

# Constants, Types, and Variables

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This appendix defines most of the constants, data types, and global variables used by the Venn Diagrammer application.

UNIT Global;

INTERFACE

CONST

```
{menu constants (resource IDs and menu command numbers)}
rMenuBar          = 128;                {menu bar resource ID}

mApple            = 128;                {resource ID of Apple menu}
iAbout            = 1;                  {our About... dialog}

mFile              = 129;                {resource ID of File menu}
iNew              = 1;
iClose            = 2;
iQuit             = 4;

mEdit              = 130;                {resource ID of Edit menu}
iUndo             = 1;
iCut              = 3;
iCopy             = 4;
iPaste            = 5;
iClear            = 6;

mVennD             = 131;                {resource ID of Venn menu}
iCheckVenn        = 1;
iDoVenn           = 2;
iClearVenn        = 3;
iNextTask         = 4;
iCheckArg         = 5;
iGetVennPrefs     = 7;

kNumTools         = 5;

rVennD            = mVennD;              {resource ID of Venn diagram window}

{dialog boxes and their associated items}
rAboutDial        = 7000;                {resource ID of About dialog}
```

## Constants, Types, and Variables

```

iOK          = 1;          {OK button}
iCancel      = 2;          {Cancel button}

rVennDPrefsDial = 3040;    {resource ID of Preferences dialog}
iEmpty1Radio  = 1;          {dialog item numbers}
iEmpty2Radio  = 2;
iEmpty3Radio  = 3;
iEmpty4Radio  = 4;
iEmpty1Icon   = 5;
iEmpty2Icon   = 6;
iEmpty3Icon   = 7;
iEmpty4Icon   = 8;
iExist1Radio  = 9;
iExist2Radio  = 10;
iExist3Radio  = 11;
iExist4Radio  = 12;
iExist1Icon   = 13;
iExist2Icon   = 14;
iExist3Icon   = 15;
iExist4Icon   = 16;
iGetNextRandomly = 19;
iAutoAdjust   = 20;
iShowSchoolNames = 21;
iUseExistImport = 22;
iSaveVennPrefs = 23;
kVennPrefsItemCount = 23;

kVisualDelay   = 8;      {ticks to invert a button to simulate press}
kCntlActivate  = 0;      {enabled control's hilite state}
kCntlDeactivate = $FF;   {disabled control's hilite state}

kToolHt        = 14;     {height of a tool icon}
kToolWd        = 21;     {width of a tool icon}

kVennToolsIconStart = 768; {base resource ID of tools icons}
kExistID        = 2000;   {first (of four) icons showing existence}
kEmptyID        = 3000;   {first (of four) patterns showing emptiness}

{Text strings printed in a Venn diagram window.}
rMiscStrings    = 1004;   {resource ID of 'STR#' for text items}
kShowAnswerText = 1;      {in Venn menu}
kShowUserText   = 2;      {in Venn menu}
kAllText        = 3;

```

## Constants, Types, and Variables

```

kNoText      = 4;
kSomeText    = 5;
kAreText     = 6;
kAreNotText  = 7;
kFigureText  = 8;
kMoodText    = 9;

```

```

{Venn Diagram window status messages: 'STR#' resource ID = rVennD}
eDiagramCorrect      = 1;
eDiagramIncorrect    = 2;
eHereIsSolution      = 3;
eHereIsYourWork      = 4;
eCannotEditAnswer    = 5;
eCannotEraseAnswer   = 6;
eArgIsValid          = 7;
eArgNotValid         = 8;
eExistNotPossible    = 9;

```

```

rErrorAlert      = 129;    {res ID of 'ALRT' resource for error mesgs}
kErrorStrings    = 1005;   {res ID of 'STR#' resource for error mesgs}
eCantFindMenus   = 1;      {can't read menu bar resource}
eNotEnoughMemory = 2;      {insufficient memory for operation}

```

```

{constants defining several keyboard characters}
kEnter           = char(3);      {the enter character}
kReturn          = char(13);     {the return character}
kEscape          = char(27);     {the escape character}
kPeriod          = '.';         {the period character}

```

## TYPE

```

{record to hold the current settings of a Venn Diagram window}
MyDocRec =
    RECORD          {information about a document window}
        figure:      Integer;          {the figure of the syllogism}
        mood:        ARRAY[1..3] of Integer;
                                   {the moods of the statements}
        terms:       ARRAY[1..3] of Str31;    {the three terms}
        statusText:  Str255;          {most recent status message}
        userSolution: MyDiagramState; {user's diagram state}
        realSolution: MyDiagramState; {answer's diagram state}
        isAnswerShowing: Boolean;      {is the answer showing?}
        isExistImport: Boolean;        {stmts imply exists subject?}
        needsAdjusting: Boolean;      {diagram needs adjusting?}
    END

```

Constants, Types, and Variables

```

END;
MyDocRecPtr = ^MyDocRec;
MyDocRecHnd = ^MyDocRecPtr;

```

VAR

```

gNumDocWindows:      Integer;      {the number of open document windows}
gPrefsDialog:        DialogPtr;    {pointer to Preferences dialog window}
gAppsResourceFile:   Integer;      {reference number of app's res file}
gPreferencesFile:    Integer;      {reference number of app's prefs file}
gToolsIcons:         ARRAY[1..kNumTools] of Handle;
                        {handles to tools icons}
gEmptyPats:          ARRAY[1..4] of PatHandle;
                        {handles to emptiness patterns}
gExistIcons:         ARRAY[1..4] of Handle;
                        {handles to existence symbols}
gMoodIcons:          ARRAY[1..4] of Handle;
                        {handles to mood icons}
gFigureIcons:        ARRAY[1..4] of Handle;
                        {handles to figure icons}
gExistIndex:         Integer;      {rank of icon showing existence}
gEmptyIndex:         Integer;      {rank of icon showing emptiness}
gStepRandom:         Boolean;      {generate next setup randomly?}
gAutoAdjust:         Boolean;      {automatically adjust the diagram?}
gGiveImport:         Boolean;      {do subjects have existential import?}
gShowNames:          Boolean;      {do we show names of valid forms?}

```

IMPLEMENTATION

END. {UNIT Global}