EXTREME TABLES

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Contents

1 Introduction

This is a short introduction to yet another table mechanism built in ConTEXt. It is a variant of the so called natural tables but it has a different configuration. Also, the implementation is completely different. The reason for writing it is that in one of our projects we had to write styles for documents that had tables spanning 30 or more pages and apart from memory constraints this is quite a challenge for the other mechanisms, if only because splitting them into successive floats is not possible due to limitations of TEX. The extreme table mechanism can handle pretty large tables and split them too. As each cell is basically a `\framed` and as we need to do two passes over the table, this mechanism is not the fastest but it is some two times faster than the natural tables mechanism, and in most cases can be used instead.

2 The structure

The structure of the tables is summarized here. There can be the usual head, body and foot specifications and we also support the optional header in following pages.

```
\definextable [tag] | [tag][parent]
\setupxtable [settings] | [tag][settings]

\startxtable[tag|settings]
  \startxtablehead|next|body|foot[tag|settings]
    \startxrowgroup[tag|settings]
      \startxrow[settings]
        \startxcellgroup[tag|settings]
          \startxcell[settings] ... \stopxcell
        \stopxcellgroup
      \stopxrow
    \startxrowgroup
  \stopxtablehead|next|body|foot
```

```
\stopxtable
```

Contrary to what you might expect, the definition command defines a new set of command. You don't need to use this in order to set up a new settings environment. Settings and definitions can inherit so you can build a chain of parent-child settings. The grouping is nothing more than a switch to a new set of settings.

3 Direct control

A simple table with just frames is defined as follows:

```
\startxtable
  \startxrow
    \startxcell one    \stopxcell
    \startxcell two    \stopxcell
  \stopxrow
  \startxrow
    \startxcell alpha \stopxcell
    \startxcell beta  \stopxcell
  \stopxrow
\stopxtable
```

one	two
alpha	beta

You can pass parameters for tuning the table:

```
\startxtable[offset=1cm]
  \startxrow
    \startxcell one    \stopxcell
    \startxcell two    \stopxcell
  \stopxrow
  \startxrow
    \startxcell alpha \stopxcell
    \startxcell beta  \stopxcell
  \stopxrow
\stopxtable
```

one	two
alpha	beta

You can (for as much as they make sense) use the same settings as the `\framed` command, as long as you keep in mind that messing with the frame related offsets can have side effects.

4 Sets of settings

Instead of directly passing settings you can use a predefined set. Of course you can also combine these methods.

```
\definextable
  [myxtable]

\definextable
  [myxtable:important]
  [myxtable]

\setupxtable
  [myxtable]
  [width=4cm,
   foregroundcolor=red]

\setupxtable
  [myxtable:important]
  [background=color,
   backgroundcolor=red,
   foregroundcolor=white]
```

We can use these settings in table. Although it is not really needed to define a set beforehand (i.e. you can just use the setup command) it is cleaner and more efficient too.

```
\startxtable[myxtable]
  \startxrow[foregroundcolor=green]
    \startxcell one \stopxcell
    \startxcell two \stopxcell
    \startxcellgroup[foregroundcolor=blue]
      \startxcell tree  \stopxcell
      \startxcell four  \stopxcell
    \stopxcellgroup
  \stopxrow
  \startxrow
    \startxcell alpha \stopxcell
    \startxcell beta  \stopxcell
    \startxcellgroup[myxtable:important]
      \startxcell gamma \stopxcell
      \startxcell delta \stopxcell
    \stopxcellgroup
  \stopxrow
\stopxtable
```

one	two	tree	four
alpha	beta	gamma	delta

The overhead of (chained) settings is quite acceptable and it helps to keep the source of the table uncluttered from specific settings.

