



AutoPilot® *M6* Installation Guide

Version 6

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PUBLISHED BY:

RESEARCH & DEVELOPMENT
NASTEL TECHNOLOGIES, INC.
88 SUNNYSIDE BLVD, SUITE 101
PLAINVIEW, NY 11803

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DOCUMENT TITLE: **NASTEL AUTOPILOT M6® INSTALLATION GUIDE**

DOCUMENT RELEASE DATE: **MAY 2022**

NASTEL DOCUMENT NUMBER: **M6-INS 632.002**

PRODUCT RELEASE: **6.0 (JRE 1.5)**

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Chapter 1: Introduction

Welcome to the Nastel AutoPilot M6 Installation Guide. This guide describes installation options, steps, and procedures for AutoPilot M6. Please review this guide carefully before installing the product. Nastel AutoPilot M6 will hereinafter be identified as AutoPilot M6 and further abbreviated as AP M6 or M6.

1.1 How This Guide is Organized

[Chapter 1:](#) Identifies the users and history of the document, as well as additional and alternate documents. System requirements are outlined in addition to supplying support and reference information.

[Chapter 2:](#) Provides instructions for new installations of AP M6. In addition, there is a section for upgrading your AP M6 installation. Installation instructions as they apply to all supported platforms and operating systems are provided. In addition to the standard installation options Nastel includes silent installation instructions for quick, default node installations. The silent installation allows no options or customization.

[Chapter 3:](#) Provides any post installation set-up or customization information along with verifying and starting AP M6. In addition, there is a section for stopping AP M6 services.

[Chapter 4:](#) Outlines the uninstall procedures for Windows XP and 2000. Procedures for all operating systems and platforms are similar.

[Appendix A:](#) Provides a detailed list of all reference information required for the installation of AP M6.

[Appendix B:](#) Contains conventions used in this document.

[Glossary:](#) Contains a listing of unique and common acronyms and words and their definition.

1.2 History of This Document

Table 1-1. Document History

Release Date	Document Number	AutoPilot M6 Version	Summary
August 2007	APM6-INS 600.001	6.0	Initial release.
April 2008	APM6-INS 600.002	6.0 with Service Updates (SUs) 1.0 thru 4.0	Added Service Update installation.
July 2008	APM6-INS 600.006	6.0 with SUs 5.0 and 6.0	Installation on zLinux, migration from AP 4 to M6, changing term <i>managed node</i> to <i>CEP Server</i> .
September 2008	APM6-INS 600.007	6.0 with SU 7.0	Update M6 Reports installation.
September 2012	APM6-INS 600.008	6.0 with SU 17.0	Update installation instructions.
November 2014	APM6-INS 600.009	6.0 with SU 21	Remove references to M6 Reports which are no longer supported (Mantis 10141) and how stop M6 WEB Server (Mantis 9551).
December 2015	APM6-INS 622.001	6.0 with SU 22	Added ability to uninstall all versions of a software package (Mantis 10231).
June 2016	APM6-INS 623.001	6.0 with SU 23	Errata (Mantis 14384).
July 2017	APM6-INS 625.001	6.0 with SU 25	Updated Nastel's phone numbers and street address.
February 2019	APM6-INS 625.002	6.0 with SU 25	Clarify LDAP information
February 2020	APM6-INS 630.001	6.0 with SU 30	Update section 2.4 and copyright year.
April 2020	APM6-INS 630.002	6.0 with SU 30	Update Tomcat information in 1.6.1.2.

Table 1-1. Document History

Release Date	Document Number	AutoPilot M6 Version	Summary
January 2022	APM6-INS 632.001	6.0 with SU 32	Added section 3.2.4 Encrypting Communication between the Domain Server, the CEP, and Enterprise Manager
May 2022	APM6-INS 632.002	6.0 with SU 32	Added Internet Explorer caveat to System Requirements.

1.2.1 User Feedback

Nastel encourages all Users and Administrators of AP M6 to submit comments, suggestions, corrections, and recommendations for improvement for all AP M6 documentation. Please send your comments via e-mail to support@nastel.com. You will receive a response, along with status of any proposed change, update, or correction.

1.3 Related Documents

The complete listing of related and referenced documents is listed in [Appendix A](#) of this guide.

1.4 Release Notes

See README.HTM files on installation media or AP M6 installation directory.

1.4.1 What is New in AutoPilot M6?

	IMPORTANT!	The term <i>managed node</i> used in earlier versions of AutoPilot has been changed to <i>CEP Server</i> to differentiate it from managed systems.
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Below is a list of major benefits and features, new in AP M6:

Table 1-2. New Features

Benefit	Description
Performance & Scalability	<ul style="list-style-type: none"> * High performance streaming engine based on (Complex Event Processor) * Rule processing performance has been increased by 100% * Reduced overall CPU and memory consumption by 50-70% * Ability to load default sensor properties from system properties. * Ability to create clone sensors for changing the same rule(s) in many different business views at the same time. * Ability to forward events to OVO and Tivoli directly from Business Views. * Ability to query facts and their values from the command line using apnet.
Productivity & Ease of use	<ul style="list-style-type: none"> * New and improved Enterprise Manager look-and-feel. * Integrated security management and control. * New M6 Web Console for greater control over monitored applications. * Ability to document sensor information in html, pdf, and rtf formats. * Business views have been consolidated into a single domain repository, eliminating the need to maintain multiple copies of business views on the network.
Integration	<ul style="list-style-type: none"> * Integration with LDAP for authentication and user lookup. * Integrate into existing SOA/ESB environment via AutoPilot M6 Web Services. * New flexible licensing model to easily track CPU and user.

Robustness	* Fault tolerance failover and fail-back using M6 GRID technology. * Built-in business view to monitor system performance and availability.
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1.5 Intended Audience

This document is intended for personnel installing and customizing AP M6. The installer should be familiar with:

- Java Run Time Environment 1.7.x (JRE 1.7.x) or higher. (JRE 1.7 is included with AP M6 for Windows and selected UNIX platforms.)
- Target operating system environment.
- The installer may need administrative privileges for the target platform.
- Procedures for installing software on the target platform such as Windows, AIX, Linux.
- Basic understanding of TCP/IP.

1.6 System Requirements for Supported Platforms

This section identifies system and platform compatibilities for AP M6. These represent estimates for typical systems and exact requirements will vary depending on the size of the environment.

AP M6/Web has been tested with Internet Explorer 11 on Windows 2000 and XP. All references in this document to Internet Explorer are subject to Internet Explorer being available. Customers who plan to move away from this older functionality are encouraged to consider using the equivalent functionality that is available within Nastel XRay. For each component, XRay's sensors can provide metrics about message processing and point to backlogs in the processing pipeline by showing lag times in message streaming and indexing.

	Windows	UNIX
M6 Domain Server	X	X
M6 CEP Server	X	X
M6 Console	X	X
M6 Web Server	X	X

Refer to the Nastel Resource Center for supported application plug-ins.

1.6.1 Windows Hardware and Software Requirements

	NOTE:	Recommended configuration depends on size of network and number of managed applications. Listed recommended configurations are good for up to 50 servers.
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1.6.1.1 Hardware Configuration

- M6 Domain Server
 - Minimum: 500 MHz 512 MB RAM; 200 MB disk space.
 - Recommended: 1 GHz 1G RAM; 1G disk space.
- M6 CEP Server
 - Minimum: 1 GHz 512 MB RAM; 200 MB disk space.
 - Recommended: 1 GHz 2G RAM (dual CPU); 1G disk space.
- M6 Enterprise Manager
 - Minimum: 500 MHz 512 MB RAM; 200 MB disk space.
 - Recommended: 1 GHz 1G RAM; 500 MB disk space.

1.6.1.2 Software Configuration

- Windows 2000, 2003 supporting JRE 1.7 or higher. (Vista and XP are supported for M6 Console applications but not recommended to run M6 Server components.)
- Java Runtime Environment (JRE) 1.7.x or higher with latest patches applied.
- JDK 1.7.x is required to view/use M6 Web Server. Java VM is included with the AP M6 installations; however, if the remote user's machine does not have a current version, it will have to be updated or added. Refer to the Sun Java Web site for additional information: <http://www.oracle.com/technetwork/java/index.html>
- Apache Tomcat 8.5.37 (included with M6 Domain Server installation).
- Microsoft SQL, Oracle, and DB2.

1.6.2 Linux Hardware and Software Requirements

Minimum Hardware Configuration:

- A minimum of 1G of available RAM
- A minimum of 2G in the file system used to copy the install package
- A minimum of 1G in the target file system where the product is installed to (**for example: /opt**).
- A minimum of 512 MB in /tmp for use during the installation (or in alternate directory pointed to by IATEMPDIR).

Minimum Software Configuration:

- Linux RedHat 3, 4, 5 (x86, 164, AMD 64)
- Linux glibc should be libc-2.1 or higher to support Java SDK (required on system verification)
- JRE or SDK 1.7.x or higher with latest fixes applied. Refer to the Java Web site for further information about JDK <http://www.oracle.com/technetwork/java/index.html>

1.6.3 AIX Hardware and Software Requirements

Minimum Hardware Configuration:

- A minimum of 1G of available RAM
- A minimum of 2G in the file system used to copy the install package
- A minimum of 1 G in the target file system where the product is installed to (**for example: /opt**).
- A minimum of 512 MB in /tmp for use during the installation (or in alternate directory pointed to by IATEMPDIR).

Minimum Software Configuration:

- AIX 5.2, 5.3 or higher (64-bit JRE bundle)
- JRE or SDK 1.7.x or higher with latest fixes applied. Refer to the Java Web site for further information about SDK: <http://www-106.ibm.com/developerworks/java/jdk/aix/service.html>

1.6.4 Solaris Hardware and Software Requirements

Minimum Hardware Configuration:

- A minimum of 1G of available RAM
- A minimum of 2G in the file system used to copy the install package
- A minimum of 1G in the target file system where the product is installed to (**for example: /opt**).
- A minimum of 512MB in /tmp for use during the installation (or in alternate directory pointed to by IATEMPDIR).

Minimum Software Configuration:

- Solaris (SPARC, x86)
- JRE or SDK 1.7.x or higher, with latest updates/fixes applied. Refer to the Java Web site for further information about SDK: <http://www.oracle.com/technetwork/java/index.html>

1.6.5 UNIX Hardware and Software Requirements

Minimum Hardware Configuration:

- A minimum of 1G of available RAM
- A minimum of 2G in the file system used to copy the install package
- A minimum of 1G in the target file system where the product is installed to (**for example: /opt**).
- A minimum of 512MB in /tmp for use during the installation (or in alternate directory pointed to by IATEMPDIR).

Minimum Software Configuration:

- HP PA-RISC 11iv1 (11.11), 11i v2 (11.23), 11i v3 (11.31) and HP Integrity 11i v2 (11.23) and 11i v3 (11.31)
- JRE or SDK 1.7.x or higher, with latest updates/fixes applied. Refer to the Java Web site for further information about SDK: <http://www.hp.com/products1/unix/java>

1.6.6 Other Platforms, Hardware and Software Requirements

Minimum Hardware Configuration:

- A minimum of 1G of available RAM
- A minimum of 2G in the file system used to copy the install package
- A minimum of 1G in the target file system where the product is installed to (**for example: /opt**).
- A minimum of 512 MB in /tmp for use during the installation (or in alternate directory pointed to by IATEMPDIR).

