

MOBILE OBSERVATIONS SYSTEM



NatureServe
A Network Connecting Science With Conservation

Agenda

- ✓ Introduction
- ✓ System Overview
- ✓ Field Exercise
- A Closer Look at the System
- Next Steps

Next Steps

- Development status
- Preview of components in development
- Field testing schedule
- Discussion

Development Status

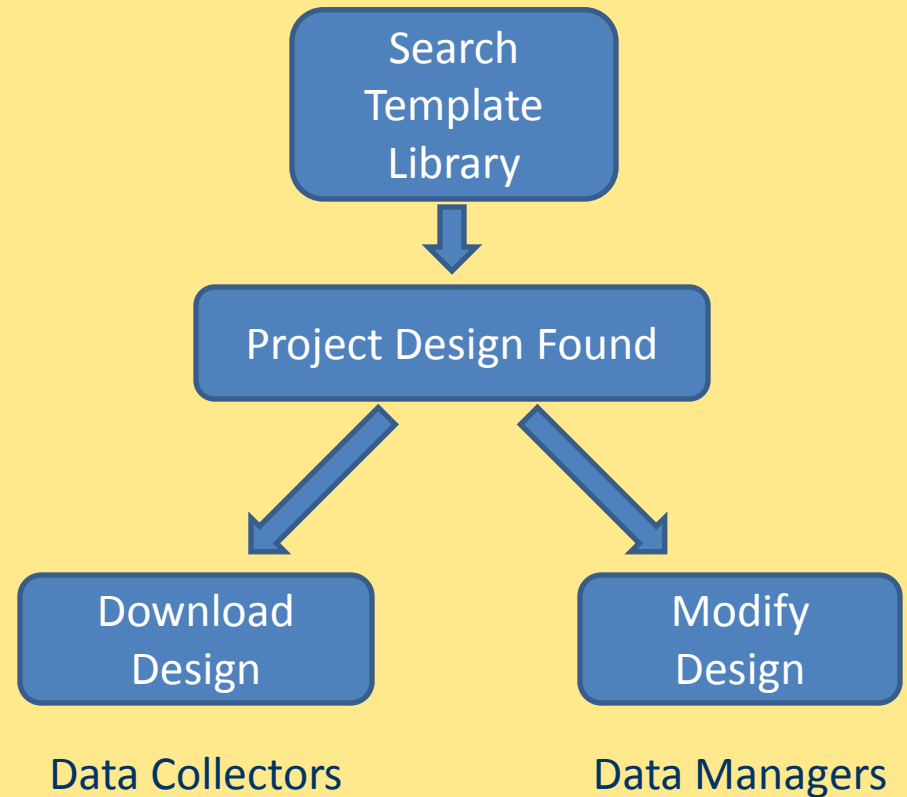
- Core data collection components complete:
 - Process templates to create forms and staging DB
 - Load forms onto PDAs
 - Collect data in field
 - Synch data from mobile device to staging DB
- Development in progress for:
 - Observation template library interface
 - Desktop configuration user interface
 - Data cleanup, validation and export utilities

Observation Template Library

- Online collaboration tool to define and share data structures
- Researchers can browse the library to see:
 - What protocols are used to collect particular types of data?
 - How have others organized their data collection projects?
- Project designs can be reused in whole or in part (e.g., templates or attributes)

Search for a Project Design

- Data managers: create or modify project designs
- Data collectors: download and use project designs



Create a Project Design

- Use existing design as-is
- Create new design from scratch
- Modify design with new templates, attributes, etc.

The screenshot shows a web browser window titled "Create a Project Design" with the URL "http://templates.natureserve.org". The main form contains the following fields:

- Permanent Identifier: NYHPProject
- Organization: The user's organization
- Label: NYHP Project
- Preview Language: English (dropdown)
- Simple Project Metadata (+)

