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## Primer Updates (Professional Edition)

### New PCR Cloning Wizard:

Use to design PCR primers to amplify the region of a molecule you want to clone, use enzymes to prepare vector or region for insertion, and then generate recombinant molecules for later use.

Click Primer, PCR Cloning Wizard to get started. Select from Topoisomerase, Classic TA, Restriction Enzyme, or Blunt End Cloning methods, set design options. View several solutions, save selected primers, export primer sequences, create amplified products or recombinants.

### New Sequencing Primer Wizard:

Use to design a set of primers for sequencing a molecule region. Click Primer, Sequencing Wizard to get started. Specify the region to sequence, your primer design preferences and important design criteria.

The wizard will select three non-overlapping primers per sequencing block, where possible. You can re-order the primers to pick another primer as your top choice, export primer sequences, save to a primer collection or view a map of sequencing coverage.

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## Alignment Updates (Professional Edition)

### Use Filenames for Multiple Sequence Alignments:

Use molecule name or file name for aligned sequence display, up to a maximum of 16 characters. If name is too long, program will truncate name, using rule you select. Click Align, Alignment Parameters and Settings, then click the Name Settings tab. Select Name to Enter and Truncation Rule. Or click Names button in alignment setup dialog box.

### Store Name, Description for alignment results:

Enter descriptive information about an alignment or assembly. When you save results to disk, this information will also be saved. If you use Add to DataBook, descriptive information will be added to databook record.


Use toolbar button Edit Name in alignment results or assembly results window to view or modify descriptive information. 

### Save Modified Trace Files:

Sequence Assembly -- you can right-click on a base in one of the aligned trace file molecules and select Recall Base to change the base called at this position.

Alignment Results -- when viewing aligned sequences, you can elect to replace a base if you feel there is an error in the sequence. You can use the checkbox to indicate that you want the program to make the same change in the molecule sequence, if molecule is still loaded.

### Change Name of Aligned Molecule:

Point to an aligned molecule name (special cursor visible) and right-click to change the name of this molecule in the alignment results. 

# Upgrade Information

## Clone Manager 9

for Windows

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### Installation Instructions

To install an individual or workgroup upgrade, insert the upgrade CD in CD-ROM drive and allow disk to autorun or select Start, Settings, Control Panel, and then click Add/Remove Programs. Follow the instructions on your screen.

The upgrade program will search your computer hard drive, looking for the older version of the Clone Manager software. If found, the program will be upgraded to version 9 of Clone Manager Professional or Clone Manager Basic, as appropriate. You can also use this upgrade CD to re-install the full program, if required. Please contact us for further instructions.

System requirements: Recommended -- Windows 7, Vista, or XP.

Minimum configuration -- Windows 2000 with GDI Plus.

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### Working Map Updates

#### Improved on-screen Working Map:

New anti-aliasing (smoothing) of feature and map lines on screen.

New color segment shown on map when a feature is selected -- marks feature extent close to the map line, where enzyme or primer sites are positioned. Click on feature to select. Click on enzyme site to de-select.


New mouse hover setting lets you move mouse to a site to show basepair position information (no click required).

Click Format Map, then Screen Basics tab to enable or disable these working map display options. Use File, Preferences, Colors to change feature segment color (Highlighter Color). 

#### Updated Map Sites List:

Scrolling map sites list (right side of Map display) now shows enzyme sites, primer sites (Professional edition), and features.

Click on site list header control to select what list displays. Click on column headers to sort. Use column joins to resize column widths.

Or click Enzyme Sites/Primer Sites button to quickly toggle between the display of either enzyme sites or primer sites. 


Enzyme site information now includes type of ends produced (5' sticky, 3' sticky, blunt) and an indication if this enzyme is a single cutter (sc).


Use toolbar buttons to begin actions with the enzyme, primer or feature selected (highlighted) on map sites list.


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## Molecule Viewer Window Updates


### Features tab:


New GoTo toolbar buttons let you jump to the formatted sequence at the start or end of the select feature. 


Click Make Fragment to make a fragment from a feature, adding extra bases at each end of the feature sequence if desired and selecting the orientation of the new molecule fragment (if complementary feature). 


Click Export Feature Sequence to export the sequence to a disk file or copy to the Windows clipboard for use in another program. 

### Map tab:


New GoTo toolbar button let you jump to the formatted sequence at the position of an enzyme or primer site, or the start of a feature. 

Click Export Sequence to export the sequence of the selected primer or the selected feature. 

Click Create... button to create a protein or a fragment from selected feature, or create a primer or product using the selected primer. 

Click More Actions to wipe sites list, change selected primer name, customize feature print style, shift feature name on printed map. 

### Enhanced View Export:

Click new Copy/Export View toolbar button to send your enhanced view map to the Windows clipboard or to a file in vector or raster (bitmap, tif, png, gif) file formats. Select low-res or high-res output. 

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## User Interface Updates

### New Enzyme List Interface:

Click Clone, Enzyme Lists, then click on Program Lists or My User Lists.

Click on enzyme list in left panel to display list contents in right panel.

Click on column headers to sort. Click REBASE Update button to update.

To build new user list, click Build User List button. To modify user list, select (click on) list in left panel, click Unlock List button and then add or delete enzymes. 

### Codon Start Adjustment:

Click File Preferences, Import Features and use checkbox to enable setting that will respond to GenBank CDS codon-start qualifier. If enabled, the program will adjust start position of a CDS feature drawn as a gene if it finds codon-start qualifier set to 2 or 3, indicating first base of the first complete codon is not at the start position shown for this feature.

### Selection (Highlighter) color:

If default color does not show up with sufficient contrast on your display, click File Preferences, Colors, and use checkbox to assign your selected highlighter color for the results display selection bar in windows like Restriction Map.

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## Cloning Updates

### Join Sequences:

Click Clone, Join Sequences to append, splice, or insert to join two sequences to create a larger molecule. Molecule features will be retained during this operation and enzyme sites can be auto-scanned or rebuilt.

### New Gateway Cloning Wizard:

Click Clone, Gateway Cloning to simulate cloning using Gateway® Recombination Cloning techniques.

Make an entry clone (BP reaction), an expression clone (LR reaction), prepare a PCR product with attB sites, or simulate a complex multisite procedure. The wizard will help you select the appropriate components, show you the proposed result, and create the recombinant molecule.

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## DataBook Updates

DataBook is a simple, built-in database you can use to organize and store information about your molecule or data files. You can think of it as a list of the files that you want to keep track of and just enough information about each file to let you find and open the file when you need it.

### Using DataBook

Click Operations, DataBook or use toolbar button to open. 


In left panel, click My DataBooks, then a databook file. The records in this file will be shown in the right panel. Click on column headers to sort. Use mouse to resize columns, window as needed.

Click Folder Options toolbar button to add new folders or new empty databook files, rename or delete any of the files or folders you have created, or export or import databook records. 

### DataBook Records

Click on record in right panel to select. Use toolbar buttons to view/edit information in this record, delete this entry, copy record to paste into another databook file, or view properties of actual file on disk. Click Load File button at lower right to use or open this molecule now.

### Add (molecule) to DataBook

Click Add to DataBook button (main toolbar) to create a record for the open molecule, primer or alignment results file. The program will pre-enter most of the important information for you. 

### Construct new DataBook with batch operation

Click File, Multiple File Conversion to convert molecules or data in disk files to new DataBooks in one easy operation.

### Search DataBooks

Click on databook file or folder in left panel that you want to search. Type in text to search for in Find edit box (lower area) and click Go button. New, transient folder Search Results will list records that contain this text.