Minimum Software Configuration:

- JRE or SDK 1.7.x or higher with latest fixes applied (on all except windows platforms). Refer to the Java Web site for further information about JDK:
- JRE or SDK 1.7.x or higher, with latest updates/fixes applied. Refer to the Java Web site for further information about SDK: <http://www.oracle.com/technetwork/java/index.html>

1.7 Terms and Abbreviations

A list of Terms and Abbreviations used in this document is located in the [Glossary](#).

1.8 Technical Support

If you need technical support, you can contact Nastel Technologies by telephone or by e-mail. To contact Nastel technical support by telephone, call **800-963-9822 ext. 1**. If you are calling from outside the United States, dial **001-516-801-2100**. To contact Nastel technical support by e-mail, send a message to support@nastel.com. To access the Nastel automated support system (user id and password required), go to: <http://support.nastel.com/>. Contact your local AutoPilot M6 Administrator for further information.

1.9 Conventions

Refer to [Appendix B](#) for typographical and naming conventions used in all AP M6 documentation.

Chapter 2: AutoPilot M6 Installation

This section provides detailed instructions for new installations of AP M6 and upgrading of AutoPilot 4.0 to AutoPilot M6. The installation media includes 10 installation options. The AutoPilot M6 Installation Guide (this document) is available in PDF format and can be downloaded from the Nastel Resource Center. Examples, which show how to extend and customize the AP M6 run-time environment, can also be found on the Resource Center.

2.1 Distribution Contents

AP M6 distribution contains the following folders:

- **Migration from AP 4.0 to AP M6 (migration-m6 folder):** includes migration to AP M6 core platform, Dashboard 6.0, and MySQL 5.0.

Select this option if you already have AutoPilot 4.0 installed and configured. If you do not have Dashboard already installed, skip step 10 of the migration procedure, and install the Dashboard using the Dashboard option described below. (Refer to [section 2.3](#) for the migration procedure.)

- **Domain Server (domain folder):** includes Domain Server, CEP Server, User Console, M6 Web Console, Tomcat, and the Web Reporter. There must be at least one instance of the Domain Server within your network for AP M6 to function. Domain Server provides directory and security services shared by all services within the AP M6 domain. (Serial Number required.) Select this option if you do not have AutoPilot 4.0 already installed and you want to install the Domain Server, CEP Server, User Console and Web Console.

- **CEP Server (cserver folder):** includes CEP Server only. To be installed on every machine to be managed or monitored. Required plug-ins can be installed under the plugins folder.

Select this option if you do not have AutoPilot 4.0 already installed and you want to only install the CEP Server.

- **Administration (admin folder):** includes AP M6 Console only. To be installed on every machine that will be used to manage, deploy, or develop Business Views and manage AutoPilot. Local administrators determine user group access and privileges. Custom console installations are not required.

Select this option if you do not have AutoPilot 4.0 already installed and you want to only install the Console.

- **Dashboard (dashboard folder):** includes a web-based graphical user interface that is deployed as a component of the web console. It is a front-end for all plug-ins and monitors and checks for problems in all AP Business Views (BSVs). It also checks Key Performance Indicators (KPIs) as defined by the sensors in AP M6. Dashboard is only supported on Windows. The *apache-web* folder and *mysql-5* folder are also required for installation.

Select this option if you do not already have Business Dashboard installed. (Dashboard installation is optional.)

- **Apache ANT (apache-ant folder):** Open-Source Apache ANT build environment.
- **Apache Web Server 1.3.31 (apache-web folder):** Open-Source Apache Web Server 1.3.31 (for Windows only).
- **MySQL 5.0 (mysql-5 folder):** Open-Source MySQL 5.0 database server and GUI Tools (for Windows only).
- **M6 plug-ins (plugins folder):** AP M6 plug-ins for different technologies.
- **Books (books folder):** AP M6 documentation and tutorials. Also available on the Nastel Resource Center.

2.2 Information

It is not recommended to mix AP 4.0 and M6 installations within a single domain server. AP 4.0 and M6 can coexist on the same network but cannot share the same domain server.

2.2.1 Technical Documents

Prior to installing AP M6, you should review all text files and installation procedures provided on the installation media. You should print all of the installation related materials to give yourself quick access to any required information during the installation or migration procedures. A **README.txt** file is included on the AP M6 media.

(Sets of printed documents are available from your Nastel representative or Nastel Support.)

2.2.2 Licensing Information

AP M6 has introduced a new licensing model that includes a single license file and is based on the maximum number of running CPUs. The standard evaluation license is issued for 15 days and includes five users, 3 servers and 100 instances of management services per domain. It will run the domain server, CEP server and web server. After 15 days, a new license key must be installed. Refer to the *AutoPilot M6 User's Guide* for information on obtaining a license.

	NOTE:	Current users of AP can still use their existing license to run AP M6 but must migrate to the new licensing model within 15 days.
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2.3 Migrating to AutoPilot M6

	IMPORTANT!	You must have AP 4.0 already installed to use this migration procedure. When upgrading to AP M6, you must upgrade all installations within the domain. Nastel does not provide maintenance support for Apache-ANT or MySQL. These are only provided for ease of installation.
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2.3.1 Overview of Migration

Migration is performed in the following order:

- Backup of AutoPilot IT 4.0 files
- Installation of AutoPilot M6
- Copy backed-up files to AutoPilot M6
- Installation of Apache-ANT 1.7.0
- Installation of MySQL 5.0.x
- Migration of Nastel Business Dashboard to M6 Business Dashboard – (Nastel Business Dashboard v1.0 must already be installed.)
- Deployment of Business Views

2.3.2 Migration Procedure

	IMPORTANT!	After M6 installation is completed, the term <i>managed node</i> will change to <i>CEP Server</i> along with the name of the corresponding M6 Windows service.
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1. Determine existing AutoPilot packages. At command prompt run :
`[AUTOPILOT_HOME]\bin\pkgman -info` to get list.
2. Stop all AP IT services (Windows) or processes (UNIX) and components including Domain Server, Managed Nodes, and Web Server.
3. Back-up previous AutoPilot IT 4.0 installation. (You will need to replace your new files with the ones you backed up.) Refer to the following tables, based on your configuration, for file names and locations. If a given file does not exist in your environment, proceed to the next.

	NOTE:	<i>AUTOPILOT_HOME</i> is the AutoPilot root installation directory. For example, in M6: <code>/var/opt/nastel/AutoPilotM6</code> or <code>c:\nastel\AutoPilotM6</code>
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Table 2-1. Domain Server and CEP Server (Managed Nodes) Installed on One Machine	
Files From AutoPilot IT 4.0	Files To AutoPilot M6
* <code>[AUTOPILOT_HOME]</code> global.properties;apwmq.properties	<code>[AUTOPILOT_HOME]</code>
* <code>[AUTOPILOT_HOME]/localhost</code> registry.xml; actions.xml; filelock.xml; filead.xml; security.dat; node.properties; /grid folder if it exists	<code>[AUTOPILOT_HOME]/localhost</code> Any custom changes made to node.properties in AP 4.0 must be manually entered into node.properties; do not copy the entire file.
* <code>[AUTOPILOT_HOME]/naming</code> registry.xml; node.properties; plugin.properties; security.dat	<code>[AUTOPILOT_HOME]/naming</code> Any custom changes made to node.properties in AP 4.0 must be manually entered into node.properties; do not copy the entire file.
* <code>[AUTOPILOT_HOME]/naming/policies</code> All folders under policies with exception of SYSTEM	<code>[AUTOPILOT_HOME]/naming/policies</code>

Table 2-2. Domain Server Only	
Files From AutoPilot IT 4.0	Files To AutoPilot M6
* <code>[AUTOPILOT_HOME]</code> global.properties;apwmq.properties	<code>[AUTOPILOT_HOME]</code>
* <code>[AUTOPILOT_HOME]/naming</code> registry.xml; actions.xml; filelock.xml; filead.xml; security.dat; node.properties; /grid folder if it exists	<code>[AUTOPILOT_HOME]/naming</code> Any custom changes made to node.properties in AP 4.0 must be manually entered into node.properties; do not copy the entire file.
* <code>[AUTOPILOT_HOME]/naming/policies</code> All folders under policies with exception of SYSTEM	<code>[AUTOPILOT_HOME]/naming/policies</code>

Table 2-3. CEP Server (Managed Nodes) Only	
Files From AutoPilot IT 4.0	Files To AutoPilot M6
* <code>[AUTOPILOT_HOME]</code> global.properties;apwmq.properties	<code>[AUTOPILOT_HOME]</code>
* <code>[AUTOPILOT_HOME]/localhost</code> registry.xml; node.properties	<code>[AUTOPILOT_HOME]/localhost</code> Any custom changes made to node.properties in AP 4.0 must be manually entered into node.properties; do not copy the entire file.

4. Install AutoPilotM6 as follows:
 - For Windows installation, refer to [section 2.4](#) but do not restart Windows Services as described in last step.
 - For UNIX installation, refer to [section 2.5](#).
5. Download from the installation media or from the Nastel Resource Center the list of AutopilotM6 packages that correlate to the list created in step 1 above.

	IMPORTANT!	Do NOT install M6 AutoPilot for WMQ Resource Pack (AP_WMQRP-x.x.x.pkg). In order to maintain migration integrity, this must NEVER be installed.
---	-------------------	--

At command prompt run: `[AUTOPILOT_HOME]/bin/pkgman [filename].pkg` for each package.

(Example: `pkgman ../updates/AP_WMQ-x.x.x.pkg` where `x.x.x` is the latest version).

6. Copy backed-up files from AutoPilot 4 to AutoPilot M6. (Refer to Tables 2-1 through 2-3 above.) If a given file does not exist in your environment, due to your configuration, simply proceed to the next.

	IMPORTANT!	As indicated in the tables, if you made any custom changes to node.properties, these must be manually copied from your AP4.0 version into AP 6.0, do not copy the entire file.
---	-------------------	--

7. Install ANT 1.7.0 from **apache-ant** folder by unzipping `apache-ant-1.7.0` into `[AUTOPILOT_HOME]`.
8. For Windows only: Migrate M6 Business Dashboard, if already installed, to Version 6.0 from **dashboard-m6** folder by: Opening `nastel-business-dashboard-6.0.pdf` and referring to Chapter 3.3 in *AutoPilot Business Dashboard Installation, Configuration and User's Guide V6.0*.
9. Restart all M6 Windows Services/Processes and components.
10. Login to APM6 Console and deploy all migrated Business Views. (M6 built-in Business Views are deployed automatically.) This can be done using *Business View Explorer*. *Business View Explorer* is a tool supplied with AutoPilot Console and can be launched from console's *Tool* menu. (Refer to *AutoPilot M6 Administrator's Guide* for detailed login procedures.)

