

to  
Reduce  
the Number of  
Allocatable labels  
in  
CGP LGR

In the CGP variant mapping table (Appendix I), for all 19746 characters, there are 3 characters with 2 PSVs, 127 with 2 PTVs, 5 with 3 PTVs and 1 with 4 PTVs, which means, all together 136 characters have multiple preferred variant characters. These 136 characters will generate multiple all-simplified labels or all-traditional labels, which will lead to an **over-production of allocatable labels** issue at the root zone level.

Original Char	Allocatable Simplified Variant	Allocatable Traditional Variant	Blocked Variant
A	B	C	
D	E	F	G
H	I, J	K	
L	M, N	O	P

Input: AD  
 Allocatable: BE; CF  
 Blocked: BF, CE

Input: AH  
 Allocatable: BI, CJ; CK  
 Blocked: BK, CI, CJ

Input: HL  
 Allocatable: IM, IN, JM, JN; KO  
 Blocked: ... ..

For all 19746 chars in CGP repertoire  
3 chars with Multiple Simp Mappings

- A; AB, A >> A; AB, A (2)
- A; AB, C >> A; AB, C (1)

133 chars with Multiple Trad Mappings

- A; A, AB >> A; A, AB (103)
- A; A, BC >> A; A, BC >> A; A, B|C (23)
- A; A, ABC >> A; A, ABC >> A; A, AB|C (5)
- A; B, CD >> A; B, CD (1)
- A; A, ABCD >> A; A, ABCD (1)

All the others have only Single Simp & Trad Mapping

A; AB, A >> A; AB, A (2)

A; A, A (n)

Original	Alloc Simp	Alloc Trad
夥(5925)	夥(5925)伙(4F19)	夥(5925)

Original	Alloc Simp	Alloc Trad
伴(4F34)	伴(4F34)	伴(4F34)



夥(5925)	伙(4F19)	夥(5925)
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Input: 夥(5925)伴(4F34)

- Orig: 夥(5925)伴(4F34)
- Simp: 夥(5925)伴(4F34), 伙(4F19)伴(4F34)
- Trad: 夥(5925)伴(4F34)

Output: 夥(5925)伴(4F34); 夥(5925)伴(4F34); 夥(5925)伴(4F34) = 夥(5925)伴(4F34)

夥(5925)伴(4F34); 伙(4F19)伴(4F34); 夥(5925)伴(4F34) = 夥(5925)伴(4F34)

A; AB, A >> A; AB, A (2)

A; A, B

Original	Alloc Simp	Alloc Trad
夥(5925)	夥(5925)伙(4F19)	夥(5925)

Original	Alloc Simp	Alloc Trad
鸟(9E1F)	鸟(9E1F)	鳥(9CE5)



夥(5925)	伙(4F19)	夥(5925)
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Input: 夥(5925)鸟(9E1F)

- Orig: 夥(5925)鸟(9E1F)
- Simp: 夥(5925)鸟(9E1F), 伙(4F19)鸟(9E1F)
- Trad: 夥(5925)鳥(9CE5)

Output: 夥(5925)鸟(9E1F); 夥(5925)鸟(9E1F); 夥(5925)鳥(9CE5) = 夥(5925)鸟(9E1F); 夥(5925)鳥(9CE5)

夥(5925)鸟(9E1F); 伙(4F19)鸟(9E1F); 夥(5925)鳥(9CE5) = 夥(5925)鸟(9E1F); 夥(5925)鳥(9CE5); 伙(4F19)鸟(9E1F);

A; AB, A >> A; AB, A (2)

Original	Alloc Simp	Alloc Trad
夥(5925)	夥(5925)伙(4F19)	夥(5925)

↓

夥(5925)	伙(4F19)	夥(5925)
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A; B, A (n)

Original	Alloc Simp	Alloc Trad
鳥(9CE5)	鸟(9E1F)	鳥(9CE5)

+

鸟(9E1F)	鸟(9E1F)	鳥(9CE5)
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Input: 夥(5925)鳥(9CE5)

- Orig: 夥(5925)鳥(9CE5)
- Simp: 夥(5925)鸟(9E1F), 伙(4F19)鸟(9E1F)
- Trad: 夥(5925)鳥(9CE5)