5 Defining

If needed you can define your own encapsulating commands. The following example demonstrates this:

```
\definextable[mytable]
```

We now can use the `mytable` wrapper:

```
\startmytable[height=4cm,width=8cm,align={middle,lohi}]
  \startxrow
    \startxcell test \stopxcell
  \stopxrow
\stopmytable
```

test

One drawback of using buffers is that they don't play well in macro definitions. In that case you need to use the following wrapper:

```
\starttexdefinition MyTable #1#2#3#4
  \startembeddedxtable
    \startxrow
      \startxcell #1 \stopxcell
      \startxcell #2 \stopxcell
    \stopxrow
    \startxrow
      \startxcell #3 \stopxcell
      \startxcell #4 \stopxcell
    \stopxrow
  \stopembeddedxtable
\stoptexdefinition
```

This macro is used as any other macro with arguments:

```
\MyTable{one}{two}{three}{four}
```

one	two
three	four

6 Stretching

If you don't give the width of a cell, the widest natural size will be taken. Otherwise the given width applies to the whole column.

```
\startxtable
  \startxrow
    \startxcell[width=1cm] one  \stopxcell
    \startxcell[width=2cm] two  \stopxcell
    \startxcell[width=3cm] tree \stopxcell
    \startxcell[width=4cm] four \stopxcell
  \stopxrow
  \startxrow
    \startxcell alpha \stopxcell
    \startxcell beta  \stopxcell
    \startxcell gamma \stopxcell
    \startxcell delta \stopxcell
  \stopxrow
\stopxtable
```

one	two	tree	four
al-pha	beta	gamma	delta

You can let the cells stretch so that the whole width of the text area is taken.

```
\startxtable[option=stretch]
  \startxrow
    \startxcell[width=1cm] one  \stopxcell
    \startxcell[width=2cm] two  \stopxcell
    \startxcell[width=3cm] tree \stopxcell
    \startxcell[width=4cm] four \stopxcell
  \stopxrow
  \startxrow
    \startxcell alpha \stopxcell
    \startxcell beta  \stopxcell
    \startxcell gamma \stopxcell
    \startxcell delta \stopxcell
  \stopxrow
\stopxtable
```

The available left over space is equally distributed among the cells.

one	two	tree	four
alpha	beta	gamma	delta

An alternative is to distribute the space proportionally:

```
\startxtable[option={stretch,width}]
  \startxrow
    \startxcell[width=1cm] one  \stopxcell
    \startxcell[width=2cm] two  \stopxcell
    \startxcell[width=3cm] tree \stopxcell
    \startxcell[width=4cm] four \stopxcell
  \stopxrow
```

```
  \startxrow
    \startxcell alpha \stopxcell
    \startxcell beta  \stopxcell
    \startxcell gamma \stopxcell
    \startxcell delta \stopxcell
  \stopxrow
\stopxtable
```

one	two	tree	four
alpha	beta	gamma	delta

Just to stress the difference we show both alongside now:

one	two	tree	four
alpha	beta	gamma	delta

one	two	tree	four
alpha	beta	gamma	delta

You can specify the width of a cell with each cell but need to keep into mind that that value is then used for the whole column:

```
\startxtable
  \startxrow
    \startxcell[width=1em] one  \stopxcell
    \startxcell[width=2em] two  \stopxcell
    \startxcell[width=3em] tree \stopxcell
    \startxcell[width=4em] four \stopxcell
  \stopxrow
  \startxrow
    \startxcell alpha \stopxcell
    \startxcell beta  \stopxcell
    \startxcell gamma \stopxcell
    \startxcell delta \stopxcell
  \stopxrow
\stopxtable
```

one	two	tree	four
alpha	beta	gamma	delta

You can enforce that larger columns win via the `option` parameter:

```
\startxtable[option=max]
  \startxrow
    \startxcell[width=1em] one  \stopxcell
    \startxcell[width=2em] two  \stopxcell
    \startxcell[width=3em] tree \stopxcell
    \startxcell[width=4em] four \stopxcell
  \stopxrow
```

```
\startxrow
    \startxcell alpha \stopxcell
    \startxcell beta  \stopxcell
    \startxcell gamma \stopxcell
    \startxcell delta \stopxcell
  \stopxrow
\stopxtable
```

one	two	tree	four
alpha	beta	gamma	delta

7 Spacing

It is possible to separate the cells by horizontal and/or vertical space. As an example we create a setup.

```
\setupxtable
  [myztable]
  [option=stretch,
   foregroundcolor=blue,
   columndistance=10pt,
   leftmargindistance=20pt,
   rightmargindistance=30pt]
```

