- introscope9.0.5
  - Documentation
    - wysiam_overview_guide9.0.5.0.pdf — Overview
    - wysiam_release_notes9.0.5.0.pdf — Readme
    - APM_Known_Issues.pdf — Known Issues
    - wytsc_introscope_configuration_administration_guide9.0.5.0.pdf — Introscope Configuration and Administration
    - wysiam_install_and_upgrade9.0.5.0.pdf — Introscope Installation and Upgrade
    - wytsc_environment_performance_agent9.0.5.0.pdf — EPAgent Installation and Configuration
    - wysc_net_agent_guide9.0.5.0.pdf — .NET Agent Installation and Configuration
    - wytsc_powerpack_for_sharepoint_portal9.0.5.pdf — SharePoint Portal Installation and Configuration
    - wytsc_soa_performance_management_guide9.0.5.0.pdf — SOA Performance Management Installation and Configuration
    - wytsc_workstation_user_guide9.0.5.0.pdf — Workstation User Guide
    - wysam_glossary9.0.5.0.pdf — Glossary
  - Components Installed
    - SOA Performance Management
    - SharePoint Portal Power Pack
    - .NET Agent
  - EPAgent and SharePoint Portal Deployment
    - Verify software requirements
      - The .NET Agent supports the following versions of .NET:
        - .NET 1.1 Framework, v1.1.4322
        - .NET 2.0 Framework, v2.0.50727
        - .NET 3.0 Framework, v3.0.4506
        - .NET 3.5 Framework, v3.5.21022

        The .NET Agent supports the following versions of Windows and IIS:
        - Windows XP Professional 2002+ SP2 / IIS Version 5.1
        - Windows Server 2003 Enterprise Edition + SP1 / IIS Version 6.0
        - Windows Server 2003 Enterprise Edition + SP2 / IIS Version 6.0
        - Windows 2008 Server Enterprise SP1 32-bit / IIS Version 7.0,8000,16386
        - Windows 2008 Server Enterprise SP1 64-bit / IIS Version 7.0

        The .NET Agent supports the following versions of SQL Server:
        - SQL Server 2005 Version 9.00.1399.06
        - SQL Server 2008 32bit and 64bit

        The .NET Agent supports the following Oracle servers:
        - Oracle 10g
        - Oracle 11g

        The .NET Agent supports the following ODP.NET drivers:
        - ODP.NET 10.2.0.1x
        - ODP.NET 10.2.0.2x
        - ODP.NET 10.2.0.3
        - ODP.NET 11.1.0.6.20

