

## PROPOSAL FOR ELIMINATION OF INCORPORATED STEMS & ESTABLISHING $V_R+C_A$ SHORTCUTS — v. 2

First revised proposal for eliminating incorporated stem and replacing them with what I am calling “concatenated” formatives. Revisions include the following: Concatenation status now shown in Slot I of the concatenated formative, not the parent. Ultimate syllabic stress now used on the concatenated formative to indicate the Formats 37-68 distinction, allowing the Slot I  $C_C$  values to indicate the  $w$ - vs.  $y$ -  $C_A$ -shortcut distinction correctly. The NEG/4 “shortcut” columns have been eliminated from the  $V_R$  slot (they would cause a potential proliferation of  $-w$ - and  $-y$ - increments and never did save any syllables anyway). The ordering of the  $C_A$ -shortcuts in the Slot II table have been changed to be more intuitive. The values  $-ç$ - and  $-çw$ - are no longer used in Slot I.

### Proposed Slot Structure of a Formative

I	II	III	IV	V	VI	VII	VIII	IX	X*	XI
( $C_C$ )	$'V_V$	$C_R$	( $V_R$ )	( $V_X C_S \dots$ )	( $C_A$ )	( $V_X C_S \dots$ )	( $V_N C_N$ )	$V_C^* / V_K$	( $'$ ) $C_B$ or ( $'$ ) $C_Y$	[stress]
Concatenation status indicator + $V_R+C_A$ shortcut indicator	Version + Stem + $C_A$ shortcut	Main Root	Function + Specification	$V_X C_S$ affix(es) apply to stem but not to $C_A$ If Slots IV & VI values are present then form is reversed to $-C_S V_X-$	Configuration + Extension + Affiliation + Perspective + Essence	$V_X C_S$ affixes apply to stem + $C_A$	Valence + Mood/Case-Scope or Aspect + Mood/Case-Scope or Phase + Mood/Case-Scope or Level + Mood/Case-Scope or Effect + Mood/Case-Scope	Case or Illocution + Expectation + Validation as determined by syllabic stress	Bias or Case-Scope or Mood  must be preceded by a glottal-stop unless Slot VIII $C_N$ or Slot IX $V_C/V_K$ contains a glottal-stop	penultimate stress = UNFRAMED Relation + $V_C$  ultimate stress = UNFRAMED Relation + $V_K$  antepenultimate stress = FRAMED Relation + $V_C$
consonantal prefix	vocalic affix	cons. form	vocalic affix; presence determined by $C_C$ in Slot I	last $V_X$ in the series requires a glottal stop to indicate end of Slot	consonant form; presence determined by $C_C$ in Slot I		Modular Slot containing a vowel-form + consonant-form	vocalic affix		

\* Concatenated formatives (see discussion for Slots I and II below) label the  $V_C$  Case marker as  $V_F$  Format; also, Slot X will be empty in a concatenated formative.

**NOTE:** A monosyllabic formative is considered to have the equivalent of ultimate stress (i.e., it is an UNFRAMED verbal formative).

### SLOT I: $C_C$ — Concatenation-Type plus Alternate $V_F$ of Preceding Concatenated Formative, plus $V_R+C_A$ Shortcut Type

Slot I carries a new prefix,  $C_C$ , that serves two functions: (1) to indicate that the formative is immediately preceded by a concatenated formative (the new replacement for stem incorporation from previous versions of this document), and (2) to indicate whether certain  $V_R+C_A$  forms from Slots IV and VI have been elided (thus being instead indicated by the Slot I  $C_C$  value).

**Concatenation:** The incorporated stems of previous versions of the language have now been eliminated. Instead, any formative may be immediately preceded by another formative which serves the same purpose as the previous incorporated stem. The first formative of this pair of formatives shall be known as a *concatenated* formative. The second formative of the pair shall be known as a *parent* formative. The pair of formatives together shall be termed a *concatenated pair*. (NOTE: A formative that is not part of a concatenated pair is now termed a *standalone formative*.)

