

## Introduction

This document explains how to backup and restore a PCS Axis® database using Microsoft® SQL Server® Management Studio (SSMS). The information is intended for your company's Database Administrator (DBA) or IT personnel. Examples in this document refer to the demo database provided with PCS Axis labeled *pcsappdev*.

Backups are an important part of any SQL Server environment. Their purpose is to allow you to recover from a damaged database or hardware failure while minimizing the loss of work and data. Although different backup options are available, this document describes how to create a *Full* backup of the PCS Axis database. A *Full* backup represents the entire database at the time the backup finishes. Topics in this document include those in the following list:

- *Making a Full Backup*
- *Restoring a Database Backup* (page 6)
- *Product Support and Training* (page 10)

If you have questions or need assistance, contact [PCS Technical Services](#) using the contact information on page 10.

## Making a Full Backup

Complete the following steps to make a full backup of the PCS Axis database:


- 1 Start SQL Server Management Studio (SSMS). Click the Windows **Start**  button and then click **Microsoft SQL Server 2008 R2 > SQL Server Management Studio**.
- 2 When the *Connect To Server* dialog box opens, select the server and provide your login information. Then click **Connect** (Figure 1).



Figure 1. *Connect to Server*

- 3 Double-click the **Databases** folder in *Object Explorer* (Figure 2).
- 4 Right-click the name of the database you want to backup to open a shortcut menu.

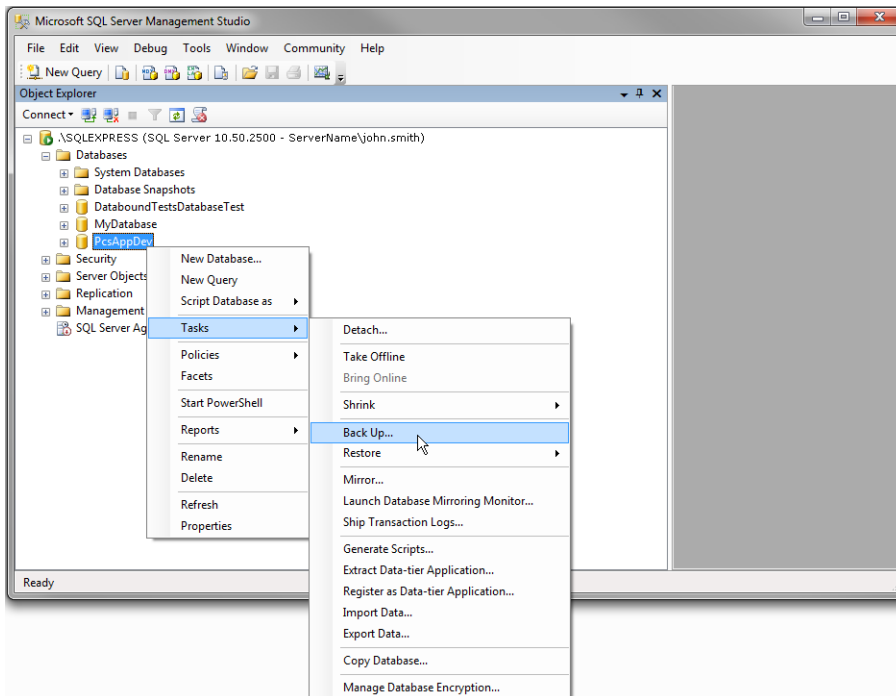


Figure 2. Object Explorer (SQL Server Management Studio)

- 5 Navigate to **Tasks** and then select **Back Up** in the shortcut menu (Figure 2) to open the *General* page in the *Back Up Database* window (Figure 3).