You can use the `textwidth` parameter to set a specific maximum width. We now apply the previous settings to an extreme table:

```
\startxtable[myztable]
  \startxrow
    \startxcell[width=1cm] one                \stopxcell
    \startxcell[width=2cm,distance=5pt] two \stopxcell
    \startxcell[width=3cm] tree               \stopxcell
    \startxcell[width=4cm] four               \stopxcell
  \stopxrow
  \startxrow
    \startxcell[width=1cm] alpha \stopxcell
    \startxcell[width=2cm] beta  \stopxcell
    \startxcell[width=3cm] gamma \stopxcell
    \startxcell[width=4cm] delta \stopxcell
  \stopxrow
\stopxtable
```

As you can see here, we can still locally overload the settings but keep in mind that these apply to the whole column then, not to the specific cell.

one	two	tree	four
alpha	beta	gamma	delta

Vertical spacing is (currently) setup differently, i.e. as an argument to the `\blank` command.

```
\startxtable[spaceinbetween=medium]
  \startxrow
    \startxcell one  \stopxcell
    \startxcell two  \stopxcell
    \startxcell tree \stopxcell
    \startxcell four \stopxcell
  \stopxrow
  \startxrow
    \startxcell alpha \stopxcell
    \startxcell beta  \stopxcell
    \startxcell gamma \stopxcell
    \startxcell delta \stopxcell
  \stopxrow
\stopxtable
```

Specifying spacing this way improves consistency with the rest of the document spacing.

one	two	tree	four
alpha	beta	gamma	delta

8 Spanning

Of course we can span cells horizontally as well as vertically. Future versions might provide more advanced options but the basics work okay.

```
\startxtable
  \startxrow
    \startxcell one \stopxcell
    \startxcell[nx=2] two + three \stopxcell
    \startxcell four \stopxcell
    \startxcell five \stopxcell
  \stopxrow
  \startxrow
    \startxcell[nx=3] alpha + beta + gamma \stopxcell
    \startxcell[nx=2] delta + epsilon \stopxcell
  \stopxrow
\stopxtable
```

This spans a few cells horizontally:

one		two + three	four	five
alpha + beta + gamma			delta + epsilon	

The next example gives a span in two directions:

```
\startxtable
  \startxrow
    \startxcell alpha 1 \stopxcell
    \startxcell beta  1 \stopxcell
```

```
    \startxcell gamma 1 \stopxcell
    \startxcell delta 1 \stopxcell
  \stopxrow
  \startxrow
    \startxcell alpha 2 \stopxcell
    \startxcell[nx=2,ny=2] whatever \stopxcell
    \startxcell delta 2 \stopxcell
  \stopxrow
  \startxrow
    \startxcell alpha 3 \stopxcell
    \startxcell delta 3 \stopxcell
  \stopxrow
  \startxrow
    \startxcell alpha 4 \stopxcell
    \startxcell beta  4 \stopxcell
    \startxcell gamma 4 \stopxcell
    \startxcell delta 4 \stopxcell
  \stopxrow
\stopxtable
```

Of course, spanning is always a compromise but the best fit found by this mechanism takes natural width, given width and available space into account.

alpha 1	beta 1	gamma 1	delta 1
alpha 2	whatever		delta 2
alpha 3			delta 3
alpha 4	beta 4	gamma 4	delta 4

9 Partitioning

You can partition a table as follows:

```
\startxtable
  \startxtablehead
    \startxrow
      \startxcell head one  \stopxcell
      \startxcell head two  \stopxcell
      \startxcell head tree \stopxcell
      \startxcell head four \stopxcell
    \stopxrow
  \stopxtablehead
  \startxtablenext
    \startxrow
      \startxcell next one  \stopxcell
      \startxcell next two  \stopxcell
      \startxcell next tree \stopxcell
      \startxcell next four \stopxcell
    \stopxrow
  \stopxtablenext
```

```
    \startxtablebody
      \startxrow
        \startxcell body one  \stopxcell
        \startxcell body two  \stopxcell
        \startxcell body tree \stopxcell
        \startxcell body four \stopxcell
      \stopxrow
    \stopxtablebody
    \startxtablefoot
      \startxrow
        \startxcell foot one  \stopxcell
        \startxcell foot two  \stopxcell
        \startxcell foot tree \stopxcell
        \startxcell foot four \stopxcell
      \stopxrow
    \stopxtablefoot
\stopxtable
```

There can be multiple such partitions and they are collected in head, next, body and foot groups. Normally the header ends up at the beginning and the footer at the end. When a table is split, the first page gets the header and the following pages the next one.