2.4 Installing Nastel AutoPilot M6 in Windows

	IMPORTANT!	After installation is completed, the term <i>managed node</i> will change to <i>CEP Server</i> along with name of corresponding M6 Windows service.
---	-------------------	---

To install AutoPilot M6 in Windows, do the following:

1. If AP is previously installed, stop all AP services and components including Domain Server, Managed Nodes, and Web Server.
2. Your AutoPilot M6 distribution will contain a `m6domain.exe` file. Run this file (the example screenshots below are for a Windows installation).



Figure 2-1. File Download – Security Warning Screen

The installation is scripted, and default values should be used when possible.

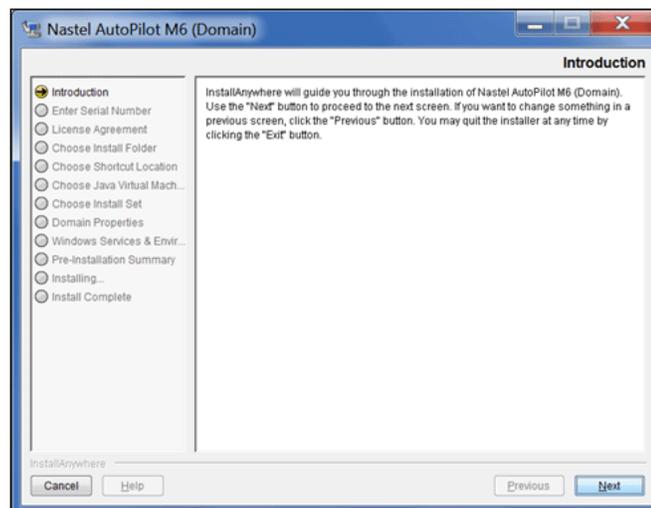


Figure 2-2. Installation Introduction Screen

3. Enter the serial number and click **Next**.

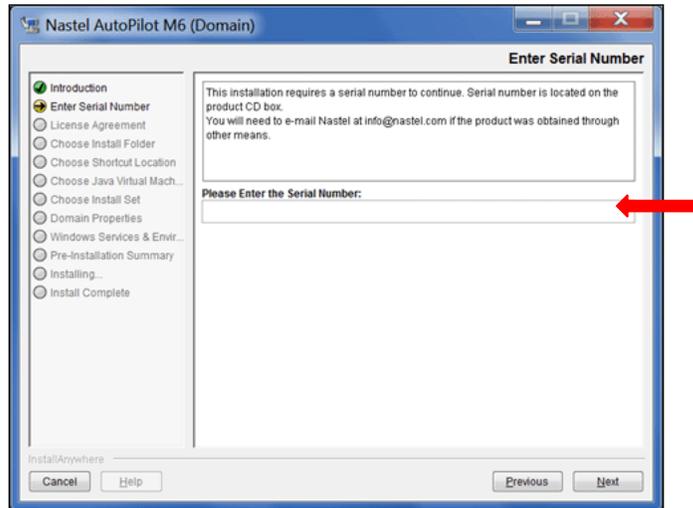


Figure 2-3. Enter Serial Number Screen

4. Review the license agreement prior to accepting. Select **I accept the terms of the license agreement**. If you select **I do not accept the terms of the license agreement**, the installation is terminated, and a license warning screen is displayed. Click **Next**.

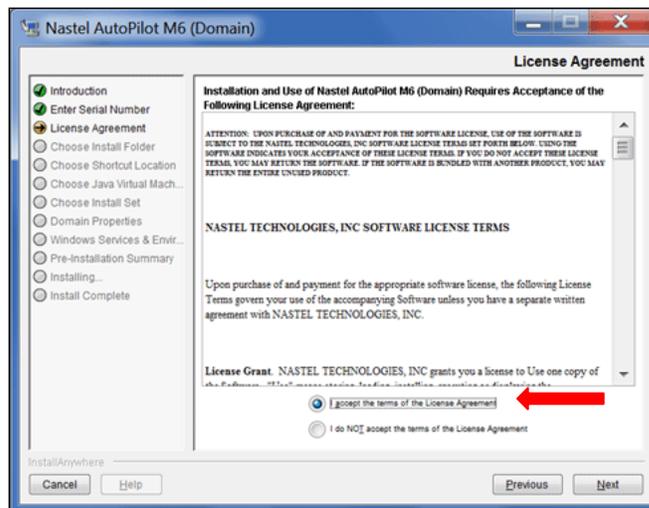


Figure 2-4. License Agreement Screen

5. Choose a folder or keep the default location and click **Next**.

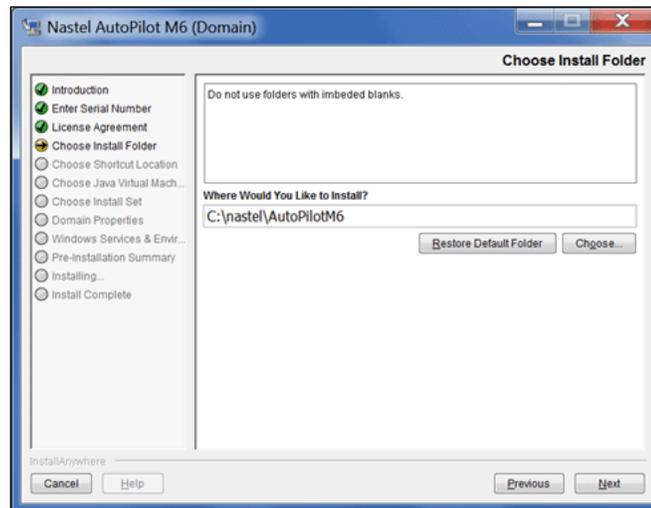


Figure 2-5. Choose Install Folder Screen

6. Choose a location for the shortcut icons and click **Next**.

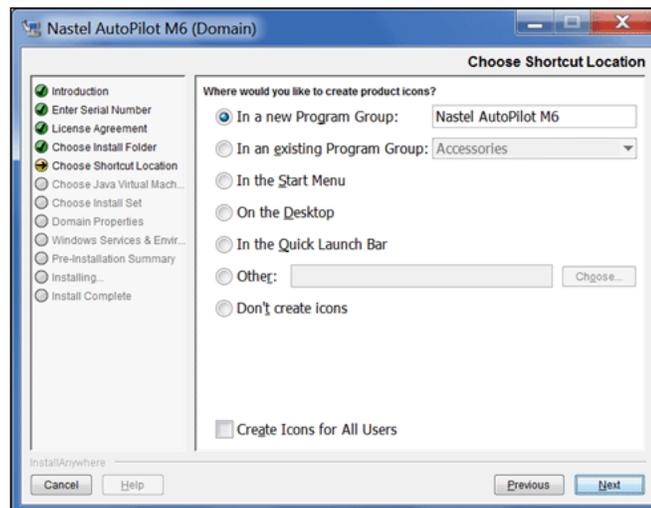


Figure 2-6. Choose Shortcut Location Screen

There are seven available options:

- **In a new Program Group** – Creates a program group to install the icons.
- **In an existing Program Group** – Installs the icons in an existing program group. Selecting this group will expand the drop-down menu. Select from the existing program groups.
- **In the Start Menu** – Installs the icons in the Start Menu program.
- **On the Desktop** – Installs the icons on the desktop.
- **In the Quick Launch Bar** – Installs the icons in the quick launch bar.
- **Other** – Allows selection of locations not available in the previous options. Click **Choose** to open the drop-down menu and select a location from the directory tree.
- **Don't create icons** – Installs AP M6 without shortcut icons.
- **Create Icons for All Users** – Makes AP M6 available to all users on a given machine. Not checking this option makes AP available only to a specific user.

- Choose to use the Java VM installed with the product or one already installed on the system. It is recommended to use the Java VM installed with the product. Click **Next**.

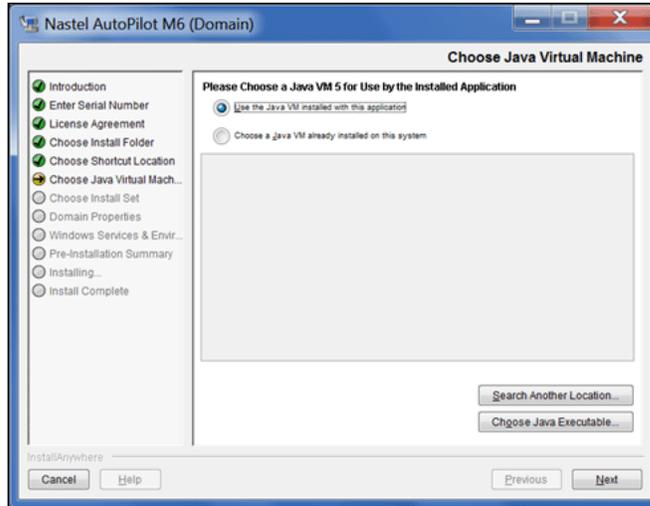


Figure 2-7. Choose Java Virtual Machine Screen

- Choose the components to install. In this example it is all components. Click **Next**.

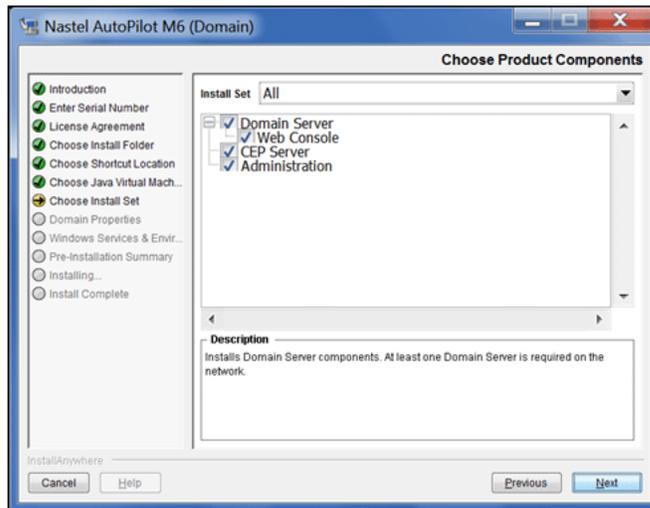


Figure 2-8. Choose Product Components Screen

- Specify the domain properties or leave the defaults. Click **Next**.

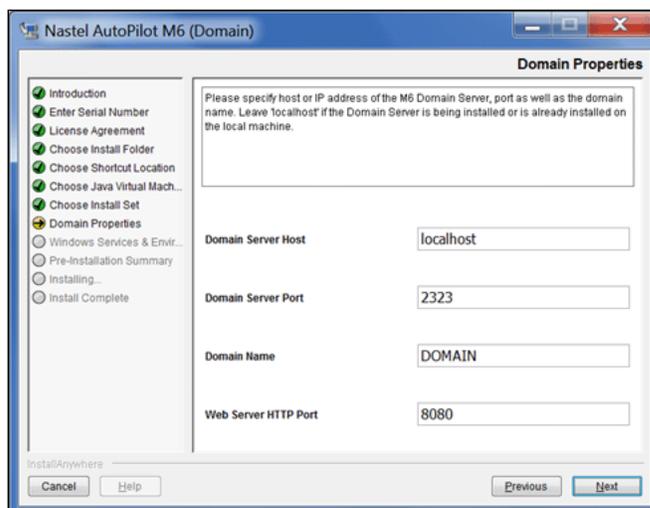


Figure 2-9. Domain Properties Screen

10. Specify whether server components should be registered as Windows services and indicate whether to update system environmental variables. It is recommended to select both options. Click **Next**.