        SharePoint Power Pack support:
        - MOSS 2007 on Windows Server 2003 Standard and Enterprise Editions
        - MOSS 2007 SP1 and SP2 on Windows Server 2008 Standard and Enterprise Editions
        - Supports both 32-bit and 32-bit platforms
    - Install .NET Agent
      - Copy installer to the machine
      - Execute installer
        - Specify installation directory
        - Choose to **NO** to deploying ChangeDetector extension
        - Choose **BCA Performance Monitor** extension for components to enable
        - Choose SharePoint Portal extension ONLY if you are instrumenting SharePoint
        - Choose **Native Profiler** for instrumentation method
      - Set Permission
        - CD to your installation directory
        - Execute <Wily home>\wilypermissions.exe utility — Example: «Wilypermissions "D:\Program Files\CA Wily\introscope9.0.5 Dwily"
          running this utility with additional parameters will instrument w3w or IIS worker processes
        - Verify the process owner has Full Permission to the <Wily home> — for this to work, make sure application is running as this utility will look for w3w process and grant Full permission to the process owner(s).
      - Configure the Agent
        - Edit the <Wily Home>\IntroscopeAgent.profile
        - Set the MOM hostname — introscope.agent.enterprisemanager.transport.tcp.host.DEFAULT= ALXINCT-APM01.abn.net
        - Set instrumentation — introscope.autoprobe.directives=fw=default,sysout,jdbc,hotspot&sy
        - Disable Perfmon — introscope.agent.perfmon.enable=false
      - Validate Agent DLL is in the GAC (on **Win2008 only**) — Using the File Explorer, go to C:\Windows\Assembly and verify that the **wily.Agent.dll** is registered.
      - Enable cross-process tracing
        - CD to c:\Windows\Microsoft.NET\Framework\v2.0\CONFIG
        - Backup machine.config
        - Edit machine.config — search for <system.web> and add the section
          ```
          <webServices>
          <soapExtensionTypes>
            <add type="com.wily.introscope.agent.trace.webservices.correlation.SOAPExtension,
              wily.Agent, Version=9.0.5.0, Culture=neutral, PublicKeyToken=2b4198fb6cd862a5"
              priority="1" group="0"/>
            <add type="com.wily.powerpack.webservices.extension.ObserveSoapExtension,
              wily.webservices.Observer, Version=9.0.5.0, Culture=neutral,
              PublicKeyToken=ee99330fa7173006" group="0" priority="2" />
          </soapExtensionTypes>
          </webServices>
          ```
          - if <webServices> tag already exist then copy the <soapExtensionTypes>
          - if <soapExtensionTypes> exist then copy the <add type= sections
      - Reboot the machine
    - Validate agent deployment
      - Login using the workstation — webview http://abn-apm01:8081
        workstation http://abn-apm01:8080
      - Select "New Investigator" — from the workstation menu
      - Verify the agent is reporting — Select / Expand the "Super Domain" node — Select the Server Name. The process name (.NET PRocess) shoud appear — Select Process Name the agent name should appear
        - If you dont see the server — verify that the process is running — try "exercising" the app
          verify that port 5001 is opened from the server to the mom
          verify the mom hostname is correct in the IntroscopeAgent.profile — introscope.agent.enterprisemanager.transport.tcp.host.DEFAULT= ALXINCT-APM01.abn.net
    - Update domains on the MOM server
      - CD to <EM Home>
        cd <EM HOME>\config
      - Edit the domains.xml — add the server name to the appropriate domain — example
        ```
        <domain name="SharePoint_PROD" description="Production SharePoint Servers">
          <agent mapping="L*xMOSS(.*)$,"/>
          <agent mapping="L*yVMRSP(.*)$,"/>
          <grant group="Admin" permission="full"/>
          <grant group="_SP_Admin" permission="full"/>
          <grant group="SP_Analyst" permission="write"/>
          <grant group="SP_Qest" permission="read"/>
        </domain>

        <domain name="CRM_NON-PROD" description="Non-Prod CRM Servers">
          <agent mapping="zMTxCRM01($.*)"/>
          <agent mapping="zVMDCRM02($.*)"/>
          <agent mapping="MyNew_CRM_NONPROD_Server($.*)"/>
          <grant group="Admin" permission="full"/>
          <grant user="Guest" permission="read"/>
          <grant group="CRM_Admin" permission="full"/>
          <grant group="CRM_Analyst" permission="write"/>
          <grant group="CRM_Qest" permission="read"/>

