

```

1: unit DataEntry_FAV;
2:
3: {$mode objfpc}{$H+}
4:
5: //=====
6: //
7: //  DataEntry_FAV.pas
8: //
9: //  Calls: AppConstants
10: //         AppTypes
11: //         AppVariables
12: //         DataEntry : frmDataEntry.CalculateTXFrequency
13: //                   frmDataEntry.DisabledDTSSCode
14: //                   frmDataEntry.EnabledDTSSCode
15: //                   frmDataEntry.SetDTSSCode
16: //                   frmDataEntry.SetShiftOffset
17: //         Main
18: //         Utilities : GetToneIndexFromToneNr
19: //                   DisplayDataArray
20: //
21: //  Called By: DataEntry : TfrmDataEntry.bbtClearClick
22: //                   TfrmDataEntry.bbtResetClick
23: //                   TfrmDataEntry.FormActivate
24: //
25: //  Ver: 1.0.0
26: //
27: //  Date: 4 Aug 2013
28: //
29: //=====
30:
31: interface
32:
33: uses
34:   Classes, Dialogs, SysUtils,
35:   // Application Units
36:   AppConstants, AppTypes, AppVariables, Utilities;
37:
38: procedure DataEntry_FAV_Init;
39: procedure DataEntry_FAV_Save;
40:
41: implementation
42:
43: uses
44:   DataEntry, Main;
45:
46: //=====
47: procedure DataEntry_FAV_Init;
48:
49: var
50:   vbytToneNr : Byte;
51:
52: begin
53:
54:   frmDataEntry.Caption := frmDataEntry.cstrFavFormTitle;
55:   frmDataEntry.edtSource.Text := Format('FAV%d',[frmDataEntry.vbytChannelNumber]);
56:
57:   //=====
58:   // Set the RX Frequency
59:   //=====
60:

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61:     if Length(gvstrFAVChannelDataArray[frmDataEntry.vbytChannelNumber,
62:         gcbytRXFrequencyField]) > 0 then
63:         frmDataEntry.edtRXFrequency.Text :=
64:             Copy(gvstrFAVChannelDataArray[frmDataEntry.vbytChannelNumber,
65:                 gcbytRXFrequencyField], 3, 3) +
66:             '.' +
67:             Copy(gvstrFAVChannelDataArray[frmDataEntry.vbytChannelNumber,
68:                 gcbytRXFrequencyField], 6, 3)
69:     else
70:         frmDataEntry.edtRXFrequency.Text := '';
71:
72:     //=====
73:     // Set the Band Radio buttons
74:     //=====
75:
76:     if gvstrFAVChannelDataArray[frmDataEntry.vbytChannelNumber,
77:         gcbytVFOField] = gcstrUHF then
78:         frmDataEntry.rbtUHF.Checked := True
79:     else
80:         frmDataEntry.rbtVHF.Checked := True;
81:
82:     //=====
83:     // Set the Shift Radio buttons
84:     //=====
85:
86:     if gvstrFAVChannelDataArray[frmDataEntry.vbytChannelNumber,
87:         gcbytShiftField] = gcstrShiftPlus then
88:         frmDataEntry.rbtPlus.Checked := True
89:     else if gvstrFAVChannelDataArray[frmDataEntry.vbytChannelNumber,
90:         gcbytShiftField] = gcstrShiftMinus then
91:         frmDataEntry.rbtMinus.Checked := True
92:     else
93:         frmDataEntry.rbtSimplex.Checked := True;
94:
95:     //=====
96:     // Set the Shift offset and calculate and Display the TX Frequency
97:     //=====
98:
99:     if Length(frmDataEntry.edtRXFrequency.Text) > 0 then
100:     begin
101:         frmDataEntry.edtTXFrequency.Text := frmDataEntry.CalculateTXFrequency;
102:         frmDataEntry.SetShiftOffset;
103:     end
104:     else
105:         frmDataEntry.edtTXFrequency.Text := '';
106:
107:     //=====
108:     // Set the Tone Checkboxes and Tone Frequency Combobox
109:     //=====
110:     if gvstrFAVChannelDataArray[frmDataEntry.vbytChannelNumber,
111:         gcbytToneField] = gcstrOn then
112:         frmDataEntry.rbtTone.Checked := True
113:     else if gvstrFAVChannelDataArray[frmDataEntry.vbytChannelNumber,
114:         gcbytCTCSSField] = gcstrOn then
115:         frmDataEntry.rbtCTCSS.Checked := True
116:     else
117:         frmDataEntry.rbtNoTones.Checked := True;
118:
119:     //=====
120:     // Determine the correct Index and set the Tone Freq Combobox

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121: //=====
122:
123: if gvstrFAVChannelDataArray[frmDataEntry.vbytChannelNumber,
124:                             gcbytToneNrField] = '' then vbytToneNr := 1
125: else vbytToneNr := StrToInt(gvstrFAVChannelDataArray[frmDataEntry.vbytChannelNumber,
126:                                                         gcbytToneNrField]);
127: frmDataEntry.cbxDtones.ItemIndex := GetToneIndexFromToneNr( vbytToneNr);
128:
129: // Now Clear the Text field if there is no Tone function selected.
