



# Media Pack

ESRI International 2010 User Conference

Honolulu Board of Water Supply

Lorna Heller

# Established in 1929, HBWS is a Semi-Autonomous Agency Of City and County of Honolulu

- GIS Program Established 1989
- Largest municipal water utility in the State
- Primary Function is to Provide Municipal Water and Fire Protection for Oahu
- Serves One Million Customers On Oahu, & Provides Support Services To Maui & Kauai
- Staff of more than 600 employees

WATER FOR LIFE

*Ka Wai Ola*



Board of Water Supply  
City and County of Honolulu

## Introduction



## Introduction: Overview

- HBWS Media Pack is a GIS-based enterprise system for collecting, managing, and distributing digital media.
  - » Digital Photos
  - » Video
  - » Audio
  - » Screen captures
  - » Sketching
- Web, mobile, desktop access.
- Built on ESRI technology.
  - » ArcSDE
  - » ArcGIS Server
  - » ArcObjects
  - » REST clients (Flex, SilverLight)
  - » ArcEngine clients for mobile



## Introduction: Why was MediaPack built?

- Thousands of digital photos and video files being collected by individuals.
- These contain valuable current and historical information, but they are not shared, and not easily accessible by other HBWS employees.
- More informed Planning and Decision Support





## Introduction: System Goals

- **Standardized** system for adding photos, video, etc to GIS
- **Integration** with existing enterprise GIS viewers
  - HONU (Web – SilverLight)
  - MANO (Mobile – ArcEngine)
  - GISMO (Work Management Mapping)
  - Arc Desktop
- **Enterprise** sharing
- **ESRI** ArcGIS Server / GeoDatabase Integration
- **Low-tech** - no specialized equipment
- **Low-cost** - utilize existing consumer-grade cameras
- **Minimal** user training
- **Easy** to use



