

TECHNICAL NOTES

SSR01 Technical Note Number 52 (Version 1.00)

Master Components

OVERVIEW

This technical note provides guidance for managing traditional extensive revision and initial soil surveys in NASIS with master components. It discusses the following topics:

- Master component concept
- Placeholder components, including data population standards
- Identification of master components and placeholder components in NASIS
- Replacement of placeholder components with master components
- Querying for master components in NASIS

MASTER COMPONENT CONCEPT

Traditional extensive revision and initial soil surveys often contain more than one instance of a same-named component in the NASIS database. For example, five instances of Alpha for a non-MLRA soil survey area could be in the database. In SSR01, all instances of a unique component name will typically have the same Component Horizon data and much of the same Component level data. Some Component level data will have to be different due to differences in map unit phases but much of it will be identical.

For example, the following five mapunits are from the same legend.

Mapunit Symbol	Mapunit Name
101	Alpha Silt Loam, 0 to 8 percent slopes
102	Alpha Silt Loam, 8 to 15 percent slopes
103	Alpha Silt Loam, 15 to 30 percent slopes
104	Alpha Silt Loam, 30 to 60 percent slopes
105	Alpha–Beta complex, 0 to 15 percent slopes

There are five Alpha components in these mapunits. Under normal circumstances, the same representative pedon will be used for each Alpha component. There will be five Alpha components, but only one representative pedon. This means that the Alpha components will have the same Component Horizon data and much of the same Component level data. Of course, data elements such as slope, geomorphic position, elevation, aspect, land capability class, etc..., will be different for each Alpha component due to differences in map unit properties.

Because the data is nearly identical for these same-named components, the easiest NASIS data management method focuses on one component at a time. This is the “**Master Component**” method. Fully populate the master component, and do a 100 percent quality control review. Once the master component is completely populated, you can then copy it to the other versions of the same-named components in the non-MLRA SSA and change the data unique to each map unit. All other versions of the master component are considered **Placeholder Components**, and they will only have the minimal data populated. In the above example, we have one Master Component and four Placeholder Components.

PLACE HOLDER COMPONENTS

All components that ARE NOT master components are referred to as placeholder components. These components are populated in NASIS, but they typically will not be fully populated. Instead, the placeholder components will typically be populated with the minimum data listed below. Additional data can be populated.

Minimum Data to Populate For Placeholder Components

- COMPONENT
 - Comp %
 - Component Name
 - Local Phase (if applicable)
 - Major Component
 - Slope Gradient
 - Elevation
 - Aspect
 - Range Prod (if applicable)
- COMPONENT ECOLOGICAL SITE
 - Ecological Site ID (if applicable)
 - Ecological Site Name (if applicable)
- COMPONENT GEOMORPHIC DESCRIPTION
 - Representative
 - Feature Type
 - Feature Name
 - Feature ID (if applicable)
 - Exists on Feature ID (if applicable)
- COMPONENT THREE DIMENSIONAL SURFACE MORPHOMETRY
 - *Populate one of the four 3D surfaces for the RV landform*
- COMPONENT SLOPE SHAPE SURFACE MORHPOMETRY
 - Slope Shape Across
 - Slope Shape Up/Down
- COMPONENT TWO DIMENSIONAL SURFACE MORPHOMETRY
 - Hill Slope Profile (if applicable)
- COMPONENT OTHER VEGETATIVE CLASSIFICATION
 - Other Veg Class Type Name (if applicable)
 - Other Veg Class ID (if applicable)
 - Other Veg Class Name (if applicable)

IDENTIFICATION OF MASTER & PLACEHOLDER COMPONENTS IN NASIS

It is necessary to identify the master component in NASIS. Many methods have been used throughout Soil Survey Region 01, but these various methods have made it difficult to write reports and queries that only focus on master components. As a result, a standardized method for identifying master components is being instituted. This allows for customizing queries and reports for master components.

In the Component table, use the **SIR # - obsolete field** to identify master components and placeholder components in NASIS. This field is at the far right of the Component table. **Do not confuse this with the SIR Phase - obsolete field.** **THIS FIELD CAN NOT BE LEFT NULL, IT MUST BE POPULATED.**

POPULATE SIR # - OBSOLETE AS FOLLOWS:

“Master” for master components.

