

**For:** State and County Offices

**Process for ArcGIS Conversion**

**Approved by:** Acting Deputy Administrator, Farm Programs



**1 Overview**

**A Background**

The FSA ArcGIS Common Land Unit (CLU) Maintenance Tool and Land Use applications will be deployed soon to selected Service Centers. Both of these applications customize the ArcGIS software that is installed on the Geographic Information Systems (GIS) workstation and use the Structured Query Language (SQL) Server database installed on the Common Computing Environment (CCE) server.

The ArcGIS CLU Maintenance Tool allows County Offices to maintain CLU geospatial and attribute data that consists on farm, tract, and field boundaries. It does not link directly to farm or tract data stored on the System 36. This tool is scheduled for deployment to all digitized counties in 2005.

The Land Use application, that generates acreage reports for crop reporting, will be deployed to 136 Service Centers participating in the 2005 pilot. In addition to maintaining acreage reports on SQL database on CCE server, the Land Use application gathers data from Service Center Information Management System (SCIMS) and Farm Records web services as well as writes data back to the System 36 via the AS400.

State Information Technology (IT) personnel, in coordination with CCE, will be installing server side and client side software beginning January 31, 2005. Approximately 250 Service Centers will be targeted for deployment each month until all GIS data is managed in this new environment.

**B Purpose**

This notice provides instructions for States scheduled for March through December deployment.

**Note:** States that are scheduled for January and February deployment have already been contacted about coordination with CCE, training, and data cleanup.

See subparagraph 2 B for scheduled start dates for States, deployment numbers, and whether the State will be deployed across 1 month or over multiple months.

<b>Disposal Date</b>	<b>Distribution</b>
January 1, 2006	State Offices; State Offices relay to County Offices

**Notice CM-512**

**2 Deployment Schedule**

**A How Schedule Was Developed**

The placement of a State in the schedule was based on a number of factors. For example, all pilot sites for the 2005 Land Use application were included in the January group and counties digitized by vendors under the 2004 contract, due to be completed in March, were scheduled for the first 3 months. The rest of the schedule for deployment was largely based on balancing the workload for APFO, providing training, and State IT resources.

**B Schedule for Deployment**

The month that each State is scheduled to begin hardware/software (HW/SW) deployment can be found in the following table. States have been scheduled for single or multiple month deployment. Smaller States like Vermont or Rhode Island will probably be deployed in a single month. Larger States are spread out over several months so that APFO, training, and State IT resources are not over extended.

State GIS Specialists/Coordinators are responsible for overseeing the States successful completion of the data cleanup process necessary for migration to ArcGIS Data Loader (Data Loader) and for scheduling ArcGIS Maintenance Tool training. It is important that these tasks stay on schedule or resultant backlogs will overload APFO and contract resources available to support these tasks. States can access <http://fsagis.usda.gov/fsagis> to view maps that graphically display software deployment start dates and status information. States with deployment over multiple months will also receive information from APFO before the start date that breaks down the deployment by groups of counties.

Month HW/SW Deployment Starts	Time Period to Complete Data Load Steps and Training	Number of			States Beginning Deployment	
		Service Centers	Counties Digitized In-House	Contract Counties	Single Month Deployment	Multiple Month Deployment
January	12/17/2004 - 2/11/2005	212	229	4		CA, GA, KS, LA, MN, ND, NE, OK, SC
February	1/10/2005 - 3/11/2005	290	383	155	WV	FL, IA, ID, ME, MS, OR, WI
March	2/7/2005 - 4/8/2005	260	349	116	NV, RI	AL, AR, PA, UT
April	3/14/2005 - 5/6/2005	277	349	105		IN, NY, SD, TX
May	4/4/2005 - 6/3/2005	196	281	43	MA, NH, NM, VT	
June	5/9/2005 - 7/1/2005	197	246	0	CT, DE, MD, NJ	MO
July	5/29/2005 - 7/29/2005	138	214	0	AZ	MI, OH, WA
August	6/19/2005 - 8/26/2005	170	222	0		IL, VA
September	7/18/2005 - 9/23/2005	183	244	0		MT, NC
October	8/15/2005 - 10/21/2005	192	238	0		CO, KY, TN
November	9/15/2005 - 11/18/2005	135	182	0	WY	
December	10/10/2005 - 12/16/2005	103	153	0		

## Notice CM-512

### 2 Deployment Schedule (Continued)

#### C Requesting a Change in Deployment Schedule

Counties shall send the shape file to the State's GIS Specialist/Coordinator according to the schedule developed for each State. The State GIS Specialist/Coordinator can issue a request to the National Office ITSD/GISC staff to change the deployment times within constraints listed in the table below. It may not be possible to accommodate all requests.

