

# **Notes/Domino 14.5** **Shedding Light on the New Release**

June 17<sup>th</sup>, 2025




# Host & Speaker



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# Before We Start



## All attendee lines are muted

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## Please submit questions via the Chat or Q&A panel

Your questions will be addressed directly during the webinar or in the Q&A section after the presentation.



## The webinar is being recorded

After the webinar, we will send you a mail to give access to the recording and presentation slides.



## Share your feedback with us

Use the link provided at the end to let us know what we can do better.

# Agenda

- **What's New in Notes 14.5**
- **Upgrades to 14.5 (including initial Installs)**
- **Performance**
- **Workspace Tips & Tricks**
- **Q & A**





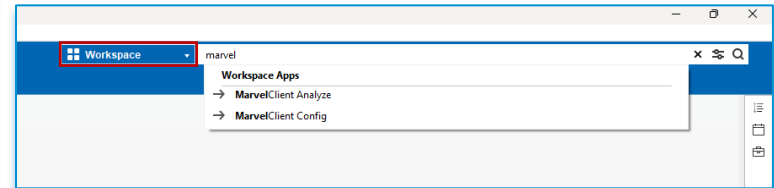
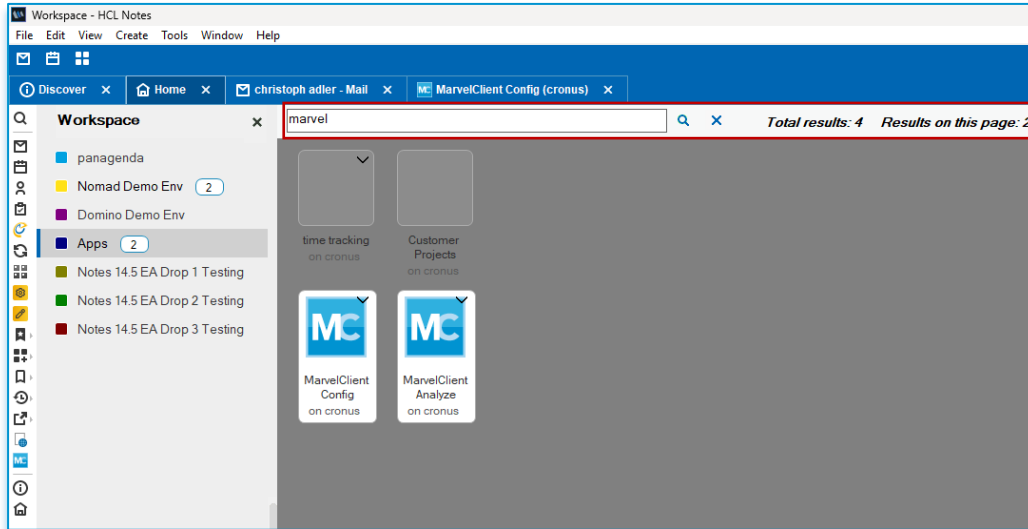
## What's New in Notes 14.5

- Calendar improvements
  - **Manage security for integrated online meetings**  
You can manage security settings for Teams, GoTo Meeting, WebEx, Zoom, and Sametime meetings from your Notes Calendar invitations.
  - **Increased size limit for descriptions in external meeting invitations**  
Previously, for meetings having one or more invitees from outside the organization, the size of any content on the invitation's Description tab was restricted to a total of 40 KB. In Notes 14.5 this is increased to 1 MB.

- Support for Sametime Web Chat/PWA
  - HCL Notes 14.5 introduces a new Sametime client option: "Enable Web Chat/Progressive Web Application (PWA)."
- iNotes deprecation
  - With the release of Notes 14.5, access to the iNotes user interface is being removed.
- Restyle enhancement
  - Create a new application with fundamental components such as a view, form, and action bars created automatically.

# What's New in HCL Notes 14.5

- Workspace improvement
  - Now you can easily search the Notes applications on your workspace - either right from the workspace or from the **Notes** search center.





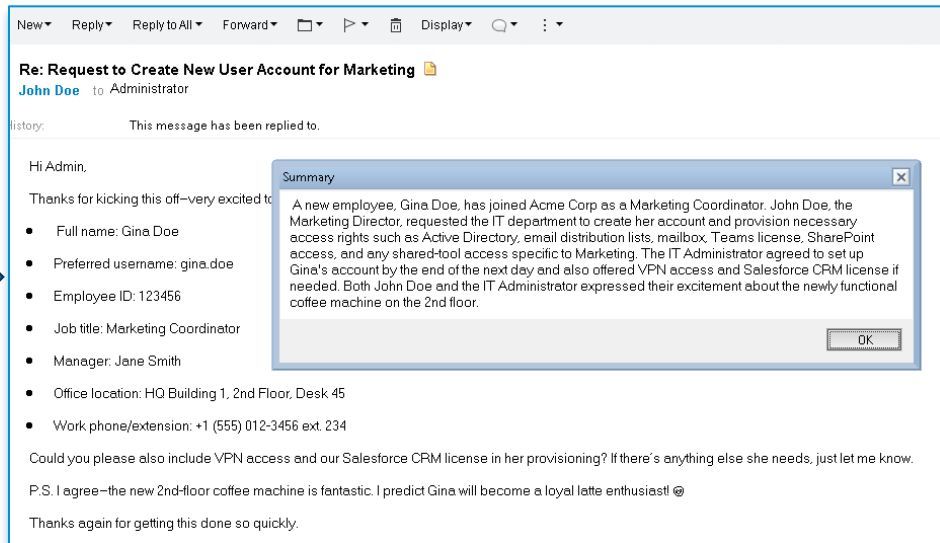
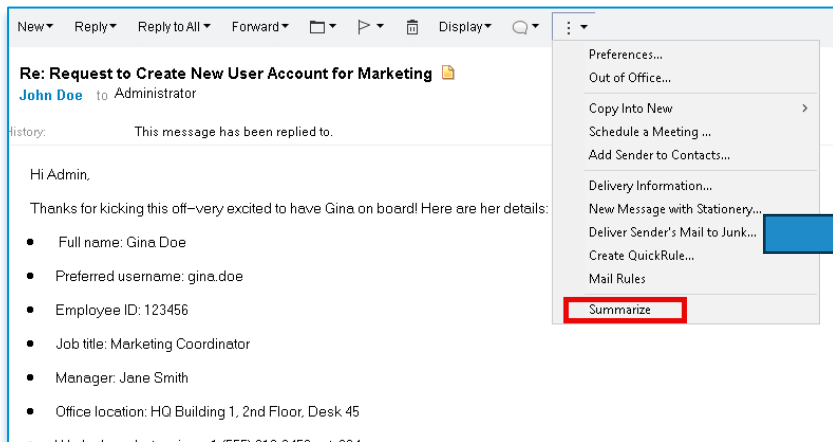
- General enhancements
  - **JVM upgrade**
    - The target platform for Notes/Domino jar files is set to 1.8. That means they can be used with any JVM that supports a target release of 1.8 or above.
    - JVM has been upgraded to Java 21 LTS
  - **Eclipse upgrade**
    - Standard Notes, Domino Administrator, Domino Designer, and XPages are upgraded from Eclipse 4.22 to 4.30.

