CodeFinder Tutorial (August 2000 revision)

by Roy A. Reinhold

Notice: The content of this Tutorial was selected solely by Roy A. Reinhold to benefit all who want it. Please send any positive comments or complaints directly to Roy at: codes@ad2004.com

The Tutorial was created to help teach you all you need to learn to go from a beginner status to achieving an intermediate level of skill as a Bible codes explorer, in a very short amount of time.

The Guide to the Hebrew Letters shows you the letter, its name, pronunciation, and computer keyboard position. The Transliteration Guide provides a means to transliterate names of people and places, something that everyone is interested in, but which often has been a stumbling block. The Learning Enough Hebrew to Get By article provides an easy method to learn the Hebrew letters, it's really not hard. The new Vowelization Guide is a reference for vowelization marks used in the Hebrew Tanakh. The Preparing a Matrix and Report for the Web section, explains how to make them a GIF, and gives info on a couple of shareware GIF programs. Lessons 1-3 teach you a step-by-step method to apply in using all the functions of the CodeFinder software program.

Hint: When you are reading this Tutorial in Adobe Acrobat Reader, press the button to the left of the binoculars button to make the display use the entire screen width, it's easier to read.

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Simple Bible Code Search Procedure in CodeFinder

1. launch program
2. load a text to search
3. enter an ELS range to search
4. enter the search terms with the bilingual dictionary, onscreen keyboard, or computer keyboard
5. hit the Search button to begin the search
6. go to Search Results to examine tree of results
7. analyze the results

Guide to Hebrew Letters (August 2000 revision)

by Roy A. Reinhold

Hebrew Aleph-Bet and Letter as Numbers

Letter Name	in Hebrew	Keyboard Letter	Pronunciation	Number Value
aleph or alef	א	T	ah-lef	1
bet (& vet)	ב	C	bet	2
gimel or gimmel	ג	D	gee-mel	3
dalet	ד	S	dah-let	4
hey or heh	ה	V	hey like say	5
vav	ו	U	vahv	6
zayin	ז	Z	zah-yeen	7
chet or khet	ח	J	khet	8
tet	ט	Y	tet	9
yud or yod	י	H	yood like wood	10
kaf	כ	F	kahf	20
lamed	ל	K	lah-med	30
mem	מ	N	mem	40
nun	נ	B	noon	50
samech or samekh	ס	X	sah-mekh	60
ayin	ע	G	ah-yeen	70
pey or peh (& fey)	פ	P	pey like hay	80
tzadi or tsadi	צ	M	tzah-dee	90
quf or kuf	ק	E	koof like roof	100
resh	ר	R	resh	200
shin	ש	A	sheen	300
tav	ת	, (comma)	tahv	400
kaf sofit	ך	L	kahf so-feet	
mem sofit	ם	O	mem so-feet	
nun sofit	ן	I	noon so-feet	
fey sofit	ף	; (semi-colon)	fey so-feet	

| tzadi sofit | ץ | . (period) | <u>tzah</u>-dee <u>so</u>-feet |

The sofit letters sound the same as the normal letters, but are used when they are the last letter in a word. For Bible code purposes. the regular letter and final letter are fully equivalent. In other words, in the code, a nun sofit could appear in the middle of a valid term and the regular letter nun could be at the end of a word. To recognize the sofit letters, on four of them, the vertical stem extends below all the other letters.

If the Hebrew letters only go to 400, how can one look for higher number in the Bible code, like the year 1998 (5758)?

For numbers over 1000, use the thousands letter as a digit. For example, 1561 would start out with "aleph" which is 1. If the number were 3561, then the first letter would be "gimel", which is the 3.

Examples:

25 is kaf hey   (20 + 5)   כ ה

134 is quf lamed dalet (100 + 30 + 4)   ק ל ד

550 is tav quf nun   (400 + 100 + 50)   ת ק נ

998 is tav tav quf tzadi chet   (400 + 400 + 100 + 90 + 8)   ת ת ק צ ח

Note that the higher numbers go first in all instances. There are two special cases which are avoided in normal use. For 15 use (9 + 6) instead of the normal (10 + 5), tet vav, ט ו. For 16 use (9 + 7) instead of (10 + 6), tet zayin, ט ז. These special case substitutes avoid use of part God's personal memorial name (yud hey vav hey, י ה ו ה) which is one of the 10 commandments, "to not utter the name of the Lord in vain, or write it casually."

The year 1998 was 5758 in the Hebrew calendar (at least the first 9 months until Rosh Hashanah).
5758 was hey tav shin nun chet   (5, 400 + 300 + 50 + 8) ה ת ש נ ח

A correction is applied to the Gregorian year number so that the letters are the same as in the Hebrew calendar year, less the 5000 letter (hey). The current correction is 1240 used from the mid 1800's to sometime in the 2000's. The correction is subtracted from the Gregorian calendar number. (1998-1240=758). For the Bible code, we would write 1998 as:

1998 is corrected to 758 and is tav shin nun chet   (400 + 300 + 50 + 8)   ת ש נ ח

Compare the letters for 5758 to those for 1998 and to see that they are the same (less the hey for 5000); tav shin nun chet ת ש נ ח

Special case:

alpayeem is "2000s" and shnat alpayeem means "calendar year 2000." ש נ ת – א ל פ י י ם

There is one occurrence of the term "shnat alpayeem" in the Torah, which may show the events of Gregorian year 2000. The word for 1000s is alafeem. א ל פ י ם

Adding Leading Consonants (prepositions) on Hebrew Words

In Hebrew, you can add leading consonants as a prefix to a word to expand its meaning. The following are some the Hebrew prepositions:

letter	pronunciation	meaning
..... ל	(le)	to, to a, for, for a (unto), towards
..... ב	(be)	in, at, in a, at a, by, with
..... ל	(la)	to the, for the
..... ב	(ba)	in the, at the
..... כ	(khe)	as, like, about
..... ו	(ve)	and
..... ה	(ha)	the
..... ש	(she)	that, which, who (not a question), in order to
..... מ	(mee or me)	from, out of
..... כש	(kshe)	when (not a question)

One example will help you understand what I mean by use of prepositions. The word for Messiah is mashiach (מ ש י ח). If we add hey at the beginning of Messiah, hamashaich, ה מ ש י ח, it now means "the Messiah". Codes researchers ought to use the prepositions to extract longer words and phrases from the Bible code.

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Transliteration Guide (August 2000 revision)

by Morris Shak and Roy A. Reinhold

One of the more difficult areas in Bible code research is in the area of transliterating names of people and places. Most people have little trouble with translation of words, because a printed bilingual dictionary or the one included with the CodeFinder software program makes it very easy. For example, we look up the word "love" in the dictionary and quickly see that the Hebrew word is "ahavah" אהבה

However, **the purpose of transliteration is to make a name sound the same in Hebrew as it sounds in English.** We are not concerned with the meaning of the name, only that it sounds the same. Transliterations are used for first and last names of people, and names of cities, states, and countries. The problem arises in the transliteration process because Hebrew has 22 letters while English has 26 letters. Also, Hebrew has 5 vowel sounds while English has 5 vowels, but each vowel in English can also have long and short vowel sounds, and even some special case sounds. The result is that when transliterating names, we can sometimes come up with two, three, or more possibilities. In those cases, the best you can do is look for all possible transliterations in the Bible code.

The table below is a proposed guideline to help the new Bible code researcher in transliterating names. It is not to be considered the absolute rule to follow, but will cover most cases. A full explanation for use of vowels has been added after the table below. Read Hebrew right to left.

English letter	example	sound	Hebrew equivalent
short A	bat	ah	assumed, or א or ע
long A	Kate	a	א י or ר י
B	best	b	ב
soft C	city	s	ס or שׁ
hard C	carry	k	ק or כ
soft CH	cherry	short sh	שׁ or צ
hard CH	christmas	kh	ח or כ
D	Daniel	d	ד
short E	bet	e	assumed, or א or ע
long E	mete	ee	י
special E	fern, bird, burn	u	ר
F	Fred	f	פ
soft G	gem	hard j	ג or ג י or י
hard G	gold	g	ג
H	Harry	h	ה sometimes ח
short I	bit	i	י
long I	bite	I	ר י or י

special I	bird, fern, burn	u	ר
soft J	jahvol (German)	y	ר
hard J	Jack	j	ג or ג ר or ר י
K	Karen	k	כ or ק
L	large	l	ל
M	Maurice	m	מ
N	Nathaniel	n	נ
short O	Dot	ah	assumed or א or ע
long O	Roland	o	ר
double O	boot	u	ר
P	Perry	p	פ
Q	Qatar	k	ק
QU	Quentin	kw	ק ר ר or ק ר
R	Roy	r	ר
S	Samuel	s	ס or sometimes ש
special S	his	z	ז
special S	visual	z	ז
SH	Shannon	long sh	ש
T	Terence	t	ט or ת
TH	Thomas	t	ת
TH	they	th	ת
short U	Dunkirk	uh (ah)	assumed, or א or ע
long U	Buford	u or oo	ר
special U	burn, bird, fern	u	ר
V	Victor	v	ר or ב
W	Washington	w	ר ר or sometimes ר
X	axe	ks	כ ק or ס ט
special X	exact	gz	ג ז
Y	yellow	y	ר
vowel Y	silly	ee	ר
Z	Zachary	z	ז

diphthongs			
ai	wait	ah+ee=a	י or עי or אי
au	caught	ah + oo	ו or עו or או
ay	tray	long a	י or עי or אי
ea	heat	ee	י
ee	beet	ee	י
ei	weigh	eh+ee=a	יי or אי or עי
other ei	Einstein	I	י or יי
eo	theocracy	eh+ah	assumed + א or ע
eu	Deuteronomy	eh+oo	ו or או or עו
ey	grey	long a	י or עי or אי
ia	giant	I + ah	ע or רא
ie	Brien	I + eh	א or ע
oa	boat	long o	ו
oi	oil	o+ee	וי
oo	boot	oo or u	ו
ou	bought	ah+oo	ו
oy	boy	o+ee	וי
ui	intuit	oo+i	וי
uo	buoy	oo+ee	וי
uo	duopoly	oo+ah	וע or וא or הו
uy	buy	I	י or יי
words ending in ah	Hannah, Sara	ah	ע or א or ה

Hebrew only has 5 basic vowel sounds: ah, eh, o (long o), oo, ee. Actually, aleph and ayin (א and ע) always indicate a vowel sound. Technically they are not vowels as in English, but are called **stops**. A stop indicates that a vowel sound should be pronounced. The above table indicates letter usage when a vowel sound is in the middle of a word, but is misleading to people when you have a leading vowel sound or ending vowel sound. We are expanding this Transliteration Guide in order to explain more fully the special cases. This will help you do better transliterations. Although I am just covering the transliterations of names here in our examples, the same rules hold true for transliterating the names of countries, states, etc.

