



Polycom Converged Management Application ™ (CMA™) Desktop

說明書

5.2.0 版

Copyright © 2011 Polycom, Inc.

Polycom 和 Polycom 標誌是註冊商標，Polycom CMA Desktop™ 是 Polycom, Inc. 的商標。

3725-82908-001/A

2011 年 10 月

目錄

歡迎使用 Polycom CMA Desktop	1
啟動 Polycom CMA Desktop	1
使用 Polycom CMA Desktop 之前的基本步驟	2
撥打電話	3
結束電話	4
查詢可通話的人	4
能否接聽電話	4
可進行文字交談。	5
範例	5
參加多方通話	6
輸入虛擬會議室的密碼、分機或會議編號	6
控制遠端攝影機	6
管理聯絡人資訊	7
以群組功能整理聯絡人資訊	8
使用目錄	9
查詢最近通話記錄	10
關於最近通話記錄	10
搜尋聯絡人	11
查閱聯絡人的詳細資料	12
顯示桌面	13
查看桌面	13
讓他人看到您的線上狀態	15
自訂交談和通話視窗	15
顯示/隱藏子母畫面	16
觀賞全螢幕視訊	16
隱藏/顯示您的視訊預覽視窗	16
自訂 Enter 鍵	17
選擇攝影機	18
指定攝影機的選項設定	18
指定音效的選項設定	19
指定網路選項設定	19
解決音效和視訊問題	21
測試音效裝置	23
通知問題移難排解	23
儲存記錄	24

第三方軟體.....	25
開放原始碼使用權.....	25
ares	25
as3crypto.....	25
as3httpclientlib	26
CyrusSASL	26
Expat	26
FZip	27
JpegLib.....	27
Libxml2	31
log4cxx	31
OpenLDAP.....	33
OpenSSL.....	34
XIFF	35

Polycom CMA Desktop 使用入門

歡迎使用 Polycom CMA Desktop

Polycom CMA Desktop 是操作簡單的視訊會議軟體，讓您不但看得到對方，也能聽得到對方講話。Polycom CMA Desktop 讓您聯繫使用 Polycom CMA Desktop 或其他類型視訊會議系統的所有人。您可以在撥打視訊電話期間向其他與會者展示簡報和其他內容，對於和您分享目前狀態的 Polycom CMA Desktop 使用者，也可以和他們進行文字交談。尚未安裝攝影機的 Polycom CMA Desktop 聯絡人一樣可以進行文字交談，也能進行語音通話。

相關主題

[啟動 Polycom CMA Desktop](#)

[登入與登出](#)

[撥打電話](#)


啟動 Polycom CMA Desktop

您可以在想打電話時手動啟動 Polycom CMA Desktop，也可以設定成電腦開機時自動啟動軟體。Polycom CMA Desktop 開始執行後，您就能撥打或接聽電話。

若要手動啟動 Polycom CMA Desktop：

>> 在 Windows 桌面上連按兩下 ，就能啟動 Polycom CMA Desktop。

若要結束 Polycom CMA Desktop：

1. 在 Windows 系統匣中用滑鼠右鍵按一下  (若已經登入) 或  (若已經登出)。
2. 選擇「離開」。

若要設定讓 Polycom CMA Desktop 自動啟動 並幫您登入：

1. 請選擇以下方法：
 - 若您已經登入 Polycom CMA Desktop，請在 Windows 系統匣中用滑鼠右鍵按一下 ，然後選擇「登出」。
 - 啟動 Polycom CMA Desktop。
2. 在主視窗中按一下「功能表」>「選項設定」>「登入」。
3. 選取「開機時自動啟動 Polycom CMA Desktop」。
4. 選取「Polycom CMA Desktop 啟動時自動登入」。
5. 按一下「套用」，然後按一下「確定」。
6. 輸入您的 Polycom CMA Desktop 使用者名稱與密碼。
7. 選取「記住我的密碼」，然後按一下「登入」。

秘訣：您下次重新啟動時，這些設定值就會生效。

相關主題

[登入與登出](#)

[撥打電話](#)




[接聽來電](#)

[使用文字交談功能](#)

使用 Polycom CMA Desktop 之前的基本步驟

一開始請先嘗試以下的 Polycom CMA Desktop 功能。欲知詳情，請利用本主題最下方的相關主題連結。





將對方加入聯絡人清單

1. 按一下  開啟「目錄」。
2. 在「搜尋文字」欄位中輸入名稱。例如若您輸入 **and**，則搜尋結果會列出 Andrew Jones、Christine Anderson 或 Andover Conference Room 這些聯絡人項目。
秘訣：如果「目錄」內容資料龐大，為了加快搜尋速度，請按一下 ，然後選擇包含欲查詢聯絡對象的群組（如果您知道是哪個群組）。
3. 在名單中按一下您要加入的人名。
4. 按一下「新增為聯絡人」。
5. Polycom CMA Desktop 會寄出邀請函給對方，請對方同意列入您的聯絡人清單，聯絡人清單中那個人的姓名旁邊，則會顯示 。


秘訣：「目錄」中已經有您可聯絡的 Polycom CMA Desktop 使用者，也有尚未啟用帳戶的人。Polycom CMA Desktop 帳戶會在使用者第一次登入時啟用。若要打給尚未啟用帳戶的人，請要求對方登入系統以便啟用帳戶。接著您就能在「目錄」中找到對方，並且撥打電話。

檢查圖示

聯絡人接受您的邀請時，聯絡人姓名旁邊的圖示，就能指出當時的線上狀態。

圖示	說明
	可進行文字交談或通話。
	視訊電話中，但可接聽其他視訊電話。無法進行文字交談。
	視訊電話中。可進行文字交談。
	無法接聽電話。可進行文字交談，但目前閒置中。

打電話給別人

1. 請選擇以下方法：
 - 按一下聯絡人清單、「最近通話記錄」或「目錄」中的姓名。
 - 輸入系統名稱或號碼。
2. 按一下  「通話」即可撥打電話。

相關主題

[關於聯絡人清單、目錄和最近通話記錄](#)

[撥打電話](#)

[接聽來電](#)

[查詢可通話的人](#)



撥打及接聽

撥打電話

打電話的方法很多，您可以在聯絡人清單、「目錄」或「最近通話記錄」中選擇對方姓名，也可以直接輸入撥號資訊。您也可以撥打視訊電話、語音電話或進行文字交談，視您和對方使用的系統類型而定。


若要以在聯絡人清單中選擇姓名的方式撥打電話：

>> 請選擇以下方法：

- 按兩下特定聯絡人即可撥打視訊電話。如果對方的系統不支援視訊功能，則啟動語音電話。如果對方的系統不支援視訊也不支援語音功能，則開啟交談視窗。
- 選取特定聯絡人，然後按一下  撥打視訊電話，或按一下  進行文字交談。
- 用滑鼠右鍵按一下特定聯絡人，然後選擇「撥打電話」。




從目錄打電話：

1. 按一下  開啟「目錄」。
2. 在「搜尋文字」欄位中輸入名稱。例如若您輸入 **and**，則搜尋結果會列出 Andrew Jones、Christine Anderson 或 Andover Conference Room 這些聯絡人項目。


秘訣：如果「目錄」內容資料龐大，為了加快搜尋速度，請按一下 ，然後選擇包含欲查詢聯絡對象的群組（如果您知道是哪個群組）。

3. 按一下姓名，然後按一下  「通話」即可撥打電話。
4. 若對方已經有 Polycom CMA Desktop 和其他 Polycom 視訊會議系統的登錄記錄，則系統會請您選擇要撥打的系統。

從「最近通話記錄」撥打電話：

1. 在主視窗中選擇以下方法：
 - 若將系統設定成把「最近通話記錄」加入聯絡人清單群組，則按一下  即可開啟「最近通話記錄」群組，然後選取名稱。
 - 在主視窗最下方的手動撥號方塊中按一下，然後輸入文字即可。若 Polycom CMA Desktop 找到您要的姓名，請按一下該項目以便選取。
 - 在主視窗最下方的手動撥號方塊中按一下 ，然後選取名稱。
 - 在特定的「最近通話記錄」項目上按一下滑鼠右鍵。
2. 按一下  「通話」即可撥打電話。

以直接輸入撥號資訊的方式撥打電話：

1. 在主視窗最下方的欄位中輸入撥號資訊。您一邊輸入，系統就會一邊在最近通話記錄中，尋找符合的聯絡人資訊。若 Polycom CMA Desktop 找到您要的姓名，請按一下該項目以便選取。
2. 按一下  「通話」即可撥打電話。

透過橋接器撥打虛擬會議室：

1. 請選擇以下方法：

- 如果您已將 Polycom CMA Desktop 和虛擬會議室都登錄到同一台閘道管理員，請輸入分機（E.164 位址）。
- 如果是 SIP 通話，請以「會議室編號@IP 位址」的格式輸入位址。例如 1000@11.12.13.14。
- 如果是 H.323 通話，請以「IP 位址##分機」的格式輸入位址。例如：11.12.13.14##1000。
- 在會議邀請函中連按兩下 **Callto:** 連結。

2. 按一下  「通話」即可撥打電話。

提升通話品質的秘訣

- 通話時可開啟交談視窗和對方筆談，不會影響通話進行。舉例來說，如果您在排除某個問題，就可以採用這種方式。
- 管理員可能已經設定通話的時間上限。超過指定的時間限制後，系統就會要您確認是否要繼續通話。
- 管理員可能已經設定要 Polycom CMA Desktop 與支援加密功能的系統通話時，一律使用加密通話。如果您在畫面的最下方看到 ，代表通話已經加密。如果您在畫面的最下方看到 ，代表通話並未加密。

相關主題

[搜尋聯絡人](#)

[參加多方通話](#)

[查詢可通話的人](#)


[接聽來電](#)

[結束電話](#)

結束電話

對話雙方都能結束通話。通話結束後，通話視窗會自動關閉。

若要結束通話：

1. 如果螢幕顯示全螢幕視訊，移動滑鼠即可顯示工具列。
2. 按一下工具列上的  「掛斷」。

相關主題

[撥打電話](#)

[接聽來電](#)

查詢可通話的人







您可查詢聯絡人的詳細資料，包括線上狀態，以及和您分享目前狀態的聯絡人，使用具備哪些功能的系統。系統會針對已經向 CMA

目前狀態服務登錄的聯絡人，在姓名旁邊顯示圖示，指出目前是否上線、能否進行文字交談，或是否能接聽來電。

能否接聽電話





圖示代表聯絡人能否接聽電話，如下表所示。

圖示	說明
----	----

	可接聽視訊電話。
	可接聽視訊電話，但目前閒置中。
	無法取得這台視訊系統的目前狀態，但這台系統可通話。
	視訊電話中，但可接聽其他視訊電話。
	視訊電話中，不接聽其他來電（請勿打擾）。
	離線或無視訊功能。








可進行文字交談。

圖示代表聯絡人能否進行文字交談，如下表所示。

圖示	說明
	可進行文字交談。
	可進行文字交談，但目前閒置中。
	獲邀加入您的聯絡人清單。尚無法取得目前狀態。
	不接受訊息（請勿打擾）。

範例

下表是您可能在聯絡人清單中看到的圖示範例。

圖示	說明
	可進行文字交談或通話。
	視訊電話中，但可接聽其他視訊電話。無法進行文字交談。
	視訊電話中。可進行文字交談。
	無法接聽電話。可進行文字交談，但目前閒置中。
	無法進行文字交談或通話（請勿打擾）。
	可接聽電話，但目前閒置中。無法進行文字交談。
	獲邀加入您的聯絡人清單。尚無法取得目前狀態。

相關主題

[管理聯絡人資訊](#)

[撥打電話](#)

參加多方通話

您可參加由虛擬會議室（或能主持多方通話的視訊會議系統）主持的各方通話會議。舉行多方通話期間，各個站台的與會者都能聽到彼此發言。使用視訊設備的與會者也能看到對方。

若要撥打多方通話，您可在聯絡人清單或「目錄」中選擇通話對象，也可以直接輸入通話資訊，就像撥打其他電話一樣。有的虛擬會議室要求使用者在電話接通後，必須輸入密碼、分機或會議編號。您可向會議主辦人索取這項資訊。


有的虛擬會議室讓會議主辦人在開始通話前，指定所有與會者的撥號資訊。對於這類多方通話會議，您只要接聽來電即可。

若要加入多方通話：


>> 在聯絡人清單、「目錄」或「最近通話記錄」中，選擇虛擬會議室編號。

您也可以按一下會議邀請函中的連結，或手動撥打會議主辦人提供的號碼。

若要輸入虛擬會議室的密碼、分機或會議編號：

>> 聽到提示音時，按一下工具列上的  撥號面板，然後輸入正確號碼。

若要掛斷多方通話：

>> 按一下工具列上的  「掛斷」。

相關主題

[撥打電話](#)

[接聽來電](#)

[輸入虛擬會議室的密碼、分機或會議編號](#)

輸入虛擬會議室的密碼、分機或會議編號

有的虛擬會議室要求使用者在電話接通後，必須輸入密碼、分機或會議編號。您可向會議主辦人索取這項資訊。

若要輸入密碼、分機或會議編號：

>> 聽到提示音時，按一下工具列上的  撥號面板，然後輸入正確號碼。

相關主題


[參加多方通話](#)

[撥打電話](#)

控制遠端攝影機

若遠端攝影機支援平移、傾斜及縮放動作，即可設定由您在通話時控制遠端攝影機。

若要調整遠端攝影機：

1. 按一下工具列上的 .
2. 按一下方向按鈕即可上下左右移動攝影機：
3. 按一下「放大」或「縮小」即可放大或縮小。

相關主題

[撥打電話](#)

使用聯絡人、目錄和最近通話記錄清單

管理聯絡人資訊


聯絡人清單等同於個人空間，讓您儲存最常通話的個人和系統聯絡資訊。若要將對方加入聯絡人清單，請從「目錄」或「最近通話記錄」將聯絡人資料複製過來。如果加入聯絡人時，對方使用的系統支援目前狀態共享功能，對方就會收到邀請函，要求對方同意列入您的聯絡人清單。您也可以加入網外的聯絡對象和系統，只要手動輸入資訊即可。