130: if frmDataEntry.rbtNoTones.Checked then
131:     frmDataEntry.cbxDtones.Text := '';
132:
133: //=====
134: // Set the DTSS Checkbox and Code field
135: //=====
136: if gvstrFAVChannelDataArray[frmDataEntry.vbytChannelNumber,
137:                             gcbytDTSSField] = gcstrOn then
138: begin
139:     frmDataEntry.chkDTSS.Checked := True;
140:     frmDataEntry.EnabledDTSSCode;
141: end
142: else
143: begin
144:     frmDataEntry.chkDTSS.Checked := False;
145:     frmDataEntry.DisabledDTSSCode;
146: end;
147:
148: frmDataEntry.SetDTSSCode;
149:
150: //=====
151: // Set the Scan Checkbox
152: //=====
153:
154: if gvstrFAVChannelDataArray[frmDataEntry.vbytChannelNumber,
155:                             gcbytScanField] = gcstrOn then
156:     frmDataEntry.chkScan.Checked := True
157: else
158:     frmDataEntry.chkScan.Checked := False;
159:
160: //=====
161: // Set the RF Power Radio buttons
162: //=====
163:
164: if gvstrFAVChannelDataArray[frmDataEntry.vbytChannelNumber,
165:                             gcbytRFPowerField] = gcstrRFPowerLow then
166:     frmDataEntry.rbtRFPowerLow.Checked := True
167: else if gvstrFAVChannelDataArray[frmDataEntry.vbytChannelNumber,
168:                                 gcbytShiftField] = gcstrRFPowerMedium then
169:     frmDataEntry.rbtRFPowerMedium.Checked := True
170: else
171:     frmDataEntry.rbtRFPowerHigh.Checked := True;
172:
173: //=====
174: // Set the Channel Name
175: //=====
176:
177: frmDataEntry.edtChannelName.Text := gvstrFAVChannelDataArray[frmDataEntry.vbytChannelNumber,
178:                                                                gcbytChannelNameField];
179:
180: //=====

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181:         // Set the Comments
182:         //=====
183:
184:         frmDataEntry.edtComments.Text := gvstrFAVChannelDataArray[frmDataEntry.vbytChannelNumber,
185:             gcbytCommentsField];
186:
187: end; // procedure FAVFormInit; }
188:
189: //=====
190: procedure DataEntry_FAV_Save;
191:
192: var
193:     vstrTStr : string;
194:
195: begin
196:
197:     //=====
198:     // We populate the Favourite Array using the Favourite Button number
199:     // as the primary key and the Field number as the sceondary key.