## System Overview

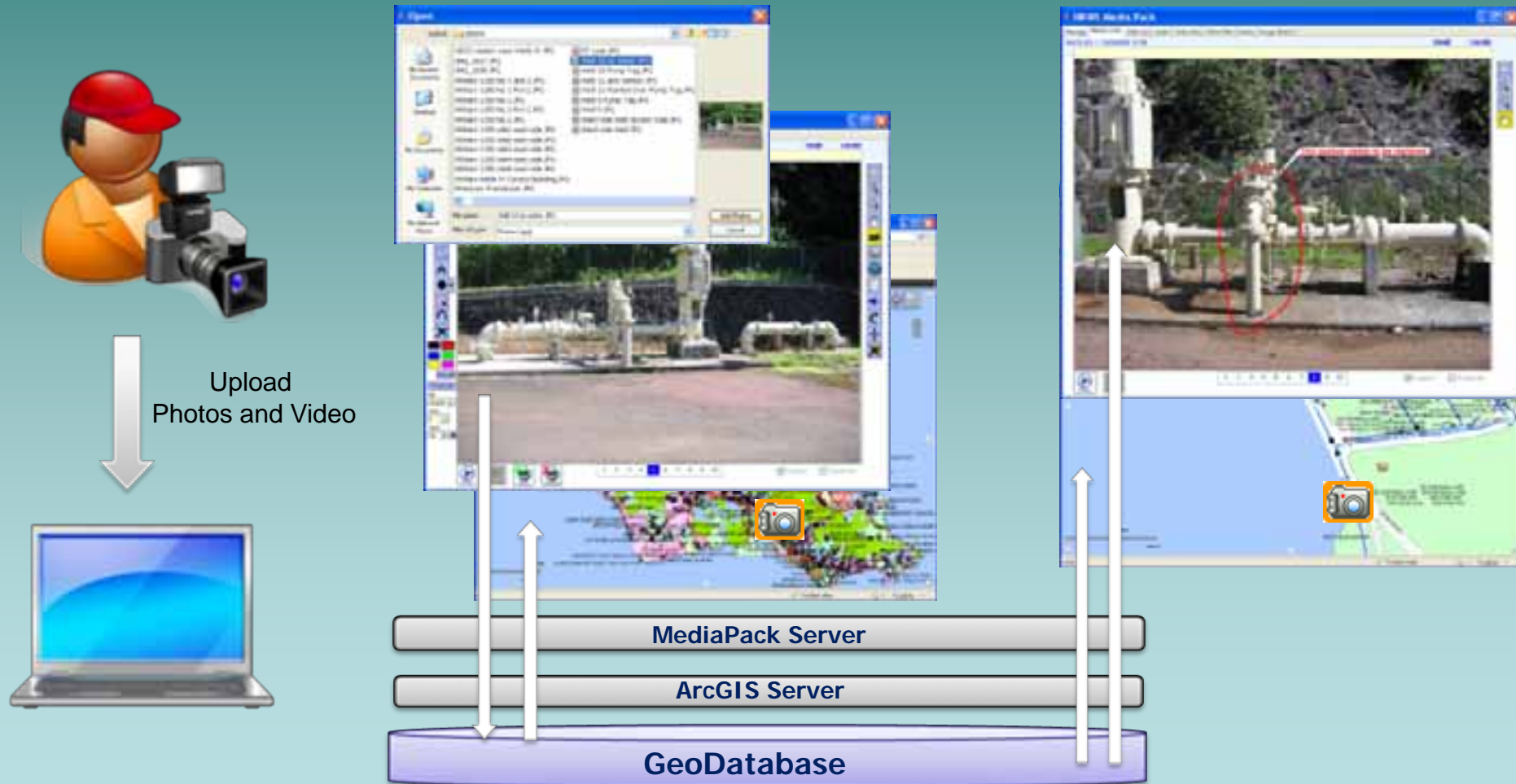


## System Overview: Process Summary

### 1. Capture

### 2. Create

### 3. Share





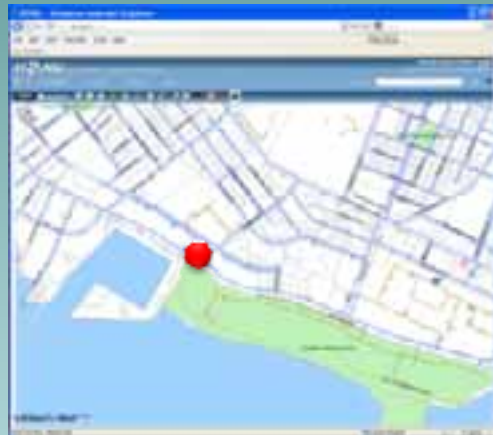


## System Overview: Data Capture

1. Capture photos and video



2. Select location for new MediaPack



3. Add data to MediaPack and Save



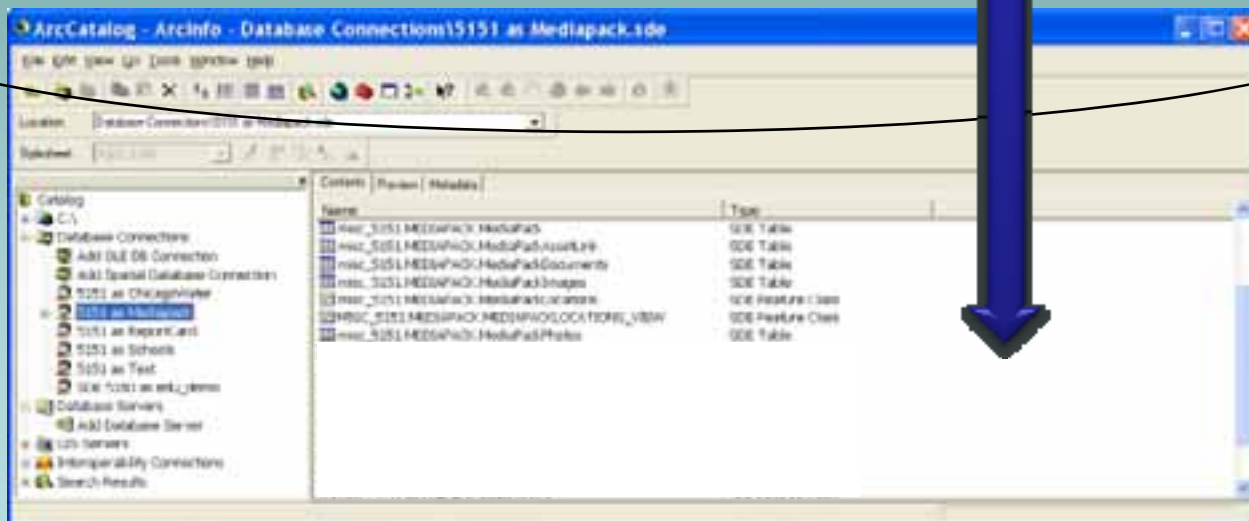
## System Overview: Data Storage

Saved MediaPack

MediaPack Server

ArcGIS Server

HBWS GeoDatabase





## MediaPack Software Basics





## Basics: Digital Photos





## Basics: Video

HBWS Media Pack

Manage Photos (30) Video (1) Audio Web Links Other Files Notes (2) Image Sketch MediaPack Links (2)