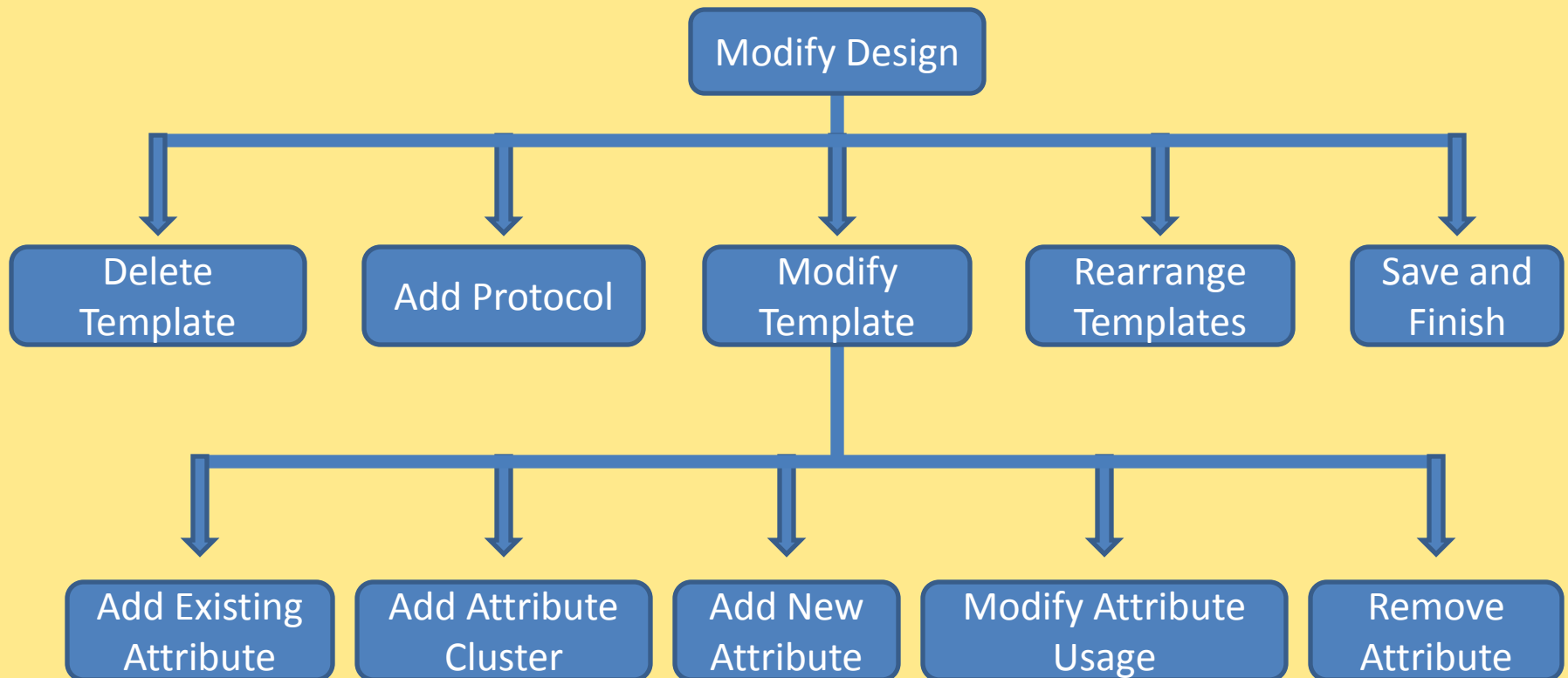
A modal window titled "Field Visit" is open, showing a "Create Modified Template" button and the following details:

- Record Type: FieldVisit
- Permanent ID: SimpleFieldVisit / NatureServe
- Attribute: Field Vi
- Survey: Primary
- Other: Same Te
- View Text Entries for: English (dropdown)
- Label: Field Visit
- Project Design Override: (empty text box)
- Taxa Presence: Prompt
- Project Design Override: Not Set (dropdown)
- Searchable: True
- Documentation: This template is designed to capture lorem ipsum dolor sit amet, consectetur adipiscing elit. In at arcu sed odio vulputate rhoncus at sit amet urna. Morbi vitae massa sit amet arcu iaculis rutrum a eget elit. Fusce vulputate, dui ut bibendum imperdiet, orci risus conwallis sen, consectetur tempor massa elit

At the bottom of the modal, there are two record types listed: "Bird Observation" and "Community Plot", each with a grid icon and a plus sign. The main form has "Edit Metadata" and "Save" buttons at the bottom.

