

V6init-abridged

Attribute VB\_Name = "V6INIT"

Rem -----

Option Explicit

Public Const PI = 3.141592654  
Public Const TFconverter = 9.567334167  
Public Const KGconverter = 2.20458554  
Public Const MTRconverter = 1.0936133  
Public Const GSMconverter = 0.029493

'Starfish Engine  
Public Inputs(10) As Single  
Public ScSw(8, 2) As Single  
Public GreyFcFw(8, 2) As Single  
Public GreySLRat As Single  
Public ProcFc(8, 9) As Single  
Public ProcFw(8, 9) As Single  
Public SLRat(9) As Single  
Public Grey(20) As Single  
Public Eq(20) As Single  
Public P(60) As Single  
Public CalEq(20) As Single  
Public CalFc As Single  
Public CalFw As Single  
Public Sc As Single  
Public Sw As Single  
Public Fc As Single  
Public Fw As Single

'Input - output limit controls  
Public MaxMin(31, 2) As Single  
Public RefStateLimits(12, 2) As Single  
Public AsDellimits(12, 2) As Single  
Public MinTF(9) As Single  
Public MaxTF(9) As Single  
Public NormTF(9, 2) As Single  
Public MinUserTF As Single  
Public MaxUserTF As Single  
Public NormUserTF(2) As Single  
Public MinInlayTF As Single  
Public MaxInlayTF As Single  
Public NormInlayTF(2) As Single  
Public FinFabLimits(8, 2) As Single  
Public QualSpecLimits(9, 2) As Single

Public StdTex(9) As Single  
Public StdStLen(9) As Single  
Public StdTF(9) As Single  
Public DefTF(9) As Single  
Public DefCounts(9, 10) As Single

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Public Sub SetDataLimits()

Dim i As Long

'set max & min TF stop limits for data entry

MaxTF(0) = 16: MinTF(0) = 8  
MaxTF(1) = 20: MinTF(1) = 12  
MaxTF(2) = 20: MinTF(2) = 12  
MaxTF(3) = 20: MinTF(3) = 12  
MaxTF(4) = 20: MinTF(4) = 12  
MaxTF(5) = 20: MinTF(5) = 12  
MaxTF(6) = 20: MinTF(6) = 12  
MaxTF(7) = 19: MinTF(7) = 12  
MaxTF(8) = 2.5: MinTF(8) = 1#  
MaxInlayTF = MaxTF(8)  
MinInlayTF = MinTF(8)

'normal TF for advice eg cmdQuery message

NormTF(0, 0) = 10: NormTF(0, 1) = 14  
NormTF(1, 0) = 14: NormTF(1, 1) = 18  
NormTF(2, 0) = 14: NormTF(2, 1) = 18  
NormTF(3, 0) = 14: NormTF(3, 1) = 18  
NormTF(4, 0) = 14: NormTF(4, 1) = 18  
NormTF(5, 0) = 14: NormTF(5, 1) = 18  
NormTF(6, 0) = 14: NormTF(6, 1) = 18  
NormTF(7, 0) = 13.5: NormTF(7, 1) = 16.5  
NormTF(8, 0) = 1.25: NormTF(8, 1) = 1.6  
NormInlayTF(0) = NormTF(8, 0)  
NormInlayTF(1) = NormTF(8, 1)

'MAXMIN has the stop limits for data entry etc

'NB some of these are obsolete & should not be used

'0 & 1 spare

MaxMin(0, 0) = 0: MaxMin(0, 1) = 0 'spare  
MaxMin(1, 0) = 0: MaxMin(1, 1) = 0 'spare

'Stitch length

MaxMin(2, 0) = 15: MaxMin(2, 1) = 1# 'mm  
MaxMin(3, 0) = 1.5: MaxMin(3, 1) = 0.1 'cm  
MaxMin(4, 0) = 0.5906: MaxMin(4, 1) = 0.03937 'inch

'Tightness factor

'not used any more - see MaxTF & MinTF

MaxMin(5, 0) = 25#: MaxMin(5, 1) = 7# 'ground  
MaxMin(6, 0) = 35#: MaxMin(6, 1) = 7# 'effective

'7 & 8 spare

MaxMin(7, 0) = 0: MaxMin(7, 1) = 0 'spare  
MaxMin(8, 0) = 0: MaxMin(8, 1) = 0 'spare