聯絡人清單讓您只要點一下滑鼠就能撥打電話，並且進行文字交談。分享目前狀態的功能，讓雙方迅速得知彼此是否能通話，以及能進行哪一類通話。

聯絡人清單會將能夠通話的聯絡人顯示在最上方。

若要將「目錄」中的聯絡人或系統加入聯絡人清單：

1. 按一下  開啟「目錄」。
2. 在「搜尋文字」欄位中輸入名稱。例如若您輸入 **and**，則搜尋結果會列出 Andrew Jones、Christine Anderson 或 Andover Conference Room 這些聯絡人項目。

秘訣：如果「目錄」內容資料龐大，為了加快搜尋速度，請按一下 ，然後選擇包含欲查詢聯絡對象的群組（如果您知道是哪個群組）。

3. 按一下姓名，然後按一下「新增為聯絡人」。
4. 更改顯示名稱（非必要）。
5. 按一下「確定」。

如果這個人登錄了一種以上的視訊會議系統以及 Polycom CMA Desktop，您的聯絡人清單就會一併加入所有的視訊會議系統。

若要將最近通話的對象加入聯絡人清單：

1. 在「最近通話記錄」中找出您要加入的對象或系統。
2. 按一下滑鼠右鍵並選擇「新增為聯絡人」，將通話對象或系統加入聯絡人清單。
3. 更改顯示名稱（非必要）。
4. 按一下「確定」。

若要建立新的聯絡人資訊：

1. 在主視窗中用滑鼠右鍵按一下聯絡人清單或群組，然後選擇「建立聯絡人」。
2. 輸入顯示名稱與位址，然後按一下「確定」。

若要刪除聯絡人資訊：

>> 用滑鼠右鍵按一下特定聯絡人，然後選擇「刪除聯絡人」。

若您刪除的聯絡人項目登錄有多台系統，而且都與您分享目前狀態，則屬於該聯絡人的所有系統項目都會遭到刪除。不與您分享目前狀態的系統，則必須逐一刪除。

若要更改聯絡人的顯示名稱：

1. 用滑鼠右鍵按一下特定聯絡人，然後選擇「編輯聯絡人」。
2. 在「新增顯示名稱」欄位中輸入新名稱，可輸入的字元包括大小寫字母、0~9 的數字，以及空格、小數點、連字號、反斜線、底線等特殊符號。

顯示名稱只會出現在您的電腦上，所以您可隨意設定對自己有意義的名稱。舉例來說，您可加入自己的朋友（位址是 mypresenceID），但是能選擇「Christine」當作顯示名稱，以便在聯絡人清單中更容易找到她。

相關主題

[搜尋聯絡人](#)

[以群組功能整理聯絡人資訊](#)

[查閱聯絡人的詳細資料](#)

[查詢可通話的人](#)

以群組功能整理聯絡人資訊

私人群組功能讓您任意整理自己的聯絡人資訊，讓您以更快、更簡單的方式，找到要聯絡的人和系統。您可建立不限數目的群組。由於只有您能看到私人群組，因此您大可取個容易辨識的名字。您可將同樣的人設定到不限數目的群組。

聯絡人清單中一定會有「**所有聯絡人**」群組，裡面包含所有的聯絡人資訊。您也可以把聯絡人清單，設定成將「最近通話記錄」納為一個群組。

若要在聯絡人清單中顯示群組：

>> 用滑鼠右鍵按一下特定聯絡人或特定群組，然後選擇「**顯示群組**」。

若要在聯絡人清單中建立群組：

1. 用滑鼠右鍵按一下特定聯絡人或特定群組，然後選擇「**建立群組**」。
2. 以大小寫字母、數字、空格、小數點、連字號和底線等符號輸入名稱。
3. 按一下「**建立**」。

若要將聯絡人加入群組：

>> 請選擇以下方法：



- 若要將現有的聯絡人加入群組，請將聯絡人拖曳到群組中，或是用滑鼠右鍵按一下姓名，然後選擇「**將聯絡人移動到群組**」。
- 若要建立新的聯絡人資訊，請用滑鼠右鍵按一下群組名稱，然後選擇「**建立聯絡人**」。
- 若要將聯絡人資訊複製到另一個群組，請用滑鼠右鍵按一下特定聯絡人，然後選擇「**將聯絡人複製到群組**」。
- 指定群組，以便從「目錄」將某人加入聯絡人清單。

若要移除群組中的聯絡人資訊：

>> 用滑鼠右鍵按一下特定聯絡人，然後選擇「**移除群組中的聯絡人**」。

所選群組中的聯絡人資訊已被移除。

若要顯示或隱藏群組中的聯絡人資訊：

>> 按一下  可展開群組，按一下  可收合群組。

若要將群組重新命名：

1. 用滑鼠右鍵按一下群組名稱，然後選擇「**重新命名群組**」。
2. 在「**輸入新的群組名稱**」欄位中，以大小寫字母、數字、空格、小數點、連字號和底線等符號輸入新名稱。
3. 按一下「**確定**」。

若要刪除群組：

1. 若要移除群組中的聯絡人資訊，請將聯絡人拖曳到其他群組或直接刪除。
2. 用滑鼠右鍵按一下群組名稱，然後選擇「刪除群組」。
3. 按一下「確定」。

若要將群組複製到其他群組：

1. 用滑鼠右鍵按一下群組名稱，然後選擇「複製群組」。
2. 選取目標群組，然後按一下「確定」。

若要將群組排序：

>> 請選擇以下方法：

- 若要將群組按英文字母順序排列，請用滑鼠右鍵按一下群組名稱，然後選擇「群組排序」。
- 若要將已經建立的群組往上移動，請用滑鼠右鍵按一下群組名稱，然後選擇「順序上移」。
- 若要將已經建立的群組往下移動，請用滑鼠右鍵按一下群組名稱，然後選擇「順序下移」。

秘訣：若您已經選取了「群組排序」選項，則無法移動群組。您也不能移動「所有聯絡人」和「最近通話記錄」兩個群組。



相關主題


[管理聯絡人資訊](#)

[查詢最近通話記錄](#)

使用目錄


「目錄」可讓您搜尋所屬單位的同仁和系統。您可打給在「目錄」上找到的人，也可以把他們加入聯絡人清單。如果對方接受您的要求，就能看到彼此的目前狀態資訊。

「目錄」中記錄了個人、系統 () 和群組 () 的相關資料。您服務的單位也可能已經把「目錄」分成各個群組。這些「目錄」群組讓您將搜尋範圍縮小到特定群組，因此能加快尋找通話對象的速度。


若要回到「目錄」的第一層開始搜尋，請按一下 。

若要尋找「目錄」中的個人或系統：

1. 按一下  開啟「目錄」。
2. 在「搜尋文字」欄位中輸入名稱。例如若您輸入 **and**，則搜尋結果會列出 Andrew Jones、Christine Anderson 或 Andover Conference Room 這些聯絡人項目。


秘訣：如果「目錄」內容資料龐大，為了加快搜尋速度，請按一下 ，然後選擇包含欲查詢聯絡對象的群組（如果您知道是哪個群組）。

若要檢視群組中的個人：

>> 連按兩下群組（以  標示）。

若要回到第一層「目錄」：

>> 請選擇以下方法：

- 按一下 。

- 反覆按  到第一層為止。

相關主題

[管理聯絡人資訊](#)

[搜尋聯絡人](#)

[關於聯絡人清單、目錄和最近通話記錄](#)

查詢最近通話記錄

Polycom CMA Desktop 讓您以多種方法查閱最近的通話記錄：




- 最近通話記錄功能讓您查詢最近撥出和接聽的通話對象與系統。您可利用這個清單撥打電話，也能邀請他人加入您的聯絡人清單。為了讓您容易找到聯絡人，即使您曾經和特定對象通話多次，每筆聯絡人資訊依然只會列出一次。
- 每個聯絡人的詳細資料視窗，都會列出您最近與該聯絡人的通話記錄。
- 「通話記錄」則讓您以另一種方式查閱曾經撥打和接聽的電話。本功能會列出每通電話，並且顯示相關資訊。您也可以查閱單一聯絡人的通話記錄。

關於最近通話記錄

「最近通話記錄」可讓您知道自己是發話人還是受話人，以及電話是否接通。

圖示	說明
	撥出的已完成通話
	接聽的已完成通話
	未接電話

從「最近通話記錄」清單撥打電話：



1. 在主視窗中選擇以下方法：
 - 若將系統設定成把「最近通話記錄」加入聯絡人清單群組，則按一下  即可開啟「最近通話記錄」群組，然後選取名稱。
 - 在主視窗最下方的手動撥號方塊中按一下，然後輸入文字即可。若 Polycom CMA Desktop 找到您要的姓名，請按一下該項目以便選取。
 - 在主視窗最下方的手動撥號方塊中按一下 ，然後選取名稱。
 - 在特定的「最近通話記錄」項目上按一下滑鼠右鍵。
2. 按一下  「通話」即可撥打電話。

若要在聯絡人清單中將最近通話記錄顯示成一個群組：

1. 在主視窗中按一下「功能表」>「選項設定」>「一般」。
2. 指定是否在聯絡人清單中顯示最近通話記錄。

若要查閱通話記錄：

>> 在主視窗中按一下「功能表」>「通話記錄」。

清單會顯示記錄項目，順序則以對方撥打或接聽電話的順序為準。若要在通話記錄中尋找最近一筆特定的通話記錄，請按一下欄標題以便排序，或是捲動畫面尋找姓名。接通的電話會有  標示，未接通的電話會有  標示。

若要刪除通話記錄中的項目：

1. 在主視窗中按一下「功能表」>「通話記錄」。
2. 選取要刪除的一筆或多筆項目。
3. 用滑鼠右鍵按一下特定項目，然後選擇「刪除所選項目」。

若要查看您與特定聯絡人的通話記錄：

>>

用滑鼠右鍵按一下特定聯絡人，然後選擇「顯示詳細資料」。通話記錄的列出順序，以您撥打電話或這名聯絡人接聽電話的順序為準。

相關主題

[撥打電話](#)

[查閱聯絡人的詳細資料](#)

[管理聯絡人資訊](#)


[搜尋聯絡人](#)

搜尋聯絡人


您可以在聯絡人清單、「目錄」或「最近通話記錄」中迅速找到某個人，就算這些清單有很多人名也一樣。找到您要聯絡的人以後，按一下人名就能撥打電話或進行文字交談。


「目錄」中列出的聯絡人可能除了登錄 Polycom CMA Desktop 帳戶以外，還登錄了其他的視訊會議系統。從「目錄」撥打電話時，系統會請您選擇要撥打的系統。若您邀請他人加入您的聯絡人清單，對方也同意，則對方的所有系統都會條列在您的聯絡人清單中。

若要在「最近通話記錄」中搜尋名稱：

1. 在主視窗最下方的手動撥號方塊中輸入撥號資訊。您一邊輸入，系統就會一邊在最近通話記錄中，尋找符合的聯絡人資訊。如果系統找到聯絡人資訊，按一下該項目就能選取。
2. 按一下  「通話」即可撥打電話。

若要在「目錄」中搜尋名稱：

1. 按一下  開啟「目錄」。
2. 在「搜尋文字」欄位中輸入名稱。例如若您輸入 **and**，則搜尋結果會列出 Andrew Jones、Christine Anderson 或 Andover Conference Room 這些聯絡人項目。

秘訣：如果「目錄」內容資料龐大，為了加快搜尋速度，請按一下 ，然後選擇包含欲查詢聯絡對象的群組（如果您知道是哪個群組）。

3. 按一下名稱，然後選擇以下方法：
 - 按一下「通話」撥打視訊電話（前提是兩台系統都必須支援）。如果對方不支援視訊功能，則啟動語音電話。若對方除了登錄視訊會議系統外也登錄了 Polycom CMA Desktop，則系統會請您選擇要撥打的系統。
 - 按一下「新增為聯絡人」，將通話對象或系統加入聯絡人清單。

4. 您也可以更改顯示名稱。
5. 按一下「關閉」，回到主視窗。

相關主題

[撥打電話](#)

[以群組功能整理聯絡人資訊](#)

查閱聯絡人的詳細資料

您可查閱所有聯絡人的相關資訊，包括顯示名稱、通話位址、狀態、稱謂、位置、電話號碼和電子郵件地址。您也可以查閱這個聯絡人的通話記錄。

若要查閱聯絡人的詳細資料：

>> 用滑鼠右鍵按一下特定聯絡人，然後選擇「顯示詳細資料」。

若要修改聯絡人的詳細資料：

>> 用滑鼠右鍵按一下特定聯絡人，然後選擇「編輯聯絡人」。

若要關閉「詳細資料」視窗：

>> 按一下視窗右上角的 X。

相關主題

[查詢最近通話記錄](#)

[管理聯絡人資訊](#)

[關於聯絡人清單、目錄和最近通話記錄](#)

使用簡報內容

顯示桌面

當您顯示 Windows


桌面時，所有與會者都會同時看到相同的內容。您可顯示投影片、試算表或任何種類的檔案。每個人都能看到 Windows

桌面上的所有物件，包括游標。遠端與會者無法控制游標，也無法修改檔案。一次只能有一名與會者能顯示桌面。




如果您的電腦有雙螢幕，則可選擇要顯示左邊還是右邊（還是上下）螢幕的桌面。您也可以選擇只顯示部分桌面。

秘訣：顯示 Windows 桌面前，請務必準備好您要顯示的內容。

若要向其他與會者顯示 Windows 桌面：

1. 在通話期間按一下工具列上的 。
2. 請選擇以下方法：

其他與會者都能看到監視器上顯示的內容。

- 按一下  「傳送監視器畫面」。如果您的電腦有雙螢幕，請選擇要顯示的監視器，然後按一下 。
- 其他與會者都能看到監視器上顯示的內容。
- 按一下  「傳送特寫」可顯示選取方格，您可視需要調整方格。
- 其他與會者只會看到選取方格內的內容。