“0” for placeholder components. (Use zero, not the letter O).

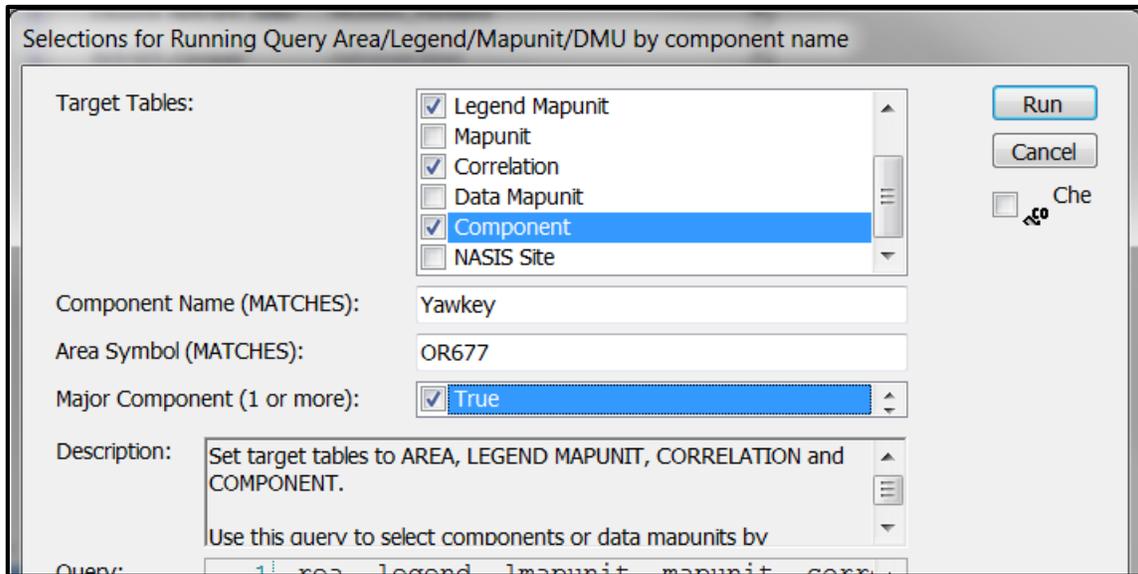
		Comp %			Component Name	SIR # - obsolete
	Seq	Low	RV	High		
+ ▼	2		15		Barbermill	0
+ ▼	2		30		Barbermill	MASTER
+ ▼			35		Barbermill	0
+ ▼	2		45		Bandarrow	MASTER
+ ▼			35		Balder	0
+ ▼	1		60		Balder	MASTER
+ ▼			60		Balder	0
+ ▼	1		35		Balder	0
+ ▼			50		Bakeoven	0
+ ▼	3		20		Bakeoven	0
+ ▼			20		Bakeoven	MASTER
+ ▼	1		45		Bakeoven	0
+ ▼	1		45		Bakeoven	0

PASTING MASTER COMPONENTS INTO PLACEHOLDER COMPONENTS

After the master component has been fully populated and QC has been conducted, paste the master component into the placeholder components. This section provides step-by-step instructions on how to do this.

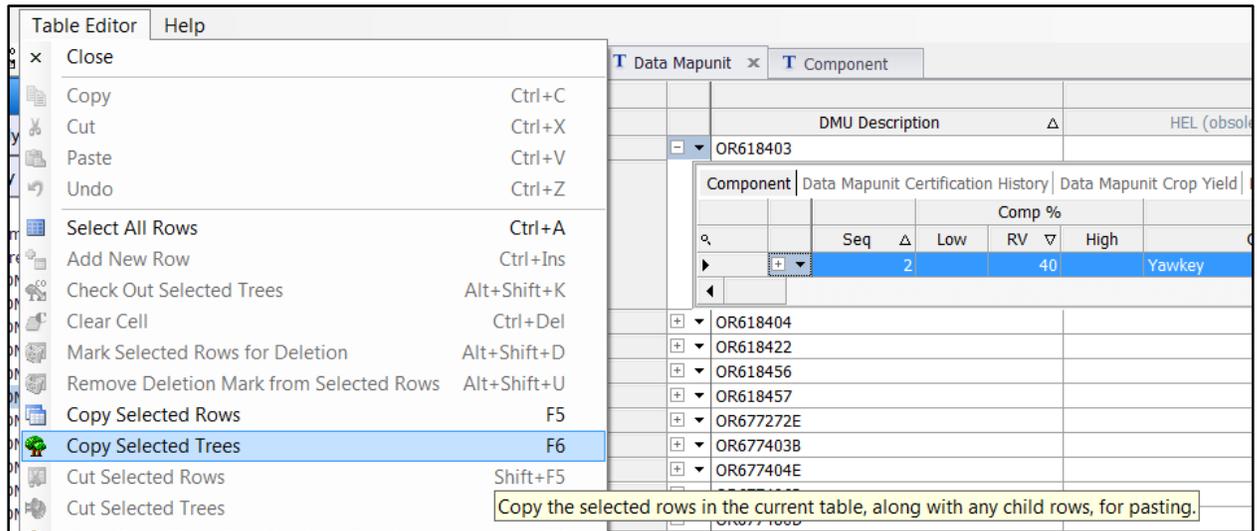
1. Load master component and placeholder components into selected set.

