ESRI Business Analyst 9.3.1
Enterprise Deployment

An ESRI White Paper

Contents

Executive Summary ................................................................. 1
Section 1: Preparing for Business Analyst Installation............... 1
Section 2: Command Line Syntax Examples ............................... 2
  Crystal Reports XI Silent Installation ................................... 2
  Crystal Reports XI Service Pack 2 Silent Installation ............... 3
  .NET Framework 2.0 Silent Installation ................................... 3
  ArcGIS Desktop 9.3.1 Silent Installation ............................... 3
  Business Analyst Desktop 9.3.1 Silent Installation ................... 4
  Business Analyst Desktop 9.3.1 Service Pack 1 Silent Installation . 4
  Business Analyst Data License Activation ................................ 4
Section 3: SCCM Configuration for Business Analyst ................. 5
Conclusion .................................................................................. 9
ESRI Business Analyst 9.3.1 Enterprise Deployment

Executive Summary

ArcGIS® Desktop software deployments can be managed automatically through Microsoft® System Center Configuration Manager (SCCM), formerly Systems Management Server (SMS). ESRI issued a technical white paper concerning ArcGIS 9.3 enterprise deployment that includes a detailed discussion of deployments of ArcGIS setups using SCCM. The white paper can be found online at http://resources.arcgis.com/content/white-papers?fa=viewPaper&PID=66&MetaID=1427.

Business Analyst™ Desktop is an extension of ArcGIS Desktop. While the deployment of Business Analyst Desktop via SCCM is not certified by ESRI, tests indicate that it can be successfully deployed using this mechanism. It should be noted that a complete deployment of Business Analyst Desktop involves approximately 16 GB of data. Network traffic load should be taken into careful consideration if there is a plan to install several Business Analyst Desktop instances over the network.

This document is divided into three sections. The first section provides instructions on copying the DVD installation media to support the installation of Business Analyst and all prerequisite components through SCCM. The second section provides command line examples and syntax for installing Business Analyst and all prerequisites. These command line examples will be used in the final section of the document, which provides an illustrated guide to configuring SCCM for deploying Business Analyst.

Section 1: Preparing for Business Analyst Installation

The complete Business Analyst 9.3.1 installation is composed of three separate DVDs. To install Business Analyst 9.3.1 silently, the installations must be available on a local or network share. The contents of the DVDs are as follows:

- Disk 1—Contains prerequisite programs (Crystal Reports®, .NET Framework, etc.) and a preinstallation utility that checks for needed or unneeded software (approximately 2.3 GB)
- Disk 2—Contains the Business Analyst 9.3.1 software and data setup except for geocoding data and locators (approximately 8 GB)
- Disk 3—Contains all geocoding data and locators (approximately 7.9 GB)

The primary Business Analyst software and data installation spans DVDs 2 and 3. These contents must be copied to a network or local share prior to installation by command line or through SCCM deployment. To properly prepare Business Analyst for a silent installation, do the following:

1. Copy the contents of Disk 1 to a local drive or network location.
2. Copy the contents of Disk 2 to a local drive or network location—preferably, the same root location as Disk 1.
3. Navigate to Disk2\ArcGIS\Business Analyst\Data on the local or network share where the data was copied.

4. Copy the Disk3\ArcGIS\Business Analyst\Data\USA Geocoding Service folder and its contents from Disk 3 to Disk2\ArcGIS\Business Analyst\Data.

5. Confirm that the new Disk2\ArcGIS\Business Analyst\Data structure (approximately 16.6 GB) contains the following folders:
   - BDS
   - DMM Shopping Centers
   - ESRI Data
   - InfoUSA Data
   - StreetMapData
   - USA Geocoding Service

Section 2: Command Line Syntax Examples

The Business Analyst 9.3.1 installation includes the following components, which should be installed in the order as shown:

- Crystal Reports XI
- Crystal Reports XI Service Pack 2
- .NET Framework 2.0
- ArcGIS Desktop 9.3.1 (including the ArcGIS Network Analyst extension and .NET Framework 2.0 Support)
- Business Analyst Desktop 9.3.1
- Business Analyst Desktop 9.3.1 Service Packs

For more information on installing Business Analyst, consult the installation instructions on the installation media or the ESRI Resource Center:


Note: All installations must be run under an administrator account.

