Appendices

Appendix (A)

AT&T's Statistical Quality Control Standards

The rules for: X-bar charts, Individual charts Median charts R charts when the minimum subgroup size is at least 4

a) 1 point above Upper Spec

b) 1 point below Lower Spec

A) 1 point above Zone A

B) 1 point below Zone A

C) 2 of 3 successive points in upper Zone A or beyond

D) 2 of 3 successive points in lower Zone A or beyond

E) 4 of 5 successive points in upper Zone B or beyond

F) 4 of 5 successive points in lower Zone B or beyond

G) 8 points in a row above centerline

H) 8 points in a row below centerline

I) 15 points in a row in Zone C (above and below center)

J) 8 points on both sides of center with 0 in Zone C

K) 14 points in a row alternating up and down

L) 6 points in a row steadily increasing or decreasing

The rules for: R charts when the minimum subgroup size is less than 4

a) 1 point above Upper Spec

b) 1 point below Lower Spec

A) 1 point above Zone A

B) 2 successive points in or above upper Zone A

C) 3 successive points in or above upper Zone B

D) 7 successive points in or above upper Zone C

E) 10 successive points in or below lower Zone C

F) 6 successive points in or below lower Zone B

G) 4 successive points in lower Zone A

The rules for: S charts, Moving Average charts, Moving Range charts

a) 1 point above Upper Spec

b) 1 point below Lower Spec

A) 1 point above Zone A

B) 1 point below Zone A

The rules for: **p charts, np charts, c charts, u charts**

a) 1 point above Upper Spec

b) 1 point below Lower Spec

A) 1 point above Zone A

B) 1 point below Zone A

C) 9 points in a row above centerline

D) 9 points in a row below centerline

E) 6 points in a row steadily increasing or decreasing

F) 14 points in a row alternating up and down

Appendix (B)

Examples

Example (1) from 4/4/2009 to 13/4/2009:-

This example gives details about X-Chart for compressive 2 days test.

Pattern recognition: Freak Pattern.

Solution: Review and inspect raw materials cautiously. The cement in silo should be in a high level.

date of test	Blaine	compressive 7	compressive 2	expantion	R for Blaine	R for Expantion	R for 2 days	R for 7 days	R for 28 days	Compressive 28
04/04/2009	3000	30.33	8.28	4	11	3	33	19	7	51.04
05/04/2009	2416	21.29	20.65	7	16	8	15	15	10	42
06/04/2009	2900	41.67	31.43	6	3	1	3	14	7	46.77
07/04/2009	3300	32.45	15.25	1	40	1	2	10	7	41.21
08/04/2009	2500	28.92	27.16	7	5	2	10	9	5	48.57
09/04/2009	2950	37.64	23.43	5	23	4	5	5	3	41.32
10/04/2009	3243	26.76	15.44	2	7	6	23	4	3	43.12
11/04/2009	3050	34.2	23.65	5	16	3	2	8	8	48.32
12/04/2009	3545	26.76	21.27	6	2	1	16	3	5	38.87
13/04/2009	2543	34.2	19.78	3	9	4	3	8	5	58.75

Example (1) X-Chart for Compressive 2 Days (Freaks Pattern)

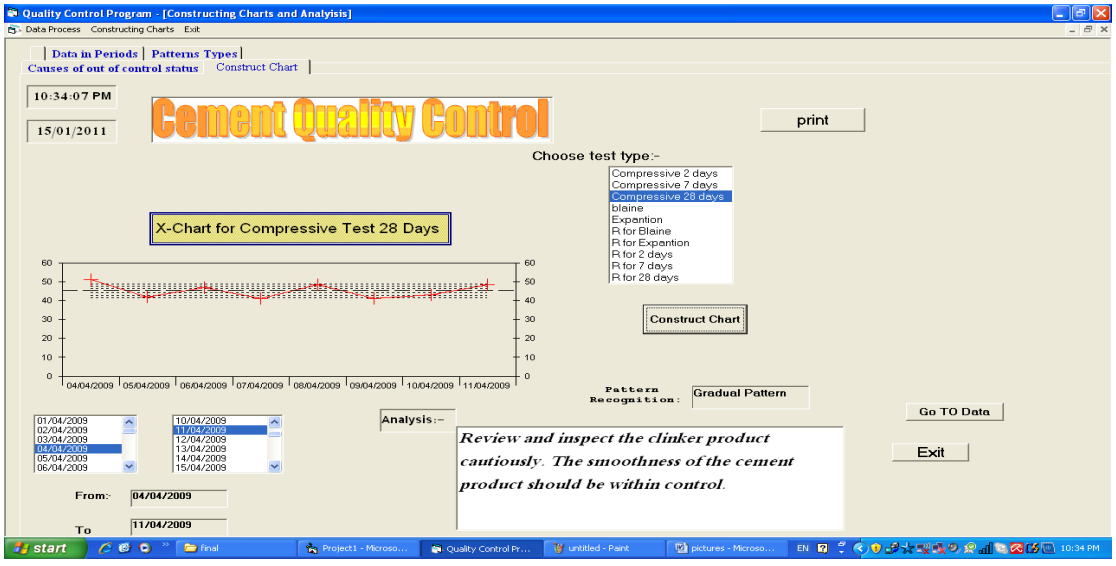
Example (2) from 4/4/2009 to 11/4/2009:-

This example gives details about X-Chart for compressive 28 days test.

