West Slavic Machine Stenography

Priscilla Trillo

West Slavic

Machine Stenography

A course for instantaneous text production using machine stenography

By Priscilla Trillo

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Message from the Author

Hi there. My name is Priscilla Trillo, and I am responsible for this book. I am a professional stenographer from the United States. I also happen to have a background in Slavic languages. I first started teaching myself them over 40 years ago and later studied them at university. I have been involved in stenography since 1996, and I have taught machine stenography in English at a local college. Following that, I worked in Tanzania with the United Nations at the International Criminal Tribunal for Rwanda (UNICTR).

I wish to thank Krzysztof Smirnow for the wonderful graphic of Slavic keyboard and for collecting information on Polish consonant combinations.

All of the companies, products and trademarks mentioned in this book are the property of their respective owners. I have no pecuniary interest whatsoever in any of these products. Their inclusion in this book is to facilitate the use of the method described in this book. Readers of this book are free to use any or all of the products at their pleasure.

The book is written in English and is purposely not translated into each language because if you require help, the help available in the Plover Discord will be in English. If you post in another language, your request for help may not be answered immediately because most users of the Discord speak English.

If you need to contact me, feel free to send me an e-mail at trillopriscilla@gmail.com. I am a member of the Plover Discord; however, if you need to contact me there, you must tag me, @Plover-Trillo. I don't check it on a regular basis, but I will be notified if I am tagged in a post.

Best regards,

Priscilla Trillo

Preface

This textbook does not endeavor to teach you any of the Slavic languages. Indeed, the student's knowledge of any or all of these languages is assumed. We do not discuss any grammatical rules in this book. It is intended as a guide to encode text rapidly for instantaneous display or for simultaneous translation. The method introduced in this book will help you achieve both goals. This subject seems quite simple at first glance, but it will take dedication and time to become proficient in this skill.

I decided to put all the West Slavic languages together in one book because two of them are mutually intelligible, and the third isn't so very different from the other two. In fact, seeing how one language handles a certain type of word will make it easier to understand why another language, although slightly different, can encoded in the same way, even if you hadn't thought it possible at first. I also did not want to write what would essentially be the same book three times.

To identify topics which are applicable only to a certain language, color coding will be used:

Česky

Po polsku

Po slovensky

Many of the people in the Plover Discord I mention in Lesson 1 are very computer savvy. Some of them build their own computers, are heavily into programming, and are your best source of information regarding the Plover program. In fact, a lot of them use stenography for programming.

I personally have used Eclipse software (also mentioned in Lesson 1) for years and know more about it than Plover, to be quite honest. If you yourself are not that computer savvy, it would help you immensely to find someone who is to help you install Plover and customize it for the language you wish to write in. English is the main language of Plover, especially on technical matters. English is also the language you need for technical support in Eclipse.

No matter which software you ultimately decide to use, it would be very helpful to know Python.

There are blank spaces on some pages. They were intentionally left so you can make your own notes. Pay close attention to the notes in boxes. They contain important information.

This book is dedicated to my parents.

The Basics

What Exactly Is Machine Stenography?

Machine stenography is a way of encoding the spoken word as quickly as it is spoken, even at very high speeds of up to 300 syllables a minute and even higher. It can also be used for rapid text entry. The encoded text is deciphered against a database and is instantly available for display or memorialization. You can encode a single syllable, word, prefix, suffix, or even multiple syllables, words, prefixes, suffixes in a single chord. The method for learning how to encode is a called a theory.

There are two things you need for machine stenography: one, software that will translate the chords from the keyboard and turn them into readable text; and two, a steno machine, a purpose-built keyboard for steno, or a chording keyboard that will send the chords to the software for decoding into readable text.

Computer-Assisted Transcription Software

There are two options for software. One is professional stenographic software, Eclipse, which is widely used in the United States and around for the world in a variety of languages (www.eclipsecat.com). It provides professional stenographers with a way to manage various databases containing chords that are translated into text. These databases are easily managed (adding chords, deleting chords, and modifying chords) and allows the user to stream text on television encoders and over the Internet. It allows the user to adjust text before it is sent out to the reader. There is technical help available directly from the company as well 24 hours a day.

The other option is Plover, available **free** from the Open Steno Project at https://www.openstenoproject.org/. It's not as user-friendly as Eclipse. If you require technical help, you can leave a message in English in the Plover Discord and wait for assistance from someone there (https://discord.com/invite/0lQde43a6dGmAMp2) or do your own research online. Most of the information on Plover is in English, and that is why the information in this book will be written in that language. Plover software can output text for Internet captioning, but at present cannot send text to a television encoder. Plover and Eclipse are both have regular updates, as does Eclipse. The main differences in the software are the following:

1. Eclipse software is a big investment and requires yearly technical support payments. With that you get free software upgrades and round-the-clock technical support, which can be very important if time is of the essence. Plover software is free and has no dedicated technical support. You should be very computer savvy if you choose to use Plover or if you don't have time constraints on your work product. Both Eclipse and Plover have a learning curve.
2. If you are not getting the desired result in your text, Eclipse can be set to output different types of text (prefixes, suffixes, sloppy or incomplete chords, and word roots) in a different color so you can tell exactly why you are getting the translation you see on screen, especially if it is not what you intended. Plover doesn't have this option. It simply outputs text into other software without allowing you to make adjustments to previously written text. This is important when you are writing technical or unfamiliar language. In Eclipse you can adjust the text so the next time you write the same word it is perfectly readable.

The choice is yours. If you are new to machine stenography, you should try Plover first to see how stenography works. If you decide to use machine stenography for text production on a professional basis, you might be better off with Eclipse.

Your main database or personal dictionary

No matter which software you decide to use, creating and adding to your main database or personal dictionary is very important. Why? It allows you to use shortcuts. Shortcuts are not phonetic translations of the key combinations. They save chords and are usually reserved for common suffixes, prefixes, or word parts. Another important reason is that it teaches you accuracy, and without accuracy, you will spend a lot of time editing instead of encoding. It's actually harder to find mistakes in a text if something appears as a word instead of an untranslated chord. For example, in English, you might write "shack" instead of "slack." And you might write a rude word inadvertently. If you have a main dictionary instead of translating your chords phonetically, you can prevent rude words from appearing by having a different word ("fudge") appear instead of the rude one ("f*ck").

You will need either a chorded keyboard, hobbyist machine, or professional steno machine to input text to the software so it can then translate that input into text.

Chorded Keyboards

Chorded keyboards allow you to depress more than one key at a time and have all the depressed keys be recognized by the computer software. There are specialized machines for stenography that are used in the United States and all over the world. However, you can use any chorded keyboard (https://en.wikipedia.org/wiki/Chorded_keyboard).

This is the type of keyboard most of us are familiar with. Please note that flat keyboard tops are best for stenography since we oftentimes need to press two keys with one finger.

One disadvantage with this type of keyboard is that it is somewhat awkward to angle your hands to the left while encoding. In addition, some keyboards have a limit of how many keys can be chorded and be recognized at one time. This will seriously limit your ability to use steno because many chords can require a significant number of keys.

If you are serious about attaining speed and avoiding repetitive-stress injuries to your hands, you can find several sources for stenographic keyboards built by hobbyists. A Google search can help you find the latest information because there are many different devices that can be used.

Above you see an example of a specially built keyboard designed for steno. Notice how the keys are aligned so you can easily depress two keys at once. There is no limit to the number of keys pressed in one chords. Notice, however, also that the structure is open, meaning it is less protected from dust. Like all electronic items, this is a serious consideration.

This is the Treal professional stenography machine. It comes with a tripod so you can write comfortably for long hours. It offers protection from dust and comes with a special carrying case for easy transportation. The Treal professional stenography machine (https://www.wordtechnologies.com/writers) costs closer to a thousand US dollars, but they tend to be very reliable and extremely durable and less prone to repair. The Treal is used around the world in many languages by professional stenographers.

How does a stenographic keyboard allow you produce text faster? Have you noticed that there are no printed letters on the purpose-built stenographic keyboards? Have you noticed that there are fewer keys on a stenography machine than on the standard computer keyboard? Part of the reason that you can write faster is that your hands move less than on a stenographic keyboard than on a normal keyboard. The arrangement of the keys is also different. The letters have been arranged to generate words in the Slavic languages. You can compare the Slavic stenography and English stenography keyboards on this page.
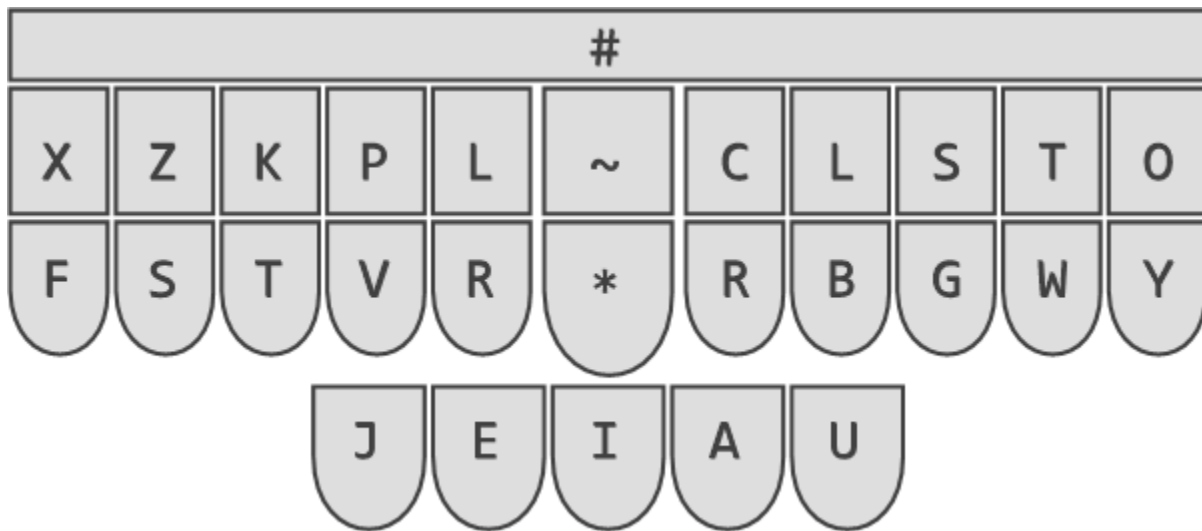
Above: Latin Slavic Stenography Keyboard
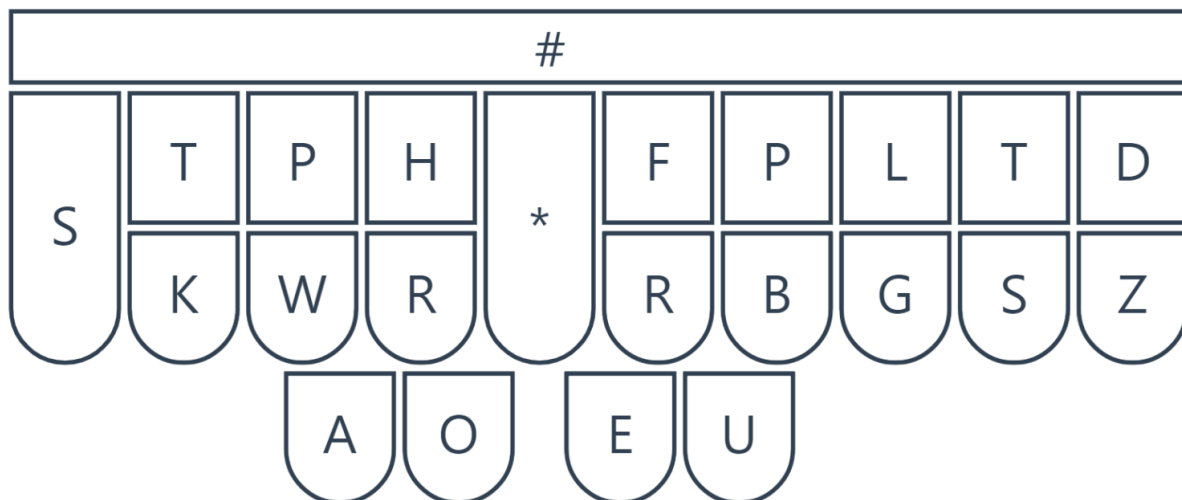
Above: English Stenography Keyboard

And just in case you were wondering, there is a different keyboard for Slavic languages written with the Cyrillic alphabet.

You might wonder why the keyboards are so different. Well, it's because Slavic languages tend to have more consonant compounds than English words. In addition, Slavic words tend to be longer than English words. The Slavic keyboard will allow you encode Slavic words faster.

What's so special about a stenographic keyboard?

The stenographic keyboard is read from left to right. When you press multiple keys at the same time, the letters will always appear in a certain order. The order of the letters never changes. It's always XFZSKTPVLRJE~*IAUCRLBSGTWOY, and this is referred to as "steno order." It's important for you to memorize the order of the keys because the letters will never appear in any other order. For example, you will never see a steno chord that begins with FX or ends in YO.

Some of the most common sounds require more than one instance of a letter on the keyboard. For example, there is S on the left side and another one on the right side. To differentiate the left S from the right S, we will use S- for the left and -S for the right. If you see ST-, that means the S and T keys on the left side. -ST means the S and T keys on the right. The same thing for the R-, L-, -L, and -R.

You might notice that not all letters in the alphabet appear on the keyboard. When that happens, we combine letters to represent sounds that are not accounted for on the keyboard. For example, there is no Š (česky and po slovensky) or SZ (po polsku) key on the left or the right side of the keyboard. You will learn which keys we use to represent that sound and other sounds in the lessons to follow.

The steno keyboard is divided into three parts:

Left	Center	Right
XFZSKTPVLR	JE~*IAU	CRLBSGTWOY

X K P L   C L S T
F T V R   R B G W
Z   ~   ~   O
S   *   *   Y

JEI   IAU
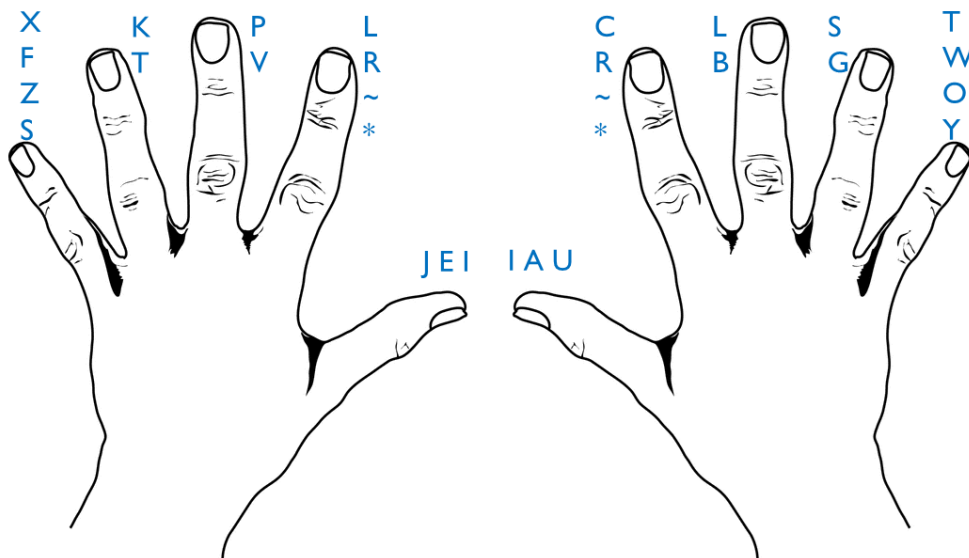
A few notes to keep in mind.

Little finger: The little finger on each hand is responsible for 4 keys, but you will never hit all four keys at once. At most you will press two keys at once. Only the following combinations are possible for the left pinky: XF, XZ, ZS, and FS. Similarly, the only possible combinations for the right pinky are: TW, TO, WY, and OY. Of course, it is possible you will have to press only one of the keys at a time. The combinations of XS and FZ are impossible for the left pinky. The combinations of TY and WO are impossible for the right pinky.

Thumb: Each thumb is responsible for three keys, but you will **never** hit all three keys at once with one thumb. At most you will press two keys at once. Only the following combinations are possible for the left thumb: JE or EI. Similarly, the only possible combinations for the right thumb are: IA or AU. If you were to need JEI, you would press JE with the left thumb and I with the right thumb. If you were to need IAU, you would press I

with the left thumb and AU with the right thumb. The combination of JIU **is not possible** at all and will never be used.

Index finger: The index finger is responsible for two of the center keys, ~ and *. Which hand is used depends on the individual chord. If you need L~, you can use the left index finger and depress both keys at once. If you need R~, you will depress the left R with index finger of the left hand and the ~ with the index finger of the right hand. Similarly, if you need L*, you will depress the L with the left index finger, and the * with the right index finger. If you need ~C, you will depress both keys with the right index finger. If you need ~R, you will depress the ~ with the left index finger and the -R with the right index finger.

Resting Position

The resting position is where you keep your hands between chords so that you can easily encode chord after chord quickly and accurately. Depending on the keyboard you are using, you can keep your fingertips just over the keys or rest them slightly on the keys themselves. If you rest your fingers on the keys and a chord is registered by the software, you will have to keep them just above the keys. You do not want unnecessary keys to be pressed because that will result in incorrect text being generated.

Left	Center	Right
Pinky: between Z and S	Left: Over the E	Index finger: between C and R
Ring finger: between K and T	Right: Over the A	Middle finger: between L and B
Middle finger: between P and V		Ring finger: between S and G
Index finger: between L and R		Pinky: between T and W
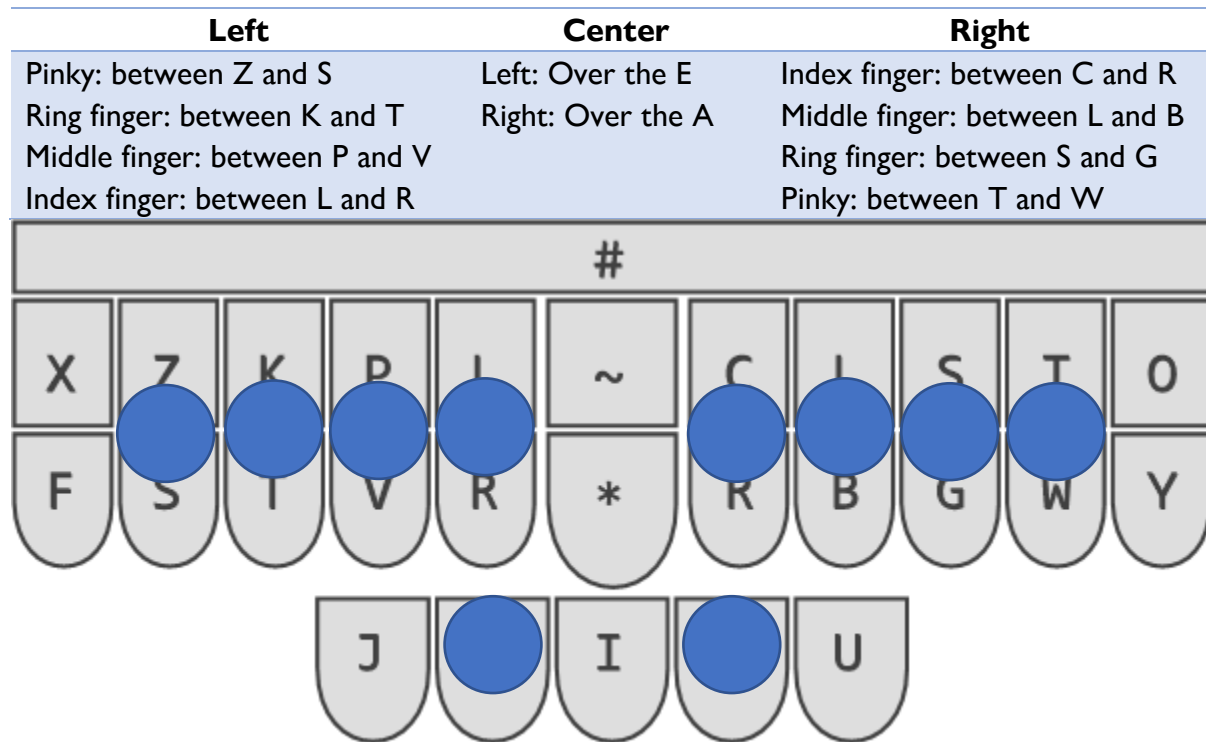
Well, just because you are a native speaker or someone who has nearly native fluency in a language does not mean that you will instantly be able to encode words quickly and accurately. There are certain rules that you need to master in order to consistently encode the spoken word. The reason stenographers can write so quickly (up to 300 syllables in a minute and higher) is because there is a certain logic to how words are encoded. Once you understand the method of encoding, you don't have to think before encoding. It is possible to react instantaneously when you hear a word or phrase spoken.

There is a certain reason why each topic is presented in a certain order. If you look at some of the later lessons without first mastering the beginning lessons, you may find them puzzling and frustrating. Your fingers won't have the training of the previous lessons that you need in order to be successful in the course. A steno theory is like the framework of a building. If you try to put a roof on walls that are not strong enough, your building will collapse. If you have a strong enough framework, you can add to it without damaging it.

The most important thing is that you must learn the theory completely, and nothing can be changed until it has been mastered. Once you have mastered the theory, your future development as a stenographer will be very individualized. People prefer certain chords over others due to differences in hand size, finger strength, and even length of fingernails. Your method of encoding will evolve and become more sophisticated the longer you are involved in stenography. No two stenographers write in exactly the same way. They'll have certain similarities, but there will always be differences between them.

While you are first learning a theory, you must keep in mind that accuracy is more important than writing fast. Writing faster is something you work on after mastering theory. **You must maintain accuracy at all times while you are learning the theory**. You should try to write the lessons without making any mistakes. If you are making mistakes, repeat the lesson over and over until you can do it without making mistakes. We have a method for making corrections as we encode. But we make immediate corrections and never ignore the mistake. Writing the wrong word can be disastrous sometimes and quite embarrassing. Learning stenography is like learning how to play a musical instrument or a training for a sport. If you wish to be an accomplished musician or athlete, you must practice. The same thing is true for stenography. Some people have a certain aptitude for stenography, and others must work harder at it. Both types can be successful stenographers.

Your hands will not be used to the steno keyboard, and some of the keys or movements may seem awkward at first. Your hands will adjust if you practice. Keep an open mind, and you will find it gets easier the more that you write.

Why stenography is not just typing in all the letters

In stenography, we tend to simplify as much as possible. Consider the two pictures below.
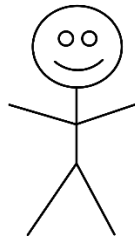
Both represent a man. We don't need the detail that the photograph shows. All we need is the bare minimum to distinguish that it is a man and not something else. This means that some memorization is required in a theory because of this simplification. So just because you are a native speaker doesn't mean that you will be able to write quickly as soon as you first touch a stenographic keyboard.

Another thing to keep in mind is that just because a word consists of 5 letters does not mean that you will be pressing 5 keys on the keyboard. You might press more keys or fewer keys or sometimes exactly 5 keys. Some very short words will require more keys to be chorded than longer words. The fact that you depress them all at the same time is what helps you write faster than a normal typist. Sometimes a chord will be a word or word root. Other times it will be a suffix. Another time it will be a punctuation mark. And still another time it might be a preposition and a couple of prefixes all in one chord! It might sound challenging, but I hope to demystify the whole process for you. We will start with slowly with the basics and gradually build the difficulty in a way that won't be overwhelming.

How to make corrections

If you happen to hit an incorrect key or chord, simply hit the asterisk (*) key to remove an incorrect chord. If the mistake occurred two chords ago, you must hit the asterisk twice. No

one writes without errors, but we can try our best not to make any mistakes by making sure we are hitting the correct key before depressing it.

Finger Exercises

Finger exercises help with hand strength and help develop the ability to press different combinations of keys in quick sequence. Even professional stenographers do finger exercises because it helps them while working. Five to ten minutes a day of finger exercises will definitely help you in this course. Below is the first finger exercise to help you become acquainted with the keyboard. It's a good warmup for each lesson. I encourage you to return to it before each lesson and write it a couple of times for review. Take your time with each lesson. Do not skip any lessons and master each lesson before going to the next lesson.

Individual keys will be show in **purple** in this book, the original color of the letters on the paper tape. Text will be shown in black.

Finger Exercise No. 1

X	S-	T-	V	L-	-R	-L	G	-T	Y
F	Z	K	P	R-	C	B	-S	W	O
J	L-	C	E	R-	-R	I	P	-L	V
B	A	T-	-S	K	G	U	Z	-T	S-
W	~	X	O	F	Y	F	C	S	-L
X	-R	Z	B	L-	-L	R-	-R	T-	-T
-S	S-	E	B	S-	W	Y	P	K	I
~	V	Z	G	-T	T-	V	Y	C	P
B	A	T-	-S	K	G	U	Z	-T	S-
W	~	X	O	F	Y	F	C	S	-L
X	S-	T-	V	L-	-R	-L	G	-T	Y
F	Z	K	P	R-	C	B	-S	W	O
J	L-	C	E	R-	-R	I	P	-L	V

O T S L C ~ L P K Z X

Y W G B R * R V T S F

U A I E J
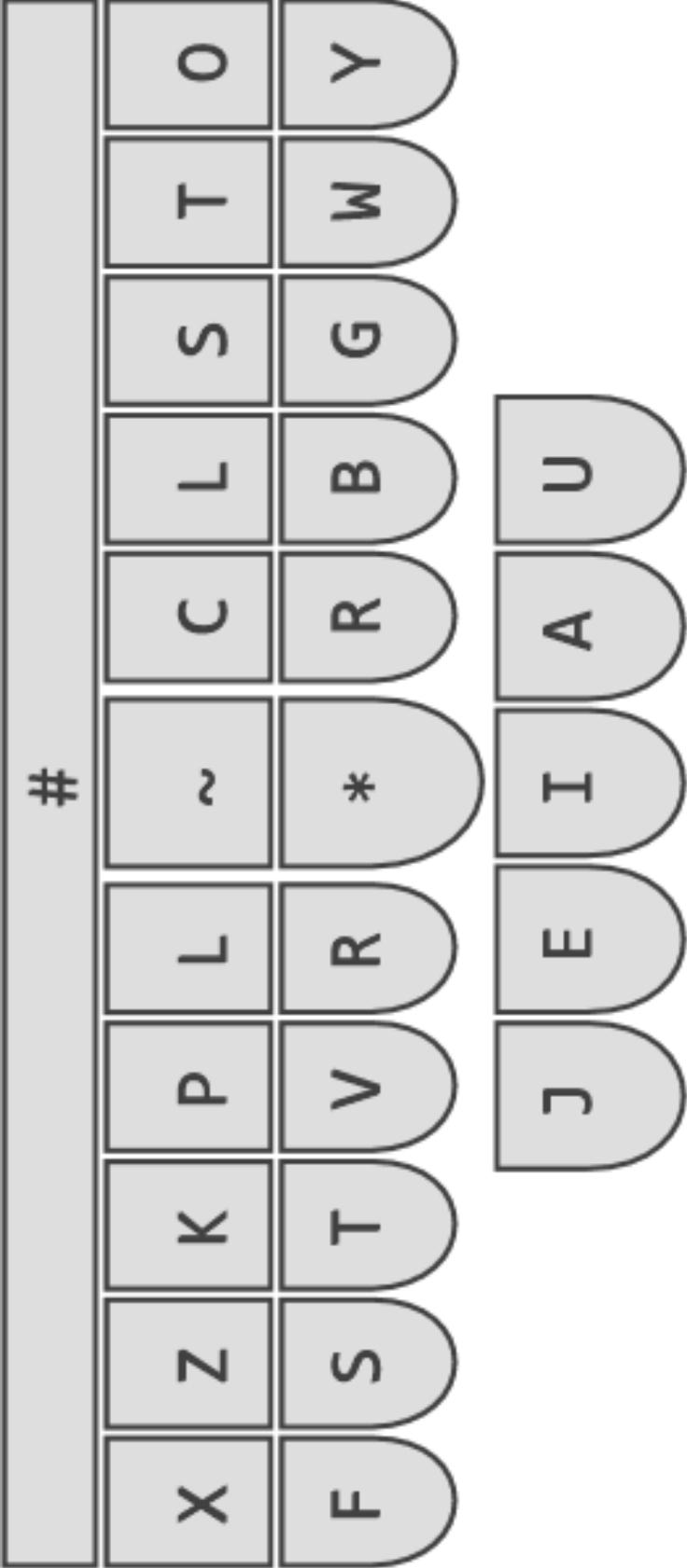
Introduction to the Slavic Steno Keyboard

This first group of lessons will familiarize you with the steno keyboard. It's vital that your hands get used to pressing more than one key at a time. Remember, don't hurry through these lessons. You might find it useful to print up the large keyboard on the previous page to refer to while practicing this lesson.

XFZSKTPVLRJE~*IAUCRLBSGTWOY

Please remember the steno order: RE and ER do not indicate the same keys! RE indicates the R on the left side and the E in the center part. ER is the E in the center part and R on the right side.

In this lesson, we will become familiar with the S, T, and R keys on the left side. We will learn the E and A keys from the center portion. Finally, we will learn the R, S, and T keys on the right side.
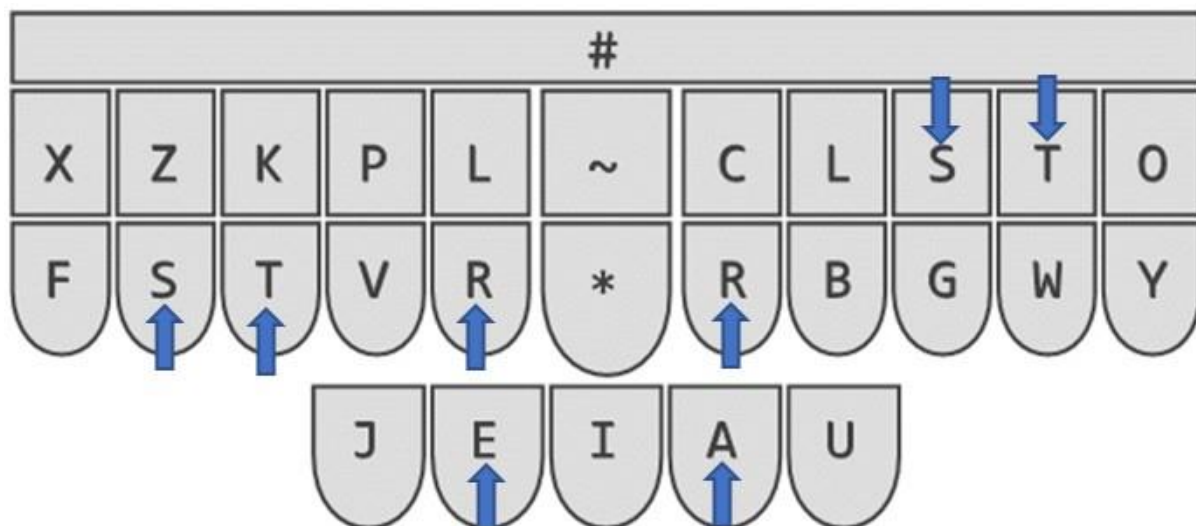
What do the purple letters mean again?

Below is a sample of steno notes in English with the purple letters. Professional machines are now electronic and no longer produce paper steno notes. Everything has been digitized, which has made it easier to create steno theories for more languages. The steno keyboard used in the United States and elsewhere is not suitable for all world languages. In this book, whenever you see capital purple letters, it means the actual keys on the steno keyboard and not words.

```
                U
S     H         U               D
                        B
            A   EU      BL
    T           O
          RA    E               D
    T   H       E               S
S       H   O       R       T
        W   O       R       DZ

S               E
        H   O   U
        W       E
    P           U           T
            A
        H   O           L
        W   O       R           D
    T           O
            A
S   P       A               S
    T   H A                 TS
        WH A                T
ST              E   P       S
                U   P
                U R
S   P           E               D
                U R
S K             EU      L
        W       EU      L
            A   EU              D
                U
    T   W   O       R           D
        H       EU
        R       E
        W   A       R       DZ
```

Finger Exercise No. 2

Don't worry that the combination of keys does not form an actual word. The idea is to get you used to hitting more than one key at a time. Remember, if there is a hyphen between the two keys indicated, it means the first key is on the left side and the second one is on the right side.

SE	AR	TE	AS	RE	AT	TA	ER
RA	ES	SA	ET	S-R	EA	T-S	EA
R-T	EA	AT	SA	AS	RA	AR	TA
SE	ER	TE	ES	RE	ET	AS	SA

Finger Exercise No. 3

SET	TET	RET	SAT	TAT	RAT
SER	TER	RER	SAR	TAR	RAR
SES	TES	RES	SAS	TAS	SAT

In this lesson we will become familiar with the Z, K, and V keys on the left side. We will cover the I key in the center portion. On the right side, we discover the C, L, and B keys.
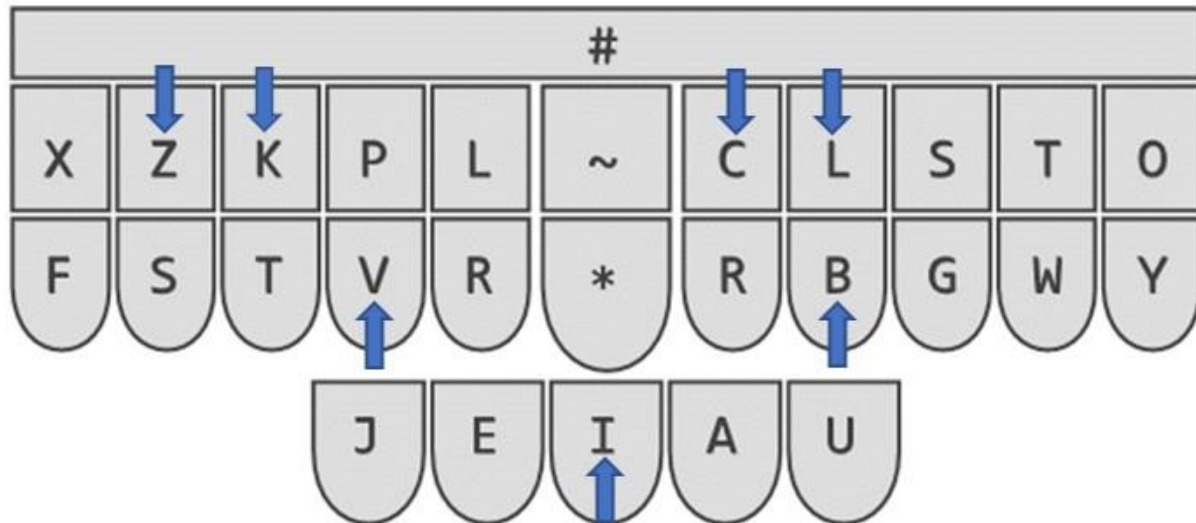
Finger Exercise No. 4

ZI	IC	KI	IL	VI	IB
SI	IR	TI	IS	RI	IT
EC	KE	EL	ZE	EB	VE
ZA	AB	KA	AC	VA	AL
Z-R	S-C	K-L	T-B	V-S	R-T

Finger Exercise No. 5

ZER	KIC	SAL	TEB	VIS	RAT
ZIC	KAL	SEB	TIS	VAT	RER
ZAL	KEB	SIS	TAT	VER	RIC
ZEB	KIS	SAT	TER	VIC	RAL
ZIS	KAT	SER	TIC	VAL	REB
ZAT	KER	SIC	TAL	VEB	RIS

In this lesson we will become familiar with the X, F, P and L keys on the left side. We will cover the J and U keys in the center portion. On the right side, we discover the G, W, O and Y keys.
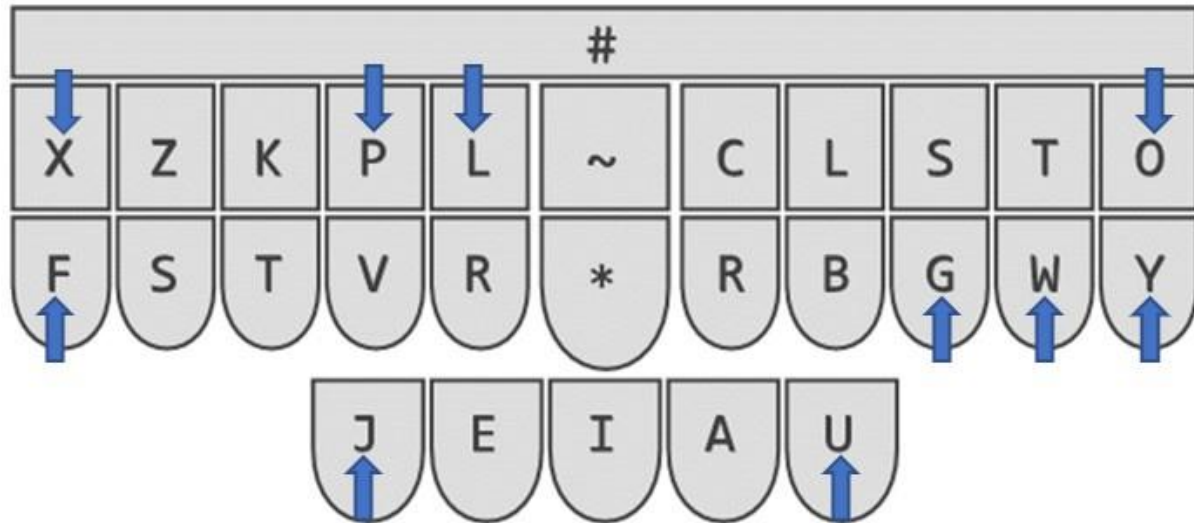
Finger Exercise No. 6

LU	UG	PU	UW	XU	UO	FU	UY	JU	UT
ZU	UC	SU	UR	KU	UL	TU	VU	US	RU
FE	EG	XE	EW	PE	EO	LE	EY	JE	EU
XA	AG	FA	AW	PA	AR	LA	AO	JA	AY
LI	IG	PI	IW	XI	IO	FI	IY	JI	IR

Finger Exercise No. 7

LUR	PUB	PUG	XUW	XUY	FUO	FUC	SUY	JUL	ZUT
ZUS	KUC	SUS	JUR	KUC	TUL	TUW	VUT	RUS	RUR
FES	VEG	XEB	LEW	PES	TEO	LEB	PEY	JET	FER
XAL	SAG	FAB	LAW	PAC	VAR	LAT	RAO	JAR	KAY
LIB	VIG	PIT	KIW	XIW	ZIO	FIT	TIY	JIG	ZIR

Word Parts

Now that you have become familiar with the steno keyboard, we will now begin to teach you how to write on the machine. We will start off with very simply in the course and then move on to more complex subjects. Every theory starts off this way, no matter the language.
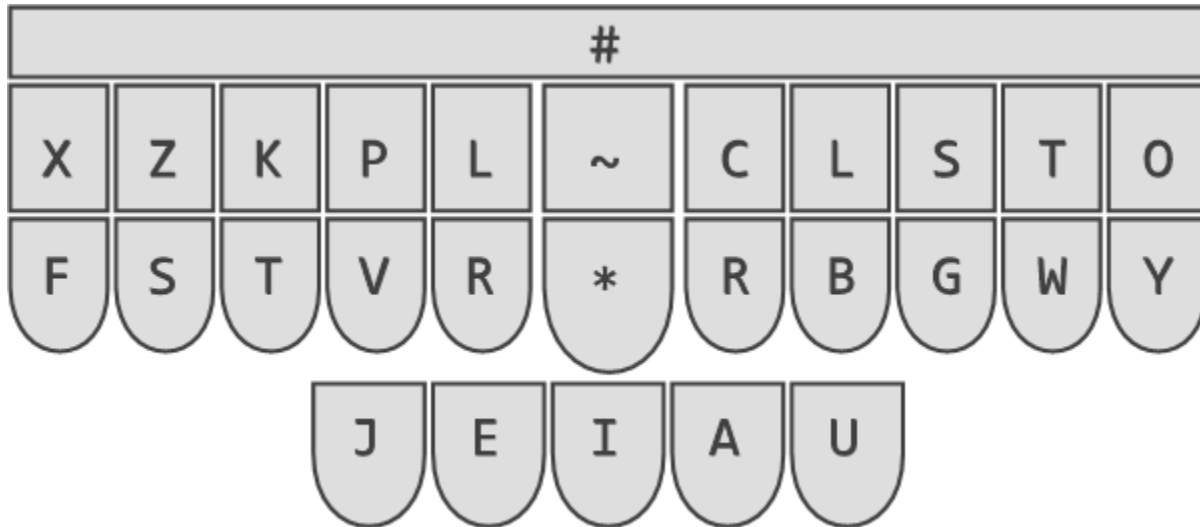
We'll now get into how stenography actually works and why the keyboard is constructed so differently than a normal computer keyboard. When we write a chord, the keys on the left side are used for the beginning sounds of, say, a word or word root. The center part of the keyboard, with the exception of the J key, is used for the vowel sound of the word. The right side of the keyboard is used for the sound or sounds at the end of the word or word root.

Notice that I said "sound" and not letter of the word. We write primarily by sound in stenography. I say "primarily" because there are exceptions that must be learned. Slavic words can have up to five different phonemes or sounds before a vowel in a single word root. They normally appear in a certain order, and so the keyboard was arranged so that most words can be created very easily and logically.

Of course, as I mentioned earlier in the book, not all letters are on the keyboard. You might wonder how to write the D sound when there is no D key anywhere on the keyboard. All the sounds in your language can be created by pressing combinations on keys, both on the left side for the beginning sounds and on the right side for the ending sounds.

One of the most important concepts in stenography is that we don't always break up words into syllables the way that they are normally pronounced. There is a very good reason for this, but first I'll give you a brief history of stenography.

The first stenography machines appeared at the end of the 19th century. The chords created by these machines were recorded on paper and transcribed later in handwritten or typewritten form. The steno theories used for most of the 19th and 20th centuries were conceived without any thought to repetitive injuries or instant translation into text by a computer. The chords recorded on paper were **interpreted** when they were transcribed after the fact. What does this mean? If the wrong chord was written, the correct word was still transcribed. The transcriber had to decide whether a word should be capitalized or not. The transcriber had to decipher the chord if somehow two different chords were written one over the other. In short, because there was no immediate connection between the written chords and the final transcription of the chords, it didn't really matter if one wrote incorrect chords or not or if two chords incorrectly combined into one chord. Steno theories used to be quite simple before the advent of computer-aided transcription. Of course, that meant that transcription used to take a lot longer without the computer.

In the United States computer-compatible steno theories that provide instant translation into text have been in existence for over three decades. These steno theories are more complex than their predecessors, but they allow for quicker and instantly readable text. In creating modern steno theories for other languages, one has to build upon the knowledge acquired during this time to avoid all of the issues that were discovered once computer-aided transcription became the norm. For example, word-boundary errors, stenographers found out the hard way, were a constant issue. Sometimes the same sequence of sounds were two separate words and sometimes they were one. Some of the most important rules that one is now obliged to follow include the following:

- It's vital to separate prefixes and suffixes from the word roots in highly inflected languages. It's less important in languages with minimal inflection (like English).
- It's important to make sure that both hands are used for almost every chord to prevent stacking. Stacking is when the software combines two chords into one because the first chord was not completely released before the next chord was started. This is one of the biggest issues that plagues stenographers who learned an earlier theory. Stacking is caused often when a series of one-handed chords is written one after another. They occur so quickly that sometimes the computer will combine a chord that is written only

with the left hand with a subsequent chord that is written with the right hand only or vice versa. The result is that the computer has incorrectly interpreted the chords. This can happen because stenographers can perform up to five chords a second. There is very little room for that type of error in today's fast-paced world. All chords need to be pressed and quickly released so that the next chord is correctly interpreted by the software.

- The stenographer should have excellent knowledge of punctuation and capitalization because he or she includes punctuation along with the words that he or she hears. You see, we stenographers have to be clairaudient. We have to be able to hear things that are not said! As we are encoding, we are not only encoding words, we are encoding the punctuation and formatting that is required to make the text easily readable.
- If more than one individual is speaking, an indication of who is speaking must also be included in the chords in addition to the words themselves.
- The stenographer should easily recognize whether the uttered words are part of the same word or are two different words. The meaning can change considerably if the wrong word is written.
- The stenographer must be able to think on his or her feet and be able to concentrate no matter what the conditions.

In short, the goal of computer-compatible steno theories is to produce instantly readable text. The goal of older steno theories was simply to capture the spoken word for later transcription. As you can see, their goals are quite divergent.

You will learn how to produce the most complete text as soon as it is spoken or almost as fast as you can think of the words, if your goal is rapid text entry. Of course, one can edit afterwards in certain cases; however, editing actually takes **more** time and attention than writing it correctly the first time, as is taught in this book. In short, follow the theory and you will save yourself a lot of time.

That said, this is how we divide most words up:

- word root (1 chord)
- word root + suffix (2 chords)
- prefix + word root (2 chords)
- prefix + word root + suffix (3 chords)
- prefix + prefix + word root (2 or 3 chords – certain prefixes can be combined)
- word root + suffix + suffix (2 or 3 chords – certain suffixes can be combined)
- prefix + prefix + word root + suffix + suffix (3 to 5 chords)

Why do we do this? You will find that if you divide words this way, you will use many chords over and over because that is just the way that Slavic languages are. Repetition of chords

allows us to write faster because we acquire "muscle memory." If you have muscle memory, it is very easy to perform an action, like playing a piano or performing a dance step. Say you are trying to learn a new dance. At first, as you are learning the steps, you will perform it slowly. As you repeat it over and over, your movements become automatic and more fluid. The same thing happens in stenography. While the words can change, a lot of the parts that constitute them don't. We can use the same prefix for many different words. The same thing is true for suffixes.

The word root presents the most complex issue because there can be many word roots. The key is to learn to write them without hesitation. Since word roots are so integral to success in stenography, we will begin with learning how to write them first. Next, we will learn about suffixes, including nominal, adjectival, and verbal suffixes. We will then turn our attention to prefixes, both single, compound, and complex, and finish with advanced word creation. Following those lessons, we'll tackle families of shortcuts.

Structure of a word root

Word roots in the West Slavic languages can vary between the longest and shortest examples below. Not all word roots are as long as the longest example, and not all words are as short as the shortest. Most fall somewhere in the middle.

How do you find a word root? Strip the word of all prefixes and suffixes, if any.

> **In the following examples, the letter C stands for any consonant sound. The letter V stands for any vowel sound.**

The shortest word roots containing a consonant would have the following construction:

VC or CV

The longest word root would theoretically have the following construction, although most of the time you will see a short left side with a long right side or a long left side with short right side:

CCCCCVCCCC

Word roots that have a vocalic or quasivocalic R or L would look like the following:

<div align="center">

CCCC-CCCC

</div>

Slovak words with Ŕ or Ĺ would look like the following:

<div align="center">

CCCC~CCCC

</div>

Why don't we just write words by syllables?

There are many reasons for this, but some of the most important are:

- If you divide a word into syllables, a lot of times you will get a string of open syllables (syllables that end in a vowel sound) followed by a closed syllable (a syllable than ends in a consonant sound) or just a series of open syllables. The Polish word "samochody" would give you sa/mo/cho/dy if you were to write by syllables. Most of the work would be done by the left hand. For right-handed people, it means that the strongest hand gets used the least. And remember that the overwhelming majority of folks have a dominant right hand.
- Stacking becomes an issue when one hand is used for many chords in a row.
- Chords are not reused as much as they should, which means that it will be more difficult to write faster. More chords will have to memorized by the brain **and** the hands, which makes the theory more complicated. This will impair building speed.

Let's consider an example in Polish: the word part "chod." Common words that also begin with this part include the following: chodak, chodliwy, chodnica, chodnik, chodu, and chody. Notice how many suffixes are added to it. Consider how many of these suffixes are used in other words. If one were to write the last word in the list as cho/dy in two chords, you would lose that. Try to think of any words that have the word part "dy" in it. It would be far less than the number of words that have the suffix Y. I have no doubt of that. And notice, too, that to write "cho" and "dy" you aren't using your right hand very much, which means overusing one hand and underusing the other. This can lead to trouble in the future with repetitive injuries to the hands. I hope you appreciate how important word roots are.

Revision Exercise

Please repeat Finger Exercises 2, 4, and 6 and this time add a comma (**,**)between each chord. To indicate a comma, the chord is **V-B**. This will help ensure that you are completely releasing all the keys before the next chord.

Let's take a look at a short passage in Slovak before learning some new sounds. It contains 527 characters in 81 words.

Na skalnom výbežku Malých Karpát, 85 metrov nad hladinou Dunaja nad riekou Dunaj sa týči majestátny hrad, ktorý výrazne dotvára panorámu hlavného mesta Slovenska. História hradu sa datuje až do obdobia Keltov a Rimanov. Hradný vrch bol významným miestom najmä preto, že sa nachádzal na križovatke významných obchodných ciest, z jednej strany bol chránený mohutnou riekou a zo strany druhej hustými lesmi Malých Karpát. Ten, kto na ňom vybudoval pevnosť, ovládal nielen dôležitý prechod cez Dunaj, ale bol aj pánom celého kraja.