- General enhancements
  - **XULRunner upgrade**  
The embedded web browser XULRunner, which Notes uses to ensure secure signin with Notes federated login and to render external emails in Notes for Mac, is upgraded from version 43 to 45.
  - **InstallShield upgrade**  
The Notes client for Windows now uses InstallShield 2023 R1.
  - **Modern JavaScript support for Notes Federated Login**  
To show the initial login screen with Single Sign-On in Notes/Domino, the Notes client now uses Microsoft Edge instead of Xulrunner to support modern JavaScript.

- General enhancements
  - **64-bit Notes Basic client available**
    - Available again in Notes 14.5 is the ability to run the Notes client in Basic mode. The shortcut for the program must be amended to include a "-sa" switch.
    - The administrator must edit the target in the client's Shortcut properties and then provide the shortcut to the user. The target to use to launch a Standard client in Basic mode is as follows: `notes.exe -sa`
    - This 64-bit 14.5 Basic client has no feature loss when compared to the 12.0.x Basic client and is available in the same languages as were available in that client.

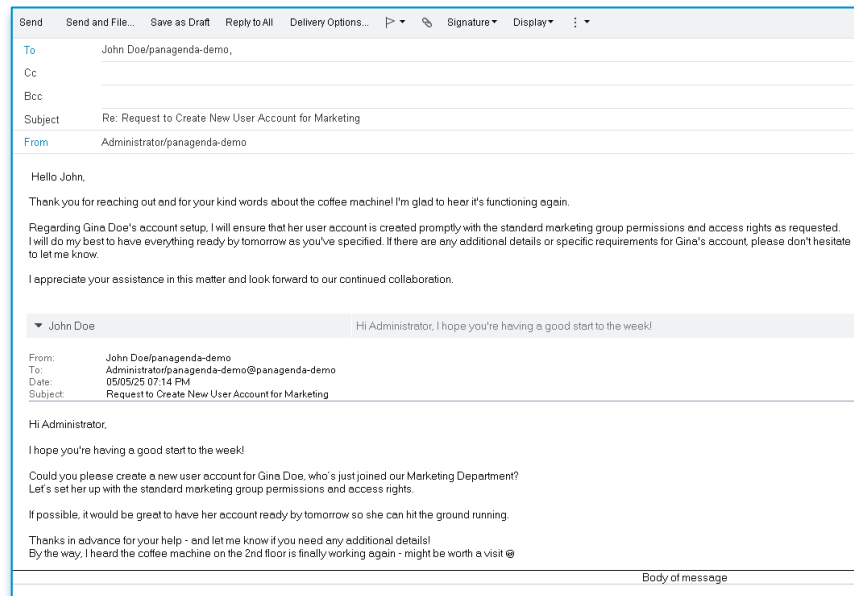
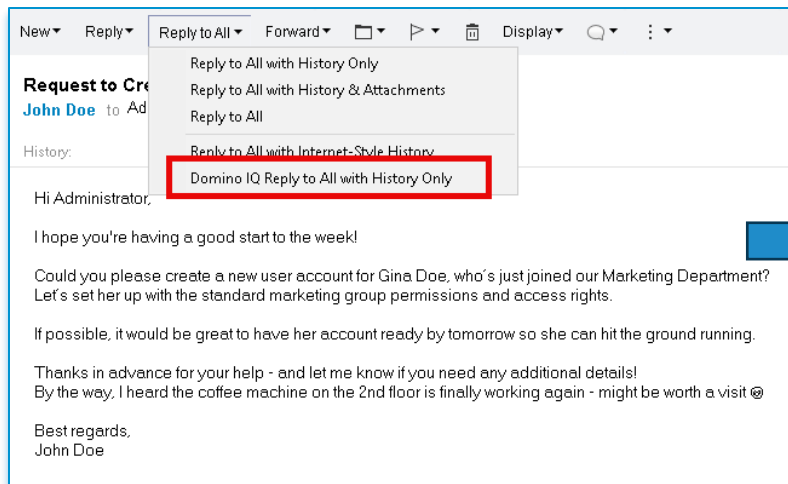
# What's New in HCL Notes 14.5

- Mail improvements
  - Summarize Email with Domino IQ
    - You can quickly summarize an entire email thread using Domino IQ.



# What's New in HCL Notes 14.5

- Mail improvements
  - Suggested response to an email
    - You can reply to someone's email by using the Domino IQ.



# What's New in HCL Notes 14.5

- Components no longer included in Notes 14.5
  - **Notes on a USB stick**
    - That was the nomad.exe 😊

# Upgrades to 14.5



Upgrade Your Time

# Why are we still talking about Notes Upgrades?



# Stay current with (security) updates

## Current available and supported releases

- **HCL Notes 14.0 FP4 (April 2025) – 64-bit only**
  - Next version → 14.0 FP5 (date tba)
  - No EOS defined yet
- **HCL Notes 12.0.2 FP6 (March 2025) – 32 and 64-bit**
  - Next version → 12.0.2 FP7 (date tba)
  - No EOS defined yet
- **HCL Notes 11.0.1 FP9 Interim Fix 1 (February 2025) – 32-bit only**
  - Next version → not planned
  - EOS announced for June 26<sup>th</sup>, 2025 (Extended Support End Date June 26<sup>th</sup>, 2026)

# HCL Notes Product Lifecycle

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## Product Lifecycle

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<input type="checkbox"/> Select All	Product Name ▾	Ver. ▾	Category ▾	Policy Type ▾	Availability ▾	End of Support ▾	End of Extended Support ▾	More Info ▾
<input type="checkbox"/>	HCL Notes	14.0.x	Sovereign Collaboration	S	12/07/2023			
<input type="checkbox"/>	HCL Notes	12.0.x	Sovereign Collaboration	S	05/27/2021			
<input type="checkbox"/>	HCL Notes	11.0.x	Sovereign Collaboration	S	12/20/2019	06/26/2025		<a href="#">EOS More Info</a>
<input type="checkbox"/>	Notes	10.0.x	Sovereign Collaboration	E	10/10/2018	06/01/2024		<a href="#">More Info</a>
<input type="checkbox"/>	Notes	9.0.x	Sovereign Collaboration	E	04/12/2013	06/01/2024		<a href="#">More Info</a>

# Notes 14.5 is available now here:

<https://my.hcltechsw.com/downloads/domino/notes/14.5>

# Notes/Domino 14.5



# **Let's talk about the HCL Notes Client Upgrade Challenges**

## Package creation and standardization

- Initial install vs. upgrade
- Uninstall included vs. install-only (and maybe separate uninstall package)
- Re-Installs and/or In-place upgrades
- One vs. multiple packages
  - Laptops, Desktops, Citrix, WTS and/or VDI
  - Localized packages (languages)
- Command lines and parameters/switches
- Installation order
- (32-bit vs.) **64-bit**
- Single- vs. **Multi-user**
- **Standard** vs. Basic
- **Client only** vs. Admin- & Designer client

## Package deployment

- Onsite/Inhouse Vs. Remote workers (with or without VPN)

## Execution trigger

- Notes internal solutions → **AUT**, **Smart Upgrade**
- Notes client management solution → **MarvelClient Upgrade (incl. FREE25)**
- Software deployment solution
- GPO (Group Policy Object) / Logon script
- Manually

## Notes Client preparation/optimization

- Windows Services
- Security Software
- ODS (solved)
- Stub notes.ini
- Config file

## Migration → IBM to HCL and/or 32 to 64-bit

- Data folder
- SharedData folder
- Program folder
- notes.ini (not only the file location, but also the values)
- ...