若要放大桌面：



1. 按一下  顯示選取方格。

其他與會者只會看到選取方格內的內容，而且會放大到全螢幕。

2. 若要調整顯示區域，請將滑鼠移到選取方格的角落或邊緣，然後選擇以下方法：
 - 游標變成雙向箭頭時，按一下滑鼠鍵並拖移游標，就能調整選取範圍的大小。
 - 游標變成手的形狀時，按一下滑鼠鍵並拖移游標，就能移動選取範圍。

若要停止顯示桌面：

>> 請選擇以下方法：

- 若您要顯示完整桌面，請按一下 。
- 若您要放大桌面，請按一下 。
- 關閉「顯示桌面」視窗。

相關主題

[撥打電話](#)


[顯示 eBeam 白板](#)

[查看桌面](#)

查看桌面

若遠端站台要讓您看到桌面，則您的主螢幕會另開一個視窗。您可移動桌面內容視窗的位置，也能調整視窗大小，並且能全螢幕顯示。

若要全螢幕顯示桌面：

>> 按一下 。

相關主題

[顯示桌面](#)

自訂 Polycom CMA Desktop 的使用環境

讓他人看到您的線上狀態

如果您要離開電腦或無法接聽來電，可將 Polycom CMA Desktop 設定成告訴他人您不在。您也可以把 Polycom CMA Desktop 設定成在電腦閒置超過某個指定時間後，就自動更改線上狀態圖示。

若要更改線上狀態：

>> 在主視窗中您的姓名下方按一下 ▼，然後選擇以下選項：

設定值	目前狀態
有空	 或者 
請勿打擾	

秘訣：您將系統設定成「請勿打擾」時，可看到聯絡人清單中其他人的目前狀態。您可撥打電話並傳送交談訊息，但無法接聽電話或接收交談訊息。

若要自動讓他人知道您在閒置狀態：

1. 在主視窗中按一下「功能表」，然後選擇「選項設定」>「目前狀態」。
2. 選取「我的電腦靜止多久後顯示為『閒置』：」，然後設定系統要閒置幾分鐘後，他人才會在聯絡人清單中看到您的名字出現「閒置」標示。「聯絡人詳細資料」視窗會將您的線上狀態顯示為「閒置」。

相關主題

[查詢可通話的人](#)

[撥打電話](#)

自訂交談和通話視窗

您可選擇如何顯示交談和通話視窗。

若要指定如何顯示交談和通話視窗：

1. 在主視窗中按一下「功能表」，然後選擇「選項設定」>「訊息」。
2. 指定輸入訊息時若按下 Enter 應執行什麼功能：
 - 「傳送訊息」選項讓您立即傳送訊息，無須按一下「傳送」按鈕。
 - 「插入一行」可讓您繼續輸入，就像在寫信時按下 Enter 鍵就能換行一樣。按一下「傳送」即可傳送訊息。
3. 指定是否顯示訊息的日期與時間。
4. 指定遠端是否要在您一邊打字的時候一邊同步顯示訊息。

相關主題

[撥打電話](#)


[使用文字交談功能](#)

顯示/隱藏子母畫面

若要在通話期間檢查傳送到遠端的視訊畫面，請打開「子母畫面」視窗。子母畫面會出現在主視訊視窗的右下角。您可在通話期間隨時打開或關閉這項功能。

秘訣：選擇全螢幕視訊時，工具列會自動消失。若要暫時顯示工具列，請移動滑鼠。

若要顯示或隱藏子母畫面：

>> 按一下工具列上的 。

相關主題

[觀賞全螢幕視訊](#)


[自訂交談和通話視窗](#)

[隱藏/顯示您的視訊預覽視窗](#)

觀賞全螢幕視訊


撥打視訊電話期間可觀看全螢幕的視訊畫面，讓聯絡對象的影像更加清晰。但是若您在通話期間要討論電腦桌面上的內容，或是在通話期間要進行文字交談，可能就希望縮小視訊視窗。您也可以通話期間來回切換視窗大小。

若要觀看全螢幕的視訊：

>> 按一下工具列上的 。

若要回到較小的視訊視窗：

>> 請選擇以下方法：

- 按一下工具列上的 。
- 按 **Esc**。

相關主題

[撥打電話](#)

[顯示/隱藏子母畫面](#)

[結束電話](#)


[在文字交談期間加入通話](#)

隱藏/顯示您的視訊預覽視窗


沒有通話時，攝影機的視訊畫面會顯示在聯絡人清單上方的視窗中。您要的話也可以隱藏這個視窗。

您也可以在撥打電話前檢查本機視訊，必要時可調整攝影機。

若要隱藏視訊預覽視窗：

>> 按一下 。

若要顯示視訊預覽視窗：

>> 按一下 。

若要設定讓系統在撥打電話前預覽視訊畫面：

1. 在主視窗中按一下「功能表」>「選項設定」>「一般」。
2. 選取「撥打電話前預覽我的視訊」。

相關主題

[顯示/隱藏子母畫面](#)

[觀賞全螢幕視訊](#)

[自訂交談和通話視窗](#)

自訂 Enter 鍵

您可按照個人偏好的方式，設定您在輸入訊息時的 Enter 鍵作用。

若要指定文字交談時的 Enter 鍵功能：

1. 在主視窗中按一下「功能表」，然後選擇「選項設定」>「訊息」。
2. 指定按下 Enter 鍵時要送出訊息還是換行。

相關主題

[自訂交談和通話視窗](#)

[使用文字交談功能](#)

[撥打電話](#)

設定您的攝影機、音效和網路

選擇攝影機

不同環境下可能需要不同的攝影機。例如您在公司時可能使用筆記型電腦搭配網路攝影機，在家工作時可能必須使用筆記型電腦內建的攝影機。這時您不需要重新設定視訊選項，而可以在通話前或通話期間選擇要使用的攝影機。

如需了解如何選擇搭配 Polycom CMA Desktop 的網路攝影機或視訊裝置，請參閱《系統發行說明》，下載網址是 support.polycom.com。

如需了解如何安裝網路攝影機，請參閱網路攝影機內附的說明文件。

若要選擇通話用的攝影機：

>> 按一下工具列上的 ，然後選擇要使用的攝影機。

>> 請執行下列步驟：

1. 在主視窗中按一下「功能表」>「選項設定」>「視訊」。
2. 選取要使用的攝影機。

相關主題

[撥打電話](#)

[指定攝影機的選項設定](#)

[調整攝影機](#)

[調整音量](#)

指定攝影機的選項設定

攝影機選項設定讓您選擇要使用的攝影機，以及攝影機與系統如何搭配。

若要指定攝影機的選項設定：

1. 在主視窗中按一下「功能表」，然後選擇「選項設定」>「視訊」。
2. 選取要使用的攝影機：

設定值	說明
無	不使用攝影機。
自動	讓系統自動選取攝影機。
指定	從已安裝的攝影機清單中選擇攝影機。按一下「設定」可設定您指定的攝影機屬性。

3. 若要調整視訊，請按一下「設定」，前往攝影機製造商提供的攝影機控制畫面。
4. 指定如果電腦沒有連接攝影機，是否還要允許撥打視訊電話。

這項設定讓您在未連接攝影機或將攝影機選項設為「無」時，仍能撥打和接聽視訊電話。這類電話可顯示遠端的視訊畫面，遠端與會者則會看到 Polycom CMA Desktop 標誌。

相關主題

[選擇攝影機](#)

[調整攝影機](#)

[選項設定：視訊](#)

指定音效的選項設定

設定音效的選項即可指定系統如何處理音效。

若要指定音效的選項設定：

1. 在主視窗中按一下「功能表」>「選項設定」>「音效」。
2. 選擇要使用的音效輸入裝置。通常音效輸入裝置就是麥克風或耳機。選擇「自動」即可使用 Windows 的預設音效裝置。
3. 選擇進行視訊電話時要使用的音效輸出裝置。通常音效輸出裝置就是喇叭或耳機。選擇「自動」即可使用 Windows 的預設音效裝置。
4. 選擇播放警示時要使用的音效輸出裝置。選擇「自動」即可使用預設音效裝置。

相關主題

[測試音效裝置](#)

[調整音量](#)

[指定攝影機的選項設定](#)

[設定警示](#)

[選項設定：音效](#)

指定網路選項設定

Polycom CMA Desktop

可根據連線類型自動調整功能，讓您享有最佳通話品質。您可以自行指定網路連線。若管理員已經設定通話速率限制，這個速率就能決定通話速率。

注意：您無法在通話期間變更網路設定值。

若要指定網路類型：

1. 在主視窗中按一下「功能表」>「選項設定」>「網路」。
2. 選取您的網路連線類型：

網路類型	網路限制 (所有流量)	通話速率 限制	視訊	簡報內容	音效	交談
企業網路	10 Mbps	1920kbps	是	是	是	是
頂級寬頻	768 kbps	512kbps	是	是	是	是
快速寬頻	512 kbps	384kbps	是	是	是	是
標準寬頻	384 kbps	256kbps	是	是	是	是
基本寬頻	256 kbps	192 kbps	是	是	是	是
最低寬頻	128 kbps	64kbps	否	否	是	是

相關主題

[通知問題移難排解](#)

[選項設定：網路](#)

解決問題

解決音效和視訊問題

症狀	解決步驟
視訊	
裝置選取清單沒有列出我的攝影機。	<p>先確定是不是有其他應用程式在使用攝影機。</p> <p>重新啟動 Polycom CMA Desktop。</p> <p>使用裝置製造商提供的安裝光碟重新安裝視訊裝置，然後重新啟動 Polycom CMA Desktop。</p>
其他人看不到我的影像。	<p>確定攝影機的訊號線有沒有接好。</p> <p>重新啟動 Polycom CMA Desktop。</p> <p>使用裝置製造商提供的安裝光碟重新安裝視訊裝置，然後重新啟動 Polycom CMA Desktop。</p> <p>確認攝影機的設定值。作法如下：按一下「功能表」，然後選擇「選項設定」>「視訊」。</p> <p>檢查防火牆的設定值。您可能必須將 Polycom CMA Desktop 加入 Windows 防火牆的例外清單。作法如下：</p> <ol style="list-style-type: none">1. 在 Windows 桌面上按一下「開始」、選擇「控制台」>「Windows 防火牆」。2. 在「例外」索引標籤中按一下「新增程式」。3. 前往 c:\Program Files\Polycom\Polycom CMA Desktop\Polycom CMA Desktop.exe，然後按一下「開啟」。4. 前往 c:\Program Files\Polycom\Polycom CMA Desktop\CallControl.exe，然後按一下「開啟」。5. 前往 c:\Program Files\Polycom\Polycom CMA Desktop\MediaProcessor.exe，然後按一下「開啟」。6. 前往 c:\Program Files\Polycom\Polycom CMA Desktop\LoggingServer.exe，然後按一下「開啟」。 <p>若您在電腦上使用其他公司開發的個人防火牆，可能必須將 Polycom CMA Desktop 加入防火牆的例外清單。詳情請參閱防火牆說明文件。</p>
我的視訊預覽視窗顯示藍色畫面。	<p>先確定是不是有其他應用程式在使用攝影機。</p> <p>確定攝影機的訊號線有沒有接好。</p> <p>重新啟動 Polycom CMA Desktop。</p> <p>使用裝置製造商提供的安裝光碟重新安裝視訊裝置，然後重新啟動 Polycom CMA Desktop。</p>
我的視訊預覽視窗顯示 Polycom CMA Desktop 的標誌。	<p>若將系統設定成通話時可以不用攝影機，這就是正常現象。無法使用攝影機時，本地視訊的位置將顯示標誌。</p> <p>若攝影機已經連接到電腦，請確認攝影機訊號線是否已經</p>

	接牢。
我的本地視訊畫面粒子很粗。	<p>為了傳送最佳畫質的視訊，請嘗試以下方法：</p> <ul style="list-style-type: none"> • 打開會議室內的更多燈光，並採用自然光或燈泡照明，避免使用日光燈。 • 確定攝影機的設定是否正確。詳情請參閱選擇攝影機。
筆記型電腦的通話品質不好。	<p>請務必將筆記型電腦接上電源。如果使用電池電力，可能降低筆記型電腦性能。</p> <p>將 Windows 的電源管理設定值調整成「高效能」（Windows Vista）或「最大效能」（Windows XP）。</p>
開始通話後要等很久才能顯示視訊。	網路問題可能讓通話連線速度變慢。您最好等一下再打電話
有時主視窗沒有視訊預覽畫面，尤其是在系統離開睡眠狀態後。	隱藏我的視訊預覽視窗，然後重新顯示。
在無線網路、VPN 或 ADSL 的網路環境下，遠端站台無法接收 Polycom CMA Desktop 的視訊，或者畫質不佳。	請在「通話統計資料」畫面檢查遺漏封包數和通話速率。前往「 選項設定 」>「 網路 」、將網路連線設定成較低頻寬，然後重新撥號。
若視訊和音效都在電話接通後遭到封鎖 15 秒，系統就會顯示防火牆通知。	請聯絡網路管理員。
VPN 連線無法傳送音效和視訊。	前往「 選項設定 」->「 網路 」，選取「 絕不使用 QoS 」。
音效	
裝置選取清單沒有列出我的麥克風。	使用裝置製造商提供的安裝光碟重新安裝音效裝置，然後重新啟動 Polycom CMA Desktop。
其他人聽不到我的聲音。	<p>確定是否已經設成靜音。如果設成靜音，畫面上會出現 ，工具列上的  也會特別醒目。</p> <p>確定麥克風的訊號線有沒有接好。</p> <p>使用裝置製造商提供的安裝光碟重新安裝音效裝置，然後重新啟動 Polycom CMA Desktop。</p> <p>確認音效設定值。作法如下：按一下「功能表」，然後選擇「選項設定」>「音效」。變更完後按一下「測試音效裝置」，檢查音效裝置。</p>
遠端與會者聽到迴音。	<p>降低系統音量。</p> <p>讓麥克風儘量遠離喇叭。</p> <p>使用耳機麥克風，不要使用喇叭。</p> <p>使用耳機麥克風，不要使用麥克風和喇叭。</p> <p>如果您使用筆記型電腦的內建喇叭搭配麥克風，或搭配網路攝影機的麥克風，則筆記型電腦的結構和喇叭品質，可能造成 Windows 迴音消除功能無法解決的問題。請外接喇叭，避免使用內建喇叭。</p>