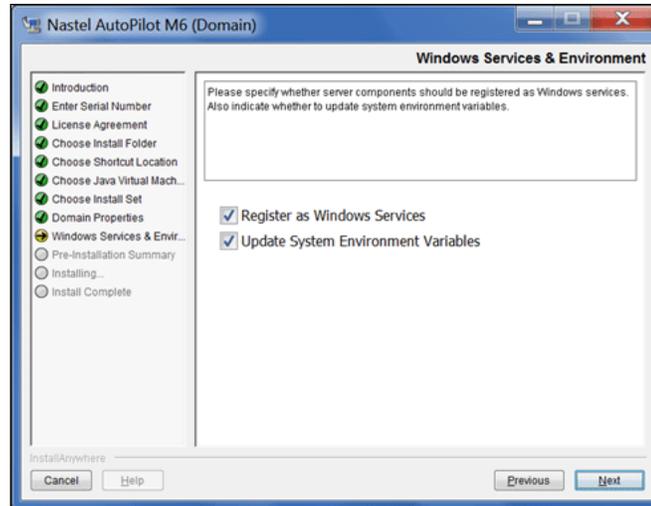


Figure 2-10. Windows Services & Environment Screen

11. Review your settings. If anything needs to be changed, click **Previous** to go to the dialogue box that requires changes. When the settings are correct, click **Install**.

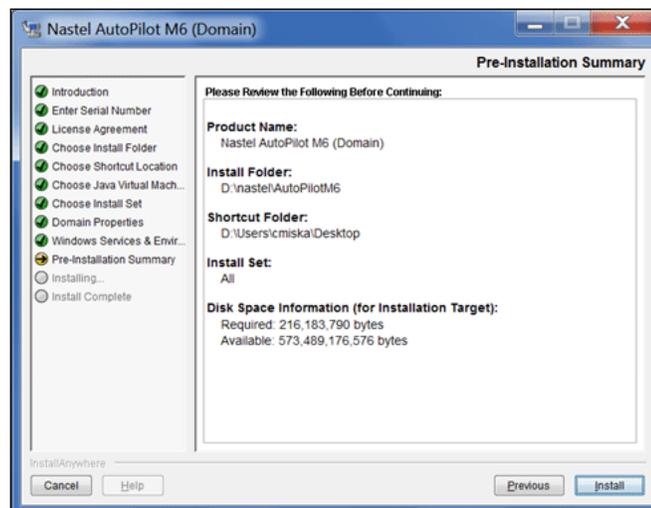


Figure 2-11. Pre-Installation Summary Screen

12. The following screen displays while the program is being installed.



Figure 2-12. Installing Nastel AutoPilot M6 (Domain) Screen

13. The following screen displays when the installation is complete. It is recommended that you review the README .htm file before proceeding. The location is provided on the *Install Complete* screen.

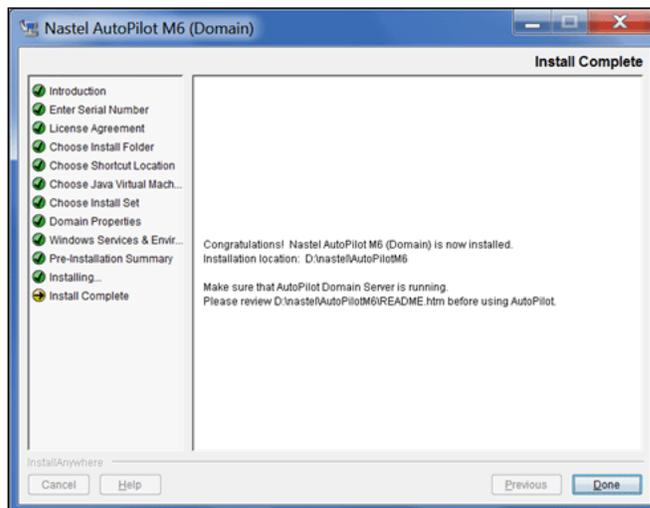


Figure 2-13. Installation Complete Screen

14. Restart all M6 services and components.

	<p>NOTE:</p>	<p>If Domain option was installed, refer to Web Services at the end of this chapter to deploy AP M6 Web Services. Refer to the <i>Dashboard Installation and User's Guide</i> for Dashboard installation procedures.</p>
--	---------------------	--

Refer to [Chapter 3](#) for post-installation and startup procedures.

2.5 Installing AutoPilot M6 Using Domain Server Option in UNIX

This chapter explains how to install AP M6 in UNIX environment. Please see the *Administrator's Guide*, available in PDF format with your installation, for additional important information about configuration. AP M6 can be installed on AIX and LINUX.

2.5.1 Install AutoPilot M6 Domain Server in UNIX Environment

	NOTE:	A Java Virtual Machine is included with all downloads. It will run automatically when you run the shell script.
---	--------------	---

For each environment:

1. Select the 'domain' distribution option to download the appropriate installer for a full install of Domain Server, CEP Server, Web, and Console components as a single package. See [section 2.4](#), steps 2-9 for details.
2. Open a shell and **cd** to the directory where you downloaded the installer.
3. At prompt, type: **sh ./m6domain.bin**

2.5.2 Starting AutoPilot M6 in UNIX Environments

Starting the Domain Server

	CAUTION!	TCP ports <i>must not</i> be shared among AP M6 services and any other TCP server/application on the same machine.
---	-----------------	--

1. From the prompt, type **cd [AUTOPILOT_HOME]**
2. From [AUTOPILOT_HOME] directory, type: **cd naming**
3. From [AUTOPILOT_HOME]/naming, type: **nohup ./ATPNAMES &**, to start Domain Server.

Starting CEP Servers

	NOTES:	<ol style="list-style-type: none"> 1. Domain Server (ATPNAMES) must be running and highly available. 2. The following procedure is typical of starting AP M6 in a Unix environment; however, it is typical of start procedures on all supported platforms.
---	---------------	--

1. From the prompt, type **cd [AUTOPILOT_HOME]**
2. From [AUTOPILOT_HOME] directory, type: **cd localhost**
3. From [AUTOPILOT_HOME]/localhost, type: **nohup ./ATPNODE &**, to start the CEP Servers.

Starting AutoPilot M6 Web Server

	NOTES:	<ol style="list-style-type: none"> 1. Domain Server (ATPNAMES) must be running and highly available. 2. The following procedure is typical of starting AP M6 in a Unix environment; however, it is typical of start procedures on all supported platforms.
---	---------------	--

1. From the prompt, type: **cd [AUTOPILOT_HOME]**
2. From [AUTOPILOT_HOME] directory, type: **cd jakarta-tomcat**
3. From [AUTOPILOT_HOME]/jakarta-tomcat directory, type: **cd bin**
4. From [AUTOPILOT_HOME]/jakarta-tomcat/bin, type: **./catalina.sh run**, to start Web Server.

2.5.3 Stopping AutoPilot M6 in UNIX Environments

Stopping the Domain Server

1. From Command Prompt, **cd** [*AUTOPILOT_HOME*]
2. From [*AUTOPILOT_HOME*] directory, type: **cd bin**
3. From [*AUTOPILOT_HOME*]/bin, type: **apnet –domain localhost stop DOMAIN_SERVER_SYSTEM**, to stop the Domain Server component.

Stopping CEP Servers

1. From Command Prompt, **cd** [*AUTOPILOT_HOME*]
2. From [*AUTOPILOT_HOME*] directory, type: **cd bin**
3. From [*AUTOPILOT_HOME*]/bin, type: **apnet –domain localhost stop <NODENAME>_SYSTEM**, to stop the CEP Servers.

Stopping AutoPilot M6 Web Server

1. Edit \$CATALINA_HOME/bin/catalina.sh and add the following line:
CATALINA_PID=\$CATALINA_HOME/tomcat.pid
2. From [*AUTOPILOT_HOME*]/apache-tomcat/bin, type: **catalina.sh stop –force**

2.6 Silent Mode Installation Option

Silent Mode enables the installer to run without user interaction. Silent Mode is fully supported on all UNIX platforms, and a near-silent mode is possible on Windows, Mac OS, and Mac OS X.

If the Silent mode option is run, there will be no console or GUI output during installation. Silent mode supports the setting of a target directory, shortcuts directory, and Components/Features via a command-line arguments or properties file. Silent mode is supported in both the installer and uninstaller runtime environments. InstallAnywhere and end-user-defined variables may be set through command-line parameters and/or a properties file.

An installer properties file or a command-line parameter may trigger silent mode.

2.6.1 Installer Properties File

An installer properties file is an ASCII text file that defines certain parameters for the installation. This may be useful if there is a complex project being installed both internally and externally. The internal end-users do not need to see panels such as the License Agreement panel. The properties file is an ideal way to turn panels on or off depending on your specific needs. In addition, the properties file can define the type of installation you want to run, such as console or silent.

	IMPORTANT!	<ol style="list-style-type: none"> 1. The properties file may be named in the following two ways with an installer saved as: <code><installername.exe>; installer.properties</code> or <code>installername.properties</code>. 2. Ensure that the properties file ends in <code>.properties</code>, not <code>.txt</code>
---	-------------------	--

	TIPS!	<ol style="list-style-type: none"> 1. If the properties file is in the same directory as the installer, it will be invoked automatically. However, if it is in a different directory, you may use the following command line option to direct it to the relative path: <code>C:\ <path to the installer> -f <path to the properties file></code> 2. Current users of AP can still use their existing license to run AP M6 but must migrate to the new licensing model within 30 days. <i>DO NOT</i> apply AP 3.0 licenses to AP M6 installations.
---	--------------	---

An example of an `installer.properties` file could contain the following:

```

USER_INSTALL_DIR=/opt/nastel/AutoPilotM6
INSTALLER_UI=Swing
USER_INPUT_RESULTS=localhost
AP_DOMAIN_SERVER_HOST=localhost

```

Where: properties file variable is `INSTALLER_UI=<mode>`

2.6.2 Command Line Parameter

To trigger a particular mode from the command line, type the following command:

```
installername -i <gui/console/silent>
```

To choose silent mode, type the following command:

```
installername -i silent
```

The properties file may also be called from the command line:

```
installername -f <properties file>
```

The direct or relative path to the properties file may be used.

	<p>NOTES:</p>	<ol style="list-style-type: none"> 1. File separators should be denoted by the "\$/\$" variable or be escaped. 2. Values may ignore case. 3. Silent mode will override action panel values. 4. In any mode on Windows systems, installers and uninstallers will always display the very last: "Cleaning-up" dialog box, as well as the "Preparing to install" panel.
---	----------------------	--

InstallAnywhere variables may be incorporated in these values, and they will be resolved at install time.

