Labeling and tracking samples with *BaRcodeR*
CHEAT SHEET

@ColauttiLab

II I II-Quick Start I II III

Make sequential identifier codes with custom string:

```
IDcodes
1 example005
2 example006
3 example007
4 example008
5 example009
6 example010
```

Prefix

```
IDcodes <- uniqID_maker(string = "example",
                        level = 5:10,
                        digits = 3)
```

Make hierarchical IDs:

```
IDcodes
1  a1-b1-c1
2  a1-b1-c2
3  a1-b2-c1
4  a1-b2-c2
5  a2-b1-c1
6  a2-b1-c2
7  a2-b2-c1
8  a2-b2-c2
9  a3-b1-c1
10 a3-b1-c2
11 a3-b2-c1
12 a3-b2-c2
```

Prefix for level | Start Number | End Number

```
level_one <- c("a", 1, 3)
level_two <- c("b", 1, 2)
level_three <- c("c", 1, 2)
hier_list <- list(level_one, level_two,
level_three)

IDcodes <- uniqID_hier_maker(hierarchy =
hier_list, digits=1)
```

Make PDF with QR barcodes from IDcodes:

```
IDcodes<-uniqID_maker(string="example", digits=1, level=1:2)

create_PDF(Labels=IDcodes, name="example_pdf")
```

example1   example2

II I II-User Interaction I II III

All functions can be run interactively by specifying user=T

uniqID_maker(user=T)

Prompts will guide user through options in the console.
Alternatively, access run from the 'Addins' menu in RStudio

II I II Options I II III

uniqID_maker():

- **user:** run in interactive mode (T/F)
- **string:** prefix for ID codes, ("ABC", "Pop1", "1")
- **level:** sequence for ID codes (1:3, c(1,3,5:8), 100:0)
- **digits:** number of digits (string1, string01, string001 …)

---

uniqID_hier_maker():

- **user:** run in interactive mode (T/F)
- **hierarchy:** list of levels containing c("string", start, end)
- **end**: string to append as suffix (string01-01-suffix)
- **digits:** number of digits (string1, string01, string001 …)

---

create_pdf():

- **user:** run in interactive mode (T/F)
- **Labels:** one column vector or data frame of ID codes
- **name:** name of output PDF file
- **ErrCorr:** error correction level; one of L, M, Q, and H
- **Fsz:** font size, between 2.2 and 4.7

Advanced options for pdf layout on pg 2

Advanced options in create_PDF() allow customized layouts.

Default layout is for 1.75" x ½" WEATHER RESISTANT LABEL for 8.5" x 11" laser printer (80 labels/sheet). Item # S-19297 (uline.ca or uline.com)
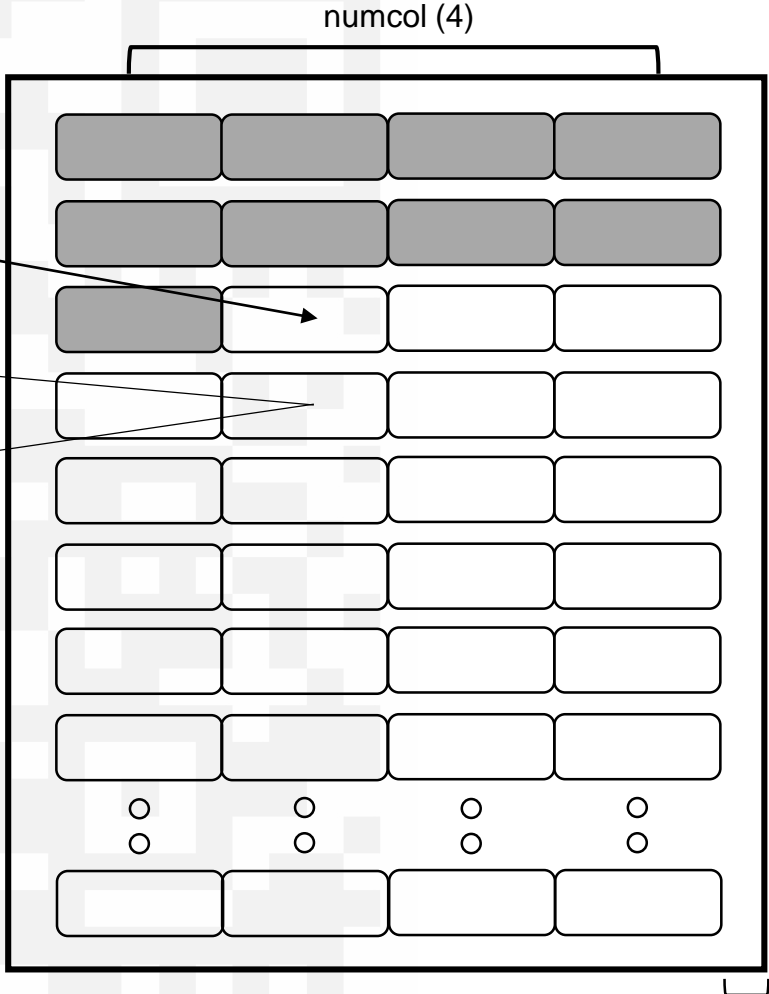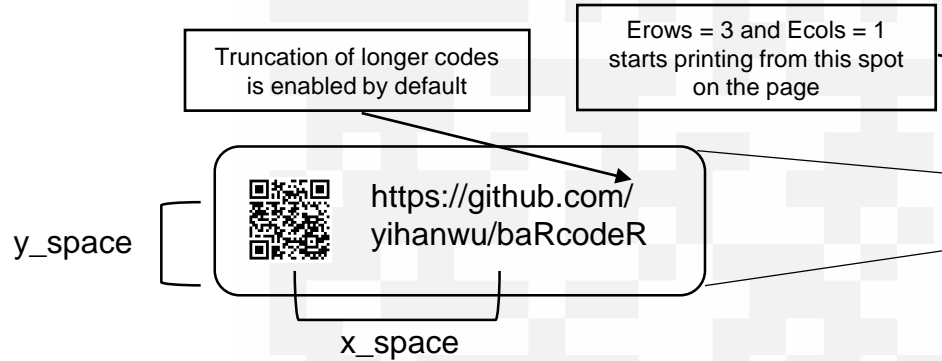
Printing Options

Across: Print across rows (T), or print down columns (F)
Erows: Which row to start printing on
Ecols: Which column to start printing on
trunc: Break long ID codes into multiple lines (T/F)

numcol (4)

0.5* height_margin
(= 0.5" / 2)

Truncation of longer codes is enabled by default

Erows = 3 and Ecols = 1 starts printing from this spot on the page

y_space

https://github.com/
yihanwu/baRcodeR

x_space

Page Layout Options

numrow: number of rows on page (default 20)
numcol: number of columns on page (default 4)
height_margin: space added above and below labels
width_margin: space added to left and right of labels
x_space: value between 190 and 250, determines distance between midpoint of barcode and text
y_space: value between 95 and 215, determines the position of the text relative to the bottom of the label

0.5* width_margin
(= 0.25" / 2)

IMPORTANT: When printing from PDF, use the option "actual size" rather than "fit to page" and do not use "image aliasing" or "save ink" options.

Basic options for pdf layout on pg 1