遠端與會者聽到的音質不好	讓麥克風離發言者遠一點。如果說話時距離麥克風太近，可能導致音質不佳。
我聽不到別人的聲音。	<p>確定遠端音效是否已經設成靜音。</p> <p>確定音量是否在聽得到的範圍。</p> <p>確定喇叭的訊號線有沒有接好。</p> <p>使用裝置製造商提供的安裝光碟重新安裝音效裝置，然後重新啟動 Polycom CMA Desktop。</p>
線上說明	
我的線上說明無法正常顯示。	請將電腦的瀏覽器設定成允許顯示主動式內容。如需了解如何調整這個設定，請參閱瀏覽器的說明文件。

相關主題[測試音效裝置](#)[通知問題移難排解](#)**測試音效裝置**

為了確保音效裝置功能正常，您可測試用來撥打視訊電話和播放提示音的音效裝置。


若要測試音效裝置：

1. 在主視窗中按一下「功能表」>「選項設定」>「音效」。
2. 按一下「測試音效裝置」。
3. 以正常聲音朝麥克風講話。

您在講話時，指標會顯示麥克風已經接收您的聲音。為求最佳效果，請儘量讓色棒顯示綠色，因此可能必須將麥克風移遠一點。

4. 若要測試用來打語音電話的裝置，請按一下「開始」，然後按一下「停止」即可結束。
5. 若要測試用來播放提示音的裝置，請按一下「開始」，然後按一下「停止」即可結束。

相關主題[指定音效的選項設定](#)[調整音量](#)**通知問題移難排解**

Polycom CMA Desktop 會在視窗右下角顯示通知。若要知道如何解決問題，請按一下 。

訊息	解決步驟
無網路連線。	<p>確認系統上的網路線是否有接好。</p> <p>確認是否已經安裝網路卡，而且設定是否正確。</p>
無法連線到設置伺服器。	<p>確認您輸入的設置伺服器位址是否正確。作法如下：前往「選項設定」>「登入」。</p> <p>若您還是看到這則訊息，請洽 Polycom CMA Desktop 管理員。</p>

沒有 Polycom CMA Desktop 授權。	目前使用人數已達上限。請稍後再登入。 若您還是看到這則訊息，請洽 Polycom CMA Desktop 管理員。
無法下載使用者資訊。	請檢查與 LDAP 伺服器的網路連線。 若您還是看到這則訊息，請洽 Polycom CMA Desktop 管理員。
無法連線到媒體伺服器。	出現內部錯誤。請重新啟動 Polycom CMA Desktop。
無法連線到目前狀態伺服器。	目前狀態服務可能下線，或者伺服器位址或帳戶可能有問題。Polycom CMA Desktop 會繼續嘗試連線。 若您還是看到這則訊息，請洽 Polycom CMA Desktop 管理員。
無法連線到 LDAP 伺服器。	請檢查與 LDAP 伺服器的網路連線。請洽 Polycom CMA Desktop 管理員。
無法向閘道管理員登錄。	請檢查與閘道管理員的網路連線。請洽 Polycom CMA Desktop 管理員。
無法登錄 SIP 伺服器。	請檢查與 SIP 伺服器的網路連線。請洽 Polycom CMA Desktop 管理員。
無法連線到通話控制系統。	出現內部錯誤。請重新啟動 Polycom CMA Desktop。
目前的使用者是從其他地點登入。	請登出其他地點，然後在這裡重新登入。
選取的攝影機無法使用。	確認系統上的攝影機是否已經接好。 關閉其他佔用攝影機的應用程式，或從其他應用程式釋出攝影機資源。 若您安裝多台攝影機，請前往「選項設定」>「視訊」，然後選取其他攝影機。
您漏接 ____ 的來電。	若您已將系統設定成在聯絡人清單中把「最近通話記錄」顯示成一個群組，那麼只要連按兩下特定通話記錄就能回電。

相關主題

[解決音效和視訊問題](#)

[儲存記錄](#)

儲存記錄

如果需要回報問題，系統可能要求您提供系統的相關資訊。「儲存記錄公用程式」可自動建立壓縮檔，裡面有系統的相關資訊，以及 Polycom CMA Desktop 的記錄檔。您可選擇利用「通知記錄」公用程式直接儲存檔案。

若要收集 Polycom CMA Desktop 測試結果：

1. 在主視窗中按一下「功能表」，然後選擇「選項設定」>「統計資料」>「記錄」。
2. 按一下「儲存記錄」。
3. 指定要將壓縮檔儲存到哪裡。

相關主題

[選項設定：通知記錄](#)

[通知問題移難排解](#)

著作權與法律聲明

Copyright © 2011 版權所有。

Polycom® 和 Polycom 標誌是 Polycom, Inc. 的註冊商標, Polycom CMA Desktop™ 是 Polycom, Inc 的商標。

其他所有產品及公司名稱是各自所有人的商標或註冊商標。

第三方軟體

本軟體部分功能乃依據 Independent JPEG Group 的作品所開發。

本軟體產品的部分功能著作權屬於 © 2011 RADVISION Ltd。版權所有。

開放原始碼使用權

ares

Copyright 1998 by the Massachusetts Institute of Technology.

Permission to use, copy, modify, and distribute this software and its documentation for any purpose and without fee is hereby granted, provided that the above copyright notice appear in all copies and that both that copyright notice and this permission notice appear in supporting documentation, and that the name of M.I.T. not be used in advertising or publicity pertaining to distribution of the software without specific, written prior permission.

M.I.T. makes no representations about the suitability of this software for any purpose. It is provided "as is" without express or implied warranty.

as3crypto

THE SOFTWARE IS PROVIDED "AS-IS" AND WITHOUT WARRANTY OF ANY KIND, EXPRESS, IMPLIED OR OTHERWISE, INCLUDING WITHOUT LIMITATION, ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.

IN NO EVENT SHALL TOM WU BE LIABLE FOR ANY SPECIAL, INCIDENTAL, INDIRECT OR CONSEQUENTIAL DAMAGES OF ANY KIND, OR ANY DAMAGES WHATSOEVER RESULTING FROM LOSS OF USE, DATA OR PROFITS, WHETHER OR NOT ADVISED OF THE POSSIBILITY OF DAMAGE, AND ON ANY THEORY OF LIABILITY, ARISING OUT OF OR IN CONNECTION WITH THE USE OR PERFORMANCE OF THIS SOFTWARE.

Address all questions regarding this license to:

- Henri Torgemane
- henri_torgemane@yahoo.com

Additionally, the MD5 algorithm is covered by the following notice:

Copyright (C) 1991-2, RSA Data Security, Inc. Created 1991. All rights reserved.

License to copy and use this software is granted provided that it is identified as the "RSA Data Security, Inc. MD5 Message-Digest Algorithm" in all material mentioning or referencing this software or this function.

License is also granted to make and use derivative works provided that such works are identified as "derived from the RSA Data Security, Inc. MD5 Message-Digest Algorithm" in all material mentioning or referencing the derived work.

RSA Data Security, Inc. makes no representations concerning either the merchantability of this software or the suitability of this software for any particular purpose. It is provided "as is" without express or implied warranty of any kind.

These notices must be retained in any copies of any part of this documentation and/or software.

as3httpclientlib

Copyright (c) <year> <copyright holders>

Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the "Software"), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions:

The above copyright notice and this permission notice shall be included in all copies or substantial portions of the Software.

THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.

CyrusSASL

Copyright (c) 1994-2003 Carnegie Mellon University. All rights reserved.

Redistribution and use in source and binary forms, with or without modification, are permitted provided that the following conditions are met:

1. Redistributions of source code must retain the above copyright notice, this list of conditions and the following disclaimer.
2. Redistributions in binary form must reproduce the above copyright notice, this list of conditions and the following disclaimer in the documentation and/or other materials provided with the distribution.
3. The name "Carnegie Mellon University" must not be used to endorse or promote products derived from this software without prior written permission. For permission or any legal details, please contact Office of Technology Transfer Carnegie Mellon University

5000 Forbes Avenue

Pittsburgh, PA 15213-3890

(412) 268-4387, fax: (412) 268-7395

tech-transfer@andrew.cmu.edu

4. Redistributions of any form whatsoever must retain the following acknowledgment:

"This product includes software developed by Computing Services at Carnegie Mellon University (<http://www.cmu.edu/computing/>)."

CARNEGIE MELLON UNIVERSITY DISCLAIMS ALL WARRANTIES WITH REGARD TO THIS SOFTWARE, INCLUDING ALL IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS, IN NO EVENT SHALL CARNEGIE MELLON UNIVERSITY BE LIABLE FOR ANY SPECIAL, INDIRECT OR CONSEQUENTIAL DAMAGES OR ANY DAMAGES WHATSOEVER RESULTING FROM LOSS OF USE, DATA OR PROFITS, WHETHER IN AN ACTION OF CONTRACT, NEGLIGENCE OR OTHER TORTIOUS ACTION, ARISING OUT OF OR IN CONNECTION WITH THE USE OR PERFORMANCE OF THIS SOFTWARE.

Expat

Copyright (c) 1998, 1999, 2000 Thai Open Source Software Center Ltd and Clark Cooper

Copyright (c) 2001, 2002, 2003, 2004, 2005, 2006 Expat maintainers.

Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the "Software"), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions:

The above copyright notice and this permission notice shall be included in all copies or substantial portions of the Software.

THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT.

IN NO EVENT SHALL THE AUTHORS OR COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.

FZip

Copyright (c) 2006 Claus Wahlers and Max Herkender

This software is provided 'as-is', without any express or implied warranty. In no event will the authors be held liable for any damages arising from the use of this software.

Permission is granted to anyone to use this software for any purpose, including commercial applications, and to alter it and redistribute it freely, subject to the following restrictions:

1. The origin of this software must not be misrepresented; you must not claim that you wrote the original software. If you use this software in a product, an acknowledgment in the product documentation would be appreciated but is not required.
2. Altered source versions must be plainly marked as such, and must not be misrepresented as being the original software.
3. This notice may not be removed or altered from any source distribution.

JpegLib

The Independent JPEG Group's JPEG software README for release 8b of 16-May-2010

This distribution contains the eighth public release of the Independent JPEG Group's free JPEG software. You are welcome to redistribute this software and to use it for any purpose, subject to the conditions under LEGAL ISSUES, below.

This software is the work of Tom Lane, Guido Vollbeding, Philip Gladstone, Bill Allombert, Jim Boucher, Lee Crocker, Bob Friesenhahn, Ben Jackson, Julian Minguillon, Luis Ortiz, George Phillips, Davide Rossi, Ge' Weijers, and other members of the Independent JPEG Group.

IJG is not affiliated with the official ISO JPEG standards committee.

DOCUMENTATION ROADMAP

This file contains the following sections:

OVERVIEW General description of JPEG and the IJG software.

LEGAL ISSUES Copyright, lack of warranty, terms of distribution.

REFERENCES Where to learn more about JPEG.

ARCHIVE LOCATIONS Where to find newer versions of this software.

ACKNOWLEDGMENTS Special thanks.

FILE FORMAT WARS Software *not* to get.

TO DO Plans for future IJG releases.

Other documentation files in the distribution are:

User documentation:

install.txt How to configure and install the IJG software.

usage.txt Usage instructions for cjpeg, djpeg, jpegtran,

rdjpgcom, and wrjpgcom.

*.1 Unix-style man pages for programs (same info as usage.txt).

wizard.txt Advanced usage instructions for JPEG wizards only.

change.log Version-to-version change highlights.

Programmer and internal documentation:

libjpeg.txt How to use the JPEG library in your own programs.

example.c Sample code for calling the JPEG library.

structure.txt Overview of the JPEG library's internal structure.

filelist.txt Road map of IJG files.

coderrules.txt Coding style rules --- please read if you contribute code.

Please read at least the files install.txt and usage.txt. Some information can also be found in the JPEG FAQ (Frequently Asked Questions) article. See ARCHIVE LOCATIONS below to find out where to obtain the FAQ article.

If you want to understand how the JPEG code works, we suggest reading one or more of the REFERENCES, then looking at the documentation files (in roughly the order listed) before diving into the code.

OVERVIEW

This package contains C software to implement JPEG image encoding, decoding, and transcoding. JPEG (pronounced "jay-peg") is a standardized compression method for full-color and gray-scale images.

This software implements JPEG baseline, extended-sequential, and progressive compression processes. Provision is made for supporting all variants of these processes, although some uncommon parameter settings aren't implemented yet. We have made no provision for supporting the hierarchical or lossless processes defined in the standard.

We provide a set of library routines for reading and writing JPEG image files, plus two sample applications "cjpeg" and "djpeg", which use the library to perform conversion between JPEG and some other popular image file formats.

The library is intended to be reused in other applications.

In order to support file conversion and viewing software, we have included considerable functionality beyond the bare JPEG coding/decoding capability; for example, the color quantization modules are not strictly part of JPEG decoding, but they are essential for output to colormapped file formats or colormapped displays. These extra functions can be compiled out of the library if not required for a particular application.

We have also included "jpegtran", a utility for lossless transcoding between different JPEG processes, and "rdjpgcom" and "wrjpgcom", two simple applications for inserting and extracting textual comments in JFIF files.

The emphasis in designing this software has been on achieving portability and flexibility, while also making it fast enough to be useful. In particular, the software is not intended to be read as a tutorial on JPEG. (See the REFERENCES section for introductory material.) Rather, it is intended to be reliable, portable, industrial-strength code. We do not claim to have achieved that goal in every aspect of the software, but we strive for it.

