

All You Need to Know About HCL Notes 64-Bit Clients

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Host and Speaker



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Agenda

- A closer look into HCL Notes 64-Bit
- Upgrading from Notes 32-Bit to Notes 64-Bit
- Domino application design challenges
- Third-party add-in dependencies





A closer look into HCL Notes 64 Bit

Advantages / Why HCL Notes 64-Bit

- Wish of many customers and partners
- State of the art - technology
- As soon as there are only 64-bit clients, there might be other improvements like
 - 4 GB → >18 EB (18 billion GB) or just 16 GB ;-)

Changes 32 → 64 Bit

- This is only a disadvantage:
Memory

→ Citrix, Windows Terminal Server (and VDI)

+/- a factor of 2

32 Bit

>  HCL Notes (32 bit)	0,1%	155,2 MB
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64 Bit

>  HCL Notes	0%	393,6 MB
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- Transaction load unknown or possibly negligible

Name	Status	CPU	Memory
Apps (10)			
>  Google Chrome (16)		0,4%	329,6 MB
>  HCL Notes (32 bit)		0,1%	94,3 MB
>  Microsoft PowerPoint		0%	95,0 MB
>  Microsoft Teams (8)		0,9%	318,7 MB

Changes 32 → 64 Bit (cont.)

32 Bit

> HCL Notes (32 bit)

0,1% 155,2 MB

Processes	Performance	App history	Startup	Users	Details	Services
Name	PID	Status	Username	CPU	Working set (memory)	
nlnotes.exe	22300	Running	fvogler	00	129.928 K	
notes2.exe	26788	Running	fvogler	00	221.772 K	
ntaskldr.exe	564	Running	fvogler	00	31.100 K	

64 Bit

> HCL Notes

0% 393,6 MB

Prozesse	Leistung	App-Verlauf	Autostart	Benutzer	Details	Dienste
Name	PID	Status	Benutzerna...	CPU	Arbeitssatz (Speicher)	
 nlnotes.exe	6876	Wird ausgef...	panagenda	00	207.596 K	
 notes2.exe	8200	Wird ausgef...	panagenda	00	495.448 K	
 ntaskldr.exe	11412	Wird ausgef...	panagenda	00	20.636 K	

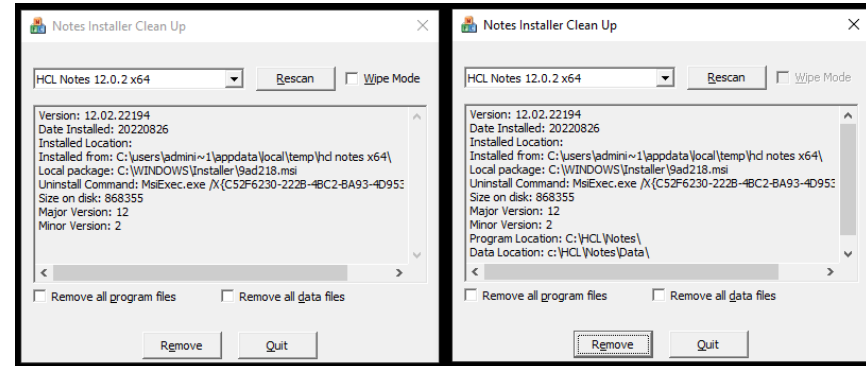
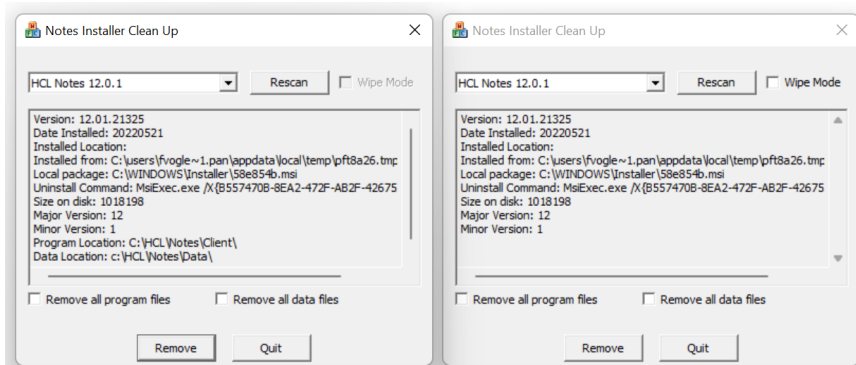
Changes 32 → 64 Bit (cont.)