Leading Vowels

Internally in a transliterated name, we use the vav (ו) for the long "o" or the long "u" (oo) sound. Likewise, we use the yud (י) internally in a transliterated name for the long "e" (ee) sound. The mistakes, I've seen people make, are in transliterating a name like "Omar", when they begin the transliterated name with a vav (ו) for the long "o". The truth is that if you start a transliterated name off with a vav or yud (ו or י), they are used as consonants and not vowels. **You need to start a name that begins with a vowel sound with a stop**. The stop tells you that a vowel sound is pronounced. The stop is either an aleph or an ayin (א or ע). If the stop is not modified with a vav or a yud (ו or י), then it is the "ah" or "eh" sound. Examples are Amanda, Edgar, Oscar, etc. (note: some people will want to use a long O in Oscar, you can try it, but the normal English pronunciation is a short O sound). If the name starts of with a long "o" or long "u" (oo), then the stop is modified with a vav (ו). Examples are Oakley, Olga, Uri, etc. If a name starts with a long "e" sound, then the stop is modified with a yud (י). Examples are Edie, Edith. The final case for a leading vowel sound are those names that begin with a long "I" sound like Eileen or Ida. You can either use a stop plus a single yud, or a stop plus a double yud (עיי , איר ,עיר , אי). Here are the transliterated spellings for our examples (some have more spelling possibilities than shown).

Omar עומר אומר

Amanda עמנדא עמנדה אמנדא אמנדה

Edgar עדגר אדגר

Oscar עסקר אסקר

Oakley עוקלי אוקלי

Olga אולגע עולגא אולגה

Uri עורי אורי

Edie עידי אידי

Edith עידית אידית

Eileen עילין אילין עילין אילין (last letter is nunsofit, use nun ן)

Ida עידא אידה עידה אידא

Vowels in the Middle of a Name

Almost all the time, the ah (a) or eh (short e) sounds in the middle of a word in Hebrew is assumed. That means that you do not use a stop for the ah or eh vowel sounds when transliterating a name. Examples are Hannah and Ben. The long o and oo sounds are shown using the vav [ו] when they in the middle of a word. Examples are Roland and Ruth. The ee sound (long e) is done using a yud [י], and an example is Peter. No stop is required in the middle of a name when using a vav or a yud, the stop is assumed. A long "I" in the middle of a name is done using an assumed stop plus a single yud or a double yud [י or יי], and examples are Dianne and Michael. The name Diane or Brian brings up another point, which is that you have to use a stop after the yud for the "I" in order to tell readers that both vowels internally in the name need to be pronounced. Here are the transliterated spellings for our examples (some have more spelling possibilities than shown).

Hannah חנה הנא הנה הנה (spelled with a chet, is the biblical spelling)

Ben בן or with regular nun instead of nunsofit בנ

Roland רולנד

Ruth רות

Peter פיתר פיטר

Dianne דיען דיאן both have a nunsofit on the end as shown

Michael מייכל מיקל (biblical) מיכאל

Diane דיען דיאן

Brian בריען בריאן

Below are a few more examples of names

Ann-- אן ען

Charles-- צרלס שארלס שרלס

Harold-- הרולד

Roy-- רוי

Douglas-- דגלס דעגלס דאגלס

Jackie-- גכי גקי יכי יקי

George-- גורג

   Notice that the A in Ann can be either an aleph or an ayin. With the name Charles, there are two things to notice. One is that the "e" is assumed, so there is no letter there for "e" in Hebrew. Secondly, the "a" in Charles can either be there or assumed, and if we place a letter for the "a" in Charles, it is an aleph or an ayin. Sometimes the tzadi is used for the soft ch sound.
   Harold is a good example of using the sound instead of a letter. When we say Harold, the a sounds like an e, so we assume it in Hebrew and place no letter for the a. Douglas has a dipthong "ou" but the name is pronounced like the "ou" is "uh". It is not used like in "through". I just wanted to point this out, because English is much more difficult than Hebrew. We use a lot of nonstandard sounds for vowels in English, whereas in Hebrew there are just those 5 vowel sounds.

Vowels Sounds at the End of a Name
   There are a few special cases to be applied when a name ends with a vowel sound, like Sara. One is the letter hey [ה], which if used at the end of a word is "ah" and not just "h". The same is true of chet [ח], which if used at the end of a word is "akh" and not just "kh". Finally, if kaf-sofit [ך] is used at the end of a word, it can sometimes be "kha or ka" rather than just "kh or k". an example is "kamokha" (כמוך which means "like yourself").
   Where a vowel sound is used at the end of a name, it requires a stop (aleph or ayin, ע א) or a hey ה (if the name ends in the "ah" sound), except for the special cases where a word ends in kaf-sofit. Aleph at the end of a name can be either "ah" or short "e"; while by convention ayin is only the "ah" sound and not a short "e". Some examples of names ending in vowels follow:

Canada קנדה

Sarai (Abraham's wife) שרי

Sarah שרע סרע סרא שרא סרה שרה

Sara שרע סרע סרא שרא סרה שרה

Penny פני

Moldavia מולדוויא מולדביע מולדביא

Hutu הותו הוטו

Bobo בובו

Biblical Hebrew versus Modern Hebrew by Morris

One of the many arguments among early codes researchers was the use of biblical Hebrew over modern Hebrew. Modern Hebrew is more standardized, following a stricter set of rules. In biblical Hebrew, many times the long O sound didn't use a vav, as in the name Moses (actually pronounced Moshe in the Bible, משה). Research has now leaned toward using the more stricter modern Hebrew usage, which leaves less wiggle room on spellings.

There are many examples where the same word is spelled in more than one way, in the Bible and sometimes in modern Hebrew too. In the Bible, at some places one may find a word spelled with a yud and at other places the same word without the yud. The same holds true for use of the vav in the Bible, sometimes with a vav, and the same word in other places without. Since we are in the early learning stages in knowledge of the Bible code, one ought to know that there are more variables to look at, if one considers the possibility of spelling variations according to the biblical model.

What is the right answer for the purpose of Bible code research? One must try to look for both versions for each occurrence of the word. For example, the name Morris is typically spelled with a vav in all Hebrew print (for the O sound). I was surprised to find Morris in my matrix spelled without a vav, and there are several factors that indicated that this is no coincidence. (There was even a sentence at an ELS of 16 saying, "borrowed a foreign name", the year, month and day it was done, etc.)

What Name Do I Look For? by Morris

How many ways can a person's name appear in the matrix? It can appear in several ways for each of the following categories: FirstName, NickName, FirstNameL (L is the first letter of the last name), FirstNameI (initial of middle name), LastName, Acronym, and FirstNameLastName, etc. There is also a unique version for a two-word name. Look for both names, one on the row immediately above the other, and both have the same ELS. They could also be crossing or closely parallel.

When preparing a matrix for a specific person, where the correct version of the name in Hebrew is known, start by using full Hebrew name(s) to establish the matrix. When doing a matrix on historical persons, remember that many well known people changed their names (just as many modern actors have both a stage name and their real name). You might have to do some research and find out the historical figure's birth name. Then look for their birth name and more-well-known-later-name.

In this January 2000 revision of the Transliteration guide, we have endeavored to greatly expand the information on special case uses for vowels at the beginning of a name, in the middle of a name, or at the end of a name. Hopefully, you will benefit from these changes to the Transliteration Guide.

If you are new to the Bible codes, it should not be too hard for you to learn enough Hebrew to get by. What is required is that you memorize the 22 Hebrew letters and learn the vowel sounds. Take a look at the page in this tutorial on Learning Just Enough Hebrew to Get By. You don't need to learn to speak Hebrew well in order to do credible Bible codes work. You'll learn a lot of Hebrew as you are working on the Bible code (provided you memorize the letters as a start, so that they don't look like strange symbols to you anymore).

Learning Just Enough Hebrew to Get By
(August 2000 revision) by Roy A. Reinhold

Everyone starts out in the Bible codes by getting enthused about all the amazing discoveries in the Hebrew Bible code. They look around and buy a codes software program, and then are confronted with a lot of expectations which seem daunting. Actually, when you start out, you are really learning in 3 distinct new areas, and the codes software program only provides one of the 3 pieces. The 3 areas you need to learn are:

1. Bible codes theory-- this includes all the terms like equidistant letter spacing (ELS), search terms, vertical terms, matrix ELS, term ELS, Torah, Tanach, etc. It includes knowledge of what a matrix is and what it is not, and some knowledge of what others have proven in the Bible code.

2. Bible codes software programs-- in the last 3 years Bible code software programs have greatly advanced and are a 1000 times faster, more capable, and easier to use. However, you still need to learn the functions of the program in order to use it. Bilingual dictionaries, onscreen Hebrew keyboards, automatic matrix determination, multi-dimensional row-splitting, and more functions are applications of the latest research discoveries in the Bible code. In CodeFinder, the HELP is built as an online manual to show you graphically, and explain the functions of the program. You need to put it all together to be able to do good codes searches. This Tutorial is a means to teach you a methodology to do intermediate level codes searches.