We welcome the use of this software as a component of commercial products. No royalty is required, but we do ask for an acknowledgement in product documentation, as described under LEGAL ISSUES.

LEGAL ISSUES

In plain English:

1. We don't promise that this software works. (But if you find any bugs, please let us know!)
2. You can use this software for whatever you want. You don't have to pay us.
3. You may not pretend that you wrote this software. If you use it in a program, you must acknowledge somewhere in your documentation that you've used the IJG code.

In legalese:

The authors make NO WARRANTY or representation, either express or implied, with respect to this software, its quality, accuracy, merchantability, or fitness for a particular purpose. This software is provided "AS IS", and you, its user, assume the entire risk as to its quality and accuracy.

This software is copyright (C) 1991-2010, Thomas G. Lane, Guido Vollbeding.

All Rights Reserved except as specified below.

Permission is hereby granted to use, copy, modify, and distribute this software (or portions thereof) for any purpose, without fee, subject to these conditions:

1. If any part of the source code for this software is distributed, then this README file must be included, with this copyright and no-warranty notice unaltered; and any additions, deletions, or changes to the original files must be clearly indicated in accompanying documentation.
2. If only executable code is distributed, then the accompanying documentation must state that "this software is based in part on the work of the Independent JPEG Group".
3. Permission for use of this software is granted only if the user accepts full responsibility for any undesirable consequences; the authors accept NO LIABILITY for damages of any kind.

These conditions apply to any software derived from or based on the IJG code, not just to the unmodified library. If you use our work, you ought to acknowledge us.

Permission is NOT granted for the use of any IJG author's name or company name in advertising or publicity relating to this software or products derived from it. This software may be referred to only as "the Independent JPEG Group's software".

We specifically permit and encourage the use of this software as the basis of commercial products, provided that all warranty or liability claims are assumed by the product vendor.

ansi2knr.c is included in this distribution by permission of L. Peter Deutsch, sole proprietor of its copyright holder, Aladdin Enterprises of Menlo Park, CA.ansi2knr.c is NOT covered by the above copyright and conditions, but instead by the usual distribution terms of the Free Software Foundation; principally, that you must include source code if you redistribute it. (See the file ansi2knr.c for full details.) However, since ansi2knr.c is not needed as part of any program generated from the IJG code, this does not limit you more than the foregoing paragraphs do.

The Unix configuration script "configure" was produced with GNU Autoconf. It is copyright by the Free Software Foundation but is freely distributable. The same holds for its supporting scripts (config.guess, config.sub, ltmain.sh). Another support script, install-sh, is copyright by X Consortium but is also freely distributable.

The IJG distribution formerly included code to read and write GIF files. To avoid entanglement with the Unisys LZW patent, GIF reading support has been removed altogether, and the GIF writer has been simplified to produce "uncompressed GIFs". This technique does not use the LZW algorithm; the resulting GIF files are larger than usual, but are readable by all standard GIF decoders.

We are required to state that "The Graphics Interchange Format(c) is the Copyright property of CompuServe Incorporated. GIF(sm) is a Service Mark property of CompuServe Incorporated."

REFERENCES

We recommend reading one or more of these references before trying to understand the innards of the JPEG software.

The best short technical introduction to the JPEG compression algorithm is Wallace, Gregory K. "The JPEG Still Picture Compression Standard", Communications of the ACM, April 1991 (vol. 34 no. 4), pp. 30-44. (Adjacent articles in that issue discuss MPEG motion picture compression, applications of JPEG, and related topics.) If you don't have the CACM issue handy, a PostScript file containing a revised version of Wallace's article is available at <http://www.ijg.org/files/wallace.ps.gz>. The file (actually a preprint for an article that appeared in IEEE Trans. Consumer Electronics) omits the sample images that appeared in CACM, but it includes corrections and some added material. Note: the Wallace article is copyright ACM and IEEE, and it may not be used for commercial purposes.

A somewhat less technical, more leisurely introduction to JPEG can be found in "The Data Compression Book" by Mark Nelson and Jean-loup Gailly, published by M&T Books (New York), 2nd ed. 1996, ISBN 1-55851-434-1. This book provides good explanations and example C code for a multitude of compression methods including JPEG. It is an excellent source if you are comfortable reading C code but don't know much about data compression in general. The book's JPEG sample code is far from industrial-strength, but when you are ready to look at a full implementation, you've got one here.

The best currently available description of JPEG is the textbook "JPEG Still Image Data Compression Standard" by William B. Pennebaker and Joan L. Mitchell, published by Van Nostrand Reinhold, 1993, ISBN 0-442-01272-1. Price US\$59.95, 638 pp. The book includes the complete text of the ISO JPEG standards (DIS 10918-1 and draft DIS 10918-2).

Although this is by far the most detailed and comprehensive exposition of JPEG publicly available, we point out that it is still missing an explanation of the most essential properties and algorithms of the underlying DCT technology. If you think that you know about DCT-based JPEG after reading this book, then you are in delusion. The real fundamentals and corresponding potential of DCT-based JPEG are not publicly known so far, and that is the reason for all the mistaken developments taking place in the image coding domain.

The original JPEG standard is divided into two parts, Part 1 being the actual specification, while Part 2 covers compliance testing methods. Part 1 is titled "Digital Compression and Coding of Continuous-tone Still Images, Part 1: Requirements and guidelines" and has document numbers ISO/IEC IS 10918-1, ITU-T T.81. Part 2 is titled "Digital Compression and Coding of Continuous-tone Still Images, Part 2: Compliance testing" and has document numbers ISO/IEC IS 10918-2, ITU-T T.83.

IJG JPEG 8 introduces an implementation of the JPEG SmartScale extension which is specified in a contributed document at ITU and ISO with title "ITU-T JPEG-Plus Proposal for Extending ITU-T T.81 for Advanced Image Coding", April 2006, Geneva, Switzerland. The latest version of the document is Revision 3.

The JPEG standard does not specify all details of an interchangeable file format. For the omitted details we follow the "JFIF" conventions, revision 1.02. JFIF 1.02 has been adopted as an Ecma International Technical Report and thus received a formal publication status. It is available as a free download in PDF format from <http://www.ecma-international.org/publications/techreports/E-TR-098.htm>.

A PostScript version of the JFIF document is available at

<http://www.ijg.org/files/jfif.ps.gz>. There is also a plain text version at <http://www.ijg.org/files/jfif.txt.gz>, but it is missing the figures.

The TIFF 6.0 file format specification can be obtained by FTP from <ftp://ftp.sgi.com/graphics/tiff/TIFF6.ps.gz>. The JPEG incorporation scheme found in the TIFF 6.0 spec of 3-June-92 has a number of serious problems.

IJG does not recommend use of the TIFF 6.0 design (TIFF Compression tag 6). Instead, we recommend the JPEG design proposed by TIFF Technical Note #2 (Compression tag 7). Copies of this Note can be obtained from <http://www.ijg.org/files/>. It is expected that the next revision of the TIFF spec will replace the 6.0 JPEG design with the Note's design. Although IJG's own code does not support TIFF/JPEG, the free libtiff library uses our library to implement TIFF/JPEG per the Note.

ARCHIVE LOCATIONS

The "official" archive site for this software is www.ijg.org. The most recent released version can always be found there in directory "files". This particular version will be archived as <http://www.ijg.org/files/jpegsrc.v8b.tar.gz>, and in Windows-compatible "zip" archive format as <http://www.ijg.org/files/jpegsr8b.zip>.

The JPEG FAQ (Frequently Asked Questions) article is a source of some general information about JPEG.

It is available on the World Wide Web at <http://www.faqs.org/faqs/jpeg-faq/> and other news.answers archive sites, including the official news.answers archive at [rtfm.mit.edu: ftp://rtfm.mit.edu/pub/usenet/news.answers/jpeg-faq/](ftp://rtfm.mit.edu/pub/usenet/news.answers/jpeg-faq/).

If you don't have Web or FTP access, send e-mail to mail-server@rtfm.mit.edu with body

send usenet/news.answers/jpeg-faq/part1

send usenet/news.answers/jpeg-faq/part2

ACKNOWLEDGMENTS

Thank to Juergen Bruder for providing me with a copy of the common DCT algorithm article, only to find out that I had come to the same result in a more direct and comprehensible way with a more generative approach.

Thank to Istvan Sebestyen and Joan L. Mitchell for inviting me to the ITU JPEG (Study Group 16) meeting in Geneva, Switzerland.

Thank to Thomas Wiegand and Gary Sullivan for inviting me to the Joint Video Team (MPEG & ITU) meeting in Geneva, Switzerland.

Thank to John Korejwa and Massimo Ballerini for inviting me to fruitful consultations in Boston, MA and Milan, Italy.

Thank to Hendrik Elstner, Roland Fassauer, Simone Zuck, Guenther Maier-Gerber, Walter Stoeber, and Fred Schmitz for corresponding business development.

Thank to Nico Zschach and Dirk Stelling of the technical support team at the Digital Images company in Halle for providing me with extra equipment for configuration tests.

Thank to Richard F. Lyon (then of Foveon Inc.) for fruitful communication about JPEG configuration in Sigma Photo Pro software.

Thank to Andrew Finkenstadt for hosting the ijg.org site.

Last but not least special thank to Thomas G. Lane for the original design and development of this singular software package.

FILE FORMAT WARS

The ISO JPEG standards committee actually promotes different formats like "JPEG 2000" or "JPEG XR" which are incompatible with original DCT-based JPEG and which are based on faulty technologies. IJG therefore does not and will not support such momentary mistakes (see REFERENCES).

We have little or no sympathy for the promotion of these formats. Indeed, one of the original reasons for developing this free software was to help force convergence on common, interoperable format standards for JPEG files.

Don't use an incompatible file format!

(In any case, our decoder will remain capable of reading existing JPEG image files indefinitely.)

TO DO

Version 8 is the first release of a new generation JPEG standard to overcome the limitations of the original JPEG specification.

More features are being prepared for coming releases.

Please send bug reports, offers of help, etc. to jpeg-info@uc.ag.

Libxml2

Except where otherwise noted in the source code (e.g. the files `hash.c`, `list.c` and the trio files, which are covered by a similar licence but with different Copyright notices) all the files are:

Copyright (C) 1998-2003 Daniel Veillard. All Rights Reserved.

Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the "Software"), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions:

The above copyright notice and this permission notice shall be included in all copies or substantial portions of the Software.

THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE DANIEL VEILLARD BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE.

Except as contained in this notice, the name of Daniel Veillard shall not be used in advertising or otherwise to promote the sale, use or other dealings in this Software without prior written authorization from him.

log4cxx

Apache License

TERMS AND CONDITIONS FOR USE, REPRODUCTION, AND DISTRIBUTION

1. **Definitions.** "License" shall mean the terms and conditions for use, reproduction, and distribution as defined by Sections 1 through 9 of this document. "Licensor" shall mean the copyright owner or entity authorized by the copyright owner that is granting the License. "Legal Entity" shall mean the union of the acting entity and all other entities that control, are controlled by, or are under common control with that entity. For the purposes of this definition, "control" means (i) the power, direct or indirect, to cause the direction or management of such entity, whether by contract or otherwise, or (ii) ownership of fifty percent (50%) or more of the outstanding shares, or (iii) beneficial ownership of such entity. "You" (or "Your") shall mean an individual or Legal Entity exercising permissions granted by this License. "Source" form shall mean the preferred form for making modifications, including but not limited to software source code, documentation source, and configuration files. "Object" form shall mean any form resulting from mechanical transformation or translation of a Source form, including but not limited to compiled object code, generated documentation, and conversions to other media types. "Work" shall mean the work of authorship, whether in Source or Object form, made available under the License, as indicated by a copyright notice that is included in or attached to the work (an example is provided in the Appendix below). "Derivative Works" shall mean any work, whether in Source or Object form, that is based on (or derived from) the Work and for which the editorial revisions, annotations, elaborations, or other modifications represent, as a whole, an original work of authorship. For the purposes of this License, Derivative Works shall not include works that remain separable from, or merely link (or bind by name) to the interfaces of, the Work and Derivative Works thereof. "Contribution" shall mean any work of authorship, including the original version of the Work and any modifications or additions to that Work or Derivative Works thereof, that is intentionally submitted to Licensor for inclusion in the Work by the copyright owner or by an individual or Legal Entity authorized to submit on behalf of the copyright owner. For the purposes of this definition, "submitted" means any form of electronic, verbal, or written communication sent to the Licensor or its representatives, including but not limited to communication on electronic mailing lists, source code control systems, and issue tracking systems that are managed by, or on behalf of, the Licensor for the purpose of discussing and improving the Work, but excluding communication that is conspicuously marked or otherwise designated in writing by the copyright owner as "Not a Contribution." "Contributor" shall mean Licensor and any individual or Legal Entity on behalf of whom a Contribution has been received by Licensor and subsequently incorporated within the Work.
2. **Grant of Copyright License.** Subject to the terms and conditions of this License, each Contributor hereby grants to You a perpetual, worldwide, non-exclusive, no-charge, royalty-free, irrevocable copyright license to reproduce, prepare Derivative Works of, publicly display, publicly perform, sublicense, and distribute the Work and such Derivative Works in Source or Object form.
3. **Grant of Patent License.** Subject to the terms and conditions of this License, each Contributor hereby grants to You a perpetual, worldwide, non-exclusive, no-charge, royalty-free, irrevocable (except as stated in this section) patent license to make, have made, use, offer to sell, sell, import, and otherwise transfer the Work, where such license applies only to those patent claims licensable by such Contributor that are necessarily infringed by their Contribution(s) alone or by combination of their Contribution(s) with the Work to which such Contribution(s) was submitted. If You institute patent litigation against any entity (including a cross-claim or counterclaim in a lawsuit) alleging that the Work or a Contribution incorporated within the Work constitutes direct or contributory patent infringement, then any patent licenses granted to You under this License for that Work shall terminate as of the date such litigation is filed.
4. **Redistribution.** You may reproduce and distribute copies of the Work or Derivative Works thereof in any medium, with or without modifications, and in Source or Object form, provided that You meet the following conditions:
 1. You must give any other recipients of the Work or Derivative Works a copy of this License; and
 2. You must cause any modified files to carry prominent notices stating that You changed the files; and
 3. You must retain, in the Source form of any Derivative Works that You distribute, all copyright, patent, trademark, and attribution notices from the Source form of the Work, excluding those notices that do not pertain to any part of the Derivative Works; and
 4. If the Work includes a "NOTICE" text file as part of its distribution, then any Derivative Works that You distribute must include a readable copy of the attribution notices contained within such NOTICE file, excluding those notices that do not pertain to any part of the Derivative Works, in at least one of the following places: within a NOTICE text file distributed as part of the Derivative Works; within the

Source form or documentation, if provided along with the Derivative Works; or, within a display generated by the Derivative Works, if and wherever such third-party notices normally appear. The contents of the NOTICE file are for informational purposes only and do not modify the License. You may add Your own attribution notices within Derivative Works that You distribute, alongside or as an addendum to the NOTICE text from the Work, provided that such additional attribution notices cannot be construed as modifying the License.