You can let headers and footers be repeated by setting the header and/or footer parameters to repeat.

```
\setupxtable
  [split=yes,
   header=repeat,
   footer=repeat]
```

The table can be flushed in the running text but also in successive floats. Given that the table is in a buffer:

```
\placetable[here,split]{A big table.}{\getbuffer}
```

When you specify split as yes the caption is taken into account when calculating the available space.

There are actually three different split methods. The yes option works in text mode as well as in floats, but in text mode no headers and footers get repeated. If you want that feature in a text flush you have to set split to repeat as well.

You can keep rows together by passing a samepage directive. This parameter can get the values before, after and both.

```
\startxtable[split=yes]
  \startxrow                 \startxcell \tttf      .01. \stopxcell \stopxrow
  \startxrow                 \startxcell \tttf      .... \stopxcell \stopxrow
  \startxrow                 \startxcell \tttf \red .21. \stopxcell \stopxrow
  \startxrow[samepage=both]  \startxcell \tttf \red .22. \stopxcell \stopxrow
  \startxrow[samepage=both]  \startxcell \tttf \red .23. \stopxcell \stopxrow
  \startxrow                 \startxcell \tttf      .... \stopxcell \stopxrow
  \startxrow                 \startxcell \tttf      .99. \stopxcell \stopxrow
\stopxtable
```

10 Options

On the average a table will come out okay but you need to keep in mind that when (complex) spans are used the results can be less that optimal. However, as normally one pays attention to creating tables, the amount of control provided often makes it possible to get what you want.

In the following situations, the first cell width is determined by the span. It is possible to make a more clever analyzer but we need to keep in mind that in the same column there can be entries that span a different amount of columns. Not only would that be inefficient but it would also be rather unpredictable unless you know exactly what happens deep down. The following two examples demonstrate default behaviour.

```
\startxtable
  \startxrow
    \startxcell[nx=3]
        1/2/3
    \stopxcell
  \stopxrow
  \startxrow
    \startxcell 1 \stopxcell
    \startxcell 2 \stopxcell
    \startxcell 3 \stopxcell
  \stopxrow
\stopxtable
```

1/2/3		
1	2	3

```
\startxtable
  \startxrow
    \startxcell[nx=3]
        1 / 2 / 3
    \stopxcell
  \stopxrow
  \startxrow
    \startxcell 1 \stopxcell
    \startxcell 2 \stopxcell
    \startxcell 3 \stopxcell
  \stopxrow
\stopxtable
```

1 / 2 / 3		
1	2	3

In practice you will set the width of the columns, as in:

```
\startxtable
  \startxrow
    \startxcell[nx=3]
        1/2/3
```

```
    \stopxcell
  \stopxrow
  \startxrow
    \startxcell[width=\dimexpr\textwidth/3] 1 \stopxcell
    \startxcell[width=\dimexpr\textwidth/3] 2 \stopxcell
    \startxcell[width=\dimexpr\textwidth/3] 3 \stopxcell
  \stopxrow
\stopxtable
```

1/2/3		
1	2	3

But, if you want you can control the enforced width by setting an option:

```
\startxtable
  \startxrow
    \startxcell[nx=3,option=tight]
        1/2/3
    \stopxcell
  \stopxrow
  \startxrow
    \startxcell 1 \stopxcell
    \startxcell 2 \stopxcell
    \startxcell 3 \stopxcell
  \stopxrow
\stopxtable
```

1/2/3		
1	2	3

```
\startxtable
  \startxrow
    \startxcell[nx=3,option=tight]
        1 / 2 / 3
    \stopxcell
  \stopxrow
  \startxrow
    \startxcell 1 \stopxcell
    \startxcell 2 \stopxcell
    \startxcell 3 \stopxcell
  \stopxrow
\stopxtable
```

