



How to handle Chinese contact name in heteronym

Programming Guide

Customer Support

MT6757/MT6580/MT6755

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联系人搜索多音字兼容
Template, Common Part

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Document Revision History

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Lists of Figures

Lists of Figures

1 Introduction

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1.1 Purpose

This document provides the programming guidelines for how to handle Chinese contact name in heteronym and associated modules. It describes how to bring up to handle Chinese contact name in heteronym on the Android platform.

[Random filler text. Not intended for actual reading.] This section should describe about the following items:

- What does this document provide?
- What should the reader get after reading the document?
- Any concrete outcome (gains, or applications) can get after step-by-step following the document?

1.2 Scope

The document provide the programming details of the how to handle Chinese contact name in heteronym.

Table 1-1 presents the reference information of the modules which are used but beyond the scope.

Table 1-1. Reference Information beyond Scope

Modules	Reference information

[Random filler text. Not intended for actual reading.] This section should describe about the following items:

- What hardware and version is this document applying? The hardware can be MTK chipset or external module. Please don't put multiple MTK chipset information here. If this document can apply multiple MTK chipset, please duplicates this document for each chipset and modify the chipset information.
- What platform and version is this document applying? For example, Android platform version and kernel version.
- What hardware and software module is used but beyond the scope? Please describe them and add reference after the module.

1.3 Who Should Read This Document

This document is primarily intended for:

- Engineers with technical knowledge of the heteronym contacts
- Customers who handle Chinese contact name in heteronym

1.4 How to Use This Manual

This segment explains how information is distributed in this document, and presents some cues and examples to simplify finding and understanding information in this document. Table 1-2 presents an overview of the chapters and appendices in this document.

Table 1-2. Chapter Overview

#	Chapter	Contents

1.4.1 Terms and Conventions

This document uses special terms and typographical conventions to help you easily identify various information types in this document. These cues are designed to simply finding and understanding the information this document contains.

Table 1-3. Conventions

Convention	Usage	Example

2 References

The following documents contain provisions which, through reference in this text, constitute provisions of the present document.

☞ [Random filler text. Not intended for actual reading.] Must keep the chapter even it have empty content.

3 Definitions

For the purposes of the present document, the following terms and definitions apply:

☞ [Random filler text. Not intended for actual reading.] Must keep the chapter even it have empty content.



4 Abbreviations

Please note the abbreviations and their explanations provided in Table 4-1. They are used in many fundamental definitions and explanations in this document and are specific to the information that this document contains.

Table 4-1. Abbreviations

Abbreviations	Explanation
MTK	MediaTek, Asia's largest fabless IC design company.

[Random filler text. Not intended for actual reading.] Must keep the chapter even it have empty content.



5 Overview

This chapter first gives a brief description of the ??? functions and then a description of the external interfaces of ???.

6 联系人搜索多音字兼容

6.1 两种拼音都可搜索出同一多音字

Android 默认如下姓名对应拼音为：

- 1、小秘书 xiao bi shu
- 2、单位 shan wei
- 3、沈陈申 shen chen shen



6.2 分析

- 联系人列表 Name 搜索主要针对 search_index 表
- 可以在原有 search_index 表写入逻辑上再写一次对应多音字。

– 比如: name=沈陈申

① shen chen shen

② chen chen shen

默认只写入一种, 修改让其同时写入两种拼音

6.3 具体实现

1. 在 ContactLocaleUtils.getNameLookupKeys() 中多添加一条代码, 如下: .

```
00375:         public static Iterator<String> getPinyinNameLookupKeys (String name) {
00376:             // TODO : Reduce the object allocation.
00377:             HashSet<String> keys = new HashSet<String>();
00378:             ArrayList<Token> tokens = HanziToPinyin.getInstance().getTokens(name);
00379:             tokens.addAll(HanziToPinyin.getInstance().getTokensForSpecialHanzi(name));
00380:         }
```

2. 在 HanziToPinyin.java 中添加如下方法: (getTokensForSpecialHanzi()参考 HanziToPinyin.getTokens()方法修改而来)

```
00237:         public ArrayList<Token> getTokensForSpecialHanzi(final String input) {
00238:             ArrayList<Token> tokens = new ArrayList<Token>();
00239:             if (!hasChineseTransliterator() || TextUtils.isEmpty(input)) {
00240:                 return tokens; // return empty tokens.
00241:             }
00242:
00243:             final int inputLength = input.length();
00244:             final StringBuilder sb = new StringBuilder();
00245:             int tokenType = Token.LATIN;
00246:             Token token = new Token();
00247:
00248:             for (int i = 0; i < inputLength; i++) {
00249:                 final char character = input.charAt(i);
00250:                 if (Character.isSpaceChar(character)) {
00251:                     if (sb.length() > 0) {
00252:                         addToken(sb, tokens, tokenType);
00253:                     }
00254:                 } else {
00255:                     tokenizeForSpecialHanzi(character, token); // add for ALPS02059514
00256:                     if (token.type == Token.PINYIN) {
00257:                         if (sb.length() > 0) {
00258:                             addToken(sb, tokens, tokenType);
00259:                         }
00260:                         tokens.add(token);
00261:                         token = new Token();
00262:                     }
00263:                     tokenType = token.type;
00264:                 }
00265:             }
00266:             return tokens;
00267:         } ? end getTokensForSpecialHanzi ?
```

3. 在 HanziToPinyin.java 中添加如下方法: (tokenizeForSpecialHanzi()参考 HanziToPinyin.tokenize()方法修改而来)

```
00150:     private void tokenizeForSpecialHanzi(char character, Token token) {
00151:         Log.w("mike.qu", "character = " + character);
00152:         if (specialHanzi.get(Integer.toHexString(character)) != null) {
00153:             character = specialHanzi.get(Integer.toHexString(character));
00154:             Log.w("mike.qu", "convert to character = " + character);
00155:         }
00156:
00157:         token.source = Character.toString(character);
00158:         token.type = Token.PINYIN;
00159:         token.target = mPinyinTransliterators.transliterate(token.source);
00160:         if (TextUtils.isEmpty(token.target) ||
00161:             TextUtils.equals(token.source, token.target)) {
00162:             token.type = Token.UNKNOWN;
00163:             token.target = token.source;
00164:         }
00165:     }
```

4. 在 HanziToPinyin.java 中添加如下定义: (可参考 [FAQ03604]联系人名字多音字)

```
00110:     public static Map<String, Character> specialHanzi = new HashMap<String, Character>();
00111:     static {
00112:         // H
00113:         specialHanzi.put("5475", '\u559d'); // A-->He
00114:         // S
00115:         specialHanzi.put("6c88", '\u9648'); // Shen-->Chen
00116:         // Y
00117:         specialHanzi.put("4fde", '\u4e8e'); // Shu-->Yu
00118:     }
```

6.4 效果

- 保存联系人“沈陈申”后，搜索结果与华为 3X 一致---兼容“沈”两种拼音(“Shen”&“Chen”)搜索。