Play Add Delete **Video**

Name	Description	Date Added	Added By	Date Created
360 at Milliani IV.AVI	Milliani Video	Thu Jun 03 11:04:14 MDT 2010	Keith	Wed Oct 29 14:06:12 MDT 2008

360 at Milliani IV

00:00:05

Navigation controls: Play, Previous, Next, Stop, Full Screen





## Basics: Notes

HBWS Media Pack

Manage | Photos (20) | Video (1) | Audio | Web Links | Other Files (1) | Notes (3) | Image Sketch | MediaPack Links (2)

### Notes

Notes	Date Added	Added By
Pump was replaced on May 12, 2010 due to leaks.	Thu Jun 03 11:22:05 MDT 2010	Keith
Pump and well-head inspected on May 15, 2010 - after installation. No issues found.	Thu Jun 03 11:22:41 MDT 2010	Keith
June 2, 2010 - leak on new pump noticed - requested formal inspection by engineering.	Thu Jun 03 11:23:21 MDT 2010	Keith



## MediaPack Advanced Options



## Advanced Options: Sketching

Users can sketch on the photos in order to highlight points of interest.

Graphics can be toggled on/off

Graphics are saved with the MediaPack



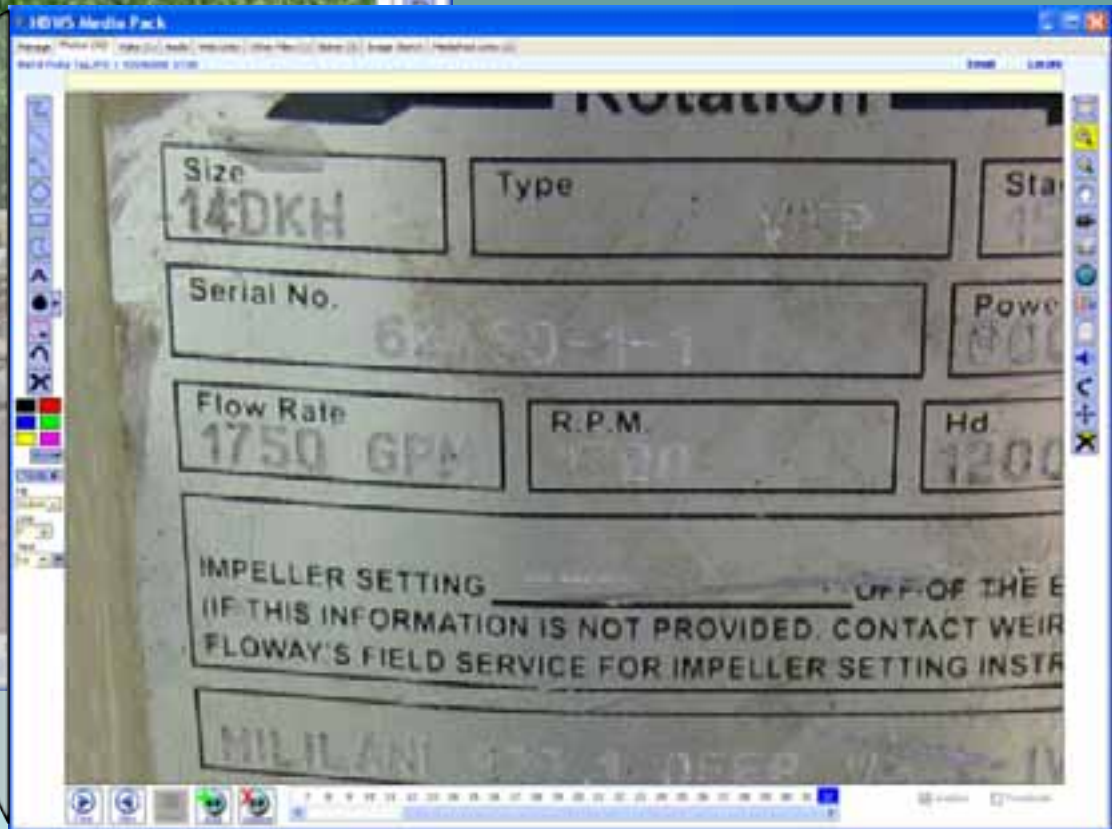




## Advanced Options: Photo zoom, pan, etc



Zooming -in to see greater detail.