1 / 2 / 3		
1	2	3

There is also a global setting:

```
\startxtable[option=tight]
```

```
\startxrow
  \startxcell[nx=3]
    1/2/3
  \stopxcell
\stopxrow
\startxrow
  \startxcell 1 \stopxcell
  \startxcell 2 \stopxcell
  \startxcell 3 \stopxcell
\stopxrow
\stopxtable
```

1/2/3		
1	2	3

11 Nesting

Extreme tables can be nested but you need to keep an eye on inheritance here as the inner table uses the settings from the encapsulating cell. The widths and heights of the inner table default to `fit`. We could cook up a more complex nesting model but this one is easy to follow.

```
\startxtable
  \startxrow
    \startxcell[offset=0pt]
      \startxtable[background=color,backgroundcolor=green,
          foregroundcolor=white,offset=1ex]
        \startxrow
          \startxcell[width=1cm] one \stopxcell
          \startxcell[width=2cm] two \stopxcell
        \stopxrow
        \startxrow
          \startxcell[width=3cm] alpha \stopxcell
          \startxcell[width=4cm] beta  \stopxcell
        \stopxrow
      \stopxtable
    \stopxcell
    \startxcell two    \stopxcell
  \stopxrow
  \startxrow
    \startxcell alpha \stopxcell
    \startxcell
      \startxtable[background=color,backgroundcolor=red,
          foregroundcolor=white]
        \startxrow
          \startxcell one \stopxcell
          \startxcell two \stopxcell
        \stopxrow
        \startxrow
          \startxcell alpha \stopxcell
```

```
      \startxcell beta  \stopxcell
    \stopxrow
  \stopxtable
\stopxcell
\stopxrow
\stopxtable
```

Here we just manipulate the offset a bit.

one	two	two
alpha	beta	
alpha		one two
		alpha beta

12 Buffers

When you don't want to clutter your document source too much buffers can be if help:

```
\startbuffer[test]
\startxtable
  \startxrow
    \startxcell[width=1cm] one \stopxcell
    \startxcell[width=2cm] two \stopxcell
  \stopxrow
  \startxrow
    \startxcell alpha \stopxcell
    \startxcell beta  \stopxcell
  \stopxrow
\stopxtable
\stopbuffer
```

One way of getting this table typeset is to say:

```
\getbuffer[test]
```

Normally this is quite okay. However, internally extreme tables become also buffers. If you don't like the overhead of this double buffering you can use the following command:

```
\processxtablebuffer[test]
```

This can save you some memory and runtime, but don't expect miracles. Also, this way of processing does not support nested tables (unless {} is used).

13 XML

The following example demonstrates that we can use this mechanism in xml too. The example was provided by Thomas Schmitz. First we show how a table looks like in xml:

```
<table>
  <tablerow>
      <tablecell>
         One
      </tablecell>
      <tablecell>
         Two
      </tablecell>
  </tablerow>
  <tablerow>
    <tablecell>
       <b>Three</b>
    </tablecell>
    <tablecell>
      Four
    </tablecell>
  </tablerow>
</table>
```

We need to map these elements to setups:

```
\startxmlsetups xml:testsetups
    \xmlsetsetup{main}{b|table|tablerow|tablecell}{xml:*}
\stopxmlsetups
```

```
\xmlregistersetup{xml:testsetups}
```

The setups themselves are rather simple as we don't capture any attributes.

```
\startxmlsetups xml:b
  \bold{\xmlflush{#1}}
\stopxmlsetups
```

```
\startxmlsetups xml:table
  \startembeddedxtable
    \xmlflush{#1}
  \stopembeddedxtable
\stopxmlsetups
```

```
\startxmlsetups xml:tablerow
  \startxrow
    \xmlflush{#1}
  \stopxrow
\stopxmlsetups
```

```
\startxmlsetups xml:tablecell
  \startxcell
    \xmlflush{#1}
  \stopxcell
\stopxmlsetups
```

We now process the example. Of course it will also work for files.

```
\xmlprocessbuffer{main}{test}{}
```

The result is:

