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|  | Getting Started with the Microsoft Biology Foundation  Version 1.0 - June 2010 |

Abstract

The Microsoft Biology Foundation (MBF) is an open source, reusable, .NET Framework library and application programming interfacea (API) for bioinformataics research.

This document describes how to get started with the Microsoft Biology Foundation.

For updates to this document and the rest of the MBF documentation, see   
<http://mbf.codeplex.com/documentation>

For updates to MBF, see <http://mbf.codeplex.com>

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# Getting Started with MBF

Microsoft Biology Foundation is available under an open source license. Executables, source code, demo applications, and documentation are freely downloadable.

To get started with MBF, download the three main MBF projects and documentation from the CodePlex site.

### Microsoft Biology Foundation:

MBF is a language-neutral bioinformatics toolkit, built as an extension to the Microsoft® .NET Framework. MBF includes parsers for common bioinformatics file formats, algorithms for manipulating DNA, RNA, and protein sequences, plus a set of connectors to biological Web services such as NCBI BLAST.

The download page for MBF is <http://mbf.codeplex.com/releases/view/42227>

The download page for the MBF documentation is <http://mbf.codeplex.com/documentation>

### Microsoft Research Sequence Assembler

The Microsoft Research Sequence Assembler is a proof-of-concept application that demonstrates the use of the Microsoft Biology Foundation, .NET Framework, and Windows® Presentation Foundationfor bioinformatics research. The MSR Sequence Assembler uses rich user interface (UI) elements to enable the visualization and manipulation of genomic data.

The download page for the MSR Sequence Assembler is <http://mbf.codeplex.com/releases/view/42227>

The download page for the MSR Sequence Assembler documentation is <http://mbf.codeplex.com/documentation>

### Microsoft Research Biology Extension for Excel

The Biology Extension is an add-in for Microsoft Office Excel 2007 and Excel 2010 that provides a simple and flexible way to work with genomic sequences, metadata, and interval data in an Excel document. The Biology Extension add-in implements several features of the Microsoft Biology Foundation: a set of parsers for common genome file formats; a set of sequencing algorithms for assembly of a consensus DNA strand; and a set of connectors to several Basic Local Alignment Search Tool (BLAST) Web services for genome identification.

The download page for the Biology Extension is <http://bioexcel.codeplex.com/releases/view/45533>

The download page for the Biology Extension documentation is <http://bioexcel.codeplex.com/documentation>

# Programming with MBF

MBF is extensible by design. If you need functions that are not in the basic library, you will find them easy to implement in a way that works with the existing functions. We encourage developers who extend MBF to contribute their code back to the project as open source so that the community as a whole can benefit from their work.

For information on how to get the MBF source code, open a project, and build the code, see these documents:

* Microsoft Biology Foundation Onboarding Guide: <http://mbf.codeplex.com/Project/Download/FileDownload.aspx?DownloadId=112928>
* Microsoft Biology Foundation Programming Guide: <http://mbf.codeplex.com/Project/Download/FileDownload.aspx?DownloadId=112930>

For more information about MBF, start with these documents:

* Microsoft Biology Foundation Overview: <http://mbf.codeplex.com/Project/Download/FileDownload.aspx?DownloadId=112929>
* Introduction to the Microsoft Biology Foundation: <http://mbf.codeplex.com/Project/Download/FileDownload.aspx?DownloadId=120797>

If you are interested in contributing code to the MBF projects, see these documents:

* Microsoft Biology Foundation Code Contribution Guide: <http://mbf.codeplex.com/Project/Download/FileDownload.aspx?DownloadId=112159>
* Microsoft Biology Foundation C# Coding Standardss: <http://mbf.codeplex.com/Project/Download/FileDownload.aspx?DownloadId=112927>
* Microsoft Biology Foundation Commenting Conventions: <http://mbf.codeplex.com/Project/Download/FileDownload.aspx?DownloadId=112161>