

Maintaining NX/TeamCenter in a changing company across multiple Sites

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Who am I?

Jerry Baccari – Developer for Engineering Systems

What do we do?

We support Engineering Systems applications (UG / TeamCenter related) for the following programs.

- C17
- C130 AMP
- MMA
- RARO



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Purpose of this Presentation

- To get you thinking!
- Share what we've learned during our development



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How this all started (about 5 years ago)

- Migrating from UNIX to Win/Tel
- Site hosting additional programs, adding more workstations
- HP-UX's Software distributor tool did a good job. Windows did not have an equivalent solution

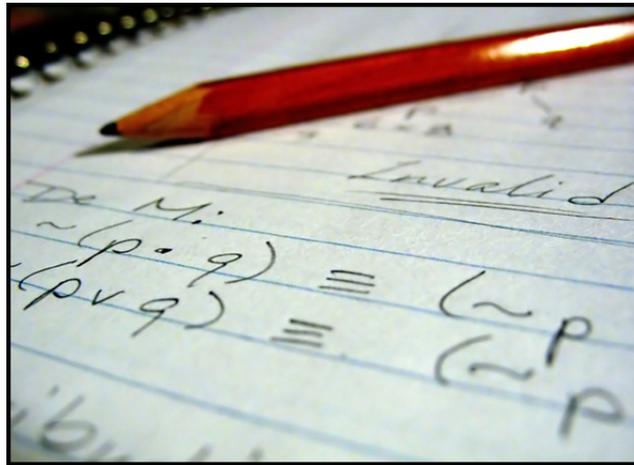


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- **Requirements**

- **Deploy software to all PCs we support in 1 day**
- **Be able to schedule deploys for specific days/time of day**
- **Be able to target specific PCs**
- **Be able to have multiple configurations being deployed.**
- **Be able to update new PCs as they come online.**



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- **Existing Deploy Methods**
 - **SMS**
 - **.BAT / other scripts**
 - **SMS and Scripts**



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- **Options**
 - **Use SMS and live with it's problems.**
 - **Explore other “off the shelf” deploy tools**
 - **Use scripts and SMS like other sites**
 - **Write our own SMS type application**



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- **Windows MSI Technology**
 - MSI file properties
 - Package Code and Upgrade Code
 - Upgrades



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• Windows MSI Technology

- MSI database

“SOFTWARE\Microsoft\Windows\CurrentVersion\Installer\UpgradeCodes\”

- Windows “Packs” the package code GUID and upgrade code GUID in the registry but it uses a consistent pattern.

Example

Group1 Grp2 Grp3 Grp4 Group5

{12345678-1234-1234-1234-1234567890AB}

-Flip (1st group) 8 characters backward. → 87654321

-Flip (2nd group) 4 characters backward. → 4321

-Flip (3rd group) 4 characters backward. → 4321

-Flip every 2 characters in (4th group). → 2143

-Flip every 2 characters in (5th group). → 2143658790BA

-Remove all ‘{’, ‘}’, ‘-’

Result (packed) = 876543214321432121432143658790BA

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- What we came up with
- (CCIS –CAD/CAM Installer Software)
 - A service called CCIS that runs each hour, executed as System*.
 - Uses an Xcel spreadsheet to manage deploys

	A	B	C	D	E	F	G	H
1	i	{374A5254-384E-405C-83BE-49BC43360BCA}			Nx502_Mp2_p1.exe	5.2	880	
2	i	{180F2E6B-826E-46A5-81D3-D09F52626D71}			Nx502_Mp2_p2.exe	5.2	799	
3	i	{3634838E-8988-411D-ABF9-62C91C86AD56}			PowerCfg.exe	1		
4	i	{0BFC2674-82B1-4431-A5EA-D9D1D924D187}			Tc2007_Embedded_Viewer_7_1_4.exe	7.1.4		2008.03.12 18:00
5	i	{28763201-CF5D-4806-B67A-E5C0696996AC}			TcU2007_4Tier_RichClient_7_4_6.exe	7.4.6		2008.03.13 22:00
6								
7								