3. The Hebrew Language-- the Hebrew letters seem like a large stumbling block to new users unfamiliar with Hebrew. The fact is, you do not need to take a class in Hebrew, or learn to speak Hebrew in order to do credible codes research. What you do need to learn are the Hebrew letters. Hebrew is easier than English, and is entirely phonetic, therefore, once you know the Hebrew letters, Bible codes searches become much easier.

Just how much Hebrew do you need to learn to get by in Bible codes research? The answer is that you need to memorize the 22 letters of the Hebrew alphabet (actually aleph-bet), and also the 5 end letters. The 5 end letters are variations in shape when these five letters are used at the end of a word (kind of like the way we use capital letters in English).

Here is the secret to advancing rapidly in doing Bible code searches. You need to memorize the Hebrew letters just as a first grader would, through rote memorization. No, you don't need to go out and buy a Hebrew training software program or book. I have helped many people get started in the Bible code in the right way and I make the following claim from experience, **"You can learn the Hebrew letters in 2-7 days."**

In order to use rote memorization of the Hebrew letters, you need to humble yourself to being a first grader for a week. Teachers of first graders stand in front of the class and point at letters as the class repeats them. They do this every day until the class can say all the letters of the English alphabet. Then they do them in a mixed up way to ensure that the class knows each letter when they are not in order. You will do the same thing with the Hebrew letters, except that you won't have a teacher with a pointer pointing to them and asking you the name of the letter.

Get 27 3x5 index cards, with or without lines on them. Then put the Hebrew letter on one side written in large size, and on the reverse side put the name of the letter. You are creating a set of home-made flash cards at little or no cost (no cost if you already have some index cards, a little cost if you have to buy some). Make a card for each of the 22 Hebrew letters and a separate card for each of the 5 end letters, so you'll have a total of 27 flash cards. When making up the flash cards, make sure you recognize the difference between letters that look closely like another letter. These are:

resh and dalet and kaf sofit-- ר   ד   ך

The top part of the resh curves around from the vertical stem.[ר] While in dalet the top is abruptly perpendicular to the vertical stem, and most of the time the top horizontal portion extends to the right of the vertical stem a little ways. [ד] Kaf sofit has a longer vertical stem [ך].

vav and nun sofit and zayin-- ו   ן   ז

The vav and nun sofit are very close except that nun sofit has a longer vertical stem. The top part of the zayin extends on both sides of the vertical stem.

hey and chet and tav-- ה   ח   ת

The hey is open on the left side, while chet is like a square n. Tav has a hook in the lower left.

samech and mem sofit and mem-- ס   ם   מ

The samech is rounded, while the mem sofit is square. Mem has an opening on the bottom.

ayin and tzadi and tzadi sofit-- ע   צ   ץ

The ayin has a tail that slants left, while the tzadi goes either in the opposite direction then hooks to a horizontal bottom, or it goes straight down from the y and then hooks to a horizontal bottom. The tzadi sofit end letter has a longer vertical stem and goes straight down from the y.

bet and kaf-- ב   כ

The bet usually has a heavy, double thickness horizontal bottom [ב], while the kaf is like a squared backwards c and is rounded [כ].

     To make up your set of flash cards, go the Guide to the Hebrew Letters in this Tutorial, where the letters are all shown with their names. Learn them in the correct order first, then mix them up and practice with your flash cards a few minutes throughout the day. Repetition and saying them out loud helps.

click here to go to [Guide to Hebrew Letters](#)

click here to go to [Tutorial Index Page](#)

You'll be surprised how quickly you can memorize the Hebrew letters. The next surprise is that you'll immediately be able to read Hebrew, because you already know how to read, and can phonetically pronounce the letters in Hebrew. You will have to learn the "nikud", those strange vowel markings around the letters in the printed Torah and Tanach text. However, the nikud are easy too.

The Hebrew Vowelization Marks Guide (nikud)
(August 2000 revision) by Roy A. Reinhold

The vowelization marks in the Hebrew masoretic text of the Torah and Tanakh were invented by the masoretes in Tiberias. They applied the nikud (vowelization marks) to the text of the Tanakh in the 7th to 8th centuries AD. From history, you may remember that the Romans defeated the rebellious inhabitants of Israel in 70 AD and burned the Temple. Another rebellion took place in 135 AD, called the Bar Kochba rebellion, and after thoroughly defeating the Jewish people, most were either taken as slaves or dispersed throughout the known world of the time.

The masoretes (traditionalists) in Tiberias along with those in Jerusalem and Babylon, undertook a project to salvage Jewish identity and knowledge of the scriptures. The nikud enabled Jewish people anywhere in the world, the knowledge to properly pronounce biblical Hebrew, at a time when Hebrew was a second or third language to most dispersed Jews, if they knew it at all.

Is knowledge of the nikud necessary to do good Bible codes research? No, not really, since you do not need to be able to read the Hebrew Tanakh well in order to do Bible codes research. However, since I point out in this tutorial that knowing the Hebrew letters IS NECESSARY in order to get far in the Bible codes, in the section titled, Learning Just Enough Hebrew To Get By, I thought it would be good to have a reference on the vowelization marks. That way you have enough knowledge when viewing the Hebrew Tanakh, to be able to read it as well as anyone.

A short review of vowels is relevant here. There are only 5 basic vowel sounds in Hebrew: short "a" as in "aha", short "e" as in "bed", long "e" as in "beet", long "o" as in "vote", and long "u" or "oo" sound as in "boot".

The information is taken from the Oxford English-Hebrew Dictionary (1996 edition, pg ix). Therefore, if you have any problem with the information, take it up with the experts in Hebrew at Oxford.

What is important to remember with regards to the vowelization marks, is the vowel sound itself associated with the symbol, and not necessarily the name of the symbol. In pronunciation of the name of the symbol, the standard accepted usage is that an "a" is a short a sound, an "e" is a short e sound, an "i" is the long e sound, an "o" is the long o sound, and a "u" is the "oo" sound. Also, the "ch" is a hard ch as in christmas, the "kh" sound. All vowels are pronounced, so that the Male in Cholam Male, is ma'le.

NAME	SYMBOL	Approximate Phonetic Value
Kamatz	תָ	a as in aha!
Chataf Kamats	תֱ	o as in corn.
Patach	תַ	a as in aha!; when under a final ח or ע, a smooth breathing is pronounced before the consonant (-ach, a).
Chataf Patach	תֲ	a as in aha! or a little like a shewa.
Tseire	תֵ	e as in bed.
Segol	תֶ	e as in bed.

Chataf Segol	תֱ	e as in bed.
Chirik	תִ	ee as in tee.
Cholam	תֹ	o as in corn.
Cholam Male	וֹ	o as in corn.
Kamats Katan	תָ	o as in corn.
Shuruk	וּ	u as in put.
Kubuts	תֻ	u as in put.
Shva	תְ	shewa, a kind of grace sound, where a consonant has no vowel force (sound).
Dagesh	כּ בּ פּ	stress mark in the center of a letter. Also changes kaf to haf, bet to vet, and pey to fey.

Important note: the Hebrew font I was using to prepare this page, did not have a dagesh key, so I used another font to show the dagesh symbol, which shows poorly. The dagesh symbol is a single dot in the center of the letter. I apologize for this shortcoming. Also, the Kamatz and Kamats Katan look the same, but the Kamats Katan is usually smaller, again, there was no way to show this because the font did not have the key.

You really can learn to read the Hebrew Torah and Tanakh correctly by knowing the nikud (vowelization) marks above. In normal Hebrew in Israel, you will not see the vowelization marks. It's only done for children's books to teach them, in the Torah and Tanakh, and in Hebrew prayer books.

Preparing a Matrix and Report Legend for the Web
(August 2000 revision) by Roy A. Reinhold

CodeFinder has some very powerful built-in functions to help you save a matrix or matrix report with very little effort. The aim of this section is to give you some hints in preparing the Matrix or Report for display on the web, and perhaps to save some space on your hard drive.

1. Matrix -- CodeFinder makes it very easy to save your matrix as a graphics file. When you are done working on the matrix, select Cropped Matrix and a new window opens cropping the matrix to the size of the boundary box in the Matrix View (that dotted line, colored box in the matrix). In the lower right panel of the CodeFinder main screen, it shows how many rows and columns are in your cropped matrix.

Next, select File--Save Matrix and name it "xxxxx.bmp" which saves it as a graphics bitmapped file. You could create another folder in CodeFinder named graphics, so that your saved graphics files are separate from the Exported Search Results and Exported Search Lists in the Exports folder; it's just good file management.

I am willing to put matrixes up on the Codes in the Bible website by request, and give attribution to the creator. However, the BMP file is too large to send over the web. For example, if you do Lesson 2 in this tutorial and create a matrix on Ehud Barak and save it as a .bmp file, it's 1.5 Mb in size. That's huge.

Should you open the BMP file of the matrix in a graphics program and save it as a JPEG, PNG or GIF? If you save it as a JPEG, the letters will look fuzzy due to the dithering and loss of detail. Yes, a JPEG will be much smaller in size than a BMP file, but the loss of detail in JPEG makes it look terrible. JPEGs are good for photographs, not for Bible code matrixes**. You need a graphics program in which you can save the BMP file as a GIF or PNG.** The 1.5 Mb matrix of Ehud Barak from Lesson 2, when later saved as a GIF, is only 26.8 kb in size, and the 26.8 kb GIF matrix looks just as sharp in detail as the 1.5 Mb BMP file. That's a reduction in size of 1/56, when you transform the matrix from BMP to a GIF.

PNG is a relatively new compression format created by Microsoft. It is a free compression format and is displayed only in version 4 and 5 of both MS Internet Explorer and Netscape Navigator browsers. People who have old browsers or a browser other than Navigator or Internet Explorer may not be able to view a PNG graphic. PNG graphics are compressed to about the same size as a GIF and there is no loss to dithering like with a JPG graphic. Since the vast majority of people browse the web with the newer Navigator or Internet Explorer browsers, PNG graphics are now a good viable option to use (or use GIF which everyone can view).