- **(Memory)**
- **Program folder**
 - C:\Program Files (x86)\HCL\Notes
→ C:\Program Files\HCL\Notes
- **COM Objekte**
 - <https://domino-ideas.hcltechsw.com/ideas/DDXP-I-324>
 - <https://techtalk.gfi.com/32bit-object-64bit-environment/>
 - [Guidelines in updating applications to run on the 64-bit version of HCL Notes 12.0.2 \(hcltechsw.com\)](#)
- **Registry**
 - HKEY_LOCAL_MACHINE\SOFTWARE\WOW6432Node\Lotus\Notes
→ HKEY_LOCAL_MACHINE\SOFTWARE\Lotus\Notes
- **Note: Notes 32-bit Installer can't detect Notes 64-bit clients**

Changes 32 → 64 Bit (cont.)

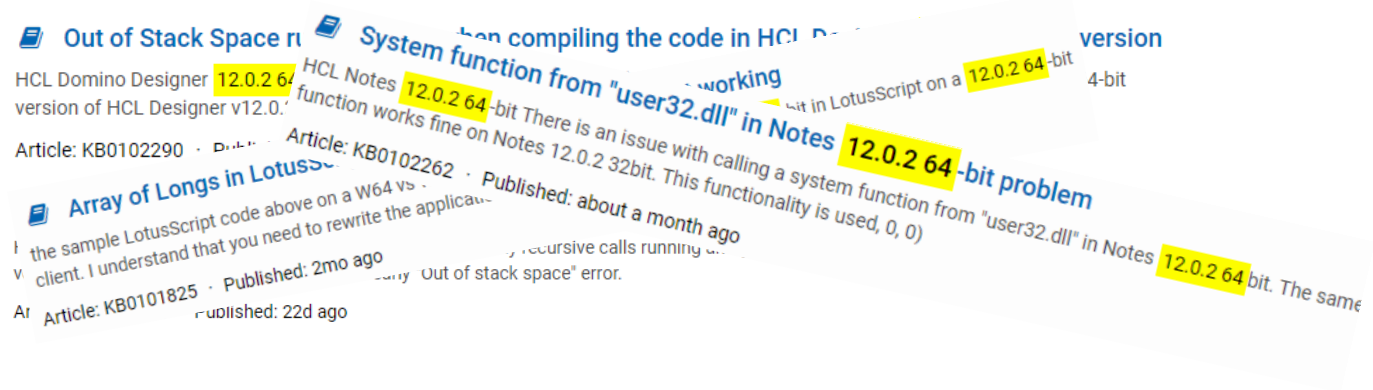
- **NICE64 (nice64.exe)**

- Notes_12.0.2_Win_64bit_English\Utility\NotesCustomizationKit_1_0.zip
- Can (currently) only detect 64-bit clients “completely”
 - Run nice64.exe first and then nice.exe afterwards
- A future Nice“96”.exe version, which detects and cleans 32- and 64-bit clients, is possible but not decided by HCL yet.



The best software is experiencing challenges if big changes where made.

HCL Kbase stated some development topics for Notes 64-Bit.



Challenges with HCL Notes 64-Bit (cont.)

Is this a showstopper for the HCL Notes 12.0.2 64-Bit?