# **HCL Notes 14.5**

## **Initial Install & Upgrade Package**

**Let's assume you want to Upgrade from Notes 12.0.2 FP4 to the following:**

- HCL Notes 14.5
- MultiUser Install
- Languages: Czech, Dutch, English, French and Spanish
- Default paths for

**Program directory**

C:\Program Files\HCL\Notes

**Shared data directory**

C:\ProgramData\HCL\Notes\Data\shared

**Data directory**

C:\Users\%USERNAME%\AppData\Local\HCL\Notes\Data

## **No need to make changes to MSI package(s)**

- Scripts can help here (or a good Notes Upgrade solution)
- Differentiation between package and configuration (notes.ini, ConfigFile, etc.)
- That will help you a lot when it comes to package changes, new versions and testing

## **Always include an Uninstall part in your package**

- In-place upgrades are not recommended!
- You can use the package also in cases of an initial- or re-install

## Execution order (1)

### a) Kill all possible Notes processes (and more)

- notes.exe ; nlnotes.exe ; notes2.exe ; ntaskldr.exe ; designer.exe ; admin.exe ; nhttp.exe ; sametime75.exe ; nminder.exe ; soffice.bin ; soffice.exe ; nsd.exe ; notesmm.exe ; nnotesmm.exe ; ccmexec.exe

### b) Stop all possible Notes services (and more)

- HCLAUTService ; IBMAUTService ; HCLNotesSingleLogon ; IBMNotesSingleLogon ; LotusNotesSingleLogon ; Multi-userCleanupService ; IBMNotesDiagnostics ; LotusNotesDiagnostics ; LNSUSvc ; wuauserv ; SMSAgentHost ; IntuneManagementExtension

### c) Remove all possible Notes shortcuts pointing to

- nlnotes.exe ; notes.exe ; admin.exe ; designer.exe

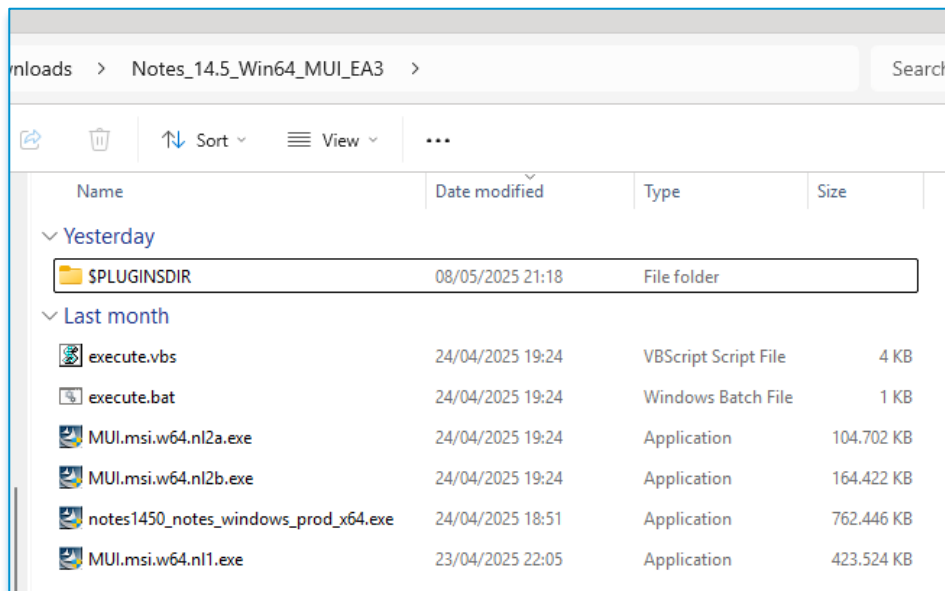
## Execution order (2)

- d) Uninstall current Notes version by using both nice64.exe & nice.exe
  - Notes\_14.5\_Win64\_English\Utility\NotesCustomizationKit\_1\_0.zip\nice64.exe
  - Notes\_12.0.2\_Win\_English\Utility\NotesCustomizationKit\_1\_0.zip\nice.exe
  
- e) Migrate Data folder (if needed)
  - Target: %LocalAppData%\HCL\Notes\Data
  
- f) Run local cleanup
  - (old) Registry
  - Folders → (old) Program & (old) Shared Data

## Execution order (3)

- g) Install Notes 14.5 (English)
- h) Install Languages
  - MUI.msi.w64.nl1 → French, Spanish
  - MUI.msi.w64.nl2a → Dutch
  - MUI.msi.w64.nl2b → Czech
- i) Copy customized files like stub notes.ini, ConfigFile, etc.

# Always uncompress the MUI pack



The screenshot shows a Windows File Explorer window with the address bar set to 'Downloads > Notes\_14.5\_Win64\_MUI\_EA3 >'. The toolbar includes icons for sharing, deleting, sorting, viewing, and a menu. The file list is organized by date, with sections for 'Yesterday' and 'Last month'. The 'Yesterday' section contains a folder named '\$PLUGINS\_DIR' modified on 08/05/2025 at 21:18. The 'Last month' section contains several files modified on 24/04/2025 and 23/04/2025.

Name	Date modified	Type	Size
▼ Yesterday			
📁 \$PLUGINS_DIR	08/05/2025 21:18	File folder	
▼ Last month			
📄 execute.vbs	24/04/2025 19:24	VBScript Script File	4 KB
📄 execute.bat	24/04/2025 19:24	Windows Batch File	1 KB
📄 MUI.msi.w64.nl2a.exe	24/04/2025 19:24	Application	104.702 KB
📄 MUI.msi.w64.nl2b.exe	24/04/2025 19:24	Application	164.422 KB
📄 notes1450_notes_windows_prod_x64.exe	24/04/2025 18:51	Application	762.446 KB
📄 MUI.msi.w64.nl1.exe	23/04/2025 22:05	Application	423.524 KB