You may add Your own copyright statement to Your modifications and may provide additional or different license terms and conditions for use, reproduction, or distribution of Your modifications, or for any such Derivative Works as a whole, provided Your use, reproduction, and distribution of the Work otherwise complies with the conditions stated in this License.

5. Submission of Contributions. Unless You explicitly state otherwise, any Contribution intentionally submitted for inclusion in the Work by You to the Licensor shall be under the terms and conditions of this License, without any additional terms or conditions. Notwithstanding the above, nothing herein shall supersede or modify the terms of any separate license agreement you may have executed with Licensor regarding such Contributions.
6. Trademarks. This License does not grant permission to use the trade names, trademarks, service marks, or product names of the Licensor, except as required for reasonable and customary use in describing the origin of the Work and reproducing the content of the NOTICE file.
7. Disclaimer of Warranty. Unless required by applicable law or agreed to in writing, Licensor provides the Work (and each Contributor provides its Contributions) on an "AS IS" BASIS, WITHOUT WARRANTIES OR CONDITIONS OF ANY KIND, either express or implied, including, without limitation, any warranties or conditions of TITLE, NON-INFRINGEMENT, MERCHANTABILITY, or FITNESS FOR A PARTICULAR PURPOSE. You are solely responsible for determining the appropriateness of using or redistributing the Work and assume any risks associated with Your exercise of permissions under this License.
8. Limitation of Liability. In no event and under no legal theory, whether in tort (including negligence), contract, or otherwise, unless required by applicable law (such as deliberate and grossly negligent acts) or agreed to in writing, shall any Contributor be liable to You for damages, including any direct, indirect, special, incidental, or consequential damages of any character arising as a result of this License or out of the use or inability to use the Work (including but not limited to damages for loss of goodwill, work stoppage, computer failure or malfunction, or any and all other commercial damages or losses), even if such Contributor has been advised of the possibility of such damages.
9. Accepting Warranty or Additional Liability. While redistributing the Work or Derivative Works thereof, You may choose to offer, and charge a fee for, acceptance of support, warranty, indemnity, or other liability obligations and/or rights consistent with this License. However, in accepting such obligations, You may act only on Your own behalf and on Your sole responsibility, not on behalf of any other Contributor, and only if You agree to indemnify, defend, and hold each Contributor harmless for any liability incurred by, or claims asserted against, such Contributor by reason of your accepting any such warranty or additional liability.

END OF TERMS AND CONDITIONS

OpenLDAP

The OpenLDAP Public License

Version 2.8, 17 August 2003

Redistribution and use of this software and associated documentation ("Software"), with or without modification, are permitted provided that the following conditions are met:

1. Redistributions in source form must retain copyright statements and notices,
2. Redistributions in binary form must reproduce applicable copyright statements and notices, this list of conditions, and the following disclaimer in the documentation and/or other materials provided with the distribution, and
3. Redistributions must contain a verbatim copy of this document. The OpenLDAP Foundation may revise this license from time to time. Each revision is distinguished by a version number. You may use this Software under terms of this license revision or under the terms of any subsequent revision of the license.

THIS SOFTWARE IS PROVIDED BY THE OPENLDAP FOUNDATION AND ITS CONTRIBUTORS ``AS IS'' AND ANY EXPRESSED OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED

WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE OPENLDAP FOUNDATION, ITS CONTRIBUTORS, OR THE AUTHOR(S) OR OWNER(S) OF THE SOFTWARE BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

The names of the authors and copyright holders must not be used in advertising or otherwise to promote the sale, use or other dealing in this Software without specific, written prior permission. Title to copyright in this Software shall at all times remain with copyright holders.

OpenLDAP is a registered trademark of the OpenLDAP Foundation.

Copyright 1999-2003 The OpenLDAP Foundation, Redwood City, California, USA. All Rights Reserved. Permission to copy and distribute verbatim copies of this document is granted.

OpenSSL

License

This is a copy of the current LICENSE file inside the CVS repository.

LICENSE ISSUES

The OpenSSL toolkit stays under a dual license, i.e. both the conditions of the OpenSSL License and the original SSLeay license apply to the toolkit. See below for the actual license texts. Actually both licenses are BSD-style Open Source licenses. In case of any license issues related to OpenSSL please contact openssl-core@openssl.org.

OpenSSL License

Copyright (c) 1998-2008 The OpenSSL Project. All rights reserved.

Redistribution and use in source and binary forms, with or without modification, are permitted provided that the following conditions are met:

1. Redistributions of source code must retain the above copyright notice, this list of conditions and the following disclaimer.
2. Redistributions in binary form must reproduce the above copyright notice, this list of conditions and the following disclaimer in the documentation and/or other materials provided with the distribution.
3. All advertising materials mentioning features or use of this software must display the following acknowledgment: "This product includes software developed by the OpenSSL Project for use in the OpenSSL Toolkit. (<http://www.openssl.org/>)"
4. The names "OpenSSL Toolkit" and "OpenSSL Project" must not be used to endorse or promote products derived from this software without prior written permission. For written permission, please contact openssl-core@openssl.org.
5. Products derived from this software may not be called "OpenSSL" nor may "OpenSSL" appear in their names without prior written permission of the OpenSSL Project.
6. Redistributions of any form whatsoever must retain the following acknowledgment: "This product includes software developed by the OpenSSL Project for use in the OpenSSL Toolkit (<http://www.openssl.org/>)"

THIS SOFTWARE IS PROVIDED BY THE OpenSSL PROJECT ``AS IS" AND ANY EXPRESSED OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE OpenSSL PROJECT OR ITS CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

This product includes cryptographic software written by Eric Young (ey@cryptsoft.com). This product includes software written by Tim Hudson (tjh@cryptsoft.com).

Original SSLeay License

Copyright (C) 1995-1998 Eric Young (eay@cryptsoft.com)

All rights reserved.

This package is an SSL implementation written by Eric Young (eay@cryptsoft.com).

The implementation was written so as to conform with Netscapes SSL.

This library is free for commercial and non-commercial use as long as the following conditions are adhered to. The following conditions apply to all code found in this distribution, be it the RC4, RSA, lhash, DES, etc., code; not just the SSL code. The SSL documentation included with this distribution is covered by the same copyright terms except that the holder is Tim Hudson (tjh@cryptsoft.com).

Copyright remains Eric Young's, and as such any Copyright notices in the code are not to be removed. If this package is used in a product, Eric Young should be given attribution as the author of the parts of the library used. This can be in the form of a textual message at program startup or in documentation (online or textual) provided with the package. Redistribution and use in source and binary forms, with or without modification, are permitted provided that the following conditions are met:

1. Redistributions of source code must retain the copyright notice, this list of conditions and the following disclaimer.
2. Redistributions in binary form must reproduce the above copyright notice, this list of conditions and the following disclaimer in the documentation and/or other materials provided with the distribution.
3. All advertising materials mentioning features or use of this software must display the following acknowledgement: "This product includes cryptographic software written by Eric Young (eay@cryptsoft.com)" The word 'cryptographic' can be left out if the routines from the library being used are not cryptographic related :-).
4. If you include any Windows specific code (or a derivative thereof) from the apps directory (application code) you must include an acknowledgement: "This product includes software written by Tim Hudson (tjh@cryptsoft.com)"

THIS SOFTWARE IS PROVIDED BY ERIC YOUNG ``AS IS'' AND ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE DISCLAIMED. IN NO EVENT SHALL THE AUTHOR OR CONTRIBUTORS BE LIABLE FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, PROCUREMENT OF SUBSTITUTE GOODS OR SERVICES; LOSS OF USE, DATA, OR PROFITS; OR BUSINESS INTERRUPTION) HOWEVER CAUSED AND ON ANY THEORY OF LIABILITY, WHETHER IN CONTRACT, STRICT LIABILITY, OR TORT (INCLUDING NEGLIGENCE OR OTHERWISE) ARISING IN ANY WAY OUT OF THE USE OF THIS SOFTWARE, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE.

The licence and distribution terms for any publically available version or derivative of this code cannot be changed. i.e. this code cannot simply be copied and put under another distribution licence [including the GNU Public Licence.]

XIFF

Copyright (C) 2003-2009 Igniterealtime Community Contributors

Daniel Henninger

Derrick Grigg <dgrigg@rogers.com>

Juga Paazmaya <olavic@gmail.com>

Nick Velloff <nick.velloff@gmail.com>

Sean Treadway <seant@oncotype.dk>

Sean Voisen <sean@voisen.org>

Licensed under the Apache License, Version 2.0 (the "License"); you may not use this file except in compliance with the License. You may obtain a copy of the License at <http://www.apache.org/licenses/LICENSE-2.0>

Unless required by applicable law or agreed to in writing, software distributed under the License is distributed on an "AS IS" BASIS, WITHOUT WARRANTIES OR CONDITIONS OF ANY KIND, either express or implied. See the License for the specific language governing permissions and limitations under the License.

- You may opt to apply the terms of the ordinary GNU General Public License instead of this License to a given copy of the Library. To do this, you must alter all the notices that refer to this License, so that they refer to the ordinary GNU General Public License, version 2, instead of to this License. (If a newer version than version 2 of the ordinary GNU General Public License has appeared, then you can specify that version instead if you wish.) Do not make any other change in these notices.

Once this change is made in a given copy, it is irreversible for that copy, so the ordinary GNU General Public License applies to all subsequent copies and derivative works made from that copy. This option is useful when you wish to copy part of the code of the Library into a program that is not a library.

- You may copy and distribute the Library (or a portion or derivative of it, under Section 2) in object code or executable form under the terms of Sections 1 and 2 above provided that you accompany it with the complete corresponding machine-readable source code, which must be distributed under the terms of Sections 1 and 2 above on a medium customarily used for software interchange. If distribution of object code is made by offering access to copy from a designated place, then offering equivalent access to copy the source code from the same place satisfies the requirement to distribute the source code, even though third parties are not compelled to copy the source along with the object code.
- A program that contains no derivative of any portion of the Library, but is designed to work with the Library by being compiled or linked with it, is called a "work that uses the Library". Such a work, in isolation, is not a derivative work of the Library, and therefore falls outside the scope of this License. However, linking a "work that uses the Library" with the Library creates an executable that is a derivative of the Library (because it contains portions of the Library), rather than a "work that uses the library". The executable is therefore covered by this License. Section 6 states terms for distribution of such executables. When a "work that uses the Library" uses material from a header file that is part of the Library, the object code for the work may be a derivative work of the Library even though the source code is not. Whether this is true is especially significant if the work can be linked without the Library, or if the work is itself a library. The threshold for this to be true is not precisely defined by law. If such an object file uses only numerical parameters, data structure layouts and accessors, and small macros and small inline functions (ten lines or less in length), then the use of the object file is unrestricted, regardless of whether it is legally a derivative work. (Executables containing this object code plus portions of the Library will still fall under Section 6.) Otherwise, if the work is a derivative of the Library, you may distribute the object code for the work under the terms of Section 6. Any executables containing that work also fall under Section 6, whether or not they are linked directly with the Library itself.
- As an exception to the Sections above, you may also combine or link a "work that uses the Library" with the Library to produce a work containing portions of the Library, and distribute that work under terms of your choice, provided that the terms permit modification of the work for the customer's own use and reverse engineering for debugging such modifications. You must give prominent notice with each copy of the work that the Library is used in it and that the Library and its use are covered by this License. You must supply a copy of this License. If the work during execution displays copyright notices, you must include the copyright notice for the Library among them, as well as a reference directing the user to the copy of this License. Also, you must do one of these things:
 1. Accompany the work with the complete corresponding machine-readable source code for the Library including whatever changes were used in the work (which must be distributed under Sections 1 and 2 above); and, if the work is an executable linked with the Library, with the complete machine-readable "work that uses the Library", as object code and/or source code, so that the user can modify the Library and then relink to produce a modified executable containing the modified Library. (It is understood that the user who changes the contents of definitions files in the Library will not necessarily be able to recompile the application to use the modified definitions.)
 2. Use a suitable shared library mechanism for linking with the Library. A suitable mechanism is one that (1) uses at run time a copy of the library already present on the user's computer system, rather than copying library functions into the executable, and (2) will operate properly with a modified version of the library, if the user installs one, as long as the modified version is interface-compatible with the version that the work was made with.
 3. Accompany the work with a written offer, valid for at least three years, to give the same user the materials specified in Subsection 6a, above, for a charge no more than the cost of performing this distribution.

