Namespaces and Selected Classes in the .NET Framework

Collections {}

ComponentModel {

Diagnostics {}

.NET Framework Namespaces Microsoft.CSharp { } Contains classes that support compilation and code generation using the C# language. Microsoft.JScript {} Contains the JScript runtime and classes that support compilation and code generation using the IScript language. Contains the Visual Basic .NET runtime and the classes that support compilation and code Microsoft. Visual Basic { } contains the Visual Basic language. Contains interfaces that allow you to integrate script for the .NET Framework script engines into Microsoft.VSA {} applications, and to compile and execute code at run time. Provides two types of classes: those that handle events raised by the operating system and those that manipulate the system registry. Contains fundamental classes and base classes that define commonly-used value and reference data types, events and event handlers, interfaces, attributes, and processing exceptions. Provides services supporting data type conversion, method parameter manipulation, mathematics, remote and local program invocation, application environment management, and supervision of managed and unmanaged applications. Contains classes that can be used to represent the elements and structure of a source code document. Also contains classes that can be used to manage the generation and compilation of source code in supported programming languages based on the structure of Code Document Object Model (CodeDOM) source code models. Contains interfaces and classes that define various collections of objects, such as lists, queues, System.Collections { } arrays, hash tables and dictionaries. Includes the Specialized namespace for strongly-typed Provides classes that are used to implement the run-time and design-time behavior of components and controls. This namespace includes the base classes and interfaces for implementing attributes, type converters, binding to data sources, and license Provides classes and interfaces that allow you to programmatically access .NET Framework configuration settings and handle errors in configuration files Contains classes that constitute the ADO.NET architecture. The ADO.NET architecture enables you to System.Data { } build components that efficiently manage data from multiple data sources. In a disconnected scenario (such as the Internet), ADO.NET provides the tools to request, update, and reconcile data in multiple tier systems. The ADO.NET architecture is also implemented in client applications, such as Windows Forms, or HTML pages created by ASP.NET. Provides classes that allow you to debug your application and to trace the execution of your code, as well as start system processes, read and write to event logs, and monitor system performance using performance counters. System.DirectoryServices {} Provides easy access to the Active Directory from managed code. * System.Drawing { } Provides access to GDI+ graphics and typography. Provides access to COM+ services and .NET objects. Includes classes with access to System.EnterpriseServices { } Compensating Resource Manager (CRM) in managed code. A CRM is a service provided by COM+ that enables you to include non-transactional objects in Microsoft Distributed Transaction Coordinator (DTC) transactions. Contains classes that define culture-related information, including the language, the System.Globalization { } country/region, the calendars in use, the format patterns for dates, currency and numbers, and the sort order for strings. Contains types that allow synchronous and asynchronous reading from and writing to data streams * System.IO { } and files. Provides access to a rich set of management information and management events System. Management {} about the system, devices, and applications instrumented to the Windows Management Instrumentation (WMI) infrastructure. Provides classes that allow you to connect to message queues on the network, send * System. Messaging {} messages to queues, and receive or peek at (read without removing) messages from queues. Provides a simple programming interface to many of the protocols found on the network today. The System.Net {} WebRequest and WebResponse classes form the basis of "pluggable protocols," an implementation of network services that enables you to develop applications that use Internet resources without worrying about the specific details of the protocol used. Contains classes and interfaces that provide a managed view of loaded types, methods, and fields, with the ability to dynamically create and invoke types. Provides classes and interfaces that allow developers to create, store, and manage various System.Resources { } culture-specific resources used in an application. Provides functionality for compiler writers using managed code to specify attributes in metadata System.Runtime { } that affect the run-time behavior of the common language runtime. Includes the InteropServices namespace that provides a collection of classes useful for accessing COM objects, and native APIs from .NET. The types in the InteropServices namespace fall into the following areas of functionality: attributes, exceptions, managed definitions of COM types, wrappers, type converters, and the Marshal class. Also includes the Remoting namespace that provides classes and interfaces that allow developers to create and configure tightly- or loosely-coupled distributed applications. Some of the more important classes of the System.Runtime.Remoting namespace are the RemotingConfiguration class, the RemotingServices class, and the ObjRef class. Provides the underlying structure of the common language runtime security system, including base Contains classes representing ASCII, Unicode, UTF-7, and UTF-8 character encodings; abstract System.Text {} base classes for converting blocks of characters to and from blocks of bytes; and a helper class that manipulates and formats String objects without creating intermediate instances of Provides classes and interfaces that enable multithreaded programming. This namespace includes a ThreadPool class that manages groups of threads, a Timer class that enables a delegate to be called after a specified amount of time, and a Mutex class for synchronizing mutually exclusive threads. System.Threading also provides classes for thread scheduling, wait notification, and deadlock resolution. System.Timers {} Provides the Timer component, which allows you to raise an event on a specified interval. Provides classes and interfaces that enable browser/server communication. This namespace includes the HTTPRequest class that provides extensive information about the current HTTP request, the HTTPResponse class that manages HTTP output to the client, and the HTTPServerUtility class that provides access to server-side utilities and processes. System. Web also includes classes for cookie manipulation, file transfer, exception information, and output cache control. Provides classes that allow you to install and run services. Services are long-running executables that run without a user interface. They can be installed to run under a ystem account that enables them to be started at computer reboot. Contains classes that enable you to build and use Web Services. A Web Service is a programmable entity residing on a Web server exposed using standard Internet protocols. Provides classes and interfaces that allow you to create controls and pages to make up the user