        </domain>

        <domain name="CRM_PROD" description="Production CRM Servers"/>
          <agent mapping="L*xCRM(.*)$,"/>
          <grant group="Admin" permission="full"/>
          <grant user="Guest" permission="read"/>
          <grant group="CRM_Admin" permission="full"/>
          <grant group="CRM_Analyst" permission="write"/>
          <grant group="CRM_Qest" permission="read"/>
        </domain>
        ```
      - restart the MOM service
    - Install EPAgent for CRM
      - Copy the EPAgent files from the VMT-CRM server to your installation directory
      - Configure the EPagent properties
        - CD to <EPAgent Home>\config
        - Edit the IntroscopeEPAgent.properties file — Set the mom hostname — introscope.agent.enterprisemanager.transport.tcp.host.DEFAULT=ALXINCT-APM01.abn.net
      - Configure the JAVA Path
        - CD to <EPAgent Home>
        - Edit the <EPAgent Home>\EPAServiceWrapper.conf — modify the Java Path — wrapper.java.command=C:\Program Files\Java\jdk1.6.0_12\bin\java
      - Register the EPAgent as a Windows Service
        - CD to <EPAgent Home>
        - run the RegisterEPAgent.bat
    - Install the SharePoint Portal Power Pack
      - Verify Software requirements — The PowerPack supports:
        ■ MOSS 2007 on Windows 2003 Standard and Enterprise Editions.
        ■ MOSS 2007 SP1 and SP2 on Windows 2008 Standard and Enterprise Editions.
        ■ The following minimum versions for SQL Server:
        ■ SQL Server 2000 SP4.
        ■ SQL Server 2005 SP1.
        ■ Microsoft BS 6.0 and 7.0.
        Note: The PowerPack is supported on both 32-bit and 64-bit platforms.
      - Verify that JAVA is installed or the installer won't work.
      - Execute the Standalone Power Pack installer — IntroscopeStandalonePP9.0.5.0windows.exe
      - Select SharePoint Portal Power Pack — you will get a prompt saying that MOSS and WSS is not installed you can ignore this warning
      - Specify the MOM host name and port
      - Register the power pack as a Window Service
        - Run the RegisterSPMonitorWindowService.bat file
        - Enter the SharePoint domain account username and password in the Set Service Login dialog box. — Note: The account username must be entered in the <domain>\<username> format.
      - Start the service
  - Collector Deployment
    - new Collector
      - on the Collector machine
        - Verify Software Requirements
          - Enterprise Manager operating system requirements
            ■ IBM AIX 5.2, 5.3, 6.x
            ■ HP-UX 11.x, 11.23
            ■ Red Hat Linux 4.0, 4.4, 5.0, 5.1, 5.2
            ■ Red Hat eLinux 5.0
            ■ Linux 2.6
            ■ Sun Solaris 8, 9, 10
            ■ Novell SuSE Linux 10, 11
            ■ Microsoft Windows Server 2003, 2008
            ■ zOS 1.8, 1.9, 1.10
            ■ IBM OS/400
            Note: Installing in GUI mode on OS/400 is not supported, even from a Windows system that has a drive mapped to the OS/400 system.
          - Enterprise Manager memory requirements
            ■ 2 GB
            Requirements might be higher, depending on:
            ■ number of connected agents
            ■ number of connected Workstations
            ■ metric volume
            ■ monitoring logic, such as Metric Groupings, Alerts, and Calculators
          - Enterprise Manager disk space requirements
            ■ 30 MB, including VM for the Enterprise Manager
            ■ 30 MB for command line ProbeBuilder
          - SmartStor database requirements
            ■ 10 GB minimum disk space
            Assumes default aging configuration. See the discussion about configuring SmartStor Data Storage in the CA Wily APM Sizing and Performance Guide and the spreadsheet SmartStorSizing.xls for information on calculating SmartStor disk space requirements.
            IMPORTANT! You must configure a dedicated disk for SmartStor if Enterprise Managers are collecting agent data. If an Enterprise Manager is running Enterprise Manager Services and not collecting agent data, SmartStor does not have to be on a separate disk or partition.
          - Transaction Events database requirements
            ■ 2 GB minimum disk space
          - baselines database requirements
            ■ 4 GB disk space
            Assumes 200K metrics
            Note: Metric baselines are stored in <EM_Home>/data/baselines.db.
          - Enterprise Manager temporary directory space requirements
            ■ 200 MB disk space
        - run the Enterprise Manager installer
          - Select to install Enterprise Manager
          - Specify PostGres Database for the APM database — use the existing APM database deployed on ALXINCT-APM02
            password is wily
          - Select Collector Role
          - Select to run as a Windows Service
        - Deploy the SOA Performance Management Plugin — Copy and paste the <EM_HOME>\examples\SOAPerformanceManagement\product\ enterprisemanager\plugins directory into the <EM_Home>\product\enterprisemanager\plugins directory.
        - Start the service
      - on the MOM machine
        - CD to <Enterprise Manager home>\config
        - Edit the IntroscopeEnterpriseManager.properties — add section
          ```
          introscope.enterprisemanager.clustering.login.em=fast index +1>.host=localhost
          introscope.enterprisemanager.clustering.login.em=fast index +1>.port=5001
          introscope.enterprisemanager.clustering.login.em=fast index +1>.publickeyinternalIserverEM.public
          introscope.enterprisemanager.clustering.login.em=fast index +1>.weight=
          ```
          example
          ```
          introscope.enterprisemanager.clustering.login.em1.host=localhost
          introscope.enterprisemanager.clustering.login.em1.port=5001
          introscope.enterprisemanager.clustering.login.em1.publickeyinternalIserverEM.public
          introscope.enterprisemanager.clustering.login.em1.weight=