I personally use Paint Shop Pro 5.1 from JASC to do the graphics preparation. However, it's a premium program that sells for about $100. You can get a couple of shareware programs for very little cost, that will do the trick, or a freeware program for free. One CodeFinder owner reports that you can buy the Paint Shop PRO program at a discount at the Amazon.com software section. It's a premium program with 90% of the tools of Adobe Photoshop at 1/6 the price, while the following three programs are toys in comparison. Try the freeware program which allows you to save a BMP file as a GIF or PNG graphic. I've tried it and it works fine and is free. Two shareware programs that I've downloaded and tried out are SuperClip, and BMPToGIF Pro. I have no association with these two programs, but am only recommending them for someone who doesn't have a graphics program. If you already have a graphics program that will save a file as a GIF, then ignore the following advice.

BMPtoGIF is a freeware program which means it is free to use and doesn't time out. It is a small, simple program that allows you to open a BMP file and save it as either a GIF or PNG file which reduces the size to less than 1/50 the size without loss of detail. Download BMPtoGIF freeware at: **http://www.develcor.com/utilities/bmptogif.htm**. This will enable you to transform the large matrix BMP file to a small GIF or PNG file. For the matrix report in CodeFinder, first save it as an RTF file; then open it in a word processing program and modify it as desired. Next press your "Print Screen" key on your keyboard to save the report as a bitmapped file to the clipboard. Open your Windows Paint program that comes with Windows and select

EDIT--PASTE in the menus. It will paste the matrix report as a BMP file. Trim it to size and save as a BMP file. Next start your free BMPtoGIF program, open the BMP file you just saved in Paint, and save it as a GIF or PNG. It's easy and this process uses all free programs.

SuperClip comes as a shareware version that you can download for a free trial at: **http://www.androsoft-usa.com** It allows you do open a BMP file like your saved matrix in SuperClip, and Save As a GIF file. It also enables you to use "Print Screen", then trim the display, and save as a GIF, all in seconds. The program also has many other features. If you wanted to register the shareware and get the Professional Edition of SuperClip, it's $39, which is fairly steep. After 1 week it times out and puts SuperClip on saved images. For that reason, I recommend the less expensive BMPToGIF Pro below for only $20 registration.

BMPToGIF Pro is an easy to use program that enables you to transform your matrix BMP file to a GIF or PNG in 2 steps. It couldn't possibly be any easier. You can download the BMPToGIF Pro program at: **http://www.develcor.com/utilities/bmptogifpro.htm** The program allows you to open a BMP file and select Save As to save it as a GIF, PNG or a number of other formats. It also allows you to paste from your clipboard, as when you use Print Screen. The program times out 7 days after you download it, but the cost to register is only $19.95. Try the free BMPtoGIF program before deciding whether you want their PRO version.

For those of you who don't know, the compression algorithm for GIF is a patented process owned by Unisys. Therefore, the GIF compression could not be built directly into CodeFinder without getting permission from Unisys and paying them royalties.

2. Report -- The matrix Report function in CodeFinder enables you to create a full report of all terms in your matrix, done by selecting View--Report. It shows each term in the matrix in Hebrew in the marked color of that term in the matrix, in English, the ELS of the term, the text R-value, the matrix R-value, and the beginning and ending of the term by book-chapter-verse information. You can window between the Matrix View and Report by selecting them under the Window menu. The Report can be printed by selecting File--Print Report. You can also save the Report in either a tabbed text or RTF formats by selecting File--Save Report. The tabbed text format allows you to then open the report in a spreadsheet program or word processing program that accepts tables (like MS Word, MS Works, Wordperfect, etc.). RTF format allows you to open the saved file in any word processing program including Wordpad, to further prepare it for use as a printed matrix report or more importantly, to prepare it for use as a graphic file legend for the web.

Which is better, to save the Report as a tabbed text file or an RTF file? **Personally, the RTF format is easier and better, because everyone has a word processing program** (Wordpad comes as part of Windows 95/98). Also, the RTF format **retains the colors of the Hebrew terms in the Report, and also retains the Hebrew font display for the terms**. In preparing the Report for use on the web, I would likely leave as is, or perhaps cut out the ending letter position of the term column. The summary lines at the bottom of the report shows the Matrix ELS and the beginning and ending of the matrix by book-chapter-verse. When saved as an RTF file, you can open the Report later in a word processor and cut the unneeded columns, apply a background color, and save it. With it still onscreen, you can hit the "Print Screen" key on your keyboard, then open your graphics program and paste from the clipboard as a BMP file. Then Save As a GIF.

When you use the tabbed text format to save your Report in CodeFinder, it enables you to later open it as a table in a spreadsheet program or word processing program that accepts tables. However, because it is a text file, it loses the formatting for the Hebrew in the first column, and loses the colors for each term. In the spreadsheet, just select the first column and apply the Elronet mono bold 12pt, or the Netextmo font. You cannot get the colors back except by applying them individually to each Hebrew term. For that reason the RTF format is much better. However, if all black letters are OK, then text is not hard to use either. Add a border around the outside of the cells and a background color, and you have the Report done. Then use the "Print Screen" key to copy it to your clipboard, and paste it into your graphics program to save as a GIF.

Another method is one that I use because it is faster, but requires a little more knowledge of graphics. When I have a Report in CodeFinder, instead of saving it, I just make the window as

large as I can, then use "Print Screen" to copy everything to the clipboard. Then I open my Paint Shop PRO graphics program, paste from the clipboard, and trim off all the excess. Then I add a border, background color, and save as a GIF. With this method, I can prepare a wonderful GIF of the matrix Report in a couple of minutes without using a word processing program or spreadsheet.

There is no one answer for preparing the matrix Report as a GIF for the web, since CodeFinder gives you the latitude to use whatever programs you already have, by saving the report as a tabbed text file or RTF file. Try the different methods and see which way you like to do it. What is apparent, is that you can prepare a great matrix legend now without typing, without using many GIFs for each term, but do it all in one step and have a nice, uniform looking matrix legend as one GIF that is small in size.

**click here to **

Lesson 1: HOW TO PERFORM A NAME SEARCH IN HEBREW
(August 2000 revision) by Roy A. Reinhold

   This lesson teaches you to do a name search using the CodeFinder program. You can print this lesson in order to go through the numbered steps on your own program at home. By going through each step, you will learn how to use CodeFinder applying both the simple functions and more advanced capabilities. Bible code searches are not really difficult once you learn how to utilize all the functions of the program.

   Lesson 1 looks for **Albert Einstein** in the **Torah** (the first five books of the Bible). We will look for 4 terms that have already been transliterated. You should know that transliteration of names of people and places is the most difficult thing to learn in doing Hebrew code searches. Translations are easy since any bilingual dictionary will give you the answer, where we look up an English word and the dictionary gives us the Hebrew equivalent. Transliterations of names of people and places requires you to use Hebrew letters in order to make the name **sound** the same in Hebrew as it does in English. Since there are 22 Hebrew letters and 26 English letters, and there are Hebrew letter sounds that are not in English and vice versa, it takes practice and often requires the Bible code researcher to try 2 or more spelling variations for the same name. Please refer to the lesson on transliterations for more information. The 4 terms in our search are:

1. **Einstein**-- we will use אינשתיין

Einstein could also be spelled as: אינשטיין איינשטירן איינשתירן
note: we could also use samech ס instead of shin ש, or use ayin ע instead of aleph א. All these would give the same sounding name in Hebrew. In all, there are 12 possible spellings. Some experience helps you narrow these possibilities down to a couple.

2. **Albert** -- there are 4 possibilities for spelling, we will use אלברת

the other 3 spelling possibilities are: עלברת אלברט עלברט

3. **scientist**-- mad'an מדען

4. **Theory of Relativity**-- yakhasoot יחסות

Step 1: Start the CodeFinder program and click on the yellow folder icon at the far left of the row of buttons. The alternative would be to select File--Open in the menus. We are searching the Torah, so highlight "torah.cod" and press OPEN. The Torah will load for search and you can see the progress bar on the bottom of the screen. It only takes a couple of seconds.

Step 2: Now we go to the Settings window, select Options--Settings and the Settings window opens. Set columns=85 and rows=85 and wrap=20. Make sure the Lock Matrix box is checked and the Let Search Wrap box is unchecked. Set Maximum Match Count=200000, and the Minimum Skip= -15000 and the Maximum Skip= 15000. The minimum skip is set to a minus number in order to search for reverse occurrences. This setting will look from -1 to -15000 and 1 to 15000. If these settings didn't obtain the desired results, you could make the matrix size larger than 85x85 rows and columns, to something like 150 columns and 150 rows. Press OK to store the results and close the window, if you press cancel it will close the window but keep the previously stored settings.

Step 3: Next to the Search button, set the Skip: From to -15000 and To, to 15000.

Step 4: Now we are ready to enter the 4 search terms. You can either use the computer keyboard or the onscreen keyboard. Let's use the onscreen keyboard. First, click in the Search Term box to put the cursor there. Then click on the keyboard icon, which is the 3rd icon from the left. Now we input the Hebrew letters. The first term entered is very important, because all terms will be matched to it. We will input Einstein as the main term, the order of the others doesn't matter. Notice that as you enter the terms and press the enter key, that the statistical expected occurrences for each will be shown in the lower right bar of the program. Enter as:

Einstein--type in from right to left-- אי נ שתי י ן
(computer keyboard "thba,hhi")

Albert-- type in from right to left-- אל ב ר ת
(computer keyboard "tkcr,")

scientist-- type in from right to left-- מ ד ע ן
(computer keyboard "nsgi")

theory of relativity-- type from right to left-- י ח ס ו ר ת
(computer keyboard "hjxu,")

     Just below the terms above, I give you the letters to type using your computer keyboard and their English letter legends. The top row of the onscreen Hebrew keyboard corresponds to the top row of letters on your computer keyboard except that Israeli qwerty does not use the "Q" and "W" keys. Note that the last letter of Einstein and scientist is a nun sofit, one of 5 Hebrew end letters. All Bible code programs make the end letter equal to the regular letter, or, nun sofit=nun. When you type the terms above in CodeFinder, you'll see the shape of the regular nun [נ] and not the nun sofit [ן].