Let's divide this up into chords by removing the prefixes and suffixes. Every / indicates a chord.

Na / skal/nom/ vý/bež/ku /Mal/ých/ Karpát/, / 85 /metr/ov /nad /hlad/inou /Dun/aja /nad /riek/ou /Dun/aj /sa /týč/i /maj/est/át/ny /hrad/,/ ktorý /vý/raz/ne/ do/tvár/a /pan/or/ám/u /hlav/ného /mest/a /Slovensk/a/. /Histór/ia/ hrad/u /sa /dat/uje /až /do /ob/dob/ia /Kelt/ov /a Rim/an/ov/. /Hrad/ný /vrch /bol /vý/znam/ným /miest/om/ najmä /preto/, /že sa /na/chádz/al /na / križ/ov/at/ke /vý/znam/ných/ ob/chod/ných /ciest, / z jed/nej /stran/y /bol /chrán/ený /moh/ut/nou /riek/ou /a zo /stran/y /druh/ej /hust/ými /les/mi /Mal/ých /Karpát/./ Ten/, /kto /na /ňom /vy/bud/oval /pev/nosť/,/ o/vlád/al /nie/len /dô/lež/itý /pre/chod /cez/ Dun/aj/, /ale/ bol /aj/ pán/om/ cel/ého /kraja/.

There would be 175 chords, approximately, including punctuation. You don't need to add spaces between words. The software does that for you automatically. It also capitalizes after a full stop. One could even shorten some of the longer words even more, and that happens a lot in stenography for very common words. All in all, it's about a third of what typing each individual character would be. Notice, too, how many of the chords are reused in this passage.

Now let's learn about connecting sounds to the keyboard.

Each individual key represents the sound you would expect.

LEFT SIDE		CENTER		RIGHT SIDE	
F	f sound	**J**	j sound	**C**	c sound
Z	z sound	**E**	e sound	**R**	r sound
S	s sound	**I**	i sound	**L**	l sound
K	k sound	**A**	a sound	**B**	b sound
T	t sound	**U**	u sound	**S**	s sound
P	p sound			**G**	g sound
česky				**T**	t sound
po slovensky				**O**	o sound
V	v sound			**Y**	y sound
po polsku				česky	
V	w sound			po slovensky	
L	l sound			**W**	v sound
R	r sound			po polsku	
				W	w sound

Please note that we can also use a combination of center keys to create the O and Y sounds. We can use the O and Y keys when a word root ends in O or Y, but we are obliged to use the center combination of keys option when the O or Y is in the middle of a word root.

By the way, the X key has some very special uses that we will cover later in the course. You will learn the key combinations for the "ks" sound later on in the course.

From time to time, we're going to learn some special shortcuts for some very common words or word parts in the course. Shortcuts have to be memorized, as they don't follow the normal way of encoding. You will be able to remember them easily because they will be used very often, even though they don't follow the rules.

Shortcuts	
ty	**TY**
to	**TO**
vy, wy	**VY**

Multikey Vowel Sounds

Not all the vocalic sounds we need to write can be produced by using a single key. Sometimes we'll need to use more than one key. For all three languages, if you need an O or Y sound in the middle of a word root, use the following key combinations.

o	**AU**
y	**IAU**

The word root "tob" would be **TAUB** and the word root "pyt" would be **PIAUT**.

It's important that you master both the O and Y combinations. Vowel accuracy is actually harder for many people to master than you would think. Why? Well, most people are used to typing on a normal keyboard. And what does your thumb do on that keyboard? It hits a very wide key, the space bar. You don't have to have any sort of accuracy at all to hit that key because it is so big. Well, the thumb is in charge of the JEIAU keys, and you must encode very accurately or the wrong chord will be sent to the computer. Unlike your fingers which hit the left-side and right-side keys with the fingertips, the part of the thumb that hits the keys is the right **side** of the left thumb and the left **side** of the right thumb. This means that it is actually easier to hit two keys with the thumb than it is to hit one key. This is why the O sound is made with two keys. It's one of the most common sounds in the Slavic languages, and it's created in the middle of a word part with the thumb of the right hand, the stronger hand for 90% of people. We'll introduce additional vowel key combinations in the next lesson.

In almost all cases, if a word is spelled with an I, we will use the I key. If a word is spelled with an Y, we will use the Y combination. There is an important exception in Polish, but that will be pointed out to you in a later lesson.

Revision Exercise

Please repeat Finger Exercises 3, 5, and 7 and this time add a full stop (period) between each chord. To indicate a full stop, the chord is **P-L**. This will help ensure that you are completely releasing all the keys before the next chord.

Exercise No. 8

Remember if the chord contains an O or Y, you must use the appropriate key combinations. The letters below indicate the actual word or word part and not the keys you need to depress.

zor	zer	zir	zar	zur	zyr
sec	soc	sac	sic	syc	suc
kob	keb	kib	kab	kub	kyb
tel	tol	tal	til	tyl	tul
pos	pes	pis	pas	pus	pys
ret	rot	rat	rit	ryt	rut

Exercise No. 9

pat	rat	rit	lit	lut	tut
tot	kot	kyt	syt	set	zet
for	fur	jur	jer	ter	tyr
zyr	zur	lur	lir	zir	for

Exercise No. 10

zac	zar	zal	zab	zas	zat	zag
rel	rer	reb	res	reg	ret	rec
pib	pig	pic	pit	pir	pis	pil
sob	sos	sor	sot	soc	sol	sog
lyr	lyt	lyb	lyl	lyc	lyg	lys
kul	kub	kur	kus	kuc	kut	kug

Vowel combinations

We will first learn vowel combinations that are common to all three languages and then look at each language specifically.

#										
X	Z	K	P	L	~	C	L	S	T	O
F	S	T	V	R	*	R	B	G	W	Y
			J	E	I	A	U			
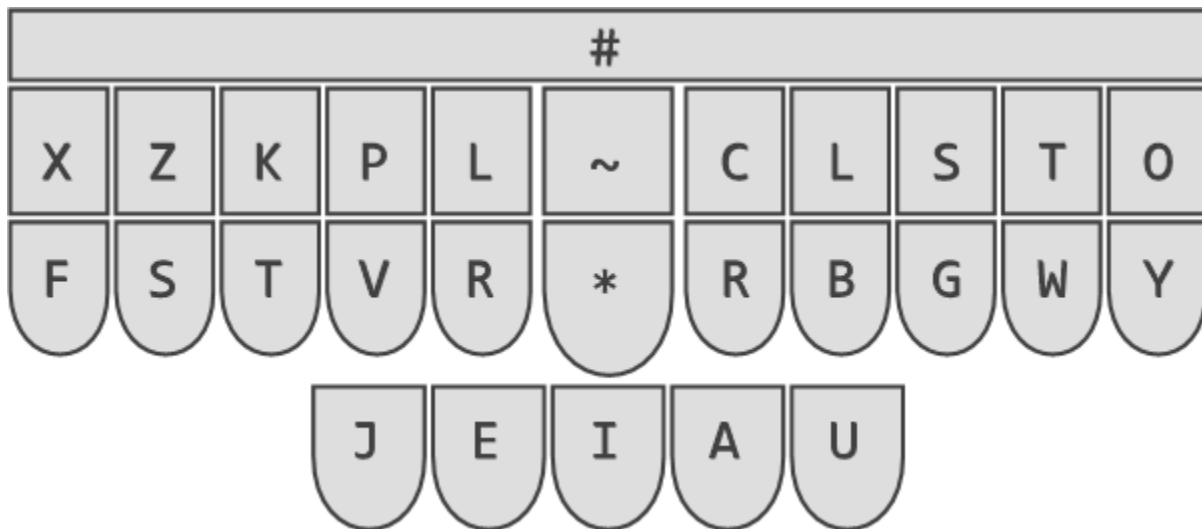
> In this book, exceptions are listed in **red** text.

West Slavic combinations, occurring primarily at the beginning of the word, mostly in borrowings:

au	**EA**
eu	**EU**

Vowels in Czech and Slovak can be long or short. The long version can be formed by adding the tilde key (~) to the short version of the vowel.

á	~A
é	E~
í	~I
ó	~AU (in the middle of a word root) or
	~O (at the end of a word root)
ú	~U
ý	~IAU (in the middle of a word root) or
	~Y (at the end of a word root)

Česky

ě	EI
ů	EIU
ou	EAU

Po polsku

ą	EAU
ę	EIA
ó	EIU
ia	IA
ie	EI
ią	JEAU
ię	JEIA
io	JAU
ió	JU

Po slovensky

ä	EA
ia	IA
ie	EI
iu	IU
ou	EAU
ô	EIU

Exercise No. 11

Select the language you wish to practice. Write the exercise twice and put a
question mark (**?**) between each chord. The question mark is written as **V-L**.

Česky

aut	eug	fér	kóm	lout	půl
súr	týl	vous	aug	eur	fól
kůr	sýr	tác	vůl	aul	zout
kúr	pít	ság	táp	túr	aur
fár	kýv	pól	sér	vět	faul
kár	loub	pout	sůl	toul	vík

Po polsku
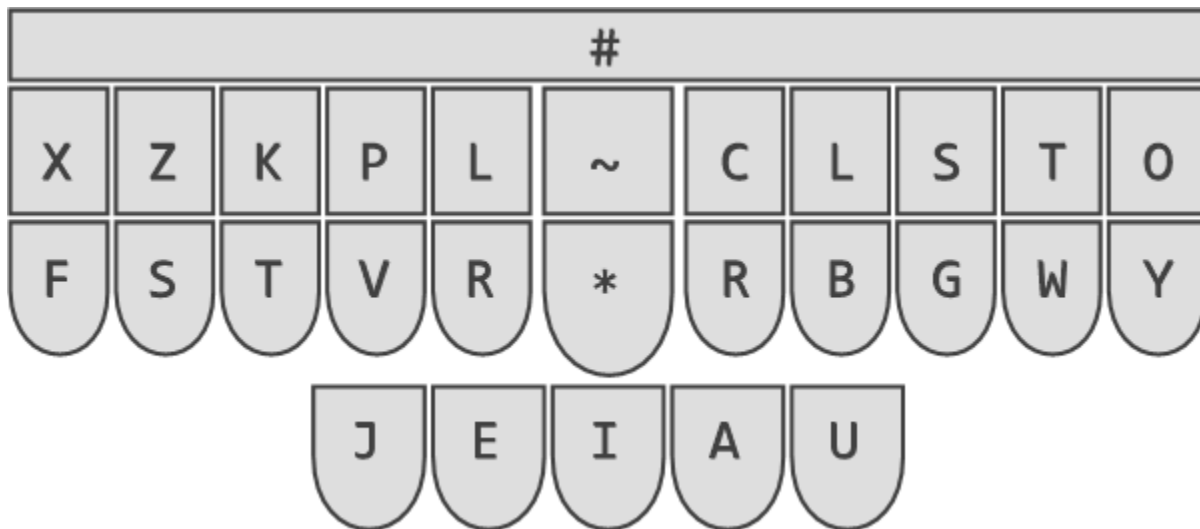
aul	kęs	pęt	fab	tęg	wag
ząb	aut	lew	piec	rąb	węg
pog	eur	ós	rob	wąg	wiar
kąt	paw	pies	rów	wąs	więc
sól	wąt	piac	was	kul	euro

Po slovensky

aut	vôl	fúk	zív	lúk	viac
pál	far	pät	týr	rát	kôl
eur	fug	líc	rúr	páv	víl
júl	kôr	pís	lýt	súr	kol
pýt	vít	liet	rúb	já	tov

G, D, and B on the left side

Now that we have covered most of the vowels, let's learn some key combinations for the consonants on the left side.

					#					
X	Z	K	P	L	~	C	L	S	T	O
F	S	T	V	R	*	R	B	G	W	Y
			J	E	I	A	U			

The first three consonant combinations on the left side we will cover are for B, D, and G.

b	**PJ**
d	**TJ**
g	**KJ**

On the left side, the J key changes a voiceless consonant to a voiced consonant. We will use this again for other consonants, and it is an important concept to remember.

> Česky/po slovensky
>
> The D sound includes the ď sound when it occurs before I, E and Ě, and IE or IA. The same is true with respect to T and N (ť and ň). We will cover the other vowel combinations in Lesson 10.
>
> Po polsku
>
> We will discuss the DŹ, Ć, Ś, Ź, and Ń sounds specifically in Lesson 11.

In the Basics section of the book, we touched upon combinations of keys that were impossible to use in the center portion of the keyboard. Do you remember that? For example, the combination **JIU** is impossible to key because it would require three thumbs! Well, there is another impossible combination that we need to address right here as we begin our study of key combinations. The combination of **JIAU** is also impossible to key.

Whenever we would need that impossible combination, we will modify the keys used to an acceptable combination: **EIAU**. This modification only affects the following consonant and Y combination: BY, DY, DZY, GY, and HY. This means that the Czech word "byl" would be encoded as **PEIAUL**.

Start of the word part			
Plus I		**Plus Y**	
bi	**PJI**	by	**PEIAU**
di	**TJI**	dy	**TEIAU**
gi	**KJI**	gy	**KEIAU**

The next two sounds we will cover on the left side are Š and Č (česky/po slovensky)and SZ and CZ (po polsku).

š, sz	TP
č, cz	PV

If you've been paying attention, you can guess what the next two consonant sounds will be.

ž, ż	TPJ
dž, dż	PVJ

Did you guess correctly? This is an example of the logic in stenography. If you keep in mind that the J key is being used to adjust the sound, it makes it easier to remember while you are writing.

Po polsku

Do not write the letter Y (**IAU**) after SZ, CZ, Ż, and DŻ. Instead, encode the word or word part with only the **I** key. We don't have to write words or word parts exactly how they normally spelled because we have special combinations for the sounds. Using the I key won't change the sound of what you have written on the keyboard. In Polish one usually one finds the letter I after these consonants in foreign borrowings. If there are two word parts that are encoded alike, the foreign borrowing will add the * key.

Exercise No. 12

Select the language you wish to practice. Write the exercise twice and put an exclamation mark (**!**) between each chord. The exclamation mark is written as **P-B**.

Česky

žáb	gag	dab	čár	šel	bál
důl	šat	gel	bac	dár	čel
džus	gól	dát	šev	či	dout
dub	gul	dál	bór	žil	čas
běs	čet	bag	šáb	čuv	živ

Po polsku

szar	bęb	dar	szew	czas	bal
dęt	żab	szer	czes	szal	czub
że	szac	czyt	des	bąb	żyw
gąb	dyr	szel	bial	czy	dat
bag	czuw	bier	szat	gab	szyb

Po slovensky

dar	čí	dir	dob	čar	dol
čiar	des	šál	deb	bar	gol
dav	bab	búr	dát	git	šat
gar	čas	šal	šev	byt	dev
bot	diel	šír	čít	det	šial

C, DZ, CH, and H on the left side

It is time to learn some more consonant combinations on the left side, and again we see how the addition of the J key changes a voiceless consonant to a voiced one.

#										
X	Z	K	P	L	~	C	L	S	T	O
F	S	T	V	R	*	R	B	G	W	Y

J	E	I	A	U
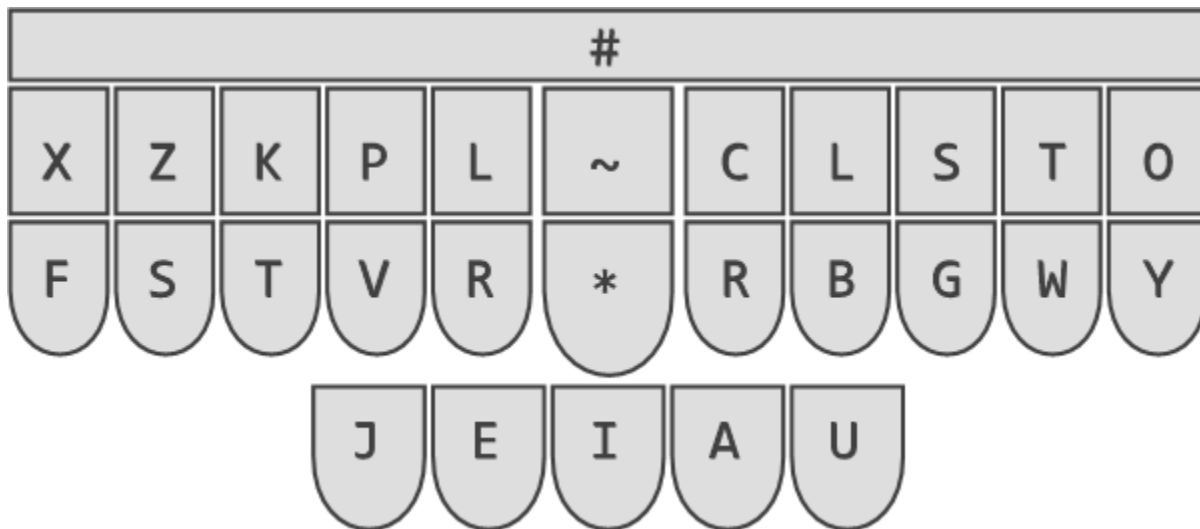
c	**ZS**
dz	**ZSJ**
ch	**KT**
h	**KTJ**

Again, we have the Y exception we saw in the previous lesson for the voiced consonants in this lesson.

Start of the word part			
Plus I		**Plus Y**	
dzi*	**ZSJI**	dzy	**ZSEIAU**
hi	**KTJI**	hy	**KTEIAU**

*does not include the sound DŹ in Polish, which will be separately discussed in Lesson 11.

Ř (==česky==) and RZ (==po polsku==) are interesting sounds. You are going to learn the "normal" way for writing these sounds. Later you will learn a simplified version of them, which is used in prefixes and consonant combinations (multiple consonants on the left side).

ř, ==rz==   **RJ**

> ==Po polsku==
>
> RZ and Ż have the same sound. For words that are spelled with Ż, use **TPJ**. For words that are spelled with RZ, use **RJ**. If there two separate sounds are required (R + Z), you will information on that in a later lesson in the Combinations section of the book.

Exercise No. 13

Select the language you wish to practice. Write the exercise twice and put a semicolon between each chord. The semicolon is written as **VR-RB**.

==Česky==

car	háv	cher	cyt	chab	has
cel	hár	coul	cit	řas	chor
hus	cár	hov	chal	hus	chův
houb	cíl	hous	hýl	chov	řít

==Po polsku==

hal	char	cel	rzuc	her	chir
ceb	rzyg	har	chór	hot	cyw
chyb	hig	chęt	rzut	co	cer
hol	chat	hor	chor	hur	hut

hýb	cis	has	chat	cit	chyt
cer	chor	hier	chal	hyg	ciev
chyb	hub	cel	hár	hoc	cig
hus	ces	hes	cúv	hot	col

M and N on the left side

This lesson is brought to you by the letters M and N.

#										
X	Z	K	P	L	~	C	L	S	T	O
F	S	T	V	R	*	R	B	G	W	Y

	J	E	I	A	U	
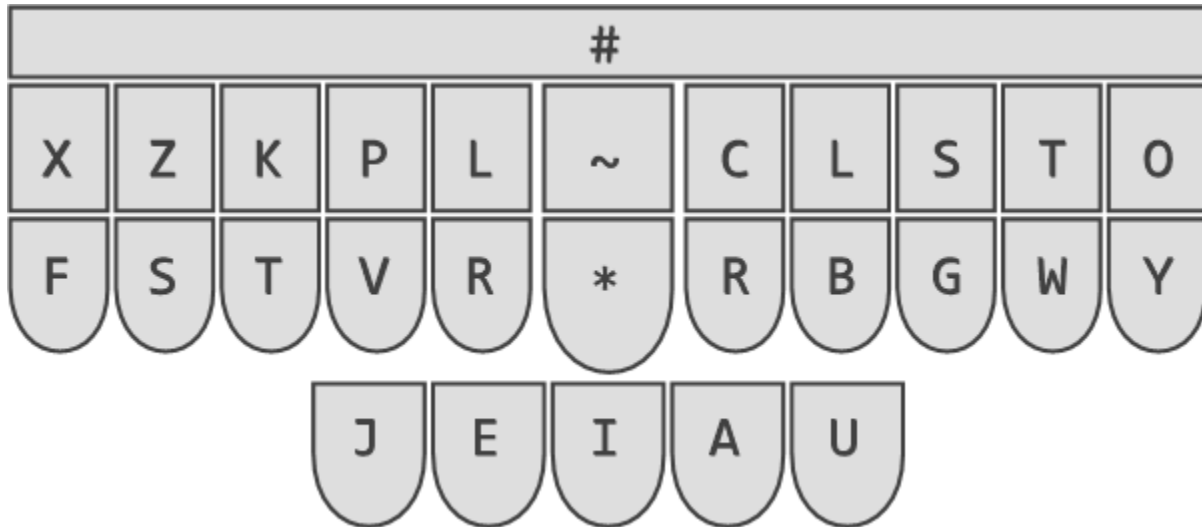
m	**KP**
n	**LR**

Česky/po slovensky

The N sound includes the Ň sound when it occurs before I or Ě (česky) and I, E, IE, IA, and IU (po slovensky) with certain exceptions. It does **not** cover the MĚ combination (česky). We will cover that combination when we learn about consonant combinations on the left side in the next section of this book.

Po polsku

The Polish sound Ń is discussed in Lesson 11. This lesson deals only with the N sound (**LR**). We shall deal with it specifically in Lesson 11.

Shortcut

my	**KPY**

Exercise No. 14

Select the language you wish to practice. Write the exercise twice and put a colon (**:**) between each chord. The colon is written as **VR*RB**.

Česky

na	mac	nob	mís	nót	mel
mág	nos	mít	nug	moc	nůs
nyv	mut	nat	máv	ne	mus
nic	mat	nov	mu	nýt	mer

Po polsku

mi	no	mot	neg	moc	nag
noc	myl	mac	mer	mięt	mier
mięs	nos	miot	nut	mob	mas
not	mur	now	mal	mew	miel

Po slovensky

mal	nos	múr	mis	nút	mar
mier	nul	moc	na	mus	nie
noc	mel	neb	máv	nov	mi
mäs	mot	mu	nut	mýl	net

Ď, Ň, Ľ, Ť, DŹ, Ć, Ś, Ź, Ń and Ł on the left side

We will learn the remaining single consonant sounds on the left side. We'll separate our lesson into one part for Czech and Slovak and one part for Polish.

#										
X	Z	K	P	L	~	C	L	S	T	O
F	S	T	V	R	*	R	B	G	W	Y
			J	E	I	A	U			
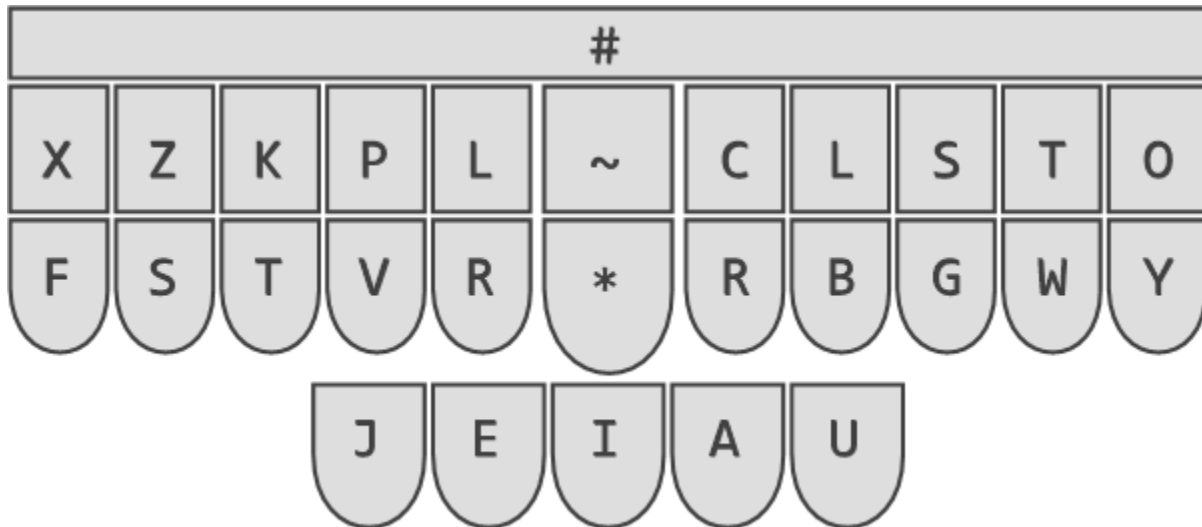
Česky/po slovensky

The sounds listed below do not have to be written with the ~ key if they are followed by a vowel that automatically changes the sound from D to Ď, N to Ň, L to Ľ, or T to Ť (I, E, and Ě/IE). You will primarily use them before A or O or U, although there are other words that might require the ~ key. The easiest way to decide whether to add the ~ key is how the word is spelled. If the spelling uses one of these letters, add the ~ key. For example, the words "ňagov" (po slovensky) or "ďábel" (česky) would require the ~ key.

Consonant	Before I, E, Ě, IE, IA, and IU	All other vowel sounds
Ď	TJ	TJ~
Ť	T	T~
Ľ *	L	LJ
Ň	LR	LRJ

*po slovensky only. Czech writes its equivalent of this sound as LJ, as in the name "Ljuba."

Notice again how the J key modifies the original L and N sounds.

> **Shortcut** (<mark>po slovensky</mark>)
>
> tá   **T~A**
>
> The word "ťa" will be discussed later on in the book.

<mark>Po polsku</mark>

Most of the time Polish words with the following sounds will add an I to the spelling of the word if there is an vowel following that letter. We don't need to add the extra I in machine stenography. Don't worry that the chord looks odd, for it is fairly common for chords to appear as a misspelling when compared the normal orthography. This happens in many languages. The basic form for these sounds is as follows:

Consonant	Before I, E, and IE	All other vowel sounds
DŹ	**TJ**	**TJ~**
Ć	**T**	**T~**
Ś	**S**	**S~**
Ź	**Z**	**Z~**
Ń	**LR**	**LRJ**

For example, to write the word part "ziel," you would use the chord **ZEL**. For the word part "ziar," you would use the chord **Z~AR**.

The Ł sound is included in this lesson, although it doesn't follow the I rule that the above consonants follows. It is a modification of L sound, and we see again how the J key adjusts the sound.

Ł	**LJ**

Exercise No. 15

Select the language you wish to practice. Write the exercise twice and put a back slash (\ ) between each chord. The back slash is written as **PL-RB**.

<mark>Česky</mark>

ďab	děv	nos	dír	ďob	ďas
ne	ďaur	ten	dig	nic	děl
nit	nul	dél	táp	týr	těl
nav	dur	něco	den	těs	tab

nią	dziw	ciel	łag	ziar	siag
łab	ciec	nit	cis	si	łut
sięg	dziób	niac	łow	siat	dziel
cię	łys	nieb	siel	łat	ciot

Po slovensky

ľav	dial	ňou	noc	liet	dar
noc	lev	ďal	ľal	deb	leto
ľub	les	ťav	dier	ňu	les
lib	lys	ľut	neb	lebo	des

P, F, DZ, and J on the right side

Now that we have learned all the single consonant sounds on the left side, we will now start learning the single consonant sounds on the right side. Remember that we used the J key in the center to modify consonant sounds. Well, we don't have a J key on the right side that can serve in that function. We're going to use a combination of keys instead of the center J key on the right side. We will use several different keys to change the sound of paired consonants.

#										
X	Z	K	P	L	~	C	L	S	T	O
F	S	T	V	R	*	R	B	G	W	Y

	J	E	I	A	U	
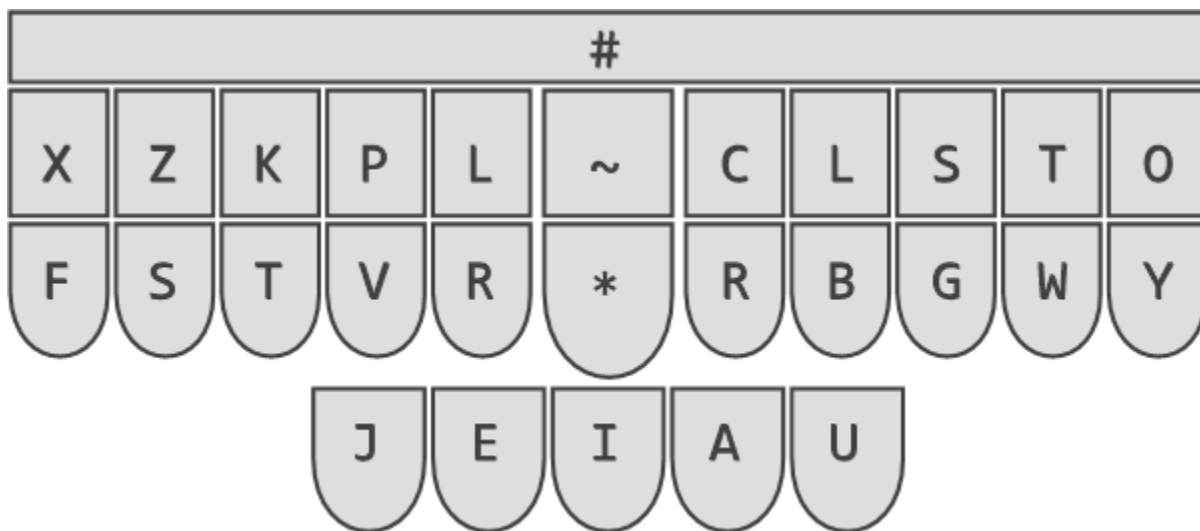
You already know the sounds in the left column. See how they are modified in the right column to create new sounds.

b **B**	p **BW**
v (w) **W**	f **WY**
c **C**	dz* **CW**

*DZ does not appear in standard Czech words, but does appear in dialects.

Unpaired consonant J is important and used frequently in the imperative form of verbs.

j	**CB**

Exercise No. 16

Select the language you wish to practice. Write the exercise twice and put a forward slash (/) between each chord. The forward slash is written as **VR-CL**.

Česky

buf	hop	řep	káp	šaf	cif
cháp	laf	cup	ťap	syf	páp
tef	číp	douf	typ	řap	loup
cop	raf	váp	jap	luf	kaf

Po polsku

lup	kaf	tup	gap	lep	szop
kap	rap	ref	rodz	kep	hef
buf	lip	kif	gup	laf	map
szaf	pap	cop	maf	jap	kuf

Po slovensky

maf	jedz	čap	lep	dup	úf
lip	cháp	vedz	typ	kef	húf
dúf	kap	buf	tep	pap	chadz
paf	map	rep	kup	šíp	lop

We'll continue to learn more consonants on the right side in this lesson.

#

X	Z	K	P	L	~	C	L	S	T	O
F	S	T	V	R	*	R	B	G	W	Y

J	E	I	A	U
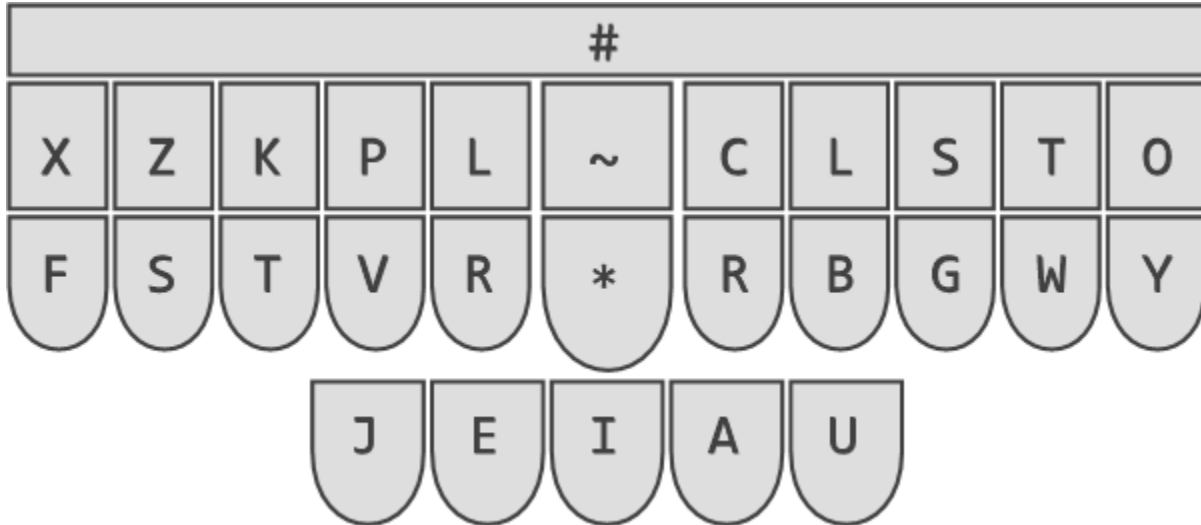
We already know the consonants in the left column. We will now learn their paired consonants in the right column.

t **T**	d **BT**
s **S**	z **BS**
g **G**	k **BG**
ch **CG**	h **CBG**

The exercise the next page will give you practice for the new sounds we are learning. Don't forget, however, to repeat the exercises of past lessons to cement your knowledge. You should make it your practice to revise the exercise of the two prior lessons prior to beginning a new lesson. You'll find that with practice, the lessons or concepts you thought very challenging are no longer so.

Exercise No. 17

Select the language you wish to practice. Write the exercise twice and put an opening quotation mark („) between each chord. The opening quotation mark is written as **TVR-RBG**.

Česky

jak	kyz	pod	sah	dóz	řad
kůz	mih	ček	bud	žad	ciz
hod	vůz	řek	líh	kouk	bád
fáz	louk	luz	hud	řez	mouk

Po polsku

mak	raz	bęk	pod	szuk	luk
nad	bąk	pad	jak	mad	lok
ląd	jęz	mah	ręk	wad	rad
bied	czek	gaz	bad	jad	lak

Po slovensky

vied	rok	vah	od	víz	boh
nik	óh	raz	bez	juh	pod
beh	cez	nad	vek	riad	nôh
rád	čak	roh	had	vôd	tak

Š, Č, Ř, Ž, DŽ and SZ, CZ, RZ, Ż, DŻ on the right side

We'll learn quite a few common sounds in this lesson. Notice the relationship between the voiced and voiceless consonants.

#										
X	Z	K	P	L	~	C	L	S	T	O
F	S	T	V	R	*	R	B	G	W	Y

J	E	I	A	U

The Czech and Slovak spellings are listed first, followed by the Polish ones.

š, sz	**SG**
č, cz	**GW**
ř, rz	**CRB**
ž, ż	**BSG**
dž, dż	**BGW**

Po polsku

RZ and Ż have the same sound. For words that are spelled with Ż, use **BSG**. For words that are spelled with RZ but sound like Ż, use **CRB**. If there are two separate sounds (R + Z), you will use a different combination of keys that will be covered in Lesson 25.

Česky

Notice that the Ř sound in Czech covers both the voiced and unvoiced versions.

Exercise No. 18

Select the language you wish to practice. Write the exercise twice and put a closing quotation mark (") between each chord. The closing quotation mark is written as **KPL-CLS**.

Česky

syč	říš	louž	kuř	vůč	pyž
gáž	ječ	hůř	češ	mož	louč
meš	zač	jař	luž	buš	máč
moč	váš	čiř	kouř	léč	růž

Po polsku

kocz	leż	miesz	morz	licz	resz
baż	cisz	kacz	róż	szysz	rzecz
wasz	lecz	nóż	ciecz	tęcz	dasz
moż	marz	łącz	dusz	nasz	też

Po slovensky

náš	zač	už	čiaš	kiež	koč
toč	nuž	ríš	hádž	muč	píš
bež	vieš	nič	dáš	tiež	ráč
myš	až	lieč	váš	rež	uč

M and N on the right side

Two more lessons and you will know all of the single consonants on the right side. Let's continue with M and N. Our discussion in this lesson does not include the Ň (česky/po slovensky) or Ń (po polsku) sounds on the right side. They will be discussed in the following lesson.

#										
X	Z	K	P	L	~	C	L	S	T	O
F	S	T	V	R	*	R	B	G	W	Y

| | | | J | E | I | A | U | | | |
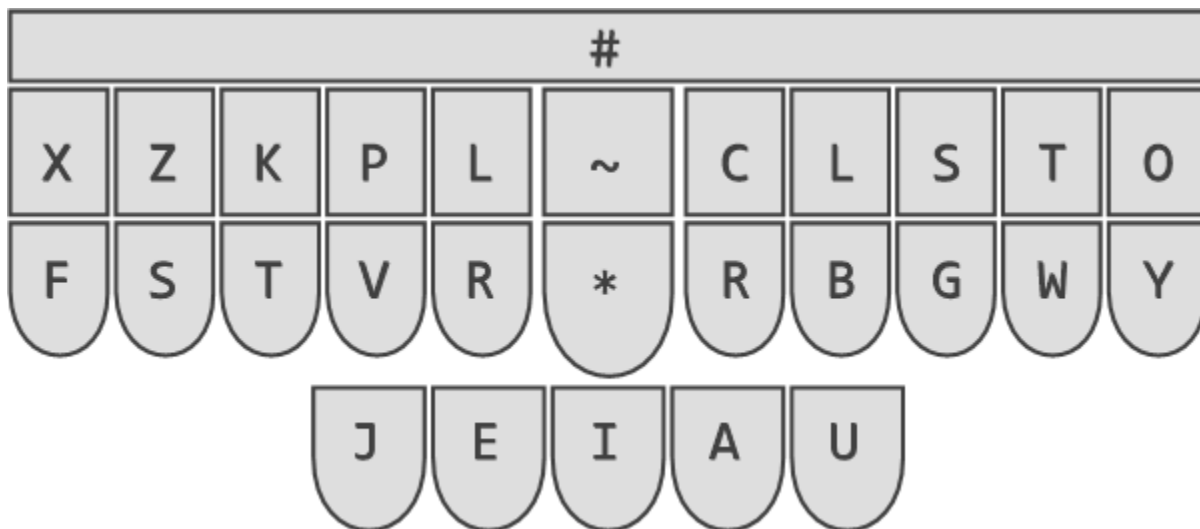
m	CS
n	CL

Exercise No. 19

Select the language you wish to practice. Write the exercise twice and put an opening parenthesis (**(**) between each chord. The opening parenthesis is written as **STVR-CLST**.

Česky

čin	nám	ban	chám	dům	fén
ten	cum	lun	kam	jen	vám
dám	pan	tém	cen	lám	sen
ven	fám	kin	vím	gen	čum

Po polsku

dym	fan	kam	lin	pan	sum
ryn	mam	szan	rzem	gen	szum
ten	gum	sen	łam	szyn	czyn
ran	sam	dżem	min	rum	win

Po slovensky

kým	sen	len	tým	sem	cen
men	vám	rin	čom	ten	ním
lem	din	mám	čin	viem	zón
von	čím	žen	jem	nám	kan

Ď, Ň, Ľ, Ť and DŹ, Ć, Ś, Ź, Ń, Ł on the right side

This will be the last lesson for single consonant sounds on the right side. It will also be the most complex. Please make sure that you completely understand the concepts presented in this lesson before starting the next section of the book. Remember, each lesson builds upon previous lessons. It can become very overwhelming if you don't understand a key concept but yet try to learn even more complex concepts built upon something you don't have down pat.

#
X Z K P L ~ C L S T O
F S T V R * R B G W Y
J E I A U
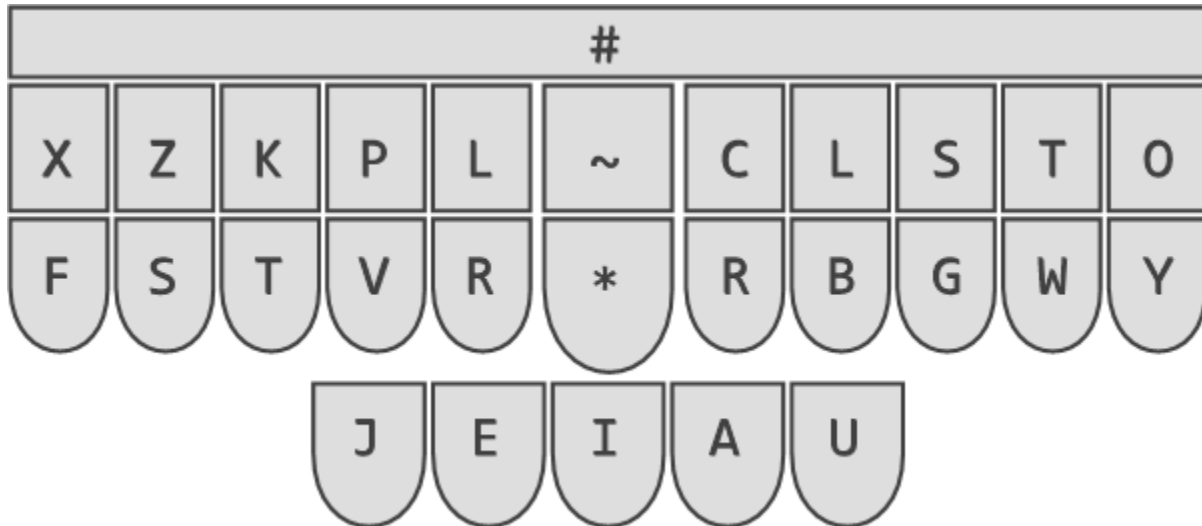
Česky/po slovensky

There are a couple things to consider when writing these sounds on the right side. First, you have to consider if one of these sounds is the final sound of the word or word part. If it is, you will press the keys indicated below as indicated in the right column.

Second, if the sound is not the final sound of the word and is followed by one suffix (or more than one suffix), will the suffix you add after it include a vowel that will automatically soften the sound because it begins with I, E or Ě, or IE and IA? In the word part "vid," if it is followed by the suffix "ím" to give us the word "vidím," we do not have to write the Ď sound. We can simplify and write D, which is one less key to press. You will come to realize that the more keys you have the press, the harder it is to write accurately, especially the faster you try to write.

Third, if the sound is not the final sound of the word and is followed immediately by a suffix that will **not** soften the consonant, then you must use the longer option (more keys) listed below in the right column. For example, in the word "loďou," you must use **LAUBTW** for the word part LOĎ followed by the suffix OU.

Followed by a suffix starting I, E, Ě, IE, IA, or IU	End of the word or followed by a suffix that will not soften the preceding consonant
D **BT**	Ď **BTW**
T **T**	Ť **TW**
L **L**	Ľ **LB**
N **CL**	Ň **CLW**

Po polsku

The first thing to consider when writing these sounds on the right side is whether you need the accent to appear at the end of the word or word part. If you do, then you will use the option in the second column.

If you do not need the accent to appear at the end of the word or word part and only need the letter I to appear after the consonant, then use the option in the third column. For certain word parts, using the consonant from the third column will save you a chord. For example, if you need the word "prosi," you could simply use the option in the third column for the Ś and automatically get the entire word in one chord!

For all other cases when you need to have the letter I plus another vowel, use the option in the fourth column. So for the word "idzie," you would use the option in the last column and add the suffix IE.

So for the word "idź," you will use the option in the second column. If you need the word "idźmy," you will also use the option in the second column. For the word "idzie," you will use the option in the third column, which will give you the word part "idzi." You can then add suffix E after it. But you could also use the option from the fourth column and add suffix IE. Either way is acceptable as long as the final result is correctly spelled. It really doesn't matter if you use the option in the third or fourth column. It is a matter of personal preference.

Consonant	Word or word part ending with consonant (DŹ, Ć, Ś, Ź, or Ń)	Word or word part plus "I" only (DZI, CI, SI, ZI, or NI)	Word or word part plus I and vowel DZ, C, S, Z, or N
DŹ	**BTO**	**BTW**	**CW**
Ć	**TO**	**TW**	**C**
Ś	**SO**	**SW**	**S**
Ź	**BSO**	**BSW**	**BS**
Ń	**CLO**	**CLW**	**CL**

The Ł sound is included in this lesson, although it doesn't follow the same rule that the above consonants follow. It is a modification of L sound, and we adjust the sound by adding the B key.

Ł	LB

Exercise No. 20

Select the language you wish to practice. Write the exercise twice and put a closing parenthesis (**)**) between each chord. The closing parenthesis is written as **ZKPL-CLST**.

Česky

teď	baň	hať	maď	děť	kůň
řiť	saň	loď	zeť	píď	luň
káď	seť	peň	pouť	žeň	haď
tůň	lať	buď	chuť	daň	byť

Po polsku

ciąć	bądź	musi	rzeź	gęś	żył
proś	chęć	wóz	godzi	wiać	siądź
był	miąć	idź	nieś	wież	zuć
siedzi	lać	pień	być	jedź	dzień

Po slovensky

zaň	keď	šať	míľ	poď	žeň
baľ	núť	seď	toť	viň	soľ
mať	dať	žiaľ	veď	poň	gúľ
súď	daň	byť	päť	diaľ	naň

Combinations

Before we start our analysis of consonant combinations on the left side, let's take a quick look at Article 2 of the United Nations' Universal Declaration of Human Rights. Below you will see the Czech translation. We're going to start to analyze the text by breaking it down into words or word parts, prefixes, and suffixes. Word or word parts will have plain text. Suffixes will be in yellow, and prefixes in gray.

Článek 2

Každý má všechna práva a všechny svobody, stanovené touto deklarací, bez jakéhokoli rozlišování, zejména podle rasy, barvy, pohlaví, jazyka, náboženství, politického nebo jiného smýšlení, národnostního nebo sociálního původu, majetku, rodu nebo jiného postavení.

Žádný rozdíl nebude dále činěn z důvodu politického, právního nebo mezinárodního postavení země nebo území, k nimž určitá osoba přísluší, ať jde o zemi nebo území nezávislé nebo pod poručenstvím, nesamosprávné nebo podrobené jakémukoli jinému omezení suverenity.

You'll see that you are already capable of encoding some of the simpler word parts. The more complex combinations we'll start to learn in this section of the book. You might want to look at text in your preferred language and see if you can pick out the prefixes and suffixes. The more practice you have with this, the easier it will be to encode the text.

Consonant combinations

You now know all of the single consonant sounds on both the left and right sides. We're now going to learn consonant combinations of two sounds on the left side. Each language will have its own section for combinations on the left side. If you look closely at all the languages, though, you'll notice how similar they are to one another, for the most part. We'll discuss the combinations by the final consonant sound, specifically those occurring in "steno order."

One thing that you should keep in mind is the following: When there is only one consonant sound on either the left or right side, you are obliged to distinguish that sound from other

sounds. If you don't, you will get the wrong word or word part. For example, you must distinguish "to" from "do." When there are two (or more) consonant sounds on either side, sometimes you don't have to make such distinctions. It is possible to somewhat simplify the chord without causing different words or word parts to be written the same way. You'll see what I am talking about, especially with consonant compounds on the right side. This simplification of the steno chord allows us to be more accurate and to write faster. Most of the simplification I speak of relates to Polish because it is the most phonemically complex of the three West Slavic languages. Simplifications are shown in **RED**, and exceptions will also be in **RED**.

Combinations ending with J and R

> **Note**: The **EIAU** rule (**J** + **IAU**) applies for all combinations of two consonants.

Česky

Czech Combinations ending with J

Some of the J combinations are actually handled by Ě after B, P, N, and V. You already know how to deal with those using the **EI** keys. We'll deal specifically with the MĚ combination when we discuss combinations ending with N.

Combination	Keys	Examples
fj	**FJ**	fjord
zj	**ZJ**	zjev, zjara
sj	**SJ**	sjezd, sjet
vj	**VJ**	vjem, vjet

Czech Combinations ending with R

Almost all of the combinations starting with CR are borrowings and will be written as KR and are not listed in the chart below.

Combination	Keys	Examples
br	**PRJ**	brada, brýle
dr	**TRJ**	dráb, drobit
fr	**FR**	frak, fronta
gr	**KRJ**	graf, gril
hr	**KTRJ**	hrát, hrob
chr	**KTR**	chrám, chrobák
kr	**KR**	krev, kroj

mr	**KPR**	mráz, mrož
pr	**PR**	pro, práce
sr	**SR**	sranda, sroubit
šr	**TPR**	šrafa, šrot
tr	**TR**	trubec, tráva
vr	**VR**	vrozený, vrah
zr	**ZR**	zrát, zrak
žr	**TPRJ**	žrát, žrout

Polish Combinations ending with J

Some of the combinations are handled by vowel combinations (IA, IE, IO, IÓ, or IU, especially after B, F, M, P, and W) and won't be included here.

Combination	Keys	Examples
gj	**KJ**	gjuwecz
pj	**PJ**	pjany, pjanica
sj	**SJ**	sjena, sjesta
tj	**TJ**	tjandi
wj	**VJ**	wjazd, wjechać
zj	**ZJ**	zjawa, zjed

Polish Combinations ending with R

Almost all of the combinations starting with CR are borrowings and will be written as KR and are not listed in the chart below. Ś and Ź are not distinguished from S and Z.

> Words or word parts containing E or I after the initial consonant combination will add the asterisk to the chord, for most of them are borrowings. This will help distinguish them from word parts with RZ, which we will learn in Lesson 19. Example: Word part "drew" would be written as **TRJE*W**.

