All About Korean Character
한글에 대한 이야기

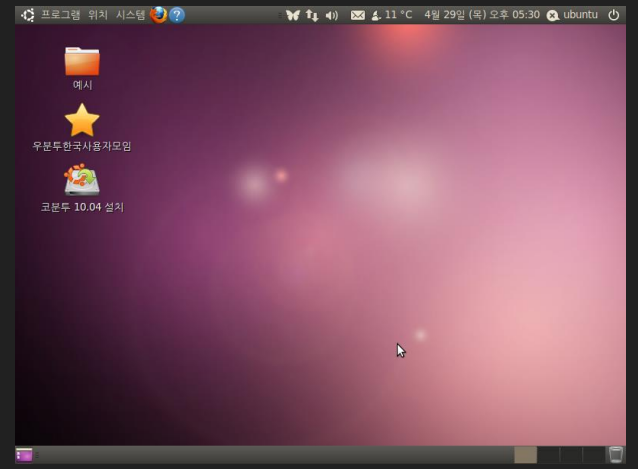
Ubuntu Korea Community 2nd Contactor, Drake Song

About Presenter

- Name : Drake Song (宋泫道)
- Description of Articles : Geek
- Feature : Laziness
- Date of Manufacture : 1980
- Producing Country : Republic of Korea
- Ubuntu Korea Community 2nd Leader (~2014)
- Platform Developer on GeminIT Company
- Speciality : Proto-typing
- Single (No GF)

Ubuntu Korea Community

- Head Quarters(Generally, Leader's Home) is in Seoul, Korea
- Start : July, 2007.
- Opening Seminar Bimonthly
- Opening Seasonal Study Group
- Distro Localize / Translate
- Sponsors : Government, Microsoft Korea, Naver. No others.
- User Community NOT only for Developers



- 4th Leader : Youngbin Han

Korean Character, 한글

- Character for write korean language
- Author : King Se-jong
- Release Date : 1446
- Release Name : 훈민정음(Hoon-min-jeong-eum)
- Revised Date : 1928. 11. 11
- Revised Edition : 한글(Hangul)
- Shape : Quadrate(Regular quadrilateral; No need calculate space between letters)
- Structure : 초성(Cho-Seong) + 중성(Joong-Seong) [+ 종성(Jong-Seong)]
- Required Bits : 19 x 21 x 28 Characters → 11,172 Chars, 5 + 5 + 5, 15bits
- Required Pixel : 16x16(English x2-width)
- If want to learn, visit http://www.ryanestrada.com/learntoreadkoreanin15minutes/

History

1970-80s, Golden Age of 8bit Computers

- MSX
- Apple][e Computer

- Hangul Process Code & Font in Application
- Some Hardware Contains Hangul Process Unit
- KS C 5601, Korean Graphic Character Set for Information Interchange Standard Release
- KS C 5601, The Beginning of a great disaster

The Great Disaster, KS-C-5601

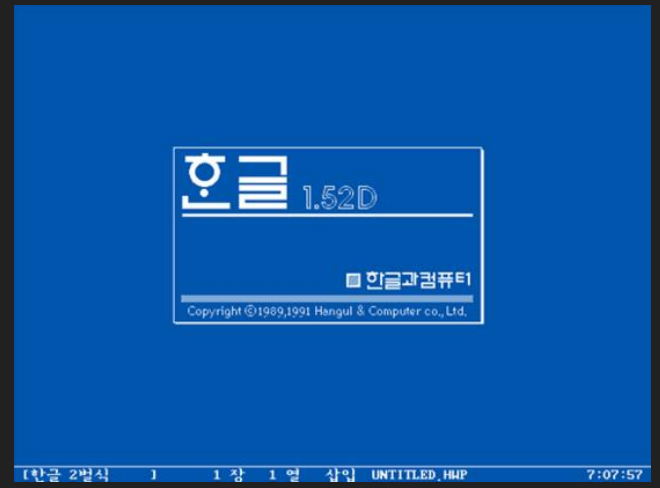
- Build at before 1980s
- Not Enough Characters
- Can store with Chinese 4888 Characters
- Some Character Can't Printable – ex) 뷁, 똠
- Nothing Matter, It can advance

- Academia do not want KS-C-5601.
- BUT, Established Standard at 1987.
- WHAT!?!?!?!?

The Great Disaster, KS-C-5601

1990s, Waking Phase of 16bit

- At 1990, 16bit 8088 XT Computers are supplied for Schools
- Network system is started with BBS
- Desktop Publish for Ordinary People
- Still, No Multi-language Needs
- Korean Character Problems are Extended until Microsoft Windows 95 Release



2000s, World Wide Web

- .com Bubble
- Idea Services Release(Empas, DBDic, Netian, Freechal, …)
- Young people killed by High handedness of big corporations
- Many Issues on Multilangual website, Unicode needs exploding.
- Now, UTF-8. almost all Korean Character Problems are solved.