One	Two
Three	Four

14 Natural tables

For the impatient a small additional module is provided that remaps the natural table commands onto extreme tables:

```
\usemodule[ntb-to-xtb]
```

After that:

```
\bTABLE
  \bTR
    \bTD[background=color,backgroundcolor=red] one \eTD
    \bTD[width=2cm] two \eTD
  \eTR
  \bTR
    \bTD[width=5cm] alpha \eTD
    \bTD[background=color,backgroundcolor=yellow] beta \eTD
  \eTR
\eTABLE
```

Will come out as:

one	two
alpha	beta

You can restore and remap the commands with the following helpers:

```
\restoreTABLEfromxtable
\mapTABLEtoxtable
```

Of course not all functionality of the natural tables maps onto similar functionality of extreme tables, but on the average the result will look rather similar.

15 Colofon

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version	January 19, 2015
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16 Examples

On the following pages we show some examples of (experimental) features. For this we will use the usual quotes from Ward, Tufte and Davis etc. that you can find in the distribution.

```
\startxtable[bodyfont=6pt]
    \startxrow
        \startxcell \input ward  \stopxcell
        \startxcell \input tufte \stopxcell
        \startxcell \input davis \stopxcell
    \stopxrow
\stopxtable
```

The Earth, as a habitat for animal life, is in old age and has a fatal illness. Several, in fact. It would be happening whether humans had ever evolved or not. But our presence is like the effect of an old-age patient who smokes many packs of cigarettes per day — and we humans are the cigarettes.	We thrive in information–thick worlds because of our marvelous and everyday capacity to select, edit, single out, structure, highlight, group, pair, merge, harmonize, synthesize, focus, organize, condense, reduce, boil down, choose, categorize, catalog, classify, list, abstract, scan, look into, idealize, isolate, discriminate, distinguish, screen, pigeonhole, pick over, sort, integrate, blend, inspect, filter, lump, skip, smooth, chunk, average, approximate, cluster, aggregate, outline, summarize, itemize, review, dip into, flip through, browse, glance into, leaf through, skim, refine, enumerate, glean, synopsize, winnow the wheat from the chaff and separate the sheep from the goats.	This nation, turning 100 years old, had no *Odyssey*, no St. George slaying the dragon, no Prometheus. The emerging American genius for making a lot of money was a poor substitute for King Arthur and his knights (although the Horatio Alger myth of rags to riches was good for a lot of mileage). Without a mythology and set of ancient heroes to call its own, America had to manufacture its heroes. So the mythmaking machinery of nineteenth-century American media created a suitable heroic archetype in the cowboys of the Wild West. The image was of the undaunted cattle drivers living a life of reckless individualism, braving the elements, staving off brutal Indian attacks. Or of heroic lawmen dueling with six-guns in the streets at high noon. This artificial Wild West became America's Iliad.

```
\startxtable[bodyfont=6pt,option=width]
    \startxrow
        \startxcell \input ward  \stopxcell
        \startxcell \input tufte \stopxcell
        \startxcell \input davis \stopxcell
    \stopxrow
\stopxtable
```
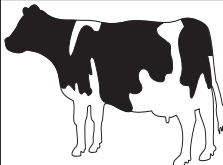
The Earth, as a habitat for animal life, is in old age and has a fatal illness. Several, in fact. It would be happening whether humans had ever evolved or not. But our presence is like the effect of an old-age patient who smokes many packs of cigarettes per day — and we humans are the cigarettes.	We thrive in information–thick worlds because of our marvelous and everyday capacity to select, edit, single out, structure, highlight, group, pair, merge, harmonize, synthesize, focus, organize, condense, reduce, boil down, choose, categorize, catalog, classify, list, abstract, scan, look into, idealize, isolate, discriminate, distinguish, screen, pigeonhole, pick over, sort, integrate, blend, inspect, filter, lump, skip, smooth, chunk, average, approximate, cluster, aggregate, outline, summarize, itemize, review, dip into, flip through, browse, glance into, leaf through, skim, refine, enumerate, glean, synopsize, winnow the wheat from the chaff and separate the sheep from the goats.	This nation, turning 100 years old, had no *Odyssey*, no St. George slaying the dragon, no Prometheus. The emerging American genius for making a lot of money was a poor substitute for King Arthur and his knights (although the Horatio Alger myth of rags to riches was good for a lot of mileage). Without a mythology and set of ancient heroes to call its own, America had to manufacture its heroes. So the mythmaking machinery of nineteenth-century American media created a suitable heroic archetype in the cowboys of the Wild West. The image was of the undaunted cattle drivers living a life of reckless individualism, braving the elements, staving off brutal Indian attacks. Or of heroic lawmen dueling with six-guns in the streets at high noon. This artificial Wild West became America's Iliad.

```
\startxtable[bodyfont=6pt]
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        \startxcell \externalfigure[cow.pdf][width=3cm] \stopxcell
        \startxcell \input tufte \stopxcell
        \startxcell \input davis \stopxcell
    \stopxrow
\stopxtable
```
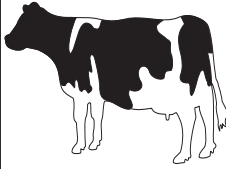
| | We thrive in information–thick worlds because of our marvelous and everyday capacity to select, edit, single out, structure, highlight, group, pair, merge, harmonize, synthesize, focus, organize, condense, reduce, boil down, choose, categorize, catalog, classify, list, abstract, scan, look into, idealize, isolate, discriminate, distinguish, screen, pigeonhole, pick over, sort, integrate, blend, inspect, filter, lump, skip, smooth, chunk, average, approximate, cluster, aggregate, outline, summarize, itemize, review, dip into, flip through, browse, glance into, leaf through, skim, refine, enumerate, glean, synopsize, winnow the wheat from the chaff and separate the sheep from the goats. | This nation, turning 100 years old, had no *Odyssey*, no St. George slaying the dragon, no Prometheus. The emerging American genius for making a lot of money was a poor substitute for King Arthur and his knights (although the Horatio Alger myth of rags to riches was good for a lot of mileage). Without a mythology and set of ancient heroes to call its own, America had to manufacture its heroes. So the mythmaking machinery of nineteenth-century American media created a suitable heroic archetype in the cowboys of the Wild West. The image was of the undaunted cattle drivers living a life of reckless individualism, braving the elements, staving off brutal Indian attacks. Or of heroic lawmen dueling with six-guns in the streets at high noon. This artificial Wild West became America's Iliad. |

```
\startxtable[bodyfont=6pt,option=width]
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        \startxcell \input tufte \stopxcell
        \startxcell \input davis \stopxcell
    \stopxrow
\stopxtable
```