Messaging { }	
Reflection { }	
Threading {}	
System	{}
-AppDomain 🗠 🕰	-InvalidCastException
-Activator 💝🕻	InvalidOperationException
-AppDomain 🔧	InvalidProgramExceptionInvalidProgramException
-AppDomainSetup 🔩	-IServiceProvider ⊶
-AppDomainUnloadedException 🔩	 LoaderOptimizationAttribute
ApplicationException 🔩	LocalDataStoreSlot
ArgumentException 🔩	- MarshalByRefObject 🔩
-ArgumentNullException 🔩	- Math ◆☆
-ArgumentOutOfRangeException ধ	- MemberAccessException
ArithmeticException 🔩	- MethodAccessException 🔧
-Array	- MissingFieldException
-ArrayTypeMismatchException	- MissingMemberException
-AssemblyLoadEventArgs	- MissingMethodException
-Attribute	- MTAThreadAttribute
-AttributeUsageAttribute	- MulticastDelegate
BadImageFormatException	- MulticastNotSupportedException
BitConverter	-NonSerializedAttribute
-Buffer	- NotFiniteNumberException ◆★
-CannotUnloadAppDomainException	- NotImplementedException
-CharEnumerator	- NotSupportedException
-CLSCompliantAttribute	- NullReferenceException
-Console	- Object
-ContextBoundObject	-ObjectDisposedException
-ContextMarshalException	- ObsoleteAttribute
-ContextStaticAttribute	- OperatingSystem ◆☆
-Convert	
	OutOfMemoryExceptionOverflowException
	Platform Net Supported Evention
DivideByZeroException	- PlatformNotSupportedException ◆ Condom
DIINotFoundException	- Random
-DuplicateWaitObjectException	RankException
EntryPointNotFoundException 🔩	ResolveEventArgs
Enum 🙀	- SerializableAttribute
Environment 💘	-StackOverflowException
EventArgs •••	-STAThreadAttribute
Exception • Exception	- String
ExecutionEngineException	-SystemException
FieldAccessException	ThreadStaticAttribute
FlagsAttribute 🔩	-TimeZone
FormatException 🕰	Type •••
GC **	-TypeInitializationException 🔩
-IAppDomainSetup -O	-TypeLoadException 🔩
-IAsyncResultO	-TypeUnloadedException 🔩
-ICloneableO	-UnauthorizedAccessException •
-IComparableO	-UnhandledExceptionEventArgs
-IConvertibleO	-Uri
-ICustomFormatter	-UriBuilder 💘
IDisposable	- UriPartial •••
- IFormatProvider → ○	UriFormatException → \$\square\$
- IFormattable ⊶ ○	-ValueType 🛶
IndexOutOfRangeException 🔩	-Version 🔩
	WeakReference