NO!

and FP1 is already planned

Release number 12.0.2 FP1

Est. release date Q2 2023 [Details](#)



Upgrading from Notes 32-Bit to Notes 64-Bit

Upgrading Notes 32-Bit to Notes 12.0.2 64-Bit

In general we do not recommend an in-place upgrade for a client install. In case of an upgrade of a 32-bit Notes client this isn't even possible.

The following steps are needed to move from:

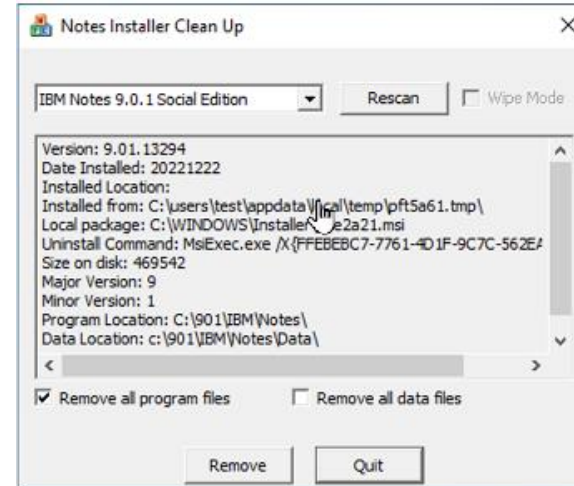
HCL/IBM Notes 32-bit client → HCL Notes 12.0.2 64 Bit



Upgrading Notes 32-Bit to Notes 12.0.2 64-Bit (cont.)

Step 1: Do a complete Backup of your Data Directory and notes.ini

Step 2: Use the nice tool to uninstall the existing Notes Client.
(it is mandatory to use the nice.exe which comes with a 32-Bit Notes Client.)



Step 3: Prepare your Data directory.

If you install a multiuser client, the data folder can stay at the old position. But we recommend to move the Data folder to the new default location

%LocalAppData%\HCL\Notes\Data

If you moved your Data directory, keep in mind to check your notes.ini for folder and directory changes as well.



Upgrading Notes 32-Bit to Notes 12.0.2 64-Bit (cont.)

Step 4: Install Notes 12.0.2 64-Bit

Pick the prepared folder if needed during the installation.

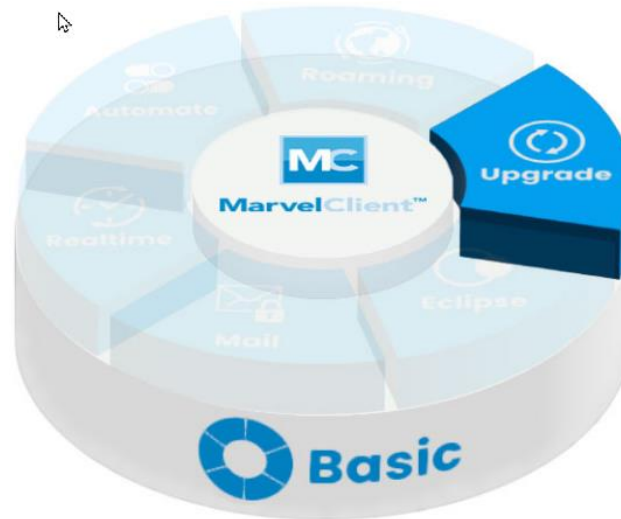
After the installation and if all checks of the notes.ini are made, Notes is ready for a first start.