4. If distribution of the work is made by offering access to copy from a designated place, offer equivalent access to copy the above specified materials from the same place.
 5. Verify that the user has already received a copy of these materials or that you have already sent this user a copy. For an executable, the required form of the "work that uses the Library" must include any data and utility programs needed for reproducing the executable from it. However, as a special exception, the materials to be distributed need not include anything that is normally distributed (in either source or binary form) with the major components (compiler, kernel, and so on) of the operating system on which the executable runs, unless that component itself accompanies the executable. It may happen that this requirement contradicts the license restrictions of other proprietary libraries that do not normally accompany the operating system. Such a contradiction means you cannot use both them and the Library together in an executable that you distribute.
- You may place library facilities that are a work based on the Library side-by-side in a single library together with other library facilities not covered by this License, and distribute such a combined library, provided that the separate distribution of the work based on the Library and of the other library facilities is otherwise permitted, and provided that you do these two things:
 1. Accompany the combined library with a copy of the same work based on the Library, uncombined with any other library facilities. This must be distributed under the terms of the Sections above.
 2. Give prominent notice with the combined library of the fact that part of it is a work based on the Library, and explaining where to find the accompanying uncombined form of the same work.
 - You may not copy, modify, sublicense, link with, or distribute the Library except as expressly provided under this License. Any attempt otherwise to copy, modify, sublicense, link with, or distribute the Library is void, and will automatically terminate your rights under this License. However, parties who have received copies, or rights, from you under this License will not have their licenses terminated so long as such parties remain in full compliance.
 - You are not required to accept this License, since you have not signed it. However, nothing else grants you permission to modify or distribute the Library or its derivative works. These actions are prohibited by law if you do not accept this License. Therefore, by modifying or distributing the Library (or any work based on the Library), you indicate your acceptance of this License to do so, and all its terms and conditions for copying, distributing or modifying the Library or works based on it.
 - Each time you redistribute the Library (or any work based on the Library), the recipient automatically receives a license from the original licensor to copy, distribute, link with or modify the Library subject to these terms and conditions. You may not impose any further restrictions on the recipients' exercise of the rights granted herein. You are not responsible for enforcing compliance by third parties with this License.
 - If, as a consequence of a court judgment or allegation of patent infringement or for any other reason (not limited to patent issues), conditions are imposed on you (whether by court order, agreement or otherwise) that contradict the conditions of this License, they do not excuse you from the conditions of this License. If you cannot distribute so as to satisfy simultaneously your obligations under this License and any other pertinent obligations, then as a consequence you may not distribute the Library at all. For example, if a patent license would not permit royalty-free redistribution of the Library by all those who receive copies directly or indirectly through you, then the only way you could satisfy both it and this License would be to refrain entirely from distribution of the Library. If any portion of this section is held invalid or unenforceable under any particular circumstance, the balance of the section is intended to apply, and the section as a whole is intended to apply in other circumstances. It is not the purpose of this section to induce you to infringe any patents or other property right claims or to contest validity of any such claims; this section has the sole purpose of protecting the integrity of the free software distribution system which is implemented by public license practices. Many people have made generous contributions to the wide range of software distributed through that system in reliance on consistent application of that system; it is up to the author/donor to decide if he or she is willing to distribute software through any other system and a licensee cannot impose that choice. This section is intended to make thoroughly clear what is believed to be a consequence of the rest of this License.
 - If the distribution and/or use of the Library is restricted in certain countries either by patents or by copyrighted interfaces, the original copyright holder who places the Library under this License may add an explicit geographical distribution limitation excluding those countries, so that distribution is permitted only in or among countries not thus excluded. In such case, this License incorporates the limitation as if written in the body of this License.

- The Free Software Foundation may publish revised and/or new versions of the Lesser General Public License from time to time. Such new versions will be similar in spirit to the present version, but may differ in detail to address new problems or concerns. Each version is given a distinguishing version number. If the Library specifies a version number of this License which applies to it and "any later version", you have the option of following the terms and conditions either of that version or of any later version published by the Free Software Foundation. If the Library does not specify a license version number, you may choose any version ever published by the Free Software Foundation.
- If you wish to incorporate parts of the Library into other free programs whose distribution conditions are incompatible with these, write to the author to ask for permission. For software which is copyrighted by the Free Software Foundation, write to the Free Software Foundation; we sometimes make exceptions for this. Our decision will be guided by the two goals of preserving the free status of all derivatives of our free software and of promoting the sharing and reuse of software generally.
- Submission of Contributions. Unless You explicitly state otherwise, any Contribution intentionally submitted for inclusion in the Work by You to the Licensor shall be under the terms and conditions of this License, without any additional terms or conditions. Notwithstanding the above, nothing herein shall supersede or modify the terms of any separate license agreement you may have executed with Licensor regarding such Contributions.
- Trademarks. This License does not grant permission to use the trade names, trademarks, service marks, or product names of the Licensor, except as required for reasonable and customary use in describing the origin of the Work and reproducing the content of the NOTICE file.
- Disclaimer of Warranty. Unless required by applicable law or agreed to in writing, Licensor provides the Work (and each Contributor provides its Contributions) on an "AS IS" BASIS, WITHOUT WARRANTIES OR CONDITIONS OF ANY KIND, either express or implied, including, without limitation, any warranties or conditions of TITLE, NON- INFRINGEMENT, MERCHANTABILITY, or FITNESS FOR A PARTICULAR PURPOSE. You are solely responsible for determining the appropriateness of using or redistributing the Work and assume any risks associated with Your exercise of permissions under this License.
- Limitation of Liability. In no event and under no legal theory, whether in tort (including negligence), contract, or otherwise, unless required by applicable law (such as deliberate and grossly negligent acts) or agreed to in writing, shall any Contributor be liable to You for damages, including any direct, indirect, special, incidental, or consequential damages of any character arising as a result of this License or out of the use or inability to use the Work (including but not limited to damages for loss of goodwill, work stoppage, computer failure or malfunction, or any and all other commercial damages or losses), even if such Contributor has been advised of the possibility of such damages.
- Accepting Warranty or Additional Liability. While redistributing the Work or Derivative Works thereof, You may choose to offer, and charge a fee for, acceptance of support, warranty, indemnity, or other liability obligations and/or rights consistent with this License. However, in accepting such obligations, You may act only on Your own behalf and on Your sole responsibility, not on behalf of any other Contributor, and only if You agree to indemnify, defend, and hold each Contributor harmless for any liability incurred by, or claims asserted against, such Contributor by reason of your accepting any such warranty or additional liability.
- You may opt to apply the terms of the ordinary GNU General Public License instead of this License to a given copy of the Library. To do this, you must alter all the notices that refer to this License, so that they refer to the ordinary GNU General Public License, version 2, instead of to this License. (If a newer version than version 2 of the ordinary GNU General Public License has appeared, then you can specify that version instead if you wish.) Do not make any other change in these notices. Once this change is made in a given copy, it is irreversible for that copy, so the ordinary GNU General Public License applies to all subsequent copies and derivative works made from that copy. This option is useful when you wish to copy part of the code of the Library into a program that is not a library.
- You may copy and distribute the Library (or a portion or derivative of it, under Section 2) in object code or executable form under the terms of Sections 1 and 2 above provided that you accompany it with the complete corresponding machine-readable source code, which must be distributed under the terms of Sections 1 and 2 above on a medium customarily used for software interchange. If distribution of object code is made by offering access to copy from a designated place, then offering equivalent access to copy the source code from the same place satisfies the requirement to distribute the source code, even though third parties are not compelled to copy the source along with the object code.

- A program that contains no derivative of any portion of the Library, but is designed to work with the Library by being compiled or linked with it, is called a "work that uses the Library". Such a work, in isolation, is not a derivative work of the Library, and therefore falls outside the scope of this License. However, linking a "work that uses the Library" with the Library creates an executable that is a derivative of the Library (because it contains portions of the Library), rather than a "work that uses the library". The executable is therefore covered by this License. Section 6 states terms for distribution of such executables. When a "work that uses the Library" uses material from a header file that is part of the Library, the object code for the work may be a derivative work of the Library even though the source code is not. Whether this is true is especially significant if the work can be linked without the Library, or if the work is itself a library. The threshold for this to be true is not precisely defined by law. If such an object file uses only numerical parameters, data structure layouts and accessors, and small macros and small inline functions (ten lines or less in length), then the use of the object file is unrestricted, regardless of whether it is legally a derivative work. (Executables containing this object code plus portions of the Library will still fall under Section 6.) Otherwise, if the work is a derivative of the Library, you may distribute the object code for the work under the terms of Section 6. Any executables containing that work also fall under Section 6, whether or not they are linked directly with the Library itself.

- As an exception to the Sections above, you may also combine or link a "work that uses the Library" with the Library to produce a work containing portions of the Library, and distribute that work under terms of your choice, provided that the terms permit modification of the work for the customer's own use and reverse engineering for debugging such modifications. You must give prominent notice with each copy of the work that the Library is used in it and that the Library and its use are covered by this License. You must supply a copy of this License. If the work during execution displays copyright notices, you must include the copyright notice for the Library among them, as well as a reference directing the user to the copy of this License. Also, you must do one of these things:

1. Accompany the work with the complete corresponding machine-readable source code for the Library including whatever changes were used in the work (which must be distributed under Sections 1 and 2 above); and, if the work is an executable linked with the Library, with the complete machine-readable "work that uses the Library", as object code and/or source code, so that the user can modify the Library and then relink to produce a modified executable containing the modified Library. (It is understood that the user who changes the contents of definitions files in the Library will not necessarily be able to recompile the application to use the modified definitions.)
2. Use a suitable shared library mechanism for linking with the Library. A suitable mechanism is one that (1) uses at run time a copy of the library already present on the user's computer system, rather than copying library functions into the executable, and (2) will operate properly with a modified version of the library, if the user installs one, as long as the modified version is interface-compatible with the version that the work was made with.
3. Accompany the work with a written offer, valid for at least three years, to give the same user the materials specified in Subsection 6a, above, for a charge no more than the cost of performing this distribution.
4. If distribution of the work is made by offering access to copy from a designated place, offer equivalent access to copy the above specified materials from the same place.
5. Verify that the user has already received a copy of these materials or that you have already sent this user a copy.

For an executable, the required form of the "work that uses the Library" must include any data and utility programs needed for reproducing the executable from it. However, as a special exception, the materials to be distributed need not include anything that is normally distributed (in either source or binary form) with the major components (compiler, kernel, and so on) of the operating system on which the executable runs, unless that component itself accompanies the executable. It may happen that this requirement contradicts the license restrictions of other proprietary libraries that do not normally accompany the operating system. Such a contradiction means you cannot use both them and the Library together in an executable that you distribute.

- You may place library facilities that are a work based on the Library side-by-side in a single library together with other library facilities not covered by this License, and distribute such a combined library, provided that the separate distribution of the work based on the Library and of the other library facilities is otherwise permitted, and provided that you do these two things:

1. Accompany the combined library with a copy of the same work based on the Library, uncombined with any other library facilities. This must be distributed under the terms of the Sections above.

2. Give prominent notice with the combined library of the fact that part of it is a work based on the Library, and explaining where to find the accompanying uncombined form of the same work.
- You may not copy, modify, sublicense, link with, or distribute the Library except as expressly provided under this License. Any attempt otherwise to copy, modify, sublicense, link with, or distribute the Library is void, and will automatically terminate your rights under this License. However, parties who have received copies, or rights, from you under this License will not have their licenses terminated so long as such parties remain in full compliance.
 - You are not required to accept this License, since you have not signed it. However, nothing else grants you permission to modify or distribute the Library or its derivative works. These actions are prohibited by law if you do not accept this License. Therefore, by modifying or distributing the Library (or any work based on the Library), you indicate your acceptance of this License to do so, and all its terms and conditions for copying, distributing or modifying the Library or works based on it.
 - Each time you redistribute the Library (or any work based on the Library), the recipient automatically receives a license from the original licensor to copy, distribute, link with or modify the Library subject to these terms and conditions. You may not impose any further restrictions on the recipients' exercise of the rights granted herein. You are not responsible for enforcing compliance by third parties with this License.
 - If, as a consequence of a court judgment or allegation of patent infringement or for any other reason (not limited to patent issues), conditions are imposed on you (whether by court order, agreement or otherwise) that contradict the conditions of this License, they do not excuse you from the conditions of this License. If you cannot distribute so as to satisfy simultaneously your obligations under this License and any other pertinent obligations, then as a consequence you may not distribute the Library at all. For example, if a patent license would not permit royalty-free redistribution of the Library by all those who receive copies directly or indirectly through you, then the only way you could satisfy both it and this License would be to refrain entirely from distribution of the Library. If any portion of this section is held invalid or unenforceable under any particular circumstance, the balance of the section is intended to apply, and the section as a whole is intended to apply in other circumstances. It is not the purpose of this section to induce you to infringe any patents or other property right claims or to contest validity of any such claims; this section has the sole purpose of protecting the integrity of the free software distribution system which is implemented by public license practices. Many people have made generous contributions to the wide range of software distributed through that system in reliance on consistent application of that system; it is up to the author/donor to decide if he or she is willing to distribute software through any other system and a licensee cannot impose that choice. This section is intended to make thoroughly clear what is believed to be a consequence of the rest of this License.
 - If the distribution and/or use of the Library is restricted in certain countries either by patents or by copyrighted interfaces, the original copyright holder who places the Library under this License may add an explicit geographical distribution limitation excluding those countries, so that distribution is permitted only in or among countries not thus excluded. In such case, this License incorporates the limitation as if written in the body of this License.
 - The Free Software Foundation may publish revised and/or new versions of the Lesser General Public License from time to time. Such new versions will be similar in spirit to the present version, but may differ in detail to address new problems or concerns. Each version is given a distinguishing version number. If the Library specifies a version number of this License which applies to it and "any later version", you have the option of following the terms and conditions either of that version or of any later version published by the Free Software Foundation. If the Library does not specify a license version number, you may choose any version ever published by the Free Software Foundation.
 - If you wish to incorporate parts of the Library into other free programs whose distribution conditions are incompatible with these, write to the author to ask for permission. For software which is copyrighted by the Free Software Foundation, write to the Free Software Foundation; we sometimes make exceptions for this. Our decision will be guided by the two goals of preserving the free status of all derivatives of our free software and of promoting the sharing and reuse of software generally.
 - Grant of Copyright License. Subject to the terms and conditions of this License, each Contributor hereby grants to You a perpetual, worldwide, non-exclusive, no-charge, royalty-free, irrevocable copyright license to reproduce, prepare Derivative Works of, publicly display, publicly perform, sublicense, and distribute the Work and such Derivative Works in Source or Object form.
 - Grant of Patent License. Subject to the terms and conditions of this License, each Contributor hereby grants to You a perpetual, worldwide, non-exclusive, no-charge, royalty-free, irrevocable (except as stated in this section)

patent license to make, have made, use, offer to sell, sell, import, and otherwise transfer the Work, where such license applies only to those patent claims licensable by such Contributor that are necessarily infringed by their Contribution(s) alone or by combination of their Contribution(s) with the Work to which such Contribution(s) was submitted. If You institute patent litigation against any entity (including a cross-claim or counterclaim in a lawsuit) alleging that the Work or a Contribution incorporated within the Work constitutes direct or contributory patent infringement, then any patent licenses granted to You under this License for that Work shall terminate as of the date such litigation is filed.