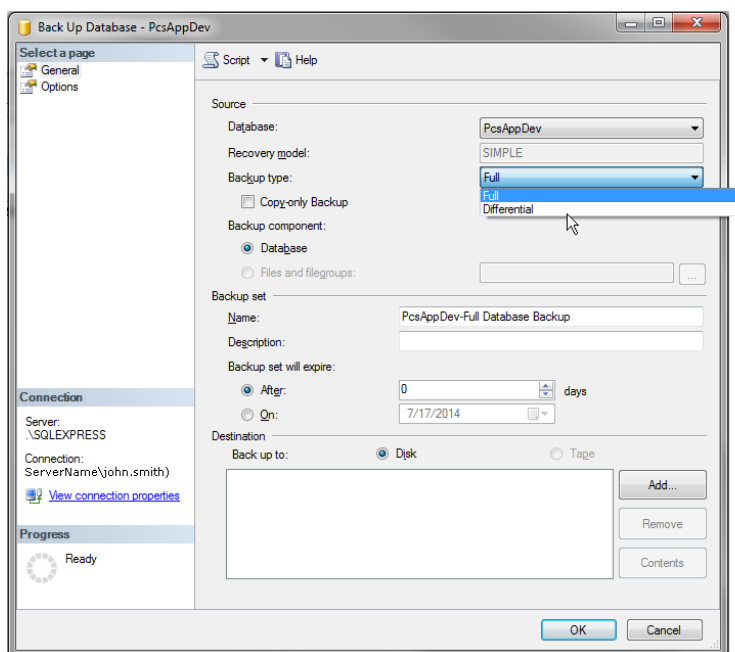


Figure 3. General - Back Up Database

- 6 Complete the following steps to set properties in the *General* page (Figure 3, page 2):
  - a In the *Source* group box, click the down arrow in the field labeled **Backup type** and select **Full** in the selection list.
  - b Verify the option **Database** is selected for the field labeled *Backup component*.
  - c In the *Destination* group box, verify **Disk** is selected.

**NOTE:** The option labeled *Tape* in the *Destination* group box will not be supported by Microsoft in future releases of SQL Server Management Studio.

- d Click **Add** in the *Destination* group box to open the *Select Backup Destination* dialog box (Figure 4).

**IMPORTANT:** Database backup files save in the following location by default: *C:\Program Files\Microsoft SQL Server\MSSQL10.SQLEXPRESS\MSSQL\Backup\*. To reduce problems if a hardware failure occurs, save database backup files in a different location than the default folder and in a different location than the SQL Server database files.

- e Click the ellipsis button (...) in the *Select Backup Destination* dialog box (Figure 4) to open the *Locate Database File* dialog box (Figure 5, page 4).

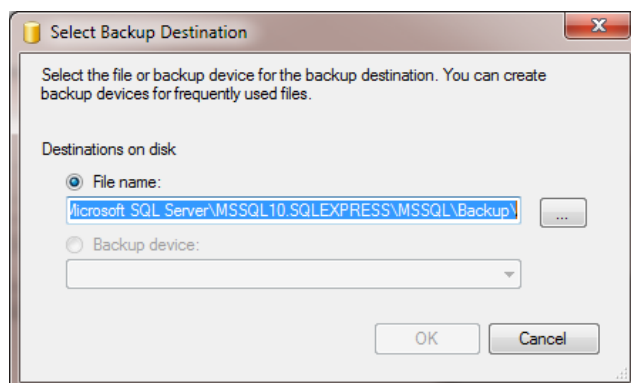


Figure 4. *Select Backup Destination*

- 7 Complete the following steps to choose a folder and provide a name for the backup database file (Figure 5, page 4):
  - a Navigate to and then select a folder in the *Locate Database Files* dialog box. Verify **Backup Files (\*.bak, \*.tm)** is selected in the field *Files of type*.
  - b Type a name for the backup file in the **File name** field making sure to include the file extension **.bak**.
  - c Click **OK** to close the *Locate Database File* dialog box. Click **OK** again to close the *Select Backup Destination* dialog box (Figure 4).

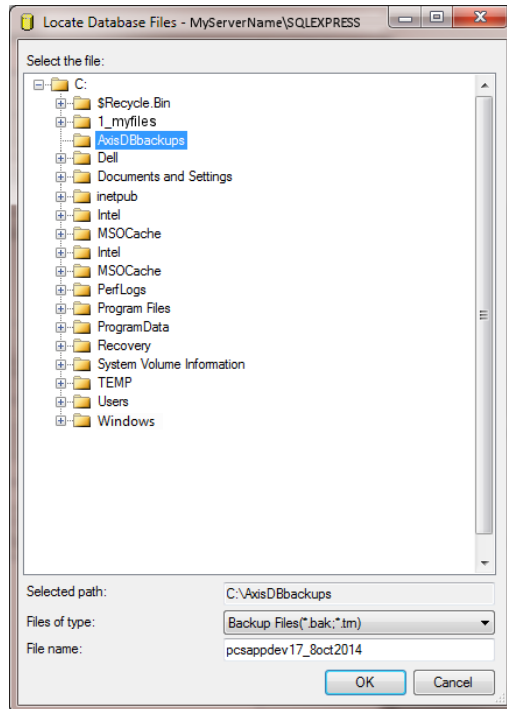


Figure 5. Locate Database Files

- 8 Complete the following steps to set properties in the *Options* page of the *Back Up Database* window:
  - a Click **Options** in the *Select a page* panel to open the *Options* page (Figure 6, page 4).