The first formative of the pair, the concatenated formative, is structured as a regular formative, able to take any and all morphology as appropriate and semantically permissible for the concatenated pair as a whole (except for Slot X). The initial concatenated formative also shows one of the following eight  $C_C$  values in Slot I to indicate that it and the following formative constitute a concatenated pair. The meaning of the different  $C_C$  values is explained below the table.

	$V_F = \text{Formats 1 thru 36}$	$V_F = \text{Formats 37 thru 68}$	$V_F = \text{Formats 1 - 36} + [\text{w-}] C_A \text{ shortcut}^*$	$V_F = \text{Formats 37 - 68} + [\text{w-}] C_A \text{ shortcut}^*$	$V_F = \text{Formats 1 - 36} + [\text{y-}] C_A \text{ shortcut}^*$	$V_F = \text{Formats 37 - 68} + [\text{y-}] C_A \text{ shortcut}^*$
<b>Type-1 Concatenation</b>	h	h + ult. stress	hl	hl + ult. stress	hm	hm + ult. stress
<b>Type-2 Concatenation</b>	hw	hw + ult. stress	hr	hr + ult. stress	hn	hn + ult. stress

\* See Slot II below for an explanation of the **w-** and **y-**  $C_A$  shortcuts

**Concatenation Type:** Type-1 concatenation implies a circumstantial relationship between the concatenated formative and the parent formative (equivalent to placing the concatenated formative into a case-frame). Type-2 concatenation is derivational (i.e., lexicalizing), creating a new lexico-semantic gestalt usually requiring a different English translation. This is analogous to English forms like *polar bear* naming a new animal rather than stating a location. Likewise, English *elephant seal* establishes a new lexico-semantic gestalt rather than describing some sort of metaphorical relationship between elephants and seals.

**Alternate  $V_F$  Indicator:** Concatenated formatives do not use a glottal-stop in the Slot IX  $V_F$  form. Instead, the concatenated formative takes ultimate syllabic stress to indicate that the Slot IX  $V_F$  Format vowel is actually a Format 37-through-68 form but without the glottal stop.

**$C_A$  Shortcut Indicator for Concatenated Formative:** Columns 3 through 6 of the above table are used if the Slot IV  $V_R$  value is default **-a-** (STA/BSC/EXS) and the Slot VI  $C_A$  affix is one of eight specific  $C_A$  values shown for Slot II on the next page.

**$C_A$  Shortcut Indicator for Parent or Standalone Formatives:** If a formative is not a concatenated formative (i.e., it is a parent or standalone), then the same Slots IV/VI **a+** $C_A$  shortcuts are shown by a  $C_C$  value of either **w-** or **y-**, depending on the particular  $C_A$  value being elided, as shown on the next page.

**Morpho-phonological Restrictions on a Concatenated Formative:** Concatenated formatives do not utilize a glottal-stop in the Slot IX  $V_F$  value; instead they utilize the  $V_F$  values 1 through 36 (identical to values 37 through 68 except for the glottal-stop) and the formative takes ultimate syllabic stress. Additionally, Slot X must be empty in a concatenated formative.

**Concatenation “Chain”:** More than two formatives may be concatenated to form the equivalent of phrasal concatenation or a “concatenation chain”. The initial concatenated formative of the chain indicates the Concatenation Type (1 or 2) for the entire chain; all subsequent concatenated formatives of the chain take one of the Type-1  $C_C$  value from the table above. The final parent formative of the chain has either empty Slot I or takes **w-** or **y-** in Slot I if a  $C_A$  shortcut is present (see Slot II on next page).

**Orthography:** In addition to the presence of a  $C_C$  affix in Slot I of any parent formative, the two (or more) formatives will be joined by a hyphen in the language’s romanization scheme as a simple mnemonic indicator that they are a concatenated pair or concatenated chain.