Use MLRA01_Portland query Area/Legend/Mapunit/DMU by component name.



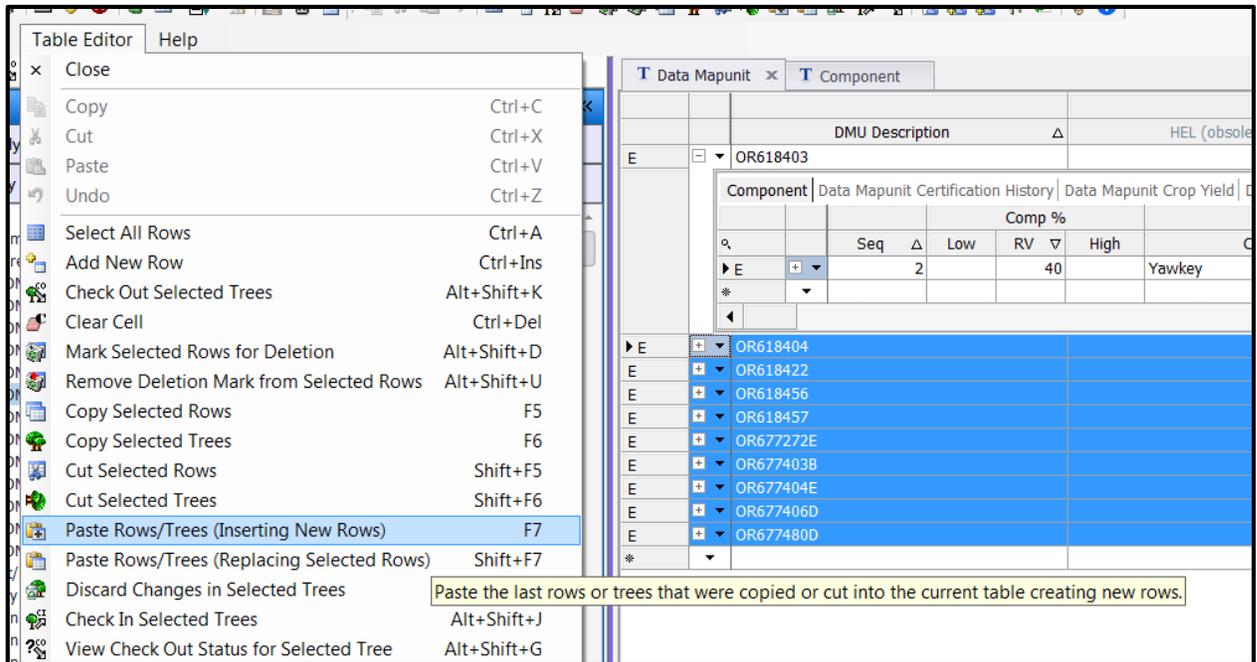
2. Open the Datamapunit table and copy the master component.

Select the component, and then Copy Selected Tree. DO NOT CHOOSE COPY SELECTED ROWS.



3. Paste master component into other DMUs.

Check out DMUs, and then select the DMUs that contain the placeholder components and paste, inserting new row.



Two versions of the component will now be in each DMU.