Combination	Keys	Examples
br	**PRJ**	brać, broda
chr	**KTR**	chrap, chrobot
dr	**TRJ**	drab, drugi
fr	**FR**	fraza, fruwać
gr	**KRJ**	grom, grób
hr	**KTRJ**	hrabina, hrym
kr	**KR**	krach, kruża
mr	**KPR**	mroz, mrówa

pr	**PR**	praca, pruć
sr	**SR**	srogi, sraczyk
śr	**SR**	średni, śron
szr	**TPR**	szrafy, szrot
tr	**TR**	tram, trud
wr	**VR**	wrota, wrąb
zr	**ZR**	zranić, zrosnąć
źr	**ZR**	źreb, źródło
żr	**TPRJ**	żrący, żreć

Slovak Combinations ending with J

Some of the combinations are handled with IE, IA, and IU and won't be included here.

Combination	Keys	Examples
fj	**FJ**	fjord
vj	**VJ**	vjazd
zj	**ZJ**	zjazd

Slovak Combinations ending with R

Almost all of the combinations starting with CR are borrowings and will be written as KR and are not listed in the chart below.

Combination	Keys	Examples
br	**PRJ**	brat, breh
čr	**PVR**	črevo, črieda
dr	**TRJ**	draho, druh
fr	**FR**	frank, fronta
gr	**KRJ**	gram, gryf
hr	**KTRJ**	hrab, hrebeň
chr	**KTR**	chrap, chriak
kr	**KR**	krásny, kričať
mr	**KPR**	mrak, mráz
pr	**PR**	pre, pravý
sr	**SR**	sranda
šr	**TPR**	šramot, šrot
tr	**TR**	tri, troje
vr	**VR**	vráta, vrecko
zr	**ZR**	zrelo, zrada
žr	**TPRJ**	žreb, žravý

Exercise No. 21

Select the language you wish to practice. Divide each of the words listed below for your selected language into word part and suffix, if necessary. As a reminder, the word part will include all the consonants after the vowel, with the exception of certain suffixes like "nik." Almost all of the suffixes in these exercises begin with a vowel. For a word like "frajer," the word root would be "fraj" and the suffix would be "er." Then write the word or word part for each of the words listed below. Alternate writing a hyphen (**-**) and dashes (**--**) between each chord. The hyphen is written as **ST-GW**, and dashes are written as **ST*GW**.

Dashes are used to indicate an interruption in speech, be it repeating a word that would render the sentence to be ungrammatical (for example, repeating the same verb), change of subject matter in the middle of a sentence (for example, speaking about water conservation and then abruptly taking about a recent vacation), or switching whom the speaker addressing (for example, speaking to one person and then suddenly turning and speaking to another individual mid-sentence).

Česky

fjord	zjev	zjara	sjezd	sjet
vjem	vjet	brada	brýle	dráb
drobit	frak	frajer	graf	gril
hrát	hrob	chrám	chrobák	krev
kroj	mráz	mrož	pro	práce
sranda	sroubit	šrafa	šrot	trubec
tráva	vrozený	vrah	zrát	zrak
žrát	žrout			

Po polsku

gjuwecz	pjany	pjanica	sjena	sjesta
tjandi	wjazd	wjechać	zjawa	zjed
brać	broda	chrap	chrobot	drab
drugi	fraza	fruwać	grom	grób
hrabina	hrym	krach	kruża	mroz
mrówa	praca	pruć	srogi	sraczyk
średni	śron	szrafy	szrot	tram
trud	wrota	wrąb	zranić	zrosnąć
źreb	źródło	żrący	żreć	

Po slovensky

fjord	vjazd	zjazd	sranda	brat
breh	črevo	črieda	draho	druh
frank	fronta	gram	gryf	hrab
hrebeň	chrap	chriak	krásny	kričať
mrak	mráz	pre	pravý	šramot
šrot	tri	troje	vráta	vrecko
zrelo	zrada	žreb	žravý	

Consonant combinations ending with L, Ł, and Ľ

This lesson deals with combinations ending with L, Ł, and Ľ. Each language varies a bit here. Czech is rather straightforward, with no real surprises. Polish is the most complex, as usual. Slovak is somewhere in between, in terms of complexity.

Česky

Czech Combinations ending with L

Combination	Keys	Examples
bl	PLJ	blána, bloudit
cl	ZTL	clo, cloumat
čl	PVL	člověk
dl	TLJ	dlít, dlaň
fl	FL	flauš, flyš
gl	KLJ	glosa, globál
hl	KTLJ	hlídač, hluk
chl	KTL	chléb, chlap
kl	KL	klenot, klec
ml	KPL	mléko, mluvit
pl	PL	plavat, plíce
sl	SL	slepý, sliz
šl	TPL	šleh, šlem
tl	TL	tlačit, tlumit
vl	VL	vláda, vliv
zl	ZL	zlatý, zlobit
žl	TPLJ	žláza, žluť

Polish Combinations ending with L

There will be a lot of simplification in this category. Ś and Ź are not distinguished from S and Z before L.

> **Note**: Polish Combinations ending in L and Ł will both be written with **L**. If there is a case where there is word or word part that require the same exact keys, the option with L will add the * key. Word part "klam" = **KL*ACS**; word part "kłam" = **KLACS**

Combination	Keys	Examples
bl	**PLJ**	blat, blich
cl	**ZSL**	clić
chl	**KTL**	chlać, chleb
dl	**TRL**	dla, dlań
fl	**FL**	flauta, flik
gl	**KRL**	glej, glob
hl	**KTLJ**	hlak, hlaczek
kl	**KL**	klasa, klucz
ml	**KPL**	mleczak, mlewnik
pl	**PL**	plan, pleć
sl	**SL**	slab, slup
śl	**SL**	ślad, ślub
szl	**TPL**	szlag, szlem
tl	**TL**	tleć, tlić
vl	**VL**	wlew, wlot
zl	**ZL**	zlepić, zlutować
źl	**ZL**	źle, źlebik
żl	**TPLJ**	żleb

Polish Combinations ending with Ł

Combination	Keys	Examples
bł	PLJ	błąd, błona
cł	ZTL	cło, cłapać
chł	KTL	chłam, chłop
czł	PVL	człon, człowiek
dł	TLJ	dłoń, długi
gł	KLJ	głęboki, głos
hł	KTLJ	hładysza, hłudzieński
kł	KL	kłamać, kłopot
mł	KPL	młody, młyn
pł	PL	płat, płeć
sł	SL	słaby, słonik
szł	TPL	szłap, szłyk
tł	TL	tłok, tłumik
wł	VL	włam, włók
zł	ZL	złazić, złoto
żł	TPLJ	żłob, żłópnąć

Slovak Combinations ending with L

Write both L and Ľ with L. If there is a case where there is word or word part that require the same exact keys, the option with Ľ will add the * key. Most of the time, the Ľ is rendered by using diphthongs after L.

Combination	Keys	Examples
bl	PLJ	blaho, blok
cl	ZTL	clo, clivo
čl	PVL	člen, človek
dl	TLJ	dlab, dlaň
fl	FL	flauš, flauta
gl	KLJ	glej, glôb
hl	KTLJ	hlásiť, hluk
chl	KTL	chladič, chlapec
kl	KL	klas, klesať
ml	KPL	mladý, mlok
pl	PL	plavec, plech
sl	SL	slabo, slovo
šl	TPL	šluk, šluknúť
tl	TL	tlač, tlecí
vl	VL	vlas, vloha
zl	ZL	zle, zlomiť

Slovak Combinations ending with Ľ

Combination	Keys	Examples
bľ	PLJ	bľačavo, bľusnúť
čľ	PVL	čľap, čľup
fľ	FL	fľašovať, fľusnúť
hľ	KTLJ	hľadať
kľ	KL	kľuč, kľavo
mľ	KPL	mľasnúť
pľ	PL	pľuha, pľasnúť
sľ	SL	sľub, sľažany
šľ	TPL	šľachta
tľ	TL	tľapnúť
vľ	VL	vľavo, vľúdny
zľ	ZL	zľahnúť, zľutovať
žľ	TPLJ	žľaza, žľab

Exercise No. 22

Select the language you wish to practice. Divide each of the words listed below for your selected language into word part and suffix, if necessary. Then write the word or word part for each of the words listed below. Write an ellipsis (**…**) between each chord. The ellipsis is written as **ZK-ST**.

Česky

blána	bloudit	clo	cloumat	dlít
dlaň	flauš	flyš	glosa	globál
hlídač	hluk	chléb	chlap	klenot
klec	mléko	mluvit	plavat	plíce
slepý	sliz	šleh	šlem	tlačit
tlumit	vláda	vliv	zlatý	zlobit
žláza	žluť			

Po polsku

blat	blich	chlać	chleb	dla
dlań	flauta	flik	glej	glob
hlak	hlaczek	klasa	klucz	mleczak
plan	pleć	slab	slup	ślad
ślub	szlag	szlem	tleć	tlić
wlew	wlot	zlepić	zlutować	źle
źlebik	żleb	błąd	błona	cło
cłapać	chłam	chłop	człon	dłoń
długi	głęboki	głos	hładysza	kłamać
kłopot	młody	młyn	płat	płeć
słaby	słonik	szłap	szłyk	tłok
tłumik	włam	włók	złazić	żłópnąć

blaho	blok	clo	clivo	člen
človek	dlab	dlaň	flauš	flauta
glej	glôb	hlásiť	hluk	chladič
chlapec	klas	klesať	mladý	mlok
plavec	plech	slabo	slovo	šluk
šluknúť	tlač	tlecí	vlas	vloha
zle	zlomiť	bľačavo	bľusnúť	čľap
čľup	fľašovať	fľusnúť	hľadať	kľuč
kľavo	mľasnúť	pľuha	pľasnúť	sľub
Sľažany	šľachta	tľapnúť	vľavo	vľúdny
zľahnúť	zľutovať	žľaza	žľab	

Vocalic and Quasivocalic Consonants L, R, Ř and RZ

First of all, it would be extremely helpful for those who want to write in <mark>Polish</mark> to read the section for Czech and Slovak for it explains the logic behind quasivocalic L, R, and RZ.

We have to divide our discussion of these combinations into two parts: those combinations with a vowel and those without a vowel in the word or word part. Let's take a look at those without a vowel first, because we have already dealt with word parts containing a vowel and are familiar with how they work.

Vocalic L and R

Remember this from earlier in the course?

> Word roots that have a vocalic or quasivocalic R or L would look like the following:
>
> # CCCC-CCCC
>
> <mark>Slovak</mark> words with Ŕ or Ĺ would look like the following:
>
> # CCCC~CCCC

We'll now show you how these are used.

<mark>Česky</mark>/<mark>po slovensky</mark>

Both Czech and Slovak have vocalic L and R. Slovak alone has the added variant of length in both letters, Ĺ and Ŕ. Chords with vocalic L or R would have the following structure in both languages:

CCCL-CCCC or CCCR-CCCC

This means that if we have vocalic L or R, we will write the vocalic L or R with the left hand. Any consonant sounds preceding the L or R would, or course, be written by the left hand as well. Any consonant sounds following the L or R would be written by the right hand. This will assure that both hands are equally used and results in a balanced chord. For example, in the word "vlna," we will write the word part as **VL-CL** and follow it with the suffix A.

In Slovak, the Ŕ or Ĺ would have the following structure:

CCCL~CCCC or CCCR~CCCC

For Slovak, to indicate length of L and R, we will use the **~** key, just as we do for vowels. Thus, the Slovak word "vĺn" would be written as **VL~CL**.

Quasivocalic Ř

You will also come across quasivocalic Ř in Czech (and quasivocalic RZ in Polish!). We will treat it as a vocalic R. The word "chřtan" would be **KTRJ-T** for the first chord and the second chord would be for the suffix AN. We break this up to simplify the word part. Otherwise, we would have many words with four consonant sounds on the left, and quite a few of them would be out of steno order, which makes it slightly more difficult to encode.

Po polsku

I hope you read the section relating to Czech and Slovak above. It'll help you to understand what quasivocalic R and L are all about.

Technically speaking, vocalic R and L do not exist in Polish. We do, however, find quite a number of words or word parts that contain R, RZ, L, or even Ł surrounded by consonant phonemes. Many of these words or word parts are very similar to Czech and Slovak words with vocalic R; therefore, we are going to treat them in the same way as vocalic R. Why would we do that? Well, if we didn't, we'd find that these chords would be quite complex on the left side and unbalanced. It would make accurate chording quite problematic, especially at higher speeds.

Let's consider the word "brew." It's written as **PRJE*W**. It's quite straightforward. However, when the word is declined, you can see how complex the word part becomes: brwi. In the instrumental plural, it's "brwiami." What we will do with such words is write the first chord as **PRJ-W** and second chord would contain the suffix ending. Believe it or not, this is a lot simpler than crowding all the consonant sounds onto the left hand and writing the I with

the right hand. It also allows us to reuse our chords. You would have the **PRJ-W** for all cases except for the nominative and accusative singular. All the other cases would have **PRJ-W** as the first chords. And, of course, you would use the same suffix chords that you would use for many other words.

Whenever any of following word roots appear in a word, treat them as quasivocalic word parts; that is to say, consonants plus the R, RZ, L, or Ł should be handled by the left hand and any consonant after those letters would be handled by the right hand. This list is not exhaustive. The list is to help you recognize quasivocalic elements.

brd	brdz	brdź	brn	brn	brw	brzd	brzm	drg	drw
drzw	grd	grzb	grzd	grzm	chrzci	chrzcz	chrzt	kln	klń
klw	krn	krt	krw	krzci	krzcz	krzn	krzt	plw	płci
przt	skln	skrn	skrw	strw	trw	trzc	trzm	trzn	trzp

Combinations ending in Ř and RZ

<mark>Česky</mark>

Czech Combinations ending in Ř

If there are two chords that would be encoded in the same way, (brát, přát), add the * key to the variant using Ř. For example, we have a three-way set of words that illustrate this solution: brát = **PRJ~AT**; přát = **PRJ~*AT**; prát = **PR~AT**.

Combination	Keys	Examples
bř	**PRJ**	břemeno, břicho
dř	**TRJ**	dřep, dřít
hř	**KTRJ**	hřát, hřib
chř	**KTRJ**	chřást, chřípí
kř	**KRJ**	křen, křís
mř	**KPRJ**	mřít, mřenka
př	**PRJ**	přát, přece
sř	**SRJ**	sřezat, sřasit
tř	**TRJ**	tři, třes
vř	**VRJ**	vřed, vřít
zř	**ZRJ**	zřít, zřasit

Polish Combinations ending in RZ

Consonant combinations ending with the letters RZ will be treated as R, meaning you will only use **R**. And don't forget to write the **I** key instead of the Y combination after the RZ! To differentiate between any possible words or word parts that would be written alike, add the * to the option with the R. Example: Word part "krak" is **KR*AK**. Word part "krzak" is **KRAK**.

Combination	Keys	Examples
brz	**PRJ**	brzeg, brzydnąć
chrz	**KTR**	chrzest, chrzan
drz	**TRJ**	drzemać, drzewo
grz	**KRJ**	grzech, grzyb
krz	**KR**	krzyk, krzak
mrz	**KPR**	mrzeć, mrzyk
prz	**PR**	przy, przaśnik
trz	**TR**	trzy, trzepot
wrz	**VR**	wrzut, wrzód
zrz	**ZR**	zrzez, zrządzać

Exercise No. 23

Select the language you wish to practice. Divide each of the words listed below for your selected language into word part and suffix, if necessary. Then write the word or word part for each of the words listed below. Write an At sign (**@**) between each chord. The At sign is written as **PVLR-CRLB**.

břemeno	trh	břicho	crčet	dřep
vlk	dřít	hrb	hřát	hřib
blb	chřást	chřípí	črt	křen
křís	plný	mřít	mřenka	držet
přát	přece	drhlík	sřezat	sřasit
hltat	tři	třes	krmič	vřed
vřít	mlčet	zřít	zřasit	slzný

brzeg	brzydnąć	krwi	chrzest	chrzan
drzemać	przez	drzewo	grzech	drgnąć
krzyk	brzyć	krzak	trzech	mrzeć
mrzyk	przy	prząśnik	krzepa	trzy
trzepot	trwać	drzwi	wrzut	wrzód
zrzez	zrządzać	przed	trwonić	brzask

Po slovensky

blcha	drzý	čln	sĺz	dlh
kŕč	hĺbka	mlčať	plniť	slnce
drť	srsť	glg	kĺzať	srdce
pršať	chrbát	krv	hrdý	krk
klb	slz	tĺsť	vlna	trvať

Combinations ending with N, P, and B

We need to cover consonant combinations ending with N before starting on those combinations ending with P and B. In this lesson we'll see the first instances of consonant compounds appearing in reverse order.

> Whenever a consonant combination appears out of steno order, add an asterisk (*) to indicate reversal.
>
> Remember, too, that exceptional consonant combinations are indicated in red.

Česky

Czech Combinations ending with N or Ň

As a reminder, you only need to make a distinction for Ň by adding the J key if the following vowel does not automatically soften N. Otherwise, just write the appropriate vowel following N. LN is an exceptional consonant combination.

Combination	Keys	Examples
čn	**PVLR**	čnít, čnět, cnělka
dn	**TLRJ**	dna, dnes
fn	**FLR**	fňukat
gn	**KLRJ**	gnóma, gnóza
hn	**KTLRJ**	hněď, hnít, hnus
chn	**KTLR**	chňap
kn	**KLR**	kniha, knír, kńučet
ln	**VLR**	lnář, lněný
mn	**KPLR**	mne, měnit, mnou
pn	**PLR**	pnout, pnutí
sn	**SLR**	sněm, snad, snídat
šn	**TPLR**	šnůra, šnek
tn	**TLR**	tnout
vn	**VLR**	vně, vnuk, vnášet
zn	**ZLR**	znát, znova, znění
žn	**TPLRJ**	žnec, žňový

The consonant compound MĚ actually represents the MNJE combination, three consonant phonemes, and will be written exceptionally as **KPEI**.

Personal pronouns **já** and **my**

já	**J~A**		my	**KPY**
mě	**KPEI**		nám	**LR~ACS**
mi	**KPI**		námi	**LR~ACSY**
mne	**KPLRE**		nás	**LR~AS**
mně	**KPLREI**			
mnou	**KPLREAU**			

Czech Combinations ending with P

Combination	Keys	Examples
cp	**ZSP**	cpát
čp	**TPV**	čpět, čpavek
lp	**PL***	lpět
sp	**SP**	spad, spím
šp	**ZSP**	špica, špeh
vp	**FP**	vpad, vpich
zp	**ZP**	zpěnit, zpatky

Czech Combinations ending with B

Combination	Keys	Examples
db	**TPJ**	dbát
hb	**KTPJ**	hbitý
kb	**KPJ**	kbelík
mb	**KPJ***	mbira
sb	**SPJ**	sběr, sbalit
tb	**TPJ***	Tbilisi
vb	**FPJ**	vběhnout
zb	**ZPJ**	zběh, zbitý

Polish Combinations ending with N

You do not have to distinguish between N and Ń or between S and Ś.

Combination	Keys	Examples
bn	**PLRJ**	bniec
cn	**ZSLR**	cnota, cnić
chn	**KTLR**	chna
czn	**PVLR**	czniać
dn	**TLRJ**	dno, dnieć
gn	**KLRJ**	gnać, gnębić
hn	**KTLRJ**	hnilica
kn	**KLR**	knaga, knel
ln	**VLR**	lnisko, lniany
mn	**KPLR**	mniej, mniam
pn	**PLR**	pnący, pniak
sn	**SLR**	snop, snuć
śn	**SLR**	śnieg, śnić
szn	**TPLR**	sznur, snika
tn	**TLR**	tnący, tniak
wn	**VLR**	wnęk, wnosić
zn	**ZLR**	znać, znizać
žn	**TPLRJ**	żniwo, żniej

ja	**JA**	my	**KPY**
mnie	**KPLRE**	nas	**LRAS**
mi	**KPI**	nam	**LRACS**
mnią	**KPEIA**	nami	**LRACSY**

Polish Combinations ending with P

Combination	Keys	Examples
ćp	**TP***	ćpać, ćpun
kp	**KP***	kpić, kpina
sp	**SP**	spąg, spicz
śp	**SP**	śpiewać, śpiochy
szp	**ZSP**	szpagat, szpica
wp	**FP**	wpół, wpis

Polish Combinations ending with B

Combination	Keys	Examples
db	TPJ	dbać, dbały
dzb	ZSP	dzban
gb	KPJ	gburek, gburski
mb	KPJ*	mbira
tb	TPJ*	Tbilisi
wb	FPJ	wbijać, wbić
zb	ZPJ	zbielić, zbocz
żb	TPVJ	żbik, żbiczek

Po slovensky

Slovak Combinations ending with N or Ň

ĽN is an exceptional consonant combination.

Combination	Keys	Examples
cn	ZSLR	cnosť, cnieť
čn	PVLR	čnosť, čnieť
dn	TLRJ	dnes, dnu
gn	KLRJ	gniaviť, gnóm
hn	KTLRJ	hnedo, hniť
chn	KTLR	chniapať
kn	KLR	kniha, knuta
ľn	VLR	ľnúť
mn	KPLR	mnoho, mňa
pn	PLR	pník, pnúť
sn	SLR	sneh, snubný
šn	TPLR	šnupať, šnúrovať
vn	VLR	vnadiť, vnohy
zn	ZLR	značiť, znoj
žn	TPLRJ	žnica, žnec

Personal pronouns ja and my

ja	JA	my	KPY
ma	KPA	nám	LR~ACS
mi	KPI	námi	LR~ACSY
mňa	KPLRJA	nás	LR~AS
mne	KPLRE		
mnou	KPLREAU		

Slovak Combinations ending with P

Notice that there is no need to distinguish between L and Ľ.

Combination	Keys	Examples
čp	**TPV**	čpieť, čpavok
ľp	**PL***	ľpieť
sp	**SP**	spolu, spev
šp	**ZSP**	špatný, špitál
vp	**FP**	vpad, vpich

Slovak Combinations ending with B

Combination	Keys	Examples
db	**TPJ**	dbať, dbávať
gb	**KPJ**	gbel
mb	**KPJ***	mbabane
tb	**TPJ***	Tbilisi
vb	**FPJ**	vboriť, vbehnúť
zb	**ZPJ**	zbor, zbaliť
žb	**ZSP**	žbince

Exercise No. 24

Select the language you wish to practice. Divide each of the words listed below for your selected language into word part and suffix, if necessary. Then write the word or word part for each of the words listed below. Write a left curly bracket (**{**) between each chord. The left curly bracket is written as **KTPV-LBSG**.

I hope you are remembering to revise the previous lessons. You should find them easier to write. If you still find them challenging, please go back to even earlier lessons. If you cannot write those lessons easily and accurately, that is a sign that you need to slow down and take the time to absorb the lessons more completely. This is not a race. You need to master a lesson before forging ahead. It may be comforting to know that revising theory is something that working stenographers find useful even after years of working.

Česky

čnít	čnět	cnělka	dna	dnes
fňukat	gnóma	hbitý	hněď	hnít
hnus	chňap	kniha	knír	kńučet
lnář	lněný	měnit	mnou	zpatky
pnout	pnutí	sněm	zběh	snídat

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šňůra	šnek	tnout	vně	vnuk
vnášet	znát	znění	žnec	žňový
cpát	čpět	čpavek	lpět	spad
spím	špeh	vpad	vpich	zpěnit

bniec	cnota	cnić	chna	czniać
dno	dnieć	gnać	gnębić	hnilica
knaga	gbel	lnisko	lniany	mniej
mniam	pnący	pniak	dbać	snuć
śnieg	śnić	sznur	snika	tnący
tniak	wnęk	wnosić	znać	znizać
żniwo	żniej	ćpać	ćpun	kpić
kpina	spąg	zbocz	śpiewać	śpiochy
szpagat	szpica	wpół	wbijać	wamy

Po slovensky

čpieť	čpavok	ľpieť	spolu	spev
špatný	špitál	vpad	vpich	cnosť
cnieť	čnosť	čnieť	dnes	dnu
gniaviť	gnóm	hnedo	hniť	chniapať
kniha	knuta	ľnúť	mnoho	mňa
pník	pnúť	sneh	snubný	šnupať
šnúrovať	vnadiť	značiť	znoj	žnec
zbaliť	dbávať	gbel	vboriť	vbehnúť

Combinations ending with V (W), Č (CZ), K, and M

Česky

Czech Combinations ending with V

ČV is exceptional because the V is already part of the Č key combination. The QU combination was not discussed during the section on individual sounds on the left side because it is interpreted as KV in Czech.

Combination	Keys	Examples
cv	**ZSV**	cvičit, cval
čv	**PVR**	čvachtat
dv	**TVJ**	dvě, dvorec
hv	**KTVJ**	hvězd, hvizd
chv	**KTV**	chvat, chvíle
kv	**KV**	kvést, kvůli
lv	**VL***	lvice, lví
rv	**VR***	rvát, rváč
řv	**VRJ***	řvát
sv	**SV**	svis, svět, svůj
šv	**TPV**	šváb, švec
tv	**TV**	tvůj, tvor
zv	**ZV**	zvát, zvěř
žv	**TPVJ**	žvýkat, žvást

Czech Combinations ending with Č

Combination	Keys	Examples
chč	**KTPV**	chčije
rč	**PVR***	rčení
sč	**SPV**	sčítat, sčesat
šč	**TPV**	šči
vč	**FPV**	včas, včera
zč	**ZPV**	zčeřit, zčásti

Czech Combinations ending with K

The combination TK is exception because we need to distinguish between TK (individual letters in combination) and CH.

Combination	Keys	Examples
lk	KL*	lkát, lkavý
sk	SK	skok, skus
šk	ZSK	škála, škoda
tk	KT*	tkáň, tkát
vk	FK	vkus
zk	ZK	zkalit, zkopat

Czech Combinations ending with M

Combination	Keys	Examples
cm	ZSKP	cmunda
čm	KPV	čmárat, čmudit
dm	KTPJ	dmout, dmýchat
hm	KTPJ	hmota, hmyz
chm	KTP	chmel, chmýr
jm	KPJ*	jméno, jmelí
km	KPV*	kmít, kmen
rm	KPR*	rmen, rmoutit
sm	SKP	smazat, smíchat
šm	KTP	šmak, šmelit
tm	KTP	tma, tmel
vm	FKP	vmíchat, vmetek
zm	ZKP	zmar, zmoci
žm	KTP	žmolek, žmoulat

Polish Combinations ending with W

KW is used for the consonant combination QU. We do not distinguish between Ś and Ź and S and Z.

Combination	Keys	Examples
cw	ZSV	cwał, cwel
ćw	TV	ćwiek, ćwok
czw	PVR	czworak, cworo
dw	TVJ	dwa, dwór
dzw	ZSVJ	dzwon, dzwaniać
dźw	TV~	dźwięk, dźwig
gw	KVJ	gwar, gwoli
hw	KTVJ	hwarski
chw	KTV	chwała, chwila
kw	KV	kwacz, kwefić
lw	VL*	lwowiak, lwi
rw	VR*	rwać, rwetes
sw	SV	swój, swędzić
św	SV	świat, świeżo
szw	TPV	szwacz, szwyc
tw	TV	twój, twarz
ww	FV	wwalić, wwiązać
zw	ZV	zwiać, zwodny
źw	ZV	źwierz
żw	TPVJ	żwacz, żwirnik

Polish Combinations ending with CZ or DŻ

The combination CZCZ is exceptional, as NDŻ.

Combination	Keys	Examples
czcz	PV*	czczono
dżdż	PVJ*	dżdża, dżdżyć
ndż	TPLRJ*	ndżamenka
scz	SPV	sczepić, sczesać
szcz	TPV	szczapa, szczero
tcz	TPV	tczewski
wcz	FPV	wczep, wczoraj
zdż	ZPV	zdżar

Polish Combinations ending with K

Combination	Keys	Examples
ćk	KT~	ćkam
czk	KPV*	czkać, czkanie
łk	KLJ*	łkać, łkanie
sk	SK	skala, skocz
szk	ZSK	szkoda, szkuna
tk	KT*	tkań, tkacz
wk	FK	wkoło, wkupny

Polish Combinations ending with M

We do not distinguish between Ś and Ź and S and Z. The combination KM is exceptional.

Combination	Keys	Examples
cm	ZSKP	cmok, cmolaski
ćm	KTP	ćma, ćmić
chm	KTP	chmura, chmiel
czm	KPV	czmerać, czmychać
dm	KTPJ	dmuch
gm	KPJ	gmach, gmin
km	KPV*	kmiot, kmieć
khm	KTP	khmerski
sm	SKP	smagać, smyk
śm	SKP	śmiech, śmo
wm	FKP	wmawiać, wmusić
zm	ZKP	zmaza, zmora
źm	ZKP	źmija
żm	KTP	żmija, żmud

Slovak Combinations ending with V

ČV is exceptional because the V is already part of the Č key combination. The QU combination was not discussed during the section on individual sounds on the left side because it is usually interpreted as KV in Slovak.

Combination	Keys	Examples
cv	ZSV	cvok, cvičiť
čv	PVR	čvach, čvikot
dv	TVJ	dva, dvere
gv	KVJ	gvaš, gver
hv	KTVJ	hvar
chv	KTV	chvála, chvieť
kv	KV	kvok, kvet
ľv	VL*	ľví
sv	SV	svet, svoj
šv	TPV	švih, švagor
tv	TV	tvoj, tvar
zv	ZV	zvuk, zver
žv	TPVJ	žviakať

Slovak Combinations ending with Č

Combination	Keys	Examples
sč	SPV	sčesať, sčitovať
šč	TPV	šči
vč	FPV	včas, včera

Slovak Combinations ending with K

The combination KT is exception because we need to distinguish between TK (individual letters in combination) and CH.

Combination	Keys	Examples
lk	KL*	lkavo
sk	SK	skica, skok
šk	ZSK	škoda, škeriť
tk	KT*	tkáč, tkaný
vk	FK	vkus

Slovak Combinations ending with M

KM is exceptional since KP is used for M.

Combination	Keys	Examples
cm	ZSKP	cmuk, cmar
čm	KPV	čmud, čmelí
dm	KTPJ	dmuť
hm	KTPJ	hmota, hmat
chm	KTP	chmúra, chmeľ
km	KPV	kmit, kmeň
rm	KPR*	rmut
sm	SKP	smieť, smutný
šm	KTP	šmik, šmah
tm	KTP	tma, tmiť
vm	FKP	vmietnúť
zm	ZKP	zmier, zmariť
žm	KTP	žmuriť, žmoliť

Exercise No. 25

Select the language you wish to practice. Divide each of the words listed below for your selected language into word part and suffix, if necessary. Then write the word or word part for each of the words listed below. Write a right curly bracket (}) between each chord. The right curly bracket is written as **ZSKT-SGTW.**

Česky

cvičit	cval	čvachtat	dvě	dvorec
hvězd	lkát	lkavý	skok	skus
škála	škoda	tkáň	tkát	vkus
zkalit	zkopat	hvizd	chvat	chvíle
kvést	kvůli	lvice	lví	rvát
rváč	řvát	svis	svět	svůj
šváb	rčení	sčítat	sčesat	šči
včas	včera	zčeřit	zčásti	švec
tvůj	čmárat	čmudit	dmout	dmýchat
hmota	hmyz	chmel	chmýr	jméno

jmelí	kmít	kmen	rmen	rmoutit
smazat	smíchat	šmak	šmelit	tma
tmel	vmíchat	vmetek	zmar	zmoci
žmolek	žmoulat	zvát	zvěř	žvýkat

cwał	chwała	chwila	kwacz	kwefić
lwowiak	lwi	rwać	rwetes	swój
swędzić	świat	sczepić	sczesać	szczapa
szczero	tczewski	cmok	cmolaski	chmura
chmiel	czmerać	czmychać	dmuch	gmach
gmin	smagać	smyk	śmiech	śmo
gwoli	wmusić	zmaza	zmora	źmija
żmija	żmud	wczep	wczoraj	świeżo
szwacz	szwyc	twój	twarz	zwiać
zwodny	świerz	żwacz	żwirnik	cwel
ćwiek	ćwok	czworak	skala	skocz
szkoda	szkuna	tkań	tkacz	wkoło
wkupny	cworo	dwa	dwór	gwar

cvok	cvičiť	čvach	čvikot	dva
dvere	gvaš	gver	hvar	sčesať
sčitovať	šči	včas	včera	chvála
cmuk	cmar	čmud	čmelí	dmuť
hmota	hmat	chmúra	chmeľ	kmit
kmeň	rmut	smieť	smutný	šmik
šmah	tma	tmiť	vmietnúť	zmier
zmariť	žmuriť	žmoliť	chvieť	kvok
kvet	ľví	svet	svoj	švih
švagor	tvoj	tvar	zvuk	lkavo
skica	skok	škoda	škeriť	tkáč
tkaný	vkus	zver	žviakať	tvor

Combinations ending with G, H, CH, D, Ď, DŹ, T, ť, Ć, Š, SZ

We've almost reached the end of the consonant combinations on the left side.

Česky

Czech Combinations ending with G

There is no need to add J after the Z key to indicate a voiced consonant when Z is used.

Combination	Keys	Examples
zg	ZK	zgalvanizovat

Czech Combinations ending with H

The GH combination is pronounced as G. The KH combination is pronounced as K. The RH combination is pronounced as R. The TH combination is pronounced as T.

Combination	Keys	Examples
bh	KTPJ*	Bhútán
dh	KTJ*	dharma
gh	KJ	ghetto
jh	KTJ*	jho
kh	K	khaki
lh	KTLJ*	lhář, lhůta
mh	KTPJ	mhouřit
rh	R	rhodský
sh	SKTJ	shon, shyb
th	T	thé (T~*E)
vh	FKTJ	vhod, vhánět
zh	ZKTJ	zhasit, zhola
žh	KTPJ	zhavý, žhář

Czech Combinations ending with CH

Combination	Keys	Examples
pch	KTP*	pcháč
sch	SKT	scházet, schůdný
tch	KTV*	tchán, tchoř
vch	FKT	vchod, vcházet
zch	ZKT	zchytat, zchodit

Czech Combinations ending with T and Ť

For times when you need Ť, add the **~** key where the orthography requires it.

Combination	Keys	Examples
ct	**ZST**	cti, ctít
čt	**TPV***	čtění, čtecí
cht	**KTV**	chtít, chtění
kt	**KT**	který, kterak
pt	**TP***	ptát, pták
rt	**TR***	rtěnka, rtuť
st	**ST**	stan, stát
št	**ZST**	šťáva, šťastný
vt	**FT**	vteřina, vtip
zt	**ZT**	zteč, zticha

Czech Combinations ending with D and Ď

The JD combination will be specifically addressed in Lesson 31, which deals with verbal suffixes.

Add the **~** key as required by orthography, just as you would with Ť, if needed.

Combination	Keys	Examples
bd	**TPJ***	bdít
kd	**KTJ**	kde, kdo
rd	**TRJ***	rdesno, rdousit
sd	**STJ**	sdílet, sdělit
vd	**FTJ**	vdech, vdova
zd	**ZTJ**	zde, zdar
žd	**TPJ***	žduchnout, ždibec

Shortcuts

kdo	**KTO**
kdo to	**KTAUTO**
kde	**KTE**
kde to	**KTETO**

Czech Combinations ending with Š

Combination	Keys	Examples
kš	**KTP**	kšíry, kšilt
mš	**KTP**	mše, mšice
pš	**KTV**	pšenice
vš	**FTP**	však, všední

Polish Combinations ending with G

Combination	Keys	Examples
dźg	KT~	dźgać
lg	KLJ*	lgocki
łg	KLJ*	łgać, łgarz
mg	KPJ	mgielny
ng	KLRJ*	ngui, ngana
sg	SKJ	sgabello
wg	FKJ	wgiąć, wgonić
zg	ZKJ	zgaga, zgonny
źg	ZKJ	źgać

Polish Combinations ending with H

Combination	Keys	Examples
zh	ZKTJ	zhasać, zhodować

Polish Combinations ending with CH

Combination	Keys	Examples
czch	KTPV*	czchać, Czchów
mch	KTP	mchowy
pch	KTP*	pchać
sch	SKT	schadzka, schemat
tch	KTV*	tchawka, tchórz
wch	FKT	wchylać, wchód

Polish Combinations ending with T

Combination	Keys	Examples
czt	TPV*	cztery
ft	FT	ftalen, ftanit
kt	KT	kto, który
pt	TP*	ptak, ptyś
rt	TR*	rtęciowy, rtęć
st	ST	stały, stań
szt	ZST	sztab, sztof
wt	FT	wtaczać, wtedy

Polish Combinations ending with Ć

Combination	Keys	Examples
chć	**KTV**	chcica, chcieć
czc	**TPV**	czcić, czciciel
kć	**KT~**	kciuk
pć	**TP***	pcimski
śc	**ST~**	ściana, ściubić
wć	**FT~**	wcielić, wciągać

Polish Combinations ending with D

Combination	Keys	Examples
gd	**KTJ**	gdak, gdera
rd	**TRJ***	rdest
wd	**FTJ**	wdać, wdowa
zd	**ZTJ**	zdać, zderzyć
żd	**TPVJ**	Żdanow

Polish Combinations ending with DŹ

All the combinations are simplified. There is no need to distinguish between ŹDŹ and ZDŹ.

Combination	Keys	Examples
gdź	**KT**	gdzieś, gdzież
wdź	**FT**	wdzięk
zdź	**ZTJ**	zdziczeć, zdziwić
źdź	**ZTJ**	ździebko, ździra

Shortcuts	
gdzie	**KTE**
kto	**KTO**

Polish Combinations ending with SZ

Combination	Keys	Examples
ksz	**KTP**	kszyk
msz	**KTP**	mszar, mszyć
psz	**KTV**	pszenica, pszono
wsz	**FTP**	wszak, wszoł
zsz	**ZTP**	zszyć, zszokować

Slovak Combination ending with G

Combination	Keys	Examples
zg	ZKJ	zgebnúť, zgegnúť

Slovak Combinations ending with H

Combination	Keys	Examples
bh	KTPJ*	Bhútán
dh	KTJ*	dháčan
gh	KJ	ghančan
kh	K	khaki
rh	R	rhônský
th	T	thajsko
vh	FKTJ	vhod, vháňať
zh	ZKTJ	zhabať, zhubne

Slovak Combinations ending with CH

Combination	Keys	Examples
pch	KTP*	pchať, pchávať
sch	SKT	schuti, schod
tch	KTV*	tchor
vch	FKT	vchádza, vchod

Slovak Combinations ending with T

Combination	Keys	Examples
ct	ZST	ctiť
ft	FT	ftíza
cht	KTV	chtivo
kt	KT	kto, ktorý
pt	TP*	ptičan, ptičie
st	ST	stať, stierať
št	ZST	štatús, štiep
vt	FT	vták, vtierať

Slovak Combinations ending with D

The combination KD is exceptional, as are ŽD and GD.

Combination	Keys	Examples
bd	**TPJ***	bdieť, bdelý
gd	**KT**	gdyňa
kd	**KT**	kdesi, kde
vd	**FTJ**	vdova, vdych
zd	**ZTJ**	zdať, zdesiť
žd	**TPV**	ždiar, ždaňa

> **Shortcuts**
>
> kde to   **KTETO**
>
> kto to   **KTAUTO**

Slovak Combinations ending with Š

The combination PŠ is exceptional.

Combination	Keys	Examples
kš	**KTP**	kšeft, kšinná
mš	**KTP**	mšica
pš	**KTV**	pšenica, pšeno
vš	**FTP**	vše, všiť

Exercise No. 26

Select the language you wish to practice. Divide each of the words listed below for your selected language into word part and suffix, if necessary. Then write the word or word part for each of the words listed on the following pages. Write an apostrophe (**'**)between each chord. The apostrophe is written as **LR-CR.**

Česky

ptáče	pcháč	scházet	schůdný	tchán
tchoř	cti	žhavý	čtení	čtecí
chtít	chtění	který	kterak	ptát
pták	rtěnka	rtuť	stan	stát
šťáva	šťastný	vteřina	bdít	jdu
jdou	kde	kdo	rdesno	rdousit

sdílet	sdělit	vdech	vdova	zde
zdar	žduchnout	ždibec	vtip	zteč
zticha	vchod	vcházet	zchytit	zchodit
lhář	lhůta	mhouřit	shon	shyb
vhod	vhánět	zhasit	zhola	žhář

lgocki	łgać	łgarz	zhasać	zhodować
mgielny	mchowy	pchać	schadzka	schemat
tchawka	tchórz	ftalen	ftanit	gdzieś
gdzież	wdzięk	zgięcie	zdziczeć	zdziwić
ździebko	ździra	kto	kszyk	mszar
mszyć	pszenica	pszono	wszak	wszoł
zszyć	zszokować	który	ptak	ptyś
gdak	gdera	wchód	wdowa	zdać
zderzyć	sgabello	rtęciowy	rtęć	stały
chcica	chcieć	kciuk	pcimski	ściana
ściubić	wcielić	wciągać	źgać	wtaczać
wgiąć	wgonić	zgaga	zgonny	wszej

vchod	zgebnúť	zgegnúť	vhod	vháňať
ctiť	ftíza	chtivo	kto	ktorý
pટičan	ptičie	stať	stierať	bdieť
bdelý	gdyňa	kdesi	kde	vdova
vdych	zdať	zdesiť	ždiar	ždaňa
kšeft	kšinná	mšica	pšenica	pšeno
vše	všiť	štatús	štiep	vták
vtierať	zhabať	zhubne	pchať	pchávať
schuti	schod	tchor	vchádza	

Combinations ending with Z, Ź, Ž, Ż, S, C, DZ, and F

Česky

Czech Combinations ending with Z

Combination	Keys	Examples
bz	**ZP***	bzučát, bzukot
lz	**ZL***	lze
rz	**ZR***	rzi
vz	**FS**	vzadu, vzít

Czech Combinations ending with Ž

Combination	Keys	**Examples**
dž	**PVJ**	džem, džaur
lž	**TPLJ***	lživý, lžičník
mž	**KTPJ**	mžít, mžourat
rž	**TPRJ***	ržát
sž	**STPJ**	sžít, sžíravý
vž	**FTPJ**	vžít, vžývat
zž	**ZTPJ**	zželet

Czech Combinations ending with S

The J is not pronounced in JS, but it is still written. The combination TS is written the same as C on the left.

> The verb BÝT will have special chords for almost all its variations.
> You will learn about them in the Affixes section of the book.

Combination	Keys	Examples
js	**SJ**	jsem, jsou
ks	**SK***	xylofon
ps	**SP***	psát, psí
ts	**ZS**	tsunami, tsuga
vs	**FS**	vsát, vsadit
zs	**ZS***	zsinat

Czech Combinations ending with C

Combination	Keys	Examples
dc	ZST	dcera, dceřiný
chc	ZSKT*	chcát, chcípák
sc	ZST	scat, scéna
vc	FST*	vcítit
zc	ZST	zcukernatět

Czech Combinations ending with F

Combination	Keys	Examples
kf	FK*	Kfely
sf	FS*	sfouknout, sféra
zf	FS*	zfetovat, zfušovat

<mark>Po polsku</mark>

Polish Combinations ending with Z

Combination	Keys	Examples
bz	ZPJ*	bzyk
dz	ZSJ	dzeta, dzyń
gz	ZKJ*	gzowy, gzowaty
tz	ZSJ	tzatziki
wz	FS	wzajem, wzorać
zz	ZS*	zza, zzuć

Polish Combinations ending with Ź

Combination	Keys	Examples
bź	ZPJ*	bzik, bziak
gź	ZKJ*	gzik, gzić
wź	FS	wziać, wzięty
zź	ZS	zziajany, zziębić

Polish Combinations ending with Ż or DŻ

Combination	Keys	Examples
gż	KTPJ*	gżenie
lż	TPLJ*	lża, lżyć
mż	KTPJ	mżyć, mżenie
rż	TPRJ*	rżeć, rżany
wż	FTPJ	wżer, wżyć
zż	ZTP	zżąć, zżyć

Polish Combinations ending with S

Combination	Keys	Examples
ks	SK*	ksenon, ksero
ps	SP*	pseudo, psar
ss	ZS*	ssak, ssawa
ts	ZS*	tsuba, tsunami
ws	FS	wsad, wsunąć
zs	ZS	zsączyć, zsad

Polish Combinations ending with C

Combination	Keys	Examples
chc	ZSKT*	chcący, chcenie
kc	ZSK*	kcyński
sc	ZST	scena, scalać
wc	FST*	wcale, wcelować

Polish Combinations ending with DZ

Combination	Keys	Examples
rdz	ZSRJ*	rdza, rdzeń
wdz	FST	Wdzydze

Polish Combinations ending with F

Technically, many of the combinations ending with W are pronounced as F and have already been discussed in an earlier lesson.

Combination	Keys	Examples
pf	FP*	pfu
sf	FS*	sfaleryt, sfasować

Slovak Combinations ending with Z

Combination	Keys	Examples
bz	ZP*	bzukot, bzučať
vz	FS	vziať, vzadu

Slovak Combinations ending with Ž

Combination	Keys	Examples
bž	TPVJ*	bžanec. bžianka
dž	PVJ	džez, džin
lž	TPLJ*	lživo
mž	KTPJ	mžik
rž	TPRJ*	ržát
sž	STPJ	sžít, sžíravý
vž	FTPJ	vžito, vžierať
zž	ZTP	zžieleť

Slovak Combinations ending with S

Combination	Keys	Examples
ks	SK*	ksí
ps	SP*	psi
ts	ST*	tsetse, tsunami
vs	FS	vsať, vsadiť

Slovak Combinations ending with C

Combination	Keys	Examples
dc	ZST	dcéra, dcérin
chc	ZSKT*	chcieť, chcený
sc	ZST	scenár
vc	FST*	vcítiť

Slovak Combinations ending with F

Combination	Keys	Examples
pf	FP*	pfi
sf	FS*	sfarbiť, sfotiť

Exercise No. 27

Divide each of the words listed below into word part and suffix, if necessary. Then write the word or word part for each of the words listed below. Write an left square bracket (**[**) between each chord. The left square bracket is written as **KTPV-LBSG.**

<mark>Česky</mark>

dcera	dceřiný	chcát	chcípák	džem
džaur	lživý	lžičník	mžít	mžourat
ržát	bzučát	bzukot	lze	vzadu
vzít	sžít	sžíravý	vžít	vžývat
zželet	scat	scéna	vcítit	jsem
jsou	psát	psí	tsunami	tsuga
vsát	vsadit	zsinat	zcukernatět	sfouknout
sféra	zfetovat	zfušovat		

<mark>Po polsku</mark>

ksenon	ksero	pseudo	psar	bzik
bziak	gzik	gzić	wziać	wzięty
zziajany	zziębić	tsuba	tsunami	dżem
dżudo	gżenie	lża	lżyć	mżyć
mżenie	rżeć	bzyk	dzeta	dzyń
gzowy	gzowaty	tzatziki	wzajem	wzorać
zza	zzuć	rżany	wżer	wżyć
zżąć	zżyć	wsad	wsunąć	zsączyć
zsad	chcący	chcenie	kcyński	scena
scalać	wcale	wcelować	sfaleryt	rdza
rdzeń	Wdzydze	sfasować		

bzukot	bžanec	bžianka	džez	džin
lživo	mžik	ržát	ksí	psi
dcéra	dcérin	chcieť	chcený	scenár
vcítiť	tsetse	tsunami	vsať	vsadiť
sžít	sžíravý	vžito	vzadu	sfarbiť
sfotiť	vžierať	zžieleť	bzučať	vziať

Consonant combinations on the right side

We've now covered consonant combinations with two sounds on the left side. Before we start to examine the consonant combinations on the right side, we need to briefly examine what constitutes a suffix. Some suffixes begin with a consonant; therefore, if we know which consonants actually belong in the word or word part and which ones belong to a suffix, it may eliminate some of the consonant combinations you might think are necessary.

Some Helpful Hints for Suffixes

Here are some very general statements about suffixes:

1. Nominal (noun) suffixes often begin with a vowel. However, there are many nouns which have suffixes that begin with a consonant. Most of them occur when there is a "fleeting" or "disappearing" vowel. This is not an exhaustive list, but it gives you an idea of what to look out for. Fleeting vowels are often E or O but are not limited to just those letters. The E in the following examples for illustrative purposes only and could just as easily be an O or other vowel instead. Among the nominal suffixes are:
   a. nouns that end in EK or KA and that entire family, (KI, KOU, etc.);
   b. nouns that end in EC (IEC) that lose the vowel in most of the cases and have suffixes that begin with C (CAMI, CAM, etc.);
   c. nouns that end in EL (IEL) that lose the vowel in oblique cases;
   d. nouns that end in EN (IEN) that lose the vowel in oblique cases;
   e. nouns that end in ER (IER) that lose the vowel in oblique cases;
   f. collective nouns that end in CTVÍ/CTWO/CTVO and their derivatives;
   g. abstract nouns that end in NOST/NOŚĆ/NOSŤ or any of their derivatives; and
   h. nouns that end in BA and that entire family of suffixes.

