

Appendix A: Glossary

The following terms are used throughout the Natural Business Services documentation set. Each term is listed with its meaning:

Term	Description
add-in	Wizard or utility that expands the functionality of an IDE (integrated development environment).
application library	Natural library containing the server application components of a client/server application.
assembly	Logical grouping of functionality in Visual Studio. Can be one or more executable or DLL files.
attach server	Middleware component that determines which dispatcher to use and whether other dispatchers are required. If other dispatchers are required, the attach server will start them.
business data types (BDTs)	Type validation on the client that applies business semantics to a field. Typically, BDTs are used to format field data specified by the user. For example, if an application has an input field to enter a phone number, you can associate a BDT with the field to reformat the number with hyphens. A user can enter "7053332112". When the user moves to the next field or performs another action, the number is automatically reformatted as 705-333-2112. Natural Business Services supplies standard BDTs, which you can customize, or you can create your own. Default field BDTs are added to the keyword components of a field in Predict.
business service	Group of methods related to a common business entity, such as Customer, Order, or Department.
Business Service Administration subsystem	Server subsystem used to maintain and query tables that define business services and security data. This subsystem is commonly known as the Natural Business Services repository. Use the Natural Business Services Natural plug-in to modify the repository data. Note: You must have security privileges to access this subsystem. Note: You can also enter "menu" from the SYSBIZ library to access the Administration subsystem.
business service definition	Definition in the Natural Business Services repository that identifies the methods exposed by a subprogram. Use the Natural SPoD add-in to modify these settings.
business service explorer (BSE)	Displays business services on a server organized by Connection/Domain/Service Name.
BDT class	Collection of all BDT procedures.

Term	Description
BDT modifier	Additional logic users supply to modify the formatting or validation rules for a BDT. For example, BTD_NUMERIC ensures that only numeric values are entered in a field. You can also add a modifier to round numeric values. To increase flexibility, each BDT defines its own modifiers.
cache	See security cache.
cardinality	Number of dimensions of information. Information with the same number of dimensions has the same cardinality.
class	Object representation of a business service in Visual Basic, C#, or Java.
complex redefine	Redefinition of a data area containing multiple data types, multiple redefinitions of a data field, or multiple levels of redefined fields.
compression	Reduce the byte size required to transmit data to and from the client and server. Data is compressed when it is sent and then decompressed when it reaches its destination. This reduces the size of data transmissions and improves network performance.
consumer	Anything that uses a Natural business service. For example, the generated client proxy classes in Visual Studio or Java consume business services. Web services can also consume business services.
context menu	Task-based submenu that is displayed by right-clicking an item in the repository tree or pressing the context menu key on the keyboard, for example.
control record	Record that controls whether Natural Security is used.
database record	Logical view of database information. A database record can be comprised of one or more logically related database files or tables. Natural Business Services represents database information in parameter data areas (PDAs).
DBID	Acronym for database ID, which is the number identifying the server database containing application components.
deployment	Movement of an application from a source environment to a target environment (for example, moving an application from development to QA).
dialog	GUI form (window) running on the client.
Dispatch Client	Component that provides the Natural Business Services data exchange, which facilitates calls from a client to Natural subprograms running on a server.
dispatch server	Middleware component that encapsulates broker calls on the server, provides directory services, enforces security, and invokes back end Natural services.
domain	Entity that defines a collection of related business services (for example, Test, Admin, and Sales).

Term	Description
encapsulation	Technique in object-oriented programming in which the internal implementation details of an object are hidden from users of the object. Methods control how the object data is manipulated. Encapsulation allows internal implementations to change without affecting the way an object is used externally.
encryption	Encoding data so it is unusable for individuals without access to the decryption algorithms. Natural Business Services allows you to encrypt sensitive data, such as payroll information, during network transmission. Data is decrypted when it reaches its destination.
EntireX Broker service settings	Collection of Broker-related parameters, including Broker ID, server class, server name, and service.
EntireX Broker stub	Broker DLL on a Windows platform.
event	Action recognized by an object, such as pressing a key or clicking a mouse. You write code to respond to events.
event handler	Custom code that reacts to events raised within the Web Service Engine (WSE).
FNR	Acronym for the file number that identifies a specific server database file containing application components.
framework template	Set of templates supplied for applications. These customizable templates include header, footer, navigation bar, messages area, and constants.
generate	Process of producing code from specifications.
generated module	Generated component for either the client or server portion of an application. Generated server modules include Natural subprograms, subprogram proxies, and parameter data areas. Generated client modules include Visual Studio classes, XSL, HTML, etc.
group	Collection of users defined in the Business Service repository.
GUI control override	Use Predict keywords to force a GUI control derivation. See also keyword.
HTML template	HTML that may contain replacement tags, which are dynamically exchanged for content or nested HTML templates at runtime.
IIS	Internet Information Server development tool in Windows.
instantiation	Process of creating an instance of a class. The result is an object.
internationalization	Adapting an application to make it easy to localize. See also localization.
keyword	Predict metadata type that acts as a label, identifier, or specification for generation (such as BDTPhone or ALLOW-LOWER-CASE).
level 1 data block	Level 1 field or structure and its subfields in a Natural parameter data area (PDA).
library image file (LIF)	File that contains Natural PDA definitions used by the Dispatch Client.