After typing it, press the enter key and the term will move down to the Search List pane. Then type the next term. Note: if you couldn't see the bottom pane of the CodeFinder window that displayed the expected occurrences, it means that part of the window is being obscured by the Windows command bar. If that's the case you can hide the Windows command bar by moving the cursor on top the command bar, right click and select Properties. Check the auto-hide box and click OK. The command bar will be hidden until you move your cursor to the bottom of the screen. This method allows you to use the full screen size while still having access to the Windows command bar.

Step 5: We need to check whether there are too many terms expected, before we begin the search. Open the Search Parameters window by selecting Options--Search Parameters. We will go through each term to make sure there aren't too many finds. Use the small up arrow button to scroll through terms 1 to 4. While we have term 1 displayed, type in "Einstein" in the Translation pane and delete the dashes there. If we had used the bilingual dictionary to enter the terms, then the English translation would already be there. We see that the expected occurrences is low, so use the small up arrow to go to term 2. Type in "Albert" in the Translation pane, and we note that the expected occurrences is not too high, so go to term 3. Type in "scientist" in the Translation pane. We note that the expected occurrences is too high, so we uncheck the box that says, Use Default Skip Range, and type in Min -5000 and Max 5000. Notice that as we did this the real-time statistics just below where we are entering the terms goes down as we lower the ELS search range. When the expected results are over about 12,000, I generally lower the search range for that term. Use the small up arrow and check term 4, and type "relativity" in the Translation pane. The expected occurrences is satisfactory, so press OK to close the Search Parameters window.

Step 6: In the menus, select OPTIONS--RowSplit--and DISABLE to disable the automatic row-split (we'll explain it further down). We are now ready to begin the search. Click on the Search button and watch the progress bar at the bottom and also the terms will start appearing in the Search Results pane. You should see Einstein (4), Albert (9532), scientist (9923), and theory of relativity (705). The numbers next to the terms is the number of matches for each. Of course you are looking at the terms in Hebrew. If you forget what each one is, you can toggle the Search Results and Search List to English by moving your cursor to the Search List pane and right clicking. Right click again to change them back to Hebrew. Another method of toggling the Search List and Search Results to English or back to Hebrew is to use the menu selection, Options--View as English. If we hadn't typed in the translations for each in the Search Parameters window, then all we would see are about 5 dashes for each.

Step 7: When the search is fully completed, click on the little plus box next to Einstein, the top term in our search list. This will open the tree, showing information about each of the 4 finds for Einstein. Widen the area of the pane, to see all the information in the Search Results, by moving the cursor over to about where the matrix display area begins. The cursor will change to 2 vertical lines with a right and

left arrow. Press down on the left mouse button and hold it while dragging to the right so that you can see all the information for each find of Einstein. The top one should be: (1) -4061 250936 [2]. The first number to the left in brackets is the sequential number for the terms. The second number, -4061, is the ELS (equidistant letter spacing). The third number is the text letter where the first letter of the term is found. The program numbers the first letter of Genesis as 1 and the last letter of Deuteronomy as 304,805, when using the Torah as the search text. So we can guess that 250936 is near the beginning of Deuteronomy or end of Numbers. The last number [2] in brackets is the number of terms matched to the main term. So we know that if we displayed this matrix there would be 3 different terms in it, Einstein and two other terms matched to it. Note that the first 2 finds for Einstein have [2] in brackets, the 3rd term has [1] in brackets, while the 4th term has no matched terms. You might guess that term 4 is not too good, and think that you'll have to examine each of the first 3 finds to see which looks best. That's the old way of doing things.

Version 2.1 of CodeFinder now sorts the occurrences of the main term in the Search List (top in list) by the number of matches from highest to lowest, after the search is complete. This enables the user to focus in on those at the top of the list as the best candidates for further development.

Step 8: The Bible code is not a simple flat 2D plane but is multi-dimensional. Not many people know about this yet, but you are going to apply this concept I discovered, using it right from the start. CodeFinder has a function built-in to take advantage of that capability and seek the **optimal matrix view**. It's called row-splitting. Instead of explaining it, let's see it in operation. The row-splitting function is under the Options menu and allows you to select disable (row-split of 1, or no row split), auto, 2, 3, 4, 5, 6, 7, 8, 9, 10, and 11. When you change the setting, the CodeFinder rematches terms to the new matrix width (determined by dividing the ELS by 1 through 11 as selected). Use row split to manually go through 2 to 11, one at a time. The program only takes a couple of seconds to re-match the terms. When you select a row split of 2, you'll see that the top term changes where the number in brackets is no longer [2] but is now [3], at an ELS of -3322. This means you have found the matrix with all 4 terms in it, at the least possible row-split. Re-select a row-split of two and leave it there. That is the matrix we will now optimize. Double click on the Einstein term at -3322 ELS at the top of the list, to display the matrix that has all 4 terms in it.

Step 9: With the matrix displayed, maximize the matrix size by clicking on the center box in the far upper right corner of the Matrix Display screen. You can also show more of the matrix by moving the cursor to where the matrix starts on the left side and when the cursor changes to the 2 vertical lines, left click and hold and drag to the left, then release the mouse button. You'll know by using this function a few times, where you like it best as far as maximizing the displayed matrix versus seeing the Search Results pane. Now we want to center the matrix by moving the scroll bar on the bottom and on the right side to the center of the range. What you want to do is center the vertical word in red letters. Notice that Einstein in red letters is vertical, but each letter is every other row. This means that although we found the term at an ELS

of -3322, the displayed matrix is optimal at a row split of 2 or an ELS of one-half of 3322=1661. The minus ELS (-3322) tells us that it was a reverse occurrence where the first letter is at the bottom instead of at the top in the matrix display (in other words, if you are reading the term, you would read from bottom to top).

A great function in CodeFinder allows you to read the terms in the matrix. Move your cursor on top of one of the marked letters. Right click and hold down the mouse button. A cursor tooltip window will open, showing the term in both Hebrew and English. It also shows an "S" value which is the ELS of the term, and a text "R" value, which is a statistical calculation to help show whether the term is there by chance or design.

Step 10: The matrix looks good as is, or you can shut off individual terms displayed to simplify the matrix. The two occurrences of Albert above Einstein share a tav. The one immediately below Einstein shares the aleph with Einstein. There are 4 occurrences of Albert under this occurrence of Einstein, and we could turn off the very top Albert to make the matrix smaller. Open the tree to see the individual finds of Albert under our Einstein term at ELS of -3322. Then drag on the aleph in Albert at the very top of the dashed line box in the matrix, and read the letter number. That's in the tree of results and tells us which Albert to turn off. The letter number is 870 and the ELS is 3314, turn it off by right clicking on the book for that specific find in the tree of results. You'll see two yellow hands cover a sheet of paper to tell us the term is turned off. Then double-click on the line in the results tree with Einstein to re-display the matrix. When you turn a term off or on, you won't see the change in the matrix until you redisplay it.

Even better, we could also use the cursor tooltip function in CodeFinder by moving the cursor over a marked letter of a term in the matrix we want to shut off. Right click and hold down the mouse button to read the term and note the ELS of 3314. Then we can just go into the tree of results under Albert and look for a find with an ELS of 3314, and right click on its book to turn it off.

We now have a matrix that we have made smaller and simpler, that is saved at only 51 columns and 48 rows (enclosed by the colored box made up of dots in the matrix). The final matrix has 1 occurrence of Einstein, 3 occurrences of Albert, 5 occurrences of scientist, and 1 occurrence of theory of relativity.

Step 11: The default font setting in CodeFinder is Netextmo mono 11, and the letters are thin. This is OK when we are working on the matrix, because using this thin letter allows us to see more of the matrix onscreen. However, for showing the matrix on the web, it would be better to make the letters and symbols around the marked words more prominent. We do this by changing the font setting **after the matrix is done**. Select, Options--Font and change the font to Elronet Monospace bold 12 and the matrix will look much nicer for use on the web.

Step 12: Now we can save the search results, in order to come back later and add in more terms, or to keep it on file. We'll use the Export Search Results function to save the entire search results exactly as you see it onscreen now. In the menu, select File--

Export Search Results and name the file, something like Einstein.srf or whatever you'd like, and press Save.

Step 13: We can save the matrix as a graphic directly. First we'll select Cropped Matrix under the View menu. This will reduce the size of the Matrix View window and open another matrix window named Cropped Matrix Window. The size of the cropped matrix is 51 columns by 48 rows, which is the reduced size that was enclosed within the dotted box in the larger 85x85 matrix. After the Cropped Matrix Window is onscreen, then select Save Matrix under File to save the matrix as a .BMP (bitmapped) file. Name it Einstein.bmp or whatever you'd like, and press Save. We are now done doing a complete matrix search, optimization, exporting the search, and saving it as a BMP graphic file. If you desired to look for additional terms in the matrix, then go to step 15 for searches within searches.

Step 14: CodeFinder has a function called Report, that shows all the marked terms in your matrix. Select it under View--Report, and it builds a Report of the matrix. The Report includes the Hebrew spelling and color of the marked term in the matrix, the English translation, the term ELS, the text R-value, the matrix R-value, and the beginning and ending of the term by book-chapter-verse information. The Report also includes a summary at the bottom with the matrix ELS (which is different than the center term ELS when row-split), and the beginning and ending book-chapter-verse for the matrix. You can window between the Matrix View and Report by selecting them under the Window menu. You can also print the report under File--Print Report, or save the Report as a tabbed text file or RTF file, by selecting File--Save Report. I recommend using RTF to save the Report, since it retains the Hebrew and color of the terms; then modify it in a word processing program and save as a GIF for display on the web. Saving the Report as a tabbed text file allows you to open it in a spreadsheet program or word processor that accepts tables. Read the article in this Tutorial on "Preparing the Matrix and Report for the Web", to get further details on making the Report and Matrix a GIF for the web.