   > Note that in the genitive plural, many times the B is part of the stem when a fleeting vowel is not used. The only exception to writing the suffix in a separate chord is probably the genitive plural of certain nouns. For example, in Polish, the word "prośba" is "prośb." In all other cases, the suffix beginning with B is in a separate chord.

2. Adjectival suffixes often begin with a vowel (OWY, ATY, etc.). However many begin with consonants, including the following:
    a. the family of NÝ (NY) suffixes;
    b. the family of ŠÍ (SZY) suffixes for comparatives;
    c. the family of SKÝ (SKI) suffixes;
    d. the family of CKÝ (CKI) suffixes;
    e. the family of ČÍ (CZY)suffixes used for adjectives; and
    f. the family of LÝ (LY) and related suffixes.
3. Verbal suffixes most of the time begin with a vowel. However, consider the following suffixes that begin with a consonant:
    a. NOUT/NAĆ/NÚŤ family (past, nonpast, and imperative) will be written in a separate chord if there are any consonants before that ending.
    b. The imperative endings for the first person plural and second personal plural for most other verbs begin with consonants. This ending should always be written in a separate chord.
    c. The conditional suffixes in Polish beginning with BY.

For any of the above cases, if any word or word part ends in an open syllable if you were to remove the suffix, you are obliged to add the consonant to the word or word part and use a suffix beginning with a vowel. For example, the Czech verb "plynout" would be split as plyn/out and not ply/nout. The Polish verb "rosnąć" would be split as ros/nąć and not rosn/ąć. The Slovak adjective "milý" would be split as mil/ý and not mi/lý. We need to avoid open syllables as much as possible to prevent stacking. It's not always possible to do so, especially with a word like "ze" which would be written with the left hand only.

Keeping these suffix types in mind, you can see how that reduces a lot of the consonant compounds on the right hand side. We need to keep these suffixes in a separate chord because they are very common and will occur time and time again in a document or speech. This is where a lot of the speed you will gain comes from – the repetition of common suffixes, prefixes, and the most frequently used words.

Combinations of two consonant sounds on the right side

One very important difference between the consonant combinations on the left side and those on the right side is that we don't need to add the * key when the consonant combination appears out of steno order on the right side. We are obliged to use the * key on the left side because it can affect the meaning of the word or word part, as in the Czech verbs "spát" (to sleep) and "psát" (to write).

Let's consider the concept of a word or word part, stenographically speaking, that is. The left side of the word or word part is far more important than the center or right side in distinguishing one word or word part from another, as you can see from the example in the last paragraph. The endings are identical. The only difference is in the combination on the left side.

Generally speaking, the consonant combinations on the right side are fewer in number and less complex than the consonant combinations on the left side, although there are a few exceptions. Having said that, the key combinations that are used don't necessarily represent the same combinations all the time. They can represent several different combinations. We can do this because it will be the left side that help distinguish one word or word part from another.

Most of the time, combinations on the right side will just be a combination of the individual consonant sounds. Only in exceptional cases will the result be different from the expected combination of keys, and such simplified combinations are indicated in red. In no case are there any consonant combinations on the right side that exceed four keys. Combinations with gray backgrounds are primarily from borrowings.

Combinations applicable to only one language are highlighted with the appropriate color. Of the three languages covered in this book, Polish, by far, has the most consonant combinations. The phonetic load in quite heavy in Polish when compared to both Czech and Slovak.

> If two words or word parts require the exact same chord, add the asterisk key to the entry which is:
>
> - a foreign borrowing,
> - a scientific word, or
> - the more uncommon word or word part.
>
> Alternatively, you could alter the keys used for the combination by using the voiceless or voiced version of a paired consonant. This would either add or delete a key to the combination and eliminate the conflict of having two words or word parts using the same combination of keys.
>
> For Polish only, it is also permissible to use the ~ key for disambiguation if there is no other alternative. This would not be possible for Czech or Slovak in most instances because both languages distinguish vowel length.
>
> If you use Eclipse software, it is permissible to have two or more word parts have use the same combination of keys. The artificial intelligence in the software will learn which option to use the more you use the software.

To save space, all three languages will be in one chart. Those combinations specific to Polish only will be highlighted in yellow. You might see an occasional aqua highlight for Czech and the fuschia highlight for Slovak as well. If a combination is used in both Czech and Slovak and not Polish or in all three languages, it will not be highlighted.

This lesson will cover those combinations requiring one or two keys on the right side. We are including those requiring one key to show borrowings or nonnative words and how to handle them, which has not been discussed up to now. You can read more about borrowings in Lesson 42 in the Shortcuts section.

The charts in this and the following two lessons contain most, but not all, combinations. If there is a combination missing, the basic rule to determine which keys to use is to combine all the letters needed to render the combination. For example, for the combination MB: **CS** + **B** = **CBS**. For SZCZ (ŠČ): **SG** + **GW** = **SGW**. For RSZCZ (RŠČ), just add -R to the previous combination. In any case, try to limit the number of keys to four.

Remember, the more keys you have to press means increasing the difficulty of the chord, which is something that can make it more difficult to attain faster speeds. In addition, if you see a combination listed and the reverse of the combination is not listed, it does not mean that you are limited only to that combination. Feel free to reverse the order of the combinations. For instance, RL is listed as an option for the **RL** keys. If you need to write a word part ending in LR, you can still use the same combination.

There is a rather long alphabetical listing of the consonants on the right-side in the in Appendix D of the Appendices section.

Combinations of one and two keys on the right side

Special notes for these combinations:
- The combination of FT is rendered by **ST**.
- The combination of WS (VS) is rendered by **LS**.
- The combinations of SK and KS are both rendered by **LS**.
- The combination of BD is rendered by **BO**.
- The combination of BŁ is rendered by **BW**. You will find several other combinations where the Ł sound will use the **W** key when it occurs as the final consonant in a combination.
- The K sound is simplified to the **G** key in many combinations.

One Key on the Right Side

Key	Combinations
C	c, zz (ts), ts, ds, dc, tts, tc
R	r, rr
L	l, ll, wl
B	b, bb
S	s, ss, ws
G	g, gg
T	t, tt, th, dt, ght
W	v, w, vv

Two Keys on the Right Side

Keys	Combinations
CR	rc, cr
CL	n, nn, lc, wn, gn, cl
CB	j, bc
CS	m, mm, sc
CG	ch, kh
CT	ct, tst
CW	dz, ds, wc, cw
RL	rl
RB	rb, br
RS	rs
RG	rg, gr
RT	rt, tr
RW	rv,vr, rw,wr, wf
LB	ł, ľ, lb, bl
LS	ls, sl, ws, vs, sk, ks, x, cs
LG	lg, gl
LT	lt, tl, lth
LW	lv, vl, lw, wl
BS	z, zz (z), bs, sb
BG	k, kk, wk
BT	d, dd, bt, tb

BW	p, pp, bł, łb
BO	bd, db
SG	š, sz, sch, sh, ch(e)
ST	st, ft
SW	si
SO	ś
GT	kt, gt, ct, tk
GW	č, cz, cs, tch, gw, wg, kv, vk, wk, kw
TW	ť, ci, wt, tw, vt, tv
TO	ć
WY	f, ff, ph

Exercise No. 28

Divide each of the words listed below into word part and suffix, if necessary. Then write only the word or word part for each of the words listed below. Write a right square bracket (**]**) between each chord. The chord for the right square bracket is **KTPV*LBSG**.

Česky

baltský	patro	fakt	test	čert
kšeft	malta	šutr	brusle	struktura
červ	chátra	biftek	marcipán	slast
vibrovat	šťastný	zmást	barva	chlast
belgický	sport	skútr	fascikl	trable

Po polsku

morwa	garb	trakt	kolb	herc
puls	bulwa	wiatr	jarl	bóbr
plebs	haft	grill	mars	klątwa
targ	gawra	szmelc	jabcok	palto
szewc	list	herbata	przylga	micwa

barla	diktovať	čistý	kostým	blanketa
kyslý	kmotra	patriť	chytrý	rebro
heslo	čert	hostiť	britva	farbiť
chrbtica	kultúra	chorľavý	historický	pestovať
dobrý	kotleta	červ	karta	kotva

___

Combinations of three keys on the right side

___

We'll continue our examination of consonant combinations on the right side. This lesson will cover consonant combinations requiring three keys. The color coding is the same as in the previous lesson. Notice that some of the key combinations can be used for quite a significant number of consonant compounds. Most of the combinations should be fairly straightforward. If you are having difficulty figuring out the combinations you need for a word or word part on the right side, it is time for revision.

Special notes for these combinations:

- The combination **CRT** is used for the simplified combination of TRZ (TŘ).
- As a reminder, for Polish, the variant ending in **O** will contain the accented version of the consonant (Ć, for example) and the variant ending in **W** will contain the unaccented version of the consonant plus the letter I (CI, for example).
- The combination **RGW** is used for the simplified combination of RGŁ. Notice this is another instance of the **W** key being used for Ł at the end of a consonant combination in Polish. There are several instances of this usage in this lesson and the next.
- The combination **LBG** is used for the simplified variants of BLK in the three languages.
- The combination LFT is rendered by the combination **LST**.
- The combination ŻSZ is rendered by the combination **BSG**. Please note, however, that almost all of the appearances of this combination in Polish are with comparatives. This means that the SZ portion of the combination will be accomplished in a separate chord.
- The combinations STW and STV are rendered by the combination **SWY**.
- The combinations KL and LK are rendered by **LGY**.

Three Keys on the Right Side

Keys	Combinations
CRL	rn, nr, ln, nl
CRB	ř, rz (ż), jr, jrz, jř
CRS	rm, mr
CRG	rch, chr
CRT	tř, řt, trz, rzt
CRW	rdz

CLB	jl, łc, jn, bn, łn, pn, jł
CLS	ns, sn, lm, sm, mn, ms, ml, nm
CLG	ng, gn, lch, chl, nkh, chn, nch, ngl, ňh
CLT	nt, nth, tn, ctl
CLW	ldz, ni, wni, nw, vln, vn, nv
CLO	ń, wń
CBS	zm, mz, mp, mpf, mb, nb
CBG	jch, jg, bch, h, ck, tsk, jh
CBT	jt, jd
CBW	jw, cp, jp, jb, tsp, jv
CSG	gm, mg, chm, mch, msz, sch, mš
CST	tm, mt, mpt, mst, stm
CSW	zdz, msi
CSO	mś, śm
CGT	cht
CGW	chw, gdz, chcz, chł, chv
CTW	cť, ctw, dztw, ctv
RLB	rł, rľ
RLS	rls
RLT	ltr
RBS	rz (r + z), zr, rps
RBG	rk, kr, cr
RBT	rd, dr, rpt, ptr
RBW	rp, pr
RSG	rsz, rš
RST	rst, str, rts
RGT	ktr, rkt
RGW	rgł
RTW	rci, rť
RTO	rć
RWY	rf, fr
LBS	sł, zł, łz, lz, zl
LBG	gł, łg, błk, blk, bĺk
LBT	łt, dł, tł, łd, ľd, dľ, ľt

LBW	pł, łp, lp, pl, łw, łl
LSG	lsz, lš, szl, šl, szk, ksz, šk, kš
LST	lst, lts, lft, kst, xt
LSW	śli, skv, skw, wsk, vsk
LSO	śl
LGW	lcz, lč, lgł,
LGY	lk, kl
LTW	lť
LWY	lf, fl
BSG	zg, gz, ž, ż, żb, bsz, szb, ższ, žš, bš
BST	zd, bst, wd
BSW	sp, ps, zw, źw
BSO	źb, śb
BSY	zb, bz
BGT	gd, dk
BGW	dż, dž, czb, dżdż, čk, kč, czk, kcz
BTW	dzi, tp, wd, bci, pci, pt, vd, dv
BTO	dź, bć, pć, dźb
SGT	szt, št
SGW	szcz, ksi, šč, szw, skw, wsk, skv, vš
SGO	kś
STW	ści, dsi, wci, zci, sť
STO	ść, wć, dś
SWY	sf, fs, stw, stv
GTW	czt, čt, ťk, czci, čť
GTO	czć
GWY	kf, fk, gf, fg

Exercise No. 29

Divide each of the words listed below into word part and suffix. Then write only the word or word part for each of the words listed below. Write a dot, **X*O**, the full stop used in web addresses, between each word part. **Note:** You don't actually need to have the dot entry in your personal database at this point. This is just to acquaint you with the chord.

žánr	balkón	gyps	lustr	horšit
koks	vrstva	jablko	kampaň	stagnovat
mistr	lajdák	cifra	buchta	ségra
kapr	hadr	stornovat	rytmus	fofr
bontón	brambora	leptat	pejsek	hadr
text	zisk	vnitřní	diplom	cirk

singel	tarcz	kwadra	dość	wiersz
park	blask	taszczyć	karp	jazda
wnętrze	jadł	wojtek	mógł	wilk
derma	męstwo	tarło	szarfa	ruszt
martwić	mózg	plomba	makrela	magma
film	tekst	nazwa	smardz	szachta

brečtan	hláskovať	farma	kombiné	gazda
kostra	česť	lekvar	korčuľovať	látka
cirkev	jadro	čerpať	karfiol	hodváb
pardon	rásť	kurz	gombík	cintorín
hymna	bank	falšovať	hodnota	dychtivý
buchta	front	pravda	riskovať	šnúrka
gaštan	knedľa	horčica	hniezdo	krivda
film	kláštor	gesto	kocka	horký

Combinations of four keys on the right side

This lesson will cover consonant combinations requiring four keys. Some of the combinations have been simplified to limit the number of keys to four. The color coding is the same as the previous two lessons.

Special notes for these combinations:

- Many of these combinations are simplifications, and most of them are for Polish.
- The combination CHRZT is rendered by the greatly simplified combination **CRGO**.
- The combination ŘK is rendered by the combination **CRBG**.
- Many of the combinations beginning with J are simplified to **C** instead of **CB**.
- The combination GMAT is rendered by the combination **CSGT**.
- The combination TRŽL is rendered by the combination **RLST**.
- **CBGY**, **LBGY,** and **LSGY** are all used for a number of exceptional forms to avoid having too many combinations tied to the same keys.

Four Keys on the Right Side

Keys	Combinations
CRLS	rnc
CRLT	ntr, ndr, rtn
CRLW	rni, drni, lni, rň, ňl
CRLO	rń, ndrz, drń, lń
CRBS	mbr, mpr, mrz, rzm
CRBG	chrz, rzk, krz, řk, krh, kř, rh
CRBT	drz, dř, řd, ndrz, jtr
CRBW	prz, př, řp, brz, rzb, bř, řb
CRSG	skrz, zgrz
CRST	zdrz, strz, jstr, stř
CRGT	chtr
CRGW	rczm
CRGO	chrzt
CLBS	nz, zn, łm, mł, mbl
CLBG	jkl, jgl, chł, hl, lh

CLBT	nd, dn, ndl, ndľ, ndl, btn, dlň
CLBW	łni, pni, jni
CLBO	łń, ńb, pń, jń
CLSG	nż, nks, nkc, nsz, nš, nž, žn, nsk, ngst, ńsk, żn, nx, šh
CLST	ndz, nc, nšt, nstr, zdn, ndżl, nds, nts, nst, ndzl, nszt
CLSW	śni, mň, žni, lśni, źni
CLSO	śń, żń, źń, lśń
CLGT	nkt
CLGW	rncz, ńszcz, ńcz, nč, nkč, ngw, ncz, ndż
CLGO	ňho
CLGY	nk, kn, kň, ňk
CLTW	tň, ňt, ńdzi, nci, ndzi, nť
CLTO	ńdź, nć, ndź, ńc
CLWY	nf, fn
CBSG	jš, mž, jsz, žm, mż, jsk, jchš, chž, hm, mk, km
CBST	dm, md, mbd, jst, jts
CBSW	jsi
CBSO	jś
CBSY	jc, js, jsc, jm, jz
CBGT	chd, hd
CBGW	jč, jcz, pch
CBGY	jk, hk
CBTW	jtv, jť, jď, jdzi
CBTO	jdź
CBWY	jf
CSGT	gmat, mšt, chc
CSGW	schł, čm, džm, mcz, jszcz, czm
CSGO	chś
CSTW	mstw, mci, jści, dźstw, mť
CSTO	mć, ćm, jść, jstw
CSWY	mf, fm
CGTW	chci
CGTO	chć
RLST	tržl

RLBS	rzł
RLBG	rgł
RLBT	drt
RBSG	rż, brž, rž
RBST	zdr
RBSW	rzi, rzł
RBSO	rź
RBGW	dżr
RBTW	ptr, rdzi, rpt, rdw, rď
RBTO	rdź
RSGT	ršt, kstr, sztr, rszt
RSGW	rszcz, ršč
RSGY	rsk, skr, rx, rks
RSTW	rstw, rści
RSTO	rść
RGTW	trč
RGWY	rkł
LBSG	lž, łž, żl, szł, łsz, łž, žl, lž
LBST	stł, łdz, łst
LBSW	łzł, łźl, lzl, lzi
LBSO	źl, lž
LBGW	łkw, łcz, łkł
LBGY	łk, kł, ľk
LBTW	łci, lď
LBTO	łć, ld, dl
LSGW	lszcz, szczk
LSGY	lsk, skl, wsk, lks
LSTW	lstw, ństw, wstw, nstw, nctw
LGWY	lkł
BSGT	žd, bšt, žd
BSGW	psz, żdż, šp, żw
BSGY	psk, bsk, žk, żk
BSTW	ździ, pstw, zď, pst, wdzi, dsi, ści, bstw
BSTO	ździ, źć, wdź, dś

BGWY	pk, kp, <mark>pcz</mark>, pč
SGTW	šť, žď, <mark>żci</mark>
SGTO	żć

Exercise No. 30

Divide each of the words listed below into word part and suffix, if necessary. Then write only the word or word part for each of the words listed below. Write the chord for a new page, **P-CRLBSGTW,** between each chord.

<mark>Česky</mark>

banka	centrála	ječmen	plášť	čern
funkční	hořčík	jednat	srbština	partner
cihla	tundra	bandita	vuřt	stupňovat
pendlovky	střídmý	vajgl	buržoazie	kumšt
nymfa	bulharsky	chatrč	svišť	benzín
kejklír	dánština	činžák	nýbrž	sjíždět

<mark>Po polsku</mark>

szajs	mistrz	trend	link	zwykł
kontr	pompa	warstw	darń	gorzka
jeźdź	drożdżak	łapsza	fajczyć	zielsko
pieprz	miazdra	milkł	żółkł	hańba
pieśń	dawstw	hrabstw	barszcz	trencz
landara	kambr	sceptr	targł	punkt

<mark>Po slovensky</mark>

boršč	fajčiť	každý	lenže	končiť
funkcia	kancelária	krajčír	dáždnik	manžel
kvapka	fond	inde	handra	partner
dážď	líška	jačmeň	penzión	slnce
mandľa	fajka	petržlen	koncert	srnčie
krištáľ	šikmý	brečtan	vojsko	flegmatický

We have now covered consonant combinations with one and two sounds on the left side and consonant compounds on the right side of all sizes. Now, let's work on triple combinations on the left side.

Triple combinations on the left side

We'll now consider consonant combinations with three sounds on the left side in this lesson and the next. In Lesson 29, we will discuss consonant combinations with four sounds on the left side. Again, the color conventions are the same as before, with exceptions in red.

An important thing to keep in mind is as the number of consonants in a combination increases, the more we can simplify because there are far fewer combinations with three and four sounds than there are with only one or two combinations.

You can really see in a lot of the triple combinations how well suited the Slavic steno keyboard is. A large number of the irregular combinations are simplifications. The ZML combination, in particular, is irregular for a reason that will become obvious in Lesson 30. Of course, there are oddball combinations, but what language doesn't have any?

Triple Combination Simplifications

When you have three consonants on the left side, the opportunity exists to simply the Y vowel combination (**IAU**) to I. Why? Because there aren't as many words that have that many consonants. When there are fewer consonant sounds on the left side, you will find that there are many doublets in these languages. For example, with only one consonant the left side, you will find the words "bić" and "być" in Polish. You definitely cannot simply the Y to I in that case or you will encode the wrong word! You can have the same issue with two consonant sounds, as with Czech "zbít" and "zbýt." But with three consonant sounds, you are less likely to find these complications as often. What does that mean? You might not have to use the EIAU workaround that we use to replace the impossible **JIAU** combination, if you choose not too. On the other hand, if you find it is easier to encode using **EIAU**, then there is no reason to stop using it. Your preference is what decides the matter.

Czech triple combinations ending with L

ZML is exceptional and is written as **SKPL**. Combinations beginning with Š are written exceptionally as **ZS** instead of the expected **TP**.

Combination	Keys	Examples
mdl	KTPLJ	mdlít, mdlo
sbl	SPLJ	sblížit
sčl	SPVL	sčleňovat, sčlenit
sfl	SVL	sflákat, sflikovat
shl	SKTLJ	shledat, shluk
schl	SKTL	schlamstat, schlíplý
skl	SKL	sklenice, sklo
sml	SKPL	smluva, smlouvač
sml	SKPL	smlouvat, smluvený
spl	SPL	splav, splynout
stl	STL	stlak, stláčet
svl	SVL	svléct, svlak
škl	ZSKL	šklebit
špl	ZSPL	šplouchat
tkl	KTL*	tklivý
vbl	FPLJ	vblízku
včl	FPVL	včlenit, včleňovat
vdl	FTLJ	vdláždit
vhl	FKTLJ	vhled, vhlížet
vchl	FKTL	vchlípit, vchlipovat
vkl	FKL	vklád, vklínit
vml	FKPL	vmlátit,
vpl	FPL	vplácet, vplést
vsl	FSL	vsled
všl	FTPL	všlehat
vtl	FTL	vtláčet, vtlouct
vzl	FSL	vzlet, vzlyk
zbl	ZPLJ	zblátit, zbláznit
zdl	ZTLJ	zdlábnout, zdlouha
zfl	ZVL	zflákovat, zflekovatět
zgl	ZKLJ	zglajchšaltovat
zhl	ZKTLJ	zhlédat, zhlouplý
zchl	ZKTL	zchladit, zchlastat
zkl	ZKL	zklepat, zklokovatět

zml	**SKPL**	zmlít, zmladit
zpl	**ZPL**	zplánovat, zplenit
zšl	**ZTPL**	zšlechtit
ztl	**ZTL**	ztlumit, ztlumočit
zvl	**ZVL**	zvlášť, zvlažit
žbl	**TPLJ**	žbluna, žblabolit

Czech triple combinations ending with R

The combinations ŠKR, ŠPR, and ŠTR are exceptional in a similar way. SFR and VZR and exception in a different way from those three combinations. Combinations beginning with Z don't require the J key.

Combination	Keys	Examples
sbr	**SPRJ**	sbrousit, sbryndat
sdr	**STRJ**	sdrápat, sdružení
sfr	**SVR**	sfragistika
sgr	**SKRJ**	sgrafito
shr	**SKTRJ**	shrábnout, shromáždit
schr	**SKTR**	schránka, schrupat
skr	**SKR**	skreslit, skrojit
smr	**SKPR**	smrad, smrákání
spr	**SPR**	sprask, sprostý
str	**STR**	strach, strom
svr	**SVR**	svrab, svrasklý
škr	**ZSKR**	škráb, škramp
špr	**ZSPR**	šprajc, šproch
štr	**ZSTR**	štráf, štrajch
vbr	**FPRJ**	vbrousit, vbruslit
vdr	**FTRJ**	vdrápat
vhr	**FKTRJ**	vhrabat, vhroužit
vchr	**FKTR**	vchrstnout, vchrlit
vkr	**FKR**	vkráčet, vkročit
vpr	**FPR**	vpracovat, vproudit
vsr	**FSR**	vsrkovat, vsrknout
všr	**FTPR**	všroubovat
vtr	**FTR**	vtrousit, vtrušovat
vzr	**FSR**	vzrost, vzrušený
vžr	**FTPRJ**	vžrát
zbr	**ZPR**	zbroj, zbraň
zdr	**ZTR**	zdravý, zdrobit
zfr	**ZVR**	zfrazovatělý

zgr	**ZKR**	zgranulovat
zhr	**ZKTR**	zhruba, zhryzat
zchr	**ZKTR**	zchromit
zkr	**ZKR**	zkrácet, zkroužit
zmr	**ZKPR**	zmrazek, zmravnit
zpr	**ZPR**	zpracovat, zprosta
ztr	**ZTR**	ztroskotat, ztráta
zvr	**ZVR**	zvracet, zvroubit
žbr	**TPRJ**	žbrunda

Czech triple combinations ending with Ř

In contrast to double combinations ending with Ř, triple combinations ending with Ř will be simplified, meaning that the J does not have to be pressed, except with those consonant sounds that require them (B, H, etc.). Combinations beginning with Z don't require the J key with voiced consonants.

Combination	Keys	Examples
shř	**SKTRJ**	shřebný
skř	**SKR**	skřapat, skřeček
spř	**SPR**	spřežka, spříznit
stř	**STR**	střih, střecha
vbř	**FPRJ**	vbřednout
vhř	**FKTRJ**	vhřížit, vhřižovat
vkř	**FKR**	vkřiknout
vpř	**FPR**	vpředu
vtř	**FTR**	vtřískat
vzř	**FSR**	vzření
zbř	**ZPR**	zbřídit
zdř	**ZTR**	zdřevěnělý, zdřímlý
zhř	**ZKTR**	zhřešit
zchř	**ZKTR**	zhřadlý
zkř	**ZKR**	zkřížit
zmř	**ZKPR**	zmřížit
zpř	**ZPR**	zpříčit, zpřesnit
ztř	**ZTR**	ztřásnit, ztřísnit
zvř	**ZVR**	zvředovatět

Czech triple combinations ending with N

KTN adds the * key to differentiate it from CHN.

Combination	Keys	Examples
ctn	ZSTLR	ctnost
dchn	KTLRJ	dchnout
džgn	KPVLRJ	džgnout
mkn	KPLR	mknout
pchn	KTPLR	pchnout (jen s předp.)
shn	SKTLRJ	shnít
schn	SKTLR	schnout, schni
skn	SKLR	sknotit
tkn	KTLR	tknout, tknutý
vhn	FKTLRJ	vhníst
vmn	FKPLR	vměstnat
vsn	FSLR	vsnít
vzn	FSLR	vznášet, vznést
zhn	ZKTLR	zhníst, zhnusit
zkn	ZKLR	zknižnění
zmn	ZKPLR	zmnožit
zvn	ZVLR	zvnitř
žhn	KTPLR	žhnout

Polish triple combinations ending with J

Combination	Keys	Examples
scj	**ZSTJ**	scjena, scjatyk
zdj	**ZT**	zdjęcie, zdjąć

Polish triple combinations ending with L

There are several exceptional combinations. TKL must be differentiated from CHL, and we do so by using the * key. Do not write the J after consonant combinations containing Z.

Combination	Keys	Examples
ckl	**ZSKL**	ckliwy
mdl	**KTPL**	mdlący, mdlić
mgl	**KPLJ**	mglisty
pchl	**KTPL**	pchlarz, pchli
schl	**SKTL**	schlać, schlebić
scl	**SKL**	sclerosis
sfl	**SVL**	sflaczeć, sflekować
skl	**SKL**	skląć, sklep
spl	**SPL**	spleść, splot
stl	**STL**	stlić
szkl	**ZSKL**	szklak, szklarz
szpl	**ZSPL**	szplint
tkl	**KTL***	tkliwy
wgl	**FKLJ**	wgląd
wkl	**FKL**	wklęsnąć, wlęsło
wpl	**FPL**	wplatać, wplątać
wśl	**FSL**	wślepić, wślizg
wszl	**FTPL**	wszlifować
wwl	**FVL**	wwlec
wzl	**FSL**	wzlecieć, wzlot
zbl	**ZPL**	zblaknąć, zbliżyć
zgl	**ZKL**	zgliszcza, zgliwieć
zwl	**ZVL**	zwlec, zwlekać

Polish triple combinations ending with Ł

All combinations are simplified to end in **L** and not **LJ**.

Combination	Keys	Examples
mdł	KTPL	mdławy, mdły
mgł	KPLJ	mgła, mgławy
pchł	KTPL	pchła
schł	SKTL	schłodzić, schładzać
skł	SKL	skład, skłębić
spł	SPL	spłacać, spłonąć
stł	STL	stłamsić, stłoczyć
szkł	ZSPL	szkła
wbł	FPLJ	wbłąkać
wchł	FKTL	wchłaniać, wchłonąć
wgł	FKL	wgłębić, wgłębny
wkł	FKL	wkład, wkłuć
wpł	FPL	wpłata, wpływ
wsł	FSL	wsławić, wsłuchać
wtł	FTL	wtłoczyć, wtłaczać
zbł	ZPL	zbłaźnić, zbłąkany
zgł	ZKL	zgłaszać, zgłębić
zmł	ZKPL	zmłocek, zmłócić
zwł	ZVL	zwłaszcza, zwłoki

Polish triple combinations ending with R

The combinations SZKR, SZPR, and SZTR are exceptional in a similar way. SFR and WZR are exceptional in a different way from those three combinations. Combinations beginning with Z don't require the J key.

Combination	Keys	Examples
schr	SKTR	schron, schrypać
sfr	SVR	sfrunać, sfruwać
sgr	SKRJ	sgraffito
skr	SKR	skraść, skraj
smr	SKPR	smrek, smród
spr	SPR	spręż, sprośny
str	STR	straszno, strofa
szkr	ZSKR	szkrab
szpr	ZSPR	szpros, szprycha
sztr	ZSTR	sztrab, sztruks
wbr	FPRJ	wbrew

wdr	**FTRJ**	wdrażać, wdrożenie
wgr	**FKRJ**	wgrywać, wgryźć
wkr	**FKR**	wkręcić, wkropić
wpr	**FPR**	wprawa, wprost
wśr	**FSR**	wśród, wśrubować
wtr	**FTR**	wtręt, wtrysk
wzr	**FSR**	wzrost, wzruszać
zbr	**ZPR**	zbroczony, zbrudzić
zdr	**ZTR**	zdrabniać, zdrowy
zgr	**ZKR**	zgrać, zgroza
zmr	**ZKPR**	zmrok, zmrużać
zwr	**ZVR**	zwrot, zwrócić

Polish triple combinations ending with RZ

As a reminder, all of these combinations are simplified. Always write **I** after RZ and not Y (**IAU**).

Combination	Keys	Examples
schrz	**SKTR**	schrzanić
skrz	**SKR**	skrzyknąć, skrzyp
sprz	**SPR**	sprzęg, sprzed
strz	**STR**	strzał, strzeliwo
wgrz	**FSKR**	wgrzęznąć
wkrz	**FSKR**	wkrzański
wprz	**FPR**	wprząc, wprzęg
wtrz	**FTR**	wtrząchnąć
zbrz	**ZPR**	zbrzydnąć, zbrydzić
zdrz	**ZTR**	zdrzemnąć
zgrz	**ZKR**	zgrzany, zgreszyć

> As a reminder, the following words and their families should be considered as quasivocalic R and quasivocalic RZ: trznadel, brdysać, krzta, grdyka, grzdyl, prztyk, krtan, drgać, drgania, grzbiet, trzpiot, brzmieć, grzmiąco, trzmiel, chrzczę, krzczonów, skrwawić, strwonić, trwać, drwa, drzwi, drżeć, chrzciciel, trzcina. The list is not exhaustive, but it gives you an idea of how many complex combinations can be avoided.
>
> By extension, a word like "sklnić" or "plwać" or "klwów" or even "płci" can be treated as a quasivocalic L or Ł and should be handled as any quasivocalic R word or word part.

Polish triple combinations ending with N or Ń

The combination LŚN is exceptional, as is MKN. The combinations TCHN and TKN add the *
key to differentiate it from CHN. The combination of KTPVLR does not use the * key because
there are enough keys used to distinguish it from other combinations.

Combination	Keys	Examples
ckn	ZSKLR	cknić
ćpn	TPLR	ćpnie, ćpnęły
czchn	KTPVLR	czchnąć
czkn	KPVLR	czknąć
dźgn	KTLRJ	dźgnąć, dźgnięcie
lgn	KVLR*	lgnąć
lśn	SVLR	lśnąć, lśnienie
mgn	KPLRJ	mgnienie
mkn	KPLR	mknąć
pchn	KTPLR	pchnąć, pchnięcie
psn	SPLR*	wyspnąć
rżn	TPLRJ*	rżnąć, rżnięcie
schn	SKTLR	schnąć
skn	SKLR	sknera, sknocić
tchn	KTLR*	tchnąć, tchnienie
tkn	KTLR*	tknąć
wgn	FKLR	wgniecenie, wgnieść
wsn	FSLR	wsnuć
wzn	FSLR	wznawiać, wznos
zgn	ZKLR	zgnać, zgnić
żgn	KTPLR	żgnąć, żgnięcie
źgn	ZKLR	źgnąć
zmn	ZKPLR	zmniejszyć

The word part "krnąbr" is exceptional and
will be written as **KLREIARB**.

Slovak triple combinations ending with L

There are several exceptional combinations. TKL must be differentiated from CHL, and we do so by using the * key. We don't need to write the J after consonant combinations containing Z. ZML is exception and is written as **SKPL**.

Combination	Keys	Examples
mdl	**KTPLJ**	mdlo, mdlý
sfl	**SVL**	sfliaskať, sfľakatieť
schl	**SKTL**	schlpiť, schladiť
sml	**SKPL**	smlz, smldník
spl	**SPL**	splatiť, splodiť
stl	**STL**	stlieť, stlačiť
tkl	**KTL***	tklivý
včl	**FPVL**	včleniť, včleňovať
vml	**FKPL**	vmlátiť
vpl	**FPL**	vplyv, vpliesť
vtl	**FTL**	vtláčať, vtĺkol
vzl	**FSL**	vzlet, vzlínať
zbl	**ZPLJ**	zblížiť, zblúdiť
zčl	**ZPVL**	začleniť
zdl	**ZTLJ**	zdlžovať, zdláviť
zgl	**ZKL**	zglejiť, zglejovať
zhl	**ZKTLJ**	zhlobiť, zhluk
zml	**SKPL**	zmladi, zmluva
zvl	**ZVL**	zvlášť, zvliecť
žbl	**TPLJ**	žblnk

Slovak triple combinations ending with R

The combinations ŠKR, ŠPR, and ŠTR are exceptional in a similar way. SFR and VZR and exception in a different way from those three combinations. Combinations beginning with Z don't require the J key.

Combination	Keys	Examples
sfr	SVR	sfrčať, sfrknúť
sgr	SKRJ	sgrafito
schr	SKTR	schránka, schrumkať
skr	SKR	skrat, skresliť
smr	SKPR	smrek, smradiť
spr	SPR	spraviť, spriahnuť
str	STR	stred, striebro
svr	SVR	svrab, svrkať
škr	ZSKR	škriepiť, škrob
špr	ZSPR	šprint, šprota
štr	ZSTR	štrajk, štrikovať
vbr	FPRJ	vbŕdnuť, vbrodiť
vdr	FTRJ	vdrobčiť, vdružiť
vhr	FKTRJ	vhrnúť, vhrmieť
vchr	FKTR	vchrstnúť
vkr	FKR	vkradnúť, vkročiť
vpr	FPR	vpred, vpravo
vsr	FSR	vsŕknuť
vtr	FTR	vtrieť, vtrhnúť
vzr	FSR	vzrásť, vzrušiť
vžr	FTPRJ	vžrať
zbr	ZPR	zbroj, zbraň
zdr	ZTR	zdraviť, zdroj
zgr	ZKR	zgrupovať
zhr	ZKTR	zhroziť, zhromažďovať
zmr	ZKPR	zmrákať, zmraštiť
zpr	ZPR	zpráva
zvr	ZVR	zvrát, zvrešťať
žbr	TPRJ	žbrnda, žbŕnd
ždr	TPRJ	ždreť, ždrivať
žgr	KTPRJ	žgrliť, žgrloš

Slovak triple combinations ending with N

The combination LŚN is exceptional. The combinations TCHN and TKN add the * key to differentiate it from CHN.

Combination	Keys	Examples
ctn	ZSTLR	ctný
mkn	KPLR	mknúť
pchn	KTPLR	pchnúť – iba s predp.
schn	SKTLR	schnúť, schňapnúť
skn	SKLR	sknokautovať
tchn	KTLR*	tchnutie
tkn	KTLR*	tknúť
vhn	FKTLR	vhnať
vzn	FSLR	vzniesť, vzňať
zhn	ZKTLR	zhnusiť, zhniť
zmn	ZKPLR	zmnožiť
zvn	ZVLR	zvnútorniť, zvnútra
žhn	KTPLR	žhnúť

Exercise No. 31

Divide each of the words listed below into word part and suffix, if necessary. Then write only the word or word part for each of the words listed below. Write a new line, **L-CRLBSGTW,** between each chord.

Česky

vznášet	vznést	zhníst	zhnusit	zmnožit
zvnitř	žhnout	dchnout	džgnout	mknout
pchnout	shnít	schnout	sknotit	tknout
tknutý	vhníst	zgranulovat	zhruba	zhryzat
zchromit	zkrácet	zkroužit	zmrazek	shřebný
skřapat	skřeček	spřežka	spříznit	střih
střecha	vhřížit	vhřižovat	vkřiknout	vpředu
vtřískat	zbřídit	zdřevěnělý	zdřímlý	zhřešit
zhřadlý	zpříčit	zpřesnit	ztřásnit	ztřísnit
zvředovatět	zmravnit	zpracovat	vdláždit	ztroskotat

ztráta	zvracet	zvroubit	mdlít	sbrousit
sbryndat	sdrápat	sdružení	sfragistika	sgrafito
shrábnout	shromáždit	schránka	schrupat	skreslit
skrojit	smrad	smrákání	sprask	sprostý
strach	strom	svrab	svrasklý	škráb
škramp	šprajc	šproch	štráf	štrajch
vbrousit	vbruslit	vdrápat	vhrabat	vhroužit
vchrstnout	vchrlit	vkráčet	vkročit	vpracovat
vproudit	vsrkovat	vsrknout	vtrousit	vtrušovat
vzrost	vzrušený	vžrát	zbroj	zbraň
zdravý	zdrobit	zfrazovatělý	mdlo	sblížit
sčleňovat	sčlenit	sflákat	sflikovat	shledat
zflákovat	zflekovatět	zhlédat	zhlouplý	zchladit
zchlastat	zklepat	zklokovatět	zmlít	zmladit
zplánovat	zplenit	ztlumit	ztlumočit	zvlášť
zvlažit	žbluna	žblabolit	shluk	schlamstat
schlíplý	sklenice	sklo	smluva	smlouvač
smlouvat	smluvený	splav	splynout	stlak
stláčet	svléct	svlak	tklivý	vblízku
včlenit	včleňovat	vhled	vhlížet	vchlípit
vchlipovat	vklád	vklínit	vmlátit	vplácet
vplést	vsled	vtláčet	vtlouct	vzlet
vzlyk	zblátit	zbláznit	zdlábnout	zdlouha

scjena	ckliwy	mdlący	mdlić	mglisty
mdławy	mdły	mgła	mgławy	pchła
schłodzić	schładzać	skład	skłębić	schrzanić
skrzyknąć	skrzyp	sprzęg	sprzed	strzał
strzeliwo	wgrzęznąć	wkrzański	wprząc	wprzęg
wtrząchnąć	zbrzydnąć	zbrydzić	zdrzemnąć	zgrzany
zgreszyć	schron	schrypać	sfrunać	sfruwać
sgraffito	skraść	skraj	smrek	cknić
ćpnie	ćpnęły	czchnąć	czknąć	dźgnąć
dźgnięcie	lgnąć	lśnąć	lśnienie	mgnienie
mknąć	pchnąć	pchnięcie	wyspnąć	rżnąć
rżnięnie	schnąć	sknera	sknocić	tchnąć
tchnienie	tknąć	wgniecenie	wgnieść	wsnuć
wznawiać	wznos	zgnać	zgnić	żgnąć
żgnięcie	źgnąć	zmniejszyć	smród	spręż
sprośny	straszno	strofa	szkrab	szpros
szprycha	sztrab	sztruks	wbrew	wdrażać
wdrożenie	wgrywać	wgryźć	wkręcić	wkropić
wprawa	wprost	wśród	wśrubować	wtręt
wtrysk	wzrost	wzruszać	zbroczony	zbrudzić
zdrabniać	zdrowy	zgrać	zgroza	zmrok
zmrużać	zwrot	zwrócić	spłacać	spłonąć
stłamsić	stłoczyć	szkła	wbłąkać	wchłaniać
wchłonąć	wgłębić	wgłębny	wkład	wkłuć
wpłata	wpływ	wsławić	wsłuchać	wtłoczyć

wtłaczać	zbłaźnić	zbłąkany	zgłaszać	zgłębić
zmłocek	zmłócić	zwłaszcza	zwłoki	pchlarz
pchli	schlać	schlebić	sclerosis	sflaczeć
sflekować	skląć	sklep	spleść	splot
stlić	szklak	szklarz	szplint	tkliwy
wgląd	wklęsnąć	wlęsło	wplatać	wplątać
wślepić	wślizg	wszlifować	wwlec	wzlecieć
wzlot	zblaknąć	zbliżyć	zgliszcza	zgliwieć
zwlec	zwlekać	scjatyk	zdjęcie	zdjąć

mknúť	pchnúť	schnúť	schňapnúť	sknokautovať
tchnutie	tknúť	vhnať	vzniesť	vzňať
zhnusiť	sfrčať	sfrknúť	sgrafito	schránka
schrumkať	skrat	skresliť	smrek	mdlo
mdlý	sfliaskať	sfľakatieť	schlpiť	schladiť
smlz	smldník	splatiť	splodiť	stlieť
stlačiť	tklivý	včleniť	včleňovať	vmlátiť
vplyv	vpliesť	vtláčať	vtĺkol	vzlet
vzlínať	zblížiť	zblúdiť	zblčať	zblázniť
začleniť	zdlžovať	zdláviť	zglejiť	zglejovať
zhlobiť	zhluk	zhlboka	zhltnúť	zmladi
zmluva	zvlášť	zvliecť	zvládol	zvláda
žblnk	smradiť	spraviť	spriahnuť	stred
striebro	svrab	svrkať	škriepiť	škrob
šprint	šprota	štrajk	štrikovať	vbŕdnuť
vbrodiť	vdrobčiť	vdružiť	vhrnúť	vhrmieť
vchrstnúť	vkradnúť	vkročiť	vpred	vpravo
vsŕknuť	vtrieť	vtrhnúť	vzrásť	vzrušiť
vžrať	zbroj	zbraň	zdraviť	zdroj
zgrupovať	zhroziť	zmraštiť	zmrákať	zhromažďovať
zpráva	zvrát	zvrešťať	žbrnda	žbŕnd
ždreť	ždrivať	žgrliť	žgrloš	zhniť
zmnožiť	zvnútorniť	zvnútra	žhnúť	

Triple combinations ending with T, D, K, CH, P, B, M, Š, V

As we move leftward on the left side, you will notice more simplifications and combinations out of steno order. Fortunately, there are not very many in comparison with combinations ending in L, R, or N.

Česky

Czech triple combinations ending with T

> Something to ponder….
>
> Words like LSTIVÝ can also be interpreted as a vocalic L with no consonant on the left side and add the **ST** on the right side for the first syllable. As with other vocalic Ls, the initial L would be written on the left side. With the word LSTMI, since it is not a common word, the simplest way to chord the word would be to break it into chords as LST/MI. Again, the choice is yours; however, keep in mind that it's usually best to write one and the same chord in the same way at all times, if it is at all possible.
>
> By analogy, words beginning with MST, such as MSTNĚ and MSTNÝ, could also be broken up as MST/NĚ and written as **KP-ST** followed by the appropriate suffix chord. Just something to think about.

Combination	Keys	Examples
dšt	ZST	dštít
jst	STJ	jste
kšt	ZSKT	kštice
lst	STL*	lstit (jen s předp.)
lšt	TPL*	Lštěň
mst	SKTP*	mstít
pšt	TP*	Pština
vst	FST	vstát, vstoupit
všt	FTP*	vštípit
vzt	FST	vztek, vztah

Czech triple combinations ending with D

Combination	Keys	Examples
bzd	**ZTP***	bzdurak, bzdít
mzd	**ZKTP***	mzda, mzdový
vzd	**FST***	vzdělání, vzdělat
vžd	**FTP***	vždy, vždyť
zrd	**ZTR***	zrdousit

Czech triple combinations ending with K

Combination	Keys	Examples
psk	**SPK***	Pskov
stk	**SKT**	stkát
štk	**KT***	štkát
vsk	**FSK**	vskakovat, vskočit
všk	**FKTP**	vškatulkovat
vtk	**FKT**	vtkát
vzk	**FSK**	vzkázat

Czech triple combination ending with CH

Combination	Keys	Examples
vzch	**FSKT**	vzchop, vzcházet

Czech triple combination ending with H

Combination	Keys	Examples
vzh	**FSKTJ**	vzhůru
zlh	**ZKTL**	zlhostejnět

Czech triple combinations ending with P or B

Combination	Keys	Examples
džb	**ZTP***	džbán, džber
vzb	**FSP**	vzbudit, vzbouřit
vzp	**FSP**	vzpěra, vzpor

Czech triple combinations ending with M

Combination	Keys	Examples
ctm	ZSKTP	ctmi
jsm	SKPJ	jsme
sdm	STKPJ	sdmýchnout
skm	SKP*	skmotřit
stm	SKTP	stmelit, stmívat
vdm	FKTP	vdmýchnout
vhm	FKTPJ	vhmatávat
vsm	FSKP	vsmýknout
vtm	FKTP	vtmelit
vzm	FSKP	vzmach, vzmocnit
zhm	ZKTP	zhmotnit
zchm	ZKTP	zchmuřovat
ztm	ZKTP	ztmavět

Czech triple combination ending with Š

Combination	Keys	Examples
vzš	FSTP	vzšumět

Czech triple combination ending with Ž

Combination	Keys	Examples
zdž	ZPV	zdžezovat

Czech triple combinations ending with V

Combination	Keys	Examples
ctv	ZSTV	ctvrkat
čtv	PVR	čtvero, čtverka
schv	SKTV	schválit
skv	SKV	skvost, skvělý
stv	STV	stvol, stvoření
škv	KTPV	škvařit
štv	TPV*	štvát, štváč
tkv	KTV*	tkvěl
vkv	FKV	vkvapit
vtv	FTV	vtvořit
vzv	FSV	vzvolat
zdv	ZTV	zdvih, zdvojit
zhv	ZKTV	zhvězdit
zkv	ZKV	zkvaknout, zkvalovat
ztv	ZTV	ztvrda, ztvrdnout

Polish triple combination ending with B

Combination	Keys	Examples
dzb	**ZTP***	dzban, dzbankowaty
wzb	**FSP**	wzburzyć, wzbić
źdźb	**ZTP~**	źdźbeł
zgb	**ZKP**	zgburowacieć

Polish triple combinations ending with T or Ć

Combination	Keys	Examples
kszt	**KTP***	ksztyna, kształt
mst	**SKTP***	mstowski
mść	**SKTP***	mściciel, mściwy
wst	**FST**	wstać, wstecz
wść	**FST**	wściec, wściubić
wszt	**FTP***	wsztukować
zst	**ZST**	zstąpić, zstępny

Polish triple combinations ending with D or DŹ

Combination	Keys	Examples
bzd	**ZTP***	bzdet, bzdura
bźdź	**ZTP***	bździak, bździć
gwdz	**ZSKV***	Gwdzie
wzd	**FST**	wzdęty, wzdych
wżd	**FTP***	wżdy, wżdyć

Polish triple combinations ending with K or G

Combination	Keys	Examples
psk	**SKP***	pskowski, Psków
wsk	**FSK**	wskakiwać, wskórać
wzg	**FSK**	wzgarda, wzgórek

Polish triple combinations ending with CH

Combination	Keys	Examples
stch	**SKT***	stchórzyć
wsch	**FSKT**	wschody, wschód

Polish triple combinations ending with P

Combination	Keys	Examples
wsp	**FSP**	wspak, wspornik
wśp	**FSP**	wśpiewać

Polish triple combinations ending with M

Combination	Keys	Examples
szczm	**KTPV***	szczmiel
wdm	**FKTP**	wdmuchnąć
wsm	**FSKP**	wsmarować
wzm	**FSKP**	wzmagać, wzmożony
zdm	**ZKTP**	zdmuchnąć

Polish triple combinations ending with CZ or DŻ

Combination	Keys	Examples
bżdż	**ZTPJ***	bżdżę
mszcz	**KTPV**	mszczenie, Mszczuj
pszcz	**TPV***	pszczoła, pszczelnik
wszcz	**FTPV**	wszcząć, wszczepić

Polish triple combinations ending with W

Combination	Keys	Examples
schw	**SKTV**	schwytać, schwycić
skw	**SKV**	skwar, skwer
stw	**STV**	stwardnieć, stwora
szczw	**TPV***	szczwany, szczwół
szkw	**ZSKV**	szkwał
tkw	**KTV**	tkwić
wśw	**FSV**	wświdrować, wświecić
wzw	**FSV**	wzwiad, wzwyż
zdw	**ZTV**	zdwajać, zdwojenie
zdzw	**ZTW**	zdzwonić
zdźw	**ZTW**	zdźwigać
zgw	**ZKV**	zgwałcić

Polish triple combinations ending with S

Combination	Keys	Examples
sks	**SKV***	skserować
sps	**SPV***	spsiały, spsocić

Polish triple combinations ending with Ź

Combination	Keys	Examples
zbź	**ZPV***	zbzikować

Slovak triple combinations ending with T

Combination	Keys	Examples
ľst	STL*	ľstivo
mst	SKTP*	mstíť
vst	FST	vstávať, vstup
všt	FTP*	vštepiť
vzt	FST	vztiahnúť, vzťah

Slovak triple combinations ending with D

Combination	Keys	Examples
bzd	ZTP*	bzdocha, bzdieť
mzd	ZKTP*	mzda, mzdový
vzd	FST*	vzduch, vzdorovať
vžd	FTP*	vždy

Slovak triple combinations ending with K

Combination	Keys	Examples
vsk	FSK	vskutku, vskoč
vtk	FKT	vtkát
psk	SPK*	Pskov

Slovak triple combination ending with CH

Combination	Keys	Examples
vzch	FSKT	vzchopiť, vzchádzať

Slovak triple combinations ending with P or B

Combination	Keys	Examples
džb	ZTP*	džbán, džber
vzb	FSP	vzbudiť, vzbura
vzp	FSP	vzpažiť, vzpera

Slovak triple combinations ending with M

Combination	Keys	Examples
stm	SKTP	stmieť, stmievať
vsm	FSKP	vsmyknúť
vzm	FSKP	vzmôcť, vzmužiť

Slovak triple combinations ending with V

Combination	Keys	Examples
skv	**SKV**	skvost, skvelý
stv	**STV**	stvol, stvora
štv	**TPV***	štvorstý, štverať
vzv	**FSV**	vzviesť, vzvýšiť
zdv	**ZTV**	zdvih, zdvojiť

Slovak triple combination ending with Z

Combination	Keys	**Examples**
zbz	**ZSP**	zbzučať

Exercise No. 32

Divide each of the words listed below into word part and suffix, if necessary. Then write only the word or word part for each of the words listed below. Write a tab, **T-CRLBSGTW,** between each chord.