See here for HCL “Notes 9.0.x to Notes 12.0.2 64-bit upgrade installation instructions” document:

https://support.hcltechsw.com/csm?id=kb_article&sysparm_article=KB0102196

Upgrading Notes 32-Bit to Notes 12.0.2 64-Bit (cont.) *panagenda*

or use





Domino application design challenges

LotusScript Code

- Find and add code that compares whether
`NotesSession.Platform = "Windows/32"` → will not work on 64-bit
- Or even `LCase$(Left$(NotesSession.Platform, 3))="win"`
- The latter ensures that the code runs on 64-bit
BUT: the code may have to be adapted for 64-bit

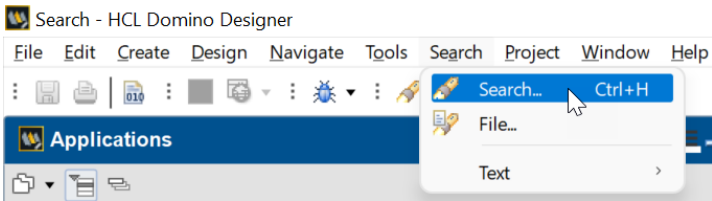


LotusScript Code (cont.)

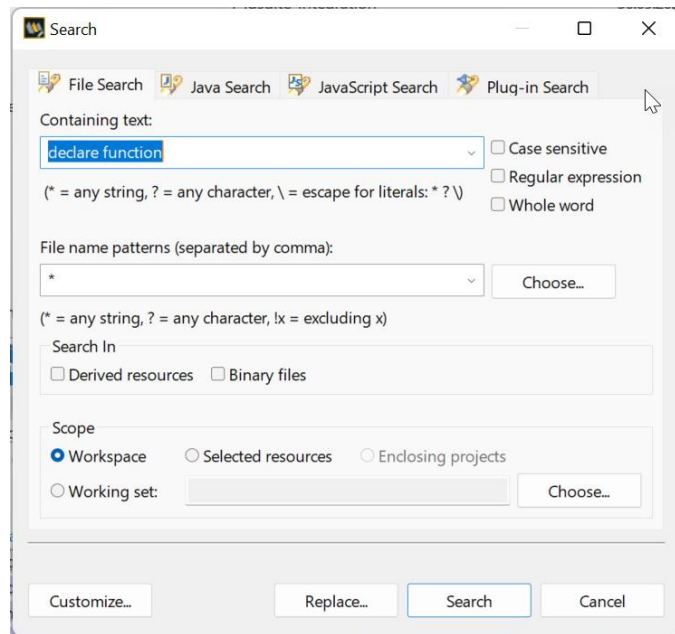
- Declare Function Calls
 - Calls of Notes or operating system functions
 - “All” **pointer and type variables** must be checked and adjusted if necessary
 - Usually Long → Double (32 → 64-bit)
 - The good news
 - **Almost all of Notes own calls DO NOT have to be changed**
 - **DB and Window Handles are not pointers**
 - The bad news
 - Which calls use pointers → Microsoft documentation/Google, call by call
 - Some OS functions still return a double for handles (e.g. GetActiveWindow)
 - However, such values may then have to be passed to other functions via CLng(Var).

LotusScript Code (cont.)