Output: 夥(5925)鳥(9CE5); 夥(5925)鸟(9E1F); 夥(5925)鳥(9CE5) = 夥(5925)鳥(9CE5); 夥(5925)鸟(9E1F);  
夥(5925)鳥(9CE5); 伙(4F19)鸟(9E1F); 夥(5925)鳥(9CE5) = 夥(5925)鳥(9CE5); 伙(4F19)鸟(9E1F);

Input: 夥(5925)鸟(9E1F)

- Orig: 夥(5925)鸟(9E1F)
- Simp: 伙(4F19)鸟(9E1F)
- Trad: 夥(5925)鳥(9CE5)

Output: 夥(5925)鸟(9E1F); 伙(4F19)鸟(9E1F); 夥(5925)鳥(9CE5) = 夥(5925)鸟(9E1F); 夥(5925)鳥(9CE5); 伙(4F19)鸟(9E1F);

A; AB, A >> A; AB, A (2)

Original	Alloc Simp	Alloc Trad
夥(5925)	夥(5925)伙(4F19)	夥(5925)



夥(5925)	伙(4F19)	夥(5925)
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A; B, C

Original	Alloc Simp	Alloc Trad
鉄(9244)	铁(94C1)	鐵(9435)



铁(94C1)	铁(94C1)	鐵(9435)
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Input: 夥(5925)鉄(9244)

- Orig: 夥(5925)鉄(9244)
- Simp: 夥(5925)铁(94C1), 伙(4F19)铁(94C1)
- Trad: 夥(5925)鐵(9435)


Output: 夥(5925)鉄(9244); 夥(5925)铁(94C1); 夥(5925)鐵(9435)  
 夥(5925)鉄(9244); 伙(4F19)铁(94C1); 夥(5925)鐵(9435)

Input: 夥(5925)铁(94C1)

- Orig: 夥(5925)铁(94C1)
- Simp: 伙(4F19)铁(94C1)
- Trad: 夥(5925)鐵(9435)

Output: 夥(5925)铁(94C1); 伙(4F19)铁(94C1); 夥(5925)鐵(9435)

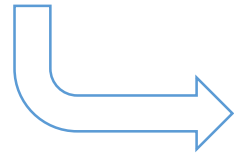
A; AB, A >> A; AB, A (2)

Original	Alloc Simp	Alloc Trad
夥(5925)	夥(5925)伙(4F19)	夥(5925)
		
夥(5925)	伙(4F19)	夥(5925)



A; A, A  
A; A, B  
A; B, A  
A; B, C

```
<char cp="5925" tag="sc:Hani" ref="0 100 101 102 103 105" >  
  <var cp="4F19" type="simp" />  
  <var cp="5925" type="r-both" comment="identity" />  
</char>
```



```
<char cp="5925" tag="sc:Hani" ref="0 100 101 102 103 105" >  
  <var cp="4F19" type="simp" />  
  <var cp="5925" type="r-both-ms" comment="identity" />  
</char>
```

```
<action disp="blocked" any-variants="r-both-ms"/>  
<action disp="allocatable" only-variants="trad r-trad both r-both r-both-ms">
```



A; AB, C >> A; AB, C (1)

Original	Alloc Simp	Alloc Trad
麼(9EBD)	麼(9EBD)么(4E48)	麼(9EBC)



麼(9EBD)	么(4E48)	麼(9EBC)
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Input: 麼(9EBD)鉄(9244)

- Orig: 麼(9EBD)鉄(9244)
- Simp: 麼(9EBD)鉄(94C1), 么(4E48)鉄(94C1)
- Trad: 麼(9EBC)鐵(9435)

Output: 麼(9EBD)鉄(9244); 麼(9EBD)鉄(94C1); 麼(9EBC)鐵(9435)

麼(9EBD)鉄(9244); 么(4E48)鉄(94C1); 麼(9EBC)鐵(9435)

Input: 麼(9EBD)鉄(94C1)

- Orig: 麼(9EBD)鉄(94C1)
- Simp: 么(4E48)鉄(94C1)
- Trad: 麼(9EBC)鐵(9435)

Output: 麼(9EBD)鉄(94C1); 么(4E48)鉄(94C1); 麼(9EBC)鐵(9435)

