

```
insheet using "MSI.csv", comma clear
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```
insheet using "IHC.csv", comma clear
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```
insheet using "MSI_L.csv", comma clear
```

```
gen long n1=tp+fn
```

```
gen long n0=fp+tn
```

```
gen long true1=tp
```

```
gen long true0=tn
```

```
gen long studyid= _n
```

```
reshape long n true, i(studyid) j(sens)
```

```
sort study sens
```

```
gen byte spec=1-sens
```

```
melogit true sens spec , nocons|| studyid: sens spec, ///
```

```
nocons cov(ind) binomial(n)
```

```
program define renamematrix, eclass
```

```
matrix mb = e(b)
```

```
matrix mv = e(V)
```

```
matrix colnames mb = logitse:_cons logitsp:_cons vlogitse:_cons  
vlogitsp:_cons covlogits:_cons
```

```
matrix colnames mv = logitse:_cons logitsp:_cons vlogitse:_cons
```

```
vlogitsp:_cons covlogits:_cons
```

```
matrix rownames mv = logitse:_cons logitsp:_cons vlogitse:_cons
```

```
vlogitsp:_cons covlogits:_cons
```

```
ereturn post mb mv
```

```
end
```

```
renamematrix
```

```
_diparm logitse, label(Sensitivity) invlogit
```

```
_diparm logitsp, label(Specificity) invlogit
```