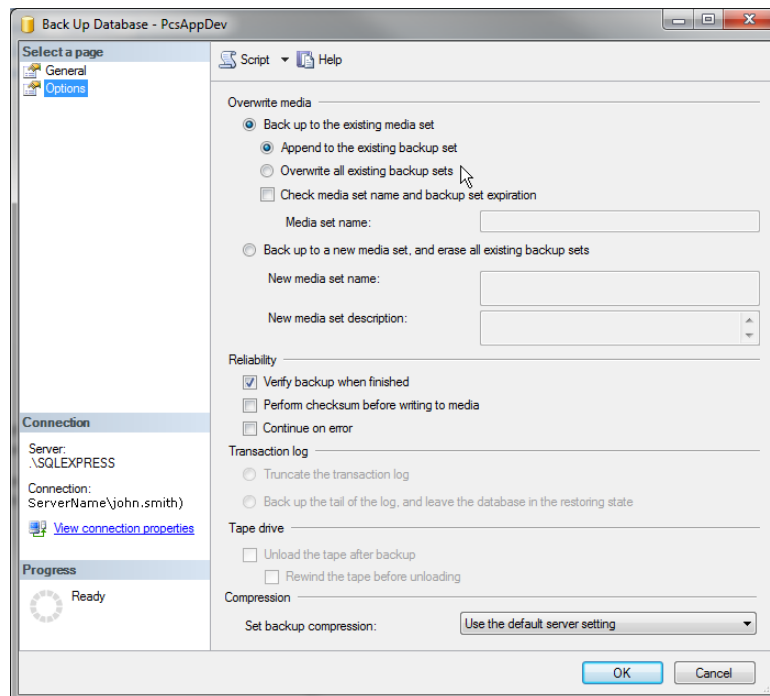


Figure 6. Options - Backup Database

- b** Select one of the following “overwrite” options in the *Overwrite media* group box (Figure 6):
- *Append to the existing backup set*: Choose this option to add data to an existing backup.
  - *Overwrite all existing backup sets*: Choose this option to replace all data in an existing backup with data in this backup.
- c** Click the check box **Verify backup when finished** in the *Reliability* group box to place a check mark inside the check box.
- d** If the check box **Continue on error** is selected, click the check box to remove the check mark.
- e** Click **OK** to begin the database backup process.
- f** When a message displays stating the database backup completed successfully, click **OK** (Figure 7).

The database backup process is now complete.

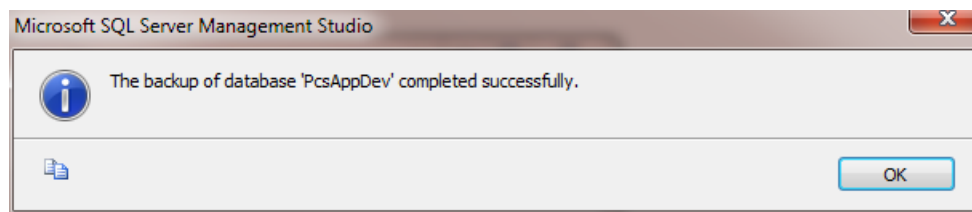



Figure 7. Database Backup Message

## Restoring a Database Backup

Complete the following steps to restore a backup of the PCS Axis database:

- 1 Exit the PCS Axis software (*File > Exit*) if it is running.
- 2 Stop *PCS Axis Job Service* if it is running. To stop *PCS Axis Job Service*, follow these steps:
  - a Click the Windows **Start**  button and navigate to **Computer**. Right-click **Computer** and select **Manage** to open the *Computer Management* window (Figure 8).
  - b Double-click **Services and Applications** in the left panel, then select **Services**.
  - c Right-click **PCS Axis Job Service** in the center panel and select **Stop** in the shortcut menu that opens.
  - d Click **File > Exit** to exit *Computer Management*.

