



Discover the power of bioinformatics

Vector NTI® software solutions for every workflow

Vector NTI[®] sequence analysis and design software —empowering next-generation cloning



Vector NTI[®] software—a completely integrated suite of sequence analysis and design tools that empower you to easily manage, view, analyze, transform, share, and publicize diverse types of molecular biology data—all within one graphically rich analysis environment. This intuitive software is ideal for all levels of research, and has been cited in more than 20,000 publications.

Curate

Store and manage collections, visualize maps, and search sequences

Discover

Analyze, compare, and contrast sequences

Design

Cloning strategy; primers for PCR, cloning, and resequencing; and gel simulations

Provision

Generate order lists of primers, oligos, vectors, and other reagents needed to perform experiments

Confirm

Contig assembly, sequence validation, and literature validation

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Contact our software specialists today



Modules

Explore the main application modules



Molecule Editor module

- Sequence analysis, annotation, and illustration
- Restriction mapping, recombinant molecule design including restriction enzyme cloning, Gateway® and TOPO® cloning, GeneArt® seamless cloning and assembly, and GeneArt® gene synthesis
- Synthetic biology workflow support and data management



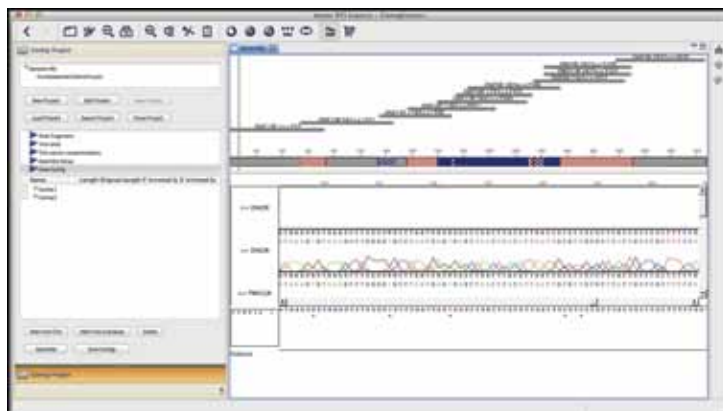
AlignX[®] module

- Multiple sequence alignment of protein and DNA
- Alignment statistics, cladograms, alignment editing, annotation, and repeat identification



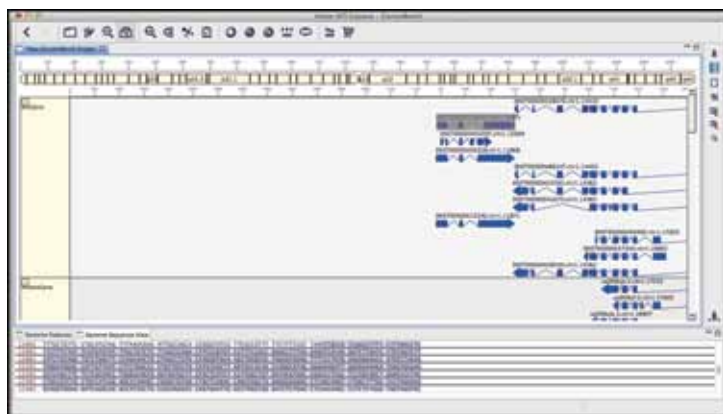
ContigExpress® module

- DNA sequence assembly and editing, contig building, SNP and mutation detection, and genotype analysis
- Chromatogram data analysis and editing, consensus creation using quality values
- Automatic sequence and vector contamination trimming



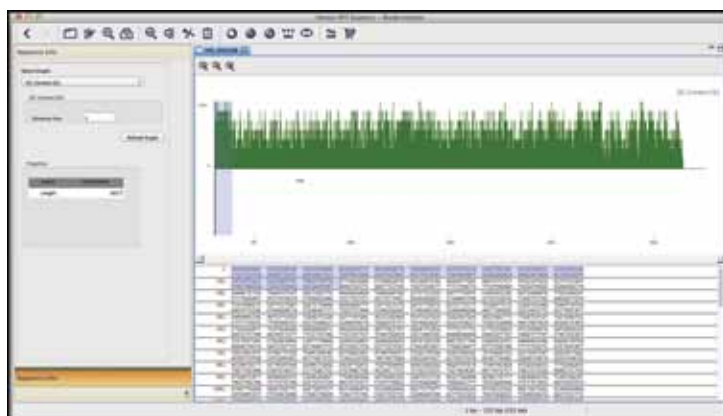
GenomBench® module

- Visualization and analysis of megabase-sized genomic DNA fragments from numerous DAS servers
- Chromosomal views, cDNA-to-gene alignment, intron-exon boundary mapping, and annotation



BioAnnotator™ module

- Protein motif mapping and annotation using Pfam, PROSITE, and BLOCKS motif databases
- Physiochemical analyses of DNA sequences



Workflow

View the various types of workflows

Benefit from a single project workflow—move seamlessly from one software module to another without having to invoke other applications. From sequencing a novel gene to developing cloning projects *in silico*, Vector NTI® software provides the right tools you need to accelerate your research.