Request Type	State Type	Timing of Request	Restrictions
Change month State is scheduled to deploy.	States with single deployment date.	Change request shall be submitted by February 28, 2005, by email to <b>Ted.Payne@wdc.usda.gov</b> .	There must be another State willing to change time frames that coordinate with the initial request. Requesting State is responsible for finding swap partner with similar number of counties. Final approval of the swap rests with the National Office.
Move 1 or more counties between deployment groups.	States with multiple deployment dates.	Change request submitted as soon as possible, but at least 30 calendar days before scheduled start date, to <b>Ted.Payne@wdc.usda.gov</b> .	State cannot change the number of counties being deployed in each of their scheduled months, but can switch the counties within that framework. See Exhibit 1 for an example of this type of request.

### 3 Conversion Process

#### A Overview

The conversion process requires that each State, except for States where digitizing was contracted in FY04, send the county shape file to a dedicated FTP site where APFO will run the shape file through the Data Loader. The **Data Loader** is a tool that runs all of the quality control (QC) checks in the ArcView QC tools. If any errors are found on the polygons, an error report will be sent to the County Office through the State GIS Specialist/Coordinator. The County Office must correct the errors using the ArcView Maintenance Tool and notify the State GIS Specialist/Coordinator. The State GIS Specialist/Coordinator must return the shape file to APFO where it will be rerun through the Data Loader.

When CLU shape file passes all of the validations; CLU shape file, CRP table, and Wetland shape file are ready to be converted to ArcSDE. The State GIS Specialist/Coordinator will be notified and in turn will notify the County Office of the date they are to run the Data Loader. County Offices will receive the Data Loader as part of the ArcGIS hardware and software deployment and must run the Data Loader at the County Office as the final step of conversion.

**Note:** The Data Loader must be run at least **once on each county the Service Center administers** before working with CLU data in the ArcGIS CLU Maintenance Tool. If for any reason, errors are introduced into the county's CLU shape file after it passes validation at APFO, the conversion process will abort until the errors are resolved and a clean shape file is generated.

## Notice CM-512

### 3 Conversion Process (Continued)

#### B Communication During Conversion

The set of guidelines, as follow, will govern the State Office communication with APFO staff that will be performing QC on the shape files.

- County Offices shall not contact APFO directly concerning the conversion process.
- All communication between State Offices and APFO will be via e-mail.
- All communication between State Offices and APFO will be handled through the State GIS Specialist/Coordinator.
- Counties not submitted for Data Loader procedure by the end of the deployment cycle identified in subparagraph 2 B will be bypassed for deployment purposes until a time can be determined to fit the missing county into the schedule.
- State GIS Specialist/Coordinator shall submit deployment plans by e-mail to **Ted.Payne@wdc.usda.gov** in National Office ITSD/GISC. Deployment schedules can be found at **<http://fsagis.usda.gov/fsagis>** under Tool and Deployment Tracking Site.
  - States where the first month of ArcGIS deployment is scheduled for March shall submit a deployment plan as soon as possible.
  - States where the first month of ArcGIS deployment is April or later shall submit a deployment plan at least 7 weeks prior to the first month of planned deployment.
- All point of contact information on **<http://fsagis.usda.gov/fsagis>** is current for communication purposes.

#### C Conversion Process Flow

The table below outlines the schedule countdown and actions required to convert county shape files.

Schedule	Who	Task/Action
Anytime before the deployment start month.	State GIS Specialist/Coordinator	Schedule training according to Paragraph 4. Work with counties to fix errors found by ArcView CLU Maintenance QC tools.
Approximately 8 weeks before deployment.	APFO	Review the deployment schedule and contact the State GIS Specialist/Coordinator requesting counties coming up in the deployment cycle be placed on APFO FTP site.
By end of 7 <sup>th</sup> week before deployment.	State GIS Specialist/Coordinator	Collect and place shape files on APFO's FTP site at: <b><a href="ftp://ftp.apfo.usda.gov/pub/clu_nationaldeploy">ftp://ftp.apfo.usda.gov/pub/clu_nationaldeploy</a></b> .

**Notice CM-512**

**3 Conversion Process (Continued)**

**C Conversion Process Flow (Continued)**

The table below continues the schedule required to convert county shape files.

