrew and Greek syntax databases are the next leap forward.

Syntactic searching and visualized syntactic structures are now available for the complete Hebrew Bible as a result of the painstaking work of Francis I. Andersen and A. Dean Forbes. The Andersen-Forbes Analyzed Text of the Hebrew Bible enables users for the first time to search for complex syntactic structures and clause constituent relationships. The entire Hebrew Bible is also visually graphed through the Andersen-Forbes Phrase Marker Analysis of the Hebrew Bible.

For the New Testament, Logos Bible Software now offers two syntactical databases: The OpenText.org Syntactically Analyzed Greek New Testament produced by Stanley E. Porter, Matthew Brook O'Donnell, Jeffrey T. Reed, and Randall K. Tan; and The Lexham Syntactic Greek New Testament by Albert L. Lukaszewski. The entire New Testament is syntactically tagged in the OpenText.org database. The Catholic Epistles are currently completed for the Lexham database.

Who benefits from syntactical searching and visualization?

Syntactical searching capability serves users at all levels of language skill. For scholars who want to search for complex structures in Hebrew and Greek, and who currently would have to spend dozens, if not hundreds, of hours weeding through the results of a morph-tagged search query, these new databases will be amazing time-savers. For professors teaching the biblical languages, the new databases allow visual illustration of clause structures and word relationships for students. With respect to unusual structures or passages where interpretation is affected by a difficult construction, the ability to search for identical or nearly identical structures found elsewhere is a great aid to exegesis. Students and pastors can also use syntactical databases for more simple syntactical searches that assist in exegesis and sermon content (e.g., searching for every clause where God is the subject of a particular verb, of a particular stem/tense, with a particular object).



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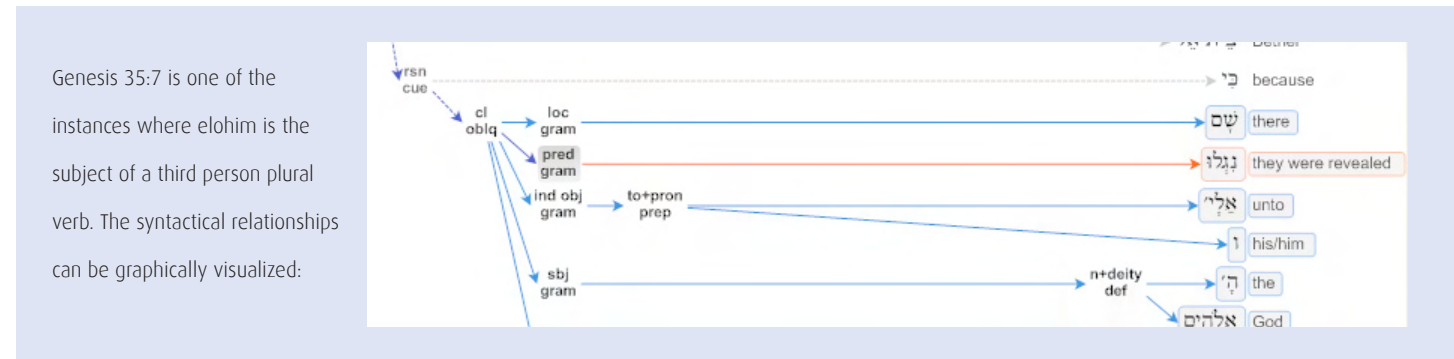
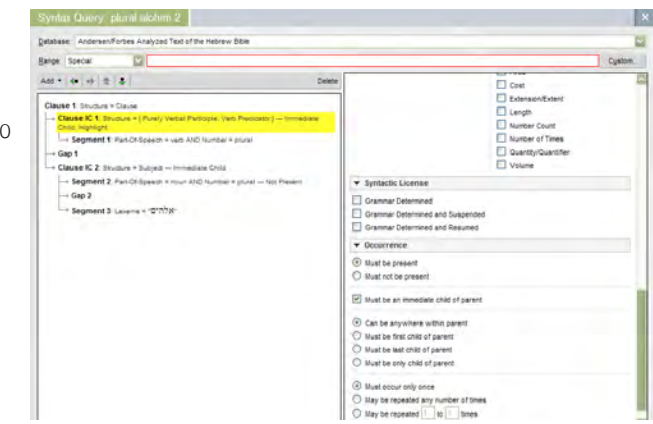
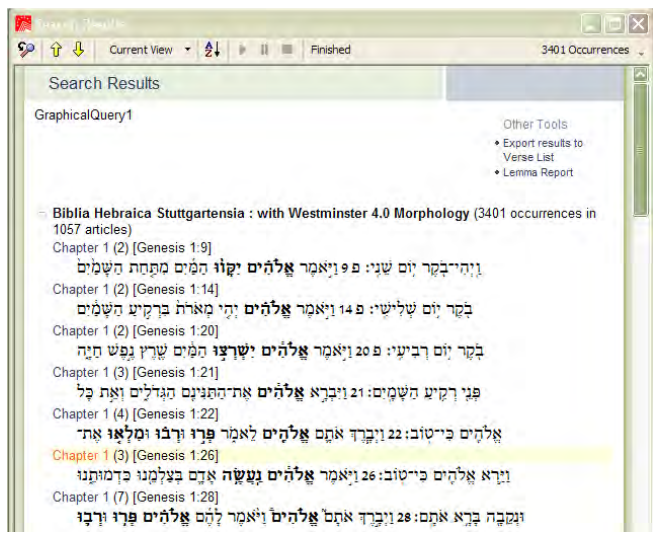
How is syntactical searching different than current morphological searching?