# Create Notes Upgrade Package – Command lines

- Kill Processes & Stop Services

```
Taskkill /IM "notes.exe"  
Taskkill /IM "nlnotes.exe"  
Taskkill /IM "notes2.exe"  
Taskkill /IM "ntaskldr.exe"  
Taskkill /IM "nsd.exe"  
Taskkill /IM "notesmm.exe"  
Taskkill /IM "nnotesmm.exe"  
Taskkill /IM "designer.exe"  
Taskkill /IM "admin.exe"  
Taskkill /IM "nhttp.exe"  
Taskkill /IM "sametime75.exe"  
Taskkill /IM "nminder.exe"  
Taskkill /IM "soffice.bin"  
Taskkill /IM "soffice.exe"
```

```
net stop "HCLAUTService"  
net stop "IBMAUTService"  
net stop "HCLNotesSingleLogon"  
net stop "IBMNotesSingleLogon"  
net stop "LotusNotesSingleLogon"  
net stop "Multi-userCleanupService"  
net stop "IBMNotesDiagnostics"  
net stop "LotusNotesDiagnostics"  
net stop "LNSUSvc"  
net stop "wuauerv"  
net stop "SMSAgentHost"  
net stop "IntuneManagementExtension"
```



# Create Notes Upgrade Package – Command lines

- Uninstall & Cleanup

```
reg delete HKEY_LOCAL_MACHINE\Software\Wow6432Node\Lotus /f
reg delete HKEY_LOCAL_MACHINE\Software\Lotus /f
reg delete HKEY_LOCAL_MACHINE\Software\HCL /f
C:\Install\nice.exe -rp -qn -wipe
C:\Install\nice64.exe -rp -qn -wipe
rmdir "C:\Program Files (x86)\IBM\Lotus" /s/q
rmdir "C:\Program Files (x86)\IBM\Notes" /s/q
rmdir "C:\Program Files (x86)\IBM\HCL" /s/q
rmdir "C:\Program Files\HCL" /s/q
rmdir "C:\ProgramData\Lotus" /s/q
rmdir "C:\ProgramData\IBM\Notes" /s/q
rmdir "C:\ProgramData\IBM\JVMPatcher" /s/q
rmdir "C:\ProgramData\HCL" /s/q
```

# Create Notes Upgrade Package – Command lines

- Installation(s)

```
C:\Install\notes1450_notes_windows_prod_x64.exe -s -a /s /v"SETMULTIUSER=1 ADDFEATURES=Dictionaries REBOOT=REALLYSUPPRESS /qn /lime "C:\Install\notes1450_notes_windows_prod_x64.log""  
C:\Install\MUI.msi.w64.nl1.exe -s -a /s /v"ADDLOCAL=French,Spanish REBOOT=REALLYSUPPRESS /qn /lime "C:\Install\MUI.msi.w64.nl1.log""  
C:\Install\MUI.msi.w64.nl2a.exe -s -a /s /v"ADDLOCAL=Dutch REBOOT=REALLYSUPPRESS /qn /lime "C:\Install\MUI.msi.w64.nl2a.log""  
C:\Install\MUI.msi.w64.nl2b.exe -s -a /s /v"ADDLOCAL=Czech REBOOT=REALLYSUPPRESS /qn /lime "C:\Install\MUI.msi.w64.nl2b.log""
```

- Customized Files

```
copy /Y "C:\Install\Customized_Files\notes.ini" "C:\ProgramData\HCL\Notes\Data\notes.ini"  
copy /Y "C:\Install\Customized_Files\config.txt" "C:\ProgramData\HCL\Notes\Data\config.txt"
```

# Create Notes Upgrade Package – MSI .log files

Check ALL log files (created during installation) for errors

## – Successful

```
MSI (s) (B8:68) [22:13:14:894]: Product: HCL Notes 14.5 x64 -- Installation operation completed successfully.  
MSI (s) (B8:68) [22:13:14:894]: Windows Installer installed the product. Product Name: HCL Notes 14.5 x64.  
Product Version: 14.50.24240. Product Language: 1033. Manufacturer: HCL. Installation success or error status: 0.  
=== Logging stopped: 08/05/2025 22:13:14 ===
```

## – Not successful (with errors)

```
MSI (s) (B8:68) [22:42:33:894]: Product: HCL Notes 14.5 x64 -- Installation operation failed.  
MSI (s) (B8:68) [22:42:33:894]: Windows Installer installed the product. Product Name: HCL Notes 14.5 x64.  
Product Version: 14.50.24240. Product Language: 1033. Manufacturer: HCL. Installation success or error status: 1603.  
=== Logging stopped: 08/05/2025 22:42:33 ===
```

# Create Notes Upgrade Package – MSI .log files

- Customized stub notes.ini (example)

```
[Notes]
KitType=1
SharedDataDirectory=c:\ProgramData\HCL\Notes\Data\Shared
InstallType=6
InstallMode=1
NotesProgram=c:\Program Files\HCL\Notes\
ConfigFile=%ProgramData%\HCL\Notes\Data\setup.txt
FailoverSilent=1
HidePromptFailoverInc=1
OS_DisableMMapFileCopy=1
Ports=TCPIP
TCPIP=TCP,0,15,0,,12320,
Create_R12_Databases=1
```

- Config file → config.txt (example)

```
USERNAME=%USERNAME%
Domino.Name=server/acme
Domino.Address=server.acme.local
Domino.Port=TCPIP
Domino.Server=1
AdditionalServices=-1
```

- notes.ini changes for existing configurations  
(via [MarvelClient Essentials](#) or Domino Policy)
  - Remove CREATE\_R85\_DATABASES=1
  - Remove CREATE\_R9\_DATABASES=1
  - Remove CREATE\_R10\_DATABASES=1
  - Add CREATE\_R12\_DATABASES=1
  - ~~Add NSF\_UpdateODS=1~~

OR

- NSF\_AlwaysUpdateODS=0

## Add Exclusions for Security Software & DEP

- C:\Program Files\HCL\Notes
- C:\ProgramData\HCL\Notes\Data
- C:\Users\\*\AppData\Local\HCL\Notes\Data

## If AppBlocker(s) are available

- Ensure all Notes executables / folders are whitelisted

# Test → Pilot → Production

## Test

- Try to use virtual machines with snapshots
- Use production configuration images
  - Desktops vs. Laptops vs. VDI
  - ActiveDirectory → GPOs (Group Policy Objects)
  - No local admin user rights
  - Enabled UAC (User Account Control)
  - Installed Security Software
  - ...