OR618404						
Component	Data Mapunit Certification History	Data Mapunit Crop Yield	Data Mapunit Text			
		Comp %				
Seq	Δ	Low	RV	▽	High	Component Name
E	+	1		45		Yawkey
N	+	2		40		Yawkey
*						

OR618422						
Component	Data Mapunit Certification History	Data Mapunit Crop Yield	Data Mapunit Text			
		Comp %				
Seq	Δ	Low	RV	▽	High	Component Name
E	+	2		40		Yawkey
N	+	2		40		Yawkey
*						

4. Update master component with mapunit specific information from placeholder component.

In each DMU, locate the newly pasted master component and transfer mapunit specific information from placeholder component to master component. Below is the list of fields and child tables that should be reviewed for the placeholder component to ensure that they match the master component. Typically, most of the data for the master and placeholder components will be the same. If the placeholder component is a different phase of the master component, more data elements may need to be adjusted.

- COMPONENT
 - Comp %
 - Component Name
 - Local Phase
 - Major Component
 - Slope Gradient
 - Slope Length USLE
 - Local Runoff Class
 - Erosion Class
 - Hydric Condition
 - Hydric Rating
 - Cover Kind 1
 - Cover Kind 2
 - Elevation
 - MAAT
 - MAP
 - Frost-Free Days
 - MAST
 - Nirr LCC
 - Nirr Subcl
 - Nirr LCU
 - Irr LCC
 - Irr Subcl
 - Irr LCU
 - Prod Index
 - Range Prod

- COMPONENT CANOPY COVER

- COMPONENT CROP YIELD

- COMPONENT ECOLOGICAL SITE

- COMPONENT EROSION ACCELERATED

- COMPONENT EXISTING PLANTS

- COMPONENT FOREST PRODUCTIVITY
 - COMPONENT FOREST PRODUCTIVITY - OTHER

- COMPONENT GEOMORPHIC DESCRIPTION
 - COMPONENT THREE DIMENSIONAL SURFACE MORPHOMETRY
 - COMPONENT MICRORELEIF SURFACE MORPHOMETRY
 - COMPONENT SLOPE SHAPE SURFACE MORPHOMETRY
 - COMPONENT TWO DIMENSIONAL SURFACE MORPHOMETRY

- COMPONENT HYDRIC CRITERIA

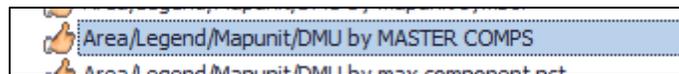
- COMPONENT MONTH

- COMPONENT PARENT MATERIAL GROUP
- COMPONENT OTHER VEGETATIVE CLASSIFICATION
- COMPONENT RESTRICTIONS
- COMPONENT SURFACE FRAGMENTS
- COMPONENT TEXT
- COMPONENT TREES TO MANAGE

5. Delete placeholder component.

HOW TO QUERY FOR MASTER COMPONENTS

To load your master components in your selected set, use the MLRA01_Portland query “Area/Legend/Mapunit/DMU by MASTER COMPS.



Make sure your survey area of interest is in your local database before running this query. Then run the query against your local database. Set your target tables, enter your Area Symbol, and enter the word “Master” into the SIR # Field. This will load only those components tagged as “Master”.

Selections for Running Query Area/Legend/Mapunit/DMU by MASTER COMPS

Target Tables:	<input checked="" type="checkbox"/> Area <input type="checkbox"/> Legend <input checked="" type="checkbox"/> Legend Mapunit <input type="checkbox"/> Mapunit <input checked="" type="checkbox"/> Correlation <input type="checkbox"/> Data Mapunit <input checked="" type="checkbox"/> Component	<input type="button" value="Run"/> <input type="button" value="Cancel"/> <input type="checkbox"/> Check Out
Area Symbol (MATCHES):	WA063	
SIR #. Enter MASTER to load all master components (MATCHES):	Master	
Description:	Set target tables to AREA, LEGEND MAPUNIT, CORRELATION, COMPONENT. Excludes additional mapunits Only includes representative DMUs	
Query:	<pre>1 FROM area, legend, legend_mapunit, mapunit, co 2 WHERE area.area_symbol IMATCHES ? AND 3 s5id IMATCHES ? "SIR #. Enter MASTER to load</pre>	