Term	Description
localization	Process of translating and adapting a software product for use in a different language or country.
lookups	Return descriptive information when a user requests a browse window or enters a value in a foreign key field in a maintenance window. For example, assume Warehouse Number is a foreign key field in the Order window and Warehouse Name is a descriptive field attached to the foreign key value. When a user enters a valid warehouse number, the lookup returns the name of the warehouse to display.
metadata	Information about data. Metadata describes how physical data is formatted and interrelated. It includes descriptions of data elements, data files, and relationships between data entities. Typically, metadata is maintained in a repository known as a data dictionary, such as Predict.
method	Procedure that operates on an object and is implemented internally by the object. For example, the Update method updates a Customer Order object after changes to the order information.
model	Template used to generate modules. Each model contains one or more specification panels. Using these panels, you can specify parameters for a desired module and then generate the corresponding code. Natural Construct provides numerous models, including the Object-Maint-Subp and Object-Browse-Subp models.
module	Single application component, such as a hand-coded Natural program, subprogram, or data area or a Natural Construct-generated program, subprogram, or data area.
multi-level security	Security you can define at a high level or at a detailed level affecting many objects. For example, you can apply multi-level security at a domain, business service, or method level.
Natural Business Services (NBS)	Services stored on the server (similar to a subprogram proxy).
Natural Construct nucleus	Sophisticated driver program that invokes the model subprograms at the appropriate time in the generation process and performs functions common to all models, such as opening windows and performing PF-key functions. The nucleus communicates with the model subprograms through standard parameter data areas (PDAs). These PDAs contain fields assigned by Natural Construct, as well as fields required by a model.
Natural Debugging utility	Utility available in a Natural environment to help you locate and analyze logic errors. This utility is not available in the client environment, but you can access it on the server with client input by invoking the Invoke Proxy function in the Business Service Administration subsystem. The subprogram proxy sets up an online environment that simulates the client/server environment and allows you to use all the features of the Natural Debugging utility.

Term	Description
node	<ul style="list-style-type: none"> ● Individual computer or, occasionally, another type of machine in a network ● An item on a menu tree or navigation bar ● A setting in an XML file
nucleus	See Natural Construct nucleus.
object	Any application component, such as a form or record.
ping	Request sent to a service to determine whether the service is running.
platform	Piece of equipment that, together with its operating system, serves as a base on which you can build other systems. For example, a Unix box can serve as a platform for an accounting system.
regular expression	String-searching criteria to scan for a specified text string and, optionally, substitute another string. For example, a regular expression can search for “Natural Business Services” and replace each occurrence with “Business Services” alone.
remote call	Communication with an object residing in a different location.
resource	Text or binary value that can be localized. See also localization.
security cache	File used to store recently-accessed security data.
security server	Component of the Business Service Administration subsystem that controls access to application libraries, objects, and methods.
server	Computer that provides services to another computer (called a client) and responds to requests for services. On multitasking machines, a process that provides services to another process is called a server.
server application	Application that runs on a server machine.
Server Manager	Client tool supplied with Natural Business Services that allows you to specify which servers the client uses to communicate with the server.
server settings	Collection of parameters used to configure a server.
service proxy	See subprogram proxy.
shutdown	Command sent to terminate a server.
Simple object access protocol (SOAP)	XML-based standard communication protocol to interact with Web services.
SPoD	Natural for Windows Single Point of Development product.
steplib chain	Hierarchy of Natural libraries that determines the location from which modules are executed.
subprogram proxy	Provides the link between a specific subprogram and the Natural Business Services dispatch server.
template parser	Class used to parse HTML or other templates.

Term	Description
token (Natural Business Services security)	Unique, system-generated, identification number used in place of a user ID and password for multiple calls. Users can logon with their user ID and password and then request a token to use for later calls.
trace options	Options that specify how to trace messages sent between the client and server.
verification rule	<p>Predict-defined business rules that are implemented in the object maintenance subprogram on the server. They also provide default values for derived fields represented by GUI controls, such as check boxes, option buttons, or drop-down combo boxes.</p> <p>You can use verification rules to force users to make a selection based on one or more choices. For example, if an application has an input field for the state name, you can attach a verification rule to the field in Predict so that only valid state names are accepted.</p>
web application	Application created using the Natural Business Services wizards and add-ins. It allows users to access business services and data from a web browser.
web framework	Group of Visual Basic modules and classes that collaborate to dynamically generate web pages.
Web service	Service to expose data or functionality to the intra/internet.
Web Service Engine (WSE)	Core DLL supplied with Natural Business Services that handles Web service requests (*.sws requests) from IIS (Internet Information Server).
Web service root	<p>Main/root directory (folder) for Web services. By default, the name of the Web services root directory is NBS/WebServices. For example:</p> <p><i>http://localhost/NBS/WebServices</i></p> <p><i>C:\inetpub\wwwroot\NBS\WebServices</i></p> <p>Note: For examples used in this documentation, assume the Web services root is NBS/WebServices.</p>
WSDL (Web Service Definition Language)	XML document used to describe a Web service.
XML (Extensible Markup Language)	Industry-accepted standard language used to transmit data.
XML extract	Extract information from Predict and other sources, which is stored on the client as metadata in XML format. This includes information about business services, as well as the formatting used by wizards to build application components. See also metadata.