The following are command line (silent installation) examples for Business Analyst Desktop 9.3.1 and its prerequisite software installations.

Crystal Reports XI Silent Installation

Crystal Reports is required to support the reporting capabilities in Business Analyst and must be installed prior to installing Business Analyst. The following is an example of the command line syntax for installing Crystal Reports:

msiexec /i "\your_network_share\BA931DVD1\Crystal Reports XI\win32\CrystalReports.msi" REBOOT=ReallySuppress TRANSFORMS=1033 /qb INSTALLDIR="C:\Program Files\Business Objects" COMMONVERDIR="C:\Program Files\Common Files\Business Objects\3.0\" ADDLOCAL=ALL
This installs Crystal Reports XI build 11.0.0.1282.

**Crystal Reports XI Service Pack 2 Silent Installation**

Crystal Reports Service Pack 2 is required to resolve several problems involved in creating summary reports with Business Analyst.

"\your_network_share\BA931DVD1\Crystal Reports XI\Service Pack 2\setup.exe" -s -f1"\your_network_share\BA931DVD1\Crystal Reports XI\Service Pack 2\setup5.iss" -f2"C:\Temp\log.txt"

This updates the build number to 11.0.0.1994.

**.NET Framework 2.0 Silent Installation**

.NET Framework 2.0 needs to be installed on all Windows® XP systems prior to installing Business Analyst. If .NET Framework 2.0 is not present on Windows XP systems, it can be installed using the following syntax:

"\your_network_share\BA931DVD1\DotNet20\dotnetfx.exe" /q:a /c:"install /q"

.NET Framework 2.0 is not an installation requirement on Vista or Windows 7 systems, as both operating systems are already bundled with .NET Framework 2.0. For more information about this installation, consult the Microsoft Developer Network support library at [http://msdn.microsoft.com/en-us/library/aa480242.aspx](http://msdn.microsoft.com/en-us/library/aa480242.aspx).

**ArcGIS Desktop 9.3.1 Silent Installation**

Three .msi files need to be run for the ArcGIS Desktop 9.3.1 installation (one .msi for ArcGIS itself and two for installing Visual Basic® for Applications [VBA] components that are required to operate Business Analyst). You can find detailed information about ArcGIS silent installations in the Install.htm file located under the `<ArcGIS_Setup_Location>` root folder. The following example illustrates how to install ArcGIS with the required Network Analyst extension:

msiexec /i "\your_network_share\ArcGIS_Desktop\setup.msi" ADDLOCAL=ArcMap,ArcCatalog,ArcReader,NetworkAnalyst,Python,.NET_Support,CivicAndBusiness,NaturalResources,TemplateGeneral,TemplateIndustry,TemplateWorld,TemplateUSA

ESRI_LICENSE_HOST=your_license_manager SOFTWARE_CLASS=Editor /qb

You can configure installation folders for ArcGIS and Python® at the command prompt and set other features to be installed using the ADDLOCAL property.
The following are examples of the command line syntax for installing ArcGIS VBA components that are required for Business Analyst:

- `msiexec /I "\\your_network_share\ArcGIS_Desktop\VBA\VBAOF11.msi" /qb
- `msiexec /I "\\your_network_share\ArcGIS_Desktop\VBA\1033\VBAOF11i.msi" /q

**Business Analyst Desktop 9.3.1 Silent Installation**

The complete installation of Business Analyst 9.3.1 software and data comprises three separate dual-layer DVDs. To install Business Analyst 9.3.1 silently, the main Business Analyst installation on DVDs 2 and 3 must be copied to a network or local share prior to installation, as outlined in section 1 of this document. See section 1 for more information about preparing the silent installation.