Optional Step 15: To look for additional terms while retaining all the work you've done, just enter new search terms using the bilingual dictionary or by typing in new terms. Then check Search Parameters to ensure that you don't get too many finds, lowering the ELS range for short words that have high numbers of expected results, add in the English translation for the new terms while you are there, and press the Search button again. It won't affect the terms already obtained, but will just look for the new terms or terms where the parameters are changed, and then do a re-match of all terms. In the case of this Einstein matrix, we could lower the ELS range for new terms in Search Parameters to -10000 to 10000 in Search parameters, since we are using a matrix width of 1661 letters. This limit will ensure that vertical terms found will be no more than every sixth line, which is about the limit for readable terms in the matrix.

We have not attached the finished matrix for you to see, because we want you to do it without seeing the finished result. Go through the steps and do it yourself. I've placed the link to go to the finished matrix and matrix report for Lesson 1 at the bottom of the webpage **http://ad2004.com/Biblecodes/Hebrewmatrix/Hebmatrix.html** so you can see the finished matrix afterwards, and compare it to your own work. This way you can compare what you've done versus the finished matrix without having seen it beforehand. After all, when you do a new codes matrix, you don't have the benefit of seeing it beforehand.

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Lesson 2: HOW TO PERFORM A NAME SEARCH IN HEBREW
(August 2000 revision) by Roy A. Reinhold

   This 2nd lesson teaches you to do a name search using the CodeFinder program, and introduces a number of new procedures to add to your bag of tricks when doing Bible code searches, over those in Lesson 1. You can print this lesson in order to go through the numbered steps on your own program at home. By going through each step, you will learn how to use CodeFinder, applying both the simple functions and more advanced capabilities. If you haven't done Lesson 1 yet, please go back and do that first, since I don't explain the steps indepth, already explained in Lesson 1.

   When doing name searches in the Bible code, most of the time you enter the last name as the main term for the search. The Bible code seems to be designed that way. However, sometimes you can look for the first and last name as one string or term, with no space between them. This is often easiest for people with short names. In Lesson 2 we will use the name of the current Prime Minister of Israel, **Ehud Barak**, as the main search term, written as EhudBarak, but in Hebrew.

   This matrix was first done 60 days prior to the election in Israel in May 1999, when most people still thought that Benjamin Netanyahu would be re-elected. The matrix topic was on whether Ehud Barak would win the election? We will look for only 4 terms that were in the matrix, since that is enough to teach the procedures. The 4 terms are:

EhudBarak-- אהוד ברק
(computer keyboard "tvuscre")

PM (Prime Minister)-- רהם
(computer keyboard "rvo")
This is the abreviation for a longer title (rosh ha'memshalah) used for the Prime Minister. It is like using the abbreviation PM in English.

elect, elected-- neevkhar-- נבחר
(computer keyboard "bcjr")

1999/5759-- התשנט and/or תשנט
(computer keyboard "v,aby" and/or ",aby")

     Underneath each term in Hebrew, I have given you the letters to type them in on your computer keyboard. Type them in from left to right, and the Hebrew will be correct from right to left. The top row of the onscreen Hebrew keyboard corresponds to the top row on your computer keyboard, except that Israeli qwerty doesn't use the "Q" and "W" keys. The middle row of the onscreen keyboard corresponds to the middle row of your computer keyboard; and the bottom row of the onscreen keyboard corresponds to the bottom row on your computer keyboard. This knowledge will help you learn the Hebrew letters over time.
   We will enter Ehud Barak as the first term, the main term, to which all other terms are matched. I am showing both forms of the term for 1999/5759. If we find it with the leading "hey" for the millennium value, then it is more significant because it has more letters than the everyday shortened year term. With the leading "hey" it would be 5759 only, while the shorter version for the year stands for both 1999 and 5759.

Step 1. Start the CodeFinder program. Then click on the yellow folder icon button and select the Torah for search, torah.cod.

Step 2. Open the Settings window under the Options menu. Set Matrix columns and rows to 80 each, and Wrap Matrix at Skip=20. Lock Matrix should be checked, and Let Search Wrap should be unchecked. Set 200000 in the Maximum Match Count, and set the Default Minimum Skip= -15000 and Default Maximum Skip=15000. Press OK to leave Settings.

Step 3. Enter in the Skip: From box -15000 and in the To box 15000.

Step 4. Click in the Search Term pane and open the Onscreen Keyboard using the 3rd button from the left. Key in Ehud Barak first, so that it will be the main term, as shown above, reading from right to left. Then type in the terms for PM and elect. Close the keyboard by either pressing the keyboard button or the little "x" box in the upper right corner of the onscreen keyboard window. Don't type in the year term, since we will use the Date Conversion function to do that.

What if you made a mistake entering a search term, by misspelling it, how do you fix it? If you hit the Delete button on the main CodeFinder window, it will erase all the terms in your search list (you don't want to do that). To delete a single term from the Search List, click on the term you want to delete and then press the **Delete key on your computer keyboard.** Then re-enter the term. If it was your main term, then you need to move it to the top of the list to make it the main term. Open the Search Parameters window and scroll through all terms until you get to the term you just re-entered, then press the Move To Top button and the re-entered term will be your main term. Press OK to leave Search Parameters.

Step 5. Under the Tools menu, select Hebrew Date Converter. Use the drop down table to set the month to May and the year to 1999, which was when the Election in Israel was held. Check the radio button for DayMonthYear. Check the box that says, Include Millenia in Year. It doesn't matter what day of the month is highlighted in the calendar page, since we are only going to enter the year as a term for search. Locate the pane on the bottom that says Year, and you should see the year term as 5 letters with a leading "hey" as shown above. Press the Select button next to the Year translation to enter it as a search term without typing. As it was entered, it went directly into the Search List and the expected occurrences on the bottom of the screen changed to reflect how many we might expect (627.1). Now uncheck the box that says Include Millenia in Year. The year term changed to only 4 letters and the leading "hey" was removed. Press the Select button next to the Year translation to enter for search, and the expected occurrences are 6999.3. Close the Hebrew Date Converter window, by pressing the Close button.

Step 6. Open the Search Parameters window under the Options menu. Type in Ehud Barak in the Translation pane for term 1, and then go to term 2 using the up arrow button. For term 2, type in Prime Minister in the Translation pane. Then check the Ignore in Search box. We are not going to look for PM in the initial search because it's only 3 letters long and will be found anywhere. We'll look for it in a subsequent search. Go to term 3 using the up arrow button. For term 3 enter "elect" in the Translation pane. Since the expected occurrences are 29,519, let's lower the ELS range to lower the expected occurrences. Uncheck the Use Default Skip Range box and change the Min Skip= -5000 and Max Skip= 5000. The expected occurences should now be 10,362. Go to term 4. Since we used the Hebrew Date Converter to enter the term, the Translation is already there, but change it to Year 5759/1999. Go to term 5 and change the Translation to Year 5759/1999. Close the Search Parameters window by pressing OK. Note: the term for Prime Minister is light gray in the Search List, which means it is ignored for search.

Step 7. Before searching, set the row-split to disable by going to OPTIONS--ROW SPLIT--and select DISABLE. Press the Search button to start the codes search. When done, you should see (12), (10511), (735), and (7627). It should only take 5-15 seconds to do the entire search, depending the processor speed of your computer.Open the tree of results for the main term (top one) by clicking on the little + box. Widen the window so that you can see all the data by moving the cursor to where the matrix area begins and the cursor changes to 2 vertical lines. Left click and hold down the mouse button and drag to right to expand the viewing area.

Step 8. Evaluate the results by looking at the number to the far right of each term, in brackets. The highest number is the matrix we want. Some terms have + boxes next to the book and some don't, the ones that don't have a + box, have no terms matched to them. Two of the finds have [3] matches to the main term, meaning all four terms are there. They are at the top of the list because CodeFinder version

1.21 sorts the occurrences of the main term by number of matches after the search is complete. Normally, you would examine both visually to see which looks best. Let's choose the one with the lowest ELS value, which is the ELS at -206. Doubleclick on it to display the matrix. Maximize the matrix display by clicking on the center button in the upper right corner of the matrix window, then move the main term to the center of the matrix display in red letters by centering the scroll bars on the bottom and right side of the matrix window. Open the tree for (5) -206 196277 by clicking on the + box, the matches are: elect (24), 5759/1999 long (1), 5759/1999 short (6). To toggle these from Hebrew to English, right click with the mouse somewhere in the white area of the Search List pane.

Step 9. Further evaluate the results by opening the short 5759/1999 term that has 6 matches, we want to see if the year terms are fairly close to the center term. To re-display the matrix showing just the main term and one of the short year terms, doubleclick on them one at a time. First double click on -210 196897. We see that it is just below the center term, excellent. Do the others one at a time and see how close they are to the main term. What you 'll find is that 4 of the Year terms are fairly close to the center term. We can roughly gauge that we can use a smaller matrix to develop, and we'll use 60x60. Before changing the rows and columns, we need to see where this matrix is at in the surface scriptures. Move the matrix scoll bar on the right side all the way to the top and the bottom scroll bar all the way to the right, then doubleclick on the matrix letter in the upper right corner, that's the first letter in the matrix. We see that the letter is in Numbers 1:26, and we Close the Verse Display Window. Next move the scroll bar on the right all the way to the bottom and the bottom scroll bar all the way to the left, and doubleclick on the letter in the lower left corner of the matrix, that's the last letter in the matrix. We see that the Verse Display tells us it is Numbers 8:26, Close the Verse Display. We have now found the matrix we want to develop and determined that it runs from Numbers 1:26 to 8:26. Instead of searching the entire Torah, we will reduce the text Search Area. Close the matrix window by pressing the lower "x" box in the upper right corner of the screen (DON'T press the very top "x" box or it will quit CodeFinder).