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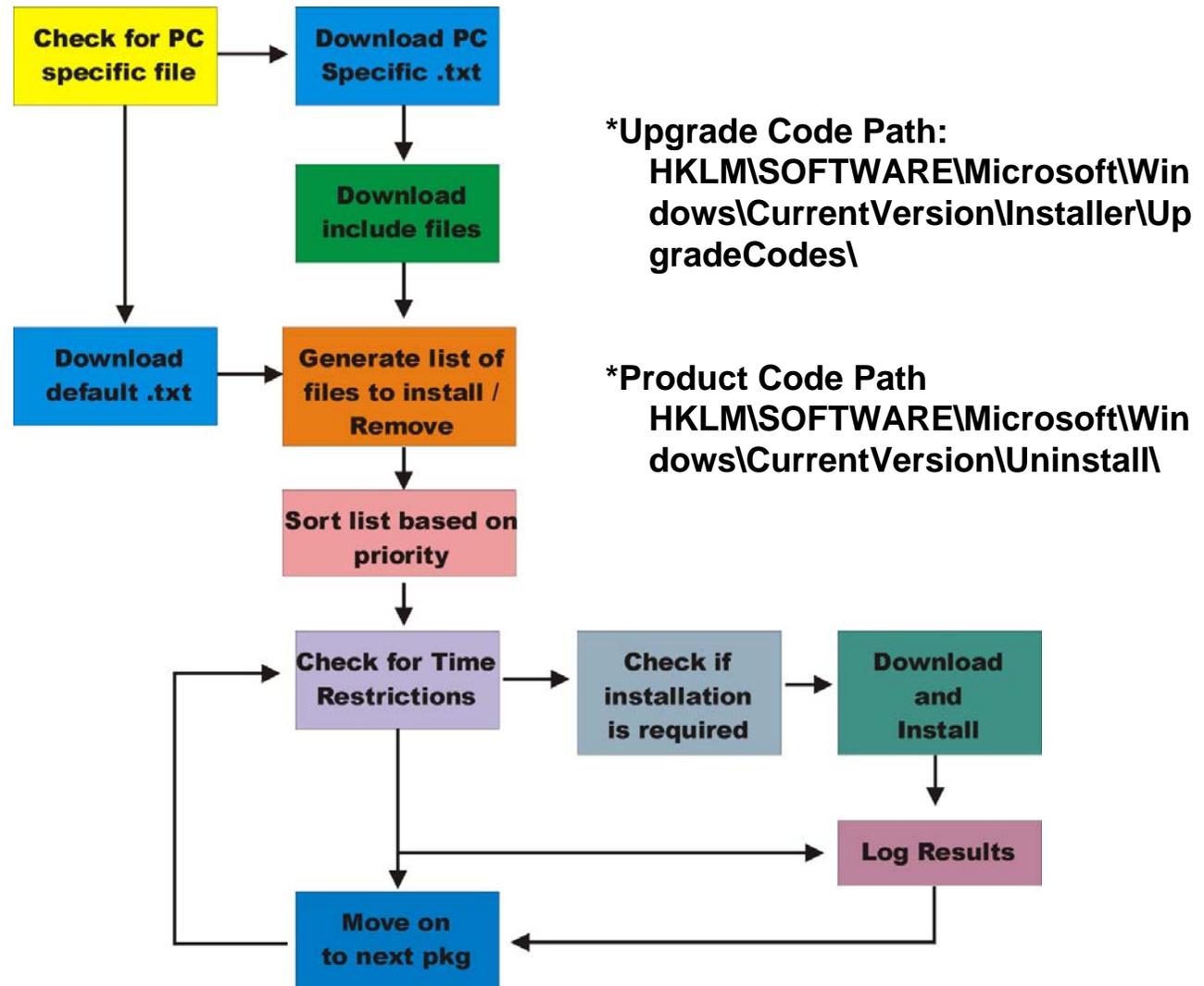
- Parts of the Xcel Config file

	Install/Remove	Upgrade Code	Product Code	Package Name	File Name	Version Number	Priority	No earlier than	No later Than	Off Hours
	A	B	C	D	E	F	G	H		
1	i	{374A5254-384E-405C-83BE-49BC43360BCA}			Nx502_Mp2_p1.exe	5.2		880		
2	i	{180F2E6B-826E-46A5-81D3-D09F52626D71}			Nx502_Mp2_p2.exe	5.2		799		
3	i	{3634838E-8988-411D-ABF9-62C91C86AD56}			PowerCfg.exe	1				
4	i	{0BFC2674-82B1-4431-A5EA-D9D1D924D187}			Tc2007_Embedded_Viewer_7_1_4.exe	7.1.4				2008-03-12 18:00
5	i	{28763201-CF5D-4806-B67A-E5C0696996AC}			TcU2007_4Tier_RichClient_7_4_6.exe	7.4.6				2008-03-13 22:00
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• CCIS Flow



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- **Notes**
 - **Throttling:**
 - **System Account:**
 - **HTTP:**



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Future Enhancements

- Use a distributed server
- CCIS becomes “Site Aware”
 - Utilize a trusted Domain account



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Our current environment

- Wintel hardware
- Thousand of PCs in multiple sites across Boeing
- UG, TC, and ~60 custom UG/TC related applications
- Ability to deploy a package to all PCs within 1 hour



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Questions?