<b>Schedule</b>	<b>Who</b>	<b>Task/Action</b>	
Approximately 6 weeks before deployment.	APFO	Run shape files delivered to FTP site through Data Loader.	
		Track received and missing counties that were slated for deployment.	
		Review reports for special errors and create a photo snapshot (jpegs) that will zoom-in on CLU error, if necessary.	
		Prepare pass-back documents for State GIS Specialist/Coordinator according to the following.	
		<b>IF...</b>	<b>THEN...</b>
1 or more county's shape file passes validation	<p>APFO will send the State a list of counties that passed the Data Loader process and will provide an electronic link to the Data Loader User Guide on APFO website.</p> <p>State must notify county that the shape file passed that no immediate action is necessary.</p>		
1 or more county's shape file fails validation	<p>APFO will send the State the following information:</p> <ul style="list-style-type: none"> <li>• list of rejected counties.</li> <li>• applicable error reports and associated jpegs, if deemed appropriate</li> <li>• link to Data Loader User Guide.</li> </ul> <p>State must:</p> <ul style="list-style-type: none"> <li>• work with county to fix data</li> <li>• post corrected shape file on FTP site within 3 weeks for 2<sup>nd</sup> run through the Data Loader.</li> </ul>		
1 or more counties were missing for the State	<p>APFO will send the State a:</p> <ul style="list-style-type: none"> <li>• list of missing counties</li> <li>• reminder that the State needs to provide missing counties within 1 week.</li> </ul> <p>State must:</p> <ul style="list-style-type: none"> <li>• work with county to obtain shape file</li> <li>• post shape file on FTP site within 1 week for first run through the Data Loader.</li> </ul>		

**Notice CM-512**

**3 Conversion Process (Continued)**

**C Conversion Process Flow (Continued)**

The table below continues the schedule required to convert county shape files.

<b>Schedule</b>	<b>Who</b>	<b>Task/Action</b>
5 <sup>th</sup> week before deployment	APFO	Pass data back to State on the status of the counties and request a 2 <sup>nd</sup> submittal within 3 weeks of first pass back for those counties that were rejected by the Data Loader.
	State GIS Specialist/Coordinator	Request names of persons in County Office to be given permissions to SQL/SDE databases.
3 <sup>rd</sup> through 5 <sup>th</sup> weeks before deployment	State GIS Specialist/Coordinator	Work with rejected counties to correct errors and resend to APFO, send missing counties to APFO, and notify accepted counties.
	State IT Staff	Give permission lists to State IT Staff. Set up permissions as part of the deployment process.
2 weeks before deployment	APFO	Run all resubmitted shape files located on FTP site through Data Loader.  Track received and missing counties that were slated for 2 <sup>nd</sup> run through the Data Loader.  Prepare pass back documents (error reports and jpegs, if required) for State GIS Specialist/Coordinator.  Give States 1 week to fix errors and resubmit shape files on FTP site.
1 week before deployment	State GIS Specialist/Coordinator	Work with rejected counties to correct errors. If significant problems persist, inform county that deployment will be delayed.  <b>Note:</b> Indications are that by the time shape files complete a 2 <sup>nd</sup> pass through the Data Loader, significant quality improvements have been made and few issues remain. The county must do final cleanup and be ready to run the Data Loader as the final step of data conversion.
Deployment	State GIS Specialist/Coordinator	Inform counties that passed the Data Loader process in APFO to run the Data Loader.  Determine that counties with rejected shape files have completed corrections and require those counties to run the Data Loader.
	County Office	Run Data Loader.
Post-Deployment	State GIS Specialist/Coordinator	Respond to County Office questions on GIS applications and tools.  Work with counties to cleanup attribute errors such as multiple tract numbers or multiple CLU numbers within the same tract.

## 4 Training

### A Overview

ArcGIS Maintenance training should be scheduled within a 4 week block around the ArcGIS Maintenance software deployment date. Software deployment dates can be found at <http://fsagis.usda.gov/fsagis> on the Tools and Deployment Tracking site.

**Example:** If January 31, 2005, is the planned date for January deployment, it would be the responsibility of the State GIS Specialist/Coordinator to arrange training using the following information from January 17<sup>th</sup> through February 14<sup>th</sup>, 2 weeks before the scheduled software deployment start to 2 weeks after the scheduled deployment start.

### B Registering for Training

State GIS Specialist/Coordinator can follow the following steps to register for training:

- navigate to FSA GIS training calendar web site: <http://fsagis.usda.gov/trainingcal>
- click “**Log In**” at the top of the web page
- click “**Register for Site**” at the top of the web page
- enter data for all fields including creating a user ID and password
- click “**Submit**”.

**Note:** If user does not see their name on “**Choose Your Name**” drop-down list, e-mail [scott.bird@wdc.usda.gov](mailto:scott.bird@wdc.usda.gov) with user’s name, State, position, and phone number. An e-mail will be sent notifying the user they are officially registered for the site. The user can then log in.

### C Requesting Training

State GIS Specialist/Coordinator shall follow these steps to request training:

- click “**log in**” at the top of the web page with user ID and password
- use the calendar drop down dates on the web page to determine training available and select the training needed
- click “**Training**” at the top of the web page
- click “**Request**”
- complete all boxes and click “**Submit**”; the request will be received, evaluated, and user will be contacted about the class.