Česky

dštít	vskakovat	vskočit	jsme	stmelit
stmívat	vztek	vztah	čtvero	čtverka
skvost	skvělý	stvol	stvoření	štvát
štváč	vtvořit	zkvaknout	zkvalovat	vzvolat
zdvih	zdvojit	ztvrda	ztvrdnout	vzšumět
vzmach	vzmocnit	ztmavět	Pskov	kštice
bzdurak	bzdít	mzda	mzdový	vzdělání
vzdělat	vzchop	vzcházet	vštípit	vždyť
lstit	mstít	džbán	džber	vzbudit
vzbouřit	vzpěra	vzpor	vstát	vstoupit

źdźbeł	bżdżę	mszczenie	Mszczuj	pszczoła
pszczelnik	wszcząć	wszczepić	ksztyna	kształt
mstowski	wzgarda	wspak	wspornik	wśpiewać
wzgórek	mściciel	mściwy	wstać	wstecz
stchórzyć	wschody	wschód	bzdet	bzdura
bździak	bździć	Gwdzie	pskowski	Psków
wskakiwać	wskórać	wzdęty	wzdych	wżdy
dzban	szczmiel	wdmuchnąć	wsmarować	wzmagać
wzmożony	zdmuchnąć	dzbankowaty	wzburzyć	wzbić
zgburowacieć	wżdyć	wściec	wściubić	wsztukować
zstąpić	zstępny			

vzchopiť	vzchádzať	zbzučať	skvost	bzdocha
bzdieť	mzda	vzmužiť	vzduch	vzdorovať
vždy	ľstivo	mstíť	vstávať	vstup
vštepiť	vztiahnúť	vzťah	skvelý	stvol
stvora	džbán	džber	vzbudiť	vzbura
vzpažiť	vzpera	štvorstý	štverať	vzviesť
vzvýšiť	vskutku	vskoč	Pskov	zdvih
zdvojiť	stmieť	stmievať	vsmyknúť	vzmôcť

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Quadruple consonant combinations on the left side

Despite having four consonant sounds on the left side, most of these combinations are quite straightforward and irregular due to simplification.

Česky

Czech quadruple combinations ending with L

Combination	Keys	Examples
vzhl	FSKTL	vzhled, vzhlížet
vzchl	FSKTL	vzchlípit
vzkl	FSKL	vzkládat, vzklopka
vzpl	FSPL	vzplakat, vzplesat
vztl	FSTL	vztlak
ztkl	ZKTL	ztklivět

Czech quadruple combinations ending with R

Combination	Keys	Examples
pstr	STPR	pstruh, pstruží
pštr	STPR	pštros
skvr	SKVR	skvrna
stvr	STVR	stvrdit, stvrzení
vskr	FSKR	vskrytu
vstr	FSTR	vstrčit, vstrkat
vškr	FSKR	vškrábat, vškrábnout
vzdm	FSKTP	vzdmychat
vzmr	FSKPR	vzmrštit
vzpr	FSPRJ	vzpruha, vzpružovat

Czech quadruple combination ending with Ř

Combination	Keys	Examples
pstř	STPR	pstřeň
vzbř	FSPR	vzbředlý
vstř	FSTR	vstřel, vstřík
vzhř	FSKTR	vzhřížit
vzkř	FSKR	vzkřίšít, vzkřek
vzpř	FSPR	vzpřim, vzpřímit

Czech quadruple combination ending with M

Combination	Keys	Examples
vzdm	FSKTP	vzdmout

Czech quadruple combination ending with N

Combination	Keys	Examples
štkn	KTLR*	štknout
vzpn	FSPLR	vzpnout

Czech quadruple combination ending with V

Combination	Keys	Examples
stkv	SKTV	stkvěl
vzkv	FSKV	vzkvíst, vzkvět
zčtv	ZTPV	zčtvernásobit

Polish quadruple combinations ending with L

Combination	Keys	Examples
wzgl	FSKL	wzgląd, względy
źdźbl	ZTPL	źdźble

Polish quadruple combinations ending with Ł

Combination	Keys	Examples
wspł	FSPL	wspłonąć, wspływ
wzdł	FSTL	wzdłuż, wzdłużyć
źdźbł	ZTPL	źdźbło, źdźbłowy

Polish quadruple combination ending with N

The combination STCHN adds the * key to differentiate it from SCHN.

Combination	Keys	Examples
lskn	SKLR*	lsknąć, lsknić
stchn	SKTLR*	stchnąć

Polish quadruple combinations ending with R

Combination	Keys	Examples
bzdr	ZTPR	ubzdryngolić
pstr	STPR	pstrąg, pstryk
wskr	FSKR	wskroś,
wstr	FSTR	wstręciuch, wstręt
wzbr	FSPR	wzbraniać, wzbronić
wzdr	FSTR	wzdragać, wzdrygnąć

Polish quadruple combinations ending with RZ

All the combinations are simplified, as they were with simpler combinations. Always write I after RZ and not Y (IAU).

Combination	Keys	Examples
bzdrz	**ZTPR**	ubzdrzyć
pstrz	**STPR**	pstrzyć
wskrz	**FSKR**	wskrzesić, wskrzeszać
wstrz	**FSTR**	wstrząs, wstrzelić

Po slovensky

Slovak quadruple combinations ending with L

Combination	Keys	Examples
vzbl	**FSPL~**	vzbĺknuť
vzhl	**FSKT**	vzhľad, vzhliadnuť
vztl	**FSTL**	vztlak

Slovak quadruple combinations ending with R

Combination	Keys	Examples
pstr	**STPR**	pstruh, pstrúžik
pštr	**STPR**	pštros
vskr	**FSKR**	vskrubať, vskrutkovať
vstr	**FSTR**	vstrebať, vstrčiť
vzpr	**FSPR**	vzpriamiť, vzpruha

Exercise No. 33

Divide each of the words listed below into word part and suffix, if necessary. Then write the word or word part for each of the words listed below. Write a new paragraph (a new line with one tab), **R-CRLBSGTW,** between each chord.

Česky

vzhled	pstruh	pstruží	pštros	skvrna
vstřel	vstřík	vzkvíst	stvrdit	stvrzení
vskrytu	vstrčit	vstrkat	vzmrštit	vzpruha
vzpružovat	vzhlížet	vzplakat	vzplesat	vztlak
ztklivět				

wzgląd	względy	stchnąć	źdźble	wspłonąć
wspływ	wzdłuż	wzdłużyć	źdźbło	źdźbłowy
wzdrygnąć	pstrąg	pstryk	wskroś	ubzdrzyć
pstrzyć	wskrzesić	wskrzeszać	wstrząs	wstrzelić
wstręciuch	wstręt	wzbraniać	wzbronić	wzdragać

Po slovensky

vzblknuť	vzhľad	vzhliadnuť	vztlak	pstruh
pstrúžik	pštros	vskrubať	vskrutkovať	vstrebať
vstrčiť	vzpriamiť	vzpruha		

It's time to celebrate!

You should congratulate yourself for getting through this section of the book. It is definitely the most complex in the book, and I hope you understand how very important it is to know how to encode such a variety of different words and word parts. You probably won't use all of the examples shown in everyday situations, but you can refer to them should the need arise in the future. It's always better to be overprepared than underprepared in this field. You might not have mastered all of the combinations for your chosen language. That's completely understandable. It takes time to absorb such a large amount of information. You might wish to revise the more complex concepts in this section as you go through the other sections of the book.

Now that you have a thorough understanding of word parts, this will certainly help you build words more easily. The next section of the book is much more straightforward than word parts. You'll find it a nice change. Take a break and rest up before starting the next section. You deserve it!

Affixes

Basic Word-Building

Well, now that we have exhaustively gone over word parts, we can now start to turn our attention to building words with the aid of affixes. In stenography we use prefixes, suffixes, and infixes. We'll start with suffixes, beginning with the most basic forms and then moving on to more complex suffixes. The most basic form of the suffix will add one syllable to end of the word part. The more complex suffixes will add two or even three syllables to the end of the word part. After we cover suffixes, we'll move to prefixes. Finally, we'll investigate infixes, which will used to build complex words.

Before we actually get to the suffixes, I'd like you to consider something. In the Polish language, the letters "nie" can be a standalone word, a suffix, or a prefix. This situation is the similar in Czech and Slovak. Even in English we have the word "a." the "-a" suffix, and "a-" prefix. Sometimes we need to attach those letters to the previous word part and sometimes we need to attach them to the following word part. And then again, we may want those letters to be a word on its own.

How can we differentiate them in a way that will be easily remembered and different to other words or word parts in a consistent way at the same time? This is a fundamental component of rapid text creation. Before the advent of computer-aided transcription and instantaneous display of text, it didn't really matter. You could write them all in the same way and make the text reflect the correct words afterwards without having to differentiate them at the time you encoded them. Our goal is to have the correct text display as we write it; therefore, we will differentiate them as we encode. How are we going to differentiate them?

Standalone word	Suffix	Prefix
Ordinary word	Helper keys + sounds in the suffix	Add the * key to the word or word part
nie	**XF** + nie	nie*

All suffixes will have helper keys, and all prefixes will add the * key to the basic word or word part. This will make it easier to remember and force the text to appear as it should.

Most of the suffixes will have helper keys from the left side. Only a few suffixes have helper keys on the right side. Think of the helper keys as glue that allows the suffix to stick to the word part.

One thing to keep in mind when dealing with suffixes: We aren't really interested in the word or word part that we are attaching the suffix to. The fact that a single word has different word parts depending on the case that is used is not really important to stenographers. We just need to make sure that the chords we are using will give us the desired result. For instance, the word "loket" will be divided as lok/et. However, the word "loktu" will be divided as lokt/u. If you are thinking about the reason there is a fleeting vowel in this word while you are trying, say, to translate something simultaneously, you will make it harder for yourself to keep up with the speaker or slow down the encoding of text in general.

The Basic Suffix

Now let's get started with simplest suffixes. The basic helper keys for suffixes that begin with a vowel is to use helper keys ZKPL on the left side and then add the necessary vowel. Sometimes you will need to add a consonant sound or two or more after the initial word part.

ZKPL + V (+CCCC)

For instance, the word "ramenu" will be rendered as **RACS/ZKPLECL/ZKPLU**. You might be tempted to think that those are an awful lot of keys to press for such a short word. Well, let's take a look at the chords more closely. Both hands are involved in the word root "ram." Then it's time to build the rest of the word. Notice that the left hand is just pressing the same keys on the left hand. Remember that the left hand is the less adept hand for more than 90 percent of the population. We are shifting most of the work onto the right hand for the suffixes that are required. The left hand needs to depress keys to prevent stacking, and using that particular combination of keys won't create any word root. The right hand, usually the more skillful hand, is really doing most of the work.

Let's talk a little about how suffixes will work. In a simple word like "žena." We find the word root "žen," and then we are left with the suffix "a." We have learned that žen" will be the chord **TPJECL**. That leaves the suffix "a," and that will be written, as indicated above, as **ZKPLA**. If you have a longer word, such as "ľutosť,"your first task is to find the word root. The first chord would be **LJUT**, and the second one for "osť" would be **ZKPLAUSTW**. Keep in mind that you can use the consonant combinations that we learned in Lessons 24-26 to help us extend the word root. You just continue to build the word you want by adding suffixes until you complete the desired word. Remember, too, that suffixes will always attach to the previous text, no matter what it is.

That's a very good question because not all suffixes begin with a vowel. We will have to come up with an alternate way of handling those because if a suffix begins with a consonant, we will need to use the keys on the left side to write it. That means that we would be unable to use the **ZKPL** helper keys in those situations.

There will be two options available for suffixes beginning with a consonant: helper keys on the extreme left (**XF**) or on the extreme right (**OY**). We only use the **OY** helper keys with any suffixes that begin with C or S. Why? Because we cannot hit any chords beginning with **XFZS** or **XFS** with any sort of accuracy at high speed using our left pinky. This is one of the reasons why this method restricts how many keys that finger will depress at one time. All other suffixes beginning with a consonant will use the **XF** keys.

XF suffixes have the following structure:

$$\textbf{XF} + C + V\ (+\ CC)\ (+V)$$

OY suffixes have the following structure:

$$C(CC) + V + (CC) + \textbf{OY}$$

The chart on the next page shows the basic structure of suffixes and other important information to keep in mind when using them.

Helper keys by first letter of suffix

Beginning letter(s)	Helper Keys	Notes
any vowel	**ZKPL**	This combination will easily allow the addition of the **~** to indicate length in Czech and Slovak.
b PJ	**XF**	This ending will sometimes not be used in the genitive plural (null ending) because the B will be added to the previous chord.
c ZS	**OY**	This ending will usually not be used in the genitive plural (null ending) because the C will be added to the previous chord or go into a separate chord.
č (cz) PV	**XF**	Used frequently for possessive forms.
ck ZSK	**OY**	Do not use these suffixes in a separate chord if doing so would cause the previous chord to end in a vowel.
ctv ZSTV **stv STV**	**OY**	Do not use these suffixes in a separate chord if doing so would cause the previous chord to end in a vowel. For example, the word "žactvo" should be divided into chords as žactv/o. However, the word "školstva" would be divided into chords as škol/stva.
j J	**XF**	Should be used sparingly as possible all. Add the J to the consonants on the right side of the previous chord if possible. Remember to use the **JIAU** > **EIAU** if needed.
k K	**XF**	Do not use these suffixes in a separate chord if doing so would cause the previous chord to end in a vowel.
l L	**XF**	Do not use this suffix if L is the only letter in the suffix. It should be included in the previous chord. The Czech word "mohl" should be one chord, not two.
m KP	**XF**	Used for the instrumental plural and also for the first person plural imperative (verbal suffix).
n LR	**XF**	Do not use these suffixes in a separate chord if doing so would cause the previous chord to end in a vowel.
š (sz) TP	**XF**	Use mainly for comparative suffixes. Do not use these suffixes in a separate chord if doing so would cause the previous chord to end in a vowel.
sk SK	**OY**	Do not use these suffixes in a separate chord if doing so would cause the previous chord to end in a vowel.
t T	**XF**	This class of suffixes has very limited use. Its primary use as a verbal suffix to indicate the second person plural imperative ending "te" (**XFTE**).

Czech Nominal and Adjectival Suffixes

- Notice the suffix "čího" where we will use the **G** key for the H sound in this ending and all similar endings. This will allow us to do the entire suffix in one chord.
- The suffixes ending in a vowel plus "mi" are also encoded in one chord using the **Y** key in place of the expected l.
- Notice, too, how we can combine suffix chords to obtain some of the longer endings like "atech" (**ZKPLAT/ZKPLECG**) or "ama" (**ZKPLACS/ZKPLA**).
- The endings with MU all are irregular in the same predictable way ending with **CSW**.

The suffixes below are for the basic noun endings. While it is thorough, it might not include all possible suffixes. Special shortcuts for other common noun-building suffixes will be introduced in the Shortcuts section. The color conventions follow the previous lessons, with irregular endings in **red**. You can refer to the Slovak and Polish sections for additional suffixes.

Suffix	Steno
a	ZKPLA
á	ZKPL~A
áck	ZKPL~ACBG
ách	ZKPL~ACG
ám	ZKPL~ACS
ami	ZKPLACSY
at	ZKPLAT
ba	XFPJA
bách	XFPJ~ACG
bám	XFPJ~ACS
bami	XFPJACSY
bě	XFPJEI
bo	XFPJAU or XFPJO
bou	XFPJEAU
bu	XFPJU
by	XFPJY or XFPEIAU
ce	ZSEOY
cem	ZSECSOY
ci	ZSIOY
cích	ZS~ICGOY
covi	ZSVIOY
ců	ZSEIAOY
cům	ZSEIACSOY
cův	ZSVEIAOY

čí	**XFPV~I**
čího	**XFPV~IGO**
číche	**XFPV~ICG**
čím	**XFPV~ICS**
čími	**XFPV~ICSY**
čímu	**XFPV~ICSW**
čin	**XFPVICL**
čino	**XFPVICLO**
činy	**XFPVICLY**
e	**ZKPLE**
é	**ZKPLE~**
ě	**ZKPLEI**
ec	**ZKPLEC**
eck	**ZKPLECBG**
ectv	**ZKPLETW**
ého	**ZKPLE~GO**
ech	**ZKPLECG**
ejš	**ZKPLECBSG**
ějš	**ZKPLEICBSG**
ek	**ZKPLEBG**
em	**ZKPLECS**
ém	**ZKPLE~CS**
ěm	**ZKPLEICS**
emi	**ZKPLECSY**
ěmi	**ZKPLEICSY**
ému	**ZKPLE~CSW**
eň	**ZKPLECLW**
et	**ZKPLET**
i	**ZKPLI**
í	**ZKPL~I**
ick	**ZKPLICBG**
ičt	**ZKPLIGTW**
ího	**ZKPL~IGO**
ích	**ZKPL~ICG**
ím	**ZKPL~ICS**
ími	**ZKPL~ICSY**
ímu	**ZKPL~ICSW**
in	**ZKPLICL**
ino	**ZKPLICLO**
iny	**ZKPLICLY**

isk	**ZKPLILS**
išt	**ZKPLISGT**
ka	**XFKA**
kách	**XFK~ACG**
kám	**XFK~ACS**
kami	**XFKACSY**
kem	**XFKECS**
ko	**XFKO or XFKAU**
kou	**XFKEAU**
ku	**XFKU**
kům	**XFKEIACS**
ky	**XFKY or XFKIAU**
le	**XFLE**
lemi	**XFLECSY**
li	**XFLI**
lí	**XFL~I**
lick	**XFLICBG**
lích	**XFL~ICG**
lím	**XFL~ICS**
liv	**XFLIW**
mi	**XFKPI**
ňák	**XFLRJ~ABG**
ňat	**XFLRJAT**
ně	**XFLREI**
něm	**XFLREICS**
němi	**XFLREICSY**
nět	**XFLREIT**
něte	**XFLREITO**
ni	**XFLRI**
ní	**XFLR~I**
nictv	**XFLRICTW**
ního	**XFLR~IGO**
ních	**XFLR~ICG**
ním	**XFLR~ICS**
ními	**XFLR~ICSY**
nímu	**XFLR~ICSW**
ňů	**XFLRJEIA**
ňům	**XFLRJEIACS**
o	**ZKPLO or ZKPLAU**
ock	**ZKPLAUCBG**

ou	**ZKPLEAU**
ov	**ZKPLAUW**
ovi	**ZKPLAUWY**
ská	**SK~AOY**
ské	**SKE~OY**
ského	**SKE~GOY**
ském	**SKE~CSOY**
skému	**SKPUOY**
skou	**SKEAUOY**
ský	**SK~IOY**
ských	**SK~ICGOY**
ským	**SK~ICSOY**
skými	**SKP~IOY**
ství	**STV~IOY**
stvích	**STV~ICGOY**
stvím	**STV~ICSOY**
stvími	**SKTPV~IOY** or stvím/i
ší	**XFTP~I**
šího	**XFTP~IGO**
ších	**XFTP~ICG**
ším	**XFTP~ICS**
šími	**XFTP~ICSY**
šímu	**XFTP~ICSW**
u	**ZKPLU**
ů	**ZKPLEIA**
ům	**ZKPLEIACS**
ův	**ZKPLEIAW**
y	**ZKPLY** or **ZKPLIAU**
ý	**ZKPL~Y** or **ZKPL~IAU**
ých	**ZKPL~IAUCG**
ým	**ZKPL~IAUCS**
ými	**ZKPL~IAUCSY**

Polish Nominal and Adjectival Suffixes

- The suffixes ending in a vowel plus "mi" are also encoded in one chord using the **Y** key in place of the I.
- The endings containing K do not add the **I** before the E, as in the CKIE suffix.
- We will also use the **I** key instead of the Y in suffix endings after SZ and CZ.

The suffixes below are for the basic noun endings. While it is thorough, it might not include all possible suffixes. Special shortcuts for other common noun-building suffixes will be introduced in the Shortcuts section. The color conventions follow the previous lessons, with irregular endings in red. Feel free to consult the Czech and Slovak lists for additional inspiration.

Suffix	Steno
a	ZKPLA
ach	ZKPLACG
actw	ZKPLACTW
ami	ZKPLACSY
arstw	ZKPLARSTW
ą	ZKPLEAI
ba	XFPJA
bach	XFPJACG
bami	XFPJACSY
bą	XFPJEIA
bę	XFPJEAU
bie	XFPJEI
bo	XFPJAU
bom	XFPJAUCS
by	XFPJY or XFPEIAU
ca	ZSAOY
cach	ZSACGOY
cami	ZSKPIOY
ccy	ZS*IAUOY
ce	ZSEOY
cem	ZSECSOY
ci	ZSIOY
cka	ZSKAOY
cką	ZSKEIAOY
cki	ZSKIOY
ckich	ZSKICGOY
ckie	ZSKEOY

ckiego	**ZSKEGOY**
ckiej	**ZSKECBOY**
ckiemu	**ZSKECSW**
ckim	**ZSKICSOY**
ckimi	**ZSKPIOY**
com	**ZSAUCSOY**
cowi	**ZSWIOY**
ców	**ZSEIUOY**
cu	**ZSUOY**
cza	**XFPVA**
czą	**XFPVEIA**
cze	**XFPVE**
czego	**XFPVEGO**
czej	**XFPVECB**
czemu	**XFPVECSW**
czy	**XFPVY or XFPVI**
czych	**XFPVICG**
czym	**XFPVICS**
czymi	**XFPVICSY**
e	**ZKPLE**
ec	**ZKPLEC**
ectw	**ZKPLECTW**
ecz	**ZKPLEGW**
ego	**ZKPLEGO**
ej	**ZKPLECB**
ejsz	**ZKPLECBSG**
ek	**ZKPLEBG**
em	**ZKPLECS**
emu	**ZKPLECSW**
erstw	**ZKPLERSTW**
ę	**ZKPLEAU**
ęc	**ZKPLEAUC**
ęstw	**ZKPLEAUSWY**
ęt	**ZKPLEAUT**
i	**ZKPLI**
ia	**ZKPLIA**
iach	**ZKPLIACG**
iami	**ZKPLIACSY**
ią	**ZKPLJEIA**
ich	**ZKPLICG**

ie	**ZKPLEI**
iec	**ZKPLEIC**
iego	**ZKPLEIGO**
iej	**ZKPLEICB**
iemu	**ZKPLEICSW**
ię	**ZKPLJEAU**
iem	**ZKPLEICS**
ien	**ZKPLEICL**
ii	**ZKPLIY**
im	**ZKPLICS**
imi	**ZKPLICSY**
iom	**ZKPLJAUCS**
ion	**ZKPLJAUCL**
iów	**ZKPLJUW**
iu	**ZKPLIU**
ją	**XFJEIA**
ji	**XFJI**
ja	**XFJA**
je	**XFJE**
jom	**XFJAUCS**
jach	**XFJACG**
jami	**XFJACSY**
ję	**XFJEAU**
ka	**XFKA**
kach	**XFKACG**
kami	**XFKACSY**
kę	**XFKEAU**
ki	**XFKI**
kiem	**XFKECS**
ko	**XFKO or XFKAU**
kom	**XFKAUCS**
mi	**XFKPI**
na	**XFLRA**
ną	**XFLREIA**
ne	**XFLRE**
nego	**XFLREGO**
nej	**XFLRECB**
nemu	**XFLRECSW**
ni	**XFLRI**
nia	**XFLRJA**

nią	**XFLRJEIA**
niąt	**XFLRJEIAT**
nictw	**XFLRICTW**
nie	**XFLREI**
nię	**XFLRJEAU**
nięc	**XFLRJEAUC**
nięci	**XFLRJEAUTW**
niego	**XFLREIGO**
niej	**XFLREICB**
niemu	**XFLREICSW**
nięt	**XFLRJEAUT**
nich	**XFLRICG**
nim	**XFLRICS**
nimi	**XFLRICSY**
ny	**XFLRY or XFLRIAU**
nych	**XFLRIAUCG**
nym	**XFLRIAUCS**
nymi	**XFLRIAUCSY**
o	**ZKPLAU or ZKPLO**
om	**ZKPLAUCS**
ostw	**ZKPLOSWY**
owi	**ZKPLOWY**
ów	**ZKPLEIUW**
scy	**ZS*IOY**
si	**SIOY**
ska	**SKAOY**
ską	**SKEIAOY**
ski	**SKIOY**
skich	**SKICGOY**
skie	**SKEOY**
skiego	**SKEGOY**
skiej	**SKECBOY**
skiemu	**SKPUOY**
skim	**SKICSOY**
skimi	**SKPIOY or skim/i**
stwa	**STVAOY**
stwach	**STVACGOY**
stwami	**SKTPVIOY or stwam/i**
stwem	**STVECSOY**
stwie	**STVEIOY**

stwo	**STVAUOY**
stwom	**STVAUCSOY**
stwu	**STVUOY**
sza	**XFTPA**
szą	**XFTPEIA**
sze	**XFTPE**
szego	**XFTPEGO**
szej	**XFTPECB**
szemu	**XFTPECSW**
szy	**XFTPI or XFTPIAU**
szych	**XFTPICG**
szym	**XFTPICS**
szymi	**XFTPICSY**
u	**ZKPLU**
y	**ZKPLIAU or ZKPLY**
ych	**ZKPLIAUCB**
ym	**ZKPLIAUCS**
ymi	**ZKPLIAUCSY**

Slovak Nominal and Adjectival Suffixes

Slovak suffixes are very close to the Czech suffixes. The main difference lies in shortening of the suffix if it follows a syllable with a long vowel or diphthong. You can adjust the length of the vowel by adding or removing the ~ key or changing the vowel from a diphthong to a monophthong as needed. The same shortcuts found in Czech can sometimes also be used in Slovak, if possible, with little or no alteration and vice versa. You can refer to the Czech and Polish sections for additional suffixes.

Steno	Suffix
a	**ZKPLA**
á	**ZKPL~A**
ac	**ZKPLAC**
ack	**ZKPLACBG**
ač	**ZKPLAGW**
ach	**ZKPLACG**
ách	**ZKPL~ACG**
ak	**ZKPLABG**
ák	**ZKPL~ABG**
al	**ZKPLAL**

ál	ZKPL~AL
ám	ZKPL~ACS
ami	ZKPLACSY
an	ZKPLACL
ar	ZKPLAR
ár	ZKPL~AR
ba	XFPJA
bách	XFPJ~ACG
bám	XFPJ~ACS
bámi	XFPJ~ACSY
be	XFPJE
bou	XFPJEAU
bu	XFPJU
by	XFPJY or XFPEIAU
ca	ZSAOY
cami	ZSKPIOY or cam/i
ce	ZSEOY
ci	ZSIOY
cia	ZSIAOY
ciach	ZSIACGOY
ciam	ZSIACSOY
coch	ZSAUCGOY
com	ZSAUCSOY
ctvo	CTVAUOY
cu	ZSUOY
e	ZKPLE
é	ZKPLE~
ec	ZKPLEC
eck	ZKPLECBG
ého	ZKPLE~GO
ej	ZKPLECB
ek	ZKPLEBG
el	ZKPLEL
ému	ZKPLE~CSW
en	ZKPLECL
eň	ZKPLECLW
enk	ZKPLECLG
er	ZKPLER
ér	ZKPLE~R
eus	ZKPLEUS

ho	XFKTJAU
i	ZKPLI
í	ZKPL~I
ia	ZKPLIA
iach	ZKPLIACG
iak	ZKPLIABG
iam	ZKPLIACS
iami	ZKPLIACSY
iar	ZKPLIAR
ic	ZKPLIC
ick	ZKPLICBG
ič	ZKPLIGW
ie	ZKPLEI
ieb	ZKPLEIB
iec	ZKPLEIC
iek	ZKPLEIBG
ieľ	ZKPLEILB
iet	ZKPLEIT
ích	ZKPL~ICG
ik	ZKPLIBG
ík	ZKPL~IBG
ím	ZKPL~ICS
ími	ZKPL~ICSY
in	ZKPLICL
ín	ZKPL~ICL
ino	ZKPLICLO
iu	ZKPLIU
ius	ZKPLIUS
izm	ZKPLICLS
ka	XFKA
kami	XFKACSY
ko	XFKAUY
kost	XFKAUST
kosť	XFKAUSTW
kov	XFKAUW
ku	XFKU
ky	XFKIAU
ľa	XFLJA
le	XFLE
li	XFLI

lí	XFL~I
liach	XFLIACG
liam	XFLIACS
liami	**XFLIACSY**
lick	XFLICBG
liw	XFLIW
ľou	XFLJEAU
ľu	XFLJU
mi	XFKPI
mu	XFKPU
na	XFLRA
ná	XFLR~A
ňa	XFLRJA
ňat	XFLRJAT
ňať	XFLRJATW
ne	XFLRE
né	XFLRE~
ného	XFLRE~GO
nej	XFLRECB
nému	XFLRE~CSW
nen	XFLRECL
ni	XFLRI
ní	XFLR~I
niat	XFLRIAT
nick	XFLRICBG
ničk	XFLRIGWY
nost	XFLROST
nosť	XFLROSTW
nou	XFLREAU
nú	XFLR~U
ny	XFLRY
ný	XFLR~Y
ných	XFLR~YCG
ným	XFLR~YCS
nými	XFLR~YCSY
o	ZKPLAU or ZKPLO
ob	ZKPLAUB
ock	ZKPLAUCBG
och	ZKPLAUCB
ok	ZKPLAUBG

om	**ZKPLAUCS**
or	**ZKPLAUR**
ost	**ZKPLAUST**
osť	**ZKPLAUSTW**
ot	**ZKPLAUT**
ou	**ZKPLEAU**
ov	**ZKPLAUW**
ovi	**ZKPLAUWY**
ôk	**ZKPLEIUBG**
sko	**SKAUOY**
stvo	**STVAUOY**
tvo	**TVAUOY**
u	**ZKPLU**
ú	**ZKPL~U**
us	**ZKPLUS**
y	**ZKPLY or ZKPLIAU**
ý	**ZKPL~Y or ZKPL~IAU**
ých	**ZKPL~IAUCG**
ým	**ZKPL~YCS**
ými	**ZKPL~YCSY**
ýň	**ZKPL~YCLW**

Exercise No. 34

Select the language that you would like to practice. In this section of the book all the exercises require you to write the entire word and not just the word root. For extra practice, you can revise the exercises of the previous section and write the entire word. The exercises are much longer in this part of the book because even though there are fewer lessons in this section, they still cover many concepts. Take your time completing the lessons and repeat them more than once. It is also a good idea to stroke through each of the lists of suffixes for your chosen language for extra practice.

This lesson introduces speaker identifications to you. See Appendix H for more information on how they work. As you write the words for your chosen language, alternate between Speaker 1, **ZSKTPVLR-C**, and Speaker 2, **ZSKTPVLR-L**.

dělníkům	tisíce	vědcům	život	válka
špatný	duševní	většina	rukou	lidem
tolik	zkušeností	znalost	moudrá	druhých
velikou	sobce	zbabělce	svaly	stranou
světový	model	stejný	volba	váha
žádném	schopné	peníze	vztahy	lidmi
práce	časy	družstva	vinu	vůli
hlavní	klamem	vládců	takovou	prakticky
jiné	vrstva	místo	svržené	třídy
kritiky	změnám	novým	myšlenky	starší
pravda	skrytou	zdrojem	měsíců	mnozí
léto	krutými	letního	vyšší	shodné
diskusi	jedinou	roku	letošních	příštím
také	vlastními	křídlo	ruce	páky
tlačítka	lepší	krajský	době	zčásti
smělosti	boje	bojovník	koryta	titulky
orgánů	čestné	více	obcích	sbírka
dary	stávka	dveří	hrubý	činnost
komise	fronta	řádně	řešení	tiskovina
místní	troubu	tribunu	kladnému	třeba
noviny	svoboda	slovo	smlouvy	hádkám
vnitřní	statečnosti	vztahy	pejsek	právě
dobrá	zimě	jaro	znovu	kniha
matka	míček	tuleň	sloní	chobot

prosta	skuteczniej	pierwszej	właściwy	kobieta
straży	dobrą	stanowisko	herbata	miasta
kierunku	taka	państwowa	biurze	misji
praktyce	liczne	kursy	służby	dużo
mądry	pana	osobą	zadań	szczeblu
końcu	polskiej	rymami	znakiem	drugi
języka	rdzennie	żywotna	swobodę	zgłoski
grupy	względu	punktu	inne	płynna
temat	razem	wcale	mimo	ściśle
mowy	starym	wieku	całkiem	częściach
książki	kamieniu	nosowa	szlachta	złotych
całą	domu	kościołem	plastikowego	głowy
życiem	szczęścia	ciekaw	żadnych	bohater
łąkach	słowa	bąbelnica	siatką	nogi
tyłem	tunel	ryba	pleców	suche
patyki	wschodu	tektura	kaktus	draski
duchowe	chyba	pyłu	skóra	słonia
morza	hotelu	skwaru	weselny	ciemność
szeroką	parkiet	horyzont	wielkimi	chodnikiem
mężczyzn	pieszy	chwili	trzeci	czasu
jasnym	zjawy	zimno	chleba	szybie
prosto	świetle	dziurawe	płótna	sweter
istota	miłość	zwykły	znaki	szary
nocne	śliwek	latach	schody	ciężka

šrauby	nožík	lodnej	prvá	chlapi
koleno	dediny	tábor	rovno	ľudia
dlhé	slnko	mesiac	vrecka	nových
ďalšie	časti	čudnému	vľavo	deka
spodkoch	ráno	barakom	chorý	plášti
spolu	rokov	tisíc	hlavou	oko
budova	stoličkami	miesto	hodinu	drevený
plnou	klenotu	sumu	taxu	trestanec
puzdro	celé	stráže	istého	mama
fľaše	vlasmi	bielymi	domcom	členky
vtákov	tanec	možnom	mreže	sláva
hajzli	večer	košeľu	peniaze	sýta
mäso	svetlú	vriacej	masla	múky
hrachu	cibule	žemle	šošovice	kapusta
kocky	zeleninu	tmavou	slanina	kôprom
mliečne	smotana	horskými	tvorbe	lístka
zemiaky	lyžicu	žĺtok	vňaťou	tanieri
kyslej	hrnca	cmarový	huby	rascou
divokú	šťavou	kurča	stehná	ragú
vínom	bobkový	kačka	chrumkavý	jablká
zvyšné	červenými	dusených	knedľa	ďumbier
prsia	masti	vrchu	pečeň	bažant
pliecko	roštenka	tuhé	snehu	rúre
zdravá	žiliek	minút	guláš	cukru

Verbal Suffixes

Verbal suffixes aren't really all that different than nominal and adjectival endings in their construction. This lesson will show familiarize you with certain principles you will need to keep in mind when working with verbs that you probably hadn't considered.

General rules of Verbal Suffixes

1. These rules don't apply to monosyllabic verbal forms. Write the chord as you normally would expect to.

<div align="center">vstaň = FSTACLW</div>

2. **Monosyllablic verbal forms must be written in one chord**. This most definitely includes the masculine singular form of the past tense.

<div align="center">mohl = KPAUCLG; pełźł = PELBSW</div>

3. Most verbal suffixes begin with a vowel. The main exception are the class of verbs ending in NOUT/NĄĆ/NÚŤ. The other exception is for suffixes for the imperative endings in the plural and verbs ending in ŇOVAT or a similar ending.

> Please note that you cannot always count on the NOUT/NĄĆ/NÚŤ, etc., always being in a separate suffix. If there are no consonants before that ending, then the N is considered the last element of the word part and the rest of the ending becomes a vocalic suffix. Notice the following four verbs:
> skloň/ovat   do/plň/ovat   u/skut/eč/ňovat   u/před/nost/ňovat

4. Some of the verbal suffixes require more than one suffix, just as nouns and adjectives do. Some of the irregular suffixes can be written in more than one chord and will then no longer be irregular. Remember, however, you are not obliged to use any irregular suffix if you find it easier to do encode a more complex suffix using two chords. **You** decide which fits your style of encoding the best.

5. Because we're encoding the language, we're not really interested in why some verbs are irregular or in verbal aspectual pairs.

Special notes for Czech verbs:

- This is not an exhaustive list of endings, but it should cover the vast majority of them. Oftentimes if a suffix is not listed, it means that it must be encoded in two chords.

- Always write infinitives of one syllable as they are spelled. This means you must distinguish between "vést" and "vézt."

- There are special endings for the first and second person plural and other selected suffixes. They add the **O** key to represent the final E in the verbal suffix. As always, if you choose to, you can write these two-syllable suffixes in two chords. It is also possible in some cases to write "shorter" verbs of two syllables in one chord by using the **O** key in the same way. Examples: lžeme = **TPLJE*CSO** or máme = **KP~ACSO**.

> Remember, you are not obliged to use any shortcut. Trying to encode everything in one chord can lead to uncomfortable fingering.

- There is a special ending for those verbal suffixes ending in Í. **GWY** is added to the end of the suffix.

- Also notice that it is possible to add the O and Y endings to the passive and past suffixes. This does not apply to the endings ATO and ATY, which must be two chords. We will see how it is possible to add additional endings in the Shortcuts section.

- Infinitives ending in I must be accomplished in two chords.

- You can add the clitics SE and SI to some of the chords below. For SE, add **SO**. For SI, add **SY**. This is only possible in certain cases when these keys are not already being used. For example, if you need the phrase "stane se," you could encode it in two chords instead of three: **STACL/ZKPLESO**. Of course, you can always write these clitics in their own chord as **SE** and **SI**, respectively.

- Most of the suffixes for the ŇOVAT family are irregular and take the **XF** helper keys. Most of the suffixes for the OVAT family are also irregular and take the **ZKPL** helper keys. The past tense for both families omit the vowel keys in the center of the keyboard.

- There is a special ending for those verbal suffixes ending in OU. **STO** is added to the end of the suffix.

- Most of the chords for verbs from the verb BÝT and JÍT are irregular. A listing of these verbs and others can be found after the table of suffixes.

List of Czech Verbal Suffixes

Suffix	Steno
a	ZKPLA
á	ZKPL~A
aj	ZKPLACB
aje	ZKPLACBO
aji	ZKPLACBY
ají	ZKPLACBGWY
al	ZKPLAL
alo	ZKPLALO
aly	ZKPLALY
áme	ZKPL~ACSO
án	ZKPL~ACL
áno	ZKPL~ACLO
ány	ZKPL~ACLY
áš	ZKPL~ASG
at	ZKPLAT
áte	ZKPL~ATO
av	ZKPLAW
avše	ZKPLASGW
avši	ZKPLASGWY
e	ZKPLE
ě	ZKPLEI
ej	ZKPLECB
ěj	ZKPLEICB
ejí	ZKPLECBGWY
ejme	ZKPLECBSO
ejte	ZKPLECBTO
el	ZKPLEL
ěl	ZKPLEIL
elo	ZKPLELO
ělo	ZKPLEILO
ely	ZKPLELY
ěly	ZKPLEILY
eme	ZKPLECSO
ěme	ZKPLEICSO
en	ZKPLECL
ěn	ZKPLEICL
eno	ZKPLECLO

ěno	**ZKPLEICLO**
eny	**ZKPLECLY**
ěny	**ZKPLEICLY**
eš	**ZKPLESG**
et	**ZKPLET**
ět	**ZKPLEIT**
ete	**ZKPLETO**
ěte	**ZKPLEITO**
ěv	**ZKPLEIW**
ěvše	**ZKPLEISGW**
ěvši	**ZKPLEISGWY**
i	**ZKPLI**
í	**ZKPL~I**
íc	**ZKPL~IC**
íce	**ZKPL~ICO**
il	**ZKPLIL**
ilo	**ZKPLILO**
ily	**ZKPLILY**
ím	**ZKPL~ICS**
íme	**ZKPL~ICSO**
íš	**ZKPL~ISG**
it	**ZKPLIT**
ít	**ZKPL~IT**
íte	**ZKPL~ITO**
iv	**ZKPLIW**
ivše	**ZKPLISGW**
ivši	**ZKPLISGWY**
me	**XFKPE**
na	**XFLRA**
ne	**XFLRE**
neme	**XFLRECSO**
něme	**XFLREICSO**
nen	**XFLRECL**
neno	**XFLRECLO**
neny	**XFLRECLY**
neš	**XFLRESG**
nete	**XFLRETO**
něte	**XFLREITO**
ni	**XFLRI**
ní	**XFLR~I**

níc	XFLR~IC
níce	XFLR~ICO
nil	XFLRIL
nilo	XFLRILO
nily	XFLRILY
ním	XFLR~ICS
níme	XFLR~ICSO
níš	XFLR~ISG
nit	XFLRIT
níte	XFLR~ITO
nou	XFLREAU
nouc	XFLREAUC
nouce	XFLREAUCO
nout	XFLREAUT
ňoval	XFLRJ-L
ňovalo	XFLRJ-LO
ňovaly	XFLRJ-LY
ňovan	XFLRJ-CL
ňovano	XFLRJ-CLO
ňovany	XFLRJ-CLY
ňovat	XFLRJ-T
nu	XFLRU
ňuj	XFLRJUCB
ňuje	XFLRJUO
ňujeme	XFLRJUCSO
ňuješ	XFLRJUSG
ňujete	XFLRJUTO
ňuji	XFLRJUY
ňují	XFLRJUGWY
ňujme	XFLRJUCBSO
ňujou	XFLRJUSTO
ňujte	XFLRJUCBTO
ňuju	XFLRJUW
nul	XFLRUL
nulo	XFLRULO
nuly	XFLRULY
nut	XFLRUT
nuv	XFLRUW
nuvše	XFLRUSGW
nuvši	XFLRUSGWY

ou	**ZKPLEAU**
ouc	**ZKPLEAUC**
ouce	**ZKPLEAUCO**
out	**ZKPLEAUT**
ov	**ZKPLOW**
oval	**ZKPL-L**
ovalo	**ZKPL-LO**
ovaly	**ZKPL-LY**
ován	**ZKPL-CL**
ováno	**ZKPL-CLO**
ovány	**ZKPL-CLY**
ovat	**ZKPL-T**
še	**XFTPE**
ši	**XFTPI**
te	**XFTE**
u	**ZKPLU**
uj	**ZKPLUCB**
uje	**ZKPLJE**
ujeme	**ZKPLJECSO**
uješ	**ZKPLJESG**
ujete	**ZKPLJETO**
uji	**ZKPLJI**
ují	**ZKPLJ~I**
ujíc	**ZKPLJ~IC**
ujíce	**ZKPLJ~ICO**
ujme	**ZKPLUCBSO**
ujou	**ZKPLJEAU**
ujte	**ZKPLUCBTO**
uju	**ZKPLJU**
ul	**ZKPLUL**
ulo	**ZKPLULO**
uly	**ZKPLULY**
ut	**ZKPLUT**
uvše	**ZKPLUSGW**
uvši	**ZKPLUSGWY**

Conditional shortcuts

bych	**PEIAUCG**	bychom	**PEIAUCSG**
bys	**PEIAUS**	byste	**PEIAUSTO**
by	**PJY or PEIAU**		

Shortcuts for the verb "byt"

Notice that the negative adds the **LR** (N) combination to the left side of the forms.

Present/Future	Steno	Negative	Steno
jsa	SJA	nejsa	SLRJA
jsem	SJECS	nejsem	SLRJECS
jsi	SJI	nejsi	SLRJI
je	JE	není	LR-CL
jsme	SKPE	nejsme	SKPLRE
jste	STE	nejste	STLRE
jsou	SJEAU	nejsou	SLRJEAU
jsouc	SJEAUC	nejsouc	SLRJEAUC
jsouce	SJEAUCO	nejsouce	SLRJEAUCO
budu	PJU	nebudu	PLRJU
budeš	PJESG	nebudeš	PLRJESG
bude	PJE	nebude	PLRJE
budeme	PJECSO	nebudeme	PLRJECSO
budete	PJETO	nebudete	PLRJETO
budou	PJEAU	nebudou	PLRJEAU

Shortcuts for the verb "jít" and some related verbs

These very important verbs have irregular single-chord forms. Notice their construction and consider whether similar verbs could be shortened in the same manner. Of course, you are free to write the words in two chords if you choose.

jdu	TJU	přijď	PRITW
jdeš	TJESG	přijde	PRITO
jde	TJE	přijdeme	PRICSTO
jdeme	TJECSO	přijdeš	PRISGT
jdete	TJETO	přijdete	PRIBTO
jdou	TJEAU	přijdu	PRIBTW
jděte	TJEITO	přišel	PRILSG
jdi	TJI	přišlo	PRILSGO
		přišly	PRILSGY
jdouc	TJEAUC		
jdouce	TJEAUCO		
jda	TJA	pojď	POCBTW
půjdu	PEIUTW	půjdeme	PEIUCSTO
půjdeš	PEIUSGT	půjdete	PEIUBTO
půjde	PEIUTO	půjdou	PEIUSTO

Special notes for Polish verbs:

- The second person plural endings are exceptional and use **CO** for the "cie" ending.
- For short verbs ending in I in the third person singular, you can use the **Y** key in the same chord to save a chord. For example, broi = **PRJAUY**.
- Suffix families beginning with AWAĆ, IWAĆ, and YWAĆ must be encoded with two chords. The Shortcuts section has information on complex suffixes that will allow you to encode them in one, but their use is optional.
- There is a special ending for those suffixes ending in Ą. **STO** is added to the end of the suffix. STO is also used for the ŚCIE ending.
- There is a special ending for those suffixes ending in Ę. **W** is added to the end of the suffix.
- Suffixes ending in JE are rendered with special ending **CBTO**.
- Imperatives for the first and second person plural should be accomplished in two chords if the suffix begins with a vowel.
- Most of the suffixes for the OVAT family are also irregular and take the **ZKPL** helper keys. The past tense omits the vowel keys in the center of the keyboard.
- Most of the chords for verbs from the verb BYĆ and IŚĆ are irregular. A listing of these verbs and others can be found after the table of suffixes.