2.7 Console Mode Installation Option

	<p>NOTE:</p>	<p>This section applies only to non-Windows installation.</p>
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The Console mode mimics the default GUI steps provided by InstallAnywhere and uses standard input and output. The most significant advantage to console mode is that UNIX developers no longer need X-windows (X11) to run the installers.

Console mode allows text to be output to the console line-by-line. Console Mode does not allow for any formatting, clearing of the screen, or positioning of the cursor. A sample interactive console wizard step may resemble the following (typical) example:

```

+-----+
|  CHOOSE ALIAS, LINK, SHORTCUT FOLDER  |
|  Where would you like to create application shortcuts?  |
|  1) In the Start Menu  |
|  2) On the Desktop  |
|  3) Don't create shortcuts  |
+-----+
|  Please make a selection [1, 2, or 3], and then  |
|  press ENTER.  |
+-----+

```

2.7.1 Using Console Mode

**IMPORTANT!**

If both a properties file and a command line parameter exist, the properties file will override any command line settings.

Call up console mode using one of the following options:

- **Installer properties** file.
- **Command Line** parameter (-i console)

To move back a step in the installation type: **back**, at the prompt.

2.7.2 Setting InstallAnywhere Variables from the Command Line (Unix Platforms Only)

InstallAnywhere variables can be set for an installer when it is launched from the command line by passing in an argument using the `-D` option and a key (variable) value pair similar to how Java properties are set from the command line for a Java application. For example, to override the default installation directory for a run of the installer, insert the following argument:

```
%> install -DUSER_INSTALL_DIR="/opt/nastel/AutoPilotM6"
```

Arguments must be wrapped with spaces in quotes.

2.8 Deploy AutoPilot M6 Web Services

AP M6 Web Services is a Java Platform Enterprise Edition (J2EE) application used for interfacing with AP M6 core components. It can be installed on the following application servers:

- WebSphere Application Server 6.0 and 6.1 ([section 2.8.1](#))
- WebLogic Application Server 9.2 ([section 2.8.2](#))
- JBoss Application Server 4.X ([section 2.8.3](#))

	NOTE:	Users installing <i>AP Web Services</i> application must be familiar with application deployment and JDBC/JMS configuration for the desired application server. The application requires a database and, optionally, a JMS Server; see sections below for details. Refer to your application server administration manuals for more details on JDBC, JMS and web application deployment and configuration.
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2.8.1 WebSphere Application Server 6.0 and 6.1

1. At WebSphere Console, navigate to **Applications > Install New Application**.
2. Select *Local Path* and click **Browse**, select `apws.war` located in `[AUTOPILOT_HOME]/webservices`.
3. Enter `apws` as *Context Root* and click **Next**.
4. Continue to click **Next** to accept the default settings on the next three screens.
5. Click **Finish** to deploy the application.
6. Click **Save** to save the Master Configuration.
7. At WebSphere Console, navigate to **Applications > Enterprise Applications** and start `apws_war` application.

2.8.2 WebLogic Application Server 9.2

1. At WebLogic Console, navigate to `[domain]` > **Deployments > Install**
2. Locate `apws.war` which is located in `[AUTOPILOT_HOME]/webservices` and click **Next**.
3. Click **Next** to accept default settings on the next screen.
4. Click **Finish** to deploy the application.
5. Click **Save** and **Activate Changes**.
6. At WebLogic Console, navigate to **Deployments** and start the `apws` application.

2.8.3 JBoss Application Server 4.X

Copy `apws.war` located in `[AUTOPILOT_HOME]/webservices` to:

```
<jboss_root>/server/<server_name>/deploy.
```

JBoss will automatically detect and deploy the web application.

2.9 Installing Service Updates

	IMPORTANT!	<p>Service Updates (SUs) are non-cumulative service packs. AutoPilot M6 and all preceding service updates must have already been installed prior to installing the latest service update.</p> <p>The term <i>managed node</i> changed to <i>CEP Server</i> with SU6.</p>
--	-------------------	--

1. Stop all M6 services via *Windows Services* by accessing *Services* through the Windows/NT/XP Control panel. Highlight and stop each service.
2. At the command prompt run: `[AUTOPILOT_HOME]/bin/pkgman [filename].pkg` (Example: `pkgman ../updates/AP60_SUX.pkg`) where X is the Service Update Number.

	NOTE:	Make sure there are no errors posted at the bottom of the screen. If errors occur re-run pkgman.
--	--------------	--

3. Verify upgrade installation: `[AUTOPILOT_HOME]\bin\pkgman -info [AUTOPILOT_HOME]\bin\pkgman -verify [PackageName]`
4. Restart all M6 services.

2.10 Uninstall Service Update

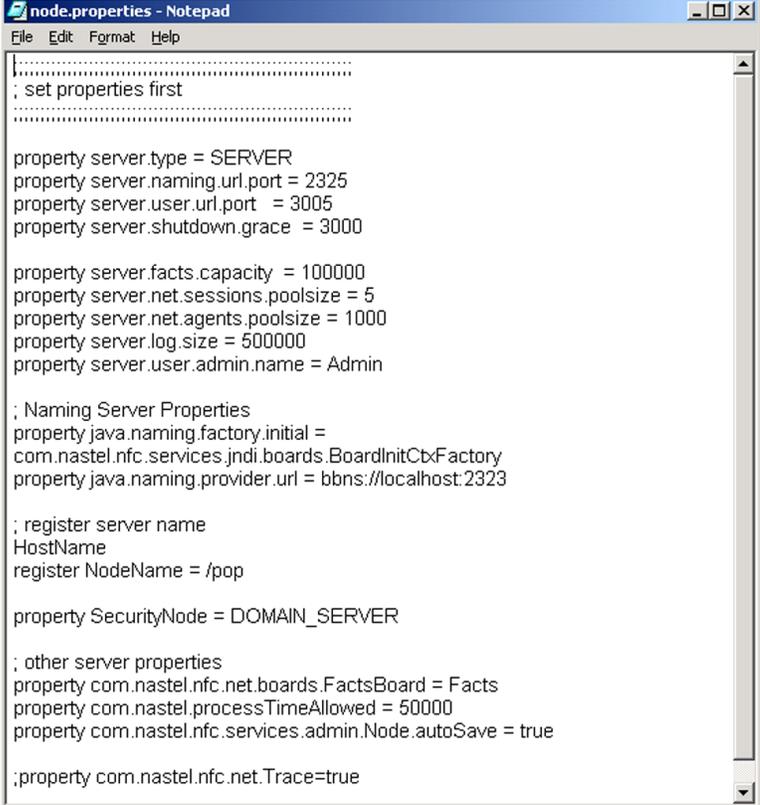
1. Click Installation Manager icon to display the *Installation Manage* screen.
2. Expand the CEP Server that contains the Service Update to be deleted.
3. Right-click **ServiceUpdate** and select **Uninstall selected package**. The latest Service Update will be uninstalled, and the Version number will change to the previous Service Update number on all CEP Servers and Web Server where the Service Update was installed.
4. To verify uninstall, right-click **ServiceUpdate** and select **Verify selected package**.

Chapter 3: AutoPilot M6 Post-Installation

	NOTE:	Installer automatically performs steps described below if the correct Domain Server location is specified during the installation process. You will need to perform these steps only if the Domain Server location has changed.
---	--------------	---

3.1 Registering with Domain Server

1. To register CEP Server with the Domain Server:
 - a. Open `node.properties` file in `[AUTOPILOT_HOME]\localhost` with a word processor.
 - b. Change the `domain.server.url` property to the host name and port number of the AP M6 domain server. Both properties are equivalent (`java.naming.provider.url` has been deprecated and should be replaced with `domain.server.url`)



```

node.properties - Notepad
File Edit Format Help
.....
; set properties first
.....
property server.type = SERVER
property server.naming.url.port = 2325
property server.user.url.port = 3005
property server.shutdown.grace = 3000

property server.facts.capacity = 100000
property server.net.sessions.poolsize = 5
property server.net.agents.poolsize = 1000
property server.log.size = 500000
property server.user.admin.name = Admin

; Naming Server Properties
property java.naming.factory.initial =
com.nastel.nfc.services.jndi.boards.BoardInitCtxFactory
property java.naming.provider.url = bbns://localhost:2323

; register server name
HostName
register NodeName = /pop

property SecurityNode = DOMAIN_SERVER

; other server properties
property com.nastel.nfc.net.boards.FactsBoard = Facts
property com.nastel.processTimeAllowed = 50000
property com.nastel.nfc.services.admin.Node.autoSave = true

;property com.nastel.nfc.net.Trace=true
  
```

Figure 3-1. Typical `node.properties` File

3.2 Verifying the AutoPilot M6 Installation

3.2.1 Starting AutoPilot M6 in Windows Environments

1. Click **Start > Programs > Nastel AutoPilot M6 > M6 Enterprise Manager** to open AutoPilot M6 Enterprise Manager program menu.



Figure 3-2. Windows Program Group for AutoPilot M6



Figure 3-3. AutoPilot M6 Enterprise Manager Screen

You can log onto AP M6 using Native (first-time user) by selecting the appropriate Security Realm.

2. When the *Logon* screen is displayed:
 - a. If first-time user, go to step 3.
 - b. Click the refresh  icon to obtain the Native domain.
 - c. Select the *Security realm* you will be using to log in by clicking the down arrow in Security Realm field to display the pull-down menu.
3. If first-time user, enter *User name* **Admin** and *Password* **admin**.. You be prompted to change your password.
4. Enter *Domain server* hostname and port.

The *Domain server* field includes the domain server name and port in the format `<host:port>`. The default *Domain Server* is *localhost*; if you want to access other domains within the AP network, enter or select the Domain Server from the pull-down menu.

The *Domain Port* is set during installation either by the installer or by default. If you want to change it to another, enter a new port or select the domain port from the pull-down menu.

5. Click **OK**.

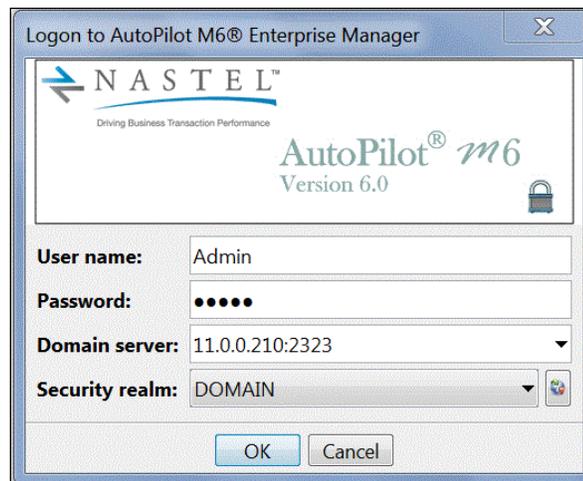


Figure 3-4. Logon to AutoPilot M6 Domain

Enter the following:

- **User name:** Admin
- **Password:** admin
- **Domain server:** If running on the same sever as the domain server, specify **localhost:2323**, otherwise enter the host or IP; for example **m6server:2323**.
- **Security realm:** **DOMAIN**.

Click **OK**.

Note that the password must be changed on the first logon.