**SLOT II:  $V_V$  — Stem and Version (plus optional Slot IV+VI  $a+C_A$  Shortcut)**

Slot II contains a vocalic affix,  $V_V$ , showing the formative's Stem and Version. Additionally, if Slot I contains a  $w$ - or  $y$ -, or one of the values from the  $C_C$  table on the previous page ( $h$ -,  $hw$ -,  $hl$ -,  $hr$ -,  $hm$ -,  $hn$ -), then the  $V_V$  value also indicates a Slot IV  $V_R$  value of default  $-a$ - plus one of eight Slot VI  $C_A$  values. Additionally, the actual Slot IV/VI  $a+C_A$  forms will be elided (i.e., missing), thus shortening the formative by one syllable.

If $C_C$ value in Slot I is . . .	then . . .
[zero/empty] or $h$ or $hw$	[no $C_A$ shortcut present]
$w$ or $hl$ or $hr$	if $V_V$ = Vowel-Seq. Series 1, then $C_A$ = $-l$ - (UPX/DEL/CSL/M/NRM) if $V_V$ = Vowel-Seq. Series 2, then $C_A$ = $-r$ - (UPX/DEL/CSL/P/NRM) if $V_V$ = Vowel-Seq. Series 3, then $C_A$ = $-v$ - (UPX/DEL/CSL/N/NRM) if $V_V$ = Vowel-Seq. Series 4, then $C_A$ = $-tl$ - (UPX/DEL/CSL/P/RPV)
$y$ or $hm$ or $hn$	if $V_V$ = Vowel-Seq. Series 1, then $C_A$ = $-s$ - (UPX/PRX/CSL/M/NRM) if $V_V$ = Vowel-Seq. Series 2, then $C_A$ = $-ř$ - (UPX/DEL/CSL/M/RPV) if $V_V$ = Vowel-Seq. Series 3, then $C_A$ = $-z$ - (UPX/DEL/CSL/A/NRM) if $V_V$ = Vowel-Seq. Series 4, then $C_A$ = $-sř$ - (UPX/PRX/CSL/M/RPV)

**Slot II  $V_V$  if Slot I is [zero] /h /hw**

Stem	Version	$V_V$
Stem 1	PRC	(a)
	CPT	ä
Stem 2	PRC	e
	CPT	i
Stem 3	PRC	u
	CPT	ü
Stem 0*	PRC	o
	CPT	ö

**Slot II  $V_V$  if Slot I is w / hl / hr or y / hm / hn**

Stem	Version	$C_C=w/hl/hr$	$C_C=y/hm/hn$	$C_C=w/hl/hr$	$C_C=y/hm/hn$	$C_C=w/hl/hr$	$C_C=y/hm/hn$	$C_C=w/hl/hr$	$C_C=y/hm/hn$
		[default]	PRX	P	RPV	N	A	P / RPV	PRX / RPV
Stem 1	PRC	(a)		ai		ia / oä		ao	
	CPT	ä		au		iä / uä		ae	
Stem 2	PRC	e		ei		ie / oë		ea	
	CPT	i		eu		ië / uë		eo	
Stem 3	PRC	u		ui		ua / aö		oa	
	CPT	ü		iu		ue / eö		öa	
Stem 0	PRC	o		oi		uo / io		oe	
	CPT	ö		ou		uö / iö		öe	

**NOTE:** I have considered that the first four Vowel-Sequence series of vowels is available for use (e.g., for various affix shortcuts) in Slot II in cases where Slot I is zero, **h-**, or **hw-**. However, in my opinion, it would be too confusing to have to memorize/remember two different interpretations for the very same vowel-forms, all depending on the value of Slot I.