'Yarn Number

MaxMin(9, 0) = 118.11: MaxMin(9, 1) = 5.905 'tex

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MaxMin(10, 0) = 100#:   MaxMin(10, 1) = 5#           'Ne
MaxMin(11, 0) = 169.34: MaxMin(11, 1) = 8.47      'Nm
'12 to 20 reserved for dimensions
For i = 12 To 20
  MaxMin(i, 0) = 0:      MaxMin(i, 1) = 0         'spare
Next i
'Machine
MaxMin(21, 0) = 40#:      MaxMin(21, 1) = 5#       'Gauge
MaxMin(22, 0) = 65#:      MaxMin(22, 1) = 5#       'Diameter
MaxMin(23, 0) = 8196#:    MaxMin(23, 1) = 72#      'Needles
MaxMin(24, 0) = 273#:     MaxMin(24, 1) = 1#       'Feeders
MaxMin(25, 0) = 100#:     MaxMin(25, 1) = 1#       'RPM
MaxMin(26, 0) = 1500#:    MaxMin(26, 1) = 5#       'Speed factor
MaxMin(27, 0) = 1.9949:   MaxMin(27, 1) = 0.006649   'Speed m/sec

```

End Sub

Public Sub SetGlobalNames()

```

'machines database
DbTableNames(0) = "Interlock"
DbTableNames(1) = "Rib"
DbTableNames(2) = "SingleJ"

'Sort options
SortOptNames(0) = "Order of Entry"
SortOptNames(1) = "Machine ID"
SortOptNames(2) = "Machine Gauge (cut)"
SortOptNames(3) = "Machine Diameter"
SortOptNames(4) = "Number of Needles"

'NumFabrics is set in sub Main
FabTypNames(0) = "Plain Interlock"
FabTypNames(1) = "1x1 Rib"
FabTypNames(2) = "2x2 Rib"
FabTypNames(3) = "Plain Single Jersey"
FabTypNames(4) = "Double Crosstuck"
FabTypNames(5) = "Single Crosstuck"
FabTypNames(6) = "Six-Thread Crosstuck"
FabTypNames(7) = "Two-Thread Fleece"

NumProcs = 10
ProcNames(0) = "True Jet      : High impulse"
ProcNames(1) = "Winch-jet     : Low Tension"
ProcNames(2) = "Winch-jet     : Mid Tension"
ProcNames(3) = "Winch-jet     : High Tension"
ProcNames(4) = "Continuous: Low tension"
ProcNames(5) = "Continuous: Mid tension"
ProcNames(6) = "Continuous: High tension"

```

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```
ProcNames(7) = "Mercerise : Open-width"  
ProcNames(8) = "Mercerise : Tubular Low"  
ProcNames(9) = "Mercerise : Tubular High"
```

```
NumShades = 8  
ShadeNames(0) = "White"  
ShadeNames(1) = "Pastel"  
ShadeNames(2) = "Light"  
ShadeNames(3) = "Medium"  
ShadeNames(4) = "Medium +"  
ShadeNames(5) = "Deep"  
ShadeNames(6) = "Heavy"  
ShadeNames(7) = "Full"
```

```
WtLossNames(0) = "-5.5"  
WtLossNames(1) = "-5.0"  
WtLossNames(2) = "-4.5"  
WtLossNames(3) = "-4.0"  
WtLossNames(4) = "-3.5"  
WtLossNames(5) = "-3.0"  
WtLossNames(6) = "-2.5"  
WtLossNames(7) = "-2.0"
```

```
NumYarns = 4  
YarnNames(0) = "Single, combed, ring"  
YarnNames(1) = "Single, carded, ring"  
YarnNames(2) = "Single, carded, rotor"  
YarnNames(3) = "Twofold, combed, ring"
```

```
NumTargets = 7  
TargetNames(0) = "Length and Width Shrinkage"  
TargetNames(1) = "Courses and Wales"  
TargetNames(2) = "Weight and Width"  
TargetNames(3) = "Weight and Courses"  
TargetNames(4) = "Length Shrinkage and Width"  
TargetNames(5) = "Weight and Length Shrinkage"  
TargetNames(6) = "Courses and Width"
```

```
'NumMachTypes is set in Sub Main  
MachTypeNames(0) = "Interlock"  
MachTypeNames(1) = "Rib"  
MachTypeNames(2) = "Single Jersey"
```

End Sub

Public Sub SetEngineCoeffs()

```
Dim i As Long
```

```
ScSw(FabInt, 0) = 6.5: ScSw(FabInt, 1) = 2.6
```