3.2.2 Starting AutoPilot M6 from the Command Prompt

Starting Domain Server

	CAUTION!	TCP ports <i>must not</i> be shared among AP M6 services and any other TCP server/application on the same machine.
---	-----------------	--

1. From Command Prompt, type **cd [AUTOPILOT_HOME]**
2. From [AUTOPILOT_HOME] directory, type: **cd naming**
3. From [AUTOPILOT_HOME]\naming, type: **ATPNAMES**, to start the domain server component.
4. Interrupt the argument, then type: **ATPNAMES -console** to flag the Domain server. All relevant data about the server and its host will be displayed. The “**AutoPilot M6.0 IS READY!**” statement will be posted along with information and status display options.

Starting CEP Servers

	NOTES:	<ol style="list-style-type: none"> 1. Domain Server (ATPNAMES) must be running and highly available. 2. The following procedure is typical of starting AP M6 in a Windows environment; however, it is typical of start procedures on all supported platforms.
---	---------------	---

1. From Command Prompt, type: **cd [AUTOPILOT_HOME]**
2. From [AUTOPILOT_HOME] directory, type: **cd localhost**
3. From [AUTOPILOT_HOME]\localhost, type: **ATPNODE -console**, enter.

Starting AutoPilot M6 Web Server

	NOTES:	<ol style="list-style-type: none"> 1. Domain Server (ATPNAMES) must be running and highly available. 2. The following procedure is typical of starting AP M6 in a Windows environment; however, it is typical of start procedures on all supported platforms.
---	---------------	---

1. From Command Prompt type: **cd [AUTOPILOT_HOME]**
2. From [AUTOPILOT_HOME] directory, type: **cd jakarta-tomcat**
3. From [AUTOPILOT_HOME]\jakarta-tomcat directory, type: **cd bin**
4. From [AUTOPILOT_HOME]\jakarta-tomcat\bin, type: **Catalina.sh run**
(UNIX systems: **sh ./catalina.sh run**)

Starting AutoPilot M6

1. From `[AUTOPILOT_HOME]\mconsole` type: **ATPCONS**. *About AutoPilot M6[®] Enterprise Manager* screen is displayed. Click **OK**.



Figure 3-5. AutoPilot M6 Console Screen

	<p>NOTES:</p>	<ol style="list-style-type: none"> 1. This procedure is typical of starting AP M6 in a Windows environment; however, it is typical of start procedures on all supported platforms. 2. Your local AP M6 Administrator assigns Usernames and Passwords. See the System Administrator for Username and Password assignments.
---	----------------------	---

You can log onto AutoPilot using Native (first-time user) by selecting the appropriate Security Realm.

2. When the *Logon* screen is displayed:
 - a. If first-time user, go to step 3.
 - b. Click the refresh  icon to obtain the Native domain.
 - c. Select the *Security realm* you will be using to log in by clicking the down arrow in Security Realm field to display the pull-down menu.
3. If first-time user, enter *User name* **Admin** and *Password* **admin**. You be prompted to change your password.

4. Enter *Domain server* hostname and port.

The *Domain server* field includes the domain server name and port in the format `<host:port>`. The default *Domain Server* is *localhost*; if you want to access other domains within the AP network, enter or select the Domain Server from the pull-down menu.

The *Domain Port* is set during installation either by the installer or by default. If you want to change it to another, enter a new port or select the domain port from the pull-down menu.

5. Click **OK**.



Figure 3-6. Logon to AutoPilotM6 Domain

6. When *Management Console* is displayed, AP M6 Console is running.

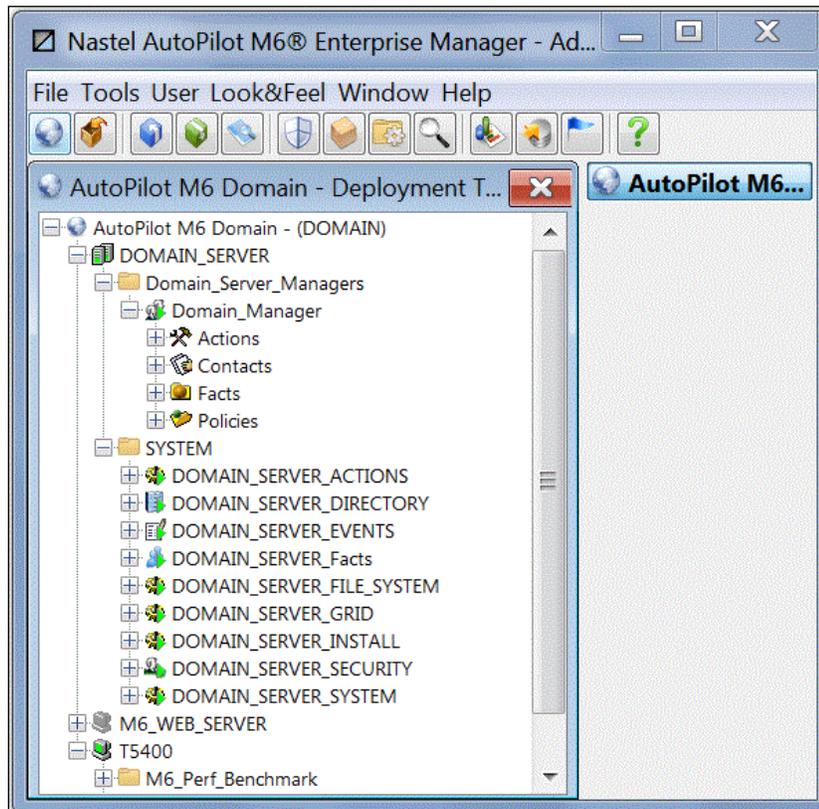


Figure 3-7. AutoPilot M6 User Console

3.2.3 Stopping AutoPilot M6 Services

	NOTE: There are no specific logoff procedures required in AP M6. The following is a typical example.
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1. From the *Deployment Tool* screen, right click on **Domain Server** or the Node you want to stop, sub-menu will be displayed. Click **Stop Node**. The stopped Node icon and name will switch to grey (for example:  AUTOPILOT_WEB_EVENTS in grey color) when screen is refreshed.

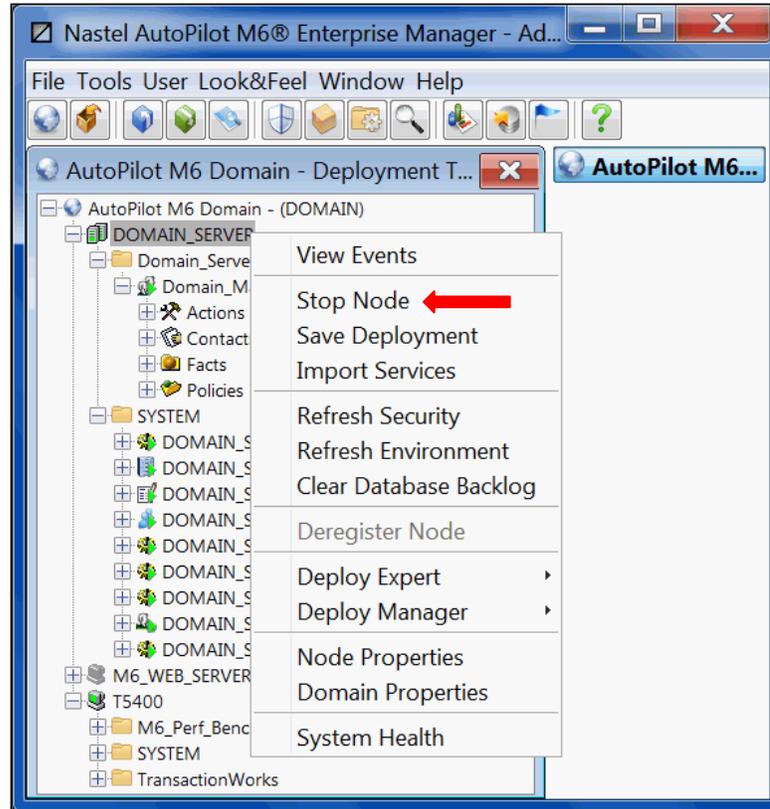


Figure 3-8. Stopping Domain Server or CEP Server (Typical)

2. Exit Consoles by clicking **File** to open pull-down menu, click **Exit**. Screen will close; you will be logged off. Services will continue to run.

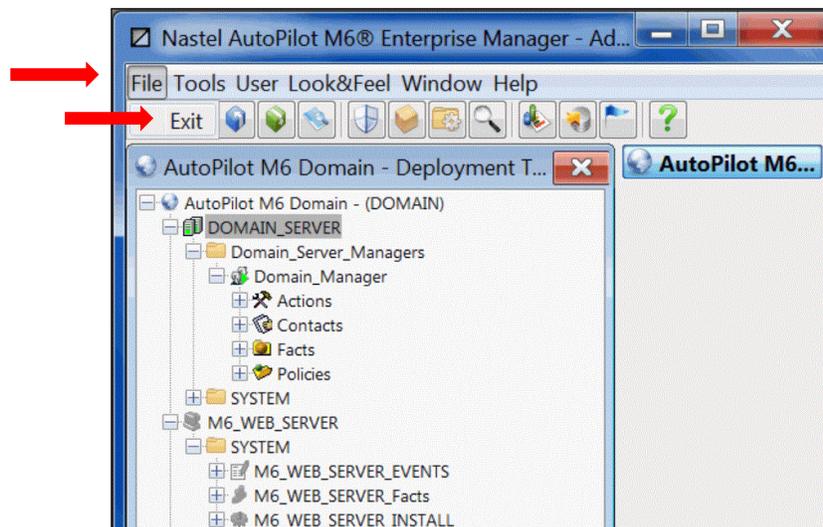


Figure 3-9. Exiting AutoPilot M6 Console, User Logoff

	NOTE:	When exiting from AP M6 Console the domain server, CEP Servers and Web servers remain running in the background. If it is necessary to stop these components, they must be shutdown manually or using apnet utility.
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3. Shut down the domain server and CEP Servers in *Command Prompt* or similar platform by typing: “q” from: `[AUTOPILOT_HOME]\naming` and `[AUTOPILOT_HOME]\localhost`. This is valid only if components are running in foreground “-console” mode.
4. From `[AUTOPILOT_HOME]\jakarta-tomcat\bin`, type: **shutdown.bat**.
(UNIX systems: **-sh ./shutdown.sh**)

3.2.4 Encrypting Communication between the Domain Server, the CEP, and Enterprise Manager

SSL can be used to encrypt communication between the domain server, the CEP, and Enterprise Manager. The instructions below explain how to create the certificates for enabling SSL in AutoPilot.

	NOTE:	These instructions assume that the certificates are self-signed.
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1. A keystore file must be created with appropriate settings (for example, password, alias, and organization information).
2. A certificate must be created from this keystore.
3. The certificate must be added to the Java truststore (cacerts). At this time, we do not support adding the certificate to another truststore.
4. The `global.properties` file must be updated.

3.2.4.1 Examples

Example commands for each step are shown below:

1. Create the keystore file. This can be done using the `keytool` utility. For example:

```
keytool -genkey -alias domainssl -keyalg RSA -keystore
"D:\sslkeys\domainssl.jks"
```

The `D:\sslkeys\domainssl.jks` is just an example file. We typically like to use the `jks` extension for this, but you can choose any extension. After running this command, follow the prompts.

