NatStar

Version 5.00 Edition 1

NS-DK

Version 5.00 Edition 1

NS-PREX User Manual

Ref. no. NPREX500USR00001

Contents

Conventions

Typographic conventions

Important term	Important terms are printed in **bold**.
Interface component	The names of windows, dialog boxes, controls, buttons, menus and options are printed in *italics*.
[F9]	Function key names appear in square brackets.
FILENAME	Filenames are printed in UPPERCASE.
`syntax example`	Syntax examples are printed in a `fixed-width font`.

Notational conventions

•	A round bullet is used for lists
♦	A diamond is used for alternatives
1.	Numbers are used to mark the steps in a procedure to be carried out in sequence

definition

A **definition** has a special presentation. It explains the term in a single paragraph. The term appears in the first column, then once in bold in the definition.

Operating conventions

Choose *XXX* \ *YYY*	This means you need to open the *XXX* menu, then choose the *YYY* command (option) from this menu. You can perform this action using the mouse or mnemonic characters on the keyboard.
Click the *XXX* \ *YYY* button	This means you need to display the tool bar named *XXX*, then click the *YYY* button in this tool bar (the name of each button is shown by its help bubble). You can only perform this action with the mouse.
Choose the *XXX* button	This means you need to choose the *XXX* button in a dialog box. You can perform this action using the mouse or mnemonic characters on the keyboard.

Icon codes

Comment, note, etc.

Reference to another part of the documentation

Danger: precaution to be taken, irreversible action, etc.

Suggestion: helpful hints, etc.

To go a step further: level of detail or expertise greater than the average level of the document

Indicates specific information on using the software under DOS-Windows (all versions)

Indicates specific information on using the software under DOS-Windows 32 bits

Indicates specific information on using the software under DOS-Windows 32 bits

Indicates specific information on using the software under Unix systems

Chapter 1 General Use

The NS-PREX component makes communication possible between a browser and an NS-DK or NatStar application (or even a third-party application).

This chapter explains

- NS-PREX functionalities
- How to install this component
- Examples of use

Contents

Introduction

Nat System is offering a new component for communication between different tools, which is used to call an NS-DK or NatStar application (as a DLL or executable) from a web browser, while sending it parameters.

This component works on all available browsers (Internet Explorer, Firefox, etc.) without ActiveX and without altering the security settings of the client system.

This component is used to load an NS-DK (or NatStar) DLL and to call several instructions while sending it parameters. Otherwise, it is also used for running an NK-DK or NatStar executable, while sending it parameters.

This component is very easy to use. A single line of JavaScript makes it possible to run the NS-PREX component call. Also, the description of the executables and DLLs that are to be run are found in a single .INI file, so that the JavaScript can be simplified.

Installation

To install the NS-PREX component, carry out the following steps:

1. Copy the files NSPREX.EXE and NSPREX.INI into an NS-DK or NatStar directory pointed by the PATH environment variable. e.g. C:\NSDK\DLL or C:\NATSTAR\DLL.

   

   NSPREX.INI should be found in the same directory as NSPREX.EXE or in a directory pointed by the NS-INI environment variable.

2. Modify the last line of the file NSPREX.REG so that it corresponds to the directory to which the NSPREX.EXE file has been copied

   Examples

   ```
   @="\"C:\\NSDK5\\NSPREX.EXE\" \"%1\""
   @="\"C:\\NSDK5\\DLL\\NSPREX.EXE\" \"%1\""
   @="\"C:\\TOOLS\\NSDK5\\DLL\\NSPREX.EXE\" \"%1\""
   ```

   

   The backslashes should be kept.

3. Execute the NSPREX.REG file and accept the registry's modifications.

The file **NSPREX.EXE** corresponds to the communication module between the browser and the NS-DK or NatStar application. The file **nsprex.reg** corresponds to the modification file of the registry. These two files can be supplied with the product.

The **NSPREX.EXE** program needs the NS-DK run-time.

NS-PREX component settings

The NS-PREX component reads a local file of the NSPREX.INI settings.

This file allows us to considerably simplify the JavaScript code, as well as to separate it from the application or the DLL being called.