# Test → Pilot → Production

## Pilot

- Choose the members of the pilot group wisely and let them know about it
- 20 – 50 users from different departments and with different requirements on HCL Notes

## Production Deployment

- Inform your ServiceDesk and your users before you push the button
- Balance your deployment by upgrading e. g. 100-500 users at the same time – not more



# Upgrade solution(s) Comparison

# Upgrade Solutions Comparison

Feature	Smart Upgrade	Notes Auto Update	InstallShield Tuner	Software Deployment	MarvelClient Upgrade
Easy to configure	✗	✗	✗	✗	✓
100% flexible customization	✗	✗	Limited	Very costly	✓
Upgrade as local Admin	✗	✗	✗	✓	✓
Upgrade as Domain Admin	✗	✗	✗	✓	✓
Upgrade via Service	✓	✓	✗	✓	✓
Windows UAC support	✗	✗	✗	Depends on solution	✓
Clean and safe with uninstall	✗	✗	✗	✓	✓
Any2any Upgrades in one single step	✗	✗	✗	✓	✓
„Knows Notes“ notes.ini, Names.nsf, ...	✗	✗	✗	✗	✓

# Upgrade Solutions Comparison

Feature	Smart Upgrade	Notes Auto Update	InstallShield Tuner	Software Deployment	MarvelClient Upgrade
Initial configuration for end users	✗	✗	✓	✓	✓
Without scripts / programming	✓	Limited	✗	✗	✓
Change of ALL folder locations	✗	✗	✗	✗	✓
Fastest possible upgrades	✗	✗	✗	✗	✓
Users can choose when to upgrade	✓	✓	✗	✓	✓
Upgrades without data loss	✓	✓	✓	✓	✓
Home office/remote worker package distribution	✗	✗	✗	Depends on solution	✓
Customizable design	✗	✗	✗	✗	✓

# Upgrade Solutions Comparison

Feature	Smart Upgrade	Notes Auto Update	InstallShield Tuner	Software Deployment	MarvelClient Upgrade
Customizable text, graphics and languages	✗	✗	✗	✗	✓
Citrix, WTS and VDI upgrades	✗	✗	✓	✓	✓
Citrix, WTS and VDI optimization	✗	✗	✗	✗	✓
Plugin Cleanup	✗	✗	✗	✗	✓
Success Reporting and Monitoring	Only if successful	Only if successful	✗	✓	✓

The (only) **Solution**



**MarvelClient Upgrade**

**Experience all the premium  
features of MarvelClient  
Upgrade on 25 PCs for FREE.**

You'll get:

- A license key
- Unrestricted use on 25 computers\*
- Instant access to MarvelClient Upgrade
- Access to our knowledge base

\* The 25 computers require internet access  
for automatic licenses checkout.

**Upgrade Now >**



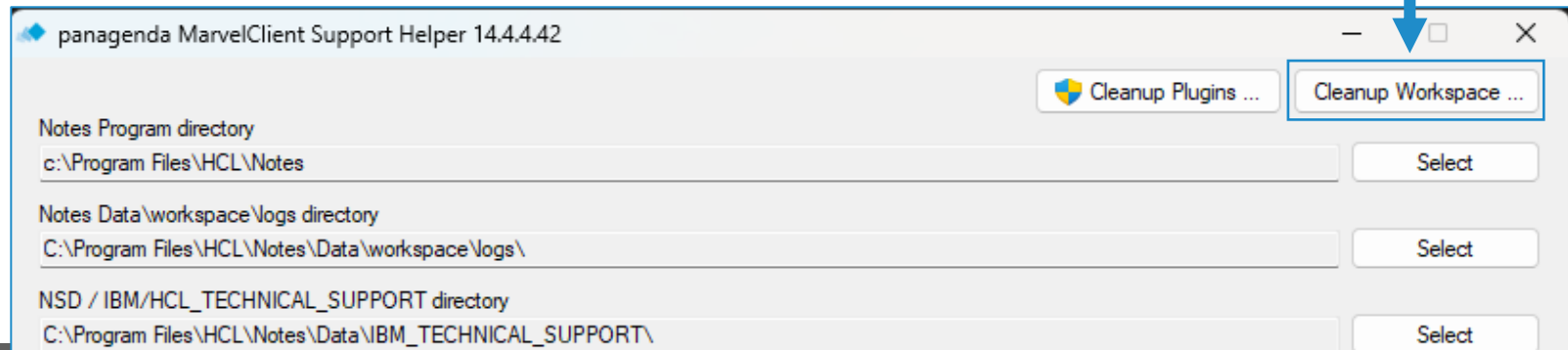
# Performance



Upgrade Your Time

# Workspace Cleanup

- This is more of a reminder, blending in with the next story
- **Building the NotesData\workspace folder is an expensive operation** when launching a client → Citrix/WTS/(non-persistent) VDI
- To address this, MarvelClient Upgrade can **prepare an optimized workspace image** in SharedData\Common
- Significantly reduces client startup time and disk load
- On demand cleanup included for FREE in latest MCSupportHelper





**Would you wait for 14.5 FP1  
before you deploy Notes to your users?**

```
<extendedDataElements name="CommonBaseEventLogRecord:Exception" type="string">
```

```
<values>org.osgi.framework.BundleException: Could not resolve module: org.eclipse.core.jobs [41]&#xA;
```

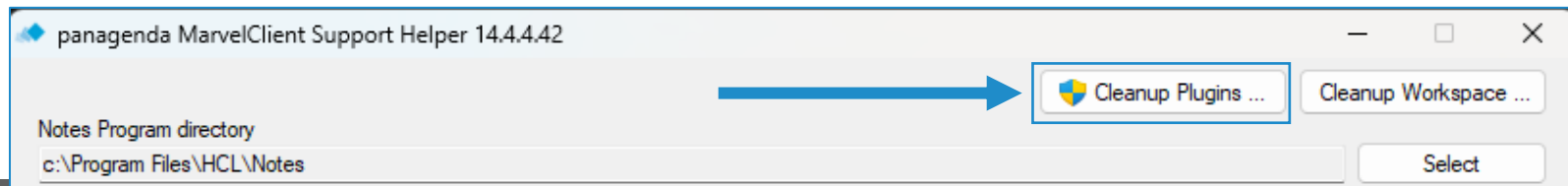
```
Another singleton bundle selected: osgi.identity; type=&quot;osgi.bundle&quot;;
```

```
version:Version=&quot;3.12.1.20241021-0835&quot;; osgi.identity=&quot;org.eclipse.core.jobs&quot;; singleton:=&quot;true&quot;&#xA;&#xD;&#xA;&#xA;&#x9;at  
org.eclipse.osgi.container.Module.start(Unknown Source)&#xD;&#xA;&#xA;&#x9;at org.eclipse.osgi.container.ModuleContainer$ContainerStartLevel.lambda$1(Unknown  
Source)&#xD;&#xA;&#xA;&#x9;at org.eclipse.osgi.container.ModuleContainer$ContainerStartLevel.incStartLevel(Unknown Source)&#xD;&#xA;&#xA;&#x9;at  
org.eclipse.osgi.container.ModuleContainer$ContainerStartLevel.incStartLevel(Unknown Source)&#xD;&#xA;&#xA;&#x9;at  
org.eclipse.osgi.container.ModuleContainer$ContainerStartLevel.doContainerStartLevel(Unknown Source)&#xD;&#xA;&#xA;&#x9;at  
org.eclipse.osgi.container.ModuleContainer$ContainerStartLevel.dispatchEvent(Unknown Source)&#xD;&#xA;&#xA;&#x9;at  
org.eclipse.osgi.container.ModuleContainer$ContainerStartLevel.dispatchEve</values>  
<values>nt(Unknown Source)&#xD;&#xA;&#xA;&#x9;at org.eclipse.osgi.framework.eventmgr.EventManager.dispatchEvent(Unknown Source)&#xD;&#xA;&#xA;&#x9;at  
org.eclipse.osgi.framework.eventmgr.EventManager$EventThread.run(Unknown Source)&#xD;&#xA;</values></extendedDataElements>
```



