



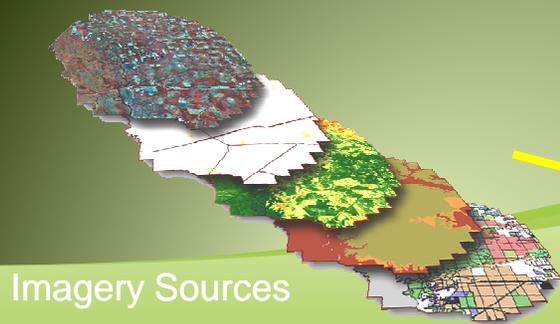
AGENCY GEOGRAPHICAL INFORMATION SYSTEM

ADAM DUNLAP

**2009 NASA FACILITIES ENGINEERING AND REAL
PROPERTY SYMPOSIUM**



GEOGRAPHICAL INFORMATION SYSTEM



Imagery Sources

Logical Based Mathematical Analysis

Many raster & vectors layers of information in the database representing major themes for every NASA center



Buildings

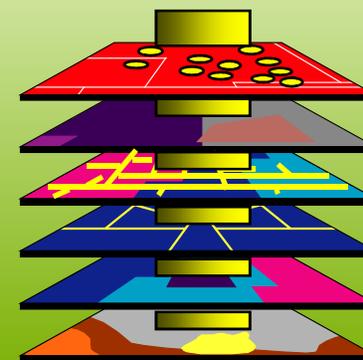
Elevation

Roads

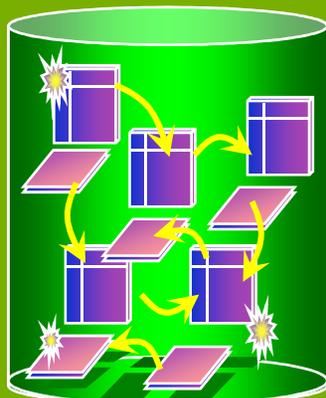
Wetlands

Utility Services

Zoning

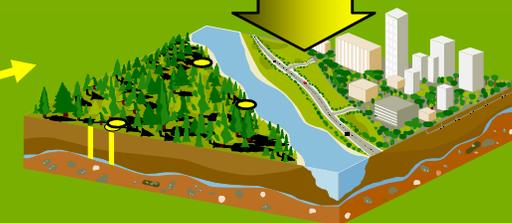


Dynamic attribute data

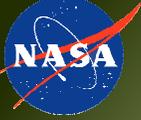


GIS database

BUILDING	X	Y	CORE_ASSET	NAME	TOT_USABLE	C
3305	-89.599401	30.375409	Y	Cent Comp Hqg Facility	9115	
4122	-89.587236	30.363954	Y	A complex A2 Test Stand	13936	
4210	-89.579757	30.363912	Y	BTest Complex Test Control Center	14366	
4110	-89.590731	30.363693	Y	A Test Complex Test Control Center	9040	
1110	-89.616192	30.367036	Y	Date/Eng Support Building	13054	
1105	-89.616346	30.366239	Y	SSC Environmental Lab	52904	
4010	-89.602237	30.366318	Y	Component Test Facility	24135	
8100	-89.622188	30.382861	Y	Comp Serv FacInst Lab	64285	
3202	-89.611293	30.354792	Y	Space Shuttle/S1C Booster	55027	
8306	-89.597005	30.377463	Y		7000	
4220	-89.579804	30.368876	Y	B complex B1 Test Stand	103145	
4221	-89.579804	30.368876	Y	B complex B2 Test Stand	103145	
4400	-89.583977	30.358633	Y	High Pressure Indus Water	2285	
4008	-89.602024	30.363973	Y	Test Facility E-2 Cell 2	0	
4120	-89.594147	30.364285	Y	A complex A1 Test Stand	14020	
1103	-89.616583	30.36994	Y	1103	42993	
8110	-89.622205	30.383936	Y	Cryoence Building	19190	



Better Decisions



Why Use GIS?

- 1. Site Selection and Suitability (Land Use)***
- 2. Neighborhood Analysis and Public Outreach***
- 3. Land Management & Environmental Stewardship***
- 4. Emergency Response Planning & Public Safety***
- 5. Facility and Asset Management***
- 6. Transportation Analysis***
- 7. LEED (Leadership in Energy and Environmental Design) Analysis & Capital Improvement***
- 8. 3D Visualization and External Data Sources***
- 9. Alternatives and Choice!***



Addressing Issues for the Agency GIS

- 1. Sensitive But Unclassified (SBU) Data and Encryption***
- 2. Don't Change Existing Workflows***
- 3. Connect to Existing Applications***
- 4. Data Change***
- 5. Building Applications from Multiple Data Sources***



**GEOGRAPHICAL
INFORMATION SYSTEM**

DEMO