200:     //=====
201:
202:     // VFO/Band
203:     if frmdataEntry.rbtVHF.Checked then
204:         gvstrFAVChannelDataArray[frmDataEntry.vbytChannelNumber, gcbytVFOField] := gcstrVHF
205:     else
206:         gvstrFAVChannelDataArray[frmDataEntry.vbytChannelNumber, gcbytVFOField] := gcstrUHF;
207:
208:     // RX Frequency
209:     vstrTStr := '00' +
210:         Copy(frmDataEntry.edtRXFrequency.Text,1,3) +
211:         Copy(frmDataEntry.edtRXFrequency.Text,5,3) +
212:         '000';
213:     gvstrFAVChannelDataArray[frmDataEntry.vbytChannelNumber, gcbytRXFrequencyField] :=
214:         vstrTStr;
215:
216:     // Step Size
217:     if frmdataEntry.rbtVHF.Checked then
218:         gvstrFAVChannelDataArray[frmDataEntry.vbytChannelNumber, gcbytStepField] :=
219:             gcstrVHFStep
220:     else
221:         gvstrFAVChannelDataArray[frmDataEntry.vbytChannelNumber, gcbytStepField] :=
222:             gcstrUHFStep;
223:
224:     // Shift Indicator
225:     if frmDataEntry.rbtSimplex.Checked then
226:         gvstrFAVChannelDataArray[frmDataEntry.vbytChannelNumber, gcbytShiftField] :=
227:             gcstrShiftSimplex
228:     else if frmDataEntry.rbtPlus.Checked then
229:         gvstrFAVChannelDataArray[frmDataEntry.vbytChannelNumber, gcbytShiftField] :=
230:             gcstrShiftPlus
231:     else
232:         gvstrFAVChannelDataArray[frmDataEntry.vbytChannelNumber, gcbytShiftField] :=
233:             gcstrShiftMinus;
234:
235:     // Reverse switch
236:     // It is not configurable. It may only be toggled by the GUI button
237:     // so we default it to Off
238:     gvstrFAVChannelDataArray[frmDataEntry.vbytChannelNumber, gcbytReverseField] :=
239:         gcstrOff;
240:
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241: // Tone and CTCSS switch
242: // Although there are two data fields, they are mutually exclusive so we handle
243: // them together. They may both be Off, but only one of them may be on at a time
244: if frmDataEntry.rbtNoTones.checked then
245: begin
246:     gvstrFAVChannelDataArray[frmDataEntry.vbytChannelNumber, gcbytToneField] :=
247:         gcstrOff;
248:     gvstrFAVChannelDataArray[frmDataEntry.vbytChannelNumber, gcbytCTCSSField] :=
249:         gcstrOff;
250: end
251: else if frmDataEntry.rbtTone.checked then
252: begin
253:     gvstrFAVChannelDataArray[frmDataEntry.vbytChannelNumber, gcbytToneField] :=
254:         gcstrOn;
255:     gvstrFAVChannelDataArray[frmDataEntry.vbytChannelNumber, gcbytCTCSSField] :=
256:         gcstrOff;
257: end
258: else
259: begin
260:     gvstrFAVChannelDataArray[frmDataEntry.vbytChannelNumber, gcbytToneField] :=
261:         gcstrOff;
262:     gvstrFAVChannelDataArray[frmDataEntry.vbytChannelNumber, gcbytCTCSSField] :=
263:         gcstrOn;
264: end; // if frmDataEntry.rbtNoTones.checked
265:
266: // DTSS switch
267: if frmDataEntry.chkDTSS.checked then
268:     gvstrFAVChannelDataArray[frmDataEntry.vbytChannelNumber, gcbytDTSSField] :=
269:         gcstrOn
270: else
271:     gvstrFAVChannelDataArray[frmDataEntry.vbytChannelNumber, gcbytDTSSField] :=
272:         gcstrOff;
273:
274: // Tone Number
275: if frmDataEntry.rbtTone.checked then
276: begin
277:     vstrTStr := IntToStr(GetToneNrFromIndex(frmDataEntry.cbxTones.ItemIndex));
278:     if StrToInt(vstrTStr) > 10 then
279:         gvstrFAVChannelDataArray[frmDataEntry.vbytChannelNumber, gcbytToneNrField] := vstrTStr
280:     else
281:         gvstrFAVChannelDataArray[frmDataEntry.vbytChannelNumber, gcbytToneNrField] := '0' +
282:                                                     vstrTStr;
283: end
284: else
285:     gvstrFAVChannelDataArray[frmDataEntry.vbytChannelNumber, gcbytToneNrField] := '01';
286:
287: // DTSS Code
288: if frmDataEntry.chkDTSS.checked then
289:     gvstrFAVChannelDataArray[frmDataEntry.vbytChannelNumber, gcbytDTSSCodeField] :=