List of Polish Verbal Suffixes:

Suffix	Steno
a	ZKPLA
acie	ZKPLACO
ać	ZKPLATO
aj	ZKPLACB
ają	ZKPLACBSTO
aje	ZKPLACBTO
ajecie	ZKPLACBO
ajemy	ZKPLACBSY
ajesz	ZKPLACBSG
aję	ZKPLACBW
ali	ZKPLALY
ali	ZKPLALY
ał	ZKPLALB
ało	ZKPLALBO
ały	ZKPLALBY
am	ZKPLACS
amy	ZKPLACSY

an	**ZKPLACL**
ano	**ZKPLACLO**
any	**ZKPLACLY**
asz	**ZKPLASG**
aś	**ZKPLASO**
aw	**ZKPLAW**
awsz	**ZKPLASGW**
awszy	**ZKPLASGWY**
ą	**ZKPLEIA**
ąc	**ZKPLEIA**
ący	**ZKPLEIACY**
by	**XFPEIAU or XFPJY**
bym	**XFPEIAUCS**
byś	**XFPEIAUSO**
byście	**XFPEIAUSTO**
byśmy	**XFPEIAUCSOY**
cie	**XFT~E**
e	**ZKPLE**
ecie	**ZKPLECO**
eć	**ZKPLETO**
eją	**ZKPLECBSTO**
eje	**ZKPLECBTO**
ejecie	**ZKPLECBO**
ejemy	**ZKPLECBSY**
ejesz	**ZKPLECBSG**
eję	**ZKPLECBW**
eli	**ZKPLELY**
ely	**ZKPLELBY**
eł	**ZKPLELB**
eło	**ZKPLELBO**
em	**ZKPLECS**
emy	**ZKPLECSY**
en	**ZKPLECL**
esz	**ZKPLESG**
eś	**ZKPLESO**
ę	**ZKPLEAU**
i	**ZKPLI**
ią	**ZKPLJEAU**
iąc	**ZKPLJEAUC**
iący	**ZKPLJEAUCY**

icie	**ZKPLICO**
ić	**ZKPLITO**
ie	**ZKPLEI**
iecie	**ZKPLEICO**
ieć	**ZKPLEITO**
iemy	**ZKPLEICSY**
ien	**ZKPLEICL**
iesz	**ZKPLEISG**
ię	**ZKPLJEAU**
ij	**ZKPLICB**
ili	**ZKPLILY**
ił	**ZKPLILB**
iło	**ZKPLILBO**
iły	**ZKPLILBY**
im	**ZKPLICS**
imy	**ZKPLICSY**
ion	**ZKPLJAUCL**
iono	**ZKPLJAUCLO**
iony	**ZKPLJAUCLY**
isz	**ZKPLISG**
iście	**ZKPLISTO**
iśmy	**ZKPLICSOY**
iw	**ZKPLIW**
łam	**XFLJACS**
łaś	**XFLJASO**
łem	**XFLJECS**
łeś	**XFLJESO**
my	**XFKPY or XFKPIAU**
ną	**XFLREAU**
nąc	**XFLREAUC**
nąć	**XFLREAUTO**
nął	**XFLREAU**
nąli	**XFLREAULY**
nąw	**XFLREAUW**
nę	**XFLREIA**
nęl	**XFLREIAL**
nęli	**XFLREIALY**
nęł	**XFLREIALB**
nęło	**XFLREIALBO**
nęły	**XFLREIALBY**

nie	**XFLRE**
niecie	**XFLRECO**
niemy	**XFLRECSY**
niesz	**XFLRESG**
niet	**XFLRET**
nięcie	**XFLREIACO**
nięto	**XFLRJEIATO**
nij	**XFLRICB**
nijcie	**XFLRICBO**
nijmy	**XFLRICBSY**
nion	**XFLRJAUCL**
niono	**XFLRJAUCLO**
niony	**XFLRJAUCLY**
o	**ZKPLO or ZKPLAU**
om	**ZKPLAUCS**
on	**ZKPLAUCL**
ona	**ZKPLAUCLGY**
one	**ZKPLAUCLTO**
oni	**ZKPLAUCLWY**
ono	**ZKPLAUCLO**
ony	**ZKPLAUCLY**
oś	**ZKPLAUSO**
ować	**ZKPL-TO**
ował	**ZKPL-LB**
owało	**ZKPL-LBO**
owały	**ZKPL-LBY**
owan	**ZKPL-CL**
owaw	**ZKPL-W**
uj	**ZKPLUCB**
ują	**ZKPLJEAU**
ujć	**ZKPLUCBTO**
uje	**ZKPLJE**
ujecie	**ZKPLJECO**
ujemy	**ZKPLJECSY**
ujesz	**ZKPLJESG**
y	**ZKPLY or ZKPLIAU**
ycie	**ZKPLIAUCO**
yli	**ZKPLIAULY**
ył	**ZKPLIAULB**
yło	**ZKPLIAULBO**

yły	**ZKPLIAULBY**
ymy	**ZKPLIAUCSY**
ysz	**ZKPLIAUSG**
yście	**ZKPLIAUSTO**
yśmy	**ZKPLIAUCSOY**
yw	**ZKPLIAUW**

Subjunctive

żebym	**TPJ*ICS**
żebyś	**TPJ*ISO**
żeby	**TPJ*I**
żebyśmy	**TPJ*ICSOY**
żebyście	**TPJ*ISTO**

Shortcuts for the verb "być"

Notice that the negative adds the **LR** (N) combination to the left side of the forms.

Present/Future	Steno	Negative	Steno
jestem	**JECST**	nie jestem	**LRJECST**
jesteś	**STESO**	nie jesteś	**STLRESO**
jest	**JEST**	nie jest	**LRJEST**
jesteśmy	**STECSO**	nie jesteśmy	**STLRECSO**
jesteście	**STESTO**	nie jesteście	**STLRESTO**
są	**SEAU**	nie są	**SLREAU**
będę	**PJEIA**	nie będę	**PLRJEIA**
będziesz	**PJESG**	nie będziesz	**PLRJESG**
będzie	**PJE**	nie będzie	**PLRJE**
będziemy	**PJECSY**	nie będziemy	**PLRJECSY**
będziecie	**PJECO**	nie będziecie	**PLRJECO**
będą	**PJEAU**	nie będą	**PLRJEAU**

Shortcuts for the verb "iść" and some related verbs

These very important verbs have irregular single-chord forms. Notice their construction and consider whether similar verbs could be shortened in the same manner. Of course, you are free to write the words in two chords if you choose.

iść	ISTO	przyjść	PRISTO
idę	TJEIA	przyjdę	PRITW
idziesz	TJESG	przyjdziesz	PRISGT
idzie	TJEICSO	przyjdzie	PRITO
idziemy	TJECSY	przyjdziemy	PRICSY
idziecie	TJETO	przyjdziecie	PRICTO
idą	TJEAU	przyjdą	PRIBTO
idąc	TJEAUC	przyszedł	PRISGTW
		przyszło	PRILBSGO
pójść	PEIUSTO	przyszły	PRILBSGY
pójdę	PEIUTO		
pójdziesz	PEIUSGT		
pójdzie	PEIUTE		
pójdziemy	PEIUCSY		
pójdziecie	PEIUCTO		
pójdą	PEIUBTO		

Special notes for Slovak verbs:

- This list is not exhaustive. One of the reasons for this is the rule prohibiting two long syllables in a row. In many cases, all that is required is to remove the **~** key from a suffix with a long vowel. In other cases, a different combination of keys is required.
- Always write infinitives of one syllable as they are spelled. This means you must distinguish between "viesť" and "viezť."
- There are special endings for the first and second person plural and other selected suffixes. They add the **O** key to represent the final E in the verbal suffix. As always, if you choose to, you can write these two-syllable suffixes in two chords. It is also possible in some cases to write "shorter" verbs of two syllables in one chord by using the **O** key in the same way. Example: máme = **KP~ACSO**; jeme = **JECSO**.
- For endings in **Ú**, we use the **W** key after the J sound.
- You can add the clitics SA and SI to some of the chords below. For SA, add **SOY**. For SI, add **SY**. For example, if you need the phrase "stáva sa," you could encode it in two chords instead of three: **ST~AW/ZKPLASOY**. Of course, you can write these clitics in their own chord as **SA** and **SI**, respectively.
- Most of the suffixes for the OVAŤ family are irregular and take the **ZKPL** helper keys. The past tense and passive suffixes omit the vowel keys.
- Most of the chords for verbs from the verb BYŤ and ISŤ are irregular. A listing of these verbs can be found after the table of suffixes.

Suffix	Steno
a	ZKPLA
á	ZKPL~A
ac	ZKPLAC
aj	ZKPLACB
ajme	ZKPLACBSO
ajte	ZKPLACBTO
ajú	ZKPLACBW
al	ZKPLAL
alo	ZKPLALO
aly	ZKPLALY
am	ZKPLACS
ám	ZKPL~ACS
ame	ZKPLACSO
áme	ZKPL~ACSO
aš	ZKPLASG

áš	**ZKPL~ASG**
ať	**ZKPLATW**
ate	**ZKPLATO**
áte	**ZKPL~ATO**
av	**ZKPLAW**
e	**ZKPLE**
ejú	**ZKPLECBW**
el	**ZKPLEL**
elo	**ZKPLELO**
em	**ZKPLECS**
eme	**ZKPLECSO**
eš	**ZKPLESG**
ete	**ZKPLETO**
i	**ZKPLI**
í	**ZKPL~I**
ia	**ZKPLIA**
iac	**ZKPLIAC**
iace	**ZKPLIACE**
iaci	**ZKPLIACY**
iam	**ZKPLIACS**
iame	**ZKPLIACSO**
iaš	**ZKPLIASG**
iate	**ZKPLIATO**
ie	**ZKPLEI**
iem	**ZKPLEICS**
ieme	**ZKPLEICSO**
ieš	**ZKPLEISG**
ieť	**ZKPLEITW**
iete	**ZKPLEITO**
il	**ZKPLIL**
ilo	**ZKPLILO**
ily	**ZKPLILY**
im	**ZKPLICS**
ím	**ZKPL~ICS**
ime	**ZKPLICSO**
íme	**ZKPL~ICSO**
iš	**ZKPLISG**
íš	**ZKPL~ISG**
iť	**ZKPLITW**
ite	**ZKPLITO**

íte	**ZKPL~ITO**
iv	**ZKPLIW**
la	**XFLA**
li	**XFLI**
lo	**XFLO or XFLAU**
ly	**XFLY or XFLIAU**
me	**XFKPE**
ne	**XFLRE**
nem	**XFLRECS**
neme	**XFLRECSO**
neš	**XFLRESG**
nete	**XFLRETO**
ni	**XFLRI**
nieť	**XFLREITW**
niť	**XFLRITW**
nú	**XFLR~U**
núc	**XFLR~UC**
nut	**XFLRUT**
núť	**XFLR~UTW**
nuť	**XFLRUTW**
ol	**ZKPLOL**
olo	**ZKPLOLO**
oly	**ZKPLOLY**
ov	**ZKPLOW**
oval	**ZKPL-L**
ovalo	**ZKPL-LO**
ovaly	**ZKPL-LY**
ovan	**ZKPL-CL**
ovať	**ZKPL-TW**
ší	**XFTP~I**
šia	**XFTPIA**
šie	**XFTPEI**
te	**XFTE**
u	**ZKPLU**
ú	**ZKPL~U**
uc	**ZKPLUC**
úc	**ZKPL~UC**
úce	**ZKPL~UCO**
uj	**ZKPLUCB**
uje	**ZKPLJE**

ujem	**ZKPLJECS**
ujeme	**ZKPLJECSO**
uješ	**ZKPLJESG**
ujete	**ZKPLJETO**
ujú	**ZKPLJ~U**
ujúc	**ZKPLJ~UC**
ul	**ZKPLUL**
ulo	**ZKPLULO**
uly	**ZKPLULY**
uť	**ZKPLUTW**

Shortcuts for the verb "byt'"

The negative of the verb in the present tense is simply doing both words in one chord, and this varies from both Czech and Polish. The negative future tense adds N to the positive forms.

Present/Future	Steno	Negative	Steno
som	**SAUCS**	nie som	**LRECLS**
si	**SI**	nie si	**LRESY**
je	**JE**	nie je	**LRECBTO**
sme	**SKPE**	nie sme	**LRECLSO**
ste	**STE**	nie ste	**LRESTO**
sú	**S~U**	nie sú	**LRESW**
súc	**S~UC**	buď	**PJUBTW**
súci	**S~UCY**	nebuď	**PLRJUBTW**
budem	**PJECS**	nebudem	**PLRJECS**
budeš	**PJESG**	nebudeš	**PLRJESG**
bude	**PJE**	nebude	**PLRJE**
budeme	**PJECSO**	nebudeme	**PLRJECSO**
budete	**PJETO**	nebudete	**PLRJETO**
budú	**PJ~U**	nebudú	**PLRJ~U**

Shortcuts for the verb "íst" and some related words

These very important verbs have irregular single-chord forms. Notice their construction and consider whether similar verbs could be shortened in the same manner. Of course, you are free to write the words in two chords if you choose.

isť	ISTW	prísť	PR~ISTW
idem	TJECS	prídem	PR~ICST
ideš	TJESG	prídeš	PR~ISGT
ide	TJE	príde	PR~ITO
ideme	TJECSO	prídeme	PR~ICSTO
idete	TJETO	prídete	PR~IBTO
idú	TJ~U	prídu	PR~IBTW
iduc	TJ~UC		
poď	PAUBTW	príď	PR~ITW
pôjsť	PEIUSTW	prišiel	PRILSG
		prišlo	PRILSGO
pôjdem	PEIUCST	prišly	PRILSGY
pôjdeš	PEIUSGT		
pôjde	PEIUTO	pošiel	PAULSG
pôjdeme	PEIUCSTO	pošlo	PAULSGO
pôjdete	PEIUBTO	pošly	PAULSGY
pôjdú	PEIUSTO		

Exercise No. 35

Select the language you wish to practice. Remember to follow the rules for division into chords. One-syllable words should always be written in one chord. As you write the words for your chosen language, alternate between Speaker 3, **ZSKTPVLR-S**, and Speaker 4, **ZSKTPVLR-T**.

Česky

nesu	neseš	nese	neseme	nesete
nesou	čtu	čteš	čte	čteme
čtete	čtou	peču	pečeš	peče
pečeme	pečete	pečou	třu	třeš
tře	třeme	třete	třou	beru
bereš	bere	bereme	berete	berou
mažu	mažeš	maže	mažeme	mažete
mažou	tisknu	tiskneš	tiskne	tiskneme
tisknete	tisknou	minu	mineš	mine
mineme	minete	minou	začnu	začneš
začne	začneme	začnete	začnou	hnu
hneš	hne	hneme	hnete	hnou
nesl	četl	pekl	třel	bral
nesme	čtěte	pečme	mažte	tiskni
miňme	začněme	hněte	hnuv	tisknuv
nesa	čtouc	třev	berouc	mazav
kryju	kryjí	kupuješ	kupujme	prosím
čistí	čistěme	trpíte	sazejí	sazeje
trpěn	bdě	bdíme	prošen	sázet
jsem	buď	jsouc	jedl	jedši

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zbiegły	chwyce	wiózł	tniemy	bierzcie
chiej	piekł	tarłem	jeźdźmy	wiążę
cierpcie	piszemy	myśl	biegł	chcący
miej	trząsł	czytamy	pracujecie	mierzę
pisujmy	mdleją	błądzisz	chwalimy	tnijmy
trajkoczesz	słyszymy	zmierzy	pisywać	barwię
będzie	godzący	pragnij	mdlejący	piło
klaskano	mielono	chrzczę	gnij	jeździć
kladł	siedzieć	broją	proszę	wóźcie
kąpie	prosiły	bałaganić	broi	pije
robimy	gódźcie	proagnąć	stygnięto	karzesz
siedzę	kaszlę	proś	wieje	niośl
pijcie	wiano	jeżdżę	tarto	wozę
strzygł	robiłby	cierpię	brójmy	biorą
piekę	barwiony	blądź	kąpało	chwaliłbym
słysz	gaśnie	klaszczecie	gasł	nikł
kaszlmy	rósl	rosły	mełł	jadł
maluję	zmierzycie	barwmy	chwyci	chwyćcie
kopniesz	kopnij	zrobią	szepczą	szeptałem
zwiążę	związałby	zwiążmy	zerwało	zerwij

máte	majú	rozumiem	chytám	nesiem
češe	robím	robia	chudnú	žuje
pracuješ	pracovať	vidí	vidieť	brať
niesol	vedie	môcť	hyniem	pletú
pletie	hovieť	deravieť	kynúť	trieť
triem	beriem	hýbal	buchotať	hasnúť
stojím	volá	stoja	volal	stalo
volám	lietam	poďme	pracujme	jedzme
chcime	staňme	stojme	robiť	žujúc
žerie	zvíťaziac	mohli	páči	mrzelo
choď	čušať	nosíte	klameš	hovorieval
všimla	kúpil	hrajte	vstúpil	liezol
splodiť	myslíš	jestvuje	študovať	získa
tvoria	hraj	znáte	zatnú	vrátim
bolo	správa	zisťuje	vrúbilo	musím
cítiš	chváliac	nesúc	hrejete	volajme
tolerujeme	sľubujem	kašlem	kúpte	pýtam
zhovárali	tancovať	čakajú	kolísajúcich	chytí
píšuc	išlo	jedzme	tuším	dúfam
chodiť	vzbudzovalo	mrmlať	platia	hádame
chýbaš	poďte	strpíte	vrážal	vzďaľujú
chvaľ	miňte	berte	promoval	vracal
dvihať	býval	píšuci	spadnutý	vedie
ziabnu	mažú	sádza	prosím	voláte

Prepositions and Prefixes

Prepositions play a vital role in word formation, and that is why we are devoting two chapters to examine them. We need to discuss the formation of simple prefixes, many of which are formed from prepositions. We will, therefore, begin this lesson with an examination of prepositions. We will then see how easy it is to convert them to simple prefixes. We will also learn about compound prefixes, which are two prefixes combined in one chord in this lesson. Lesson 33 will discuss complex prefixes.

Why some words are more important than others

Before we get into how prefixes are constructed, it's important to note that it is not really necessary for you to add every single prefix or even every single word or word part that you can possibly think of to your database. Why? There are a few reasons. In the first place, if your goal is to write as fast as possible, you need to focus on the most common words or word components while still being able to write the rarer and, most likely, more complicated words if you need them. Most people will have a general idea of what will be written and possibly the exact words they will need. These are the word components that you need to have in your database.

When we are encoding, we always use our main database, also known as a personal dictionary. This database is customized to you. You add and delete entries as you see fit. It is important that you back up this database on a regular basis, especially if you make major changes to it. If you lose this dictionary, you are in big trouble.

You can also have numerous secondary databases. You can have a secondary database if you are a programmer and wish to add an entire line of programming without having to type the entire line over and over. You could add an entry such as **SVR-TW** to represent it. The actual chord doesn't matter. You don't really have to "follow the rules" with secondary databases.

By default when you start to encode, your personal dictionary is the database used first to translate against. However, you can tell the program to give a secondary database higher priority to it and not the main database. You can also use more than one secondary database

at a time. You must tell the program which database has the highest priority, which has the second highest, and so on. This is because you might actually use the same sequence of keys to mean different things in different databases. If that is the case, because you have told the program which database has the highest priority, the entry in the database with the highest priority is the one that is used and the other identical entries in the lower priority secondary databases and even in your primary database are disregarded.

As an example of when you might need different databases, say you are providing instantaneous text to a deaf university student attending a lecture. You might have a secondary database for chemistry containing chemical formulas, one for biology, one for mathematics containing premade formulas containing superscripts, one for statistics with statistical equations, and so on. You might need chemistry and biology databases for one class. Now, what kinds of things would you put in a biology database? "DNA" and "deoxyribonucleic acid" are two terms that come to mind. You would add entries to encode each of those terms with only one chord. I mean, you **can** write them using word parts in several chords, if you really wanted to, but most stenographers will use shortcuts in this scenario. But in a biology class, those terms would be common. So, again, you would add entries for the most common and expected words and not the uncommon.

So back to which prefixes to add. You don't want to spend hours adding every single prefix to your personal database. A prefix such as "acetylo-" is not likely to be required except in very exceptional cases. If your goal is to work with scientific texts or to provide instantaneous text for a congress of chemists, then you might expect that words beginning with that suffix to appear. In that instance, you might elect to add that prefix to a secondary database that will be used specifically for the occasion. You can move entries from the secondary database to your main database pretty easily, if they prove especially helpful. You can even use the same exact chord with the same exact translation in more than one dictionary. Don't worry if you have more than one secondary database that you use on a regular basis.

It's quite common to use three or even more databases at one time, and which ones are used depends on what type of language is being used. Usually, the entries in the secondary database are shortcuts for very technical words or programming or other complex text sequences, including names and titles. Another good reason to create secondary databases is so you can easily print up and learn the latest shortcuts and entries that you have entered. And don't forget to back up all of your second databases as well. They are as valuable as your primary database.

In lesson 34, you will learn the method using infixes to join word parts together without using prefixes. So this is another reason why you don't want to spend hours adding every single

prefix into your main database. You would be better off practicing how to write faster than to spend all of your time adding to your databases, especially the main one.

Prepositions

General rules of prepositions

1. Write prepositions in the normal fashion when you need them. If the word you need is longer than one chord, add suffixes as needed to complete the word.

    Example: na **LRA**

2. You might have to simplify the chord if simplifying will allow you to write the preposition in one chord and the preposition occurs with very high frequency. It is the stenographer that decides what is high frequency for himself or herself. It all depends on the type of material you need to write. This will vary from individual to individual. This is one of the reasons why each stenographer writes in his or her own way.

    Example: blisko **PLJILSO**

3. Certain longer high-frequency prepositions should have exceptional forms. One of the best ways to make exceptional forms for prepositions is to eliminate the vowel keys. Again, whether a preposition occurs with high frequency will vary from individual to individual.

    Example: naproti **LR-RBTW**

4. There are four prepositions that are treated differently and will be discussed in the next lesson. Those prepositions are K (KU), Z, V (W), and S.

Prefixes

There are actually two different types of prefixes, internal and external prefixes. Internal prefixes are those prefixes which are included in the word part and are **never** in a separate chord. For example, the Czech word "vztlak." The VZ prefix is internal to this word part. The chord would be **FSTLABG**, as you have already learned. On the other hand, the external prefix VZE, as in the Czech word "vzestup" would be a separate chord from the word part STUP. External prefixes will always have at least one vowel. If there is no vowel in the prefix,

it must be chorded with the word or word part. This lesson will concentrate on external prepositions because you already know how to handle internal prefixes, even if you didn't already realize it.

Prefix Simplification

I want to emphasize again that prefixes are incredibly important in word formation. Because of this, it is imperative that the most common prefixes are simplified. Simplified prefixes will help you encode faster because you will have to press fewer keys. Simplification affects Polish prefix most of all, although it does occur to an extent in Czech also. You'll notice that the simplified prefixes look a lot like regular prefixes.

Prefix Doublets

Because both of these languages have short and long vowels, many Czech and Slovak prefixes will have doublets, the same prefix, one option with a short vowel and one option with a long vowel. For example, the prefix doublet NA and NÁ. Even if only one option is shown, please keep in mind that two options are likely in many cases.

Prefix Creation

Add the * key to the chord for any preposition that is encoded in one chord. That's it.

Compound Prefixes

There is nothing mysterious about compound prefixes. It's just combining two prefixes in one chord. I highly recommend using them whenever possible. It's a great timesaver. For example, in Polish you can use the "nie" prefix together with the "do" prefix. Most compound prefixes are simplified, just like you would simplify prepositions. Combining prefixes words best for prefixes that are each only one syllable long.

nie- **LRE*** + do- **TJ*O** = niedo- **LRE*TO**

You certainly are not obliged to combine prefixes, and not all prefixes are combinable. That is a personal choice. You can choose to encode all prefixes in their own chord until you become familiar with them. Then you can choose to combinate the ones that tend to occur most often or the ones you find most comfortable and easy to remember.

Česky

Common native Czech prepositions and prefixes

The list of prepositions and prefixes is not exhaustive, but it represents most of the common ones in Czech. It will give you an idea of how to create similar chords for the less common ones. Refer to the other two languages for more inspiration.

	Preposition	Prefix
bez(e)	PJES, PJESO	PJE*S, PJE*SO
během	PJEICS	
blízko	PL~ISGO	PL*ISGO
daleko	TLEGO	TLE*GO
dle	TLE	
dlouho		TLE*AUGO
do	TJO or TJAU	TJ*O or TJ*AU
draho		TR*AGO
dů		TJE*IU
kde		KTE*
kdy		KT*Y
kromě	KROCSO	
kolem	KL-CS	KL*CS
kolo	KAULO	
kvůli	KVEIULY	
lec		LE*C
leda		LE*BT
		leto- LE*TO
		ledo- LE*BTO
mezi	KPESY	KPE*SY
mimo	KPICSO	KP*ICSO
místo	KP~ISTO	KP* ~ISTO
na	LRA	LR*A
ná		LR~*A
nad(e)	LRABT, LRABTO	LR*ABT, LR*ABTO
naproti	LR-RBTW	
ne	LRE	LRE*
o	AU or O	*AU or *O

ob(e)	AUB	*AUB, *AUBO
od(e)	AUBT, AUBTO	*AUBT, *AUBTO
okolo	AULGO	*AULGO
pa		P*A
po	PAU or PO	P*AU or P*O
poblíž	PLAUBSG	
pod(e)	PAUBT, PAUBTO	P*AUBT, P*AUBTO
podél	TP~EL	
podle	POLTO	
polo		P*AULO
pra		PR*A
pro	PRAU or PRO	PR*AU or PR*O
prů		PRE*IA
proti	PR-T	PR*T
před(e)	PRET, PRETO	PRE*T, PRE*TO
přes	PRES	PRE*S
při	PRI	PR*I
pří		PR~*I
pů		PE*IA
roz(e)		R*AUS, R*AUSO
skrz	SKR-BS	
sou		SE*AU
tělo		TE*LO
u	U	*U
ú		~*U
uprostřed	PRURST	
uvnitř	VLRUCRBT	
včetně	FPVECLTO	
vedle	VELBTO	
vel(e)		VE*L, VE*LTO velo- VE*LO
velko		VE*LGO
vně	VLREI	
vůči	VEIAGWY	
vy		V*I
vý		V~*I
vze		FSE*
za	ZA	Z*A
zá		Z~*A
zpod	ZPAUBT	

Czech prefixes from borrowings

These are some of the most used prefixes in borrowings. Notice that DE and RE must be encoded in a separate chord from the rest of the word. For more information on borrowings, see Lesson 42.

a	*A
ab	*AB
ambi	*ACBSY
an	*ACL
ana	*ACLOY
anti	*ACLT
arci	*ACRY
audio	*AUOY
auto	*AUTO
bio	PJ*IO
chemo	KTE*CSO
de	TJE*
dez	TJE*BS
dis	TJ*IS
dys	TE*IAUS
eu	E*U
euro	E*URO
ex	E*LS
extra	E*RSG
fono	F*AUCLO
foto	F*AUTO
geo	KJE*O
giga	KJ*IG
hyper	KTJ*IRB
hypo	KTJ*IBO
i	*I
im	*ICS
info	*ICLW
infra	*ICRLW
inter	*ICRLT
kom	K*AUCS
kon	K*AUCL
kontra	K*AUCLT
krypto	KR*IBTO
kvazi	KV*ASY

kyber	K*IRB
makro	KP*AGO
maxi	KP*ASG
mega	KPE*GOY
meta	KPE*T
mikro	KP*IGY
mini	KP*ICLY
mono	KP*AUCLO
multi	KP*ULT
neo	LRE*O
post	P*AUST
pre	PR*TO
pro	PR*AU
proto	PR*AUTO
pseudo	SPE*UTO
radio	R*AOY
re	RE*
semi	SE*CSY
sub	S*UB
super	S*URB
syn	S*ICL
techno	T*ECLGO
tele	TE*AL
termo	TE*CRSO
trans	TR*ACLS
turbo	T*URBO
ultra	*URLT
uni	*UCLY
vice	V*ICO

Po polsku

Common native Polish prepositions and prefixes

The list of prepositions and prefixes is not exhaustive, but it represents most of the common ones in Polish. It will give you an idea of how to create similar chords for the less common ones. Refer to the other two languages for more inspiration.

	Preposition	Prefix
bez(e)	PJES, PJESO	PJE*S, PJE*SO
blisko	PLISGO	PL*ISGO
ciało		T*ALBO
daleko	TLEGO	TLE*GO
dla	TLA	TL*A
długo	TLJUGO	TLJ*UGO
do	TJO or TJAU	TJ*O or TJ*AU
dookoła	TJAULBGOY	TJ*AULBGOY
drogo		TR*AUGO
gdzie		KTE*
kiedy		KT*Y
kołem	KL-CS	
koło	KAULBO	K*AULBO
między	KPEIACY	KPE*IACY
mimo	KPICSO	KP*ICSO
na	LRA	LR*A
nad(e)	LRABT, LRABTO	LR*ABT, LR*ABTO
nie	LRE	LRE*
niż	LRIBSG	
o	AU or O	*AU or *O
ob(e)	AUB	*AUB, *AUBO
od(e)	AUBT, AUBTO	*AUBT, *AUBTO
około	AULBGO	*AULBGO
oprócz	PR-GW	
pa		P*A
po	PAU or PO	P*AU or P*O
pod(e)	PAUBT, PAUBTO	P*AUBT, P*AUBTO
polo		P*AULO
ponad	PLRABT	
poprez		
poza	PAUSOY	P*AUBSOY
pra		PR*A
pro	PRAU or PRO	PR*AU or PR*O

prócz	PREIUGW	
prze		PRE*
przeciw	PR-T	PR*T
przed(e)	PRET, PRETO	PRE*T, PRE*TO
przez(e)	PRES, PRESO	PRE*S, PRE*SO
przy	PRI	PR*I
roz(e)		R*AUS, R*AUSO
spod	SPAUBT	
spomiędzy	SKPECY	
sponad	SPLRABT	
spośród	SPRUT	
spoza	SPOSOY	
sprzed	SPREBT	
u	U	*U
wbrew	FPREW	
według	FTLJUG	
wiel		VE*IL
wielko		VE*ILGO
wokół	FKEIULB	
wspól		FSPE*IUL
wy		V*I
wze		FSE*
za	ZA	Z*A
zamiast	ZKPIAST	
znad(e)	ZLRAUBT, ZLRAUBTO	
zza	ZSA	

Polish prefixes from borrowings

These are some of the most used prefixes in borrowings. Notice that DE and RE must be encoded in a separate chord from the rest of the word. For more information on borrowings, see Lesson 42.

a	*A
ab	*AB
ambi	**ACBSY**
an	*ACL
ana	*ACLOY
anty	*ACLT
arcy	**ACRY**
audio	**AUOY**
auto	*AUTO
bio	PJ*IO
chemo	KTE*CSO
cyber	**S*IRB**
de	TJE*
dez	TJE*BS
dis	TJ*IS
dys	TE*IAUS
eks	E*LS
ekstra	E*RLS
eu	E*U
euro	E*URO
fono	F*AUCLO
foto	F*AUTO
geo	KJE*O
giga	KJ*IG
hiper	KTJ*IRB
hipo	KTJ*IBO
i	*I
im	*ICS
info	*ICLW
infra	**ICRLW**
inter	*ICRLT
kom	K*AUCS
kon	K*AUCL
kontra	**K*AUCLT**
krypto	KR*IBTO

kwazi	KV*ASY
makro	KP*AGO
maksy	KP*ASG
mega	KPE*GOY
meta	KPE*T
mikro	KP*IGY
mini	KP*ICLY
mono	KP*AUCLO
multi	KP*ULT
neo	LRE*O
post	P*AUST
pre	PR*TO
pro	PR*AU
proto	PR*AUTO
pseudo	SPE*UTO
radio	R*AOY
re	RE*
semi	SE*CSY
sub	S*UB
super	S*URB
syn	S*ICL
techno	T*ECLGO
tele	TE*AL
termo	TE*CRSO
trans	TR*ACLS
turbo	T*URBO
ultra	*URLT
uni	*UCLY
vice	V*ICO

Common native Slovak prepositions and prefixes

The list of prepositions and prefixes is not exhaustive, but it represents most of the common ones in Czech. It will give you an idea of how to create similar chords for the less common ones. Refer to the other two languages for more inspiration.

	Preposition	Prefix
bárs		PJ~*ARS
bez(o)	PJES, PJESO	PJE*S, PJE*SO
blízko	PL~ISGO	PL*ISGO
cez	ZSEBS	ZSE*BS
ďaleko	TLEGO	TLE*GO
dlouho		TL*GO
do	TJO or TJAU	TJ*O or TJ*AU
dô		TJE*IU
draho		TR*AGO
kde		KTE*
kedy		KT*Y
kvôli	KVEIULY	
leda		LE*BT
		leto- LE*TO
medzi	KPECWY	KPE*CWY
mimo	KPICSO	KP*ICSO
miesto	KPEISTO	KPE* ISTO
na	LRA	LR*A
ná		LR~*A
nad(o)	LRABT, LRABTO	LR*ABT, LR*ABTO
napriek	PLREIG	
naproti	LR-RBTW	
ne	LRE	LRE*
o	AU or O	*AU or *O
ob(o)	AUB	*AUB, *AUBO
od(o)	AUBT, AUBTO	*AUBT, *AUBTO
okolo	AULGO	*AULGO
okrem	KR-CS	
pa		P*A
po	PAU or PO	P*AU or P*O
počas	P-SGW	
pod(o)	PAUBT, PAUBTO	P*AUBT, P*AUBTO

podľa	**POLTO**	
polo		**P*AULO**
pô		**PE*IA**
pra		**PR*A**
prie		**PRE*I**
pro	**PRAU or PRO**	**PR*AU or PR*O**
proti	**PR-T**	**PR*T**
pred(o)	**PRET, PRETO**	**PRE*T, PRE*TO**
pri	**PRI**	**PR*I**
prí		**PR~*I**
roz(o)		**R*AUS, R*AUSO**
skrz(e)	**SKR-BS, SKR-BSO**	
spod	**SPAUBT**	
sprie		**SPRE*I**
sú		**S~*U**
telo		**TE*LO**
u	**U**	***U**
ú		**~*U**
uprostred	**PRURST**	
vedľa	**VELBTO**	
veľ		**VE*LB**
		velo- **VE*LO**
veľa	**VELBO**	**VE*LBO**
veľko	**VE*LBGO**	**VE*LBGO**
voči	**VAUGWY**	
vy		**V*I**
vý		**V~*I**
vze		**FSE***
za	**ZA**	**Z*A**
zá		**Z~*A**
zú		**Z~*U**

Slovak prefixes from borrowings

These are some of the most used prefixes in borrowings. Notice that DE and RE must be encoded in a separate chord from the rest of the word. For more information on borrowings, see Lesson 42.

a	*A
ab	*AB
ambi	*ACBSY
an	*ACL
ana	*ACLOY
anti	*ACLT
arci	*ACRY
audio	*AUOY
auto	*AUTO
bio	PJ*IO
chemo	KTE*CSO
de	TJE*
dez	TJE*BS
dis	TJ*IS
dys	T*EIAUS
eu	E*U
euro	E*URO
ex	E*LS
extra	E*RSG
fono	F*AUCLO
foto	F*AUTO
geo	KJE*O
giga	KJ*IG
hyper	KTJ*IRB
hypo	KTJ*IBO
i	*I
im	*ICS
info	*ICLW
infra	*ICRLW
inter	*ICRLT
kom	K*AUCS
kon	K*AUCL
kontra	K*AUCLT
krypto	KR*IBTO
kvazi	KV*ASY

kyber	K*IRB
makro	KP*AGO
maxi	KP*ASG
mega	KPE*GOY
meta	KPE*T
mikro	KP*IGY
mini	KP*ICLY
mono	KP*AUCLO
multi	KP*ULT
neo	LRE*O
post	P*AUST
pre	PR*TO
pro	PR*AU
proto	PR*AUTO
pseudo	SPE*UTO
radio	R*AOY
re	RE*
semi	SE*CSY
sub	S*UB
super	S*URB
syn	S*ICL
techno	T*ECLGO
tele	TE*AL
termo	TE*CRSO
trans	TR*ACLS
turbo	T*URBO
ultra	*URLT
uni	*UCLY
vice	V*ICO

Exercise No. 36

Select the language you wish to practice. Remember to follow the rules for division into chords. Remember to differentiate between when a preposition is separate and when it is a prefix. As you write the words for your chosen language, alternate between Speaker 5, **ZSKTPVLR-O**, and Speaker 6, **ZSKTPVLR-R**.

Česky

současně	ústřední	považována	přilákají	náboženských
zapsáno	rozkládá	vyspělým	předtím	původně
názorů	přikazuje	odvozující	rozdělena	předpokládal
nedostatky	kombinují	označoval	náměstí	zahájen
území	nezávislost	rozvíjet	přešel	náprava
zavedením	rozsáhlých	soukromého	projevil	například
úsek	význačné	rozlohu	podpořit	rozmístěno
zábavných	zastupitelství	vykonává	pozemků	obvody
odvětví	důrazu	navazuje	okrajových	dojíždí
popisná	rozměrných	nedostatek	zahrnuta	výrobky

Po polsku

rozkład	północ	ujawnić	przydatny	ubezpieczenie
obchodzić	nawzajem	dekolt	dochód	uzasadniona
niedobry	odbiór	autobus	nabój	upowszechniła
redukować	napad	mikrocyt	antyfilm	przyciemnic
określony	zaczęła	obraz	pogląd	przedstawicieli
wywodzi	pozostała	obszarze	potwierdziło	zapoczątkowało
przebywali	rozwoju	udostępnił	dowództwo	rozporządzenie
wymagań	zakres	podległym	obok	dobierać
przychudy	wielkolud	nadeżreć	nadzorowi	przewiezione
umarł	wymogli	napisanymi	zaprzyjaźnił	odczytywaną

zazrel	vykríkol	posadili	na posteli	nevyzeral
predložka	nechcem	na čo	do priestoru	uvedomovali
pri zadnom	prekonal	odpadkov	predtým	rozpore
záchranou	vynakladal	nahnevaná	napokon	vydesiť
oblečený	odstránili	navždy	zabehaj	napokon
pri mesiačiku	občas	uzavrel	pričom	obracal
neprehovoriť	prikázala	nápad	zákazníci	utrúsila
na prízemí	výrok	západ	pomôžte	nadváha
predstieral	niekde	prepáč	dôvodov	urobiť
prestaňme	používaj	nevyťahuj	predstavu	odpočúvať

We'll continue our examination of prefixes in this lesson, this time concentrating on complex prefixes. This lesson also introduces the concept of key switching, which we'll use from time to time with complex prefixes and occasionally also in other instances.

The Four Pesky Nonsyllabic Prepositions

Before we examine complex prefixes, which are a combination of a preposition and a prefix, we need to discuss four of the simplest prepositions and their relationship to complex prefixes. Let's take a quick look at the steno keyboard again.
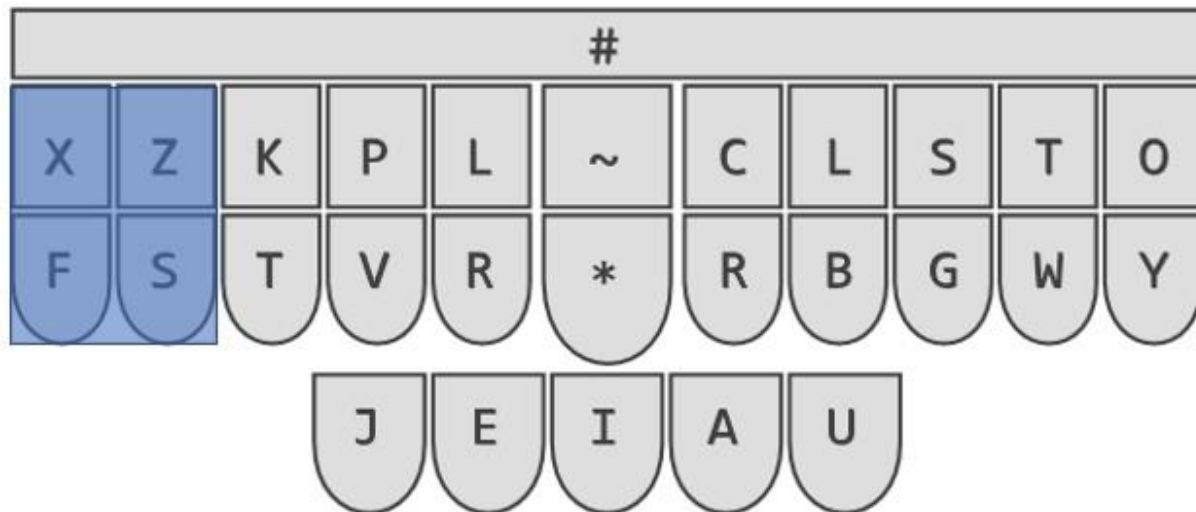
I want you to take special notice of the four keys at the far left, **XFZS**. They are holding a secret. They actually represent the K (KU), V (W), Z, and S (not for Polish) prepositions.

> **These keys can represent all forms of the preposition and not just a single letter.**
>
> **K** = k, ke, ku
> **F** = v, w, ve, vo, we
> **Z** = z, zo, ze
> **S** = s, se, so

Many times, these four pesky prepositions are pronounced in the same syllable with the following word. It follows, then, that they should be in the same chord as the following word, doesn't it? Agree with me, please. Well, many times, you will find these prepositions used right before a word with a prefix, as in the case of the Slovak "v prípade." The first chord will cover the V PRÍ, the second chord will cover PAD, and the third chord will be for the suffix E.

Knowing that we can add these prepositions to these prefixes is a great thing, but we will need to add helper keys when we use these four prepositions in a complex prefix. Sometimes the **F** key is part of a word root and not a preposition. We want to avoid any confusion in the chord. You should be able to tell at a glance what is going on. For instance, we can tell that if the keys **ZKPL** are used, we know that we are dealing with a suffix. When we see the ***** key, we know either that it is a preposition or there is an out-of-steno-order consonant in the word root. We will use the **OY** at the far right, which, if you remember, we also use as helper keys for suffixes.

Think back to the prefixes we covered in the previous lesson. Some of these prefixes already use the **O** key. In the case where the **O** key is already used in a complex prefix, simply add the **Y** key. If the **Y** key is already used, add the **O** key.

Key Switching, Part I

Well, what happens if a chord ends with the **T** or **W** key and we need to add the **OY** helper keys? You should remember that it would not be possible to press **TOY** or **WOY** at the same time from the very beginning of this course. There are two things that could happen. The first option is that we will switch the **T** or **W** key to another key that is not being used. You can easily use this option when there is only one or two consonants on the right side. If this is the case, then the following happens:

-T switches to **-B**

-W switches to **-C**

The first option works most of the time. But I cannot guarantee that by switching keys another word part might not erroneously be translated.

The second option is that there are simply too many consonants on the right side to move those sounds to another key. In that case, you would have to encode the preposition in a separate chord.

If you think about key switching a little bit, you'll realize that you might be able to complete the polish suffix ATY in one chord. Czech and Slovak words ending in AVO would also be possible. Give it a little thought, and you can see how this technique might be very useful.

Key switching, Part II will be in the Shortcuts section.

If I Need to Write The Four Pesky Prepositions By Themselves

If you elect **not** to write those prepositions together with the following element or **cannot** due to the number of keys the consonants on the left side required, you will need to use the following alternatives to write them. You must write these pesky prepositions in a "balanced way," that is to say, using both hands. If you don't, then stacking will become an issue. It's very easy for a single key to become interpreted as part of the preceding or following chord. The following table gives you alternates to avoid stacking. I bring this up now, almost at the end of the course, because stacking may not be an issue while you are just beginning to learn stenography. It definitely does become an issue when you are encoding faster. And it's incredibly difficult to unlearn the habits that lead to stacking once they have become ingrained.

Nonsyllabic Preposition Workaround – Preposition in its own chord

Preposition	Single letter	With fill vowel E or O (depending on language)
k	K-BG	KE or KU
v (w)	V-W	WE, VE, or VO
z	Z-BS	ZE or ZO
s	S-S	SE or SO

The Four Pesky Nonsyllabic Prepositions and Word Parts

We are not limited to only using prefixes with those four prepositions. Let's say that I have the Czech words "v těle" that I need to write. The keys that represent those sounds for the first chord are **FTEIL.** If I use that chord, it looks like I have one word or word part, "vtěl" as in the word "vtělit" and not two as in "v těle". What must I do to make it obvious that I have

in mind two words and not one? Again, I will have to use the helper keys we use for complex prefixes, **OY** on the far right side. Therefore, for "v tých" the chord would be **FTEILOY**.

You can use them with both the single-letter version and sometimes with fill-vowel version of preposition as well. So a phrase like "ve vlasech" would be encoded as **FVLASOY** in the first chord, and it would be followed with **ZKPLECG** for the suffix.

The Four Pesky Nonsyllabic Prepositions and Compound Prefixes

We can combine the four pesky nonsyllabic prepositions and compound prefixes. For example, the Polish phrase "w niedokończonym" can be broken down to "w niedo," which would be a complex and compound prefix, word part "kończ," and two suffixes, "on" and "ym." Psst! The Shortcuts section of this book contains a technique to combine those two suffixes into one. Be brave and learn some of the advanced skills in that section if you dare.

Three Pesky Prepositions As Vocalized Prefixes

We have kicked the preposition K to the side of the road for this part of the lesson.

This section will deal with the three remaining pesky prepositions and what happens when they are a vocalized prefix. We have some good news here. They are quite straightforward.

ve- **we-** **vo-**		**VE* or V*AU or V*O**
se- **so-**		**SE* or S*AU or S*O**
ze- **ze-** **zo-**		**ZE* or Z*AU or Z*O**

As I said, these are very ordinary prefixes, but I wanted to delay their introduction until we could discuss their nonsyllabic counterparts.

A very important consideration

I haven't mentioned this before, but it seems an appropriate time to do so now. For words that begin with a vowel which is not part of a longer prefix, the best practice for separating a word into chords is to write the vowel in a separate prefix chord from the remainder of the word. It doesn't work in all cases. Sometimes a consonant must be included after the vowel. Let me give you some examples.

Útok would be divided as ú/tok and not út/ok. Why? Because the main word root is TOK. Obchodiť would be divided as ob/chod/iť and not o/bchod/iť. Why? Because the main word root is CHOD. Anarchia would be divided as an/arch/ia and not a/narch/ia because the word root is ARCH meaning "leader." The AN prefix means "lack of." If you divide the words in this manner, you will be able to use those four nonsyllabic prepositions together with those prefixes.

It is equally true, though, that some words can't be divided right after a beginning vowel. Why? Because the beginning vowel is **not** a prefix. It's actually the beginning of the word part. To determine what kind of word you are dealing with, think what the form of the word in the genitive plural would be. If it is a feminine word, it will have a null ending. That gives you the word part. For example, the Polish word "uczta" would have the word part "uczt" as its base. All endings would be added to that word part. It is **not** split u/czta.

Exercise No. 37

Select the language you wish to practice. Remember to follow the rules for division into chords in this chapter. As you write the words for your chosen language, alternate between Speaker 7, **ZSKTPVLR-B**, and Speaker 8, **ZSKTPVLR-G**.

Česky

s vysokou	v Praze	s původem	k odvádění	s lineární
ve středních	ve své	z kamene	v době	z ní
s dobrým	se železnicí	v českých	v období	k Praze
z nichž	v mnohých	v roce	v údolí	s hrubým
v přepočtu	k velkému	ze skla	v celé	z významných
v půdě	z datové	ve městě	v letních	v minulosti
ve stejné	z hlediska	v červnu	z roku	v běžných

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z jego	z dodatkiem	w plastry	z farszem	ku upadkowi
z nadzieniem	ku nim	z grzybami	w całości	ku drzwiom
w wodzie	z dowolnego	w wielu	ku wiosce	ze względu
z kapustą	w innych	ku morze	w licznych	w południowej
ku radości	w ustach	z Polski	z powidłami	ku mnie
z mięsem	ku górze	z owocami	w języku	z rok
ku miastu	w wersji	z serem	ku pamięci	z ciasta

Po slovensky

v izbe	s ním	z formy	so šiestimi	v súvislosti
s prípravou	v strede	s takým	v hlavnej	s prekresľanou
v ockových	k nám	z hotela	zhotovila	z mokrej
v nej	v tamošnej	z podstavca	v miestnosti	k jeho
s kapelou	vo veku	s tým	v súkromí	vo mne
so mnou	k dievčatám	s kuframi	v hale	k vchodu
z ruky	v rodine	k sebe	k automatu	v tričku

Infixes

We will conclude this section with a discussion on infixes. Infixes are elements of a word that are encoded in order to bring together two separate word parts. There are three types of infixes: common infix, null infix, and spacing infix. All infixes consist of three parts: one, helper keys on the left side that will attach whatever follows to the previous element; two, an element in the middle; and three, helper keys to attach that something to whatever follows it.

Common Infix

The beginning helper keys for an infix are **XF**, and the ending helper keys are **OY**. The vocalic element is most often O, but it can be E or even NE or some form of NE, depending on the language.

The typical formula for a common infix is:

XF + (vocalic or short syllabic element) + **OY**

I would estimate that about 70-75% of the time, the vocalic element will be O. About 15 percent of the time, the vocalic element will be E, and the remainder will be A, Y, I, NE, NO, or something of that ilk.

Infixes can be very helpful when you need to create a compound word but don't have a prefix in your database to automatically attach to a word root. We previously discussed prefixes, and our discussion revolved around the most common prefixes. However, there is really no way to anticipate what will be spoken or what topic you need to write about. Using infixes allows you to concentrate more on your writing without spend as much time on expanding your database. You never really complete your database. You will fine-tune it for as long as you use stenography. The trick is to spend your time wisely. Adding in every single word part and then another entry with the word part plus O as a prefix is not the way to do that. You're literally doubling your work.

Let's compare the three languages and see how common infixes work.