Pattern recognition: Gradual Change Pattern.

Solution: Review and inspect the clinker product cautiously. The smoothness of the cement product should be within control.

date of test	Blaine	compressive 7	compressive 2	expantion	R for Blaine	R for Expantion	R for 2 days	R for 7 days	R for 28 days	Compressive 28 days
04/04/2009	3000	30.33	8.28	4	11	3	33	19	7	51.04
05/04/2009	2416	21.29	20.65	7	16	8	15	15	10	42
06/04/2009	2900	41.67	31.43	6	3	1	3	14	7	46.77
07/04/2009	3300	32.45	15.25	1	40	1	2	10	7	41.21
08/04/2009	2500	28.92	27.16	7	5	2	10	9	5	48.57
09/04/2009	2950	37.64	23.43	5	23	4	5	5	3	41.32
10/04/2009	3243	26.76	15.44	2	7	6	23	4	3	43.12
11/04/2009	3050	34.2	23.65	5	16	3	2	8	8	48.32



Example (2) X-Chart for Compressive 28 Days (Gradual Change Pattern)

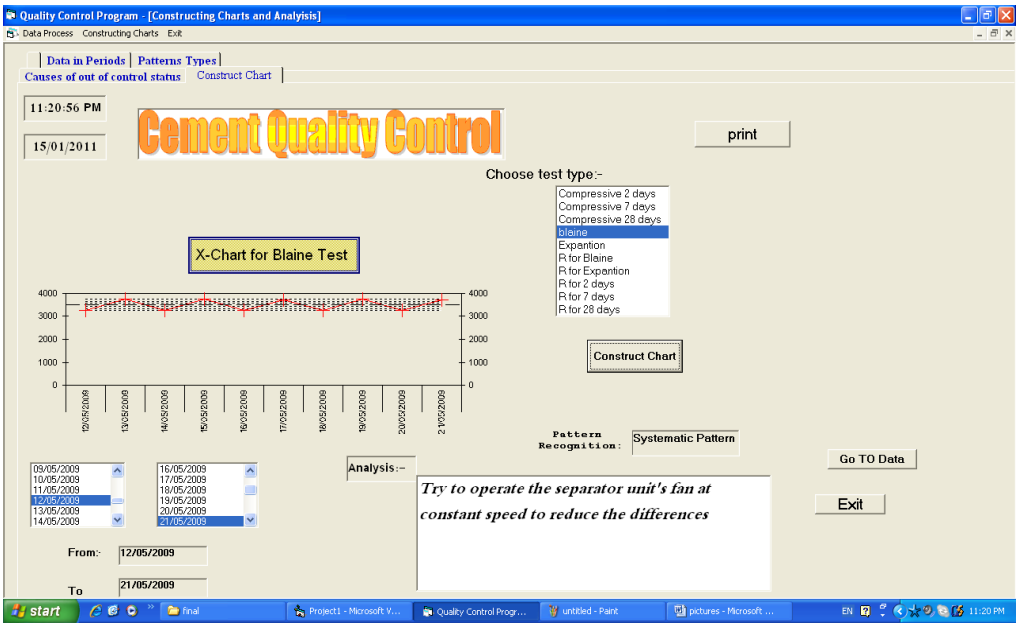
Example (3) from 12/5/2009 to 21/5/2009:-

This example gives details about X-Chart for Blaine test.

Pattern recognition: Systematic Pattern.

Solution: Try to operate the separator unit's fan at constant speed to reduce the differences.

date of test	Blaine	compressive 7	compressive 2	expantion	R for Blaine	R for Expantion	R for 2 days	R for 7 days	R for 28 days	Compressive 28
12/05/2009	3266	22	13	7	6	4	6	2	11	39.43
13/05/2009	3297	31.64	20.43	2	34	1	2	6	5	45.11
14/05/2009	2647	38.65	18.5	1	77	0	8	4	6	43.74
15/05/2009	3651	32.82	18.47	4	54	5	0	8	4	41.89
16/05/2009	2754	35.84	27.43	7	101	6	17	8	3	49
17/05/2009	3139	25.27	17	2	4	4	16	7	22	45.72
18/05/2009	2975	28.1	29.73	8	2	2	5	4	18	45.9
19/05/2009	2448	30.49	13.65	5	14	6	13	2	14	43.04
20/05/2009	2682	29.74	20.62	3	116	5	18	15	12	39.39
21/05/2009	2961	41.52	32.18	9	111	6	23	17	11	52.1



Example (3) X-Chart for Blaine (Systematic Pattern)

Example (4) from 11/5/2009 to 22/5/2009:-

This example gives details about X-Chart for Blaine test.