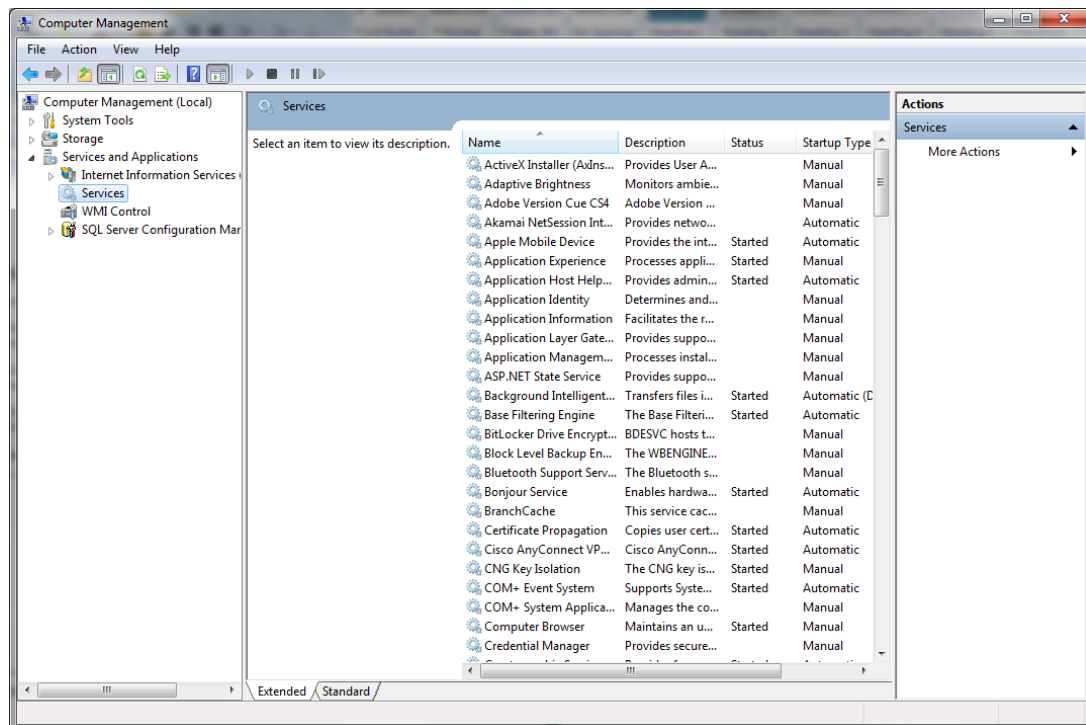


Figure 8. Computer Management

- 3 If you plan to restore the demo database provided with PCS Axis, copy the backup file from the PCS Axis installation CD to your computer. The backup file is located in the *Test Database* folder on the installation CD.
- 4 Start SQL Server Management Studio (SSMS) if the software is not running. Click **Start > Microsoft SQL Server 2008 R2 > SQL Server Management Studio**.
- 5 Double-click the **Databases** folder and then right-click the database you want to restore to open a shortcut menu.
- 6 Navigate to **Tasks > Restore** and then select **Database** in the shortcut menu (Figure 9) to open the *Restore Database* window (Figure 10, page 8).

