Infra to Celebrate 10th Anniversary and Launch Infra 5.0

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In 2002 Infra celebrates its 10th anniversary. Infra has come a long way since its inception in 1992, when it was created to track constructed features on National Forest System (NFS) lands and at Research and Development (R&D) centers. Originally designed to operate on the U.S. Department of Agriculture (USDA) Forest Service's old Data General system, Infra's early releases supported functional business requirements for Recreation, Lands, and Engineering. In 1998, development of Infra moved to an IBM platform; since that important upgrade, the number of program areas supported by Infra has grown and the functionality provided by the application has increased with every successive release. Today, the Infra application encompasses a total of 20 integrated applications. Infra users will welcome the upcoming release of Infra 5.0, a major transformation and turning point for the application.

Infra 5.0 Keeping Pace with New Technology and Providing More Powerful Tools

With the USDA Forest Service's support for Oracle 4.5 moving to Oracle 6i, now is the perfect time for Infra's development team to facilitate the transition from its use of Oracle 4.5 as the application's foundation to Oracle 6i. Infra users will see dramatic improvements in the look and feel of Infra. Other technical upgrades to Infra that will fundamentally improve and simplify data entry, data viewing, and data maintenance include Infra's upgrade to a more current version of Oracle's Report Writer. Also, Infra Geographic Information System (GIS) users will see more powerful and easy-to-use GIS tools as Infra employs the new ArcGIS software—ArcGIS 8. ArcGIS 8 has all the power of professional GIS, but with a user-friendly graphical interface for Windows 2000 computers. Infra will continue to support the existing Spatial Data Interface (SDI) and ArcView products, while moving key functions into the new ArcGIS Windows environment. Look for new ArcGIS versions of User Views, Theme Connections for linking GIS data to Infra, and a redesigned Data Catalog. (For more information about Infra GIS features visit the *InfraNet* and read "New Features of Infra GIS" on the "GIS Information" page under "Application Information.")

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Infra's Current Suite of Applications

Infra is more than one application—it is an integrated system providing the USDA Forest Service with a wide variety of tools tailored to meet specific business needs. Currently, Infra encompasses the following 20 applications:

1. Real Property Management
2. Real Property Accounting
3. Grants and Agreements
4. Range Lands and Permits
5. Special Uses
6. Developed Recreation Sites
7. Heritage
8. Roads
9. Trails
10. Buildings
11. Bridges and Major Culverts
12. Dams
13. Wilderness
14. Visitor Use Permits
15. Mining Sites and Permits*
16. Water Systems
17. Waste Systems
18. Work Items
19. Enterprise Data Warehouse
20. Mobile Infra

Application in initial design and development.

Ten Great Reasons to Get Excited about Infra 5.0

Here are 10 ways that Infra 5.0 is easier and more powerful to use:

1. **New Main Menu:** It is easier to find documents ranging from forms to reports. Infra applications and tools are organized by business area and include descriptions, links to new online help, and preview images. Frequently used programs can be indexed in user's Favorites for a customized list of database connections.

2. **Fewer, More Comprehensive Forms:** Tabs on forms mean fewer screens and easier navigation. More aspects of data on a topic are presented on one screen so all the elements of an application are visible at a glance.

3. **New Infra Explorer:** This tool allows users to find and see data in a familiar, spreadsheet-like format to easily sort existing data to find gaps. Users can make data changes in one fell swoop rather than having to access each record.

4. **New Data Warehouse Interface:** The warehouse enables any Infra user to see current or historic forest, regional, or national data in preformatted reports and spreadsheets. The warehouse's map and tabular query interface tools enable users to create custom Excel spreadsheets.

5. **Improved Reports:** Infra 5.0 provides better output formats and layouts, and reorganizes the reports page so descriptive names of reports precede "system names." From the main menu, users will be able to preview any report with sample data. Also, if a user finds a problem with a report, the identified problem will immediately be fixed on Infra's Web-based server. Users can then log onto that URL and run the corrected report. Before the report is permanently fixed in the next official Infra release, others attempting to run that report will see an alert, and the URL address will automatically pop up to tell them to run the report from the Web server.

6. **Export Data from Forms:** Users can transfer data from any Infra form to Excel for sorting, reporting, and subtotaling; or transfer data to WordPad for ad hoc reporting. Data collection in the field for later input will also be easier. Printouts of these form-based spreadsheets can be shared with the field to help with information gathering. This tool will also help sort or subtotal maintenance projects—a great improvement for those who are familiar with Excel but less so with Access.