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ScSw(FabRib1, 0) = 6.5:	ScSw(FabRib1, 1) = 2.6
ScSw(FabRib2, 0) = 6.5:	ScSw(FabRib2, 1) = 2.6
ScSw(FabPsj, 0) = 6.5:	ScSw(FabPsj, 1) = 2.6
ScSw(FabDxt, 0) = 12.73:	ScSw(FabDxt, 1) = 2.42
ScSw(FabSxt, 0) = 10.19:	ScSw(FabSxt, 1) = 2.33
ScSw(FabXt6, 0) = 16#:	ScSw(FabXt6, 1) = 2.22
ScSw(Fab2tf, 0) = 6.5:	ScSw(Fab2tf, 1) = 2.6

'Interlock FabTyp = 0 = FabInt

ProcFc(FabInt, 0) = 24#:	ProcFw(FabInt, 0) = 32#
ProcFc(FabInt, 1) = 27#:	ProcFw(FabInt, 1) = 34#
ProcFc(FabInt, 2) = 28#:	ProcFw(FabInt, 2) = 35.5
ProcFc(FabInt, 3) = 32#:	ProcFw(FabInt, 3) = 39#
ProcFc(FabInt, 4) = 30#:	ProcFw(FabInt, 4) = 35#
ProcFc(FabInt, 5) = 33.5:	ProcFw(FabInt, 5) = 37.5
ProcFc(FabInt, 6) = 37#:	ProcFw(FabInt, 6) = 40#
ProcFc(FabInt, 7) = 30#:	ProcFw(FabInt, 7) = 36#
ProcFc(FabInt, 8) = 42#:	ProcFw(FabInt, 8) = 47#
ProcFc(FabInt, 9) = 51#:	ProcFw(FabInt, 9) = 43.5

'1x1 Rib FabTyp = 1 = FabRib1

ProcFc(FabRib1, 0) = 35#:	ProcFw(FabRib1, 0) = 10#
ProcFc(FabRib1, 1) = 38#:	ProcFw(FabRib1, 1) = 12#
ProcFc(FabRib1, 2) = 40#:	ProcFw(FabRib1, 2) = 13#
ProcFc(FabRib1, 3) = 45#:	ProcFw(FabRib1, 3) = 16#
ProcFc(FabRib1, 4) = 42#:	ProcFw(FabRib1, 4) = 12#
ProcFc(FabRib1, 5) = 45#:	ProcFw(FabRib1, 5) = 15#
ProcFc(FabRib1, 6) = 48#:	ProcFw(FabRib1, 6) = 18#
ProcFc(FabRib1, 7) = 42#:	ProcFw(FabRib1, 7) = 13#
ProcFc(FabRib1, 8) = 54#:	ProcFw(FabRib1, 8) = 20#
ProcFc(FabRib1, 9) = 62#:	ProcFw(FabRib1, 9) = 19#

'Pain Single Jersey FabTyp = 3 = FabPsj

ProcFc(FabPsj, 0) = 24#:	ProcFw(FabPsj, 0) = 32#
ProcFc(FabPsj, 1) = 27#:	ProcFw(FabPsj, 1) = 34#
ProcFc(FabPsj, 2) = 28#:	ProcFw(FabPsj, 2) = 35.5
ProcFc(FabPsj, 3) = 32#:	ProcFw(FabPsj, 3) = 39#
ProcFc(FabPsj, 4) = 30#:	ProcFw(FabPsj, 4) = 35#
ProcFc(FabPsj, 5) = 33.5:	ProcFw(FabPsj, 5) = 37.5
ProcFc(FabPsj, 6) = 37#:	ProcFw(FabPsj, 6) = 40#
ProcFc(FabPsj, 7) = 30#:	ProcFw(FabPsj, 7) = 36.5
ProcFc(FabPsj, 8) = 42#:	ProcFw(FabPsj, 8) = 45.5
ProcFc(FabPsj, 9) = 51#:	ProcFw(FabPsj, 9) = 43.5

'2x2 Rib FabTyp = 2 = FabRib2

'set at average of PSJ and 1x1 rib pro tem

For i = 0 To NumProcs - 1

    ProcFc(FabRib2, i) = 0.5 \* (ProcFc(FabPsj, i) + ProcFc(FabRib1, i))

    ProcFw(FabRib2, i) = 0.5 \* (ProcFw(FabPsj, i) + ProcFw(FabRib1, i))