- ... Magic ... (= “remove all duplicate plugins”, but turned out a lot more complicated)
- Notes 14x64 FP4

Result: 73.9 MB volume saved, 137 folders, and 1.760 files

**In addition to  
workspace cleanup  
savings**



## Notes 14.0 FP4

Name	Type	Size
 ORIGINAL_error-log-0.xml	XML File	252 KB
 WITH_PluginCleanup_error-log-0.xml	XML File	21 KB

~1.800 vs. <200 lines

# Plugin Cleanup Normal\* Client Savings: Cold Start

Process	CPU	Private Bytes	Working Set	PID	I/O Reads	I/O Writes	I/O Read Bytes	I/O Write Bytes	I/O Other	I/O Other Bytes	Handles	CPU Time	Threads	Cycles
ninotes.exe	< 0.01	74.800 K	125.664 K	976	4.096	2.746	16.5 MB	5.5 MB	12.574	283.2 KB	733	0:00:02.734	23	10.422.348.316
notes2.exe	< 0.01	720.420 K	259.656 K	2748	39.177	777	90.3 MB	2.3 MB	61.376	2.1 MB	1.126	0:00:12.484	60	46.056.466.187
ntaskldr.exe	< 0.01	43.708 K	17.556 K	11044	1.016	79	3.2 MB	64.7 KB	1.944	74.1 KB	326	0:00:00.250	10	837.426.166

Process	CPU	Private Bytes	Working Set	PID	I/O Reads	I/O Writes	I/O Read Bytes	I/O Write Bytes	I/O Other	I/O Other Bytes	Handles	CPU Time	Threads	Cycles
ninotes.exe	0.38	70.652 K	121.732 K	3612	4.041	2.478	16.2 MB	4.5 MB	12.293	274.1 KB	731	0:00:02.515	22	10.052.597.528
notes2.exe	< 0.01	717.492 K	232.712 K	4900	26.789	523	60.5 MB	320.5 KB	36.928	1.5 MB	1.157	0:00:11.031	61	38.964.613.937
ntaskldr.exe	< 0.01	44.224 K	17.512 K	4996	1.015	79	3.2 MB	66.3 KB	1.916	73.1 KB	332	0:00:00.234	10	809.878.234

Metric	Original	Optimized	Savings #	Savings %
Private Bytes (MB)	720,4	717,5	3,0	< 1%
Working Set (MB)	259,6	232,7	26,9	10%
I/O Reads (K)	39,1	26,8	12,3	31%
I/O Writes (K)	0,7	0,5	0,2	32%
I/O Read Bytes (MB)	90,3	60,5	29,8	33%
I/O Write Bytes (MB)	2,3	0,3	2,0	86%
I/O Other (K)	61,3	41,3	20,0	32%
I/O Other Bytes (MB)	2,1	1,9	0,2	9%
CPU Time (sec)	12,48	11,03	1,45	10%
CPU Cycles (M)	46,05	38,96	7,09	15%

\* Actually, more a  
Dev/Admin Client  
with various plugins

# Plugin Cleanup Normal\* Client Savings: 6+ Warm start

Process	CPU	Private Bytes	Working Set	PID	I/O Reads	I/O Writes	I/O Read Bytes	I/O Write Bytes	I/O Other	I/O Other Bytes	Handles	CPU Time	Threads	Cycles
nlnotes.exe	0.37	69.784 K	116.348 K	8536	3.500	1.957	11.8 MB	3.7 MB	10.049	232.0 KB	650	0:00:01.937	21	7.872.689.771
notes2.exe	< 0.01	713.768 K	218.832 K	10400	27.459	535	63.2 MB	602.4 KB	37.330	1.5 MB	1.154	0:00:09.718	63	36.038.726.892
ntaskldr.exe	< 0.01	42.824 K	10.060 K	1720	580	47	2.8 MB	5.8 KB	1.150	44.7 KB	292	0:00:00.140	7	544.698.684

Process	CPU	Private Bytes	Working Set	PID	I/O Reads	I/O Writes	I/O Read Bytes	I/O Write Bytes	I/O Other	I/O Other Bytes	Handles	CPU Time	Threads	Cycles
nlnotes.exe	< 0.01	70.308 K	116.540 K	5608	3.507	1.963	11.8 MB	3.7 MB	10.060	233.8 KB	649	0:00:01.859	21	7.440.107.991
notes2.exe	< 0.01	713.488 K	216.112 K	3016	26.538	445	59.9 MB	291.2 KB	35.824	1.4 MB	1.109	0:00:09.140	61	34.057.498.792
ntaskldr.exe	< 0.01	43.728 K	12.608 K	8472	589	51	2.9 MB	6.9 KB	1.187	46.0 KB	291	0:00:00.140	9	600.752.512

Metric	Original	Optimized	Savings #	Savings %
Private Bytes (MB)	-	-	-	-
Working Set (MB)	-	-	-	-
I/O Reads (K)	27,4	26,6	0,9	3%
I/O Writes (K)	0,5	0,4	0,1	15%
I/O Read Bytes (MB)	63,2	59,9	3,3	5%
I/O Write Bytes (MB)	0,6	0,3	0,3	50%
I/O Other (K)	37,3	36,0	1,3	3%
I/O Other Bytes (MB)	1,5	1,4	0,1	5%
CPU Time (sec)	9,72	9,14	0,58	5%
CPU Cycles (M)	36,04	34,06	1,98	5%

\* Actually, more a Dev/Admin Client with various plugins

# Plugin Cleanup Citrix Savings: Setup Start

Process	CPU	Private Bytes	Working Set	PID	I/O Reads	I/O Writes	I/O Read Bytes	I/O Write Bytes	I/O Other	I/O Other Bytes	Handles	CPU Time	Threads	Cycles
nlnotes.exe	1.87	58.816 K	114.404 K	2464	8.577	12.137	36.0 MB	65.0 MB	27.330	768.0 KB	653	0:00:03.015	18	9.621.538.744
notes2.exe	10.86	792.868 K	460.656 K	2324	44.157	20.980	116.9 MB	28.9 MB	79.072	1.7 MB	1.431	0:00:15.593	97	47.537.879.440
Process	CPU	Private Bytes	Working Set	PID	I/O Reads	I/O Writes	I/O Read Bytes	I/O Write Bytes	I/O Other	I/O Other Bytes	Handles	CPU Time	Threads	Cycles
nlnotes.exe	0.37	59.876 K	112.368 K	2788	8.787	11.994	36.1 MB	64.2 MB	41.264	1.1 MB	660	0:00:03.390	20	10.261.599.420
notes2.exe	10.62	772.900 K	437.980 K	2312	40.262	20.809	103.7 MB	26.3 MB	82.413	1.8 MB	1.371	0:00:09.953	92	31.790.430.693
Process	CPU	Private Bytes	Working Set	PID	I/O Reads	I/O Writes	I/O Read Bytes	I/O Write Bytes	I/O Other	I/O Other Bytes	Handles	CPU Time	Threads	Cycles
nlnotes.exe	0.76	59.380 K	112.236 K	6748	8.849	12.142	36.2 MB	65.0 MB	40.344	1.1 MB	667	0:00:03.468	21	10.354.074.276
notes2.exe	8.31	779.416 K	430.776 K	9700	38.527	20.428	99.0 MB	25.7 MB	76.497	1.7 MB	1.375	0:00:09.109	94	28.904.236.958