| | We thrive in information–thick worlds because of our marvelous and everyday capacity to select, edit, single out, structure, highlight, group, pair, merge, harmonize, synthesize, focus, organize, condense, reduce, boil down, choose, categorize, catalog, classify, list, abstract, scan, look into, idealize, isolate, discriminate, distinguish, screen, pigeonhole, pick over, sort, integrate, blend, inspect, filter, lump, skip, smooth, chunk, average, approximate, cluster, aggregate, outline, summarize, itemize, review, dip into, flip through, browse, glance into, leaf through, skim, refine, enumerate, glean, synopsize, winnow the wheat from the chaff and separate the sheep from the goats. | This nation, turning 100 years old, had no *Odyssey*, no St. George slaying the dragon, no Prometheus. The emerging American genius for making a lot of money was a poor substitute for King Arthur and his knights (although the Horatio Alger myth of rags to riches was good for a lot of mileage). Without a mythology and set of ancient heroes to call its own, America had to manufacture its heroes. So the mythmaking machinery of nineteenth-century American media created a suitable heroic archetype in the cowboys of the Wild West. The image was of the undaunted cattle drivers living a life of reckless individualism, braving the elements, staving off brutal Indian attacks. Or of heroic lawmen dueling with six-guns in the streets at high noon. This artificial Wild West became America's Iliad. |

```
\startxtable[option=stretch]
    \startxrow
        \startxcell bla \stopxcell
        \startxcell bla bla \stopxcell
        \startxcell bla bla bla \stopxcell
    \stopxrow
\stopxtable
```