- IM Problem remains.. So many graphics toolkits.
- Ibus, uim, fcitx, dasom, …
- Power user? You can fix it.

How about Chinese / Japanese?

- Still using Multi-Byte Character Sets for embedded devices and legacy machines.
- Chinese Standards

1. GB1988-89 / GB2312-80 / GB6345.1-86 / GB7589-87 / GB7590-87 / GB8565.2-88
2. GB/T12345-90 / GB/T13131-9X / GB/T13132-9X / GB13000.1-93 / ISO-IR-165:1992

- Japanese Standards

  JIS X 0201-1976 / JIS X 0208-1990 / JIS X 0212-1990 / JIS X 0221-1995 / JIS X 0213-199X

- Retro Japanese Game = PC9801 = DOS/V = Shift JIS = JIS X 0201

How to draw hangul?

- Wansung Type : Draw Font form Table
- Johab Type : Combine 2 or 3 fonts
- Unicode Type : Use Freetype Library

Korean MBCS ⇔ UTF-8

- Iconv

  iconv –f euckr –t utf8 –o text.utf8 text.txt

  iconv –f utf8 –t euckr –o text.txt text.utf8

C/C++

- Open Source Unicode Library – libicu
- Open Source Font Library – Freetype6
- Open Source Input Library – libhangul
- Open Source Input Method – IBUS, UIM

- Easy for Low level language programmers

Java

- Windows – Base String: euckr
- UTF-8 to euckr

```
Charset euckrCS = Charset.forName(“euc-kr”);
ByteBuffer buffer = euckrCharset.encode(hangulstring);
Byte[] euckrBuffer = new byte[buffer.remaining()];
Buffer.get(euckrBuffer);
```

- OSX / Linux / BSD – Base String: UTF-8
- Euckr to UTF-8

```
Byte[] euckrSB = hangulstring.getBytes(charset.forName(“euc-kr”));
String utf8hangul = new String(euckrSB, “euc-kr”);
```

Python

- Base Encoding – Python2: ASCII / Python3: UTF-8
- Specify Encode(for use)

#-*- coding: utf-8 -*-

#-*- coding: euc-kr -*-

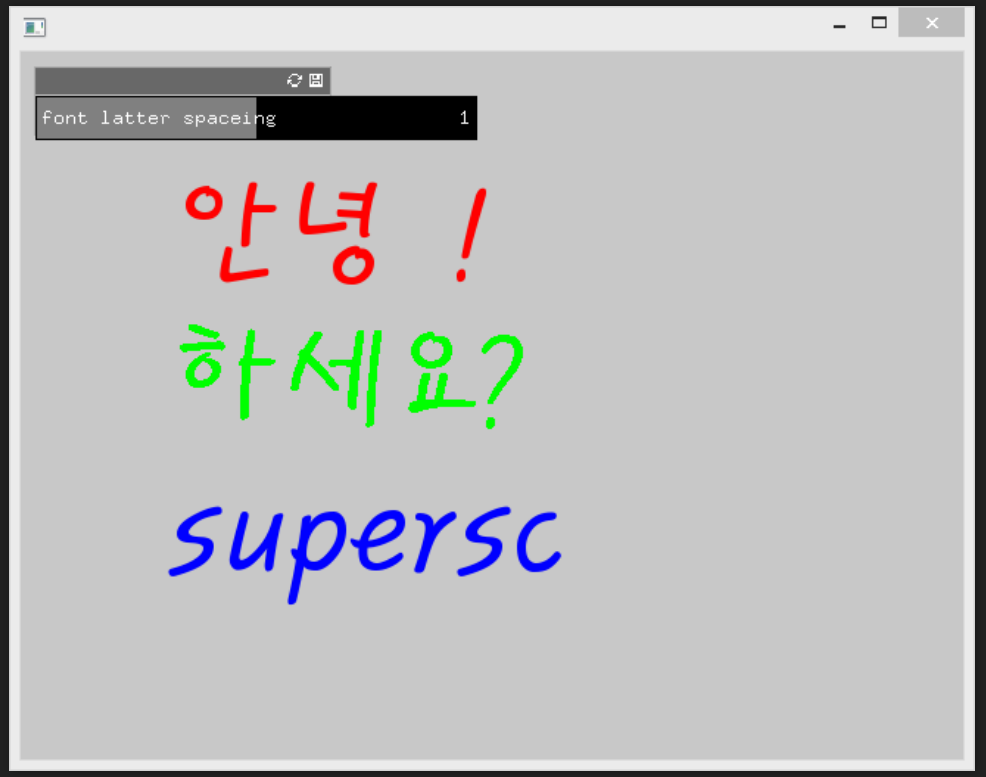
- Specify Default Encode(for convert)

```
import sys
reload(sys)
sys.setdefaultcoding('utf-8');
```