Pattern recognition: Freak Pattern.

date of test	Blaine	compressive 7	compressive 2	expantion	R for Blaine	R for Expantion	R for 2 days	R for 7 days	R for 28 days	Compressive 28
11/05/2009	2854	35.62	17.75	4	3	1	4	12	21	41.26
12/05/2009	3266	22	13	7	6	4	6	2	11	39.43
13/05/2009	3297	31.64	20.43	2	34	1	2	6	5	45.11
14/05/2009	2647	38.65	18.5	1	77	0	8	4	6	43.74
15/05/2009	3651	32.82	18.47	4	54	5	0	8	4	41.89
16/05/2009	2754	35.84	27.43	7	101	6	17	8	3	49
17/05/2009	3139	25.27	17	2	4	4	16	7	22	45.72
18/05/2009	2975	28.1	29.73	8	2	2	5	4	18	45.9
19/05/2009	2448	30.49	13.65	5	14	6	13	2	14	43.04
20/05/2009	2682	29.74	20.62	3	116	5	18	15	12	39.39
21/05/2009	2961	41.52	32.18	9	111	6	23	17	11	52.1
22/05/2009	2633	39	16.45	7	344	9	3	2	17	42.9

Example (4) X-Chart for Blaine (Freak Pattern)

Appendix (C)
Programming Code

```
Dim rs As ADODB.Recordset
Dim n As Integer
Dim t As Integer
Dim t2 As Integer
Dim n1 As Integer
Dim a(1000)                          'represents date of test
Dim f(1000) As Single                ' represents Blaine results
Dim r1(1000) As Single               ' represents compressive 7 days results
Dim r2(1000) As Single                'represents compressive 2 days results
Dim w(1000) As Single                 'represents Expansion results
Dim b(1000) As Single                  'represents R for Blaine results
Dim b1(1000) As Single                 'represents R for Expansion results
Dim w1(1000) As Single                  'represents R for 2 days results
Dim w2(1000) As Single                  'represents R for 7 days results
Dim w3(1000) As Single                  'represents R for 28 days results
Dim b2(1000) As Single                   'represents compressive 28 days results

Private Sub Command10_Click()
Adodc1.Recordset.CancelUpdate
Command15.Enabled = True
Command14.Enabled = False
```

```
Command10.Enabled = False
End Sub
Private Sub cmdend_Click()
End
End Sub
Private Sub cmdprint_Click()
Form2.PrintForm
End Sub
Private Sub Comdend2_Click()
End
End Sub
Private Sub Comdend3_Click()
End
End Sub
Private Sub Comdend4_Click()
End
End Sub
Private Sub Command11_Click()
Dim k(1000)
 With Form2.msc
 msc.Visible = True
 .Refresh
 .chartType = VtChChartType2dLine
 .ColumnCount = 7
 n1 = n - t - t2
 .RowCount = n1
 s = 0
 s1 = 0

  For i = 1 To n1
   .Column = 1
   .Row = i
   .RowLabel = a(i + t)
   Select Case List3.ListIndex
    Case 0
    .Title = "X-Chart for Compressive Test 2 Days”
   .data = r2(i + t)
      k(i) = r2(i + t)
    s = s + r2(i + t)
    s1 = s1 + w1(i + t)
       Case 1
    .Title = "X-Chart for Compressive Test 7 Days”
    .data = r1(i + t)
      k(i) = r1(i + t)
    s = s + r1(i + t)
    s1 = s1 + w2(i + t)
    Case 2
    .Title = "X-Chart for Compressive Test 28 Days”
    .data = b2(i + t)
      k(i) = b2(i + t)
    s = s + b2(i + t)
    s1 = s1 + w3(i + t)

    Case 3
    .Title = "X-Chart for Blaine Test”
    .data = f(i + t)
```

```
    k(i) = f(i + t)
  s = s + f(i + t)
  s1 = s1 + b(i + t)
  Case 4
  .Title = "X-Chart for Expansion Test”
  .data = w(i + t)
     k(i) = w(i + t)
  s = s + w(i + t)
  s1 = s1 + b1(i + t)
  Case 5
  .Title = "R-Chart for Blaine Test”
  .data = b(i + t)
    k(i) = b(i + t)
  s = s + b(i + t)
  Case 6
  .Title = "R-Chart for Expansion Test”
  .data = b1(i + t)
    k(i) = b1(i + t)
  s = s + b1(i + t)
  Case 7
  .Title = "R-Chart for Compressive Test 2 Days”
  .data = w1(i + t)
    k(i) = w1(i + t)
  s = s + w1(i + t)
  Case 8
  .Title = "R-Chart for Compressive Test 7 Days”
  .data = w2(i + t)
    k(i) = w2(i + t)
  s = s + w2(i + t)
  Case 9
  .Title = "R-Chart for Compressive Test 28 Days”
  .data = w3(i + t)
     k(i) = w3(i + t)
  s = s + w3(i + t)
  End Select
  av = s / n1
  av1 = s1 / n1
  Next i

v = 0
For i = 1 To n1
  Select Case List3.ListIndex
  Case 0
    v = v + (r2(i + t) - av) ^ 2