- **Declare Function Calls**

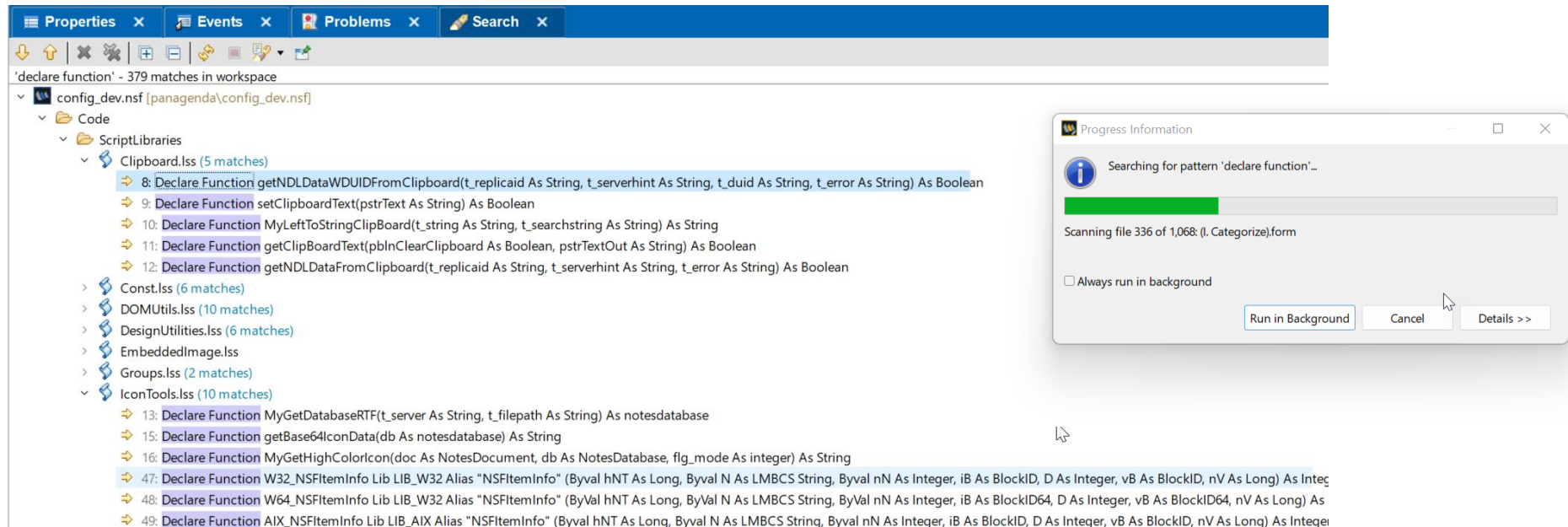


- `{\| \| \|"}win[A-Z\-\V2-6]*({\| \| \|")`
- `declare function.*as long`
- `end type.*declare function`



LotusScript Code (cont.)

- **Declare Function Calls**



The screenshot shows the LotusScript IDE interface with the 'Search' tab active. The search results for 'declare function' are displayed in the left pane, showing 379 matches in the workspace. The results are organized into a tree structure under 'config_dev.nsf [panagenda\config_dev.nsf]':

- Code
 - ScriptLibraries
 - Clipboard.Iss (5 matches)
 - 8: Declare Function getNDLDataWDUIDFromClipboard(t_replicaid As String, t_serverhint As String, t_duid As String, t_error As String) As Boolean
 - 9: Declare Function setClipboardText(pstrText As String) As Boolean
 - 10: Declare Function MyLeftToStringClipboard(t_string As String, t_searchstring As String) As String
 - 11: Declare Function getClipboardText(pblnClearClipboard As Boolean, pstrTextOut As String) As Boolean
 - 12: Declare Function getNDLDataFromClipboard(t_replicaid As String, t_serverhint As String, t_error As String) As Boolean
 - Const.Iss (6 matches)
 - DOMUtils.Iss (10 matches)
 - DesignUtilities.Iss (6 matches)
 - EmbeddedImage.Iss
 - Groups.Iss (2 matches)
 - IconTools.Iss (10 matches)
 - 13: Declare Function MyGetDatabaseRTF(t_server As String, t_filepath As String) As notesdatabase
 - 15: Declare Function getBase64IconData(db As notesdatabase) As String
 - 16: Declare Function MyGetHighColorIcon(doc As NotesDocument, db As NotesDatabase, flg_mode As integer) As String
 - 47: Declare Function W32_NSFFitemInfo Lib LIB_W32 Alias "NSFFitemInfo" (Byval hNT As Long, Byval N As LMBCS String, Byval nN As Integer, iB As BlockID, D As Integer, vB As BlockID, nV As Long) As Integer
 - 48: Declare Function W64_NSFFitemInfo Lib LIB_W32 Alias "NSFFitemInfo" (Byval hNT As Long, Byval N As LMBCS String, Byval nN As Integer, iB As BlockID64, D As Integer, vB As BlockID64, nV As Long) As Integer
 - 49: Declare Function AIX_NSFFitemInfo Lib LIB_AIX Alias "NSFFitemInfo" (Byval hNT As Long, Byval N As LMBCS String, Byval nN As Integer, iB As BlockID, D As Integer, vB As BlockID, nV As Long) As Integer

A 'Progress Information' dialog box is open on the right, showing the search progress. It includes a progress bar, a status message 'Searching for pattern 'declare function'...', and a button 'Run in Background'.