After preparing the Business Analyst software and data components on a network or local share, you can use the following command line syntax to install Business Analyst:

`msiexec.exe /i "\\your_network_share\BA931DVD2\Setup.msi" /qb`

**Business Analyst Desktop 9.3.1 Service Pack 1 Silent Installation**

The latest Business Analyst service pack should be applied after Business Analyst is installed. The latest service pack can be downloaded from the ESRI Support site at the following location:

[http://resources.arcgis.com/content/patches-and-service-packs?fa=listPatches&PID=78](http://resources.arcgis.com/content/patches-and-service-packs?fa=listPatches&PID=78)

As an example, service pack 1 for Business Analyst 9.3.1 can be installed with the following syntax:

`msiexec.exe /update "\\your_network_share\BA_USA_9.3.1_SP1_390\BA931SP1.msp" /qb`

**Business Analyst Data License Activation**

The Business Analyst data license (*.sdlic) must be applied to each individual machine to unlock and view all licensed datasets. To manually activate the Business Analyst data license, copy the *.sdlic file to the local machine where Business Analyst is installed and double-click it. See the following link for more information on the Business Analyst data license:


If you need to silently activate the Business Analyst data license, copy the data license to a shared location and use the following two command examples:

- `mkdir "C:\Program Files\ESRI\DataLicense"
- `copy "\\your_network_share\your_BA_data_license.sdlic" "C:\Program Files\ESRI\DataLicense\your_BA_data_license.sdlic"`
Section 3: SCCM Configuration for Business Analyst

Business Analyst can be installed using SCCM with some minor configuration changes. This section provides examples of how to prepare the installation for deployment. Key changes to the Data Source tab default settings should be made as illustrated below. One thing to note on this screen is that **Enable binary differential replication** is selected. This will speed up replication on the package if any changes are needed.
In the next step, configure the Business Analyst installation to run silently. In the example below, \textit{msiexec} is used to run the installation, as illustrated in section 2 of this document. The following command line syntax is used to install Business Analyst:

\texttt{"msiexec.exe /i Setup.msi /qn"}
The Requirements tab can be left with the defaults. However, you can specify the disk space required to be sure that enough is available for the installation.
On the Environment tab, you may want to change how the program can run to the option **Whether or not a user is logged on** to the machine. Also, you will need to select **Run with administrative rights**. The other tabs can be left with default settings.
On the client side, the SCCM cache needs to be large enough to contain the entire 17 GB download.

This can be modified on the client; there are also other ways to automatically increase it. For more details, you will need to consult SCCM documentation and support materials.

**Conclusion**

Successful enterprise deployment requires good planning and implementation of your system environment. To successfully deploy a Windows Installer package, you should have a solid understanding of your chosen enterprise deployment tool. This paper does not attempt to introduce you to or educate you on the usage of SCCM. An in-depth understanding of your chosen deployment tool is required. For more information on SCCM or other deployment tools, consult [www.microsoft.com](http://www.microsoft.com) and your product documentation.

For more information about Business Analyst, consult the ESRI Resource Center:

[http://resources.arcgis.com/content/business-analyst-suite](http://resources.arcgis.com/content/business-analyst-suite)
About ESRI

Since 1969, ESRI has been helping organizations map and model our world. ESRI’s GIS software tools and methodologies enable these organizations to effectively analyze and manage their geographic information and make better decisions. They are supported by our experienced and knowledgeable staff and extensive network of business partners and international distributors.

A full-service GIS company, ESRI supports the implementation of GIS technology on desktops, servers, online services, and mobile devices. These GIS solutions are flexible, customizable, and easy to use.

Our Focus

ESRI software is used by hundreds of thousands of organizations that apply GIS to solve problems and make our world a better place to live. We pay close attention to our users to ensure they have the best tools possible to accomplish their missions. A comprehensive suite of training options offered worldwide helps our users fully leverage their GIS applications.

ESRI is a socially conscious business, actively supporting organizations involved in education, conservation, sustainable development, and humanitarian affairs.

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