Subset of .NET Framework Base Classes

riagnostics {}	Drawing
BooleanSwitch 🔧	-Bitmap
ConditionalAttribute 🔩	-Brush
CoreSwitches 🔩	-Brushes
CounterCreationData 🔩	ColorConverter 🔩
CounterCreationDataCollection 🔧	-ColorTranslator 🔩
CounterSample **	Font
CounterSampleCalculator •	FontConverter 🔩
Debug	FontFamily •••
DebuggableAttribute 🔩 Debugger	Graphics
Debugger	-Icon -IconConverter ◆☆
DebuggerStepThroughAttribute 🚧	-Image
DefaultTraceListener	-ImageAnimator
DiagnosticsConfigurationHandler 🔩	-ImageConverter
EntryWrittenEventArgs 🔧	-ImageFormatConverter ◆☆
EventLog	- Pen
EventLogEntry 🔩	-Pens
EventLogEntryCollection 🔩	−PointConverter
EventLogInstaller ধ	-RectangleConverter 🔩
EventLogPermission 🔩	- Region
EventLogPermissionAttribute 🔧	-SizeConverter ◆☆
EventLogPermissionEntry 🕰	-SolidBrush 🔧
EventLogPermissionEntryCollection 🔩	-StringFormat 🔧
EventLogTraceListener 🔩	-SystemBrushes
FileVersionInfo 🔩	-SystemColors **
ICollectData -O	-Systemicons
InstanceData •••	-SystemPens •
InstanceDataCollection	TextureBrush 🔩
InstanceDataCollectionCollection	-ToolboxBitmapAttribute
MonitoringDescriptionAttribute	Drawing2D {}
PerformanceCounter	AdjustableArrowCap Blend
PerformanceCounterInstaller 🚉	- ColorBlend
PerformanceCounterManager **	- CustomLineCap
PerformanceCounterPermission 🔩	- GraphicsContainer
PerformanceCounterPermissionAttribute	- GraphicsPath
PerformanceCounterPermissionEntry **	- GraphicsPathIterator
PerformanceCounterPermissionEntryCollection **	-GraphicsState
Process	- HatchBrush 🗼
ProcessModule 🔩	LinearGradientBrush 🔧
ProcessModuleCollection 🔩	- Matrix ◆ ☆
ProcessStartInfo **	− PathData 🗼
ProcessThread 🔧	– PathGradientBrush 🔩
ProcessThreadCollection 🔩	RegionData 💝 🕻
StackFrame 🔩	
StackTrace	
Switch	
SymbolStore ••	Messaging {}
TextWriterTraceListener ◆☆	-AccessControlEntry
Trace	-AccessControlList
TraceListener Collection	-ActiveXMessageFormatter
TraceListenerCollection 🔧 TraceSwitch	BinaryMessageFormatter
TraceSwitch	DefaultPropertiesToSend
	-IMessageFormatter ⊶○ -Message
	- MessageEnumerator
	- MessagePropertyFilter
	- MessageQueue
Legend	- MessageQueueAccessControl
	- MessageQueueCriteria 🔩
Namespace {}	- MessageQueueEnumerator ◆
	MessageQueueException
Class	-MessageQueueInstaller <∕rٍ\$
Interface ~O	-MessageQueuePermission ◆
	- MessageQueuePermissionAttr
	- MessageQueuePermissionEnt
	MessageQueuePermissionEnt
	MessageQueueTransaction 💁
	- MessagingDescriptionAttribute
	PeekCompletedEventArgs
	- ReceiveCompletedEventArgs
	-Trustee
	XmlMessageFormatter 🔩

Printing -Margins 💘 –MarginsConverter প -PageSettings 🔧 -PaperSize 💝🕻 –PaperSource 🔧 –PreviewPageInfo 聲 PreviewPrintController 🗠 –PrintController 🔧 -PrintDocument 🔩 -PrinterResolution 🔩 PrinterResolutionKind ধ PrinterSettings 🔩 -PaperSizeCollection 聲 -PaperSourceCollection 🔩 PrinterResolutionCollection 🔩 -StringCollection 🔩 PrinterUnitConvert 🗠 –PrintEventArgs 🔩 –PrintingPermission 🔩 – PrintingPermissionAttribute 🔧 PrintPageEventArgs 🔧 – QueryPageSettingsEventArgs 어 -StandardPrintController 🔩 olEntry প tribute ntry ধ ntryCollection 🔩