  Case 1
   v = v + (r1(i + t) - av) ^ 2
 Case 2
   v = v + (b2(i + t) - av) ^ 2
 Case 3
   v = v + (f(i + t) - av) ^ 2
 Case 4
    v = v + (w(i + t) - av) ^ 2
 Case 5
    v = v + (b(i + t) - av) ^ 2
 Case 6
  v = v + (b1(i + t) - av) ^ 2
```

```
 Case 7
  v = v + (w1(i + t) - av) ^ 2
 Case 8
  v = v + (w2(i + t) - av) ^ 2
 Case 9
  v = v + (w3(i + t) - av) ^ 2
 End Select
Next i
 v1 = Sqr(v / n1)  ' for 3 sigma x
v2 = 2 * v1 / 3   ' for 2 sigma x
v3 = v1 / 3       ' for 1 sigma x
  For i = 1 To n1
  .Column = 3
  .Row = i
    .data = av + v1
  .Column = 2
  .Row = i
  .data = av - v1
  .Column = 4
  .Row = i
  .data = av + v2
  .Column = 5
  .Row = i
  .data = av - v2
  .Column = 6
  .Row = i
  .data = av + v3
  .Column = 7
  .Row = i
  .data = av - v3
Next i
End With
  m1 = 0: m2 = 0: m3 = 0
  For i = 1 To n1
  If k(i) > (av - v3) And k(i) < (av + v3) Then
   m1 = m1 + 1
  End If
  If k(i) > (av - v2) And k(i) < (av + v2) Then
   m2 = m2 + 1
  End If
   If k(i) > (av - v1) And k(i) < (av + v1) Then
   m3 = m3 + 1
  End If
   Next i
  q1 = m1 / n1
  q2 = m2 / n1
  q3 = m3 / n1
  If q1 >= 0.6826 Or q2 >= 0.9546 Or q3 >= 0.9973 Then
   Label18.Caption = "Normal"
   Else
     """""""""  'increasing  pattern
   """""""""
   For i = 1 To (n1 - 1)
    If k(i) > k(i + 1) Then GoTo 10
    Next i
    Label18.Caption = "Increasing trend Pattern"
```

```
    u = 1
        GoTo 50
     ''''''''''''                    'Decreasing pattern
10  For i = 1 To (n1 - 1)
   If k(i) < k(i + 1) Then GoTo 20
    Next i
    Label18.Caption = "Decreasing Trend Pattern"
    u = 2
    GoTo 50
     ''''''''''''
20     j1 = 0
    For i = 1 To n1 Step 2
    If k(i) < av Then
     j1 = j1 + 1
    End If
    Next i
    j2 = 0
    For i = 2 To n1 Step 2
     If k(i) > av Then
    j2 = j2 + 1
     End If
    Next i
     If n1 = (j1 + j2) Then
        Label18.Caption = "Systematic Pattern"
        u = 3
     Else
     '''''''''''''''''''''''''' 'mixture pattern
       h1 = 0
        For i = 1 To n1
          If k(i) > (av + v2) And k(i) < (av + v2) Then
            h1 = h1 + 1
          End If
        Next i
         h11 = 0
        For i = 1 To n1
          If k(i) < (av - v2) And k(i) > (av - v2) Then
            h11 = h11 + 1
          End If
        Next i

        If (h1 + h11) > n1 / 3 Then
          Label18.Caption = "Mixture Pattern"
          u = 4
        Else
        '''''''''''''''''' stratification pattern
           h2 = 0
           For i = 1 To n1
             If k(i) < (av + v3) And k(i) > (av - v3) Then
             h2 = h2 + 1
             End If
           Next i

           If h2 > 2 * n1 / 3 Then
             Label18.Caption = "Stratification Pattern"
             u = 5
           Else
```

```
    '''''''''''''''''' freaks patterns
        h3 = 0
        For i = 1 To n1
         If k(i) > (av + 5 * v3) Or k(i) < (av - 5 * v3) Then
          h3 = h3 + 1
         End If
        Next i
         If h3 >= 1 Then
          Label18.Caption = "Freaks Pattern"
          u = 6
         Else
     '''''''''''''''''''' sudden-shift
          h4 = Int(2 * n1 / 3)
          h5 = 0
           For i = h4 To n1
            If k(i) > av Then
             h5 = h5 + 1
            End If
           Next i
           h6 = 0
           For i = h4 To n1
            If k(i) < av Then
             h6 = h6 + 1
            End If
           Next i
           If h5 = (n1 - h4) Or h6 = (n1 - h4) Then
            Label18.Caption = "Sudden-Shift Pattern"
            u = 7
           Else
      ''''''''''''''''' gradual pattern
              h7 = 0
              For i = h4 To n1
               If k(i) > (av + v2) Then
                h7 = h7 + 1
               End If
              Next i
              h8 = 0
              For i = h4 To n1
               If k(i) > (av - v2) Then