### SLOT IV: $V_R$ — Function, Specification, and Context

#### Slot IV $V_R$ values

Function of Main Root	Specification of Main Root	Context			
		EXS	FNC	RPS	AMG
STA	BSC	a	ai	ia	ao
	CTE	ä	au	iä	ae
	CSV	e	ei	ie	ea
	OBJ	i *	eu	ië	eo
DYN	BSC	u	ui	ua	oa
	CTE	ü	iu	ue	öa
	CSV	o	oi	uo	oe
	OBJ	ö	ou	uö	öe

Due to the elimination of incorporated stems, there is no longer any need for the  $V_R$  Slot to carry a glottal stop to show Version or Function, etc.

**NOTE:** If the  $C_C$  value in Slot I indicates a  $V_R+C_A$  shortcut is operating, then Slot IV and Slot VI (containing  $C_A$ ) will be empty.

## SLOT V: $C_S V_X / V_X C_S$ Affixes Applied to Stem without Scope Over the Slot VI $C_A$ complex

This optional slot holds one or more standard  $-V_X C_S$  affixes which apply to the stem only and do not have scope over the following Slot VI  $C_A$  complex or any other slots. Note that the fourth and fifth column of  $V_X$  values from previous versions has been removed, since incorporated stems have been eliminated (the fourth and fifth column of  $V_X$  values will likewise be removed from Slot VII  $V_X C_S$  affixes).

**NOTE:** If a Slot VI  $C_A$  complex is present, any Slot V affixes are shown in reversed form:  $-C_S V_X$ -; however, if the Slots IV  $V_R$  and Slot VI  $C_A$  complex have been elided as indicated in Slot I (see Secs. 3.1 and 3.2 above), then any Slot V affixes are shown in standard form  $-V_X C_S$ -.

degree	Type-1	Type-2	Type-3	
1	a	ai	ia / oä	<p><b>Type 1:</b> circumstantial                      <b>Type 2:</b> derivational</p> <p><b>Type 3:</b> applies to previous <math>C_S V_X / V_X C_S</math> affix only (or the following affix if it is the first in the slot).</p> <p><b>Degree 0:</b> unspecified degree; refers to the affix's general semantic concept as a whole.</p> <p><b><math>C_A</math> stacking:</b> The specialized <math>-V_X</math> value, <math>-üä</math>, is used to indicate that the preceding <math>C_S</math>- consonant-form is to be interpreted as a <math>C_A</math> complex having scope over (i.e., “stacked” upon) the Slot IX <math>C_A</math> complex stem of the main stem. This specialized <math>C_A</math> stacking affix may also be placed in either Slot V or Slot VII.</p>
2	ä	au	iä / uä	
3	e	ei	ie / oë	
4	ë	eu	ië / uë	
5	i	ëi	ëu	
6	ö	ou	uö / iö	
7	o	oi	uo / io	
8	ü	iu	ue / eö	
9	u	ui	ua / aö	
0	üä	üe	üo	

**Glottal Stop To Indicate the End of Slot V:** The last  $-C_S V_X$ - or  $-V_X C_S$ - affix in Slot V must carry a glottal stop to show where Slot V ends and Slot VI begins. See Sec. 1.7 (page 4) on how to add this glottal stop to the affix. For reversed  $-C_S V_X$ - forms, this glottal stop will often merge with the following Slot VI  $C_A$  complex as per the rules in Sec. 3.9.1 of version 0.16 of the Design Document.

**NOTE:** The Concatenative Adjunct from Sec. 4.6 of version 0.16 of the Design Document will be renamed the “Phrasal Adjunct” in order to avoid confusion with the new Concatenation process described in this proposal.

**ALSO:** In forthcoming v.0.17 of the Design Document, the two series of Spatio-Temporal Cases and the two series of Relational Cases will be swapped (so that the former will take Vowel-Sequence Series 7 & 8 vowels, while the latter will take Series 5 & 6 vowels). This will hopefully allow more commonly used  $V_F$  format slots in concatenated formatives to be one syllable in length rather than two.