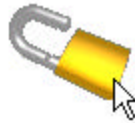


NT Logon

Native Windows Authentication Plug-in for 4th Dimension



User Manual

V 1.0



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Tech Solutions Inc.

8924 E Charter Oak Drive,
Scottsdale AZ USA

Phone (800) 229-1762 Fax (805) 370-8729

www.techsol.org

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About NT Logon

NT Logon is a 4th Dimension plug-in that will work with all versions of 4D from 6.5 onwards. This is a Windows only plug-in, simply because the network logon security that it supports is only available on Windows computers. The NT Logon plug-in will allow your application to call a single function to authenticate a user, returning true or false. The plug-in is small and has been tested on over a million logon attempts at large corporate organizations who rely on 'single sign on' technology to simplify the life of their user base.

If you are not using NT Logon, your users are likely to have to enter multiple different login Ids and passwords, including your 4th Dimension login security passwords. This is a very painful process for users in larger organizations that are constantly logging in from one application to another to get through their work day. By using the central core of the NT Domain controller or Active Directory Services, you can simply integrate your security model with the network security model.

NT Logon has been tested with NT Server v4 and Windows 2000 Server, with both regular NT Domain controller level security and Active Directory Services. By calling a native NET32 function on the workstation or 'client computer', it uses the Windows logon capability to authenticate, thereby being abstracted from the lower level differences of these security models. Conceivably, as Active Directory Services can use LDAP as the basis of its logon structure, NT Logon will allow your 4D application to participate in a LDAP security model, as long as the implementation of LDAP has been based on Active Directory Services running on Windows 2000 Server.

General Warnings

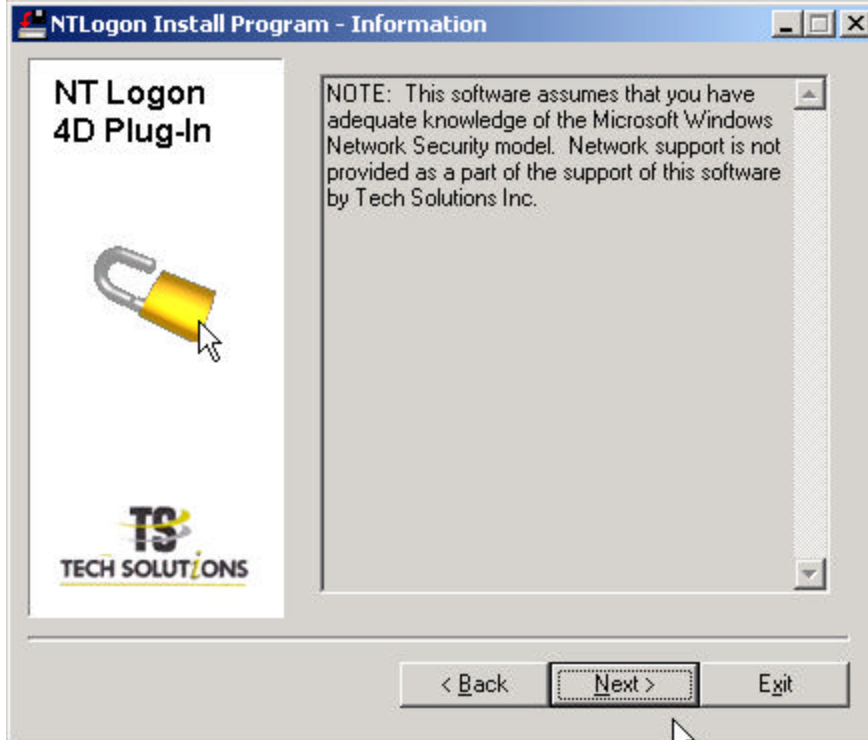
Windows network security is a complex discipline and is out of the scope of NT Logon. If you do not have experience in implementing and understanding Windows network security, we suggest that you commission the services of an appropriately qualified MCSE consultant who can assist you with the setup of your computers around this network model. NT Logon simply uses what is already there in Windows, and therefore assumes the developer to be Windows savvy, in terms of networking and network setup.