Step 10. First save the Search List so we don't have to type them all in again, since when we change the text Search Area, it will erase all results and search terms. Select under the File menu, Export Search List and name it whatever you'd like, or Barak.stl Next, select Search Area under the Options menu and set in Numbers, Chapter 1, Verse 1 in the Start area, and set in Numbers, Chapter 10, Verse 1 in the End area, and then press OK. It's good to leave some extra leeway before and after the actual matrix. The CodeFinder program erases all the work we've done so far and changes the text to that we just entered rather than the entire Torah. Next, select Import Search List under the File menu, click on Barak.stl or whatever you named it, you should see the name of the file in the File name pane after you highlight the filename, and click the Open button. The entire Search List loads and has the translation for each one that we typed in when we went through Search Parameters. Go to the Settings window and set in 60 columns and 60 rows, and click OK to close the window. Now we can lower the Skip: From value to -1300 and the To to 1300. We get this value since we know that the matrix we are working on has an ELS of -206. From experience we know that the limit for vertical terms that are easily readable is about 6 times the ELS of the matrix, which is a vertical term with a letter on every 6th row.

Now we go through the Search Parameters again because our entire search area, rows & columns, and ELS search range have been changed. Term 1 is OK, scroll to term 2. There are too many expected occurrences, and since this is a 3 letter word, we will only look for horizontal terms in the matrix for term 2. Uncheck Use Default Skip Range and type in Min Skip= -10 and Max Skip=10. Go to term 3, and it's OK, so go to term 4. Term 4 is OK so go to term 5. It's OK so close the Search Parameters window by pressing OK.

Step 11. Press the Search button to begin the search. The entire search and terms matching took less than 2 seconds on my computer. Open the tree for the main term and we see that [4] terms are matched, meaning all 5 terms are in the new 60x60 matrix. If they weren't, then we might have to go back to Settings and change the rows and columns to 70x70 to get them all in the matrix; it takes less than 2 seconds for the search to complete and to reset everything to the larger matrix. Now we enter a new term for search within searches, and we will re-enter the 3 letter term for Prime Minister (resh hey mem). Don't worry, you can have the same term entered in the Search List more than once, when you want to set in a different ELS search range. Now enter the same term another time as a new search term. You

should now have 3 PM terms in the Search List. Open Search Parameters again and scroll to the new term 6. Type in Prime Minister in the Translation pane, uncheck Default Skip Range, and type in Min= -210 and Max= -202. Go to term 7 and type in Prime Minister and set the Min=202 and Max=210. We have to do this if we want to look in a very narrow range for diagonal terms of PM, plus or minus 4 of the vertical which is 206 (the matrix width). Close Search parameters and press the Search button. Again, the entire search is less than 2 seconds. Open the tree for Ehud Barak, and we see [6] terms matched. Open the (1) -206 9894 [6] tree to see how many of each of the 6 are matched, and we see it's (24), (6), (1), (4), (14), and (11).

Step 12. All that remains to be done is to turn off the unwanted terms by opening the sub-tree to the individual occurrences of the matches and right clicking on the unwanted terms to turn them off. It doesn't take long if you determine first, the longer terms you want to stay, and leave turned on the other terms that cross the longer terms or closely parallel them. I started out first deciding what Year terms I wanted to stay. My optimized matrix had (3), (3), (1), (2), (4), and (3) left turned on, and the area enclosed in the dashed line box is 32 columns and 40 rows. I read the ELS number for each term right off the matrix, since I know the matrix width is 206, this skill comes from practice. Reading the number for each term makes it very quick and easy to know which terms to turn off. There is no right answer, but you want enough there to make the case, but simple enough to not be overwhelming.

   A great function in CodeFinder allows you to directly read the terms in the matrix. Move the cursor over any marked letter in the matrix, right click and hold down the mouse button. A cursor tooltip window opens showing the term in both English and Hebrew; it shows an S-value which is the ELS of that term; and it shows a text R-value which is a Rotenburg statistical calculation to help show whether the terms are in the matrix by chance or design. Positive R numbers are likely to be there by design, while short terms have negative R numbers and are likely to be there chance.

   Since this matrix was created to discover a future event before it occurred, be careful about positively knowing a future event from a simple matrix with only 4 terms. I like to have 10-12 terms minimum to be much more sure of a future event. Do a couple of these matrixes on the future and keep them to yourself to see if they come to pass. As you gain more skill and confidence, you will discover that we can indeed know future events, if we are careful to develop a matrix more thoroughly.

Step 13. Export the Search Results to save your work, by selecting FILE--EXPORT SEARCH RESULTS. Change the font to Elronet Monospace bold 12 point using the OPTIONS--FONT menu for use in a graphic for the web. You can display the new matrix Report function by selecting it under View--Report, and window between the Report and Matrix View by selecting them under the Window menu. Save the Report as an RTF file by selecting File--Save Report, then you can modify it later in a word processing program.

Step 14. Use Cropped Matrix and Save Matrix to save the finished matrix as a graphic BMP file. See the article in this Tutorial named, Preparing a Matrix and Report for the Web, to learn the procedure for making your Matrix and Report a very small GIF graphics file for web display.

Optional Step 15: Continue to add more terms to the search list and hit the search button. You can continually add more terms and quickly develop a more complete matrix, since the program only takes seconds to add additional terms, complete the search, and match terms. The limit is 500 terms in the search list. Don't forget to save your work, using Export Search Results. You can later come back and Import Search Results on another day and it will load exactly as you quit previously, even saving the terms you turned off from displaying. Just pick up where you were when you quit, and develop the matrix further. My optimized matrix is not shown here, because we want you to do this lesson without peeking at the final matrix. After all, when you do a matrix on your own, you will not be able to see the final result before you start. To see the final lesson 2 matrix and matrix report, go to the Codes in the Bible website, Hebrew Matrixes section, and there is a link near the bottom of the page.
   http://ad2004.com/Biblecodes/Hebrewmatrix/Hebmatrix.html

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Lesson 3: ADVANCED MATRIX SEARCH USING CODEFINDER
(August 2000 revision) by Roy A. Reinhold

Note: The topic of Lesson 3 is whether the claims of Yeshua as the real, true, and genuine Messiah are correct. If this will offend you, then don't do the lesson.

Using the advanced functions in CodeFinder version 1.21, we will do an initial search using "Yeshua ben-El", which means Jesus, Son of God, as the center or main term on which the matrix pivots. The other terms in the initial search are taken from the prophecy in Isaiah 9:5 (9:6 in the English Bible), which reads as follows:

Isaiah 9:5 For unto us a child is born, to us a son is given; and the government is upon his shoulder; and his name shall be called "Wonderful counselor of the mighty God, of the Prince of Peace".   (from recent rabbinical translation to English).

Isaiah 9.6 (NASB English Bible) For a child will be born to us , a son will be given to us; and the government will rest on His shoulders; and His name will be called Wonderful Counselor, Mighty God, Eternal Father, Prince of Peace.

You can see that the main thoughts in the two translations are slightly different. However, they are in common in speaking of the Messiah. The following lesson will introduce a number of new concerns when using CodeFinder.

The purpose of the matrix is to determine whether or not all the names in Isaiah 9:5 apply to Yeshua ben-El as the Messiah. We will also add other terms later that support our findings.

Step 1:   Start the CodeFinder program and select the button on the far left that has a yellow folder on it, in order to open the text file. Highlight the "torah.cod" filename and hit the Open button. This will load the Torah as the text to search. You could also have used the menus by selecting FILE--OPEN.

Step 2:   Open the SETTINGS window by going to the menus and selecting Options--Settings. Make the following settings:
    Max Match Count -- 500,000 (don't use a comma)
    Default Minimum Skip -- -65,000 (don't use a comma, and this is a negative number)
    Default Maximum Skip -- 65,000 (don't use a comma)
    Matrix Columns --   200
    Matrix Rows -- 200
    Wrap Matrix at Skip -- 20
    Checked box -- Lock Matrix
    Unchecked box -- Let Search Wrap
Close the Settings window by pressing the OK button. You should know this procedure, since it is true for all Windows programs on the PC. If you make changes in a Settings window and exit by closing it using Cancel or by the little "x" button in the upper right corner of the window, then it exits without saving the changes you made in Settings. You have to exit using the OK button.

Step 3:   Next to the Search button, enter Skip: From   -65000 and To 65000
It is minus 65,000 to plus 65,000 so that the program will look for both forward and reverse occurrences of the search terms.

Step 4:   Now we are ready to enter the search terms. You can use either the onscreen Hebrew keyboard or your computer keyboard. After the terms below in Hebrew, I have put the terms as you would type them using the English letter legends on your computer keyboard, going from left to right. This will enter them properly in Hebrew from right to left in CodeFinder. The top row of

letters in the onscreen keyboard correspond to the top row of letters on your computer keyboard (except that Hebrew doesn't use the "Q" and "W" keys in standard Israeli qwerty. The middle row of the onscreen keyboard is the same as using the middle row on your computer keyboard, and the bottom row of the onscreen keyboard is the same as the bottom row on your computer keyboard.

Type in the 6 terms in the following order:

Jesus, Son of God -- Yeshua ben-El -- ישועבנאל
computer keyboard "haugcitk"

Wonderful, He Counsels -- pele ya'atz -- פלאיעץ
computer keyboard "pkthg."

Mighty God -- El geebor -- אלגבור
computer keyboard "tkdcur"

Eternal Father -- abee'ad -- אביעד
computer keyboard "tchgs"

Prince of Peace -- sar shalom -- שרשלום
computer keyboard "arakuo"

the Messiah -- ha'mashiach -- המשיח
computer keyboard "vnahj"

Note: The Hebrew end letters show up as normal Hebrew letters in the CodeFinder search term entry windowpane. For example, the "nun sofit" of "ben" in term one uses the regular "nun", because in all Bible code programs, the end letter equals the regular letter for codes purposes. And here, nun sofit=nun. Likewise in the second term tzadik sofit=tzadik. In the 5th term, mem sofit=mem. Also, note that for term 2 above, the last letter is the English period key, that's where "tzadik sofit" is at on the keyboard.

OK, that wasn't so hard after all, typing in the Hebrew letters.