2. Create the certificate file, using the password and alias that you used in step 1. For example:

```
keytool -export -alias domainssl -storepass abc123 -file
"D:\sslkeys\domainssl_public_cert.crt" -keystore
"D:\sslkeys\domainssl.jks"
```

In this example, `domainssl_public_cert.crt` is the cert file and `abc123` is the password.

3. Import the cert to the java truststore, `cacerts`:

```
keytool -import -v -trustcacerts -alias domainssl -file
"D:\sslkeys\domainssl_public_cert.crt" -keystore cacerts -keypass
changeit -storepass changeit
```

The `-keystore` is the location of `cacerts`. **This must be the complete path to the java cacerts (usually `{java_home}\lib\security\cacerts` or similar).** Unless an administrator has changed the `-storepass`, it is `changeit` by default.

4. Lastly, you must specify the location of the keystore file and the encrypted password in the global.properties file. To do this, place the following in the global.properties file:

```
;SSL properties  
property com.nastel.nfc.net.connectionSSLEnable=true  
property com.nastel.nfc.net.keystorepathandfile=c:\\SSL\\testabc.jks  
property com.nastel.nfc.net.encryptedkeystorepassword=J/n2uHF62EI=
```

	NOTE:	If connectionSSLEnable is missing, SSL will be turned off by default.
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Chapter 4: Uninstall AutoPilot M6

This chapter provides the information required to uninstall AP M6.

	<p>NOTES:</p>	<p>1 Uninstaller will only remove those files installed by AP M6. Files and directories that were User installed, created, or renamed (for example: experts, business views etc.) will require manual removal.</p> <p>2 Uninstall procedures outlined in this Chapter reflect Windows XP, 2000, 2003 and Vista; however, procedures for all operating systems/platforms are similar.</p>
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4.1 Uninstalling AutoPilot M6

1. Copy all user-defined business view into a Temp directory.
2. Exit Consoles by clicking **File** to open pull-down menu, click **Exit**. Screen will close and you will be logged off.



Figure 4-1. Exiting Consoles, User Logoff

3. Stop all M6 services via *Windows Services* by accessing *Services* through the Windows/NT/XP Control panel. Highlight and stop each service.
4. Open Programs Menu, click **Nastel AutoPilot M6** >  **Uninstall Nastel AutoPilot M6 (folder_name)** where:
folder_name is domain, mnode, cserver or admin.



Figure 4-2. Uninstall AutoPilot M6

5. The *InstallAnywhere Uninstaller* screen will be displayed. Click **Next**.

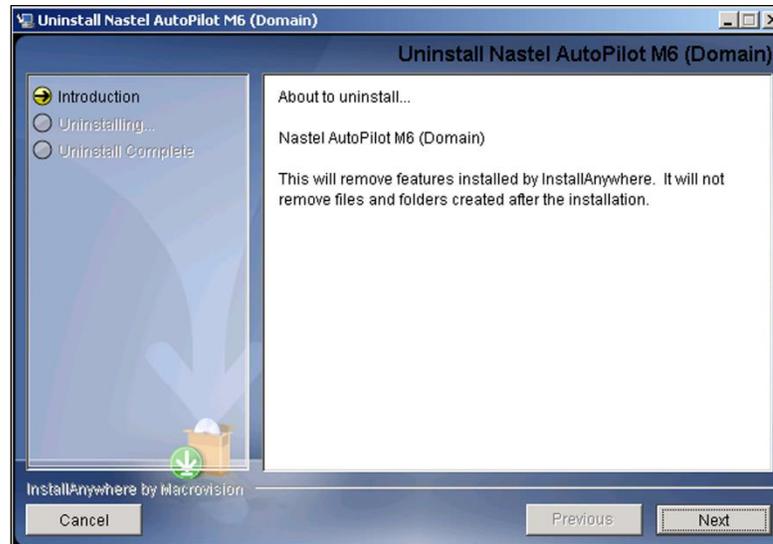


Figure 4-3. *InstallAnywhere Uninstaller*

6. The *Uninstall Options* screen will be displayed. The options for uninstalling are:
- **Complete Uninstall:** Uninstalls all features and components of AP M6 that were previously installed by InstallAnywhere. All files and databases that were created after installation will remain unchanged.
 - **Uninstall Specific Features:** Ability to select any features of AP M6 that were previously installed by InstallAnywhere for deletion.
7. Click **Next**. Proceed to step 9 if *Complete Uninstall* was selected.

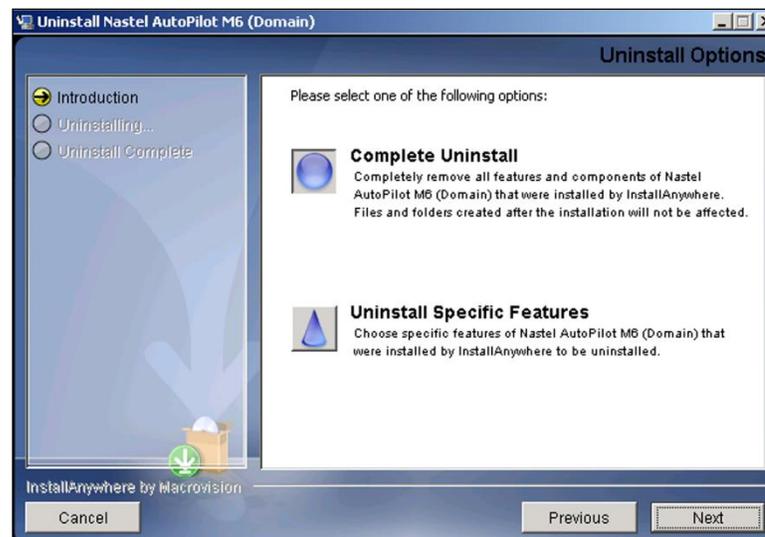


Figure 4-4. *Uninstall Options*

8. If Uninstall Specific Features was selected, uncheck the features that will be uninstalled. Click **Uninstall**.

	NOTE:	The Uninstall process can be stopped at any time by clicking the Cancel button. The Installation Termination Warning screen is displayed and provides the ability to resume if terminated inadvertently.
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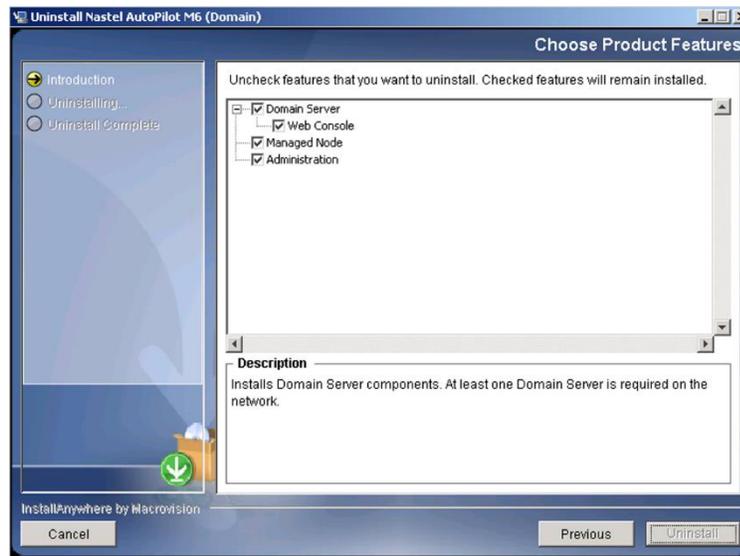


Figure 4-5. Selecting Uninstall Features

9. The *Uninstalling Progress* screen is displayed. Click **Cancel** to abort the uninstall process.
10. When *Uninstall Complete* screen is displayed, click **Done**.

Uninstall is complete, all items have been uninstalled and pre-installation settings restored. Any file which could not be removed in the uninstall process will be listed in the *Uninstall Complete* screen. Manually remove any remaining files and restart your system.

4.2 Package Manager

Package Manager allows you to install, verify, repair, view libraries, or uninstall a program.

1. From the Nastel AutoPilot M6 menu, select **M6 Product Maintenance** to open the *AutoPilot M6 Product Maintenance* dialog box.

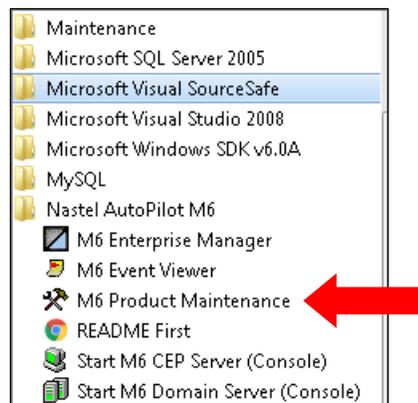


Figure 4-6. M6 Product Maintenance

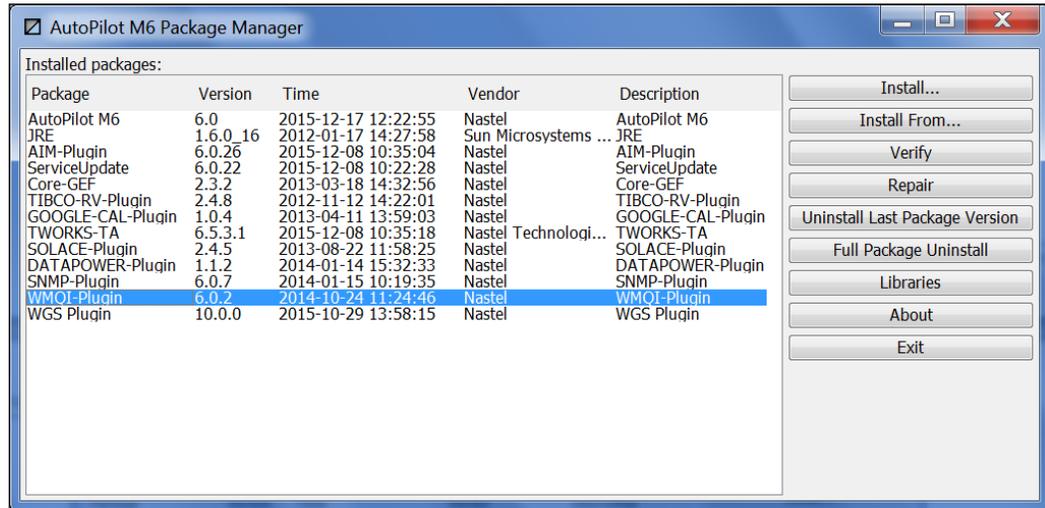


Figure 4-7. Package Manager

2. Select a package and click button for the option you want to perform.

Table 4-1. Package Manager Options

Option	Description
Install	Allows you to install the software package from a file on your computer.
Install from	Allows you to install the software package from an URL.
Verify	Allows you to verify the installation.
Repair	Allows you to repair the installation.
Uninstall Last Package Version	Allows you to uninstall the last package version.
Full Package Uninstall	Allows you to uninstall all versions of the software package.
Libraries	Allows you to view a list of the installed libraries.
About	Displays the current version of AutoPilot M6.
Exit	Closed the dialog box.

