

SEQUENCE BUNDLES

VISUALISE AND DISCOVER SEQUENCE MOTIFS THAT WOULD OTHERWISE REMAIN HIDDEN



ABOUT

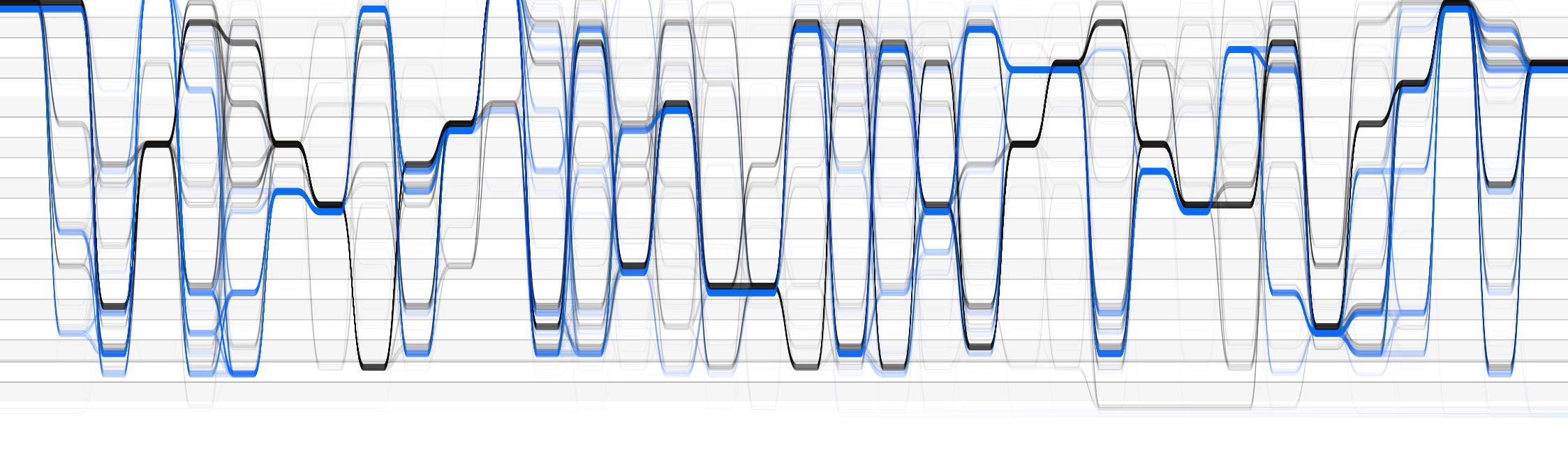


USE WEB TOOL



SCIENCE PRACTICE

Visualise and discover sequence motifs that would otherwise remain hidden



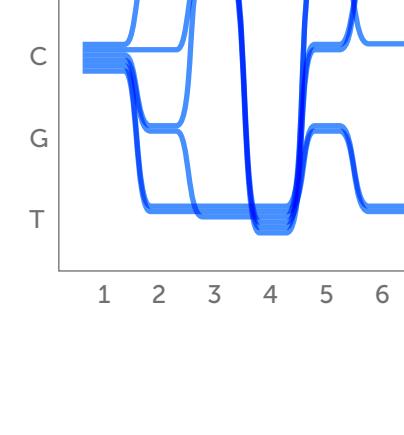
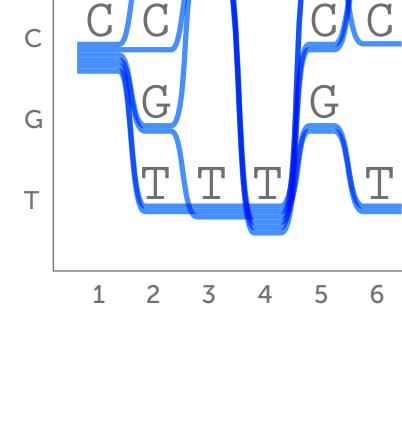
WHAT ARE SEQUENCE BUNDLES?

Sequence Bundles is a novel method for visualising Multiple Sequence Alignments (MSAs). It supports interactive exploration of sequence data, sequence comparison and discovery of new sequence motifs that would otherwise remain hidden.

HOW DO THEY WORK?

In Sequence Bundles every sequence from the MSA is represented as a continuous line. Its curved shape corresponds to the sequence of residues in a protein or DNA. Lines are stacked one on top of another to visualise the entire alignment.

C A A T G T	C A A T G T
C C A T A A	C C A T A A
C G A T C A	C G A T C A
C G T T A C	C G T T A C
C T T T C A	C T T T C A
C T T T G T	C T T T G T



MSA

MSA + LINES

BUNDLING LINES

SEQUENCE BUNDLES

WHO MADE SEQUENCE BUNDLES?

Sequence Bundles was designed by [Science Practice](#) and developed by Science Practice in collaboration with [Goldman group](#) at the European Bioinformatics Institute (EMBL-EBI).



WHAT ARE THEY GOOD FOR?

Sequence Bundles provide a holistic overview of sequence conservation, correlations and motifs in genomic and proteomic data. Well suited for human perception, it allows for intuitive exploration of alignments, hypotheses generation and gathering of insight. In our [BMC paper](#) we discuss findings made through using Sequence Bundles.

WEB VISUALISATION TOOL

Sequence Bundles [Web Tool](#) enables you to rapidly visualise your own Multiple Sequence Alignments, make basic adjustments and download an image.



Use Web Tool

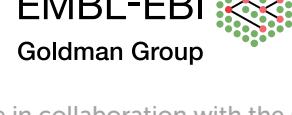
Data must be in FASTA format.
Maximum size of MSA: 1000 sequences x 1000 positions.
We never store your data. [Read more...](#)

CITE SEQUENCE BUNDLES

To acknowledge the use of Sequence Bundles visualisations in publications or talks, please cite:

Sequence Bundles: a novel method for visualising, discovering and exploring sequence motifs.
Kultys M, Nicholas L, Schwarz R, Goldman N, King J
BMC Proc Volume 8 (2014) p.s8

Sequence Bundles were inspired by and awarded at the BioVis 2013 redesign contest, and published in BMC Proceedings, Volume 8, Suppl. 2 (2014).



Sequence Bundles was designed by Science Practice and developed by Science Practice in collaboration with the Goldman Group at EMBL-EBI.
This web tool was designed by Science Practice and developed by Joe Lau.

To learn more about Sequence Bundles, read our paper in BMC Proceedings 2014, 8(Suppl 2):S8