Step 5:   The next step is to go to Search Parameters window under the Options menu. As we go through each term, you want to do 2 things, one is to type in the English translation (leaving none of those dashes), and the second is to make sure that at the bottom bar of the Search Parameters window, the real-time statistics show that we are not going to have too many finds. That can happen when you look for 3 or 4 letter words.

For the first term, type in "Yeshua, Son of God" or "Jesus, Son of God" in the translation pane. Then we check and see that we expect 6 occurrences, that's OK, so we go to term 2 using the small up arrow button. We type in "Wonderful, He Counsels" and see that we expect 97 occurrences, so we go to term 3. We type in "Mighty God" and see that we expect 275 occurrences, so we go to term 4. We type in "Eternal Father" and see that we expect 9529 occurrences, that's OK, so we go to term 5. We type in "Prince of Peace" and see that we have 1798 occurrences, that's OK, so we go to term 6. We type in "the Messiah" and see that we expect 21,493 occurrences. Normally, I would lower that so I don't get more than about 12,000 of any one term. But in this case, we'll leave it. We can always go back and search again and lower the ELS range for just this one term. We lower the expected occurrences by unchecking the "Use

Default Skip Range" box and typing in a lower Min--Max Skip Range. Press the OK button and leave the Search Parameters window.

Step 6:   Hit the Search button to begin the search. On my computer with an AMD K6-2 processor running at 475 mhz and using CodeFinder version 1.21, it only takes 37 seconds to look for all 6 terms and match the terms.

Step 7:   The results show as follows:
term 1 -- Yeshua ben-El -- 3
term 2 -- Wonderful, He Counsels -- 101
term 3 -- Mighty God -- 241
term 4 -- Eternal Father -- 9529
term 5 -- Prince of Peace -- 1699
term 6 -- the Messiah -- 22,239

Step 8:   The next step is to analyze the results by looking at the 3 occurrences of Yeshua ben-El and see if all 5 of the other terms are matched to any one of the 3. We click on the little plus box next to the first term, and it shows the following: (note: we have the row-split set to disable)
   (1) 10205   199650 [1]
   (2) -15309   249576 [1]
   (1) -25897   205945

   Our initial results show the above, which means that only one other term is matched to the main term with row-split disabled. The 1st number in brackets is a sequential number, the 2nd number is the ELS, the 3rd number is the letter number of the first letter in the term, and the important 4th number in square brackets is the number of terms matched to the main term. If you cannot see all the results at once in the Search Results pane without scrolling, move the cursor over to where the matrix area begins, and the cursor changes from an arrow, to 2 vertical lines with a right and left arrow. Left-click and hold down the mouse button, and drag to the right, so that the Search Results area is wide enough to read all the information. CodeFinder version 1.21 sorts the occurrences of the main term after the search so that the highest matches are at the top of the list, then sorts so that the lower ELS is higher if there are more than 1 occurrence of the main term with the same number of matches.
   If you received a different number of matches, then your row-split setting was not on disable. Go to the Options--Row Split and set it on disable and see if the results are as above. The good thing is that we found 3 occurrences of Yeshua ben-El in the Torah.
   Now we will use the Row-Split "auto" function. What "auto" row-split does is the same as a "find best matrix" function. It will look at all 11 row-split settings for each occurrence of the main term, and then show the highest number of matches for each one of the 3 occurrences of the main term based on the best row-split for each. Go ahead and select Options--Row-Split--auto. Now the first occurrence has 5 matches, the 2nd occurrence has 4 matches, and the 3rd occurrence has 3 matches. So we have found the matrix that has all 6 terms in it, at an initial ELS of 10205, but row-split to an unknown amount.
   Double-click on the (1) 10205 line and the matrix will pop up. In the upper right corner of the Matrix View, click the center little box to expand the matrix and fill the matrix area on the screen. You can narrow the Search Results area by moving the cursor to where the matrix starts and the cursor changes to 2 vertical lines, left click and hold it down and drag left. This will give you more matrix area to view at once. Center the scroll bars on the right and bottom of the matrix to center the matrix, since we want to view the center term and see what the optimal row split is at.
   The center term in CodeFinder is always red letters in a black oval. We see that the center term has letters every 4th line, so the optimal row-split is 4. Our initial ELS was 10205, but since we row-split by 4, **our optimal matrix is at an ELS of 10205÷4=2251**. We also see that our center term is slightly diagonal with each letter going down displaced by 1 column to the left. A term doesn't need to be evenly divisible for a row-split to occur.

Move your cursor on top of one of the letters for Yeshua ben-El and right click, holding down the mouse button. The window will open showing the term in English and Hebrew, it shows the ELS of the term, and a statistical text "R" value. R is for Rotenburg, and CodeFinder calculates R by taking the inverse of the expected number of occurrences calculation and puts it on a log10 scale. Negative text R-values are likely there by chance, while positive R numbers are likely to be there by design. (short words have negative R numbers, and longer terms have positive R numbers). The text R-value is helpful, but it is not an absolute measure of chance or design. You can right-click and hold the mouse button down on any marked letter in the matrix, and it will show similar information. Except for the main/center term, we are interested in what the matrix R-value is for all other terms, which is calculated for expectation that the term would appear in this matrix (matrix R-values are shown in the matrix report).

Step 9:   The next step is to analyze the matrix and turn off extra terms, leaving the best ones there and also making the matrix size smaller than our original 200 rows and 200 columns.
     The new version 1.21 of CodeFinder no longer wraps the matrix to fill it to the size in rows and columns settings. Version 1.21 gives the user a set of training wheels. The matrix area is still 200x200 in our example, but the extra rows are now blanked and shown as white space, where before they were wrapped inadvertently. The new change in version 1.21 will prevent users from using erroneous rows that were wrapped.
     We open the tree of results for the 3rd occurrence of Yeshua ben-El at:
       (1) 10205 199650 [5]

by clicking on the plus box next to it. We see that the terms are matched as follows (in English, you can toggle them to English by right clicking anywhere in the white space of the Search List. Another way to toggle to English or back to Hebrew is the menu selection, Options--View as English):
     Wonderful, He Counsels [1]
     Mighty God [1]
     Eternal Father [13]
     Prince of Peace [5]
     the Messiah [45]

     Our next step is to turn off terms so that we can make that dotted line box as small as possible when displaying the matrix with all the terms, and certainly within the valid region for the matrix. After turning off extra terms, **my optimal matrix was 156 columns and 106 rows. I left turned on for each of the 5 terms: 1, 1, 4, 2, & 8 respectively**.
     I left turned on more of the term "ha'mashiach" meaning "the Messiah", because I planned on further developing the matrix, and it seems to be an important term with regard to our central term of Yeshua ben-El, Jesus, Son of God.

Step 10:   We've developed a matrix with 6 terms that are significant. The center term is Yeshua ben-El meaning Jesus, Son of God. Then we see all the other terms from the prophecy of names of the Messiah in the same matrix. We can go much further, by adding in other terms like Savior, Redeemer, Righteous one, true one, genuine one, changeless one, visible one, Almighty, etc. All in all, there are at least 30 more terms in the matrix that I've already found. I will give them to you below, but the point is that this matrix is but one of many that proves clearly in the Bible code that Yeshua is the promised Messiah. He came once and He's coming again very soon.
     When you develop a more complex matrix like this, you want to get the major terms first, then add in other terms. CodeFinder facilitates this by retaining the work you've already done, and only looking for the new terms you add. With a couple of hours work adding the terms below, you can have a matrix that has more than anyone else has on the web on this subject. I haven't put this matrix up on the web, because I developed it especially for this lesson. The other two occurrences

of Yeshua ben-El that we didn't explore from our initial search are very meaningful too, they are just on different topical aspects of the Messiah.

Step 11: Display the matrix Report that shows all the terms in your matrix, by selecting View--Report. You can window between the Matrix View and Report by selecting them under the Window menu. Save the Report as an RTF file by selecting File--Save Report.

Step 12: (optional) Below are terms that you can add to the matrix. They are all there, so have fun. When you get it completed, make sure you save your matrix by Exporting Search Results. To directly save your finished matrix with all the terms as a graphic when you're done, use Cropped Matrix, and then Save Matrix to save it as a BMP graphics file. Then you can open it in a graphics program and save it as a GIF for display on the web. If you do a good job, we'll put it up on the Codes in the Bible website with attribution at:
    Codes in the Bible   **http://ad2004.com/Biblecodes/indexA.html**

<u>Optional terms to look for are:</u> (in the center are the English letters to type in the Hebrew terms on your computer keyboard). Just an added note. When you search for these optional terms, since we know the matrix is at an ELS of 2251, don't search our original ELS range of -65,000 to 65,000. The maximum you'll want to search will be 6 times the matrix ELS plus 10, or -13,520 to 13,520. Customize the ELS range for each term using Search Parameters, to lower the expected occurrences to a reasonable number. (like 10,000 or less for each term).

Messiah-- nahj -- משיח

real one-- nnah -- ממשי

true, genuine one-- tnh,h -- אמיתי

righteous one-- har -- ישר

Justice-- mse -- צדק

Truth-- tn, -- אמת

the right one-- hnhi -- ימין

Savior, Redeemer-- dutk -- גואל

verily, certain-- tfi -- אכן

Torah-- ,urv -- תורה

maker, creator-- curt -- בורא

revelation, descent-- numt -- מוצא

appearance-- nrtv -- מראה

visible-- brtv -- נראה

arrive-- kcut -- לבוא

descent-- krs, -- לרדת

correct, right one-- bfui -- נכון

Savior-- nmhk -- מציל

counselor-- hug. -- יועץ

Almighty-- ntus -- מאוד

awe-- nurt -- מורא

manifest-- nbar -- מנשר

changeless-- hmhc -- ביר צי

Bible-- nert -- ארק מ

heaven-- anho -- שמים

I Am-- tvhv -- אהיה

Yahveh-- hvuv -- יהוה

Yeshua-- haug -- ישוע

**click here to **