ApplicationsTM

<https://www.panagenda.com/idna-applications/>

LotusScript Code (cont.)

 Applications™

Overview

Catalog

Usage

Design

Custom Insights

Manage

Code Search

Custom Content

 Open DataMiner

 Open Metabase


Imprint | Contact | Version 2.3.0

Search...

Code Search

(?im)((\|\\|")win[A-Z\\-\\2-6]*(\|\\|")

☐ Text Search

☐ Whole word only

☒ Regular Expression

Regular Expression. Examples: **Simple:** dblookup **Multi-Option:** db(lookuplexists) **With modifiers:** (?iw)(dbccolumn)

6 "Windows/32"
"Windows/64"

6 "Windows/32"

6 "Windows/32"

6 "Windows/32"

6 "Windows/32"

6 "Windows"

6 "windows/32"

6 "Windows/32"

6 "Windows/32"

6 "windows/32"

6 "Windows"

6 "Windows"

6 "Windows"

6 "windows"

6 "windows"

6 "windows"

1 Function getPath(strPath As String) As String

2 Select Case Lcase(session.platform)

3 Case "windows/32":

4 getFilePath=Strleftback(strPath,"\\")

5 Case "macintosh":

6 getFilePath=Strleftback(strPath,"/")

7 Case "unix":

8 getFilePath=Strleftback(strPath,"/")

9 Case "linux":

10 getFilePath=Strleftback(strPath,"/")

11 End Select

12 End Function

13

Showing top 25 databases by number of matches

Export all databases as [Excel](#) or [CSV](#) file.

Blog80

test/stdapps/blog80.nsf on 

Script Library : [DXNotesUILibrary](#)

Code element : n/a

Blog85

test/stdapps/blog85.nsf on 

Script Library : [DXNotesUILibrary](#)

Code element : n/a

Blog9

test/stdapps/blog9.nsf on 

Script Library : [DXNotesUILibrary](#)

Code element : n/a



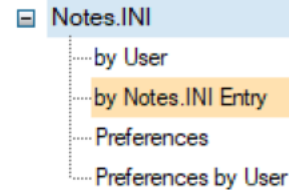
Third-party add-in dependencies

3rd Party products

- **Notes.ini**

- EXTMGR_Addins=...
- NSF_HOOKS=...
- AddinMenu=...

MarvelClient Analyze

A screenshot of the MarvelClient Analyze tool interface. It shows a tree view of the Notes.INI file. The "Notes.INI" file is selected and expanded, showing its contents: "by User", "by Notes.INI Entry" (highlighted in orange), "Preferences", and "Preferences by User".

```
Notes.INI
├── by User
├── by Notes.INI Entry
├── Preferences
└── Preferences by User
```

- **Examples**

- Panagenda Marvel Client Essentials and licensed: since GA/12.0.53
 - Templates > 20220930 ; MarvelClient Upgrade since 12.0.32
 - Ytria EZ Suite since V20
 - Teamstudio Developer Tools 64-bit Beta currently ongoing
 - Adobe? Salesforce? SAP? ~~McAfee? Symantec?~~

Last but not least ...

- **MarvelClient Upgrade will remain in 32bit architecture (for now)**
 - But of course it also works for 64-bit upgrade project and WITH/INSIDE a Notes 64-Bit client
- **MCSupportHelper: New Version available → 4.0.1**
 - <https://www.panagenda.com/kbase/pages/viewpage.action?pageId=55247160>

DANKE!



Ihre Meinung ist uns wichtig!



SCAN ME

Umfrage in Englischer Sprache