290:         frmDataEntry.edtDTSSCode.Text
291: else
292:     gvstrFAVChannelDataArray[frmDataEntry.vbytChannelNumber, gcbytDTSSCodeField] := '000';
293:
294: // CTCSS Nr
295: if frmDataEntry.rbtCTCSS.checked then
296: begin
297:     vstrTStr := IntToStr(GetToneNrFromIndex(frmDataEntry.cbxTones.ItemIndex));
298:     if StrToInt(vstrTStr) > 10 then
299:         gvstrFAVChannelDataArray[frmDataEntry.vbytChannelNumber, gcbytCTCSSNrField] := vstrTStr
300:     else

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301:         gvstrFAVChanneldataArray[frmDataEntry.vbytChannelNumber, gcbytCTCSSNrField] := '0' +
302:                                     vstrTStr;
303:     end
304: else
305:     gvstrFAVChanneldataArray[frmDataEntry.vbytChannelNumber, gcbytCTCSSNrField] := '01';
306:
307: // Shift Offset
308: if frmDataEntry.rbtSimplex.checked then
309:     gvstrFAVChanneldataArray[frmDataEntry.vbytChannelNumber,
310:                             gcbytShiftOffsetField] := '000000000'
311: else
312:     begin
313:         if frmDataEntry.rbtVHF.Checked then
314:             gvstrFAVChanneldataArray[frmDataEntry.vbytChannelNumber,
315:                                     gcbytShiftOffsetField] := '000600000'
316:         else
317:             gvstrFAVChanneldataArray[frmDataEntry.vbytChannelNumber,
318:                                     gcbytShiftOffsetField] := '005000000';
319:         end; // if frmDataEntry.rbtSimplex.checked
320:
321: // Scan switch
322: if frmdataEntry.chkScan.Checked then
323:     gvstrFAVChanneldataArray[frmDataEntry.vbytChannelNumber, gcbytScanField] := gcstrOn
324: else
325:     gvstrFAVChanneldataArray[frmDataEntry.vbytChannelNumber, gcbytScanField] := gcstrOff;
326:
327: // RF Power
328: if frmDataEntry.rbtRFPowerLow.Checked then
329:     gvstrFAVChanneldataArray[frmDataEntry.vbytChannelNumber, gcbytRFPowerField] :=
330:         gcstrRFPowerLow
331: else if frmDataEntry.rbtRFPowerMedium.Checked then
332:     gvstrFAVChanneldataArray[frmDataEntry.vbytChannelNumber, gcbytRFPowerField] :=
333:         gcstrRFPowerMedium
334: else
335:     gvstrFAVChanneldataArray[frmDataEntry.vbytChannelNumber, gcbytRFPowerField] :=
336:         gcstrRFPowerHigh;
337:
338: // Now we save the Button Name and set the appropriate button caption
339: gvstrFAVChanneldataArray[frmDataEntry.vbytChannelNumber, gcbytChannelNameField] :=
340:     frmDataEntry.edtChannelName.Text;
341:
342: case frmDataEntry.vbytChannelNumber of
343:     1 : frmMain.bbtFAV01.Caption := frmDataEntry.edtChannelName.Text;
344:     2 : frmMain.bbtFAV02.Caption := frmDataEntry.edtChannelName.Text;
345:     3 : frmMain.bbtFAV03.Caption := frmDataEntry.edtChannelName.Text;
346:     4 : frmMain.bbtFAV04.Caption := frmDataEntry.edtChannelName.Text;
347:     5 : frmMain.bbtFAV05.Caption := frmDataEntry.edtChannelName.Text;
348:     6 : frmMain.bbtFAV06.Caption := frmDataEntry.edtChannelName.Text;
349:     7 : frmMain.bbtFAV07.Caption := frmDataEntry.edtChannelName.Text;
350:     8 : frmMain.bbtFAV08.Caption := frmDataEntry.edtChannelName.Text;
351:     9 : frmMain.bbtFAV09.Caption := frmDataEntry.edtChannelName.Text;
352:    10 : frmMain.bbtFAV10.Caption := frmDataEntry.edtChannelName.Text;
353:    11 : frmMain.bbtFAV11.Caption := frmDataEntry.edtChannelName.Text;
354:    12 : frmMain.bbtFAV12.Caption := frmDataEntry.edtChannelName.Text;
355: end; // case vbytChannelNumber of
356:
357: // Now the Comments
358: gvstrFAVChanneldataArray[frmDataEntry.vbytChannelNumber, gcbytCommentsField] :=
359:     frmDataEntry.edtComments.Text;
360:

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361:      DisplayDataArray(drtFAV, frmDataEntry.vbytChannelNumber);
362:
363: end;// procedure DataEntry_FAV_Save;
364:
365: //=====
366:
367: end.// unit DataEntry_FAV;
368:
```