                h8 = h8 + 1
               End If
              Next i
              If h7 = (n1 - h4) Or h8 = (n1 - h4) Then
               Label18.Caption = "Gradual Pattern"
               u = 8
              Else
               Label18.Caption = "Unknown Pattern"
              End If
             End If
          End If
       End If
    End If
  End If

   ''''''''''''
End If
```

```
''''''''''''''''
50 If u = 1 Then
 Select Case List3.ListIndex
  Case 0
 Text1.Text = "Add clinker with low quality”
     Case 1
  Text1.Text = "Add clinker with low quality”
  Case 2
  Text1.Text = "Add clinker with low quality”
  Case 3
   Text1.Text = "Make treatment for burning materials in the kiln to grinded easy. Modify the fan speeds
for separator device"
  Case 4
   Text1.Text = "Adding clinker with high quality, or reduce the mixing ratio of good and poor clinker."
  Case 5
   Text1.Text = "Make treatment for burning materials in the kiln to grinded easy. Modify the fan speeds
for separator device"
  Case 6
  Text1.Text = "Adding clinker with high quality, or reduce the mixing ratio of good and poor clinker."
  Case 7
   Text1.Text = "Add clinker with low quality"
  Case 8
  Text1.Text = "Add clinker with low quality"
  Case 9
  Text1.Text = "Add clinker with low quality"
  End Select
Else If u = 2 Then
   Select Case List3.ListIndex
  Case 0
 Text1.Text = "Improve the quality of the clinker by mixing it with high quality clinker”
     Case 1
 Text1.Text = "Improve the quality of the clinker by mixing it with high quality clinker"
  Case 2
 Text1.Text = "Improve the quality of the clinker by mixing it with high quality clinker"
  Case 3
Text1.Text = "Reviewing & checking the quality of the grinding media,modifing the fan speeds' for
separator unit"
  Case 4
   Text1.Text = "Mix clinker whose good classification with a poor one"
  Case 5
   Text1.Text = " Reviewing & checking the quality of the grinding media,modifing the fan speeds' for
separator unit"
  Case 6
  Text1.Text = "Mix clinker whose good classification with a poor one"
  Case 7
 Text1.Text = "Improve the quality of the clinker by mixing it with high quality clinker"
  Case 8
 Text1.Text = "Improve the quality of the clinker by mixing it with high quality clinker"
  Case 9
 Text1.Text = "Improve the quality of the clinker by mixing it with high quality clinker"
  End Select
Else If u = 3 Then
   Select Case List3.ListIndex
  Case 0
```

```
   Text1.Text = "Sort the good quality clinker and isolate the inferior then mix them with suitable
proportions"
       Case 1
    Text1.Text = "Sort the good quality clinker and isolate the inferior then mix them with suitable
proportions"
    Case 2
    Text1.Text = "Sort the good quality clinker and isolate the inferior then mix them with suitable
proportions"
    Case 3
     Text1.Text = "Try to operate the separator unit's fan at constant speed to reduce the differences"
    Case 4
     Text1.Text = "Check materials before entering the cement mill. Cement in silo should be in high level"
    Case 5
     Text1.Text = " Try to operate the separator unit's fan at constant speed to reduce the differences"
    Case 6
    Text1.Text = "Check materials before entering the cement mill. Cement in silo should be in high level"
    Case 7
     Text1.Text = "Sort the good quality clinker and isolate the inferior then mix them with suitable
proportions"
    Case 8
    Text1.Text = "Sort the good quality clinker and isolate the inferior then mix them with suitable
proportions"
    Case 9
    Text1.Text = "Sort the good quality clinker and isolate the inferior then mix them with suitable
proportions"
    End Select
Else If u = 4 Then
     Select Case List3.ListIndex
    Case 0
   Text1.Text = "Review and control the milled clinker"
       Case 1