Curate: store, manage, search

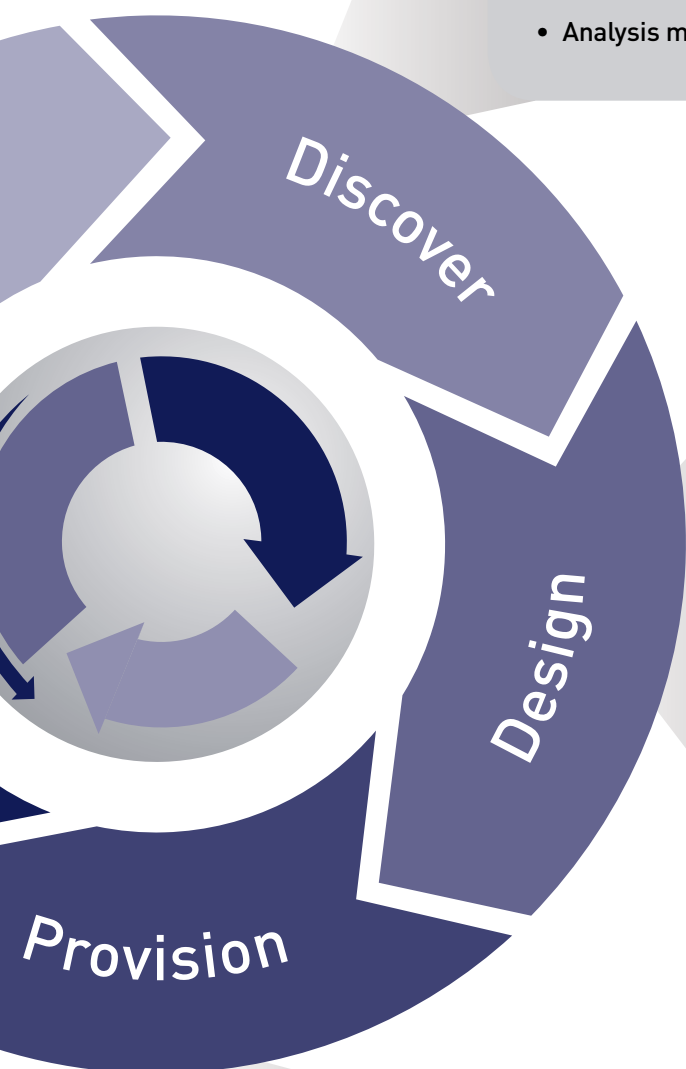
- **Database explorer**—manage and share sequence data
- **Molecule Editor**—view, map, and analyze sequence data
 - **DNA and RNA**—Open reading frame (ORF) finder, translation of DNA into protein, restriction analysis, primer design, BioAnnotator™, SIM4, Spidey, thermodynamics, oligo duplex analysis, and silent mutation analysis
 - **Protein**—motif finder, back translation, regenerator (send *in silico* designs for GeneArt® gene synthesis and explore protein domains)

Confirm: assemble and validate

- **GenomBench® module**—navigate and view genome-scale chromosomes, features, and sequences
- **Contig assembly**
- **Sequence validation**
- **Literature validation**

Curate

Confirm



Discover: analyze, compare, contrast

- **BLAST® analysis**—compare and contrast your sequence against public database sources
- **Public database search**—find publications and sequences quickly and easily; integrated for easy reference and import
- **AlignX® module**—align two or more sequences to discover their similarities and differences
- **3D molecular viewer module**
- **Analysis monitor module**

Design: map, edit, assemble

- **Clone2Seq™ workflow**—expedite planning of restriction enzyme-based cloning experiments
- **Gateway® cloning**—shuttle your key constructs between multiple host systems
- **TOPO® cloning**—complete your cloning experiments in minutes
- **GeneArt® genetic assembly**—create large constructs (from 13 kb to 110 kb) using the latest next-generation cloning techniques
- **Parts assembly**—assemble components from public sources to create constructs using this new “biological parts” methodology

Provision: collect, shop, order

- **List generator**—maintain a working list of primers, oligos, vectors, and other reagents needed to perform experiments

Software platforms



Vector NTI Advance® Software

- Cited in more than 20,000 publications
- Compatible with CE sequencing

Vector NTI® *Express* Software

- EMBOSS standard-based bioinformatics algorithms
- Compatible with CE and next-generation sequencing
- Available for PC and MAC® operating systems
- Automated software updates

Ordering information

We offer customizable software purchasing options for academic and industrial customers, including 1-year, 3-year, concurrent, and nonexpiring (static) software licenses. There are also options for shared or individual-use software licenses.

See Vector NTI® software in action.



Go to lifetechnologies.com/vectornti or email one of our software specialists at bioinfosales@lifetech.com to place your order.