          introscope.enterprisemanager.clustering.login.em2.host=localhost
          introscope.enterprisemanager.clustering.login.em2.port=5001
          introscope.enterprisemanager.clustering.login.em2.publickeyinternalIserverEM.public
          introscope.enterprisemanager.clustering.login.em2.weight=
          ```
        - For Introscope Collectors ONLY
          - Edit the loadbalancing.xml — add the new collector by adding a <collector host> between the <include> tag
            Example:
            ```
            <agentcollector>
              ...
              <include>
                <collector host="collectorapm20" port="50071"/>
                <collector host="**New INTROSCOPE - COLLECTOR" port="5001"
                <include>
              ...
            </agentcollector>
            ```
      - restart the MOM
  - User and Group management
    - on the MOM
      - edit domain permissions
        - Edit the domains.xml — grant group access by assigning the AD group to a domain
          ```
          <domain name="SharePoint_PROD" description="Production SharePoint Servers">
            <agent mapping="L*xMOSS(.*)$,"/>"/>
            <agent mapping="L*yVMRSP(.*)$,"/>"/>
            <grant group="Admin" permission="full"/>
            **<grant group="AppsAPM" permission="read"/>**
            **<grant group="AppsAPM" permission="write"/>**
            **<grant group="AppsAPM" permission="run_tracer"/>**
          </domain>
          ```
          - permissions
            - read — Users or groups can view all Agents and business logic in Domain, This includes the ability to:
              - Viewing Investigator tree (which will show Agents in the Domain user has access to)
              - Viewing dashboards in the Console
              - Viewing metric and element data in the Investigator Preview pane, including default Top N Filtered Views for certain Resources in the Investigator tree
              - Viewing any Management Module, Agent or Element settings
              - Viewing Alert messages
              - Refreshing historical data in a historical Data Viewer, and zoom in and out
              - Changing historical date range options for historical Data Viewer
              - Changing metrics in a Data Viewer
              - Moving metrics in a Data Viewer to the back or front
              - Changing group and user preferences (setting a home dashboard, displaying Management Module names with dashboard names)

              Note: Users or groups with read permission will be able to see all commands in the Workstation, but the commands they do not have access to will be disabled.
            - write — A user or group with write permission can do everything a those with read permission can, but can also:
              - view all Agents and business logic in Domain
              - create and edit dashboards
              - edit all monitoring logic in a Domain.
            - run_tracer — Users or groups can start a Transaction Trace Session for an Agent,

              Note: This permission also requires the assignment of read permission.
            - historical_agent_control — Users or groups can mount and unmount Agent(s),

              Note: This permission also requires the assignment of read permission.
            - live_agent_control — Users or groups can shut off reporting for Metrics, Resources, and Agent within Domain.

              Note: This permission also requires the assignment of read permission.
            - full — Users or groups have all possible permissions for Domain.
      - restart the MOM