A; B, C

Original	Alloc Simp	Alloc Trad
鉄(9244)	鉄(94C1)	鐵(9435)



鉄(94C1)	鉄(94C1)	鐵(9435)
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```
<char cp="9EBD" tag="sc:Hani" ref="0 100 101 102" >
  <var cp="4E48" type="simp" />
  <var cp="5E7A" type="blocked" />
  <var cp="5E85" type="blocked" />
  <var cp="9EBC" type="trad" />
  <var cp="9EBD" type="r-simp" comment="identity" />
</char>
```



```
<char cp="9EBD" tag="sc:Hani" ref="0 100 101 102" >
  <var cp="4E48" type="simp" />
  <var cp="5E7A" type="blocked" />
  <var cp="5E85" type="blocked" />
  <var cp="9EBC" type="trad" />
  <var cp="9EBD" type="r-simp-m" comment="identity" />
</char>
```

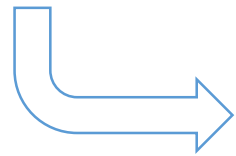
<action disp="blocked" any-variants="r-simp-m"/>

A; A, A  
 A; A, B  
 A; B, A  
 A; B, C



Original	Alloc Simp	Alloc Trad
丰(4E30)	丰(4E30)	丰(4E30)豐(8C50)
丰(4E30)	丰(4E30)	豐(8C50)

```
<char cp="4E30" tag="sc:Hani" ref="0 100 101 102 104 105" >
  <var cp="4E30" type="r-both" comment="identity" />
  <var cp="8C4A" type="blocked" />
  <var cp="8C50" type="trad" />
</char>
```



```
<char cp="4E30" tag="sc:Hani" ref="0 100 101 102 104 105" >
  <var cp="4E30" type="r-both-mt" comment="identity" />
  <var cp="8C4A" type="blocked" />
  <var cp="8C50" type="trad" />
</char>
```

```
<action disp="blocked" any-variants="r-both-mt"/>
<action disp="allocatable" only-variants="simp r-simp both r-both r-both-mt">
```

A; AB, A >> A; AB, A (2)

Original	Alloc Simp	Alloc Trad
夥(5925)	夥(5925)伙(4F19)	夥(5925)
↓		
夥(5925)	伙(4F19)	夥(5925)

A; A, AB >> A; A, AB (103)

Original	Alloc Simp	Alloc Trad
丰(4E30)	丰(4E30)	丰(4E30)豐(8C50)
↓		
丰(4E30)	丰(4E30)	豐(8C50)

- Input: 夥(5925)丰(4E30)
  - Orig: 夥(5925)丰(4E30)
  - Simp: 夥(5925)丰(4E30), 伙(4F19)丰(4E30)
  - Trad: 夥(5925)丰(4E30), 夥(5925)豐(8C50)
- Output: 夥(5925)丰(4E30), 夥(5925)丰(4E30), 夥(5925)丰(4E30) = 夥(5925)丰(4E30)  
夥(5925)丰(4E30), 夥(5925)丰(4E30), 夥(5925)豐(8C50) = 夥(5925)丰(4E30), 夥(5925)豐(8C50)  
夥(5925)丰(4E30), 伙(4F19)丰(4E30), 夥(5925)丰(4E30) = 夥(5925)丰(4E30), 伙(4F19)丰(4E30)  
夥(5925)丰(4E30), 伙(4F19)丰(4E30), 夥(5925)豐(8C50) = 夥(5925)丰(4E30); 伙(4F19)丰(4E30), 夥(5925)豐(8C50)