Czech:	žlut	o	zelen	ý
Polish:	żółt	o	biał	y
Slovak:	žlt	o	hned	ý

I know it's not the exact same word, but notice how the construction is the same. There is a first element for yellow, and it's followed by an infix O. The second half of the word is another word or word part, and the final element is a suffix. The chord for the O infix would be **XFAUOY** in all three cases.

Now another variant on the infix is the null infix. What does that mean? Well, it allows you to pull together any two elements without a vocalic element in the middle. Sometimes you don't need a vowel to link together elements. Consider the Slovak word "kníhkupectvo." This allows you to push the "kníh" and the "kup" together without having to add an "kníh" prefix to your database. Again, the goal is smart database management, not being a slave to your database. If you need to spend time on stenography, you should be encoding to work on accuracy and speed and not doing database maintenance.

The formula for a null infix is:

XF - OY

Our final infix is something that you probably haven't even considered. Sometimes you need to add a space between elements that are otherwise going to attach to one another. Let's say that you accidentally encode a prefix when you meant to encode a preposition. The only difference is the * key. You have two options. The first option is to press the * key to

remove the erroneous chord. Then you would press the correct chord you originally intended. That would be two chords extra to solve that situation. The second option is for you to force a space between the prefix and whatever element follows. You can use a spacing infix to force a space between the prefix so that it won't connect the following element. All you have to do is use the spacing infix and then continue writing. You would then need only one extra chord to solve the situation. It will save you one chord. It doesn't seem like a lot, but it can add up over time.

The formula for a spacing infix is:

XF * OY

It helps to think of the * key as a sort of wedge that pushes the chords apart.

I hope you see how useful infixes can be. They occur quite frequently in scientific discussion, but they can be used in a variety of texts.

Exercise No. 38

Select the language you wish to practice. For each word, divide into it parts. Locate the first word part (which might have a prefix), common infix (if any), second word part (which might also have a prefix), and any suffix. Not all words have all the elements just listed. You should be able to determine all word parts by this point. If not, please revise all the lessons in the Affixes section of the book. As you write the words for your chosen language, alternate between Speaker 9, **ZSKTPVLR-W**, and Speaker 10, **ZSKTPVLR-Y**.

<mark>Česky</mark>

zvěrolékař	strašpytel	samopal	zákonodárce	novomanžel
barvotisk	bájesloví	životopis	knihtisk	sladkokyselý
čtvrthodina	horolezec	kulomet	vodoměr	severovýchod
vlastivěda	rovnocenný	jazykověda	slunovrat	římskokatolický

<mark>Po polsku</mark>

stawonóg	winobranie	białobrzuchy	typografia	językoznawstwo
szablozębny	heksametr	hematofag	żółtonogi	ciemnoczerwony
brudnopis	czterolistna	czworobok	dalekomorski	dakorumuński
czarnodzioby	złotogłowa	magnetofon	rybożerny	niebieskonogi

hladomor	severozápad	citoslovce	jasnovidec	ľadovomodrý
mrakodrap	ľahkomyslený	nosorožec	ohňostroj	bruchomluvec
rodokmeň	rýchlopos	smrtonosný	staromódny	pravdepodobne
červenokožec	ľudojedstvo	teplomer	tvrdohlavý	vodorovné

Shortcuts

Shortcuts and More

We now come to probably the most useful part of the book – the shortcuts. I want to impress upon all of you that you are never obliged to use any shortcut except those mentioned in the previous sections of the book; however, you will find them extremely useful if you decide to learn them. Some of the shortcuts vary from the expected way to encode them and must be memorized. One of the reasons that they exist is that they are shortcuts for very common words. When you use them several times, you'll see that committing them to memory isn't that difficult. Families of shortcuts, like possessive pronouns, have been designed to vary from the expected chord in a similar manner. You'll find that the chord for words "rhyme," as it were. You will find lists of families in each lesson. Not all of the words listed are shortcuts. They have been placed together so you can see the patterns more easily.

You will also learn advanced suffix construction that will allow you to encode two syllables in one chord and advanced word root techniques that will also save a chord. Again, use only the techniques you find useful. If you discover that the fingering pattern feels "off" or doesn't quite fit in with how you think the steno encoding should be, you do not have to use them. Some folks prefer to produce chords that are easily decipherable, and others prefer to write fewer chords that are a bit more complex to decode on sight.

There really is no right or wrong way to encode. As long as the resulting text produced is correct and the method you use makes sense to you, you are encoding correctly. Every stenographer writes in a unique manner.

The first family of shortcuts we will learn are the personal pronouns and possessive pronouns. But before we get to the pronoun tables, we need to discuss secondary vowels.

Secondary Vowels

What in the world are secondary vowels?! Well, you are, by now, very familiar with the vowels in the center part of the steno keyboard. But you have also noticed that there are vowel keys on the right side, O and Y. We use secondary vowels **in very limited situations**. For example, many of the personal pronouns are quite short words. It would be nice if we can use only one chord for these two-syllable words and save a chord. How can we do that? We can

use some of the keys on the extreme right side of the keyboard and use them as an additional vowel. So, for example. We see in Czech the word "tebe." We can easily do **TEB** for the first part of the word. What about that final E? What are we going to do with that? Well, just like we can use **CL** to mean N on the right side, we can use the **TO** keys to mean a secondary E on the right side. When we do that, we can then write the word "tebe" as **TEBTO**. See, this is how we save chords and write faster. Do you see where I am going with this? Does it give you ideas of how to encode two chords in one? Think about it. It could be very helpful.

Here is a chart of the primary (center) and secondary (right-side) vowels for each language. Please note that not every vowel has a right-side version because the vowel sound does not occur at the end of a word. For Czech and Slovak, some long vowels will not occur on the right side.

Vowel	Česky		Po polsku		Po slovensky	
	Center	Right	Center	Right	Center	Right
a	A	OY	A	OY	A	OY
ą			EIA	STO or TW		
e	E	TO	E	TO	E	TO
ę			EAU	W		
ě	EI	TO				
i	I	WY	I	WY	I	WY
í		GWY				GWY
o	AU	O	AU	O	AU	O
ó			EIU			
ô					EIU	
ou	EAU	O			EAU	O
u	U	W	U		U	W
ů	EIA					
y	IAU	Y	IAU	Y	IAU	Y

I want you take special notice of the tables on the next few pages. Please notice how the shortcuts for words are very consistent. Shortcuts should be logical and somewhat predictable. A shortcut that you create does no good if you can't remember it easily. Color conventions are the same as previously used in this book.

<mark>Česky</mark>

Czech Personal Pronouns

já	J~A	ty	TY	on	AUCL
mě	KPEI	tě	TEI	ona	AUCLOY
mi	KPI	tebe	TEBTO	ono	AUCLO
mne	KPLRE	tebou	TEBO	ho	KJO
mně	KPLREI	ti	TI	jeho	JEGO
mnou	KPLREAU	tobě	TAUBTO	něho	LREIGO
				mu	KPU
				jemu	JECSW
sám	S~ACS	se	SE	němu	LREICSW
sama	SACSOY	sebe	SEBTO	něm	LREICS
sami	SACSWY	sebou	SEBO	jím	J~ICS
samo	SACSO	si	SI	ním	LR~ICS
samy	SACSY	sobě	SAUBTO	jej	JECB
				něj	LREICB
				její	JECBY
				jí	J~I
				ji	JI
				ni	LRI
				ní	LR~I
my	KPY	vy	VY	oni	AUCLWY
nám	LR~ACS	vám	V~ACS	ony	AUCLY
námi	LR~ACSY	vámi	V~ACSY	ona	AUCLOY
nás	LR~AS	vás	V~AS	jich	JICG
				nich	LRICG
				jim	JICS
				nim	LRICS
				je	JE
				ně	LREI
				jimi	JICSY
				nimi	LRICSY
				jima	JICSOY
				nima	LRICSOY

Czech Possessive Pronouns

můj	KPUCB	tvůj	TVUCB	svůj	SVUCB
má	KP~A	tvá	TV~A	svá	SV~A
mé	KPE~	tvé	TVE~	své	SVE~
mého	KPE~GO	tvého	TVE~GO	svého	SVE~GO
mém	KPE~CS	tvém	TVE~CS	svém	SVE~CS
mému	KPE~CSW	tvému	TVE~CSW	svému	SVE~CSW
mí	KP~I	tví	TV~I	sví	SV~I
moje	KPJE	tvoje	TVJE	svoje	SVJE
moji	KPJI	tvoji	TVJI	svoji	SVJI
mojí	KPJ~I	tvojí	TVJ~I	svojí	SVJ~I
mojich	KPJICG	tvojich	TVJICG	svojich	SVJICG
mojim	KPJICS	tvojim	TVJICS	svojim	SVJICS
mojimi	KPJICSY	tvojimi	TVJICSY	svojimi	SVJICSY
mou	KPEAU	tvou	TVEAU	svou	SVEAU
mých	KP~IAUCB	tvých	TV~IAUCB	svých	SV~IAUCB
mým	KP~IAUCS	tvým	TV~IAUCS	svým	SV~IAUCS
mými	KP~IAUCSY	tvými	TV~IAUCSY	svými	SV~IAUCSY
jeho	JEGO	její	JECBY		
		jejího	JECBO		
		jejímu	JECBW		
		jejím	JECBS		
		jejími	JECBSY		
		jejích	J~ICG		
náš	LR~ASG	váš	V~ASG	jejich	ICG
naše	LRASGTO	vaše	VASGTO		
našeho	LRASGO	vašeho	VASGO		
naší	TPLR~I	vaší	TPV~I		
našemu	LRASGW	vašemu	VASGW		
naši	LRASGY	vaši	VASGY		
našem	LRACSG	vašem	VACSG		
naším	TPLR~ICS	vaším	TPV~ICS		
našich	TPLRICG	vašich	TPV~ICG		
našim	TPLRICS	vašim	TPVICS		
našimi	TPLRICSY	vašimi	TPVICSY		
našima	TPLRICSOY	vašima	TPVICSOY		

Notice that NÁŠ and VÁŠ have two different stems. It is necessary to distinguish vowel length, and this seemed the best way to do it.

Polish Personal Pronouns

ja	JA	ty	TY	on	AUCL
mnie	KPLRE	cię	TEIA	ona	AUCLOY
mię	KPEIA	ciebie	TEBTO	ono	AUCLO
mi	KPI	ci	TI	go	KJO
mną	KPEAU	tobie	TAUBTO	jego	JEGO
		tobą	TAUBO	niego	LREGO
				jej	JECB
sam	SACS			niej	LRECB
sama	SACSOY	se	SE	mu	KPU
same	SACSTO	się	SEIA	jemu	JECSW
sami	SACSWY	siebie	SEBTO	niemu	LRECSW
samo	SACSO	sobie	SAUBTO	ją	JEAU
		sobą	SAUBO	nią	LREAU
				je	JE
				nie	LRE
				nim	LRICS
				niej	LRECB
my	KPY	wy	VY	oni	AUCLY
nas	LRAS	was	VAS	one	AUCLTO
nam	LRACS	wam	VACS	ich	ICG
nami	LRACSY	wami	VACSY	nich	LRICG
				im	ICS
				nim	LRICS
				je	JE
				nie	LRE
				nimi	LRICSY

Polish Possessive Pronouns

mój	KPUCB	twój	TVUCB	swój	SVUCB
moja	KPAUOY	twoja	TVAUOY	swoja	SVAUOY
moją	KPAUTW	twoją	TVAUTW	swoją	SVAUTW
moje	KPAUTO	twoje	TVAUTO	swoje	SVAUTO
mojego	KPEGO	twojego	TVEGO	swojego	SVEGO
mojej	KPECB	twojej	TVECB	swojej	SVECB
mojemu	KPECSW	twojemu	TVECSW	swojemu	SVECSW
moi	KPAUY	twoi	TVAUY	swoi	SVAUY
moich	KPIAUCG	twoich	TVIAUCG	swoich	SVIAUCG
moim	KPIAUCS	twoim	TVIAUCS	swoim	SVIAUCS
moimi	KPIAUCSY	twoimi	TVIAUCSY	swoimi	SVIAUCSY
(w poezji)		(w poezji)		(w poezji)	
mego	KPE*GO	twego	TVE*GO	swego	SVE*GO
memu	KPE*CSW	twemu	TVE*CSO	swemu	SVE*CSO
mym	KP*IAUCS	twym	TV*IAUCS	swym	SV*IAUCS
ma	KPA	twa	TVA	swa	SVA
mej	KPE*CB	twej	TVE*CB	swej	SVE*CB
mą	KPEAU	twą	TVEAU	swą	SVEAU
me	KPE	twe	TVE	swe	SVE
mych	KP*IAUCG	twych	TV*IAUCG	swych	SV*IAUCG
mymi	KP*IAUCSY	twymi	TV*IAUCSY	swymi	SV*IAUCSY
jego	JEGO	jej	JECB		
nasi	LRASY	wasi	VASY	ich	ICG
nasz	LRASG	wasz	VASG		
nasza	LRASGOY	wasza	VASGOY		
naszą	LRASGTW	waszą	VASGTW		
nasze	LRASGTO	wasze	VASGTO		
naszego	LRASGO	waszego	VASGO		
naszej	LRACBSG	waszej	VACBSG		
naszemu	LRACSGW	waszemu	VACSGW		
naszych	LRIAUCB	waszych	VIAUCB		
naszym	LRIAUCS	waszym	VIAUCS		
naszymi	LRIAUCSY	waszymi	VIAUCSY		

Note that most, if not almost all, of the words that begin with "WY" will be encoded with the suffix WY- and won't conflict with the shortcuts in the WASZ family.

Slovak Personal Pronouns

> Compare the chords of "ťa" and "tá." The more common word is exceptional. It is easier to remember an exceptional common word than an uncommon exceptional word.

ja	JA	ty	TY	on	AUCL
ma	KPA	ťa	T~OY	ona	AUCLOY
mi	KPI	(tá	T~A)	ono	AUCLO
mňa	KPLRJA	teba	TEBOY	ho	KJO
mne	KPLRE	tebe	TEBTO	jemu	JECSW
mnou	KPLREAU	tebou	TEBO	jeho	JEGO
		ti	TI	jej	JECB
sám	S~ACS			ju	JU
sama	SACSOY	seba	SEBOY	mu	KPU
sami	SACSWY	sa	SA	neho	LREGO
samo	SACSO	sebe	SEBTO	nej	LRECB
samy	SACSY	si	SI	nemu	LRECSW
		sebou	SEBO	ním	LR~ICS
				ňom	LRJAUCS
				ňou	LRJEAU
				ňu	LRJU
my	KPY	vy	VY	oni	AUCLWY
nás	LR~AS	vás	V~AS	ony	AUCLY
nám	LR~ACS	vám	V~ACS	ich	ICG
nami	LRACSY	vami	VACSY	im	ICS
				ne	LRE
				nich	LRICG
				nim	LRICS
				nimi	LRICSY

Slovak Possessive Pronouns

môj	KPEIUCB	tvoj	TVAUCB	svoj	SVAUCB
moja	KPJA	tvoja	TVJA	svoja	SVJA
moje	KPJE	tvoje	TVJE	svoje	SVJE
môjho	KPEIUCBGO	tvojho	TVAUCBGO	svojho	SVAUCBGO
mojej	KPJECB	tvojej	TVJECB	svojej	SVJECB
môjmu	KPJAUCBSW	tvojmu	TVAUCBSW	svojmu	SVAUCBSW
moju	KPJU	tvoju	TVJU	svoju	SVJU
mojom	KPJAUCS	tvojom	TVJAUCS	svojom	SVJAUCS
mojím	KPJ~ICS	tvojím	TVJ~ICS	svojím	SVJ~ICS
mojou	KPJEAU	tvojou	TVJEAU	svojou	SVJEAU
moji	KPJI	tvoji	TVJI	svoji	SVJI
mojich	KPJICG	tvojich	TVJICG	svojich	SVJICG
mojim	KPJICS	tvojim	TVJICS	svojim	SVJICS
mojim	KPJICSY	tvojimi	TVJICSY	svojimi	SVJICSY
jego	JEGO	jej	JECB		
náš	LR~ASG	váš	V~ASG	ich	ICG
naša	LRASGOY	vaša	VASGOY		
naše	LRASGTO	vaše	VASGTO		
našej	LRACBSG	vašej	VACBSG		
nášho	LR~ASGO	vášho	V~ASGO		
naši	LRASGY	vaši	VASGY		
našich	TPLRICG	vašich	TPVICG		
našim	TPLRICS	vašim	TPVICS		
naším	TPLR~ICS	vaším	TPV~ICS		
našimi	TPLRICSY	vašimi	TPVICSY		
nášmu	LRACSGW	vášmu	VACSGW		
našom	TPLRAUCS	vašom	TPVEAUCS		
našou	TPLREAU	vašou	TPVEAU		
našu	LRASGW	vašu	VASGW		
nášu	LR~ASGW	vášu	V~ASGW		

Notice that NÁŠ and VÁŠ have two different stems. It is necessary to distinguish vowel length, and this seemed the best way to do it.

More Pronouns

We will now continue with our discussion of pronouns. In this lesson we will discuss demonstrative pronouns, relative, and interrogative pronouns. Not all forms will be shown, but it is possible to encode most pronouns in two chords by using affixes listed at the end of each section. Feel free to compare the three languages for more ideas on how to handle pronouns.

Česky

Czech Demonstrative and Interrogative Pronouns

Ten/tento/tenhle

ta	TA	tato	TATO	tahle	TLA
té	TE~	této	TE~TO	téhle	TLE~
těch	TEICG	těchto	TEICGTO	těchhle	TLEICG
těm	TEICS	těmto	TEICSTO	těmhle	TLEICS
těmi	TEICSY	těmito	TEICSOY	těmihle	TLEICSY
ten	TECL	tento	TECLTO	tenhle	TLECL
ti	TI	tito	TITO	tihle	TLI
tím	T~ICS	tímto	T~ICSTO	tímhle	TL~ICS
to	TO or TAU	toto	TAUTO	tohle	TLO or TLAU
toho	TAUGO	tohoto	TAUGTO	tohohle	TLAUGO
tom	TAUCS	tomto	TAUCSTO	tomhle	TLAUCS
tomu	TAUCSW	tomuto	TAUCSTW	tomuhle	TLAUCSW
tou	TEAU	touto	TEAUTO	touhle	TLEAU
tu	TU	tuto	TUTO	tuhle	TLU
ty	TY	tyto	TIAUTO	tyhle	TLY

Kdo/kdosi/nikdo

kdo	KTO	kdosi	SKTO	nikdo	KTLRO
koho	KAUGO	kohosi	SKAUGO	nikoho	KTLRAUGO
komu	KAUCSW	komusi	SKAUCSW	nikomu	KTLRAUCSW
kom	KAUCS	komsi	SKAUCS	nikom	KTLRAUCS
kým	K~IAUCS	kýmsi	SK~IAUCS	nikým	KTLR~IAUCS

Words beginning with SKOM will be written SK*AUCS, because they are rare and considered bookish.

> Pronouns beginning with "ně-" will be encoded with two chords, with the prefix NĚ- in its own chord, except where included in a table.

Co/cosi/nic

co	ZSO	cosi	ZSOSY	nic	LRIC
čeho	PVEGO	čehosi	SPVEGO	ničeho	PVLRAUGO
čemu	PVECSW	čemusi	SPVECSW	ničemu	PVLRECSW
čem	PVECS	čemsi	SPVECS	ničem	PVLRECS
čím	PV~ICS	čímsi	SPV~ICS	ničím	PVLR~ICS

Čí/ničí/číkoliv

čí	PV~I	ničí	PVLR~I	číkoliv	KPV~I
čího	PV~IGO	ničího	PVLR~IGO	číhokoliv	KPV~IGO
čímu	PV~ICSW	ničímu	PVLR~ICSW	čímukoliv	KPV~ICSW
čím	PV~ICS	ničím	PVLR~ICS	čímukoliv	KPV~ICS
čích	PV~ICG	ničích	PVLR~ICG	číchkoliv	KPV~ICG
čími	PV~ICSY	ničími	PVLR~ICSY	čímikoliv	KPV~ICSY
číma	PV~ICSOY	ničíma	PVLR~ICSOY	čímakoliv	KPV~ICSOY

Který/některý

který	KTR~IAU or KTR~Y	některý	KTLR~IAU or KTLR~Y
která	KTR~A	některá	KTLR~A
které	KTR~E	některé	KTLR~E
kterého	KTR~EGO	některého	KTLR~EGO
kterému	KTR~ECSW	některému	KTLR~ECSW
kterou	KTREAU	některou	KTLREAU
kterém	KTR~ECS	některém	KTLR~ECS
kterým	KTR~IAUCS	některým	KTLR~IAUCS
kteří	KTRJ~I	někteří	KTLRJ~I
kterých	KTR~IAUCG	některých	KTLR~IAUCG
kterými	KTR~IAUCSY	některými	KTLR~IAUCSY

All other forms of this pronoun must use affixes.

Jaký/nějaký

jaký	KJ~IAU or KJ~Y	nějaký	KLRJ~IAU or KLRJ~Y
jaká	KJ~A	nějaká	KLRJ~A
jaké	KJE~	nějaké	KLRJE~
jakého	KJE~GO	nějakého	KLRJE~GO
jakému	KJE~CSW	nějakému	KLRJE~CSW
jakou	KJEAU	nějakou	KLRJEAU
jakém	KJE~CS	nějakém	KLRJE~CS
jakým	KJ~IAUCS	nějakým	KLRJ~IAUCS
jací	KJ~I	nějací	KLRJ~I
jakých	KJ~IAUCG	nějakých	KLRJ~IAUCG
jakými	KJ~IAUCSY	nějakými	KLRJ~IAUCSY

Jenž

Now the more literary form of KTERÝ is, of course, JENŽ. Because it does not occur with the same frequency of KTERÝ, we will simply encode this family of relative pronouns normally. They are listed below, and you can see that most of them are one-syllable words and don't present any particular problem.

jenž	jež	něž	jehož	něhož	jíž	níž	jemuž	již	niž	jejž	nějž
němuž	jež	něž	jímž	nímž	jichž	nichž	jimž	nimž	jimiž	nimiž	

Common Affixes with Czech Pronouns

This is not an exhaustive list, but these affixes are among the most common.

kde-	KTE*
-koli	XFKLI
-koliv	XFKLIW
-kudy	XFKUBY
lec-	LE*C
leda-	LE*BT
málo-	KP~*ALO
ně-	LREI*
ni-	LR*I
tam-	T*ACS
tamhle-	T*ACLS

Polish Demonstrative and Interrogative Pronouns

Ten

ci	TI
ta	TA
tą	TEAU
te	TE
tego	TEGO
tej	TECB
temu	TECSW
ten	TECL
tę	TEIA
to	TO
tych	TIAUCG
tym	TIAUCS
tymi	TIAUCSY

Ów

ów	EIUW
owa	AUCOY
ową	AUCTW
owe	AUCTO
owego	AUCGO
owej	AUCB
owemu	AUCSW
owę	AUCW
owi	AUCY
owo	AUCO
owych	AUCG
owym	AUCS
owymi	AUCSY

The word OCH is written as ***AUCG**, and the word OM is ***AUCS**.

Kto/nikt

kto	KTO	nikt	LRIGT
kogo	KAUGO	nikogo	KLRAUGO
komu	KAUCSW	nikomu	KLRAUCSW
kim	KICS	nikim	KLRICS

Co/nic

co	ZSAU or ZSO	nic	LRIC
czego	PVEGO	niczego	PVLREGO
czemu	PVECSW	niczemu	PVLRAUCSW
czym	PVICS	niczym	PVLRICS

Jaki/niejaki

jacy	ZSJI	niejacy	ZSLRJI
jaka	KJA	niejaka	KLRJA
jaką	KJEAU	niejaką	KLRJEAU
jaki	KJI	niejaki	KLRJI
jakich	KJICG	niejakich	KLRJICG
jakie	KJE	niejakie	KLRJE
jakiego	KJEGO	niejakiego	KLRJEGO
jakiej	KJECB	niejakiej	KLRJECB
jakiemu	KJECSW	niejakiemu	KLRJECSW
jakim	KJICS	niejakim	KLRJICS
jakimi	KJICSY	niejakimi	KLRJICSY

Czyj/niczyj

czyi	PVIY	niczyi	PVLRIY
czyich	PVJICG	niczyich	PVLRICG
czyim	PVJICS	niczyim	PVLRICS
czyimi	PVICSY	niczyimi	PVLRICSY
czyj	PVICB	niczyj	PVLRICB
czyja	PVICBOY	niczyja	PVLRICBOY
czyją	PVICBTW	niczyją	PVLRICBTW
czyje	PVICBTO	niczyje	PVLRICBTO
czyjego	PVICBGO	niczyjego	PVLRICBGO
czyjej	PVJECB	niczyjej	PVLRJECB
czyjemu	PVICBSW	niczyjemu	PVLRICBSW

Który

która	KTRA	niektóra	KTLRA
którą	KTREAU	niektórą	KTLREAU
które	KTRE	niektóre	KTLRE
którego	KTREGO	niektórego	KTLREGO
której	KTRECB	niektórej	KTLRECB
któremu	KTRECSW	niektóremu	KTLRECSW
który	KTRIAU or KTRY	niektóry	KTLRIAU or KTLRY
których	KTRIAUCG	niektórych	KTLRIAUCG
którym	KTRIAUCS	nietórym	KTLRIAUCS
którymi	KTRIAUCSY	niektórymi	KTLRIAUCSY
którzy	KTRJI	niektórzy	KTLRJI

Common Affixes with Polish Pronouns

This is not an exhaustive list, but these affixes are among the most common. You can, of course, elect to encode the pronouns in normal fashion and add the appropriate affixes.

> Pronouns ending with Ś or Ż are written normally: ktoś = **KTAUS**O; jakiż = **JAGY/ZKPLIBSG**; and gdzież = **KTEBSG** (adding the Ż to the irregular GDZIE, **KTE**).

gdzie-	KTE*
-kolwiek	XFKLEG
nie-	LREI*
ni-	LR*I
tam-	T*ACS

Slovak Demonstrative and Interrogative Pronouns

In contrast to Czech and Polish, Slovak has quite a large number of forms for its pronouns.

Ten/tento

tá	T~A	táto	T~ATO
tej	TECB	tejto	TECBTO
ten	TECL	tento	TECLTO
tie	TEI	tieto	TEITO
tím	T~ICS	tímto	T~ICSTO
to	TO	toto	TAUTO
toho	TAUGO	tohto	TAUGTO
tom	TAUCS	tomto	TAUCSTO
tomu	TAICSW	tomuto	TAICSTW
tou	TEAU	touto	TEAUTO
tú	T~U	túto	T~UTO
tých	T~IAUCG	týchto	T~IAUCGTO
tým	T~IAUCS	týmto	T~IAUCSTO
tými	T~IAUCSY	týmito	T~IAUCSOY

Aký/nejaký

aká	KJ~A	nejaká	KLRJ~A
aké	KJE~	nejaké	KLRJE~
akého	KJE~GO	nejakého	KLRJE~GO
akej	KJECB	nejakou	KLRJECB
akému	KJE~CSW	nejakému	KLRJE~CSW
akí	KJ~I	nejakí	KLRJ~I
akom	KJAUCS	nejakom	KLRJAUCS
akou	KJEAU	nejakou	KLRJEAU
akú	KJ~U	nejakú	KLR~U
akú	KJ~U	nejakú	KLRJ~U
aký	KJ~IAU or KJ~Y	nejaký	KLRJ~IAU or KLRJ~Y
akých	KJ~IAUCG	nejakých	KLRJ~IAUCG
akým	KJ~IAUCS	nejakým	KLRJ~IAUCS
akými	KJ~IAUCSY	nejakými	KLRJ~IAUCSY

These forms include the **KJ** keys with the AKÝ forms instead of only **K** because the J shows up in the derived forms.

Čí/niči

čej	PVECB	ničej	PVLRECB
čí	PV~I	ničí	PVLR~I
čia	PVIA	ničia	PVLRIA
čie	PVEI	ničího	PVLREI
čieho	PVEIGO	ničího	PVLREIGO
čiemu	PVEICSW	ničiemu	PVLREICSW
čím	PV~ICS	ničím	PVLR~ICS
číh	PV~ICG	ničíh	PVLR~ICG
čími	PV~ICSY	ničími	PVLR~ICSY
čiu	PVIU	ničiu	PVLRIU
čom	PVAUCS	ničom	PVLRAUCS
čou	PVEAU	ničou	PVLREAU

Kdo/nikdo

kto	KTO	nikto	KTLRO
koho	KAUGO	nikoho	KTLRAUGO
komu	KAUCSW	nikomu	KTLRAUCSW
kom	KAUCS	nikom	KTLRAUCS
kým	K~IAUCS	nikým	KTLR~IAUCS

Words beginning with SKOM will be written SK*AUCS.

Čo/nič

čo	PVO	nič	LRIGW
čoho	PVAUGO	ničoho	PVLRAUGO
čomu	PVAUCSW	ničemu	PVLRECSW
čom	PVAUCS	ničem	PVLRECS
čím	PV~ICS	ničím	PVLR~ICS

Ktorý/niektorý

ktorý	KTR~IAU or KTR~Y	niektorý	KTLR~IAU or KTLR~Y
ktorá	KTR~A	niektorá	KTLR~A
ktoré	KTR~E	niektoré	KTLR~E
ktorého	KTR~EGO	niektorého	KTLR~EGO
ktorému	KTR~ECSW	niektorému	KTLR~ECSW
ktorou	KTREAU	niektorou	KTLREAU
ktorém	KTR~ECS	niektorém	KTLR~ECS
ktorým	KTR~IAUCS	niektorým	KTLR~IAUCS
ktorí	KTRJ~I	niektorí	KTLRJ~I
ktorých	KTR~IAUCG	niektorých	KTLR~IAUCG
ktorými	KTR~IAUCSY	niektorými	KTLR~IAUCSY

Common Affixes with Slovak Pronouns

This is not an exhaustive list, but these affixes are among the most common.

da-	TJ*A
bar-	PJ*AR
bars-	PJ*ARS
hen-	KTJE*CL
hoc-	KTJ*AUC
hoci-	KTJ*AUCY
ino-	*ICLO
kde-	KTE*
-koli	XFKLI
-koľvek	XFKLIW
-kudy	XFKUBY
leda-	LE*BT
málo-	KP~*ALO
ne	LRE*
nie-	LRE*I
ni-	LR*I
poda-	P*AUOY
tam-	T*ACS
tamhle-	T*ACLS
voľa-	V*AULBOY
všeli-	FTPE*LY
zda-	ZT*A
znie-	ZLRE*I

Numbers

We have not touched upon numbers in this book in depth yet. The way you encode numbers will vary depending on your method of input and the type of number you require (in words or in digits).

- If you are using a Treal keyboard, there are tiny keys above the top row of letters. These will create numerals when pressed. You can add shortcuts for longer numbers.

- If you are using a standard keyboard with Plover, you would just press the number key(s) for the number(s) that you need.
- If you are using a purpose-built (hobbyist keyboard), then you might have to change the overlay because many of those keyboards don't have devoted number keys. For the most up-to-date information on that, ask in the Plover Discord.

Number Shortcuts

You can encode numerals one by one, depending on the number you wish to generate. However, we have the ability to encode larger numbers using certain shortcuts. A few options are listed below to give you an idea of the possibilities. You are limited only by your imagination.

- You can program to double the number of the key that you have pressed when you add a certain key, say, **A**. So if you press 5 and A together, you would get 55 instead of 5A.

- You can add entries to your database to reverse the numbers when you add **U**. This option will allow you to press 5, 8, and U together and have 85 appear instead of 58U.
- You can create shortcuts for larger numbers too. If you press the 5 key together with AU, the result would be 500.

These are just basic shortcuts for when you need numbers in digits. You can really see how powerful setting up shortcuts can be. I mean, you can very easily come up with a system to encode years in one chord. Many stenographers use them.

Numbers in Words

Of course, sometimes we need to write a number as a word and not as a numeral. Having shortcuts for the most common numbers will save you a lot of time. Larger numbers are usually easier to read and comprehend when they are in digits. But, again, there are times when the word must be written in words.

> Now, Eclipse software has the ability to perform very complex number conversions. You set up the parameters for number conversion (how you want the number to be converted from words into numerals and vice versa) before you start an encoding session, and then you write the numbers. It's beyond the scope of this book to go into detail about how Eclipse Number Conversion works. There is information in software to give you detailed information.
>
> Plover does not have automatic number conversion at the present time.

In their many forms, here are shortcuts for numbers in words. Not all forms are irregular, but they are listed here so you can practice encoding them nevertheless.

Czech numbers 0 – 5

nula	LRULOY
jeden	TLRJECL
jedna	TLRJOY
jedno	TLRJO
jednoho	TLRJAUGO
jedné	TLRJE~
jednomu	TLRJAUCSW
jednu	TLRJ-W
jednom	TLRJAUCS
jedním	TLRJ~ICS
jednou	TLRJEAU
jedny	TLRJ-Y
jedni	TLRJ-WY
jedněch	TLRJEICG
jedněm	TLRJEICS
jedněmi	TLRJEICSY
dva	TVJA
dvě	TVJEI
dvěma	TVJEICSOY
dvou	TVJEAU
tři	TRJI
tří	TRJ~I
třem	TRJECS
třech	TRJECG
třemi	TRJECSY
čtyři	PVIAURY
čtyř	PVIAUR
čtyřem	PVIAUCRS
čtyřech	PVIAUCRG
čtyřmi	PVIAUCRSY
pět	PEIT
pěti	PEIBY

Czech numbers 6 +

šest	TPEST
sedm	SECBST
osm	AUCLS
devět	TVJEIT
deset	TJEST
jedenáct	JECLST
dvanáct	TVJACLST
třináct	TRICLST
čtrnáct	PVR-CLST
patnáct	PACLST
šestnáct	TPECLST
sedmnáct	SECLST
osmnáct	AUCLST
devatenáct	TVJECLST
dvacet	TVJACT
třicet	TRICT
čtyřicet	PVIAUCT
padesát	PACT
šedesát	TPECT
sedmdesát	SECT
osmdesát	SKP-CT
devadesát	TVJ-CT
sto	STAU or STO
dvě stě	TVJESTO
tři sta	TRISTO
čtyři sta	PVIRSTO
pět set	PEISTO
tisíc	ST~IC
tisíce	ST~ICTO
milion	KP-L
miliony	KP-LY
milionů	KP-LW
miliard	KP-LT
miliardy	KP-LBY

Number Suffix for Czech and Slovak

-krát	XFKR~AT

Polish numbers 0 – 5

zero	ZERO
jeden	TLRJECL
jedna	TLRJOY
jedno	TLRJO
jedni	TLRJ-WY
jedne	TLRJ-TO
jednego	TLRJEGO
jednym	TLRJICS
jednemu	TLRJECSW
jednej	TLRJECB
jedną	TLRJEAU
jednych	TLRJICG
jednymi	TLJRICSY
dwaj	TVJACB
dwa	TVJA
dwie	TVJEI
dwu	TVJU
dwóch	TVJUCG
dwóm	TVJUCS
dwoma	TVJAUCSOY
dwiema	TVJECSOY
trzej	TRJECB
trzy	TRJI
trzech	TRJECG
trzem	TRJECS
trzema	TRJECSOY
czterej	PVEACRB
cztery	PVERY
czterech	PVEACRG
czterem	PVEACRS
czterema	PVEACRSOY
pięciu	PJEIATW
pięć	PJEIATO
pięcioma	PJEIACST

Polish numbers 6 +

sześć	TPEST
siedem	SECBST
osiem	AUCLS
dziewięć	TVJEIT
dziesięć	TJEST
jedenaście	JECLST
dwanaście	TVJACLST
trzynaście	TRICLST
czternaście	PVRECLST
piętnaście	PJEIACLST
szesnaście	TPECLST
siedemnaście	SECLST
osiemnaście	SKP-CLST
dziewiętnaście	TVJECLST
dwadzieścia	TVJACT
trzydzieści	TRICT
czterdzieści	PVECT
pięćdziesiąt	PJEIACT
sześćdziesiąt	TPECT
siedemdziesiąt	SECT
osiemdziesiąt	SKP-CT
dziewięćdziesiąt	TVJ-CT
sto	STAU or STO
dwieście	TVJEISTO
trzysta	TRISTO
czterysta	PVERSTO
pięćset	PJEIASTO
sześćset	TP-STO
siedemset	SJ-STO
osiemset	SKP-STO
dziewięćset	TVJ-STO
tysiąc	STEAUC
milion	KP-L
miliard	KP-LT
bilion	PJ-L

Slovak numbers 0 – 5

nula	LRULOY
jeden	TLRJECL
jedna	TLRJOY
jedno	TLRJO
jedného	TLRJE~GO
jednej	TLRJECB
jednému	TLRJE~CSW
jednu	TLRJ-W
jednom	TLRJAUCS
jednou	TLRJEAU
jedni	TLRJ-WY
jedny	TLRJ-Y
jedných	TLRJ~ICG
jedným	TLRJ~ICS
jednými	TLRJ~ICSY
dvaja	TVJACBOY
dva	TVJA
dve	TVJE
dvoch	TVJAUCG
dvom	TVJAUCS
dvoma	TVJAUCSOY
dvomi	TVJAUCSY
traja	TRACBOY
tri	TRI
troch	TRAUCG
trom	TRAUCS
troma	TRAUCSOY
tromi	TRAUCSY
štyri	ZSTRI
štyria	ZSTRIA
štyroch	ZSTRAUCG
štyrom	ZSTRAUCS
štyrmi	ZSTR-CSY
piati	PIABY
päť	PEATW
piatich	PIACGT
piatim	PIACST

piatimi	PIACSY

Slovak numbers 6 +

šesť	TPEST
sedem	SECBST
osem	AUCLS
deväť	TVJEAT
desať	TJEST
jedenásť	JECLST
dvanásť	TVJACLST
trinásť	TRICLST
štrnásť	PVR-CLST
pätnásť	PEACLST
šestnásť	TPECLST
sedemnásť	SECLST
osemnásť	AUCLST
devätnásť	TVJECLST
dvadsať	TVJACT
tridsať	TRICT
štyridsať	PVIAUCT
päťdesiat	PACT
šestdesiat	TPECT
sedemdesiat	SECT
osemdesiat	SKP-CT
deväťdesiat	TVJ-CT
sto	STAU or STO
dvesto	TVJESTO
tristo	TRISTO
štyristo	ZSTIRSTO
päťsto	PEASTO
šesťsto	TP-STO
sedemsto	SJ-STO
osemsto	SKP-STO
deväťsto	TVJ-STO
tisíc	ST~IC
milion	KP-L
miliard	KP-LT

Number Suffix for Czech and Slovak

-krát	XFKR~AT

Brief Forms

We will now discuss briefs or short forms. Briefs are incredibly useful, and it would behoove you to use some of the ones listed in the next few pages. Of course, the decision whether to use briefs at all is up to you.

There are different types of brief forms: briefs for individual words, briefs for groups of words, and briefs for word parts. Words that are easily written in one chord are not briefed. There is simply no need for it. Write them as a normal word or word part as you learned earlier in the course. Some briefs often contain simplifications (horko **KTJAURGO** and hezky **KTJESGY**) and don't really require much to memorize them. Other briefs require a bit more effort to memorize. What you need to remember is that if you repeatedly cannot remember a brief, it might be time to encode the word in the normal fashion or to come up with a different brief for the word or phrase. A forgotten brief is a useless brief.

Pay attention to how briefs are similar to one other. For instance, many times, the negative form of a word part, particularly for verbs, incorporates **LR** into the left side of the positive form word root (Example: viem **VEICS** vs. neviem **VLREICS**). It doesn't work in all instances, and there will always be exceptions. Don't forget that all words are not equal. Some words are more important than others. If you are looking to write as fast as possible, making briefs is one of the best tools you can use. Look at the patterns in the following chart for an example of similar briefs.

Examples of logical briefs

jak	JABG	jaksi	SJABG	nijak	LRJABG
kady	KABY	kadysi	SKABY	nikady	KLRABY
kam	KACS	kamsi	SKACS	nikam	KLRACS
kudy	KUBY	kudysi	SKUBY	nikudy	KLRUBY
kde	KTE	kdesi	SKTE	nikde	KTLRE
kdy	KTIAU or KTY	kdysi	SKTIAU or SKTY	nikdy	KTLRIAU or KTLRY

We have several examples above with KUDY and KADY of key switching, which was discussed in Lesson 33.. Words beginning with SKAB will be written **SK*AB**. For the word part SKAMAR, use **SKEACRS**.

Any briefs that you create should be logical. If you paid close attention to the pronouns charts back at the beginning of this section of the book, you would have noticed how rhyming words

had rhyming steno as well. This helps you learn and remember briefs. On the other hand, sometimes having a brief that is completely arbitrary might just make it memorable for you, and really that is what is important. **You** are the one who has to remember the brief. It doesn't matter if the brief seems odd to another stenographer. Everyone is different. As long as the brief works for you, it is a good brief.

Types of Briefs

What kinds of words do I recommend that you brief, or what kinds of words are briefed? Well, as a rule, the kind of words that are briefed would be words that do not change form. Good examples of this would be adverbs. Adverbs can change their form, but a lot of times they will have a static form, such as the Czech word "doma." It's a short word, and it's easily encoded in one chord when you use secondary vowels.

It is also very common for phrases like "jak se maš" in Czech and words that tend to follow one another to be briefed. For example, you will often see the following groups of words together:

jsem se	jsem si
jsi se	jsi si
jsme se	jsme si
jste se	jste si

The third type of brief is something that you might not have thought of is briefing a word part, particularly a foreign borrowing. When you brief a word part, you might actually have to come up with more than one brief form. Why? Because there could be consonant changes in the word part due to the case required. For example, the Polish word "prezydent" could be briefed to **PREBST**. But happens when you need the word "prezydencie"? You would have to modify **PREBST** to **PREBSTW**.

As I mentioned previously, the more technical or obscure terms that are not likely to come up in normal speech as usually not briefed in your main database. On the other hand, if the subject matter deals with lengthy technical or obscure words, you will add shortcuts to a secondary database to deal with them as needed. Another point about secondary databases: You should not delete them. Keep them to use for the future. In this way, you'll reduce the amount of preparation time you'll need when dealing with same subject matter in the future.

The briefs listed in the next few pages are designed to inspire you to create your own as needed. They are not exhaustive, by any means. I suggest to you that you look at all three languages for full benefit. Notice, too, that it might be possible to brief a word in one language

but not in another. For the most part, I chose different words to brief in the three languages. It would definitely be worth a look at all three to get a more detailed picture of how briefs work.

How To Create Briefs

Notice the various methods used when constructing briefs:

- Pick one syllable of the word and use that to represent the whole word.
- Keep the beginning and end of the word and drop the central portion.
- Simplify consonants and/or vowels to reduce the number keys used.
- Put all the sounds in steno order to reduce multisyllabic words to one chord.
- Remove all vowels.
- Remove one of two consecutive vowels.
- Find the most unique part of the word and add an additional sound to ensure that it does not form a more common word or word.
- When a word has a long vowel and a short vowel, drop the short vowel and keep the long one.

I hope this gives you ideas of how to create brief forms for the type of text entry you plan to do.

Česky

Czech Briefs

alespoň	SPLAUCL
americk	KPRICBG
amerik	KPRIBG
anglic	KLJIC
anglič	KLJIGW
anglicky	KLJICBGY
ani	ACLY
asi	ASY
autor	AURT
bohužel	KTJUBSG
česky	PVELSY
člověč	PVLAUGW
člověk	PVLAUBG
dělat	TEILT
dobře	TJAURBTO
dohromady	TRJAUCST

dole	TJAULTO
dolů	TLEIU
doma	TJAUCSOY
domů	KTPEIU
dříve	TRJ~ICTO
ekonom	KLRAUCS
energ	LRERG
energet	LRERGT
financ	FLRACLST
finanč	FLRACLGW
fotograf	FRAWY
francouz	FREAUBS
generac	KLRJAC
generat	KLRJAT
generál	KLRJ~AL
globál	KLJAULB
hezky	KTJESGY
charakter	KTRAGT
chybět	KTIBT
internet	TLRERT
jak se máš	SMJ~ASG
jednat	TLRJAT
jednou	TLRJEAU
jenom	JAUCS
jestli	JEILST
ještě	JESGTO
jsem se	SECLSTO
jsem si	SECLSY
jsi se	SISTO
jsi si	SISY
jsme se	SMESTO
jsme si	SMESY
jste se	STESTO
jste si	STESY
kabinet	KPJICLT
klient	KLECLT
kolik	KAULG
komunist	KIST
kontrol	KRAUL
koupit	KEAUBT

krátce	KR~ACTO
lékař	KLACRB
měsíc	SM~IC
mezinárod	KPLR~ARBT
mluvit	KPLUTW
mnoho	KPLRAUGO
mnohem	KPLRAUCS
muset	MEUST
myslet	MILST
nahoru	KTLRJAUR
nahoře	KTLRJAUCRB
naučit	LRAUGTW
několik	KLRAULG
nemoc	KPLRAUC
nízko	LR~ILSO
objevit	PJEITW
oko	AUBGO
otevř	TECRBW
otevřit	TECRBTW
patřit	TPRJIT
peněz	PLREIBS
peníz	PLR~IBS
politick	PLICBG
potom	TPAUCS
potřeb	PREB
pracovat	PRACTW
program	PRAURG
proto	PRAUTO
protože	PRAUSGTO
průmysl	PREIUCLS
přece	PRECTO
přesně	PRECLSTO
příliš	PRILSG
říkat	R~IBGT
samozřejm	ZSRJECBS
samozřejmě	ZSRJECBSTO
situac	STUC
situač	STUGW
snažit	SLRASGT
sociál	C~AL

specif	SPIWY
společ	SPLEGW
standard	STARBT
stolet	STLET
talent	TLECLT
takže	TASGTO
teda	TEBOY
technol	TLRAUL
technolog	TLRAULG
telefon	TLEWY
televiz	TLESW
teplo	TELBO
třeba	TREBOY
univers	VLRERS
universal	VLRERLS
včera	FPVEROY
vědět	VEIBTO
velmi	VECLSY
vidět	VIBTO
volat	VLAT
vůbec	VUCB
začit	ZAGTW
zase	ZASTO
zavřít	ZVRIT
zemřit	ZECRST
zima	ZICSOY
zítra	ZTRA
život	TPVJAUT
získat	ZILST
ztratit	ZTRABTO
zůstat	ZSTAT

Polish Briefs

albo	ALBO
ameryk	KPRIBG
bardzo	PARSTO
była	PEIAULBOY
chciałbym	KTPICS
człowiecz	PVLAUGW
człowiek	PVLAUBG
detektyw	TVJEBGT
detekt	TJEBGT
dlaczego	PVLEGO
dlatego	TLEGO
dobranoc	TLRJAUC
dobrze	TJAUCRBTO
doktor	TJAURT
doktorz	TJAUCRBT
dopiero	PERBTO
dziękuję	TJ-BG
gdyby	KTIBY
histor	KTJIRST
ile	ILTO
inform	FLRAUCRS
interest	TREST
jeszcze	J-SGW
jeśli	JELSY
kierunk	KRUCLG
kilka	KILGOY
kilku	KILGW
kobiet	KPJET
kochać	KAUCGTO
komplet	KECST
kompleci	KECSTW
korekt	KAURBGT
laborator	LABT
miesiąc	SKPEAUC
moment	KPAUCST
momenci	KPAUCSTW
można	TPLRJA

natychmiast	KTPIAST
numer	LRUCRS
oczywiście	PVRISTO
pamiętać	KPEIATO
peniądz	PLREAUCW
polic	PLIC
ponieważ	PLRESG
powinien	PVLRECL
presenci	PRECLTW
present	PRECLT
prezydenci	PREBSTW
prezydent	PREBST
problem	PRAULB
profesor	PRAURW
profesorz	PRAUCRBW
proszę	PRAUSGW
przepraszam	P-BW
przyjaciel	PRILT
przyjaciół	PRILBTW
restaurac	STRAUC
rozumieć	ZKPRETO
rozumiem	ZKPRECS
samochod	SKPAUBT
samochodzi	SKPAUBTW
samochód	SKPEIUBT
samoloci	SKPAUTW
samolot	SKPAUT
sekund	SKUCLT
specjal	SPEACL
sytuac	STUC
szpital	ZSPILT
szukać	TPATO
telefon	TLEWY
telewiz	TLESW
temat	TECST
teraz	TRABS
trzeba	TREBOY
tygod	TIGT
tyle	TILTO
wiadomość	FKPAUSTO

wiadomości	FKPAUSTW
wkrótce	FKRUC
wszystko	FTPISGTO
wtedy	FTEBY
zamiast	ZKPIAST
zawsze	Z-SGW
zobaczyć	ZPVITO
zrobić	ZRAUBTO

Po slovensky

Slovak Briefs

ani	acly
aspoň	spauclw
blízko	plj~iLso
bohužiaľ	KTJUBSG
domác	KTP~AC
celkom	ZSKLAUCS
iba	iboy
keby	K-B
kedy	KEBY
koľko	KAULGO
konečne	KLRECLGW
ledva	L-TW
málo	kp~alo
menej	kpeaclb
minule	KPLRULTO
môžbyť	kpeiubsg
mnoho	kplraugo
nahlas	ktlras
najviac	vlriac
niekoľko	KLRAULGO
pekne	P-CLG
pravdepodobne	p-bw
prečo	pr-gw
predsa	PRECOY
slovom	slaucsw
takmer	KTPER
ťažko	t-lsg
teplo	TELBO
teraz	traz
toľko	taulgo
trocha	tr-cg
veľa	v-lb
veľmi	veclsy
vtedy	fteby
zajtra	zjart

Sometimes you don't need to write an entire word or word part. Sometimes you need to write a single letter, someone's initial or initials, or acronym. This lesson is dedicated to encoding all these and more.