Installation

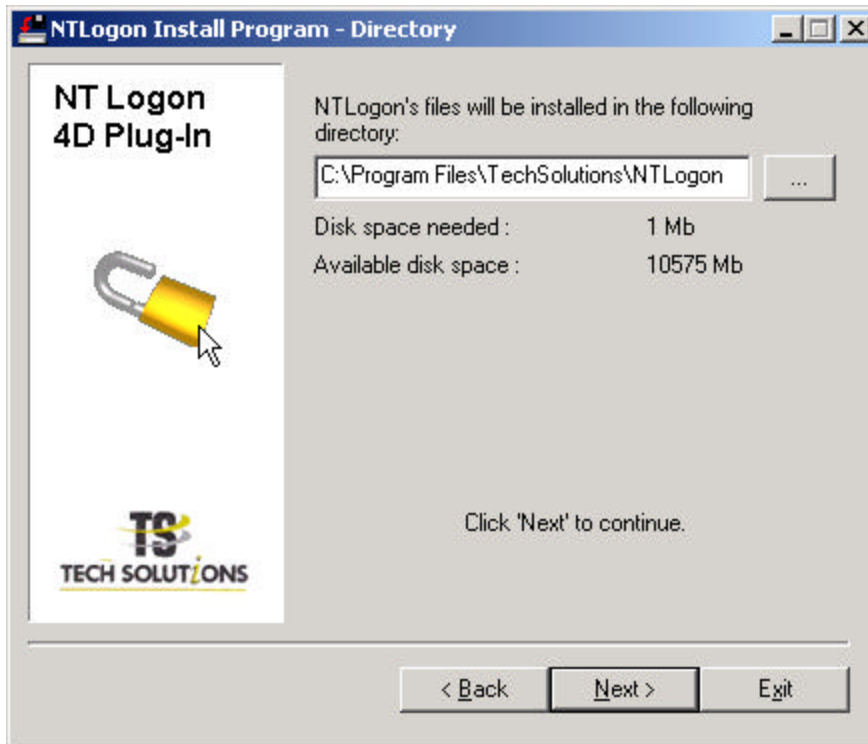
Real easy. An automated setup program has been provided for you to install the software. Run the NTLOGON.EXE application provided to you. On launching this application, you will be presented with the following screen:



Click NEXT to start the installer. You will then be shown the following information:



Click NEXT again for the next screen.



This allows you to define where you would like the files installed to. Directories will be created under this directory tree. Unless you need it installed in a different location, simply click NEXT to proceed.

The software will then be installed.

Having completed the installation, you will find a WIN4DX folder and a TEST APPLICATION folder installed. The WIN4DX contains the plugin files that must be copied into your application's WIN4DX folder (see 4th Dimension documentation for installing plug-ins in 4D applications for more information), and the TEST APPLICATION is provided for you to test your network setup. An item on your Start Menu, has been added as a part of the installation to allow you to execute the Test Application.

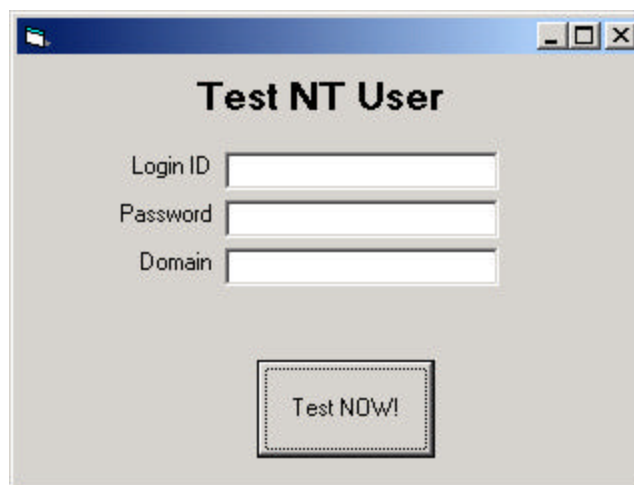
Testing your setup

Before you begin to work with the NTLogon plug in, it is important that you test your network setup.

Your application (whether a single user 4D application or a 4D Server application), must run under an account that has appropriate security rights according to the Microsoft network security model*

The key right that must be available to the computer/login account is called 'Act as part of the operating system'. This right must be implemented on the user account, and depending upon the version of NT, 2000, etc. that you are running, you should consult your Microsoft documentation to ensure that you have set this right properly.

A tester application is provided for you, to allow you to test the security rights so that NT Logon will work. This application is a small Visual Basic application that simply allows you to attempt to logon to your domain controller. This is shown below:



Simply enter a login ID, password and Domain and click TEST NOW to try it out. If this application succeeds, then you have successfully setup the appropriate rights on your computer that will allow NT Logon to work also.

Use this tester application (called NTLogonClass.exe) to test your configuration completely before attempting to use NT Logon.

* NOTE: Tech Solutions Inc. doesn't offer network consulting, security or MCSE like services as support of NT Logon. We assume that the developer has either knowledge of these areas, or has access to an appropriately qualified network engineer who can advise and setup security policies for their network. Please do not contact us with network security & policy related questions.

How to call the NTLogon function from your application

This is really simple. There is one function call. Here are the details:

NT Authenticate(LoginID;Domain;Password) -> Result

LoginID	Text	The NT/2000 Login ID for the user
Domain	Text	The NT/2000 name of the domain that you are authenticating against
Password	Text	The password (this gets converted to Unicode by the routine for security)

Result LongInt Values other than 0 are successful, 0 = failure

To get it working, other than installing it in your WIN4DX folder, here's some example code that calls it:

```
` Do the actual NT Authentication
$vl_LogonResult:=NT Authenticate (vt_Login;vt_Domain;vt_Password)
If ($vl_LogonResult#0)
  $vb_LoginSuccess:=True
Else
  $vb_LoginSuccess:=False
End if ` Result check of NT Authenticate
```

How it works

This plug-in calls the native LogonUser() function in NET32 on Windows. This function handles all client login attempts within the operating system. NOTE: Depending upon how your security model is setup with Windows, failed login attempts can 'lock out' a user from login attempts for a period of time. This is a setting defined at the network domain level. You should be careful to implement some form of attempt counter in your application otherwise you could lock out a user from logging into the network at all levels. Check with your network administrator for how this is setup on your site.