Example seqspec 10x Genomics v3

```
!Assay
seqspec_version: 0.0.0
assay: 10xRNAv3
sequencer: Illumina
name: 10x-RNA-v3
doi: https://doi.org/10.1038/ncomms14049
publication_date: null
description: 10xv3 single-cell RNA-seq
modalities:
- rna
lib_struct: https://teichlab.github.io/scg_lib_structs/methods_html/10xChromium3
assay_spec:
- !Region
 region_id: rna
 region_type: rna
 name: rna
 sequence_type: joined
 NNNNNNNNNNNNNNNNAGATCGGAAGAGCACACGTCTGAACTCCAGTCACNNNNNNNNATCTCGTATGCCGTCTTCT
GCTTG
 min_len: 134
 max_len: 231
 onlist: null
 regions:
  - !Region
   region_id: illumina_p5
   region_type: illumina_p5
   name: Illumina P5
   sequence_type: fixed
   sequence: AATGATACGGCGACCACCGAGATCTACAC
   min len: 29
   max len: 29
   onlist: null
   regions: null
   parent_id: rna
  - !Region
   region_id: truseq_read1
   region_type: truseq_read1
   name: Truseq Read 1
   sequence_type: fixed
   sequence: TCTTTCCCTACACGACGCTCTTCCGATCT
   min_len: 10
   max_len: 10
```

```
onlist: null
 regions: null
 parent_id: rna
- !Region
 region_id: R1.fastq.gz
 region_type: fastq
 name: Read 1 FASTQ
  sequence_type: joined
  sequence: NNNNNNNNNNNNNNNNNNNNNNNNNNN
 min_len: 28
 max_len: 28
 onlist: null
 regions:
  - !Region
   region_id: barcode
   region_type: barcode
   name: Cell Barcode
   sequence_type: onlist
   sequence: NNNNNNNNNNNNNNNN
   min_len: 16
   max_len: 16
   onlist: !Onlist
      filename: 3M-february-2018.txt.gz
     md5: null
     location: local
   regions: null
   parent_id: R1.fastq.gz
  - !Region
   region_id: umi
   region_type: umi
   name: UMI
   sequence_type: random
   sequence: NNNNNNNNNNN
   min_len: 12
   max_len: 12
   onlist: null
   regions: null
   parent_id: R1.fastq.gz
 parent_id: rna
- !Region
 region_id: R2.fastq.gz
 region_type: fastq
 name: Read 2 FASTQ
 sequence_type: joined
  sequence: X
 min_len: 1
```

```
max_len: 98
 onlist: null
 regions:
  - !Region
   region_id: cdna
   region_type: cdna
   name: cdna
   sequence_type: random
   sequence: X
   min_len: 1
   max_len: 98
   onlist: null
   regions: null
   parent_id: R2.fastq.gz
 parent_id: rna
- !Region
 prder: 4
 region_id: truseq_read2
 region_type: truseq_read2
 name: Truseq Read 2
 sequence_type: fixed
 sequence: AGATCGGAAGAGCACACGTCTGAACTCCAGTCAC
 min_len: 34
 max_len: 34
 onlist: null
 regions: null
 parent_id: rna
- !Region
 region_id: I1.fastq.gz
 region_type: fastq
 name: Index Read 2
 sequence_type: joined
 sequence: NNNNNNN
 min_len: 8
 max_len: 8
 onlist: null
 regions:
 - !Region
   region_id: index7
   region_type: index7
   name: Truseq Read 2
   sequence_type: onlist
   sequence: NNNNNNN
   min_len: 8
   max len: 8
   onlist: !Onlist
```

```
filename: index7_onlist.txt
      md5: null
      location: local
    regions: null
    parent_id: I1.fastq.gz
  parent_id: rna
- !Region
  region_id: illumina_p7
  region_type: illumina_p7
 name: Illumina P7
  sequence_type: fixed
  sequence: ATCTCGTATGCCGTCTTCTGCTTG
 min_len: 24
 max_len: 24
 onlist: null
 regions: null
 parent_id: rna
parent_id: null
```