## Notice CM-512

### 5 County and State Office Actions

#### A County Office Action

County Offices shall:

- work with State GIS Specialist/Coordinator to ensure that any errors found by ArcView QC tools are corrected before county's shape file is scheduled for conversion
- contact State GIS Specialist/Coordinator with questions concerning:
  - schedule for data conversion
  - how to prepare for data conversion
  - GIS applications and tools
- provide State GIS Specialist/Coordinator with names of persons to receive read/write permissions to the SQL/SDE databases.

#### B State Office Action

State GIS Specialists/Coordinators shall:

- review the conversion schedule for the State and respond to **Ted.Payne@wdc.usda.gov** according to subparagraph 2 C if changes are required
- Note:** Because of the short timeline, States with March deployment start dates will need to take immediate action to enact change requests.
- work with County Offices to ensure that any errors found by ArcView QC tools are corrected before county's shape file is scheduled for conversion
  - ensure that any errors found by the Data Loader are corrected before shape file is posted to FTP site
  - schedule training for applicable County Offices within a 4 week block around the software deployment date

## Notice CM-512

### 5 County and State Office Actions (Continued)

#### B State Office Action (Continued)

- review training CD for Magic service desk database and provide a Tier 2 level support to GIS application and tool related questions

**Note:** A CD will be distributed to all States concurrent with this notice that provides training for the support process.

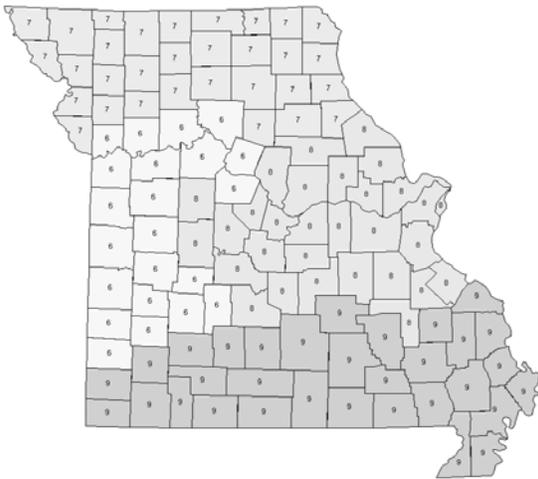
- upon receipt of calls from the field offices, as a first line of defense, do 1 of the following:
  - direct the caller to call the Central Help Desk (CHD)
  - direct the caller to call the State IT specialists who will then create the ticket and do an initial triage on the problem if it appears to be a network or server related problem
  - call the CHD to have a ticket created in the Magic service desk database
- utilize Magic service desk to log resolution to work orders and track problems as they are assigned to GIS Specialists/Coordinators Tier 2 group
- elevate unresolved issues/work orders back to Tier 2 GIS Specialists/Coordinators group within the Magic help desk database so appropriate escalation to Tier 2 or Tier 3 application specific groups may happen.

**Sample Request for a Change**

Map 1 is an example of a map APFO would send to a State that displays how a multiple month deployment would be broken down in groups of counties. Table 1 assigns months to blocks of counties.

Map 2 and Table 2 is an example of what the State GIS Specialist/Coordinator might return in a change request.

**Map 1**

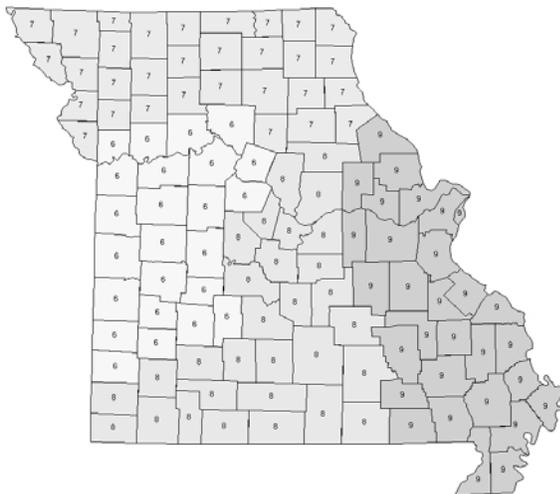


**Table 1**

MONTH	# OF COUNTIES
JUNE (6)	22
JULY (7)	31
AUGUST (8)	30
SEPTEMBER (9)	32

Map 1 and Table 1 show the anticipated deployment plan for the State.

**Map 2**



**Table 2**

MONTH	# OF COUNTIES
JUNE (6)	24
JULY (7)	31
AUGUST (8)	30
SEPTEMBER (9)	30

Map 2 and Table 2 are examples of changes requested by the State GIS Specialist/Coordinator. As required, the State has attempted to keep relatively the same amount of counties in the same months of deployment.