Metric	Original	Workspace Optim.	Savings %	Plugin Cleanup	Savings %	Total %
Private Bytes (MB)	792	772	5%	-	-	5%
Working Set (MB)	460	437	5%	430	1%	6%
I/O Reads (K)	44,1	40,2	8%	38,5	3%	12%
I/O Writes (K)	20,9	20,8	-	20,4	2%	2%
I/O Read Bytes (MB)	116,9	103,7	11%	99,0	4%	15%
I/O Write Bytes (MB)	28,9	26,3	9%	25,7	2%	11%
I/O Other (K)	79,0	82,4	-	76,5	3%	3%
I/O Other Bytes (MB)	-	-	-	-	-	-
CPU Time (sec)	15,59	9,95	36%	9,11	8%	41%
CPU Cycles (M)	47,54	31,79	33%	28,90	9%	39%

# Plugin Cleanup Citrix Savings: Roaming Start

Process	CPU	Private Bytes	Working Set	PID	I/O Reads	I/O Writes	I/O Read Bytes	I/O Write Bytes	I/O Other	I/O Other Bytes	Handles	CPU Time	Threads	Cycles
nlnotes.exe	0.73	57.132 K	114.712 K	5440	8.599	9.073	41.0 MB	69.7 MB	40.820	1.7 MB	668	0:00:02.953	20	9.635.797.058
notes2.exe	13.80	796.436 K	449.504 K	10168	43.083	18.964	113.8 MB	21.0 MB	76.204	1.6 MB	1.405	0:00:14.500	93	45.107.395.013
Process	CPU	Private Bytes	Working Set	PID	I/O Reads	I/O Writes	I/O Read Bytes	I/O Write Bytes	I/O Other	I/O Other Bytes	Handles	CPU Time	Threads	Cycles
nlnotes.exe	2.62	57.984 K	117.620 K	3876	8.442	9.015	40.8 MB	69.3 MB	52.780	2.0 MB	676	0:00:03.390	19	10.320.674.689
notes2.exe	7.85	759.488 K	418.456 K	6576	39.363	18.833	101.3 MB	18.4 MB	79.046	1.7 MB	1.329	0:00:09.718	89	30.208.158.031
Process	CPU	Private Bytes	Working Set	PID	I/O Reads	I/O Writes	I/O Read Bytes	I/O Write Bytes	I/O Other	I/O Other Bytes	Handles	CPU Time	Threads	Cycles
nlnotes.exe	1.11	58.376 K	114.988 K	9916	8.803	9.070	40.9 MB	69.7 MB	52.020	2.0 MB	669	0:00:03.484	21	10.238.254.945
notes2.exe	11.07	777.804 K	419.944 K	9164	37.778	18.479	96.7 MB	17.8 MB	75.049	1.6 MB	1.347	0:00:08.953	91	28.339.552.656

Metric	Original	Workspace Optim.	Savings %	Plugin Cleanup	Savings %	Total %
Private Bytes (MB)	796	759	4%	777	-	2%
Working Set (MB)	459	418	9%	419	-	9%
I/O Reads (K)	43,1	39,3	8%	37,8	4%	12%
I/O Writes (K)	18,9	18,8	-	18,4	2%	2%
I/O Read Bytes (MB)	113,8	101,3	11%	96,7	4%	15%
I/O Write Bytes (MB)	21,0	18,4	10%	17,8	4%	14%
I/O Other (K)	80,1	76,5	4%	72,0	6%	10%
I/O Other Bytes (MB)	-	-	-	-	-	-
CPU Time (sec)	14,50	9,72	33%	8,95	8%	38%
CPU Cycles (M)	45,11	30,21	33%	28,34	6%	37%

# Plugin Cleanup Citrix Savings: 1<sup>st</sup> Warm Start

Process	CPU	Private Bytes	Working Set	PID	I/O Reads	I/O Writes	I/O Read Bytes	I/O Write Bytes	I/O Other	I/O Other Bytes	Handles	CPU Time	Threads	Cycles
nlnotes.exe	< 0.01	58.088 K	97.328 K	7872	2.474	726	7.0 MB	1.5 MB	5.377	134.9 KB	646	0:00:00.671	22	1.961.034.562
notes2.exe	2.67	786.092 K	317.872 K	8528	30.467	488	70.7 MB	1.3 MB	53.330	1.4 MB	1.329	0:00:07.531	92	21.174.916.001
Process	CPU	Private Bytes	Working Set	PID	I/O Reads	I/O Writes	I/O Read Bytes	I/O Write Bytes	I/O Other	I/O Other Bytes	Handles	CPU Time	Threads	Cycles
nlnotes.exe	0.75	56.696 K	100.732 K	3680	2.472	781	7.0 MB	1.5 MB	11.524	317.6 KB	655	0:00:00.796	20	2.515.840.571
notes2.exe	8.28	757.440 K	325.888 K	8516	29.858	397	68.7 MB	1.2 MB	52.767	1.4 MB	1.316	0:00:06.812	88	21.480.616.630

Metric	Original	Workspace Optim.	Savings %	Plugin Cleanup	Savings %	Total %
Private Bytes (MB)	786,1	-	-	757,4	-	-
Working Set (MB)	317,9	-	-	325,9	-	-
I/O Reads (K)	30,5	-	-	29,9	-	2%
I/O Writes (K)	0,5	-	-	0,4	-	20%
I/O Read Bytes (MB)	70,7	-	-	68,7	-	3%
I/O Write Bytes (MB)	1,3	-	-	1,2	-	7%
I/O Other (K)	53,3	-	-	52,7	-	1%
I/O Other Bytes (MB)	-	-	-	-	-	-
CPU Time (sec)	7,53	-	-	6,81	-	9%
CPU Cycles (M)	21,17	-	-	21,48	-	-