    Text1.Text = "Review and control the milled clinker"
    Case 2
    Text1.Text = "Review and control the milled clinker"
    Case 3
 Text1.Text = "Justify and check the number of grinding media, or reduce the mill productivity. Solving the
clinker defects by mixing with high density clinker"
    Case 4
     Text1.Text = "The clinker product should be improved"
    Case 5
     Text1.Text = " Justify and check the number of grinding media, or reduce the mill productivity. Solving
the clinker defects by mixing with high density clinker"
    Case 6
    Text1.Text = "The clinker product should be improved"
    Case 7
     Text1.Text = "Review and control the milled clinker"
    Case 8
    Text1.Text = "Review and control the milled clinker"
    Case 9
    Text1.Text = "Review and control the milled clinker"
    End Select
Else If u = 5 Then
     Select Case List3.ListIndex
    Case 0
   Text1.Text = "Inspecting and checking the compressive test devices"
       Case 1
```

```
   Text1.Text = "Inspecting and checking the compressive test devices"
   Case 2
   Text1.Text = "Inspecting and checking the compressive test devices"
   Case 3
    Text1.Text = "Check the accuracy of the Blaine apparatus"
   Case 4
    Text1.Text = "Check the accuracy of the Vicat apparatus"
   Case 5
    Text1.Text = "Check the accuracy of the Blaine apparatus"
   Case 6
   Text1.Text = "Check the accuracy of the Vicat apparatus"
   Case 7
    Text1.Text = "Inspecting and checking the compressive test devices"
   Case 8
   Text1.Text = "Inspecting and checking the compressive test devices"
   Case 9
   Text1.Text = "Inspecting and checking the compressive test devices "
   End Select
 Else If u = 6 Then
    Select Case List3.ListIndex
   Case 0
  Text1.Text = "Review and inspect raw materials cautiously.The cement in silo should be in a high level."
      Case 1
   Text1.Text = "Review and inspect raw materials cautiously.The cement in silo should be in a high level."
   Case 2
   Text1.Text = "Review and inspect raw materials cautiously.The cement in silo should be in a high level."
   Case 3
    Text1.Text = "Samples have to be taken after the mill running shortly and adjusted based on the speed
of the separator device. Avoid packing cement in the case that very low level of silos."
   Case 4
    Text1.Text = "Intensify supervision for materials.Increase the inventory levels of cement. Applied the
principle of total quality and coordination between the different departments. Determine the powers and
responsibilities."
   Case 5
    Text1.Text = “Samples have to be taken after the mill running shortly and adjusted based on the speed
of the separator device. Avoid packing cement in the case that very low levels of silos."
   Case 6
   Text1.Text = "Intensify supervision for materials.Increase the inventory levels of cement.Applied the
principle of total quality and coordination between the different departments.Determine the powers and
responsibilities."
   Case 7
    Text1.Text = "Review and inspect raw materials cautiously.The cement in silo should be in a high
level."
   Case 8
   Text1.Text = "Review and inspect raw materials cautiously.The cement in silo should be in a high level."
   Case 9
   Text1.Text = "Review and inspect raw materials cautiously.The cement in silo should be in a high level."
   End Select
  Else If u = 7 Then
     Select Case List3.ListIndex
   Case 0
  Text1.Text = "Scrutinizing the kiln's outputs, also the cement mill inputs."
      Case 1
   Text1.Text = "Scrutinizing the kiln's outputs, also the cement mill inputs."
   Case 2
   Text1.Text = "Scrutinizing the kiln's outputs, also the cement mill inputs."
```

```
   Case 3
    Text1.Text = "Review the technique in which the sample had been takeken. Reassess and adjust the