Appendix A: References

A.1 Nastel Documentation

Document Number (or higher)	Title
M6/USR 623.001	<i>Nastel AutoPilot M6 User's Guide</i>
M6/WMQ 600.002	<i>Nastel AutoPilot M6 Plug-in for WebSphere MQ</i>
M6WMQ-ADM 656.002	<i>Nastel AutoPilot M6 for WebSphere MQ Administrator's Guide</i>
M6WMQ-INS 656.003	<i>Nastel AutoPilot M6 for WebSphere MQ Installation Guide</i>
M6WMQ/SM 656.001	<i>Nastel AutoPilot M6 for WebSphere MQ Security Manager User's Guide</i>

A.2 IBM Documentation

SC33-1872 *WebSphere MQ Intercommunications*

SC33-1369 *WebSphere MQ MQSC Command Reference*

SC34-5456 *WebSphere MQ Using Java*

<http://www-106.ibm.com/developerworks/views/websphere/library.jsp - main>

A.3 HP OpenView Documentation

http://ovweb.external.hp.com/lpe/doc_serv/

A.4 Java™ 2 Platform Standard Edition™ for HP-UX Information Library

<http://www.hp.com/products1/unix/java/infolibrary/index.html>

<http://developer.java.sun.com/developer/technicalArticles/Servlets/corba/>

A.5 Jakarta Documentation References

<http://jakarta.apache.org/site/library.html>

A.6 Oracle Online Documentation

<http://otn.oracle.com/documentation/content.html>

A.7 Tru64 UNIX Online Documentation and References

http://h30097.www3.hp.com/docs/pub_page/doc_list.html

A.8 AIX JRE Resources

<http://www-106.ibm.com/developerworks/java/jdk/aix/service.html>

Appendix B: Conventions

B.1 Typographical Conventions

Table B-1. Typographical Conventions	
Convention	Description
Blue/Underlined	Used to identify links to referenced material or websites. Example: support@nastel.com
Bold Print	Used to identify topical headings, glossary entries, toggles and buttons used in procedural steps. Example: Click EXIT .
<i>Italic Print</i>	Used to place emphasis on a title, menu, screen name, or other category.
Monospaced Bold	Used to identify keystrokes/data entries, file names, directory names, etc.
<i>Monospaced Italic</i>	Used to identify variables in an address location. Example: [<i>AUTOPILOT_HOME</i>]\documents. Where the portion of the address in brackets [] is variable.
Monospaced Text	Used to identify addresses, commands, scripts, etc.
Normal Text:	Typically used for general text throughout the document.
Table Text	Table text is generally a smaller size to conserve space. 10-, 9-, and 8-point type is used in tables throughout the AutoPilot M6 product family of documents.

B.2 Naming Conventions

In the redesign of AutoPilot, we have defined many elements within the AutoPilot M6 product line.

Table B-2. AutoPilot M6 Related Naming Conventions

Old Name	New Name	Abbreviated As	HTTP Link
Nastel AutoPilot	Nastel AutoPilot M6	M6	NA
AutoPilot Web	M6 Web Server	M6 Web Server	http:\\host:8080
AutoPilot Web Portal	M6 Web Console	M6 Web Console	http:\\host:8080\m6console
Nastel AutoPilot Business Dashboard	AutoPilot M6 Business Dashboard	M6 Dashboard	See product documentation.
Managed Node	CEP Server	CServer	NA

Glossary

AutoPilot M6: Nastel Technologies' Enterprise Application Management Platform. AutoPilot M6 is designed to monitor and control distributed IT services such as application servers, middleware, user applications, workflow engines, brokers, Service Oriented Architecture (SOA) and Enterprise Service Bus (ESB) - based applications and their impact on business services.

AutoPilot M6 for WMQ: Nastel Technologies' WebSphere MQ management solution. Re-designated as M6 for WMQ with release 6.0, prior releases retain the AP/WMQ trademark.

AutoPilot/Message Tracking (AP/MT): Nastel's AutoPilot/Message Tracking plug-in that enables AutoPilot to intercept message exits and forward the statistical data to an AutoPilot expert.

AutoPilot/WebSphere Message Queue Integrator (AP/WMQI): Formerly AP/MQSI.

BSV: *see* Business Views

Business View (BSV): A collection of rules that define a desired state of an eBusiness environment. Business Views can be tailored to present information in the form most suited to a given user, as defined by the user.

CEP Server: A container that can host any number of AutoPilot services such as experts, managers, policies etc.

Client: Any programming component that uses the AutoPilot infrastructure; for example, the AutoPilot Console.

Common Object Request Broker Architecture (CORBA): A Common Object Request Broker Architecture (CORBA) object can be invoked from a Web browser using CGI scripts or applets.

Console: The console acts as the graphical interface for AutoPilot.

Contacts: A subordinate to a given Manager or Expert.

CORBA: *see* Common Object Request Broker Architecture.

Data Source Name (DSN): The logical name that is used by Open Database Connectivity (ODBC) to refer to the drive and other information that is required to access data. The name is used by Internet Information Services (IIS) for a connection to an ODBC data source, (example: Microsoft SQL Server database). The ODBC tool in Control Panel is used to set the DSN. When ODBC DSN entries are used to store the connection string values externally, you simplify the information that is needed in the connection string. This makes changes to the data source completely transparent to the code itself.

Decision Support System (DSS): An AutoPilot-based service designed to monitor, store, and display any event information generated by AutoPilot enabled middleware and applications.

Deploy: To put to use, to position for use or action.

Derby Database Server: A relational database management system that is based on Java and SQL. It will run in any certified Java Virtual Machine.

Domain Server: A specialized CEP Server that maintains the directory of CEP Servers, experts etc. The domain server is also capable of hosting experts, managers, etc.

DSN: *see* Data Source Name

DSS: *see* Decision Support System

EVT: Event Log file extension (e.g.: *sample.evt*).

Event: Something that happens to an object. Events are logged by AutoPilot and are available for use by AutoPilot Policies or the user.

Expert: Services that monitor specific applications such as an applications server, web-server or specific components within the applications.

Fact: Single pieces of data that have a unique name and value. One or more facts are used to determine the health of the object, application, or server.

Graphical User Interface (GUI): A type of environment that represents programs, files, and options by means of icons, menus, and dialog boxes on the screen. The user can select and activate these options by pointing and clicking with a mouse or, often, with the keyboard. Because the graphical user interface provides standard software routines to handle these elements and report the user's actions (such as a mouse click on a particular icon or at a particular location in text, or a key press); applications call these routines with specific parameters rather than attempting to reproduce them from scratch.

GUI: *see* Graphical User Interface.

IIS: *See* Internet Information Services

Internet Information Services (IIS): Microsoft's brand of Web server software, utilizing HTTP to deliver World Wide Web documents. It incorporates various functions for security, allows CGI programs, and also provides for Gopher and FTP services.

Java: A platform-independent, object-oriented programming language developed and made available by Sun Microsystems.

Java Developer's Kit (JDK): A set of software tools developed by Sun Microsystems, Inc., for writing Java applets or applications. The kit, which is distributed free, includes a Java compiler, interpreter, debugger, viewer for applets and documentation.

JDBC: *See* Java Database Connectivity.

Java Database Connectivity (JDBC): The JDBC API provides universal data access from the Java programming language. Using the JDBC 2.0 API, you can access virtually any data source, from relational databases to spreadsheets and flat files. JDBC technology also provides a common base on which tools and alternate interfaces can be built. The JDBC *Test Tool* that was developed by Merant and Sun Microsystems may be used to test drivers, to demonstrate executing queries and getting results and to teach programmers about the JDBC API.

Java Run-time Environment (JRE): The minimum core JAVA required to run JAVA programs.

Java Server Pages (JSP): JSP technology enables rapid development of web-based applications that are platform independent. Java Server Pages technology separates the user interface from content generation enabling designers to change the overall page layout without altering the underlying dynamic content. Java Server Pages technology is an extension of the Java™ Servlet technology.

Java Virtual Machine (JVM): The “virtual” operating system that JAVA-written programs run. The JVM is a hardware and operating-system independent abstract computing machine and execution environment. Java programs execute in the JVM where they are protected from malicious programs and have a small compiled footprint.

JDK: *see* Java Developer's Kit.

JRE: *see* JAVA Run-time Environment.

JSP: *see* Java Server Pages

JVM: *see* JAVA Virtual Machine.

M6 Web Server: A browser-based interface that provides monitoring and operational control over managed resources and applications.

Manager: Home or container for policies. All business views must reside on managers, and manager must be deployed prior to deploying a business view or policy.

Message-Oriented Middleware (MOM): A category of inter-application communication software that relies on asynchronous message passing as opposed to a request/response metaphor.

Message Queue Interface (MQI): Part of IBM's Networking Blueprint. It is a method of program-to-program communication suitable for connecting independent and potentially non-concurrent distributed applications.

MOM: *see* Message-Oriented Middleware

MQI: *see* Message Queue Interface

MQSeries: IBM's message queuing product. Renamed by IBM as WebSphere MQ

Naming Service: A common server records “names” of objects and associates them with references, locations, and properties.

Managed Node: *see* CEP Server

ORB: Object Request Broker.

Orbix: CORBA product distributed by IONA Technologies.

Package Manager (PKGMAN): The command line utility that allows users to list, install, uninstall, verify, and update AutoPilot installation on any CEP Server.

PKGMAN: *see* Package Manager

Policy/Business Views: Business views are a collection of one or more sensors. Business views are used to visually present the health and status of the different systems as well as automatically issue remedial actions.

Sensor: A rule that is used to determine the health of an object or application based on one or more facts. Actions can then be issued, based on the health.

Simple Mail Transfer Protocol (SMTP): A TCP/IP protocol for sending messages from one computer to another on a network. This protocol is used on the Internet to route e-mail. *See also* communications protocol, TCP/IP. *Compare* CCITT X series, Post Office Protocol.

SMTP: *see* Simple Mail Transfer Protocol

Speed Manager: Type of manager which allows loading of policies from a “Speed Folder” which automatically loads all .bsv and .bsp files located in the folder upon manager’s start.

TCP/IP: *see* Transmission Control Protocol/Internet Protocol.

Transmission Control Protocol/Internet Protocol (TCP/IP): A protocol developed by the Department of Defense for communications between computers. It is built into the UNIX system and has become the de facto standard for data transmission over networks, including the Internet.

Virtual Machine: Software that mimics the performance of a hardware device, such as a program that allows applications written for an Intel processor to be run on a Motorola chip. *Also See* Java Virtual Machine.

WAP: *see* Wireless Application Protocol.

WebSphere MQ: IBM’s message queuing product. Formally known as MQSeries.

Websphere_MQ_Manager : A specialized manager capable of hosting one or more MQSeries specific policies, apart from the regular policies.

Wireless Application Protocol (WAP): An open global specification that is used by most mobile telephone manufacturers. WAP determines how wireless devices utilize Internet content and other services. WAP enables devices to link diverse systems contents and controls.

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