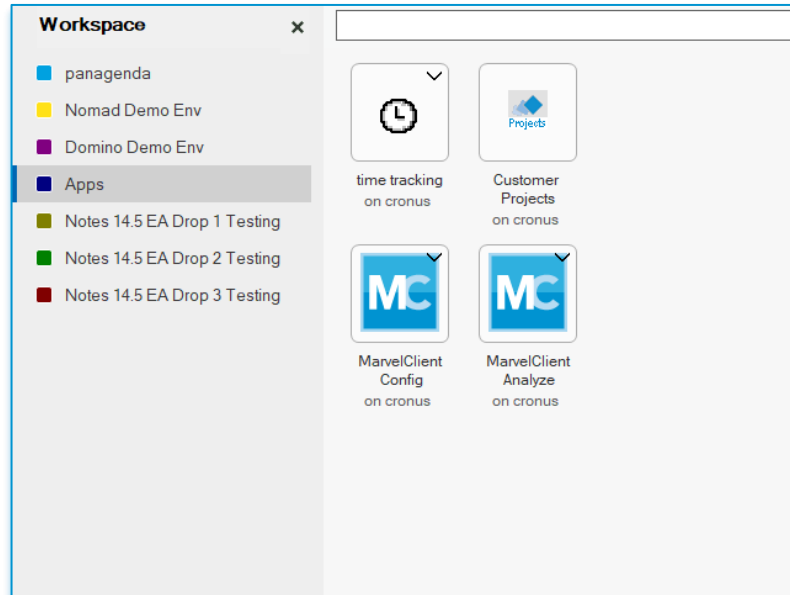
# Workspace - Tips & Tricks



Upgrade Your Time

# HCL Notes 14.x – Workspace handling

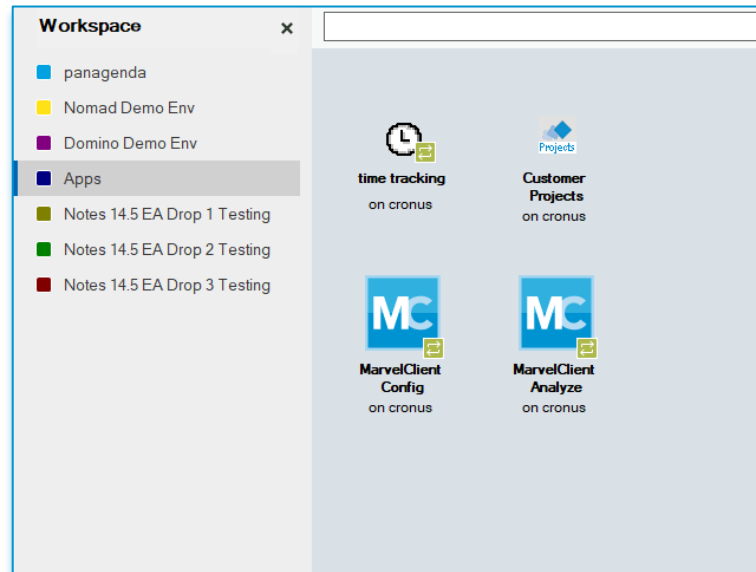
- **Workspace Design v14.x (default)**
  - Navigation on the side + Tiles with border + DB info outside the Tile + Search
  - Disable Workspace Search via notes.ini → **EnableWorkspaceSearchBar=0**



# HCL Notes 14.x – Workspace handling

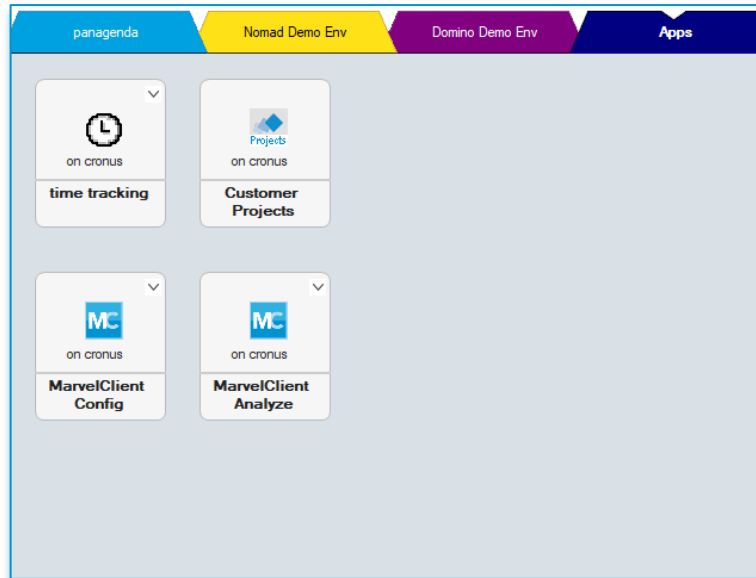
- **Workspace Design v12.0.1**

- Navigation on the side + Tiles without border + DB info inside the Tile + Search
- notes.ini → **EnableV1202WorkspaceLook=0**

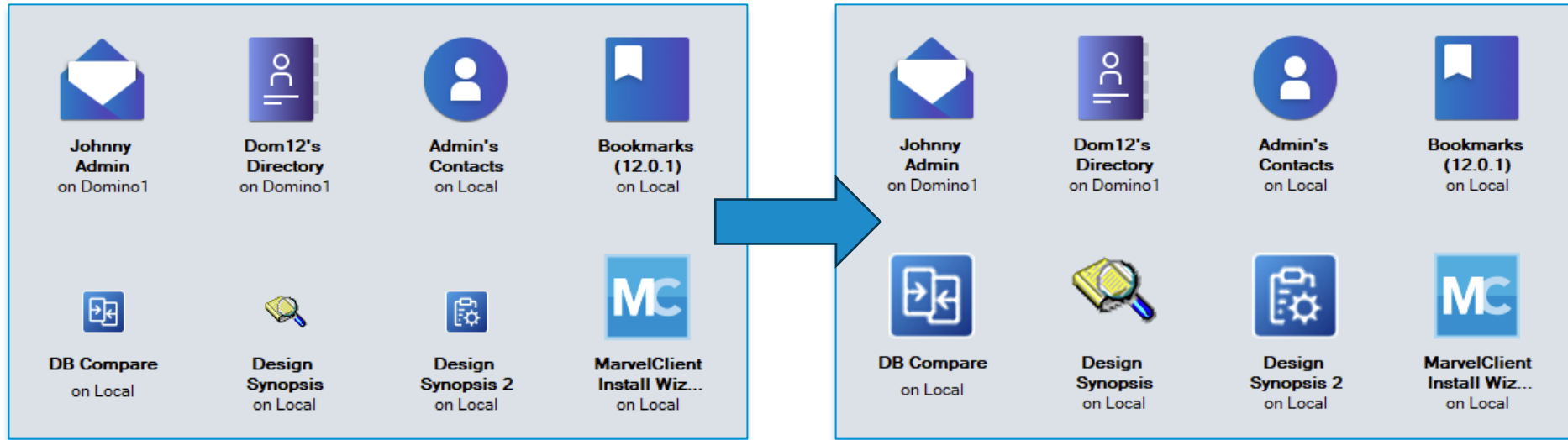


# HCL Notes 14.x – Workspace handling

- **Workspace Design v11**
  - Navigation on top + Tiles with border + low resolution icons
  - notes.ini → **Workspace\_Navigator=0**



# Icon Embiggenator – FREE



## Icon Embiggenator – FREE



# THANK YOU!



Your Feedback Matters to Us



SCAN ME