bla	bla bla	bla bla bla

```
\startxtable[option={stretch,width}]
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        \startxcell bla \stopxcell
        \startxcell bla bla \stopxcell
        \startxcell bla bla bla \stopxcell
    \stopxrow
\stopxtable
```

bla	bla bla	bla bla bla

```
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\setupxtable[crap]  [foregroundcolor=blue]
\setupxtable[bold]  [crap][foregroundstyle=bold]

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        \startxrow[bold]
            \startxcell[suffix]      head a \stopxcell
            \startxcell[blabla]      head b \stopxcell
            \startxcell              head c \stopxcell
        \stopxrow
    \stopxtablehead
    \startxtablebody
        \startxrow
            \startxcell[suffix][ny=2] cell a 1 \stopxcell
            \startxcell              cell b 1 \stopxcell
            \startxcell              cell c 1 \stopxcell
        \stopxrow
        \startxrow
            \startxcell              cell b 2 \stopxcell
            \startxcell              cell c 2 \stopxcell
        \stopxrow
        \startxrow
            \startxcell[suffix]      cell a 3 \stopxcell
            \startxcell              cell b 3 \stopxcell
            \startxcell              cell c 3 \stopxcell
        \stopxrow
        \startxrow
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            \startxcell              cell b 4 \stopxcell
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        \stopxrow
        \startxrow
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            \startxcell              cell c 5 \stopxcell
        \stopxrow
    \stopxtablebody
\stopxtable
```

head a	head b	head c
cell a 1	cell b 1	cell c 1
	cell b 2	cell c 2
cell a 3	cell b 3	cell c 3
cell a 4	cell b 4	cell c 4
cell a 5	cell b 5	cell c 5

```
\startxtable[option=stretch]
    \startxrow
        \startxcell[option=fixed] first cell \stopxcell
        \startxcell 101 \stopxcell
        \startxcell 102 \stopxcell
        \startxcell 103 \stopxcell
    \stopxrow
    \startxrow
        \startxcell 2\high{nd} cell \stopxcell
        \startxcell a \stopxcell
        \startxcell b \stopxcell
        \startxcell c \stopxcell
    \stopxrow
\stopxtable
```

first cell	101	102	103
2nd cell	a	b	c

```
\startxtable
\startxrow
    \startxcell[demo][nx=4] 1 / 2 / 3 / 4 \stopxcell
\stopxrow
\startxrow
    \startxcell[demo][nx=3] 1 / 2 / 3 \stopxcell
    \startxcell 4 \stopxcell
\stopxrow
\startxrow
    \startxcell 1 \stopxcell
    \startxcell[demo][nx=3] 2 / 3 / 4 \stopxcell
\stopxrow
\startxrow
    \startxcell[demo][nx=2] 1 / 2 \stopxcell
    \startxcell 3 \stopxcell
    \startxcell 4 \stopxcell
\stopxrow
\startxrow
    \startxcell 1 \stopxcell
    \startxcell[demo][nx=2] 2 / 3 \stopxcell
    \startxcell 4 \stopxcell
\stopxrow
\startxrow
    \startxcell 1 \stopxcell
    \startxcell 2 \stopxcell
    \startxcell[demo][nx=2] 3 / 4 \stopxcell
\stopxrow
\startxrow
    \startxcell[demo][nx=2] 1 / 2 \stopxcell
    \startxcell[demo][nx=2] 3 / 4 \stopxcell
\stopxrow
\startxrow
    \startxcell 1 \stopxcell
    \startxcell 2 \stopxcell
    \startxcell 3 \stopxcell
    \startxcell 4 \stopxcell
\stopxrow
\stopxtable
```

`\setupxtable[demo][option=tight]`

1 / 2 / 3 / 4		
1 / 2 / 3		4
1	2 / 3 / 4	
1 / 2	3	4
1	2 / 3	4
1	2 / 3	4
1	2	3 / 4
1 / 2	3 / 4	
1	2	3	4

`\setupxtable[demo][option=]`

1 / 2 / 3 / 4			
1 / 2 / 3			4
1	2 / 3 / 4		
1 / 2		3	4
1	2 / 3		4
1	2	3 / 4	
1 / 2		3 / 4	
1	2	3	4