Current morphological databases can search only for information at the word level and within verse boundaries. That is, current morphological queries are severely limited in searching for word relationships and queries and cannot be restricted to more precise boundaries, such as clauses.

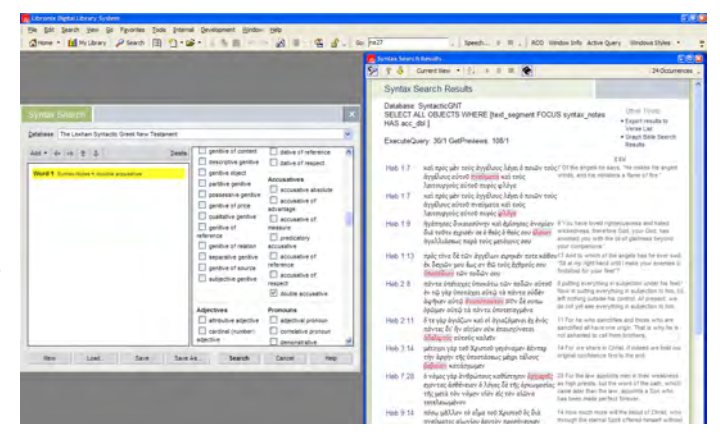
By way of a specific illustration, if the user wanted to find all the clauses in the Hebrew Bible where the noun *elohim* is the subject of a third person plural verb, the current morphological search technologies would be of little use. Though morphologically plural, the noun *elohim* most often refers to the God of Israel. As such, it is the subject of a singular verb well over two thousand times. Finding the instances of this noun with plural verb would be a daunting task.

Current databases would allow the user to find all the verses where *elohim* and a plural verb occur in the same verse. This search yields 3,401 hits, but most of them are false. Using Genesis 1:26 as an example, *elohim* is actually the subject of the third masculine singular verb that immediately precedes (“and God said”), not the first person plural cohortative that follows (“let us make”). Since Logos Bible Software’s new Andersen-Forbes database tags words for their role within each clause, as well as the relationships between clause constituents, the search for *elohim* as the subject of a third person plural verb is dramatically simplified and far more precise. This search yields eight results, four of which are what we’re actually looking for. If the constituent order is changed, a few more hits result. This search could be made more complex to weed out nearly all the false hits, so as to produce the seven actual occurrences of *elohim* as the subject of a plural verb.