```
<action disp="blocked" any-variants="r-both-ms"/>
<action disp="blocked" any-variants="r-both-mt"/>
<action disp="allocatable" only-variants="simp r-simp both r-both r-both-mt">
<action disp="allocatable" only-variants="trad r-trad both r-both r-both-ms">
```

If A; A, AB = A; A, AB  
 Then A; A, ABC = A; A, ABC

A; A, BC >> A; A, BC >> A; A, B|C (23)  
 A; A, ABC >> A; A, ABC >> A; A, AB|C (5)

Original	Alloc Simp	Alloc Trad
发(53D1)	发(53D1)	發(767C)髮(9AEE)



发(53D1)	发(53D1)	發(767C)   髮(9AEE)
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Original	Alloc Simp	Alloc Trad
髮(9AEE)	发(53D1)	髮(9AEE)
發(767C)	发(53D1)	發(767C)

- Input: 发(53D1)型发(53D1)展
- Orig: 发(53D1)型发(53D1)展
- Simp: 发(53D1)型发(53D1)展
- Trad: 發(767C)型發(767C)展, 發(767C)型髮(9AEE)展, 髮(9AEE)型發(767C)展, 髮(9AEE)型髮(9AEE)展

Output: 发(53D1)型发(53D1)展, 發(767C)型發(767C)展  
 发(53D1)型发(53D1)展, 發(767C)型髮(9AEE)展  
 发(53D1)型发(53D1)展, 髮(9AEE)型發(767C)展 ✓  
 发(53D1)型发(53D1)展, 髮(9AEE)型髮(9AEE)展

Input: 髮(9AEE)型發(767C)展

- Orig: 髮(9AEE)型發(767C)展
- Simp: 发(53D1)型发(53D1)展
- Trad: 髮(9AEE)型發(767C)展

Output: 髮(9AEE)型發(767C)展, 发(53D1)型发(53D1)展 ✓

If A; A, AB = A; A, AB  
 Then A; A, ABC = A; A, ABC

A; A, BC >> A; A, BC >> A; A, B|C (23)  
 A; A, ABC >> A; A, ABC >> A; A, AB|C (5)

Original	Alloc Simp	Alloc Trad
发(53D1)	发(53D1)	發(767C)髮(9AEE)



发(53D1)	发(53D1)	發(767C)   髮(9AEE)
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Original	Alloc Simp	Alloc Trad
髮(9AEE)	发(53D1)	髮(9AEE)
發(767C)	发(53D1)	發(767C)

```
<char cp="53D1" tag="sc:Hani" ref="0 100 101 102 105" >
  <var cp="53D1" type="r-simp" comment="identity" />
  <var cp="5F42" type="blocked" />
  <var cp="767A" type="blocked" />
  <var cp="767C" type="trad" />
  <var cp="9AEA" type="blocked" />
  <var cp="9AEE" type="trad" />
</char>
```



```
<char cp="53D1" tag="sc:Hani" ref="0 100 101 102 105" >
  <var cp="53D1" type="r-simp" comment="identity" />
  <var cp="5F42" type="blocked" />
  <var cp="767A" type="blocked" />
  <var cp="767C" type="trad-1" />
  <var cp="9AEA" type="blocked" />
  <var cp="9AEE" type="trad-2" />
</char>
```

```
<action disp="blocked" any-variants="trad-1"/>
<action disp="blocked" any-variants="trad-2"/>
<action disp="allocatable" only-variants="trad r-trad both r-both r-both-ms trad-1">
<action disp="allocatable" only-variants="trad r-trad both r-both r-both-ms trad-2">
```

• A; B, CD >> A; B, CD

佟(4FAD); 尽(5C3D), 儘(5118)盡(76E1)

• A; A, ABCD >> A; A, ABCD

蒙(8499); 蒙(8499), 蒙(8499)蒙(61DE)濛(6FDB)矇(77C7)

```
<char cp="4FAD" tag="sc:Hani" ref="0 103 105" >
  <var cp="4FAD" type="r-neither" comment="identity" />
  <var cp="5118" type="trad" />
  <var cp="5C3D" type="simp" />
  <var cp="76E1" type="trad-m" />
</char>

<char cp="8499" tag="sc:Hani" ref="0 100 101 102 103 104 105" >
  <var cp="61DE" type="trad-m" />
  <var cp="6FDB" type="trad-m" />
  <var cp="77C7" type="trad" />
  <var cp="8499" type="r-both-mt" comment="identity" />
</char>
```

```
<action disp="blocked" any-variants="trad-m"/>
```

(1)

(1)

**China  
Mainland**

现代汉语常用字  
表 3500  
Modern Chinese  
common used  
table

**Taiwan**

常用國字標準字  
體表 4808  
Common used  
Chinese standard  
table

THANK YOU

丁川△門《丫口山