Next i

'Double Crosstuck FabTyp = 4 = FabDxt

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ProcFc(FabDxt, 0) = 84#:	ProcFw(FabDxt, 0) = 13#
ProcFc(FabDxt, 1) = 93#:	ProcFw(FabDxt, 1) = 14.3
ProcFc(FabDxt, 2) = 98#:	ProcFw(FabDxt, 2) = 15#
ProcFc(FabDxt, 3) = 112#:	ProcFw(FabDxt, 3) = 16.5
ProcFc(FabDxt, 4) = 105#:	ProcFw(FabDxt, 4) = 15#
ProcFc(FabDxt, 5) = 117#:	ProcFw(FabDxt, 5) = 16#
ProcFc(FabDxt, 6) = 130#:	ProcFw(FabDxt, 6) = 17#
ProcFc(FabDxt, 7) = 105#:	ProcFw(FabDxt, 7) = 16#
ProcFc(FabDxt, 8) = 147#:	ProcFw(FabDxt, 8) = 19#
ProcFc(FabDxt, 9) = 181#:	ProcFw(FabDxt, 9) = 18.5

'Single Crosstuck FabTyp = 5 = FabSxt

ProcFc(FabSxt, 0) = 37#:	ProcFw(FabSxt, 0) = 16#
ProcFc(FabSxt, 1) = 46#:	ProcFw(FabSxt, 1) = 18#
ProcFc(FabSxt, 2) = 49#:	ProcFw(FabSxt, 2) = 19#
ProcFc(FabSxt, 3) = 56#:	ProcFw(FabSxt, 3) = 22#
ProcFc(FabSxt, 4) = 52.5#:	ProcFw(FabSxt, 4) = 19#
ProcFc(FabSxt, 5) = 59#:	ProcFw(FabSxt, 5) = 21#
ProcFc(FabSxt, 6) = 65#:	ProcFw(FabSxt, 6) = 23#
ProcFc(FabSxt, 7) = 53#:	ProcFw(FabSxt, 7) = 20#
ProcFc(FabSxt, 8) = 73#:	ProcFw(FabSxt, 8) = 26#
ProcFc(FabSxt, 9) = 90#:	ProcFw(FabSxt, 9) = 25#

'Six-thread Crosstuck FabTyp = 6 = FabXt6

ProcFc(FabXt6, 0) = 144#:	ProcFw(FabXt6, 0) = 16#
ProcFc(FabXt6, 1) = 160#:	ProcFw(FabXt6, 1) = 16.8
ProcFc(FabXt6, 2) = 168#:	ProcFw(FabXt6, 2) = 17.5
ProcFc(FabXt6, 3) = 192#:	ProcFw(FabXt6, 3) = 19.5
ProcFc(FabXt6, 4) = 180#:	ProcFw(FabXt6, 4) = 17.5
ProcFc(FabXt6, 5) = 201#:	ProcFw(FabXt6, 5) = 19#
ProcFc(FabXt6, 6) = 222#:	ProcFw(FabXt6, 6) = 21#
ProcFc(FabXt6, 7) = 180#:	ProcFw(FabXt6, 7) = 18.5
ProcFc(FabXt6, 8) = 250#:	ProcFw(FabXt6, 8) = 24#
ProcFc(FabXt6, 9) = 308#:	ProcFw(FabXt6, 9) = 23#

'Two-thread Fleece FabTyp = 7 = Fab2tf

ProcFc(Fab2tf, 0) = 24#:	ProcFw(Fab2tf, 0) = 32#
ProcFc(Fab2tf, 1) = 27#:	ProcFw(Fab2tf, 1) = 34#
ProcFc(Fab2tf, 2) = 28#:	ProcFw(Fab2tf, 2) = 35.5
ProcFc(Fab2tf, 3) = 32#:	ProcFw(Fab2tf, 3) = 39#
ProcFc(Fab2tf, 4) = 30#:	ProcFw(Fab2tf, 4) = 35#
ProcFc(Fab2tf, 5) = 33.5#:	ProcFw(Fab2tf, 5) = 37.5
ProcFc(Fab2tf, 6) = 37#:	ProcFw(Fab2tf, 6) = 40#
ProcFc(Fab2tf, 7) = 30#:	ProcFw(Fab2tf, 7) = 36.5
ProcFc(Fab2tf, 8) = 42#:	ProcFw(Fab2tf, 8) = 45.5
ProcFc(Fab2tf, 9) = 51#:	ProcFw(Fab2tf, 9) = 43.5