Collections {} Reflection {} -ArrayList 💘 -AmbiguousMatchException BitArray 💘 Assembly 😽 AssemblyAlgorithmldAttribute প -CaseInsensitiveHashCodeProvider ধ -CollectionBase 🔩 -Comparer 💘 -DictionaryBase 🔩 -DictionaryEntry 🔩 Hashtable 🔧 -ICollection ⊶ -IComparer ⊶ -IDictionary ⊶○ -IDictionaryEnumerator ⊶ IEnumerable ⊶ IEnumerator ⊶ - IHashCodeProvider ∞ AssemblyName 🔩 ReadOnlyCollectionBase 🔩 -SortedList 💝🕻 Stack Specialized 🔧 BitVector32 ConstructorInfo 🔩 BitVector32.Section 🔩 NameObjectCollectionBase 🔩 NameValueCollection ধ EventInfo 💘 FieldInfo StringCollection 🔩 CollectionsUtil 🔩 HybridDictionary 🗸 InterfaceMapping 🔩 ListDictionary 🗽 NameObjectCollectionBase.KeysCollection 🗨 StringDictionary 🔩 MemberInfo 🔧 StringEnumerator 🔩 MethodBase 🔧 MethodInfo 💘 Missing BinaryReader 🗼 ParameterInfo 🔧 ParameterModifier প BinaryWriter 🕜 Pointer 🔧 BufferedStream 🐓 PropertyInfo 🔧 Directory DirectoryInfo 🔧 DirectoryNotFoundException 🔩 EndOfStreamException 🔩 TargetException 🔧 ErrorEventArgs 🔧 FileLoadException 夕 FileNotFoundException 🔩 -FileStream 💛 FileSystemEventArgs 🔩 FileSystemInfo 🔧 FileSystemWatcher 🗠 Threading {} InternalBufferOverflowException 🔧 AutoResetEvent 🔩 -IODescriptionAttribute 🔩 Interlocked 🔧 IOException 💝 LockCookie 🔧 IsolatedStorage 🔧 -IsolatedStorage 🔩 -IsolatedStorageFile 🔶 -IsolatedStorageFileStream 🔩 NativeOverlapped 🔩 MemoryStream 🔧 Overlapped 🔧 ReaderWriterLock PathTooLongException 🔩 RenamedEventArgs 🔩 -StreamReader 🗼

AssemblyCompanyAttribute 🔩 AssemblyConfigurationAttribute 🔩 AssemblyCopyrightAttribute 🔩 AssemblyCultureAttribute 🔩 AssemblyDefaultAliasAttribute 🧇 AssemblyDelaySignAttribute 🔩 AssemblyDescriptionAttribute 🔩 AssemblyFileVersionAttribute 🔩 AssemblyFlagsAttribute 🔩 AssemblyInformationalVersionAttribute 🔶 AssemblyKeyFileAttribute 🔩 AssemblyKeyNameAttribute 🔩 AssemblyNameProxy 🔧 AssemblyProductAttribute 🔩 AssemblyTitleAttribute 🔩 AssemblyTrademarkAttribute 🗠 AssemblyVersionAttribute 🔩 -CustomAttributeFormatException 🗠 -DefaultMemberAttribute ধ ICustomAttributeProvider 🗝 InvalidFilterCriteriaException 🔩 ManifestResourceInfo ধ ReflectionTypeLoadException StrongNameKeyPair 🔩 TargetInvocationException 🕙 -TargetParameterCountException প ManualResetEvent 🔧 RegisteredWaitHandle 🔩 SynchronizationLockException 🔩 ThreadAbortException 🔧 ThreadExceptionEventArgs 🔩 ThreadInterruptedException 🔩 ThreadPool 🔧 ThreadStateException 🔩 WaitForChangedResult 🗠



-StreamWriter 🗠

-StringReader 💝

-StringWriter 💛

functionality for both programmable and literal controls.

System. Windows. Forms { } of the rich user interface features available in the Microsoft Windows operating system.

interface for your Web applications. This namespace includes the Control class, which provides all controls, whether HTML, Web, or user controls, with a common set of functionality. It also includes the Page control, which is generated automatically whenever a request is made for a page in your Web application. Also provided are classes that provide the Web Forms Server Controls data-binding functionality, the ability to save the view state of a given control or page, as well as parsing

Contains classes for creating Windows-based applications that take full advantage