7. **Enhanced Query Mode:** For all fields that allow queries, the Binoculars button turns all the fields yellow and supplies a host of query options on the tool bar. Sort by using multiple fields and save queries to be reused later. Publish and share queries with other users on your database server.

8. **Integrated Summarization Tool:** This tool enables users to average, count, or total values in any numeric field; search quickly for minimum or maximum values, or perform other summary calculations on numeric fields.

9. **Integrated Calculator:** This calculator performs any calculation and copies the result into any field. The calculator is available whether or not you are doing data entry.

10. **Integrated Calendar:** This calendar selects a date via a familiar monthly calendar format and instantly returns that date into any date field. The calendar is available whether or not you are doing data entry.

Infra's Integrated Approach to Development

Developing applications that work well as one integrated enterprise system is the foundation for Infra's growing relationship with other national applications, such as the Automated Lands Project (ALP) and National Resource Information System (NRIS).

Recently, ALP and Infra have worked together to build a single national system for consistently identifying, through a common list of values, the USDA Forest Service organizational structure. Infra applications will also use the spatial and

tabular data provided by ALP for geopolitical units and congressionally designated areas such as "wilderness." For example, this shared data will enable Infra GIS to automatically update geographically based routes.

NRIS Terra and Infra have worked together to provide an integrated process for range data summarizations. Users will be able to build and work with both Infra range permit data and NRIS invasive species data summaries through a common set of forms and processes. Preliminary discussions are also under way to share a common main menu and some geodatabase design standards among all national applications.

Infra Addresses National Application Integration as a Member of the Geospatial Advisory Committee

Infra is participating on the Geospatial Advisory Committee (GAC) to address natural resource application coordination. In response to field requests, the GAC chartered a Geospatial Technical Team (GEOTeam) to begin developing a common geospatial strategy for all Forest Service Natural Resource Applications (FSNRA). FSNRA is currently composed of Infra, NRIS, ALP, (Tim/FACTS), and several Fire and Aviation Management (FAM) applications. GEOTeam members are "application stewards" representing each of the FSNRA application groups.

Development of a common geospatial data approach in FSNRA has long been discussed, but has proven to be easier said than done. With the coming technology upgrade to ArcGIS 8 and geodatabases, the Agency has a unique opportunity to implement a common geospatial data approach *before* each individual application attempts to do that individually. It was decided that the GEOTeam would use contractors from ESRI and Oracle as technical experts for advice and counsel on helping identify alternatives for moving from our current environment to an integrated environment with emphasis on a geospatial interface.

The USDA Forest Service geospatial strategy will provide a framework to do the following:

1. Provide methodologies to access and integrate tabular and spatial data among the FSNRA.

2. Maximize reutilization of application components and data.

3. Tighten geospatial application and database development and implementation timeframes.

Infra Ad Hoc Reporting— Tips and User Board Report

The Infra Training and Documentation Team has developed a new *QuickGuide* focusing on reports. *QuickGuides* are short references to keep on the user's desk while working with Infra. This easy-to-follow, four-page *QuickGuide* walks the user through running reports—both canned and ad hoc. Find this and other Infra *QuickGuides* on the *InfraNet* at http://pcs27.f16.r6.fs.fed.us/infra/training.htm.

Also, those using Infra Users Boards are posting their own reports on their Web sites, which are linked to the InfraNet. Below is an example of the type of ad hoc reporting tools available on the Infra Travel Routes Roads Users Board Web site, which is accessible through the *InfraNet*.

Infra Roads users are developing SQL scripts and reporting tools to utilize Infra data in meaningful ways. The purpose of this section is to provide a repository for tools and scripts. If you would like to contribute a script or tool, please send the tool along with appropriate documentation on how to use the tool/script to terkert@fs.fed.us.

Tool	Description	Author
RMO	A tool that reads Travel Routes data into a road management objectives format and starts a partially filled out RMO document.	Rob Aiken
WinRoute	Access front end application for query and reporting from Infra Travel Routes	Tom Erkert
MURT	Multi-Unit Reporting Tool. To aggregate Infra data from multiple forest databases.	Tom Erkert

Warning: These tools and scripts are provided as is and are not sanctioned by the Infra Program or Infra HelpDesk. Contact the author if you have questions about the tool.

Visit the *InfraNet* for Information about Infra

For more information about Infra, including the Infra Training Calendar or how to contact the Infra HelpDesk, visit the InfraNet at http://pcs27.f16.r6.fs.fed.us/infra.