GreyFcFw(FabInt, 0) = 18.3:	GreyFcFw(FabInt, 1) = 36.2
GreyFcFw(FabRib1, 0) = 33.6:	GreyFcFw(FabRib1, 1) = 13.4
GreyFcFw(FabPsj, 0) = 18.3:	GreyFcFw(FabPsj, 1) = 36.2

'2x2 rib set at average for psj & 1x1 rib pro tem

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GreyFcFw(FabRib2, 0) = 0.5 \* (GreyFcFw(FabPsj, 0) + GreyFcFw(FabRib1, 0))  
GreyFcFw(FabRib2, 1) = 0.5 \* (GreyFcFw(FabPsj, 1) + GreyFcFw(FabRib1, 1))

GreyFcFw(FabDxt, 0) = 68#: GreyFcFw(FabDxt, 1) = 14.5  
GreyFcFw(FabSxt, 0) = 22.5: GreyFcFw(FabSxt, 1) = 22#  
GreyFcFw(FabXt6, 0) = 140#: GreyFcFw(FabXt6, 1) = 17#  
GreyFcFw(Fab2tf, 0) = 18.3: GreyFcFw(Fab2tf, 1) = 36.2

'Step 1 Stitch length per process type

SLRat(0) = 0.982  
SLRat(1) = 0.982  
SLRat(2) = 0.982  
SLRat(3) = 0.982  
SLRat(4) = 0.982  
SLRat(5) = 0.982  
SLRat(6) = 0.982  
SLRat(7) = 0.96  
SLRat(8) = 0.93  
SLRat(9) = 0.965

GreySLRat = 0.985

End Sub

Public Sub SetStdTexEtc()

Dim i As Long

StdTF(FabInt) = 12.5  
StdTF(FabRib1) = 15.5  
StdTF(FabRib2) = 15.5  
StdTF(FabPsj) = 15.5  
StdTF(FabDxt) = 15.5  
StdTF(FabSxt) = 15.5  
StdTF(FabXt6) = 15.5  
StdTF(Fab2tf) = 15  
StdTF(NumFabrics) = 1.33 'inlay TF

' StdInlayTF = 1.33

StdTex(FabInt) = 15.540526 'Ne 38  
StdTex(FabRib1) = 19.684667 'Ne 30  
StdTex(FabRib2) = 19.684667  
StdTex(FabPsj) = 24.605833 'Ne 24  
StdTex(FabDxt) = 24.605833  
StdTex(FabSxt) = 24.605833  
StdTex(FabXt6) = 24.605833  
StdTex(Fab2tf) = 29.527 'Ne 20  
StdTex(NumFabrics) = 59.054 'Inlay Ne 10

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```
'StdStLen (cm) from StdTex and TF
For i = 0 To NumFabrics - 1
  StdStLen(i) = Sqr(StdTex(i)) / StdTF(i)
Next i
'StdStLen for inlay assumes
'a 18g machine and inlay TF = 1.33
StdStLen(NumFabrics) = 2.54 * 1.33 / 18
```

End Sub

Public Sub SetUnitsNames()

```
CountUnits(0) = "tex"
CountUnits(1) = "Ne"
CountUnits(2) = "Nm"
```

```
TightUnits(0) = "mm"
TightUnits(1) = "cm"
TightUnits(2) = "in"
```

```
TfUnits(0) = "cgs"
TfUnits(1) = "SI"
TfUnits(2) = "Imp"
```

```
CourseUnits(0) = "/cm"
CourseUnits(1) = "/3cm"
CourseUnits(2) = "/10cm"
CourseUnits(3) = "/in"
CourseUnits(4) = "/3cm"
CourseUnits(5) = "/in"
```

```
WeightUnits(0) = "g/sm"
WeightUnits(1) = "oz/syd"
```

```
WidthUnits(0) = "cmTu"
WidthUnits(1) = "inTu"
WidthUnits(2) = "cmOp"
WidthUnits(3) = "inOp"
WidthUnits(4) = "cmOpTr"
WidthUnits(5) = "inOpTr"
```

```
YieldUnits(0) = "g/m"
YieldUnits(1) = "oz/yd"
YieldUnits(2) = "g/yd"
YieldUnits(3) = "m/kg "
YieldUnits(4) = "yd/lb"
```



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```
YieldUnits(5) = "sm/kg"  
YieldUnits(6) = "syd/lb"
```

End Sub