

### The BibleWorks Greek Coding Scheme (BLM,BNM,BGM,APM,JOM,PHM, OPM)

The BibleWorks coding scheme used in the LXX, GNT, and selected other morphologies (BNM, BLM,BGM,APM,JOM, PHM, and OPM) is summarized as follows:

Noun	n	Case	Gender	Number	Type
		n nominative g genitive d dative a accusative v vocative	m masculine f feminine n neuter	s singular p plural	c common noun p proper name
Pronoun	r	Type	Case	Gender	Number
		p personal r relative d demonstrative q interrogative i indefinite t intensive x reflexive e reciprocal	n nominative g genitive d dative a accusative v vocative	m masculine f feminine n neuter	s singular p plural
Def Article	d	Case	Gender	Number	
		n nominative g genitive d dative a accusative v vocative	m masculine f feminine n neuter	s singular p plural	

Verb							
Participle	v	Mood	Tense	Voice	Case	Gender	Number
		p participle	p present f future a aorist i imperfect x perfect y pluperfect z future perf	a active m middle p passive e middle/passive	n nominative g genitive d dative a accusative v vocative	m masculine f feminine n neuter	s singular p plural
Infinitive		Mood	Tense	Voice			
		n infinitive	p present f future a aorist i imperfect x perfect y pluperfect z future perf	a active m middle p passive e middle/passive			
Other		Mood	Tense	Voice	Person	Number	
		i indicative d Imperative s subjunctive o optative	p present f future a aorist i imperfect x perfect y pluperfect z future perf	a active m middle p passive e middle/passive	1 1st person 2 2nd person 3 3rd person	s singular p plural	

Adjective	a	Type	Case	Gender	Number	Degree
		n normal s possessive d demonstrative q interrogative i indefinite t intensive c cardinal number o ordinal number m numeral	n nominative g genitive d dative a accusative v vocative	m masculine f feminine n neuter	s singular p plural	c comparative s superlative n none
Adverb	b					
Conjunction	c	Type				
		s subordinate				

		c coordinate
<b>Preposition</b>	p	<b>Case</b>
		g genitive d dative a accusative p indeterminate
<b>Particle</b>	x	
<b>Indeclinable noun</b>	t	
<b>Interjection</b>	i	
<b>Unknown Lemma</b>	z	

## The Philosophy Behind the BLM/BNM

Users of the BLM/BNM will find it useful to have some understanding of the principles used in these Morphological Databases in BibleWorks. The authors did not aim at developing a revolutionary or innovative parsing scheme, but rather at providing a reliable concordance of both Testaments using standard parsing methods. It is believed that the number of remaining errors is certainly less than 500 and this number will decrease over time as further proofing is done. Patches to the databases will be posted to the BibleWorks Web site as they become available. They are free to registered users of BibleWorks.

### I. With regard to lemmatization

(1) The purpose of the work was to make the morphology of both the Testaments as coherent and compatible as possible. In order to do this, it was necessary to harmonize the lemmatization of the verbs. If a verb is used only in the middle or passive voice in both the Testaments, it has been lemmatized as such; but if it is used in the active voice (even once) in one of the Testaments, it has been lemmatized in this voice.

(2) Verbal prefixes are no longer distinguished (as was the custom in the preceding versions of BibleWorks). This change was made to facilitate the use of the dictionaries in BibleWorks. However, it is still possible to find a basic verb and all its compound forms by searching on the base form preceded by an asterisk wild card.

(3) For some of the irregular verbs, the dictionaries do not have the same primitive form (for example, ἴδοιμεν may be put under ὀράω or εἶδον, εἰπάτω under λέγω or εἶπον). The authors have systematically put all the forms of the irregular verbs under one and the same primitive form whenever it was possible.

(4) Some verbs may have two primitive forms: for example, γιγνώσκω and γινώσκω, γίνομαι and γίνομαι, etc. It would have been interesting to see how the different books use these forms, but the authors of this revision have not taken these differences into account. Only one lemma has been kept (γίνομαι, γινώσκω). This was done primarily to make it easier for the user to find all of the occurrences of a given verb without having to worry about multiple primitive forms. Users needing to find occurrences of the primitive forms can do so with a little more work by searching on a non-morphologised Bible (LXX; BGT; BNT).

A similar problem occurs with primitive verbs in -μι, some of which follow the regular conjugation (in -ω). The decision was made on a statistical basis. When the regular form occurs only sporadically, the primitive forms in -μι are kept for all occurrences, so that, e.g., δεικνύω, in Exodus 25,9, has been lemmatized δείκνυμι. When a form in -μι was practically nonexistent the regular conjugation was kept (for example, ἀποκαθιστάνω, despite the form ἀποκαθίστησιν in Job 5,18). This way, when a user wants to find all the occurrences of a verb, he may get them all by searching only on one lemma.

(5) Generally, the basic form given for all the comparative and superlative forms of adjectives is the normal one (no degree). However, when the dictionaries of reference (Liddell-Scott mainly) treat a comparative form as an independent entry, the dictionaries are followed, e.g., ἥσων which is comparative of κακός or of μικρός was lemmatized under ἥσων whereas the headword of χείρων, which is the comparative of κακός, is κακός.

(6) All proper names are lemmatized as such, even if without a capitalization they could be parsed differently, e.g. as adjectives.

## II. With regard to parsing

- (1) Only traditional grammatical categories were used, which means that no contextual codes were added.
- (2) A deponent category was not used for verbs. This decision was made in part because the verbs which are deponent in the NT are not always deponent in the LXX, but above all because nowadays most grammarians have left that label out. In any case the users of BibleWorks will be able to single out deponent verbs when coming across a middle or a passive voice by using the dictionaries in BibleWorks.
- (3) The vocative of the nouns and adjectives has been parsed as a nominative each time when the form was preceded by an article or whenever the form was dubious.
- (4) In the LXX and in the NT, the article is sometimes used as a relative pronoun; and an adjective, a participle or an infinitive, when preceded by an article, can function as a noun. In such cases the authors did not base the parsing on the function of the words.
- (5) Some verbal forms are ambiguous by their nature, e.g. 2nd person indicative future middle form and 2nd person conjunctive aorist. Where the context does not offer a clear indication for a choice, the authors have shown multiple parsings separated by a slash, with the more likely parsing first.
- (6) When adjectives are used in the accusative neutral singular and function as an adverb, the function is indicated in the parsing but the lemma remains adjectival, e.g., μέγας, μικρός.

Some nouns, e.g. χάρις, are used as prepositions. In such a case the basic form of the noun is given but it is parsed as a preposition.

- (8) The relative pronoun ὅς as the genitive neutral sometimes serves as an adverb of place. This is indicated as such in the parsing, except for those occurrences when it is preceded by a preposition.

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