- **Redistribution.** You may reproduce and distribute copies of the Work or Derivative Works thereof in any medium, with or without modifications, and in Source or Object form, provided that You meet the following conditions:

- **Grant of Copyright License.** Subject to the terms and conditions of this License, each Contributor hereby grants to You a perpetual, worldwide, non-exclusive, no-charge, royalty-free, irrevocable copyright license to reproduce, prepare Derivative Works of, publicly display, publicly perform, sublicense, and distribute the Work and such Derivative Works in Source or Object form.

- **Grant of Patent License.** Subject to the terms and conditions of this License, each Contributor hereby grants to You a perpetual, worldwide, non-exclusive, no-charge, royalty-free, irrevocable (except as stated in this section) patent license to make, have made, use, offer to sell, sell, import, and otherwise transfer the Work, where such license applies only to those patent claims licensable by such Contributor that are necessarily infringed by their Contribution(s) alone or by combination of their Contribution(s) with the Work to which such Contribution(s) was submitted. If You institute patent litigation against any entity (including a cross-claim or counterclaim in a lawsuit) alleging that the Work or a Contribution incorporated within the Work constitutes direct or contributory patent infringement, then any patent licenses granted to You under this License for that Work shall terminate as of the date such litigation is filed.

- **Redistribution.** You may reproduce and distribute copies of the Work or Derivative Works thereof in any medium, with or without modifications, and in Source or Object form, provided that You meet the following conditions:

1. You must give any other recipients of the Work or Derivative Works a copy of this License; and
2. You must cause any modified files to carry prominent notices stating that You changed the files; and
3. You must retain, in the Source form of any Derivative Works that You distribute, all copyright, patent, trademark, and attribution notices from the Source form of the Work, excluding those notices that do not pertain to any part of the Derivative Works; and
4. If the Work includes a "NOTICE" text file as part of its distribution, then any Derivative Works that You distribute must include a readable copy of the attribution notices contained within such NOTICE file, excluding those notices that do not pertain to any part of the Derivative Works, in at least one of the following places: within a NOTICE text file distributed as part of the Derivative Works; within the Source form or documentation, if provided along with the Derivative Works; or, within a display generated by the Derivative Works, if and wherever such third-party notices normally appear. The contents of the NOTICE file are for informational purposes only and do not modify the License. You may add Your own attribution notices within Derivative Works that You distribute, alongside or as an addendum to the NOTICE text from the Work, provided that such additional attribution notices cannot be construed as modifying the License. You may add Your own copyright statement to Your modifications and may provide additional or different license terms and conditions for use, reproduction, or distribution of Your modifications, or for any such Derivative Works as a whole, provided Your use, reproduction, and distribution of the Work otherwise complies with the conditions stated in this License.

- **Submission of Contributions.** Unless You explicitly state otherwise, any Contribution intentionally submitted for inclusion in the Work by You to the Licensor shall be under the terms and conditions of this License, without any additional terms or conditions. Notwithstanding the above, nothing herein shall supersede or modify the terms of any separate license agreement you may have executed with Licensor regarding such Contributions.

- **Trademarks.** This License does not grant permission to use the trade names, trademarks, service marks, or product names of the Licensor, except as required for reasonable and customary use in describing the origin of the Work and reproducing the content of the NOTICE file.

- **Disclaimer of Warranty.** Unless required by applicable law or agreed to in writing, Licensor provides the Work (and each Contributor provides its Contributions) on an "AS IS" BASIS, WITHOUT WARRANTIES OR

CONDITIONS OF ANY KIND, either express or implied, including, without limitation, any warranties or conditions of TITLE, NON-INFRINGEMENT, MERCHANTABILITY, or FITNESS FOR A PARTICULAR PURPOSE. You are solely responsible for determining the appropriateness of using or redistributing the Work and assume any risks associated with Your exercise of permissions under this License.

- **Limitation of Liability.** In no event and under no legal theory, whether in tort (including negligence), contract, or otherwise, unless required by applicable law (such as deliberate and grossly negligent acts) or agreed to in writing, shall any Contributor be liable to You for damages, including any direct, indirect, special, incidental, or consequential damages of any character arising as a result of this License or out of the use or inability to use the Work (including but not limited to damages for loss of goodwill, work stoppage, computer failure or malfunction, or any and all other commercial damages or losses), even if such Contributor has been advised of the possibility of such damages.
- **Accepting Warranty or Additional Liability.** While redistributing the Work or Derivative Works thereof, You may choose to offer, and charge a fee for, acceptance of support, warranty, indemnity, or other liability obligations and/or rights consistent with this License. However, in accepting such obligations, You may act only on Your own behalf and on Your sole responsibility, not on behalf of any other Contributor, and only if You agree to indemnify, defend, and hold each Contributor harmless for any liability incurred by, or claims asserted against, such Contributor by reason of your accepting any such warranty or additional liability.
- **Grant of Copyright License.** Subject to the terms and conditions of this License, each Contributor hereby grants to You a perpetual, worldwide, non-exclusive, no-charge, royalty-free, irrevocable copyright license to reproduce, prepare Derivative Works of, publicly display, publicly perform, sublicense, and distribute the Work and such Derivative Works in Source or Object form.
- **Grant of Patent License.** Subject to the terms and conditions of this License, each Contributor hereby grants to You a perpetual, worldwide, non-exclusive, no-charge, royalty-free, irrevocable (except as stated in this section) patent license to make, have made, use, offer to sell, sell, import, and otherwise transfer the Work, where such license applies only to those patent claims licensable by such Contributor that are necessarily infringed by their Contribution(s) alone or by combination of their Contribution(s) with the Work to which such Contribution(s) was submitted. If You institute patent litigation against any entity (including a cross-claim or counterclaim in a lawsuit) alleging that the Work or a Contribution incorporated within the Work constitutes direct or contributory patent infringement, then any patent licenses granted to You under this License for that Work shall terminate as of the date such litigation is filed.
- **Redistribution.** You may reproduce and distribute copies of the Work or Derivative Works thereof in any medium, with or without modifications, and in Source or Object form, provided that You meet the following conditions:
 1. You must give any other recipients of the Work or Derivative Works a copy of this License; and
 2. You must cause any modified files to carry prominent notices stating that You changed the files; and
 3. You must retain, in the Source form of any Derivative Works that You distribute, all copyright, patent, trademark, and attribution notices from the Source form of the Work, excluding those notices that do not pertain to any part of the Derivative Works; and
 4. If the Work includes a "NOTICE" text file as part of its distribution, then any Derivative Works that You distribute must include a readable copy of the attribution notices contained within such NOTICE file, excluding those notices that do not pertain to any part of the Derivative Works, in at least one of the following places: within a NOTICE text file distributed as part of the Derivative Works; within the Source form or documentation, if provided along with the Derivative Works; or, within a display generated by the Derivative Works, if and wherever such third-party notices normally appear. The contents of the NOTICE file are for informational purposes only and do not modify the License. You may add Your own attribution notices within Derivative Works that You distribute, alongside or as an addendum to the NOTICE text from the Work, provided that such additional attribution notices cannot be construed as modifying the License. You may add Your own copyright statement to Your modifications and may provide additional or different license terms and conditions for use, reproduction, or distribution of Your modifications, or for any such Derivative Works as a whole, provided Your use, reproduction, and distribution of the Work otherwise complies with the conditions stated in this License.
- **Submission of Contributions.** Unless You explicitly state otherwise, any Contribution intentionally submitted for inclusion in the Work by You to the Licensor shall be under the terms and conditions of this License, without any

additional terms or conditions. Notwithstanding the above, nothing herein shall supersede or modify the terms of any separate license agreement you may have executed with Licensor regarding such Contributions.

- Trademarks. This License does not grant permission to use the trade names, trademarks, service marks, or product names of the Licensor, except as required for reasonable and customary use in describing the origin of the Work and reproducing the content of the NOTICE file.
- Disclaimer of Warranty. Unless required by applicable law or agreed to in writing, Licensor provides the Work (and each Contributor provides its Contributions) on an "AS IS" BASIS, WITHOUT WARRANTIES OR CONDITIONS OF ANY KIND, either express or implied, including, without limitation, any warranties or conditions of TITLE, NON-INFRINGEMENT, MERCHANTABILITY, or FITNESS FOR A PARTICULAR PURPOSE. You are solely responsible for determining the appropriateness of using or redistributing the Work and assume any risks associated with Your exercise of permissions under this License.
- Limitation of Liability. In no event and under no legal theory, whether in tort (including negligence), contract, or otherwise, unless required by applicable law (such as deliberate and grossly negligent acts) or agreed to in writing, shall any Contributor be liable to You for damages, including any direct, indirect, special, incidental, or consequential damages of any character arising as a result of this License or out of the use or inability to use the Work (including but not limited to damages for loss of goodwill, work stoppage, computer failure or malfunction, or any and all other commercial damages or losses), even if such Contributor has been advised of the possibility of such damages.
- Accepting Warranty or Additional Liability. While redistributing the Work or Derivative Works thereof, You may choose to offer, and charge a fee for, acceptance of support, warranty, indemnity, or other liability obligations and/or rights consistent with this License. However, in accepting such obligations, You may act only on Your own behalf and on Your sole responsibility, not on behalf of any other Contributor, and only if You agree to indemnify, defend, and hold each Contributor harmless for any liability incurred by, or claims asserted against, such Contributor by reason of your accepting any such warranty or additional liability.
- You may place library facilities that are a work based on the Library side-by-side in a single library together with other library facilities not covered by this License, and distribute such a combined library, provided that the separate distribution of the work based on the Library and of the other library facilities is otherwise permitted, and provided that you do these two things: a) Accompany the combined library with a copy of the same work based on the Library, uncombined with any other library facilities. This must be distributed under the terms of the Sections above. b) Give prominent notice with the combined library of the fact that part of it is a work based on the Library, and explaining where to find the accompanying uncombined form of the same work.
- You may not copy, modify, sublicense, link with, or distribute the Library except as expressly provided under this License. Any attempt otherwise to copy, modify, sublicense, link with, or distribute the Library is void, and will automatically terminate your rights under this License. However, parties who have received copies, or rights, from you under this License will not have their licenses terminated so long as such parties remain in full compliance.
- You are not required to accept this License, since you have not signed it. However, nothing else grants you permission to modify or distribute the Library or its derivative works. These actions are prohibited by law if you do not accept this License. Therefore, by modifying or distributing the Library (or any work based on the Library), you indicate your acceptance of this License to do so, and all its terms and conditions for copying, distributing or modifying the Library or works based on it.
- Each time you redistribute the Library (or any work based on the Library), the recipient automatically receives a license from the original licensor to copy, distribute, link with or modify the Library subject to these terms and conditions. You may not impose any further restrictions on the recipients' exercise of the rights granted herein. You are not responsible for enforcing compliance by third parties with this License.
- If, as a consequence of a court judgment or allegation of patent infringement or for any other reason (not limited to patent issues), conditions are imposed on you (whether by court order, agreement or otherwise) that contradict the conditions of this License, they do not excuse you from the conditions of this License. If you cannot distribute so as to satisfy simultaneously your obligations under this License and any other pertinent obligations, then as a consequence you may not distribute the Library at all. For example, if a patent license would not permit royalty-free redistribution of the Library by all those who receive copies directly or indirectly through you, then the only way you could satisfy both it and this License would be to refrain entirely from distribution of the Library. If any portion of this section is held invalid or unenforceable under any particular circumstance, the balance of the section is intended to apply, and the section as a whole is intended to apply in other circumstances. It is not the purpose of this section to

induce you to infringe any patents or other property right claims or to contest validity of any such claims; this section has the sole purpose of protecting the integrity of the free software distribution system which is implemented by public license practices. Many people have made generous contributions to the wide range of software distributed through that system in reliance on consistent application of that system; it is up to the author/donor to decide if he or she is willing to distribute software through any other system and a licensee cannot impose that choice. This section is intended to make thoroughly clear what is believed to be a consequence of the rest of this License.

- If the distribution and/or use of the Library is restricted in certain countries either by patents or by copyrighted interfaces, the original copyright holder who places the Library under this License may add an explicit geographical distribution limitation excluding those countries, so that distribution is permitted only in or among countries not thus excluded. In such case, this License incorporates the limitation as if written in the body of this License.
- The Free Software Foundation may publish revised and/or new versions of the Lesser General Public License from time to time. Such new versions will be similar in spirit to the present version, but may differ in detail to address new problems or concerns. Each version is given a distinguishing version number. If the Library specifies a version number of this License which applies to it and "any later version", you have the option of following the terms and conditions either of that version or of any later version published by the Free Software Foundation. If the Library does not specify a license version number, you may choose any version ever published by the Free Software Foundation.
- If you wish to incorporate parts of the Library into other free programs whose distribution conditions are incompatible with these, write to the author to ask for permission. For software which is copyrighted by the Free Software Foundation, write to the Free Software Foundation; we sometimes make exceptions for this. Our decision will be guided by the two goals of preserving the free status of all derivatives of our free software and of promoting the sharing and reuse of software generally.