feeding process, also alter the fan speed for the separator device. "
   Case 4
    Text1.Text = "The clinker product should be improved. The clinker that entered mill, have to mixed
carefully."
   Case 5
    Text1.Text = “Review the technique in which the sample had been takeken. Reassess and adjust the
feeding process, also alter the fan speed for the separator device."
   Case 6
   Text1.Text = "The clinker product should be improved. The clinker that entered mill, have to mixed
carefully."
   Case 7
    Text1.Text = "Scrutinizing the kiln's outputs, also the cement mill inputs."
   Case 8
   Text1.Text = "Scrutinizing the kiln's outputs, also the cement mill inputs."
   Case 9
   Text1.Text = "Scrutinizing the kiln's outputs, also the cement mill inputs."
   End Select
 Else If u = 8 Then
    Select Case List3.ListIndex
   Case 0
  Text1.Text = "Review and inspect the clinker product cautiously. The smoothness of the cement product
should be within control."
      Case 1
   Text1.Text = "Review and inspect the clinker product cautiously. The smoothness of the cement product
should be within control."
   Case 2
   Text1.Text = "Review and inspect the clinker product cautiously. The smoothness of the cement product
should be within control."
   Case 3
    Text1.Text = "Obtain a method to treat the clinker by increasing the proportion of calcium oxide.
Inspect materials which entered the raw mill"
   Case 4
    Text1.Text = "The materials in the raw mill should be change.The clinker product have to improved"
   Case 5
    Text1.Text = "Obtain a method to treat the clinker by increasing the proportion of calcium oxide.
Inspect materials which entered the raw mill"
   Case 6
   Text1.Text = "R Expansion Test"
   Case 7
    Text1.Text = "Review and inspect the clinker product cautiously. The smoothness of the cement product
should be within control."
   Case 8
   Text1.Text = "Review and inspect the clinker product cautiously. The smoothness of the cement product
should be within control."
   Case 9
   Text1.Text = "Review and inspect the clinker product cautiously. The smoothness of the cement product
should be within control."
   End Select
 Else
   Text1.Text = "unknown"
 End If
Text1.Visible = True
End Sub
Private Sub Command13_Click()
```

```
If Adodc1.Recordset.EOF Then
      MsgBox "Records Finished"
Exit Sub
End If
Dim z As String
z = MsgBox("Do you want to delete this record", vbCritical + vbYesNo, "Delete Recod")
If z = vbYes Then
Adodc1.Recordset.Delete
Adodc1.Refresh
End If
End Sub
Private Sub Command14_Click()
Command14.Enabled = False
Command15.Enabled = True
Adodc1.Recordset.Update
End Sub
Private Sub Command15_Click()
Command15.Enabled = False
Command14.Enabled = True
Adodc1.Recordset.AddNew
Command10.Enabled = True
End Sub
Private Sub Command2_Click()
Adodc1.Recordset.AddNew
Command5.Enabled = True
Command3.Enabled = True
End Sub
Private Sub Command1_Click()
n1 = n - t - t2
MSFlexGrid1.Clear
  For i = 1 To n1
   MSFlexGrid1.Col = 1
   MSFlexGrid1.Row = i
     MSFlexGrid1.Text = a(i + t)
   MSFlexGrid1.Col = 2
   MSFlexGrid1.Row = i
   MSFlexGrid1.Text = f(i + t)
   MSFlexGrid1.Col = 3
   MSFlexGrid1.Row = i
   MSFlexGrid1.Text = r1(i + t)
   MSFlexGrid1.Col = 4
   MSFlexGrid1.Row = i
   MSFlexGrid1.Text = r2(i + t)
   MSFlexGrid1.Col = 5
   MSFlexGrid1.Row = i
   MSFlexGrid1.Text = w(i + t)
   MSFlexGrid1.Col = 6
   MSFlexGrid1.Row = i
   MSFlexGrid1.Text = b(i + t)
   MSFlexGrid1.Col = 7
   MSFlexGrid1.Row = i
   MSFlexGrid1.Text = b1(i + t)
   MSFlexGrid1.Col = 8
   MSFlexGrid1.Row = i
   MSFlexGrid1.Text = w1(i + t)
   MSFlexGrid1.Col = 9
```

```
  MSFlexGrid1.Row = i
  MSFlexGrid1.Text = w2(i + t)
  MSFlexGrid1.Col = 10
  MSFlexGrid1.Row = i
  MSFlexGrid1.Text = w3(i + t)
  MSFlexGrid1.Col = 11
  MSFlexGrid1.Row = i
  MSFlexGrid1.Text = b2(i + t)
   Next i