Modify a Project Design

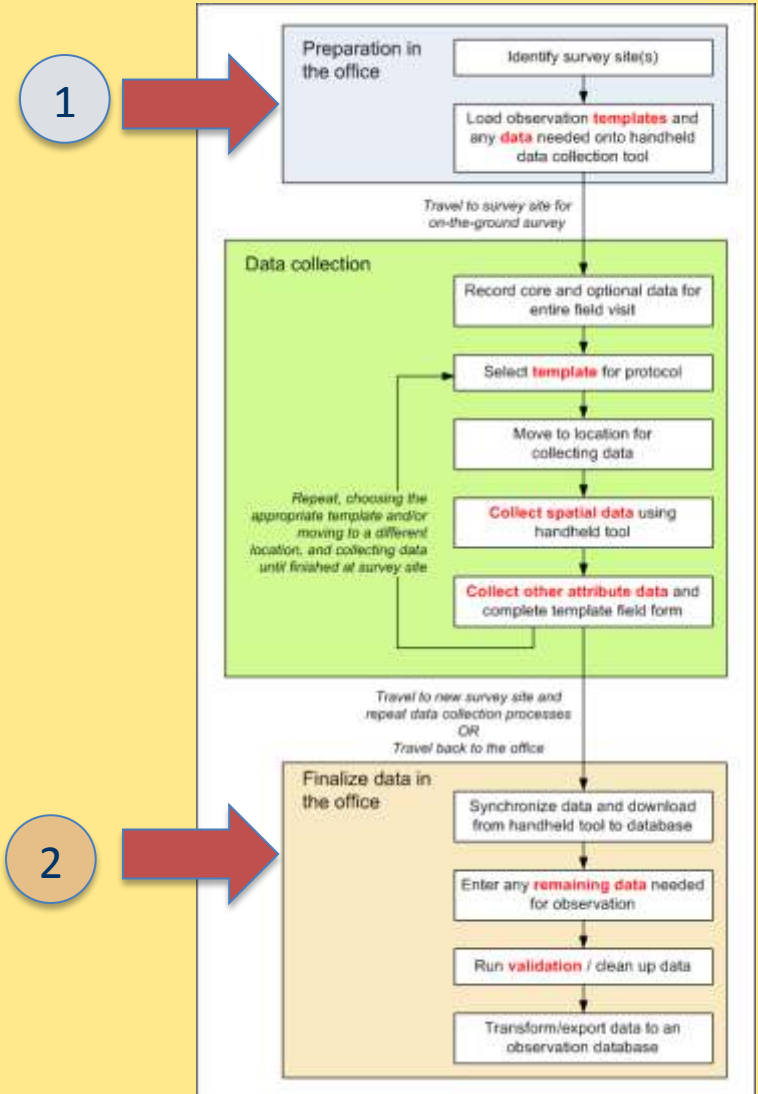
- A data manager can modify project designs in a number of ways:



Desktop Applications

Local editing environment

1. Prepare handheld units for field use
2. Finalize data after returning to the office
 - Editor cleans up and validates data
 - Export tool transfers data to Kestrel or to another system for long term storage



Desktop Configuration Tool

Apply project-specific customizations to templates and generate:

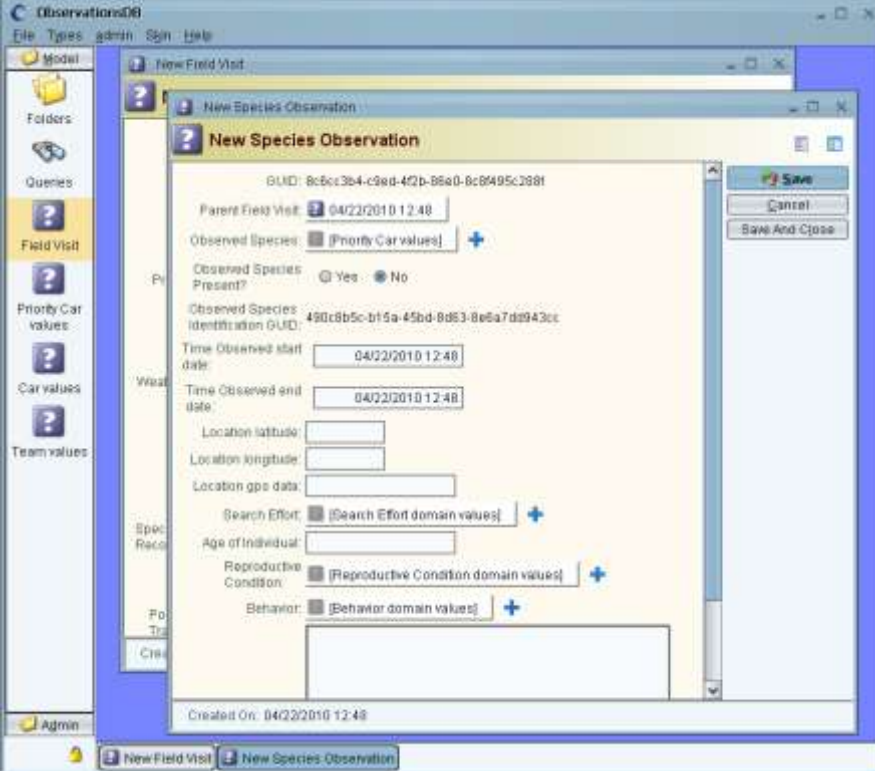
- Handheld forms
- Staging database and UI for editing records
- Geodatabase schema and ArcPad forms

The screenshot shows a dialog box titled "Handheld Observations Configuration Tool". Inside, the "Form Configuration: Community Observation" section is visible. It includes a "Friendly Label" field set to "Community Observation". Below this is a collapsed section for "Observed Species" with a "Friendly Label" field set to "Observed Species". This section contains several options: "Include on handheld forms" (selected with a radio button), "Omit from handheld forms" (radio button), "Require a value on handheld forms" (radio button), "Allow comments on handheld" (checkbox), "Allow comments on desktop" (checkbox), "Let User Specify Presence" (selected with a radio button), "Always Present" (radio button), "Always Absent" (radio button), and "Include Preliminary Identification Text Entry" (checkbox). At the bottom of the dialog are "OK" and "Cancel" buttons.

