

# Kodak's Document Imaging Technology IMPROVES SPEED, ACCURACY OF POPULATION COUNTS



*With the help of Kodak's Digital Science Document Archive Writer, Turkey was able to complete its 1997 census population count within 85 days—compared with three-and-a-half years to complete its 1990 census.*

## OVERVIEW: BEFORE INFOIMAGING

In 1995, the United Nations passed a resolution calling for its 117 member countries to compile national census data by 2004—just two years from now. The process of counting populations—especially for the world's largest countries—can be an arduous, time-consuming and error-riddled process that often is conducted by hand. But infoimaging solutions from Kodak—based on Document Imaging technologies—are helping countries speed their census counts and make them more accurate. In fact, about 30 countries worldwide—including the United States and the United Kingdom—have tapped Kodak for assistance in using infoimaging technologies to conduct census counts.

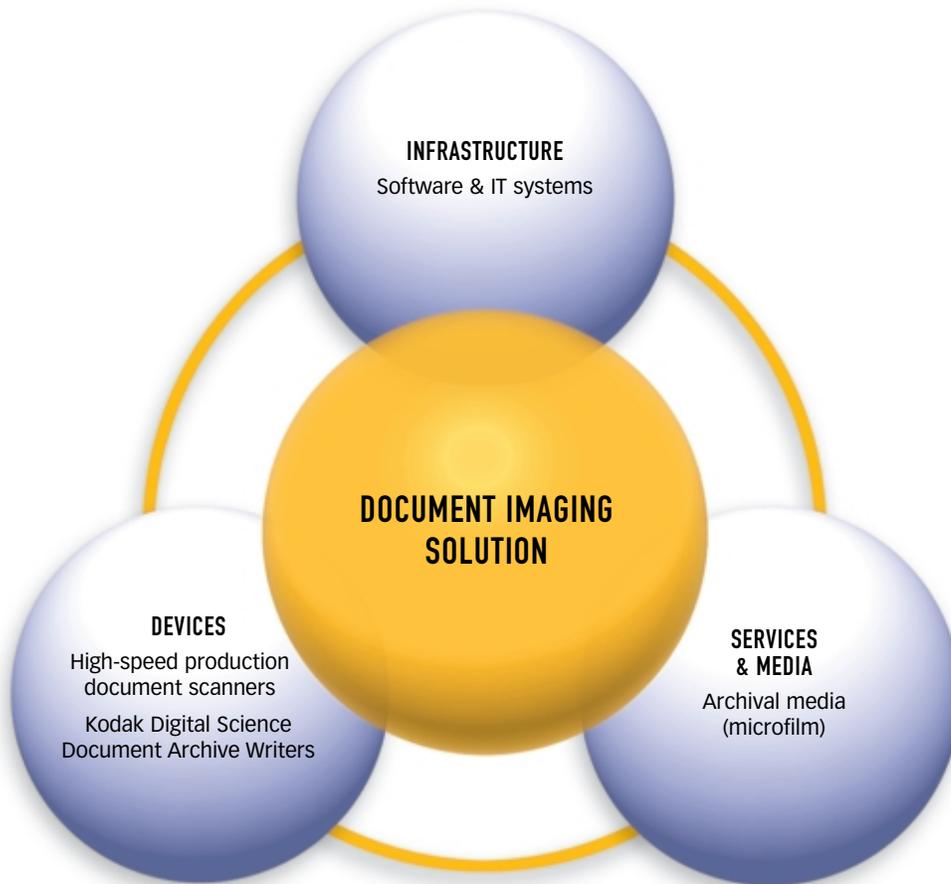
## INFOIMAGING IN ACTION

Here's how it works: Although residents fill out paper census forms by hand, those forms are *not* counted by hand. Instead, the paper forms are scanned using Kodak's high-speed production document scanners, **devices** that digitize the paper census forms. Once digitized, the forms and the information contained in them can be electronically counted using third-party-produced pattern-recognition software and IT **infrastructure**, which is faster, more accurate and less expensive than manually counting paper

forms. The software converts the scanned images into "machine code," which is information that a computer can understand and, in this case, count. Additionally, countries such as the United States, Australia and the United Kingdom have embarked on processes by which completed census forms are preserved for future generations by converting the digitized images of the forms to Kodak archival microfilm (**media**), using Kodak Digital Science Document Archive Writers (**devices**). As a result, infoimaging's convergence of devices, infrastructure and services/media is helping countries more quickly and accurately count their populations and preserve the results.

## INFOIMAGING'S IMPACT

- The digitization of census forms results in a significant reduction in the amount of time needed to complete a census.
  - Using Kodak's high-speed production document scanners, the United States was able to scan and process more than 70 million census forms and 1.5 billion images within 100 days.
  - For its 1997 census, Turkey deployed infoimaging technologies and was able to complete its population count within 85 days—compared with three-and-a-half years to complete its 1990 census.



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- Digitizing census forms increases the accuracy of a population count. In fact, the error rate for most digital systems is less than 1 percent.
- Given that the United Nations bases many of its social and economic development decisions on population size, accuracy is critical to a nation's future because development dollars often are allocated on a per-capita basis.
- In regard to the preservation of census forms for the United States, the Kodak Digital Science Document Archive Writers are in the process of converting 600 million images of census forms to archival media (microfilm). This

conversion will guarantee public access to individual census forms in 2072 because the data is being preserved in a format that guarantees authenticity, access and readability. (Federal law mandates that individual census forms be kept secure for 72 years from the date of a census and then made available to the public.)

- A new forecast for North America from InfoTrends Research Group shows that unit shipments of document imaging scanners (low- through high-speed) are growing at a projected 33 percent annually through 2006, with revenues growing 12 percent.

For more information about infoimaging, go to:  
[www.kodak.com/go/infoimaging](http://www.kodak.com/go/infoimaging)