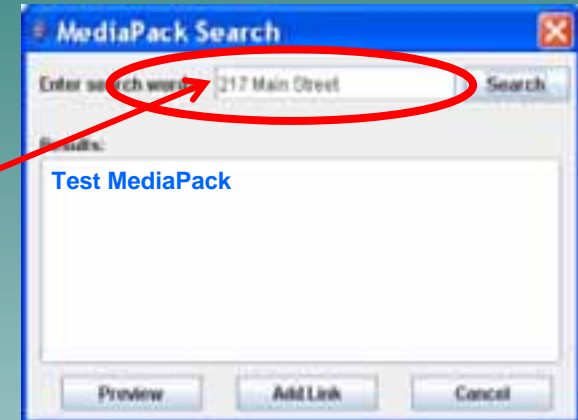
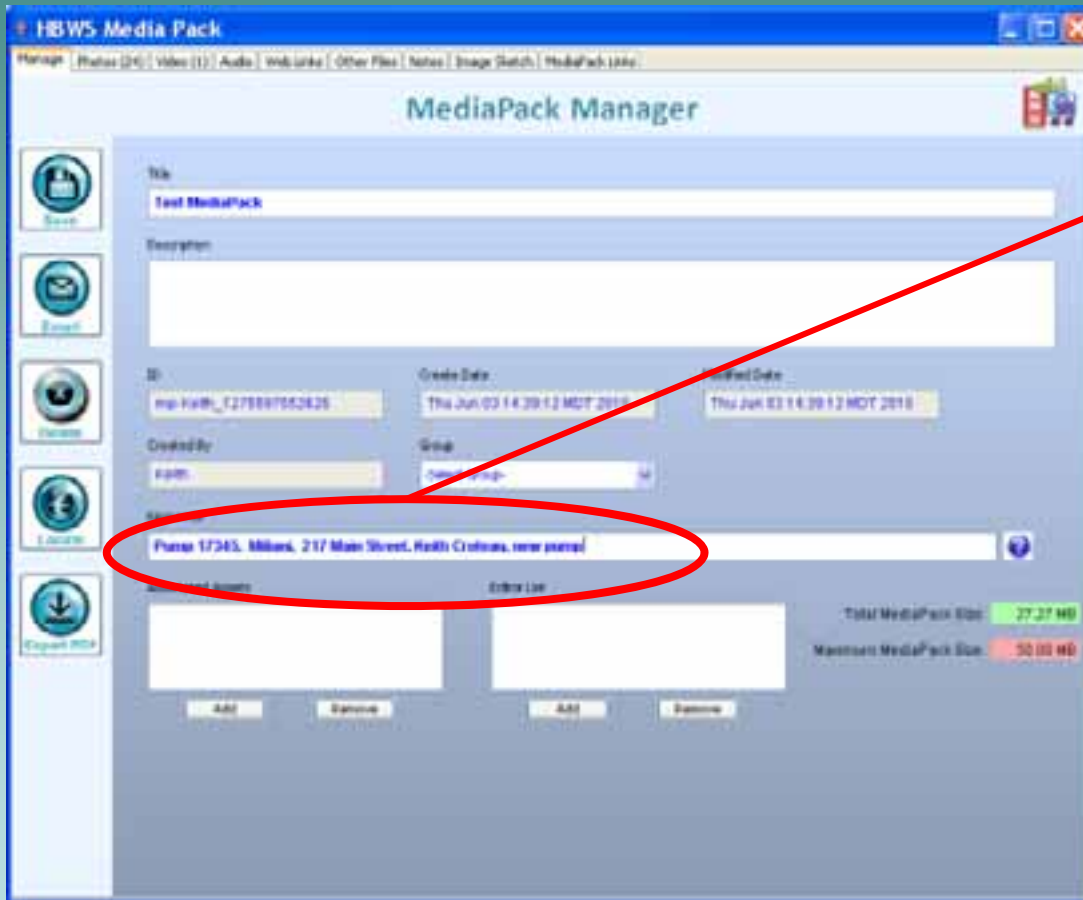
## Advanced Options: Media Links

The screenshot displays the 'HBWS Media Pack' application window. The main area shows a large photograph of a water treatment facility. A smaller thumbnail window on the left shows a different scene with statues. A red circle highlights a small yellow icon in the bottom right corner of the main image, which is magnified in a separate window on the right. This magnified window shows a close-up of a water filter component. A yellow callout box points to the magnified view with the text: 'Link to other photos – such as close-up views.' Another yellow callout box points to the yellow icon in the main image with the text: 'Link to videos'. The software interface includes a menu bar with options like 'Manage', 'Photos (24)', 'Video (1)', 'Audio', 'Web Links', 'Other Files', 'Notes', 'Image Sketch', and 'MediaPack Links'. A taskbar at the bottom shows system icons and a clock.