Gen 20:13 וַיְהִי כַּאֲשֶׁר הִשְׁתַּחֲוֶה אֱלֹהִים מִבַּיִת אַבְרָם לֵאמֹר לֹא יְהִי חֶסֶדךָ אִשֶׁר חִשַּׁשׁ עִמִּי כִּי לֹא־הִקְדַּמְתָּ אֵשֶׁר נָבֹא שָׁמָּה אֲמָרְיֵל אֲחִי הוּא׃
 Gen 35:7 וַיָּבֶן מִזְבֵּחַ וַיִּקְרָא לְקוּמוֹת אֵל בֵּית־אֵל כִּי שָׁם נִגְלוּ אֵלָיו הָאֱלֹהִים בְּבָרָחוֹ מִפְּנֵי אַחִיו׃
 Exod 22:8 עֲלִיבֶדְבָר־פִּשְׁעֵךְ עַל־יְשׁוּעַ עַל־יְשׁוּעַה עַל־יְשׁוּעַה עַל־יְשׁוּעַה אֲשֶׁר אַבְדָה אֲשֶׁר בִּירוּחַ יְהוָה עַד הָאֱלֹהִים בְּאֵר דְּבִרְשָׁעִימָה אֲשֶׁר יִשְׁלַח שְׂעָנֵי׃
 Sam 10:26 וְגַם־יִשְׂאֹלוּ הַלֵּךְ לִבְיֹתוֹ גִּבְעָתָהּ וְיִלְכֹּט עִמּוֹ הַסִּיחַ אֲשֶׁר־נָעַם אֱלֹהִים בְּלִבָּם׃
 Sam 7:23.2 וְגַם כַּעֲמֹד קִישְׁרָאֵל יוֹ אֲדָם בְּאֵרֵי אֲשֶׁר הִלְכִי אֱלֹהִים לְפָחוֹתֵינוּ לָנוּם וְלִשְׂמוֹ לוֹ שֶׁם וְלַעֲשׂוֹת לָנוּם חַדְלוּהָ וְנִרְאוֹת לְאֵרֶץ מִפְּנֵי עֲשׂוֹת פְּדִית לֹךְ מִסְפָּרֵי׃
 Kings 19:2.1 וַתִּשְׁלַח אֲדָבֶל מַלְאָךְ אֶל־אֵלִיהֶוּ לֵאמֹר הִנֵּה הִנֵּחְנוּ אֱלֹהֵימָה וְכִה יִסְפֹּן מִקִּרְבֵּךְ אִישׁ אֶת־נַפְשְׁךָ כַּנֶּשֶׁף אַחַד מִהֵם׃
 Kings 20:10 וַיִּשְׁלַח אֵלָיו בְּדִרְהָדוֹ וַיֹּאמֶר הִנֵּחְנוּ לִי אֱלֹהִים וְכִה אִסְפֹּן אִישׁ יִשְׁלַח שָׂמַר שְׂמִרָוֹן לְקִלְיָהֶם אֲשֶׁר בְּרָגְלָי׃
 Ps 69:33 רָאוּ עֵינָיו וַשְׁמָחוּ וַיִּרְשֵׁי אֱלֹהִים וַיְחִי לְבָבָם׃