The Basic Alphabet

The individual letters are encoded with the letter on the left or center plus helper keys on the right side. Notice that some of the letters use the same combinations. The assumption is that you will be writing one language at a time. Which letter comes up depends on the language you are encoding. Some letters listed below may not be a letter in a specific alphabet.

a	A	i	I	š	TP
á	~A	í	~I	ś	SJ
ä	EA	j	J	t	T
ą	EAU	k	K	ť	T~
b	PJ	l	L	u	U
c	ZS	í	L~	ú	~U
č	PV	ľ	LJ	ů	EIU
ć	T~	ł	LJ	v	V
d	TJ	m	KP	w	V
ď	TJ~	n	LR	x	SK~
dź	TJ~	ň	LRJ	y	IAU
dz	ZT	ń	LRJ	ý	~IAU
dž	PVJ	o	AU	z	Z
e	E	ó	~AU	ž	TPJ
é	E~	ô	EIU	ż	TPJ
ě	EI	p	P	ź	ZJ
ę	EIA	q	KV		
f	F	r	R		
g	KJ	ř	RJ		
h	KTJ	ŕ	R~		
ch	KT	s	S		

Types of Letters You'll Encode

You'll need to learn several different types of alphabets in addition to encoding words because there are many instances where you will need a single letter instead of an entire word. Sometimes you will be forced to spell out proper names or unusual terms letter by letter so that the text will be readable. This often happens when providing text for live events. The four most common types of alphabets are:

1. The standalone alphabet produces a capital letter. It is used for designations as "Room A" or "from A to B." It can be used in mathematics or in drawings, a vehicle's number plate, or anything really.
2. The initial alphabet produces a capital letter plus a full stop after it.
3. The first spelling alphabet is used when giving the spelling of proper name or when explaining an unusual word. Polish usually uses this option for spelled-out words. The letter will appear with a hyphen preceding a capital letter. This is the normal way it is done in English, by the way.
4. The second spelling alphabet is for Slovak. According to https://jazykovaporadna.sme.sk/q/9532/, this is the preferred way to deal with spelled-out words:

> Hláskovanie jednotlivých písmen slovenskej abecedy sa uvádza v Pravidlách slovenského pravopisu (2013) v kapitole 2. Slovenská abeceda. Písmená a, b, c sa hláskujú a, bé, cé a napríklad slovo *hlava* môžeme vyhláskovať takto: há-el-a-vé-a.

Despite hours of searching, I couldn't find a preference for either the first or second spelling alphabet in Czech. My advice is to be prepared for either, although the first option is easier to read. I don't suppose it would be the end of the world if one were to always use the first variant in cases where one is recording the text of a live speech.

These may not be the only types of alphabets you will need as a stenographer, but they will be enough to get started.

Letter on the left side + Helper Keys on the Right Side

Type of Alphabet	Example	How To Encode
Standalone alphabet	A, B, C, D, etc.	Letter on the left or center part of keyboard + **RBGW**
Initial alphabet	A., B., C., D., etc.	Letter on the left or center part of keyboard + **RBGWY**
Spelling alphabet I	-A, -B, -C, -D, etc.	Letter on the left or center part of keyboard + ***RBGW**
Spelling alphabet II	-letter name	Letter on the left or center part of keyboard + ***RBGWY**

Acronyms

There are three ways you will hear acronyms pronounced. The first way is with the letters pronounced individually in the proper form for the language you are writing in. This will occur with native acronyms that don't form ordinary "words" in the language you are encoding. The second way you will hear acronyms will be with all the letters pronounced in one syllable for short acronyms and possibly two or three syllables, depending on just how long the acronym is. If the acronym is something like "TEN," then it will most likely be pronounced as a word. The third way you will hear acronyms is quite different from the first two ways. Acronyms that are from foreign entities are many times pronounced with each letter individually as it would be in their original language. For example, you might something like "ejč-bi-o" for HBO (from the English "Home Box Office"), which sounds quite different than when it is pronounced with, say, the Czech pronunciation of the individual letters. Recognition of when an acronym is being used is half of the battle.

Pronunciation of Alphabets

The second half of the battle is to know the names of the letters so that you can properly encode the letter needed. Each language is listed with the name of each letter. Please note that some letters have more than one name.

Czech Alphabet

a	á
á	dlouhé á; á s čárkou
b	bé
c	cé
č	čé
d	dé
ď	ďé
e	é
é	dlouhé é; é s čárkou
ě	ije; é s háčkem
f	ef
g	gé
h	há
ch	chá
i	í; měkké i
í	dlouhé í; dlouhé měkké í; í s čárkou; měkké í s čárkou
j	jé
k	ká
l	el
m	em
n	en
ň	eň
o	ó
ó	dlouhé ó; ó s čárkou
p	pé
q	kvé
r	er
ř	eř
s	es
š	eš
t	té
ť	ťé
u	ú
ú	dlouhé ú; ú s čárkou
ů	ů s kroužkem
v	vé
w	dvojité vé

x	iks
y	ypsilon; krátké tvrdé ý
ý	dlouhé ypsilon; dlouhé tvrdé ý; ypsilon s čárkou; tvrdé ý s čárkou
z	zet
ž	žet

Polish alphabet

a	a
ą	ą
b	be
c	ce
ć	cie
d	de
e	e
ę	ę
f	ef
g	gie
h	ha
i	i
j	jot
k	ka
l	el
ł	eł
m	em
n	en
ń	eń
o	o
ó	ó, o z kreską, u kreskowane or u zamknięte
p	pe
q	ku
r	er
s	es
ś	eś
t	te
u	u, u zwykłe or u otwarte
v	fał
w	wu
x	iks

y	y or igrek
z	zet
ź	ziet
ż	żet or zet z kropką

Slovak alphabet

a	á
á	dlhé á
ä	prehlasované á; a s dvoma bodkami; široké e
b	bé
c	cé
č	čé
d	dé
ď	ďé; mäkké dé
dz	dzé
dž	džé
e	é
é	dlhé é
f	ef
g	gé
h	há
ch	chá
i	í
í	dlhé í
j	jé
k	ká
l	el
ĺ	dlhé el
ľ	eľ; mäkké el
m	em
n	en
ň	eň
o	o
ó	ó; dlhé o
ô	ô
p	pé
q	kvé
r	er

ŕ	dlhé er
s	es
š	eš
t	té
ť	ťé; mäkké té
u	u
ú	dlhé ú
v	vé
w	dvojité vé
x	iks
y	ypsilon
ý	dlhý ypsilon
z	zet
ž	žet

Complex Suffixes

Complex suffixes are suffixes that can contain two identical or different vowels in one chord. There are a few variations of ending that are considered complex suffixes. We'll need a new type of vowel to encode these suffixes as well.

1. VCVC
   This type of suffix is commonly seen in the Polish past tense ending AŁAŚ or AŁEŚ, for example.
2. VCCV
   This type of suffix is commonly used when the two consonants are difficult to encode on the right side together. In this case, the first consonant moves to the left side or center, the second consonant is keyed on the right side. The last element would be a secondary vowel. It is seen in the Polish suffixes IJCIE and IJMY.

Complex suffixes are not limited just to Polish. They are applicable to all three languages.

Tertiary Vowels

For complex suffixes, we will use tertiary vowels. Remember, primary vowels are in the center, secondary vowels are on the right side, and tertiary vowels are found on the left side of the keyboard. You will use certain combinations of keys to indicate the main vowels. Tertiary vowels do not use the vowels that unique to Polish or Czech or Slovak nor diphthongs. The six vowels are A, E, I, O, U, and Y. They are used primarily for complex suffix formation in order to reduce the number of chords required in longer words.

Table of All Three Vowel Types

Vowel	Primary (center)	Secondary (right)	Tertiary (left)
A	A	OY	XZ
E	E	TO	XK
I	I	WY	XP
O	AU	O	XL
U	U	W	XZK
Y	IAU	Y	XZP

For Czech, you can add the ~ key to indicate length, but all vowels in the suffix must be long. You can't mix long and short vowels in the same complex suffix. This means that the Czech suffix ÁNÍ would be possible to encode in only chord – **XZLR~I**.

Formulae for Complex Suffixes

Type 1: Tertiary vowel + C + V + CC + V

Type 2: Tertiary vowel + C (left) + C (right) + V

Constructing Complex Suffixes Using Tertiary Vowels

What does this mean? What kind of suffixes does this allow me to create? Well, again, the tertiary vowel does not have to be the same as the primary vowel (center) or secondary vowel (right). Remember our example of RAMENU from Lesson 30? **RACS/ZKPLECL/ZKPLU** was the original way to write it. It is the most straightforward, to be quite honest. But you can also render it as **RACS/XKLRU**. Again, which option to use is entirely up to you. Use whatever feels most comfortable for your hands and the one that you can encode without too

much effort. Some folks prefer less mental gymnastics and more chords, while others prefer fewer chords and more mental effort.

Additional Uses for Complex Suffixes

Tertiary vowels can also be used in limited cases to replace the beginning vowel in longer words. The words you shorten in this manner are those that don't form any sort of common suffix. For example, you do not want to use it for words that begin with ON because there are many suffixes that begin with that letter combination. You could use it to write the word ELIPSA in two chords: **XKLIBSW/ZKPLA**.

Note: You must also keep in mind that the **X** key is used as a nonsyllabic K preposition when used with the **~*** keys, so this has to be taken into account as well when considering whether to use tertiary vowels in ordinary and not suffixes.

One Final Thought on Complex Suffixes

Keep in mind that complex suffixes aren't as readily recognizable as the simple suffixes. You might want to hold off using them until you are quite adept using the simple suffixes. Trying to incorporate shortcuts before the basics are ingrained can cause your accuracy and speed to suffer. You will probably get frustrated, to be quite honest, if you try to use them straightaway. But just knowing that you have the possibility of using them will help you develop your own style of encoding that is best suited to you. Keeping them in the back of your mind as you develop your skills will have an effect on how you develop as a stenographer. The way you encode as a beginner will be different than the way you will encode as a more seasoned stenographer. Your style of encoding will become more sophisticated.

Chord Reduction

As much as the steno keyboard simplifies text production, sometimes you want more methods for reducing the number of chords required for words. These shortcuts will not work in all instances, but they can help eliminate a stroke or two. They can be used in prefixes, suffixes, and words or word parts.

Identical Vowels

There are two options when you have identical vowels in two successive syllables. The first option is for the word root and the following syllable. The second option is used for syllables following the word or word part.

The basic formula is the following for a sequence of two syllables in the word root and the next syllable is as follows:

(C)C VCV C(CCC)

There are certain rules that you must follow in order to use this family of shortcuts.

- The vowel must be the same in both syllables. In the case of Czech only, both vowels must be the same length.
- There can be only one consonant in the middle.
- There must be at least one consonant on the right side (to prevent stacking).
- This shortcut works best when there is one consonant on the left side, especially if it the consonant requires only one or two keys.

So how does it work? The consonant in the middle will move to the **left**. The consonants on the right side will remain unchanged. In the case of the word "peleryna" in Polish, the first chord will cover PELER and the remainder of the word can be encoded in one chord. That means we can encode a four-syllable word with three different vowels in only two chords if we really wanted to. Of course, as I have been mentioning throughout the book, you can still choose to encode the word in four chords. Either way is correct. It is a matter of personal preference.

The following vowel key combinations are used in this technique. They are used for disambiguation; in other words, if we use the special vowel combinations, there is less of a chance of writing another word and getting incorrect text.

Original combination	Consonant moves left	Vowel is replaced
CACAC	CCAAC	CC**EAC**
CECEC	CCEEC	CC**EUC**
CICIC	CCIIC	CC**EIC**
COCOC	CCOOC	CC**IUC**

Back to PELERYNA. The first chord would be **PLEUR** because we move the center consonant to the left side and then we use the special combination for the vowel. The consonant on the right side remains unchanged. The second chord would be **XZPLRA**, using a complex suffix.

PELER > PLEER > PLEUR

pel/er/yn/a > peler/yna = **PLEUR/XZPLRA**

It's pretty easy to make the mental adjustment of moving one consonant to the left. What you don't want to do is move two consonants to the left. You probably won't be able to do it quickly, accurately, and consistently with many words. Why? Because it most likely will create consonant combinations that don't occur normally in these languages. Try it out and see it you like it. You might be surprised.

The other way you can you use this reduction is with a suffix. It works differently than the word-root option. Instead of moving the consonant to the left, the consonant in the center moves to the **right**. Again, you can use this option only in limited circumstances. If you have the Czech verb "bonifikovat," we can reduce a stroke in the middle of the word. This trick works best when you have only one consonant on the right. You can't move the consonant to the left because you are already using four keys on the left side as helper keys for the suffix.

VCVC(C)

bon/if/ik/ovat > bon/ifik/ovat = **PJAUCL/ZKPLEIGWY**

Different Vowels

When you have a sequence of many different vowels in a row, sometimes it will be possible to omit one or more vowels in order to encode in a more condensed fashion. The follow set of guidelines should prove useful.

When you have an I in a syllable (particularly if it is a short vowel in Czech or Slovak), you can omit it.

jub/il/ej/ní > jubl/ej/ní = **JULB/ZKPLECB/XFLR~I**

Sometimes the O in a word can be omitted.

kol/eg/a > kleg/a = **KLEG/ZKPLA**

The Most Important Thing to Keep in Mind

When considering whether or not a vowel can be eliminated in a word or word part, it is important to remember the following: You can only eliminate a vowel if the letter following occurs in the same column as the first consonant or to the right of the preceding consonant in steno order. In the above examples, JUBIL contains BL which are in the same column. It, therefore, follows this rule. In the second example, the letter L follows K in steno order, so that is why this works.

If we try to eliminate too many vowels and the remaining consonants are out of order, it can become quite confusing to try to decipher what the word should be. More importantly, it's quite confusing to try and encode something so convoluted. It's hard to keep up with the speaker if you are stuck trying to encode something.

Key Switching, Part II

Part II deals with switching two keys on the left side of the keyboard. Very similar to Part I of key switching, we sometimes find the need to "move" a sound to a different key to ease encoding. The two letters in question are the **F** key and the **Z** key. Why do we have to move these two keys? Well, remember the four pesky nonsyllabic prepositions? Well, they are to blame for this. As you will recall, the **XFZS** keys are used for them. But what happens when

you need to use the **FZ** keys? And you'll run into another problem if you need to combine either the **Z** key or the **S** key with a word or word part beginning with **F** key.

Z- switches to **S-**

F- switches to **V-**

This is what we do when these situations arise. If you have been paying attention, you will recognize one of these solutions right away. It's the reason why a word such as "vztlak" is written as **FSTLABG**. We have been using this as a means to sidestep this issue, but I wished to explain why it occurs because you might want to use the V preposition with a word starting with a Z. You can do it, but you need to adjust the keys to make encoding simpler. And don't forget to use the disambiguation needed for the language in which you wish to write.

Borrowings

What to do about borrowings? Borrowings are a fact of life. Every language has them, to some degree. It's not possible to comment on every foreign language, of course. In general, there will be two different strategies when dealing with borrowings. We have to determine what kind of word it is; that is to say, we look at the construction of the word itself. There are two types of words.

1.CCCVCCC/CCVCC
2.CCVC/VC/VC/V

The first type is essentially for compound nouns. The first type above is used for German and English words commonly. It also appears with Russian words where each syllable comes from the first part of a word and is melded together, such as "Gazprom." Normally, borrowings from Russian and other Slavic languages are not that different from the West Slavic language and are easily handled as native words, but there can be exceptions.

The second option is used for borrowings from the Romance languages and Japanese. It starts off with a word part and is followed by a series of suffix-like syllables.

Borrowings from German
These words usually are compound words with each part beginning and ending with consonants. The only way to handle these words is to write them as you would expect to, but we don't use helper keys for any part except where it is an obvious suffix as you would find, say, in an adjective or verb. This is one of the few times when it is permissible to encode a word by syllables.

Wagner **VA*G/LRER**

Weltschmerz **VELT/KTPECR**

blitzkrieg **PLJIC/KRIG**

Borrowings from French

Everyone knows that French orthography doesn't correspond very well to spoken French. As in the case of German borrowings, write them as they sound, not as they are spelled. We will use any helper keys after the word root, if needed.

chanson **TPACLS/ZKPLAUCL**

quiche **KISG**

raison d'être **REBS/ZKPLAUCL/TJERT**

If a French word has been assimilated into a language, say, for example, Czech, follow the spelling, because it reflects the pronunciation and not the original spelling in French.

rande (from rendez-vous) **RACLBT/ZKPLE**

Borrowings from Japanese

Almost all borrowings belong to the second type. Most, if not all of them, will follow the "normal" way of dividing words into chords as we have been doing in this book.

samurai **SACS/ZKPLUR/ZKPLACB** or **SACS/XZKRACB**

sushi **SUSG/ZKPLI**

Borrowings from English

Many recent borrowings are internationalisms. With English, you can get both types of word construction mentioned on the previous page because English is such a motley language that has acquired words from many language families in its history.

With the first type of word construction, write the word by syllables, as we did for borrowings from German.

windsurfing **VICLBT/SURWY/ZKPLICLG**

science fiction **SACB/ZKPLECLS/FIGY/TPACL**

With the second type of word construction, things can sometimes get a bit more complicated. Many borrowings have prefixes, and these prefixes should almost always be encoded in a separate chord.

browser **PRJAUS/ZKPLER**

marketing **KPARGT/XPICLG**

Here is a listing of common English prefixes which are usually a separate chord.

de	TJE*
re	RE*
pre	PRE*
en	E*CL
em	E*CS
ex	E*LS
inter	*ICLT
kon	K*AUCL
kom	K*AUCS
pro	PR*AU
por	P*AUR
dys	TJ*IS

Many times these prefixes will have an additional letter for a nonsyllabic prefix added to it.
Here are two examples from Slovak: prefix ZRE (zredukovať)or prefix SPRO (sprofanovať).

Taming English Borrowings

Many of the techniques mentioned in this section are used in English-language stenography.
Sometimes you can include the prefix into the left side and not in a separate chord. Not only
that, certain consonant combinations can also be shortened. It doesn't work for all words, but
it does work for quite a number of borrowings. The table below lists the options. Using these
internal prefixes can cause conflicts or identical chords for two entirely different words. When
this happens, you would use the techniques listed in Lesson 24 for disambiguation.
Alternatively, you could elect to write the word in the "normal" fashion.

Here are some examples using Czech borrowings:

Beginning letters	Key(s) Used	Examples
dis, des, dez	Z	dezert **ZERT** diskuse **ZKUS/ZKPLE** design **ZACLB** destilace **ZTLAC/ZKPLE**
ex	SK	expres **SKPRES** export **SKPAURT** exponent **SKPAUCLT**
inf, inv	STV	invaze **STWABS/ZKPLE** infarkt **STWARGT**
ins, inz	SLR	inzert **SLRERT** inspirace **SPLRIR/XZ-CTO**
kom	K	kompaktní **KPAGT/XFLR~I**
konv	KV	konverze **KVERBS/ZKPLE**

These internationalisms are quite similar in all three West Slavic languages, but they may vary due to orthographical constraints, especially in Polish.

This is a very comprehensive look at stenography for the West Slavic languages. I hope you did not rush through the book. You might find that your brain can absorb the theory faster than your fingers can. When mind and fingers are not in sync, it can be very frustrating. Do not let this happen to you. You'll be a more accomplished stenographer if you absorb the information in this book at a more moderate rate.

I suggest that you return to the book and practice the lessons on a regular basis. I also recommend that you do practice of all the forms in the copious tables. Go through a table at a time. Don't write the words in the rightmost column. Concentrate on the key combinations. Alternate between two consonant combinations at a time and add a vowel to it combination. Go through all the vowels in the language you are practicing with each consonant combination. This sort of exercise will help with dexterity and help you to develop stamina, which can be very important if you are, say, using stenography in programming or long sessions of translating.

I want to reiterate how important it is to master the first 34 lessons of the book. Lessons 35-42 are supplementary material that you can incorporate once you have a certain level of mastery in stenography. A word of warning: Incorporate the information in the Shortcuts section of the book in tiny bites. Since the chords are exceptional, it will take longer for you to make them your own. Once they are mastered, they will save you many chords.

I suggest that you practice to hard copy of text to sharpen your accuracy. This will help you figure out fingering and parsing of language without the pressure of responding to speech. Once you have mastered the hard copy of text, I suggest you make a recording of it. Make sure you speak quite slow. It is quite shocking to try to keep up with normal human speech when you are learning stenography. Professional stenographers who have learned a theory start off in at about 60 syllables a minute and slowly increase the speed as they gain proficiency. Practicing to ballads and pop music can help build your speed because they are at a speed that will not be overwhelming. Stay away from rap music, though, because it can be very, very fast. Even seasoned stenographers find it hard challenging. Children's books are another good source of practice material. You might be able to find dictations on YouTube or other video sites to practice to.

This book is only the first in a series of Slavic stenography books. The second book will deal with the South Slavic languages. I wish you success in your stenographic endeavors.

Priscilla

Appendices

Appendix A: Comparative Chart of Letters

As a reminder, center vowels are the primary vowels used in this method. Right vowels are secondary vowels and are used in limited situations. Tertiary vowels are not included in this chart, and their use is even more limited. See Appendix C for a comparative chart of vowels.

Letter	Česky		Po polsku		Po slovensky	
	Center	Right	Center	Right	Center	Right
a	A	OY	A	OY	A	OY
á	~A				~A	
ä					EA	TO
ą			EAU	STO or TW		
au	EA		EA		EA	
b	PJ	B	PJ~	B	PJ	B
c	ZS	C	ZS	C	ZS	C
č	PV	GW			PV	GW
ć			T	TO TW		
cz			PV	GW		
d	TJ	BT	TJ	BT	TJ	BT
ď	TJ~	BTW			TJ~	BTW
dź			TJ~	BTO BTW		
dz			ZSJ	CW	ZSJ	CW
dž	PVJ	BGW	PVJ	BGW	PVJ	BGW
e	E	TO	E	TO	E	TO
é	E~				E~	
ě	EI					
ę			EIA	W		
eu	EU		EU		EU	
f	F	WY	F	WY	F	WY
g	KJ	G	KJ	G	KJ	G
h	KTJ	CBG	KTJ	CBG	KTJ	CBG
ch	KT	CG	KT	CG	KT	CG
i	I	WY	I	WY	I	WY
ia			IA		IA	
ie			EI		EI	
iu			IU		IU	

í	~I	GWY			~I	GWY
j	J	CB	J	CB	J	CB
k	K	BG	K	BG	K	BG
l	L	L	L	L	L	L
Í					L~	
ľ					LJ	LB
ł			LJ	LB		
m	KP	CS	KP	CS	KP	CS
n	LR	CL	LR	CL	LR	CL
ň	LRJ	CLW			LRJ	CLW
ń			LRJ	CLO CLW		
o	AU	O	AU	O	AU	O
ó	~AU	~O	EIU		~AU	
ô					EIU	
ou	EAU	O STO			EAU	O STO
p	P	BW	P	BW	P	BW
q	KV	GWY	KV	GWY	KV	GWY
r	R	R	R	R	R	R
ř	RJ	CRB				
ŕ					R~	
rz			RJ	CRB		
s	S	S	S	S	S	S
š	TP	SG			TP	SG
sz			TP	SG		
ś			S SJ	SO SW		
t	T	T	T	T	T	T
ť	T~	TW			T~	TW
u	U	TW	U		U	TW
ú	~U				~U	
ů	EIU	W				W
v	V	W	V	W	V	W
w	V	W	V	W	V	W
x	SK*	LS	SK*	LS	SK*	LS
y	IAU	Y	I IAU	Y	IAU	Y

ý	**~IAU**	**~Y**			**~IAU**	**~Y**
z	**Z**	**BS**	**Z**	**BS**	**Z**	**BS**
ž	**TPJ**	**BSG**			**TPJ**	**BSG**
ż			**TPJ**	**BSG**		
ź			**Z** **ZJ**	**BSO** **BSW**		

Appendix B: Affixes

Suffixes

Basic Vocalic Suffixes		
ZKPL	**V(_)**	One- or two-syllable suffixes that begin with vowel keys only. This is the basic suffix form. It can be followed as consonant sounds as required. One can use this kind of suffix one after the other, or compound suffixes can be used.

Basic Consonantal Suffixes		
XF	**C(_)**	Used for consonant suffixes only, except those beginning with "C" and those beginning with "STV." They will be followed with a vowel. If needed, a consonant can be added on the right side.
OY	**C(_)**	Used for complex suffixes ("STV," "STVO," etc.) and those beginning with "C."

Infixes		
XF (N)V OY	**~V~**	Used to insert a vowel that connects two word parts. Can also be used without any center keys to force two words or word parts together. Can be used (rarely) with only the * in the center portion to force a space between two chords.

Appendix C: Vowels -- left, center, and right

- All vowels have a primary version using keys in the center part of the keyboard.
- Secondary vowels that do not have right version are those that don't normally occur at the end of a word. And, in fact, one of the most important uses of secondary vowels is to reduce verbal suffixes all to one chord as much as possible. Another use is for shortcuts of high-frequency words, mainly pronouns.
- Only the short vowels that can be lengthened in Czech have left versions (no diphthongs). Two successive syllables with long vowels do not usually occur in Slovak due the Law of Rhythmical Shortening, although there are exceptions.
- There are very few words that end in Ä in Slovak. Those that do will use TO, which is also used for E.
- I is used after SZ, CZ, and RZ in Polish instead of IAU for ease in chording.

Vowel	Tertiary (Left)	Primary (Center)	Secondary (Right)
a	XZ	A	OY
ä		EA	TO
ą		EAU	STO
á		~A	
au		EA	
e	XK	E	TO
eu		EU	
é		~E	
ě		EI	TO
ę		EIA	W
i	XP	I	WY or Y
ia		IA	
ie		EI	TO
iu		IU	
í		~I	GWY
o	XL	AU	O
ó		~AU	
ô		~AU	
ou		IU	STO or O
u	XZK	U	W
ú		~U	GW
ů		EIU	
y	XZP	IAU or I	Y
ý		~IAU	

Appendix D: Alphabetical Listing of Consonants on the Right Side

Remember, the order of the consonants in the combination on the right side is unimportant. If a certain combination is not found in the order you need, look for a combination containing the same sounds in a different order. Some combinations are listed more than once, and either option may be used. Combinations for all three languages were left in one listing so that easy comparisons could be made. The order of some of the letters may, therefore, be out of order because alphabetical order varies between the languages.

B

b	**B**
bb	**B**
bć	**BTO**
bc	**CB**
bch	**CBG**
bci	**BTW**
bd	**BO**
bł	**BW**
bl	**LB**
blḱ	**LBG**
blk	**LBG**
błk	**LBG**
bn	**CLB**
bř	**CRBW**
br	**RB**
brz	**CRBW**
brž	**RBSG**
bs	**BS**
bš	**BSG**
bsk	**BSGY**
bšt	**BSGT**
bst	**BST**
bstw	**BSTW**
bsz	**BSG**
bt	**BT**

btn	**CLBT**
bz	**BSY**

C

c	**C**
č	**GW**
ć	**TO**
ch	**CG**
chc	**CSGT**
chć	**CGTO**
chci	**CGTW**
chcz	**CGW**
chd	**CBGT**
chk	**CBG**
chł	**CGW**
chł	**CLBG**
chl	**CLG**
chm	**CSG**
chn	**CLG**
chr	**CRG**
chrz	**CRBG**
chrzt	**CRGO**
chś	**CSGO**
cht	**CGT**
chtr	**CRGT**
chv	**CGW**
chw	**CGW**
chž	**CBSG**
ci	**TW**
ck	**CBG**
čk	**BGW**
cl	**CL**
čm	**CSGW**

ćm	**CSTO**
cp	**CBW**
cr	**CR**
cr	**RBG**
cs (cz/č)	**GW**
cs (ks)	**LS**
ct	**CT**
cť	**CTW**
ct	**GT**
ctl	**CLT**
čt	**GTW**
čť	**GTW**
ctv	**CTW**
ctw	**CTW**
cw	**CW**
cz	**GW**
czb	**BGW**
czć	**GTO**
czci	**GTW**
czk	**BGW**
czm	**CSGW**
czt	**GTW**

D

d	**BT**
db	**BO**
dc	**C**
dd	**BT**
dk	**BGT**
dľ	**LBT**
dł	**LBT**
dl	**LBTO**
dlň	**CLBT**

dm	**CBST**
dn	**CLBT**
dř	**CRBT**
dr	**RBT**
drń	**CRLO**
drni	**CRLW**
drt	**RLBT**
drz	**CRBT**
dś	**BSTO**
ds	**C**
ds	**CW**
dś	**STO**
dsi	**BSTW**
dsi	**STW**
dt	**T**
dv	**BTW**
dż	**BGW**
dž	**BGW**
dź	**BTO**
dz	**CW**
dźb	**BTO**
dżdż	**BGW**
dzi	**BTW**
dżm	**CSGW**
dżr	**RBGW**
dźstw	**CSTW**
dztw	**CTW**

F

f	**WY**
ff	**WY**
fg	**GWY**
fk	**GWY**

fl	**LWY**
fm	**CSWY**
fn	**CLWY**
fr	**RWY**
fs	**SWY**
ft	**ST**

G

g	**G**
gd	**BGT**
gdz	**CGW**
gf	**GWY**
gg	**G**
ght	**T**
gł	**LBG**
gl	**LG**
gm	**CSG**
gmat	**CSGT**
gn	**CL**
gn	**CLG**
gr	**RG**
gt	**GT**
gw	**GW**
gz	**BSG**

H

hd	**CBGT**
hk	**CBGY**
hl	**CLBG**
hm	**CBSG**

J

j	**CB**
jb	**CBW**
jč	**CBGW**
jc	**CBSY**
jch	**CBG**
jchš	**CBSG**
jcz	**CBGW**
jd	**CBT**
jď	**CBTW**
jdź	**CBTO**
jdzi	**CBTW**
jf	**CBWY**
jg	**CBG**
jgl	**CLBG**
jh	**CBG**
jk	**CBGY**
jkl	**CLBG**
jl	**CLB**
jł	**CLB**
jm	**CBSY**
jn	**CLB**
jń	**CLBO**
jni	**CLBW**
jp	**CBW**
jr	**CRB**
jř	**CRB**
jrz	**CRB**
jš	**CBSG**
jś	**CBSO**
js	**CBSY**
jsc	**CBSY**

jść	**CSTO**
jści	**CSTW**
jsi	**CBSW**
jsk	**CBSG**
jst	**CBST**
jstr	**CRST**
jstw	**CSTO**
jsz	**CBSG**
jszcz	**CSGW**
jt	**CBT**
jť	**CBTW**
jt	**CLB**
jtr	**CRBT**
jts	**CBST**
jtv	**CBTW**
jv	**CBW**
jw	**CBW**
jz	**CBSY**

K

k	**BG**
kč	**BGW**
kch	**CBG**
kcz	**BGW**
kf	**GWY**
kh	**CG**
kk	**BG**
kł	**LBGY**
kl	**LGY**
km	**CBSG**
kn	**CLGY**
kň	**CLGY**
kp	**BGWY**

kr	**RBG**
krh	**CRBG**
kř	**CRBG**
krz	**CRBG**
ks	**LS**
kś	**SGO**
ksi	**SGW**
kst	**LST**
kstr	**RSGT**
ksz	**LSG**
kš	**LSG**
kt	**GT**
ktr	**RGT**
kv	**GW**
kw	**GW**

L

l	**L**
ľ	**LB**
ł	**LB**
łb	**BW**
lb	**LB**
łb	**LBW**
lc	**CL**
łc	**CLB**
łć	**LBTO**
lč	**LGW**
lch	**CLG**
łci	**LBTW**
łcz	**LBGW**
lcz	**LGW**
ľd	**LBT**
ldʼ	**LBTW**

łd	**LBT**
ld	**LBTO**
ldz	**CLW**
łdz	**LBST**
lf	**LWY**
lft	**LST**
łg	**LBG**
lg	**LG**
lgł	**LGW**
lh	**CLBG**
łk	**LBGY**
ľk	**LBGY**
lk	**LGY**
łkł	**LBGW**
lkł	**LGWY**
lks	**LSGY**
łkw	**LBGW**
ll	**L**
łl	**LBW**
łm	**CLBS**
lm	**CLS**
łn	**CLB**
łń	**CLBO**
ln	**CRL**
lń	**CRLO**
łni	**CLBW**
lni	**CRLW**
lp	**LBW**
łp	**LBW**
ls	**LS**
lš	**LSG**
lsk	**LSGY**
lśń	**CLSO**

lśni	CLSW
łst	LBST
lst	LST
lstw	LSTW
łsz	LBSG
lsz	LSG
lszcz	LSGW
lť	LTW
ľt	LBT
łt	LBT
lt	LT
lth	LT
ltr	RLT
lts	LST
lv	LW
łw	LBW
lw	LW
lz	LBS
łz	LBS
lž	LBSG
lż	LBSG
łż	LBSG
lź	LBSO
lzi	LBSW
lzl	LBSW
łzł	LBSW
łźl	LBSW

M

m	CS
mb	CBS
mbd	CBST
mbl	CLBS

mbr	**CRBS**
mć	**CSTO**
mch	**CSG**
mci	**CSTW**
mcz	**CSGW**
md	**CBST**
mf	**CSWY**
mg	**CSG**
mk	**CBSG**
mł	**CLBS**
ml	**CLS**
mm	**CS**
mn	**CLS**
mň	**CLSW**
mp	**CBS**
mpf	**CBS**
mpr	**CRBS**
mpt	**CLT**
mr	**CRS**
mrz	**CRBS**
ms	**CLS**
mš	**CSG**
mś	**CSO**
msi	**CSW**
mst	**CST**
mšt	**CSGT**
mstw	**CSTW**
msz	**CSG**
mt	**CLT**
mť	**CLTW**
mz	**CBS**
mż	**CBSG**
mž	**CBSG**

N

n	**CL**
ń	**CLO**
nb	**CBS**
ńb	**CLBO**
nč	**CLGW**
nc	**CLST**
nć	**CLTO**
ńc	**CLTO**
nch	**CLG**
nci	**CLTW**
nctw	**LSTW**
ncz	**CLGW**
ńcz	**CLGW**
nd	**CLBT**
ndl	**CLBT**
ndľ	**CLBT**
ndr	**CRLT**
ndrz	**CRBT**
nds	**CLST**
ndż	**CLGW**
ndz	**CLST**
ndź	**CLTO**
ńdź	**CLTO**
ndzi	**CLTW**
ńdzi	**CLTW**
ndzl	**CLST**
ndżl	**CLST**
nf	**CLWY**
ng	**CLG**
ngl	**CLG**
ngst	**CLSG**

ngw	**CLGW**
ňh	**CLG**
ňho	**CLGO**
ni	**CLW**
nk	**CLGY**
ňk	**CLGY**
nkč	**CLGW**
nkc	**CLSG**
nkh	**CLG**
nks	**CLSG**
nkt	**CLGT**
nl	**CRL**
ňl	**CRLW**
nm	**CLS**
nn	**CL**
nr	**CRL**
ns	**CLS**
nš	**CLSG**
nsk	**CLSG**
ńsk	**CLSG**
nst	**CLST**
nšt	**CLST**
nstr	**CLST**
nstw	**LSTW**
ństw	**LSTW**
nsz	**CLSG**
ńszcz	**CLGW**
nszt	**CLST**
nt	**CLT**
ňt	**CLTW**
nť	**CLTW**
nth	**CLT**
ntr	**CRLT**

nts	**CLST**
nw	**CLW**
nx	**CLSG**
nz	**CLBS**
nż	**CLSG**
nž	**CLSG**

P

p	**BW**
pč	**BGWY**
pć	**BTO**
pch	**CBGW**
pci	**BTW**
pcz	**BGWY**
ph (f)	**WY**
pk	**BGWY**
pl	**LBW**
pł	**LBW**
pn	**CLB**
pń	**CLBO**
pni	**CLBW**
pp	**BW**
př	**CRBW**
pr	**RBW**
prz	**CRBW**
ps	**BSW**
psk	**BSGY**
pst	**BSTW**
pstw	**BSTW**
psz	**BSGW**
pt	**BTW**
ptr	**RBT**
ptr	**RBTW**

R

r	**R**
ř	**CRB**
rb	**RB**
řb	**CRBW**
rc	**CR**
rč	**RGW**
rć	**RTO**
rch	**CRG**
rci	**RTW**
rcz	**RGW**
rczm	**CRGW**
rd	**RBT**
řd	**CRBT**
rď	**RBTW**
rdw	**RBTW**
rdz	**CRW**
rdź	**RBTO**
rdzi	**RBTW**
rf	**RWY**
rg	**RG**
rgł	**RGW**
rgł	**RLBG**
rh	**CRBG**
rk	**RBG**
řk	**CRBG**
rkł	**RGWY**
rks	**RSGY**
rkt	**RGT**
rl	**RL**
rľ	**RLB**
rł	**RLB**

rls	**RLS**
rm	**CRS**
rn	**CRL**
rń	**CRLO**
rň	**CRLW**
rnc	**CRLS**
rncz	**CLGW**
rni	**CRLW**
rp	**RBW**
řp	**CRBW**
rps	**RBS**
rpt	**RBT**
rpt	**RBTW**
rr	**R**
rs	**RS**
rš	**RSG**
ršč	**RSGW**
rść	**RSTO**
rści	**RSTW**
rsk	**RSGY**
ršt	**RSGT**
rst	**RST**
rstw	**RSTW**
rsz	**RSG**
rszcz	**RSGW**
rszt	**RSGT**
rt	**RT**
řt	**CRT**
rť	**RTW**
rtn	**CRLT**
rts	**RST**
rv	**RW**
rw	**RW**

rx	**RSGY**
rz (r+z)	**RBS**
rz (ż)	**CRB**
rż	**RBSG**
rž	**RBSG**
rź	**RBSO**
rzb	**CRBW**
rzi	**RBSW**
rzk	**CRBG**
rzł	**RBSW**
rzł	**RLBS**
rzm	**CRBS**
rzt	**CRT**

S

s	**S**
š	**SG**
ś	**SO**
sb	**BS**
śb	**BSO**
sc	**CS**
šč	**SGW**
šć	**STO**
sch (sz/š)	**SG**
sch	**CSG**
schł	**CSGW**
ści	**STW**
sf	**SWY**
sh (sz/š)	**SG**
šh	**CLSG**
si	**SW**
sk	**LS**
šk	**LSG**

skl	**LSGY**
skr	**RSGY**
skrz	**CRSG**
skv	**LSW**
skw	**LSW**
sł	**LBS**
sl	**LS**
šl	**LSG**
śl	**LSO**
śli	**LSW**
sm	**CLS**
śm	**CSO**
sn	**CLS**
śń	**CLSO**
śni	**CLSW**
šp	**BSGW**
sp	**BSW**
ss	**S**
št	**SGT**
šť	**SGTW**
st	**ST**
sť	**STW**
stł	**LBST**
stm	**CLT**
str	**RST**
stř	**CRST**
strz	**CRST**
stv	**SWY**
stw	**SWY**
sz	**SG**
szb	**BSG**
szcz	**SGW**
szczk	**LSGW**

szk	**LSG**
szł	**LBSG**
šl	**LSG**
szl	**LSG**
szt	**SGT**
sztr	**RSGT**
szw	**SGW**

T

t	**T**
ť	**TW**
tb	**BT**
tc	**C**
tch(cz/č)	**GW**
th	**T**
ťk	**GTW**
tk	**GT**
tł	**LBT**
tl	**LT**
tm	**CLT**
tn	**CLT**
tň	**CLTW**
tp	**BTW**
tř	**CRT**
tr	**RT**
trč	**RGTW**
trz	**CRT**
tržl	**RLST**
ts	**C**
tsk	**CBG**
tsp	**CBW**
tst	**CT**
tt	**T**

tts	C
tv	TW
tw	TW

V

v	W
vd	BTW
vk	GW
vl	LW
vln	CLW
vn	CLW
vr	RW
vs	LS
vsk	LSW
vš	SGW
vt	TW
vv	W

W

w	W
wc	CW
wć	STO
wci	STW
wd	BST
wd	BTW
wdź	BSTO
wdzi	BSTW
wf	RW
wg	GW
wk	BG
wk	GW
wl	L
wl	LW

wn	**CL**
wń	**CLO**
wni	**CLW**
wr	**RW**
ws	**LS**
ws	**S**
wsk	**LSW**
wstw	**LSTW**
wt	**TW**

X

x	**LS**
xt	**LST**

Z

z	**BS**
ż	**BSG**
ž	**BSG**
żb	**BSG**
źb	**BSO**
zb	**BSY**
źć	**BSTO**
żć	**SGTO**
źci	**BSTW**
żci	**SGTW**
zci	**STW**
żd	**BSGT**
žd	**BSGT**
zd	**BST**
zď	**BSTW**
žď	**SGTW**
zdn	**CLST**
zdr	**RBST**

zdrz	**CRST**
żdż	**BSGW**
źdź	**BSTO**
zdz	**CSW**
ździ	**BSTW**
zg	**BSG**
zgrz	**CRSG**
żk	**BSGY**
žk	**BSGY**
zl	**LBS**
žl	**LBSG**
zł	**LBS**
żl	**LBSG**
źl	**LBSO**
zm	**CBS**
żm	**CBSG**
zn	**CLBS**
żn	**CLSG**
žn	**CLSG**
źń	**CLSO**
żń	**CLSO**
źni	**CLSW**
żni	**CLSW**
zr	**RBS**
ższ	**BSG**
šš	**BSG**
żw	**BSGW**
zw	**BSW**
źw	**BSW**
zz (ts)	**C**
zz (z)	**BS**

Appendix E: Internal prefixes

Key(s)	Meaning	*~ indicates 2 words	Otherwise, internal prefix	Notes
Prepositional Affixes				
X	k, ku	Y	Y	Cannot use with F or S; F > V, S > Z
F	v, ve	Y	Y	Use F even if fill vowel required
Z	z, ze	Y	Y	Use Z even if fill vowel required
S	s, se	Y	Y	Cannot use with X (k, ku), F > V, S > Z
T	od, ode	Y	Y	Cannot use with F, X, or Z

Appendix F: Complex Suffixes

Complex suffixes allow you add up to three syllables in one chord.

Complex Vocalic Suffixes		
XZ	**ACV(_)**	The first vowel is not written but is "contained" in the left part of the chord (keys beginning with X). A consonant is usually add on the left side and then a vowel from the center will also be used. If necessary, consonants can be added on the right side. Add the ~ to make the vowel encoded with the center keys long (for Czech and Slovak only).
XK	**ECV(_)**	
XP	**ICV(_)**	
XL	**OCV(_)**	-ovat XVLAT
XZK	**UCV(_)**	-ený XKLR~IAU
XZP	**YCV(_)**	-ałam XZLJACS

Appendix G: Internal Shortcuts

Internal shortcuts allow you to encode words or word parts of at least two syllables in one chord by adjusting the vowel.

Shortcuts For Words Or Word Parts		
EA	**ACA**	Used for sequences of two syllables with identical vowels. For Czech only, the syllables must be the same length. To indicate length, add the **~** key.
EU	**ECE**	
EI	**ICI**	
IU	**OCO**	

Appendix H: Punctuation, Formatting Chords, and Speaker Identifications

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Punctuation

Punctuation Mark	Steno	Lesson
,	V-B	5
.	P-L	6
?	V-L	7
!	P-B	8
;	VR-RB	9
:	VR*RB	10
\	PL-RB	11
/	VR-CL	12
,,	TVR-RBG	13
"	KPL-CLS	14
(	STVR-RBGW	15
)	ZKPL-CLST	16
-	ST-GW	17
--	ST*GW	17
...	ZK-ST	18
@	PVLR-CRLB	19
{	KTPV-LBSG	20
}	ZSKT-SGTW	21
'	LR-CR	22
[	KTPV-LBSG	23
]	KTPV*LBSG	24
~.~	X*O	25

Formatting

At a minimum, formatting refers to the insertion of a new line chord, a new paragraph chord, or a new page, chord. If you are typing a long list of items, you will most likely use the new line chord. To break up long sections of text, you would insert a new paragraph chord. To force the cursor to a new page, use the new page chord.

These are the basic formatting chords you will need. Others that you might need would include chords to center text, bold text, or italicize text. You might want to add underlining to your text or need superscripts or subscripts. If you need additional formatting chords, feel free to add them to the chart with their description.

Formatting Performed	Chord	Lesson
	X-CRLBSGTW	
	Z-CRLBSGTW	
	K-CRLBSGTW	
New page (inserts a page break)	**P-CRLBSGTW**	26
New line (with cursor at left margin)	**L-CRLBSGTW**	27
	F-CRLBSGTW	
	S-CRLBSGTW	
Tab (inserts a new tab)	**T-CRLBSGTW**	28
	V-CRLBSGTW	
New paragraph (with cursor at first tab)	**R-CRLBSGTW**	29

Speaker Identifications

For those individuals who need to produce text with multiple speakers, it's important to identify who is saying what. If you simply have the words, you won't know to whom to attribute the text. You will add special chords to identify who is speaking as you are writing down the words. Don't forget that you are also responsible for the punctuation as well.

The chords you will use are the following and allow you to set up ten different speakers. Note how simple the system is. It's not something that you have to worry about very much. In an actual file, you would simply create a secondary database for that event. You would use the chord listed in the second column and the actual name of the speaker when you have it in advance. If you have five speakers, you might want to add an entry to the secondary database for a sixth speaker as "AUDIENCE MEMBER" if there will be a question-and-answer section to the event.

You should, however, define the generic speaker identifications in your main database. If you have them in the main database, you will have the proper formatting for the speaker even if the name is not correct. You can adjust the name at a break or afterwards. This happens somewhat frequently in the legal setting and in other settings as well. It's a lot more work to add the speaker identifications, though, afterwards if you fail to encode them at all as you are writing.

Speaker Identification	Chord	Lesson
Speaker 1:	ZSKTPVLR-C	30
Speaker 2:	ZSKTPVLR-L	30
Speaker 3:	ZSKTPVLR-S	31
Speaker 4:	ZSKTPVLR-T	31
Speaker 5:	ZSKTPVLR-O	32
Speaker 6:	ZSKTPVLR-R	32
Speaker 7:	ZSKTPVLR-B	33
Speaker 8:	ZSKTPVLR-G	33
Speaker 9:	ZSKTPVLR-W	34
Speaker 10:	ZSKTPVLR-Y	34

Each speaker identification automatically goes to a new line, tabs in, and puts in the speaker title and surname, a colon, and a space.

To see how they would work, imagine that the text below is the beginning of a transcript of a symposium that you were asked to prepare. The following list indicates all five of the speakers at the event and also an identification for audience members asking questions.

Speaker 1: Mr. Joe Smith

Speaker 2: Dr. Ann Jones

Speaker 3. Father Jean-Pierre Umiwana

Speaker 4: His Holiness The Dalai Lama

Speaker 5: Dr. Josefina Estevez

Speaker 6: Audience member

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PROCEDINGS OF THE CLIMATE CHANGE 2022 SYMPOSIUM
THE UNIVERSITY OF CALIFORNIA, LOS ANGELES
FRIDAY, 29 JULY 2022
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MR. SMITH: Good evening. My name is Joe Smith, and I will be the moderator

for tonight's panel discussion on climate change.

                I'd now like to introduce our guests at this time. At the far left of the stage,

His Holiness The Dalai Lama.

HIS HOLINESS THE DALAI LAMA: I am most grateful to be invited.

MR. SMITH: To my immediate right is Dr. Ann Jones from the University of

London.

DR. JONES: Good evening.

MR. SMITH: To my immediate left is Father Jean-Pierre Umiwana from the

Archdiocese of Kigali, the capital of Rwanda.

FATHER UMIWANA: Good evening.

MR. SMITH: At the far right of the stage, last but not least, is Dr. Josefina Valdivia

from the University of California, Berkeley. She is head of the Atmospheric Sciences

department.

DR. VALDIVIA: Hello.

———

As you can see from this small excerpt of the beginning of the transcript, identifying each speaker as he or she speaks make it crystal clear what transpires. If you capitalize the speaker names, it makes it easier to read on, say, a monitor with scrolling text. In written form, either all capital letters or mixed case is used, depending on the situation. Placing the names of speakers in bold is also option. What is most important is to identify who is saying what.