## Advanced Options: Keywords and Search Support

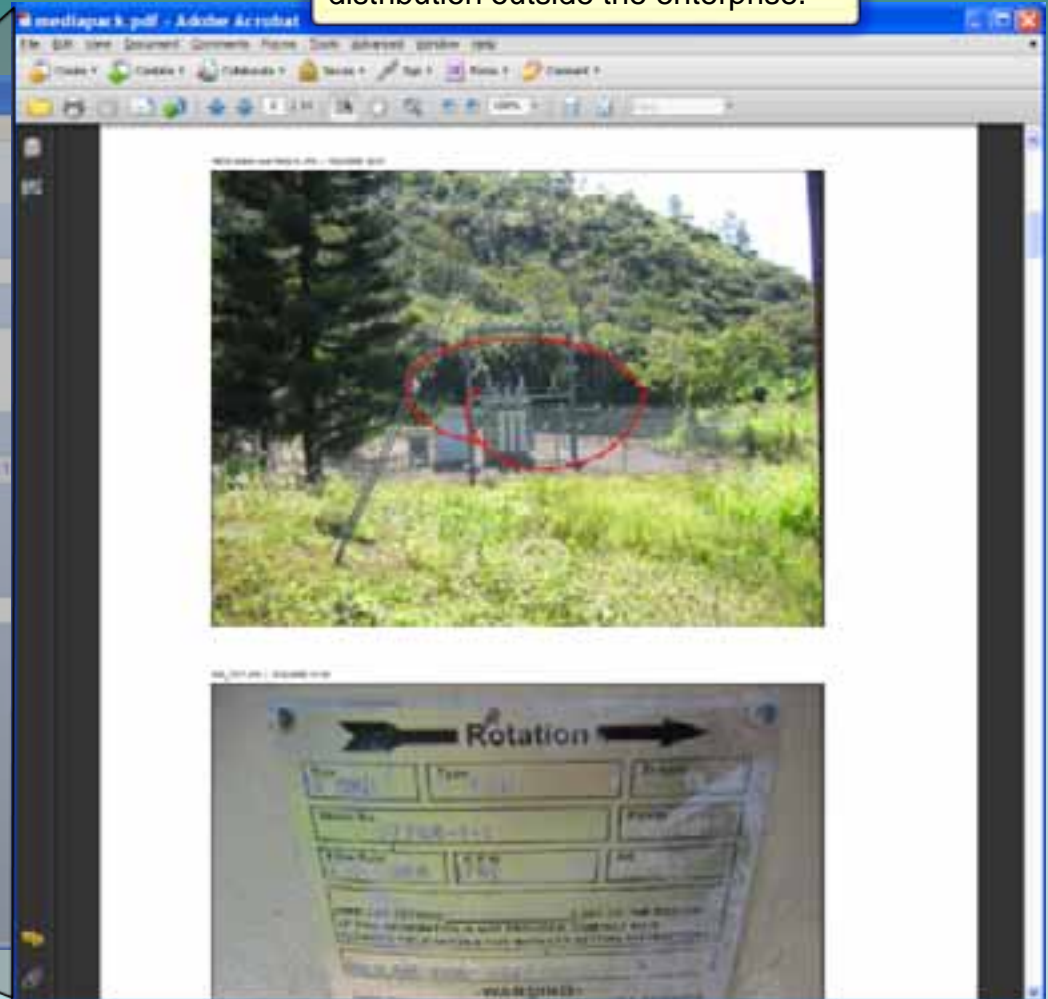


Integrated search for easy enterprise access to MediaPacks.



## Advanced Options: Save to PDF

Save to PDF for printing and easy distribution outside the enterprise.





## Workflow Demonstration



# Conclusion

- **Current Status**

  - Version 1.0 complete

  - 300+ MediaPacks created by just a few users

  - Limited Rollout

  - Full rollout in August/September

- **Future plans**

  - Mobile, Desktop, Work Management (Maximo), SharePoint integration.

  - Share MediaPacks with other City of Honolulu departments.



# Questions?

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