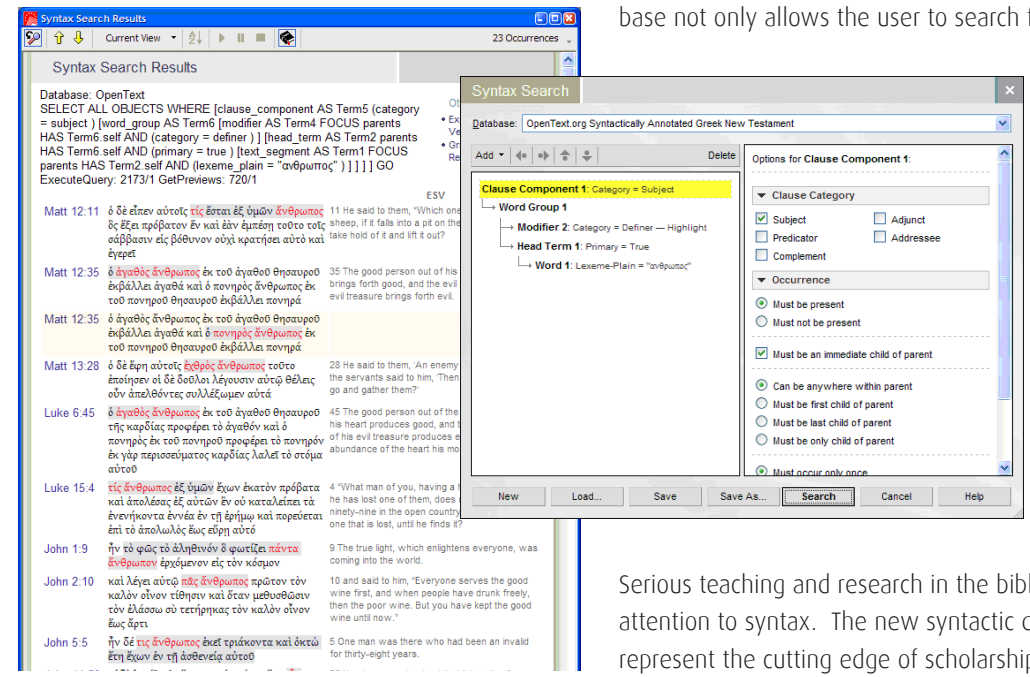
The same kinds of clause-boundaried complex syntactical searches are also possible for those who work in the Greek New Testament. Students of Greek syntax are familiar with the phenomenon of the double accusative, constructions in which the verb takes two accusatives. Finding double accusatives in current morphological databases would be another time-consuming task involving the winnowing of dozens of false hits. Current morphological search technology would have to query for all instances where two nouns or pronouns (or one of each) in the accusative case are found in the same verse. Using the Catholic Epistles as our range, such a search produces bloated results with nearly 700 hits in 233 verses. The Lexham Syntactic Greek New Testament by Albert L. Lukaszewski contains a tag specifically for the double accusative. The search results are dramatically improved to 24 occurrences, as opposed to the hundreds of false hits yielded by existing technology. The syntactical structure of each verse/hit can be visually displayed.



The OpenText.org Syntactically Analyzed Greek New Testament is not tagged in the same manner as the Lexham Syntactic Greek New Testament. The OpenText.org database includes three levels of tagging: word level (a standard morphology); word group (group of one or more words); and clause level (clause components, including embedded clauses or word groups). The Bible text is also an interlinear, allowing morphology and other information to be viewed inline as an interlinear.

In the OpenText.org database, a word group consists of a single head term and any and all of its modifiers (though word groups are frequently only head terms). There are four different kinds of modification relationships that are accounted for: specifiers (a modifier classifies or identifies the word it modifies); definers (a modifier attributes features to or further defines the word it modifies); qualifiers (a modifier in some way limits or constrains the scope of the word it modifies); and relaters (when a word specified by a preposition modifies another element within the word group). An additional relationship of connection is described and clause types are categorized.

The illustration to the left deals with the word *anthropos* and a simple Word Group Analysis. Current morphologies would allow the user to search for all occurrences of this word juxtaposed to other words, but do not allow searching for word relationships. The OpenText.org database not only allows the user to search for a term generically or the term with a particular part of speech or morphological encoding, but also for the word in certain modification relationships or clausal structures. A morphological search with older technology for all forms of *anthropos* in the New Testament yields well over five hundred hits with no accounting for its function in a clause. The search below queries the head term *anthropos* modified by a definer when any form of *anthropos* is marked as the subject of a clause.



Conclusion

Serious teaching and research in the biblical languages cannot occur without attention to syntax. The new syntactical databases from Logos Bible Software represent the cutting edge of scholarship for computerized work in the biblical