Desktop Editor

Used for:

- Clean up field records
- Validate records using template-defined rules
- Export records to Kestrel or other observation databases



The screenshot displays the ObservationsDB Desktop Editor interface. The main window is titled 'New Species Observation' and contains the following fields and controls:

- GUID:** 8c8cc3b4-c9ed-4f2b-b8e0-8c8f495c268f
- Parent Field Visit:** 04/22/2010 12:48
- Observed Species:** [Priority Car values] +
- Observed Species Present?:** Yes No
- Observed Species Identification GUID:** 490c8b5c-b15a-45bd-8d83-8e6a7d8943cc
- Time Observed start date:** 04/22/2010 12:48
- Time Observed end date:** 04/22/2010 12:48
- Location latitude:** [Empty text box]
- Location longitude:** [Empty text box]
- Location gps data:** [Empty text box]
- Search Effort:** [Search Effort domain values] +
- Age of Individual:** [Empty text box]
- Reproductive Condition:** [Reproductive Condition domain values] +
- Behavior:** [Behavior domain values] +
- Created On:** 04/22/2010 12:48

The interface includes a sidebar with navigation options: Model, Folders, Queries, Field Visit (selected), Priority Car values, Car values, and Team values. The top menu bar contains File, Types, admin, Sign, and Help. The bottom status bar shows 'Admin' and active windows: 'New Field Visit' and 'New Species Observation'.

Integrating with Databases

- Observation template library will support creation of templates for use in Kestrel
- Handheld desktop application will support exporting records to Kestrel

Kestrel

The image displays three overlapping screenshots of the 'Observations DMS' web application. The top-left screenshot shows the 'Observations List' page, featuring a search bar, a table of observation records with columns for 'Action', 'Species', and 'Location', and a sidebar with navigation links. The top-right screenshot shows the 'Edit Location - Eva Lake' page, which includes a map of the area and a list of nearby locations. The bottom-center screenshot shows the 'User Account Information' page, containing fields for user details and a 'Call Observer' button. All screenshots feature the 'Canada' logo and 'NatureServe' branding.

Integrating with Databases

- Export tools will aid in transfer of observation records to other long-term databases

Ecological Integrity Assessment (EIA) Database
INDIANA + MICHIGAN 2009-10 Wetland Version

Instructions Level 2 Data Entry Level 3 Data Entry L2 Metrics Summary L2 Scorecard for Export

F. VEGETATION PROFILE
Enter a Growth Form / Stratum First before adding species for the stratum at right.

Growth Form / Stratum	Value	Code	Height	Notes
Tm Mature Tree	5-10%	5-0%	5-10 ft	
Ts Sapling Tree	5-10%			
DT Tall Shrub	35-40%	1-0%		
SD ShortDwarf Shrub	1-5%	5-5%	1-2 ft	
HT Herb / Field / Emergent	45-55%			
V. Vascular				

G. STEM PROFILE
No. Stems 30 - 49 cm dbh No. Stems 50 + cm dbh
0.3 ha with around x 2 = 1 ha 0.5 ha with around x 2 = 1 ha

Stem	dbh	Species	Count
1	10.5	Alnus incana	1
2	10.5	Alnus incana	1
3	10.5	Alnus incana	1
4	10.5	Alnus incana	1
5	10.5	Alnus incana	1
6	10.5	Alnus incana	1
7	10.5	Alnus incana	1
8	10.5	Alnus incana	1
9	10.5	Alnus incana	1
10	10.5	Alnus incana	1
11	10.5	Alnus incana	1
12	10.5	Alnus incana	1
13	10.5	Alnus incana	1
14	10.5	Alnus incana	1
15	10.5	Alnus incana	1
16	10.5	Alnus incana	1
17	10.5	Alnus incana	1
18	10.5	Alnus incana	1
19	10.5	Alnus incana	1
20	10.5	Alnus incana	1
21	10.5	Alnus incana	1
22	10.5	Alnus incana	1
23	10.5	Alnus incana	1
24	10.5	Alnus incana	1
25	10.5	Alnus incana	1
26	10.5	Alnus incana	1
27	10.5	Alnus incana	1
28	10.5	Alnus incana	1
29	10.5	Alnus incana	1
30	10.5	Alnus incana	1

Field Testing Schedule

- Field testing by project team will begin this summer
- System will be available for wider use next year



Q&A



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