Syntax of the NSPREX.INI file

With a function in a DLL file

```
[DAMAGE_CONSULT]     : Name of the application to be called from the JavaScript
kind=DLL                    : type of application to be called (DLL)
name=FICHE_CL.DLL           : Name of the DLL to load
```

```
procName=GENERIC_CALL       : Name of the function to be called in the DLL
actionNumber=10             : extra parameter to send to the function
utf82ansi=YES               : Specify that one wishes automatic conversion UTF8
                              towards ANSI
```

When calling an executable

```
[DAMAGE_DELET]       : Name of the application to be called from the JavaScript
kind=EXE                    : type of application to be called (EXE)
name=MYPROG.EXE             : Name of the executable to run
utf82ansi=YES               : Specify that one wishes automatic conversion UTF8
                              towards ANSI
params=PARAMS :             : Character strings which will be added at the
                              beginning of the parameters
```

Examples of use

Generic Javascript function to be included in the HTML file

```
<SCRIPT LANGUAGE='javaScript'>
      function Call_NSPREX (appliName, params) {
            window.top.location.href='natsys://'+appliName+','+params;
      }
</SCRIPT>
```

Example N°1: Function call in a DLL file

```
; example of JavaScript code
Call_NSPREX
("DAMAGE_CONSULT",document.client.surname.value+"#"+document.client.firstname.va
lue);
```

The “DAMAGE_CONSULT” application with the client’s first name and surname is called from the JavaScript code.

The initialisation file (NSPREX.INI) is configured as follows:

```
[DAMAGE_CONSULT]
kind=DLL
name=CL_FILE.DLL
procName=GENERIC_CALL
actionNumber=10
utf82ansi=YES              : Specify that one wishes automatic conversion UTF8
                             towards ANSI
```

NCL coding of the DLL being called

An NS-DK or NatStar project generates a CL_FILE DLL, which contains an instruction called GENERIC_CALL.

```
; prototype of the function in NCL
instruction GENERIC_CALL (int action (4), dynStr param)
```

In this execution mode, CL_FILE.DLL will be automatically loaded and the GENERIC_CALL function will be called with the parameters (10, surname+« # »+first name).

Example N°2: Calling another function in a DLL file

The “DAMAGE_DELET” application with the client’s first name and surname is called from the JavaScript code.

```
; JavaScript code
```

```
Call_NSPREX
("DAMAGE_DELET",document.client.surname.value+"#"+document.client.firstname.valu
e);
```

The initialisation file (INI) is configured as follows:

```
[DAMAGE_DELET]
kind=DLL
name=CL_FILE.DLL
procName=GENERIC_CALL
actionNumber=11
```

In this example, CL_FILE.DLL will be automatically loaded and the GENERIC_CALL function will be called with the parameters (11, surname+first name).

Calling an executable from HTML

The “BILLING” application with the client’s first name and surname is called from the JavaScript code.

```
; JavaScript code
Call_NSPREX
("BILLING",document.client.surname.value+"#"+document.client.firstname.value);
```

The initialisation file (INI) is configured as follows:

```
[BILLING]
kind=EXE
name=BILLING.EXE
```

NCL coding

An NS-DK or NatStar project generates a BILLING.EXE executable, which will receive the following parameters once it is launched.

```
paramstr$(1)= surname+"#"+firstname
```

In this execution mode, the BILLING.EXE executable will be automatically called and the parameters will be sent to it.

Remarks

All client workstations must have their registry modified. Nat Systems can supply a program that automatically modifies this registry (depending on user rights).

If the browser used is Internet Explorer the strings are passed in ANSI to the program and the DLLs called don't need any translation.

If the browser used is FireFox, the strings passed are coded in UTF8, and the accent marks could appeared not correctly. In this case, you may activate the following option:

```
utf82ansi=YES               : Specify that one wishes automatic conversion UTF8
                              towards ANSI
```

If this option is activated, it allows the automatic translations of the accent marks. This option has no effect with Internet Explorer.

The NS-PREX component uses Windows functions that require you to convert to Unicode’s UTF8 coding. Since this mode has been correctly supported since version 5.0 of NS-DK or NatStar, it doesn't work with the previous versions.

You can consult the new sample NSPREX delivered with NS-DK.