   MSFlexGrid1.Col = 1
  MSFlexGrid1.Row = 0
     MSFlexGrid1.Text = "Date"
      MSFlexGrid1.Col = 2
  MSFlexGrid1.Row = 0
     MSFlexGrid1.Text = "Blaine"
      MSFlexGrid1.Col = 3
  MSFlexGrid1.Row = 0
     MSFlexGrid1.Text = "Comp_7Days"
      MSFlexGrid1.Col = 4
  MSFlexGrid1.Row = 0
     MSFlexGrid1.Text = "Comp_2Days"
      MSFlexGrid1.Col = 5
  MSFlexGrid1.Row = 0
     MSFlexGrid1.Text = "Expansion"
      MSFlexGrid1.Col = 6
  MSFlexGrid1.Row = 0
     MSFlexGrid1.Text = "R_Blaine"
      MSFlexGrid1.Col = 7
  MSFlexGrid1.Row = 0
     MSFlexGrid1.Text = "R_Expantion"
      MSFlexGrid1.Col = 8
  MSFlexGrid1.Row = 0
     MSFlexGrid1.Text = "R_Comp.2Days"
      MSFlexGrid1.Col = 9
  MSFlexGrid1.Row = 0
     MSFlexGrid1.Text = "R_Comp.7Days"
      MSFlexGrid1.Col = 10
  MSFlexGrid1.Row = 0
     MSFlexGrid1.Text = "R_Comp.28Days"
      MSFlexGrid1.Col = 11
  MSFlexGrid1.Row = 0
     MSFlexGrid1.Text = "Comp_28Days"
    End Sub
Private Sub Command3_Click()
Command3.Enabled = False
Command2.Enabled = True
Adodc1.Recordset.Update
End Sub
Private Sub Command6_Click ()
If Adodc1.Recordset.BOF Then
       MsgBox "Records Finished"
       Exit Sub
End If
Adodc1.Recordset.MoveFirst
End Sub
Private Sub Command7_Click()
```

```
If Adodc1.Recordset.EOF Then
        MsgBox "Records Finished"
        Exit Sub
End If
Adodc1.Recordset.MoveNext
End Sub
Private Sub Command8_Click()
If Adodc1.Recordset.BOF Then
        MsgBox "Records Finished"
        Exit Sub
        End If
Adodc1.Recordset.MovePrevious
End Sub
Private Sub Command9_Click()
If Adodc1.Recordset.EOF Then
        MsgBox "Records Finished"
        Exit Sub
        End If
Adodc1.Recordset.MoveLast
End Sub
Private Sub data_Click()
Unload Form2
Form3.Visible = True
End Sub
Private Sub Form_Load()
Set rs = Adodc1.Recordset
If rs.RecordCount > 0 Then
 rs.MoveFirst
 n = rs.RecordCount
 For i = 1 to n
   a(i) = rs.Fields(1)
   f(i) = rs.Fields(2)
   r1(i) = rs.Fields(3)
   r2(i) = rs.Fields(4)
   w(i) = rs.Fields(5)
   b(i) = rs.Fields(6)
   b1(i) = rs.Fields(7)
   w1(i) = rs.Fields(8)
   w2(i) = rs.Fields(9)
   w3(i) = rs.Fields(10)
   b2(i) = rs.Fields(11)
   rs.MoveNext
    List6.AddItem a(i)
   List7.AddItem a(i)
Next i
 End If
 t2 = 0
 MSFlexGrid1.Cols = 12
 MSFlexGrid1.Rows = n
  List3.ListIndex = 0
 Label23.Caption = a(1)
 Label19.Caption = a(n)
End Sub
Private Sub List1_Click(Index As Integer)
 t = List1.ListIndex
 c = List1.ListCount
```

```
 k = c - t
  List2.Clear
 For i = 1 To k
  List2.AddItem a(i + t)
 Next i
 t2 = 0
 Command1.Enabled = True
End Sub
Private Sub List2_Click()
t1 = List2.ListIndex
 c = List2.ListCount
 t2 = c - t1 - 1
End Sub
Private Sub List4_Click()
t1 = List4.ListIndex
 c = List4.ListCount
 t2 = c - t1 - 1
 Label19.Caption = a(t1 + t) + 1
List8.ListIndex = t1
End Sub
Private Sub List6_Click()
 t = List6.ListIndex
 c = List6.ListCount
 k = c - t
 Label23.Caption = a(t + 1)
 Label19.Caption = a(c)
 List4.Clear
 For i = 1 To k
  List4.AddItem a(i + t)
 Next i
 t2 = 0
 List7.ListIndex = t
 List4.Visible = True
End Sub
Private Sub List7_Click()
 t = List7.ListIndex
 c = List7.ListCount
 k = c - t
 List8.Clear
 For i = 1 To k
  List8.AddItem a(i + t)
 Next i
 t2 = 0
 Command1.Enabled = True
 Label23.Caption = a(t + 1)
 Label19.Caption = a(c)
 List6.ListIndex = t
End Sub
Private Sub List8_Click()
t1 = List8.ListIndex
 c = List8.ListCount
 t2 = c - t1 - 1
 Label19.Caption = a(t1 + t) + 1
 List4.ListIndex = t1
End Sub
Private Sub MSFlexGrid1_Click()
```

```
MSFlexGrid1.Col = 1
  MSFlexGrid1.Row = 0
    MSFlexGrid1.Text = "Date"
End Sub
Private Sub process_Click()
Unload Form2
Process. Visible = True
End Sub

Private Sub SSTab1_DblClick()
End Sub

Private Sub Timer1_Timer()
Label3.Caption = Time()
Label4.Caption = Date
Label25.Caption = Time()
Label26.Caption = Date

End Sub
```