

# Debug System - Fixed & Ready

## What Changed

### 1. AV\_Core\_v2.1\_COMPLETE.bas

- ✓ InitDebugFlags now checks "ON"/"OFF" (was "true"/"false")
- ✓ GetAutoValidationMap uses DebugMessage for debug logging
- ✓ AV\_UI.AppendUserLog for progress (always visible)
- ✓ Column indices moved outside loop (efficiency)
- ✓ Added "Set" keyword for dictionary assignment (fixed Error #450)

### 2. Debug Logging Pattern

#### Progress Logging (ALWAYS visible):

```
vba  
  
AV_UI.AppendUserLog "Loading validation mappings..."
```

#### Debug Logging (only when GlobalDebugOn = "ON"):

```
vba  
  
AV_Core.DebugMessage "Row 1 Processing: Validate_Column_GIWQuantity", MODULE_NAME
```

#### Error Logging (ALWAYS visible):

```
vba  
  
Debug.Print "ERROR: " & Err.Description ' Direct to Immediate Window  
AV_UI.AppendUserLog "ERROR: " & Err.Description ' To form
```

### 3. How to Toggle Debug

In GlobalDebugOptions table:

- Set GlobalDebugOn = "ON" → See detailed debug messages
- Set GlobalDebugOn = "OFF" → Only see progress in form

### 4. Worksheet\_Change Template

Created template showing proper pattern:

- Use AV\_Core.DebugMessage for debug prints
- Errors always print directly
- MODULE\_NAME constant for clarity

### Test Results Expected

**GlobalDebugOn = "ON":**

```
[Immediate Window]
Row 1 Processing: Validate_Column_GIWQuantity
Row 2 Processing: Validate_Column_GIWIncluded
...
Success: 9 | Skipped: 0

[UserForm]
Loading validation mappings...
Loaded 9 validation mappings
```

**GlobalDebugOn = "OFF":**

[Immediate Window]

(empty)

[UserForm]

Loading validation mappings...

Loaded 9 validation mappings

## Files Updated

1. AV\_Core\_v2.1\_COMPLETE.bas
2. Sheet\_Worksheet\_Change\_Template.cls (new)

## Status

✓ Test 1 COMPLETE - Error #450 fixed

➡ Ready for Test 2