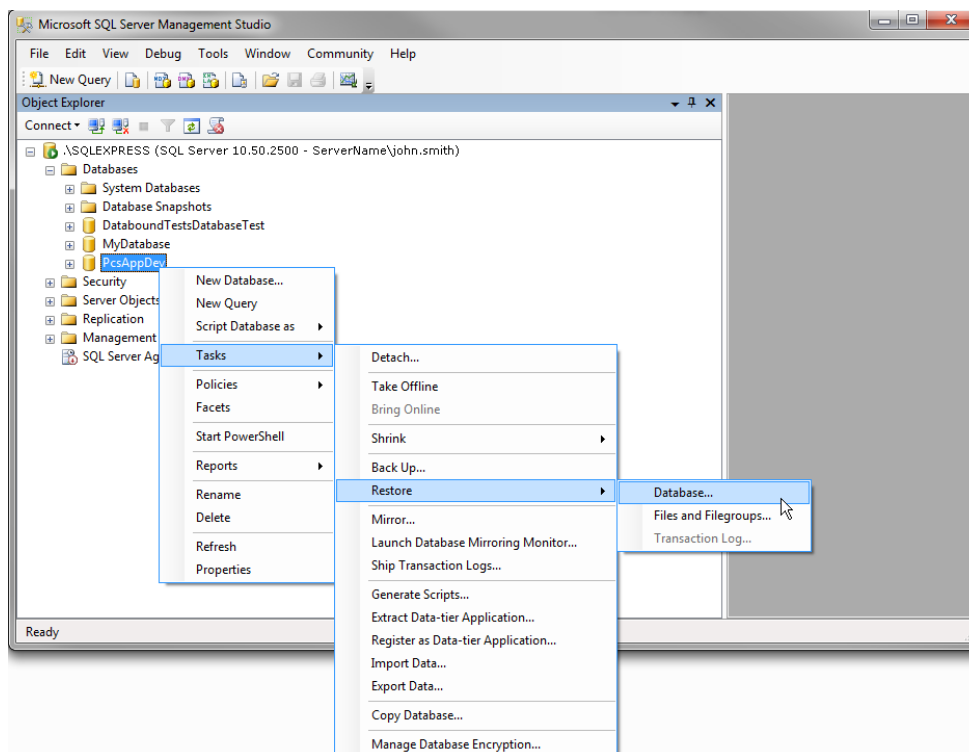


Figure 9. SQL Server Management Studio

- 7 Select one of the following options in the *Source for restore* group box to identify the location of the database backup set to use in the restore operation (Figure 10):
  - **From database:** Select this option to choose a database to restore from a selection list. The selection list contains only those databases that have previously been backed up.
  - **From device:** Select this option to choose a database backup file that contains a specific backup you want to restore. This restore option allows you to select a database backup file that has previously been saved in a folder on a local computer or network drive.
- 8 Select which database backup set to use in the restore operation. Click the **Restore** check box for a set of backup files available for selection in the field labeled *Select the backup sets to restore*. A check mark inside a check box indicates a selection (Figure 10).

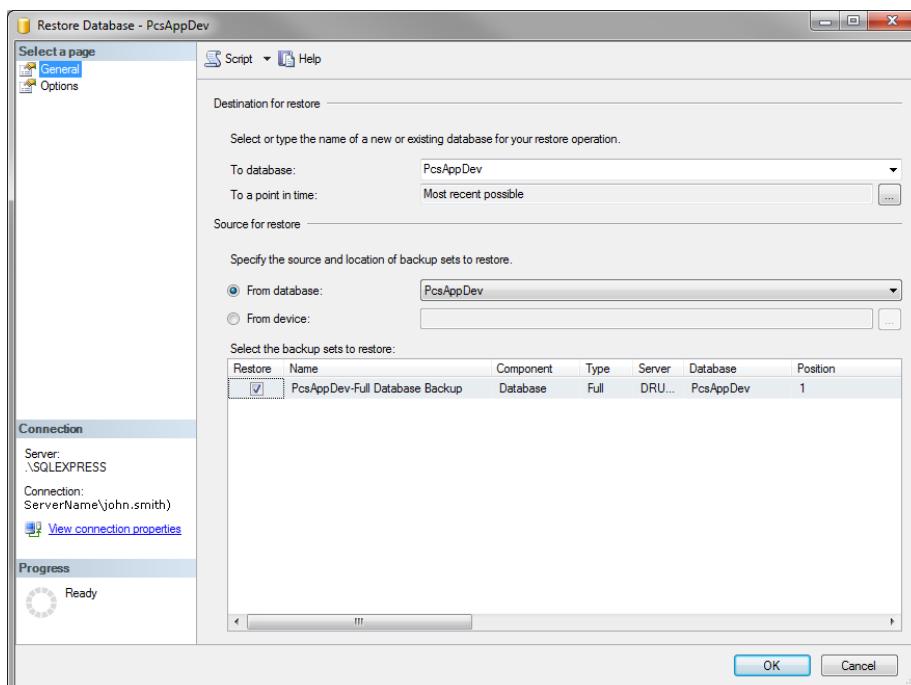


Figure 10. Restore Database



- 9 Click **Options** in the *Select a page* panel to open the *Options* page (Figure 11).
- 10 Click the check box labeled **Overwrite the existing database (WITH REPLACE)** in the *Restore options* group box.
- 11 Click **OK** to begin the database restore operation.