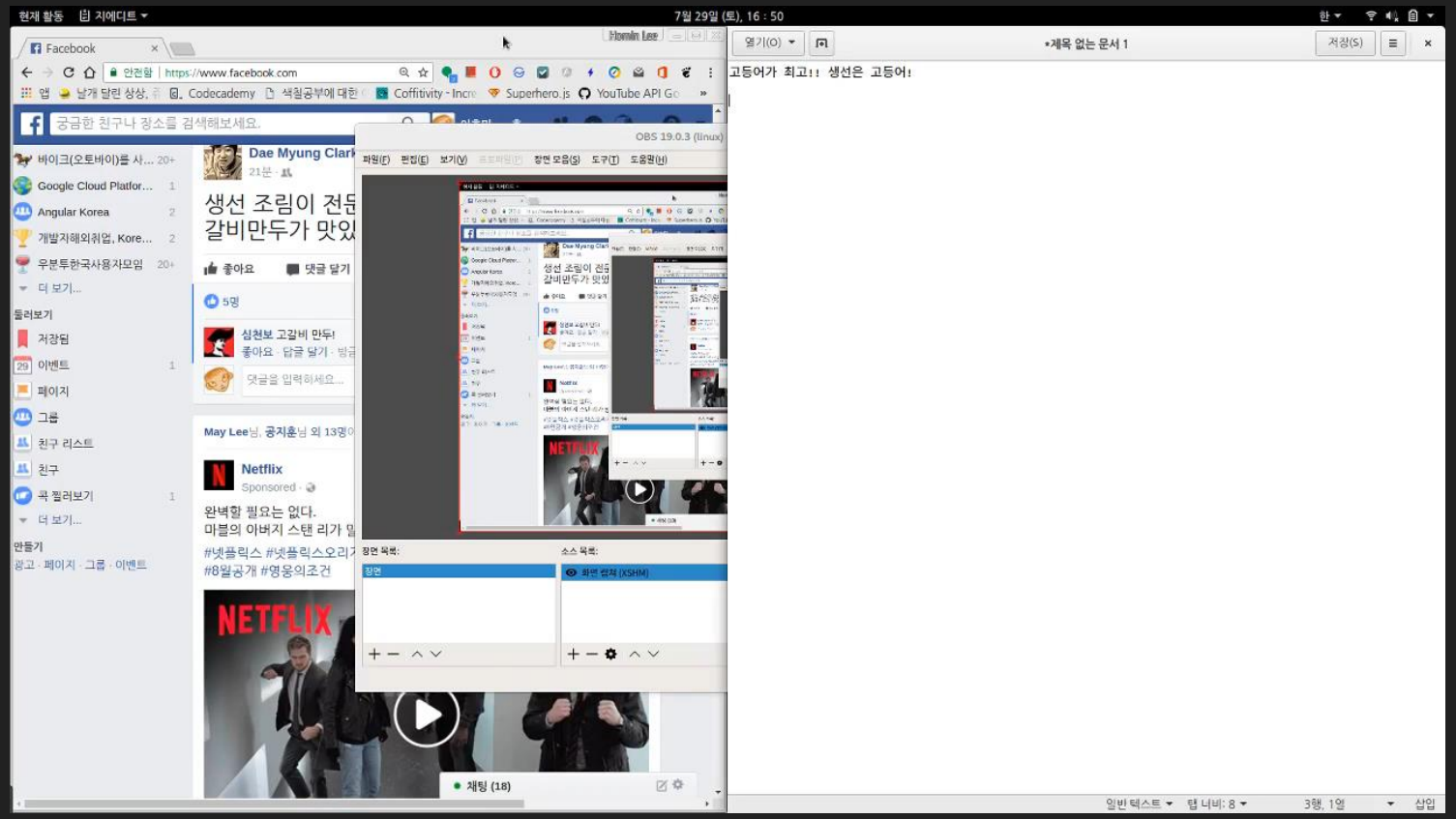
Demo

Demo

Demo



Demo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Facebook
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궁금한 친구나 장소를 검색해보세요.
OBS 19.0.3 (linux)
생선 조림이 전
갈비만두가 맛있
좋아요
댓글 달기
5명
심청보 고갈비 만두!
좋아요 · 답글 달기
Netflix
Sponsored
완벽할 필요는 없다.
마블의 아버지 스탠 리가
#넷플릭스 #넷플릭스오리
#8월공개 #영웅의조건
NETFLIX
채팅 (18)
열기(O)
*제목 없는 문서 1
저장(S)
고등어가 최고!! 생선은 고등어!
일반 텍스트
탭 너비: 8
3행, 1열
삽입

Q & A

Thank You