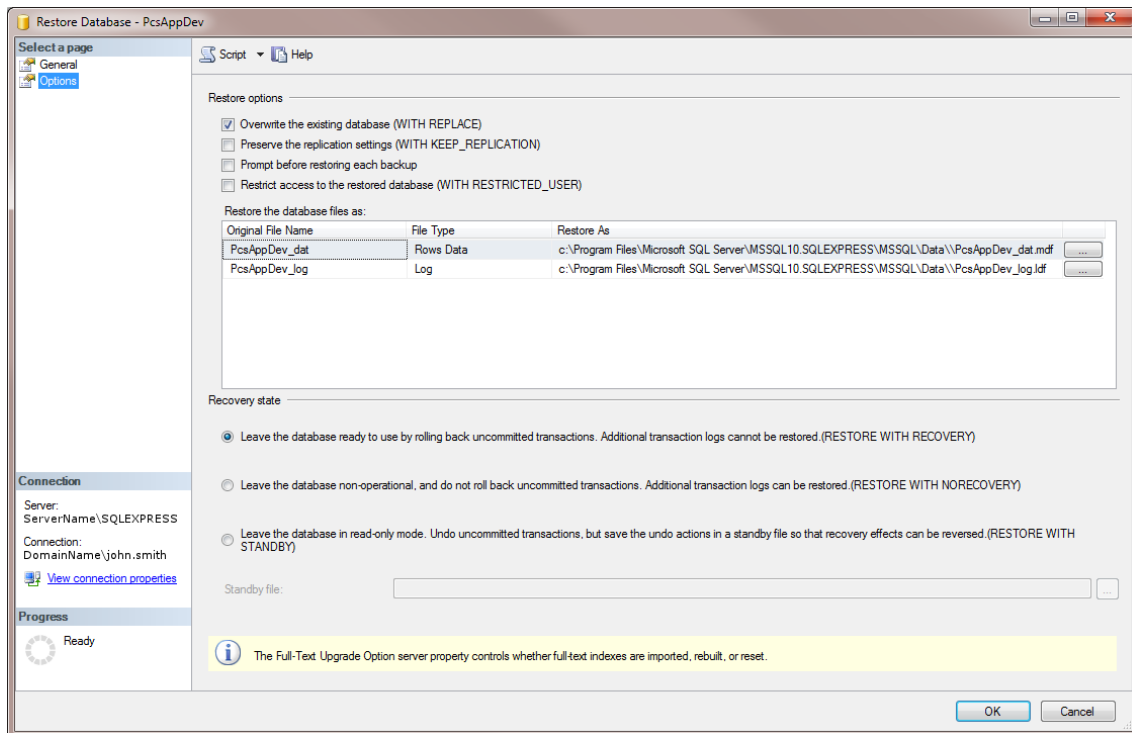


Figure 11. Options - Restore Database

- 12 Click **OK** when a message displays stating the database restore completed successfully (Figure 12).  
The database restore operation is now complete.

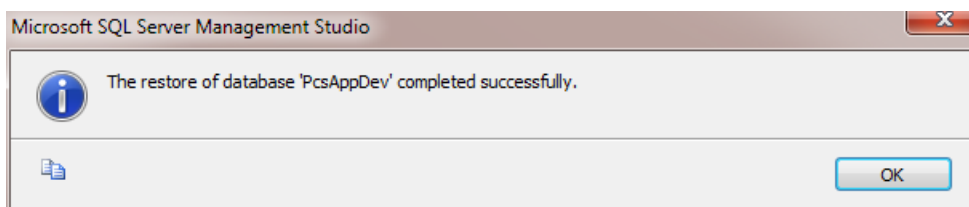


Figure 12. Database Restore Message

## Product Support and Training

If you have a suggestion, question, feature request, or a bug to report-your feedback would be appreciated. Also if you have a training need for your organization or would like to know more about upcoming PCS Axis training classes, please use any of the following contact information to reach PCS Technical Services:

Support E-mail: [pcstechservices@aiworldwide.com](mailto:pcstechservices@aiworldwide.com)  
Support Telephone: 1-800-229-3404 (select 1, then press 2)  
American Innovations: <http://www.aiworldwide.com>