SAMSUNG TECHWIN

ネットワークビデオデコーダー
ユーザーマニュアル

SPD-400

CE

SAMSUNG

ネットワークビデオデコーダー
ユーザーマニュアル

Copyright

©2013 Samsung Techwin Co., Ltd. All rights reserved.

商標について

SAMSUNG **SAMSUNG TECHWIN** は Samsung Techwin Co., Ltd. の商標登録されたロゴです。
この製品の名称は Samsung Techwin Co., Ltd. の登録商標です。
このマニュアルに記載のその他の商標はそれぞれの会社の登録商標です。

制約について

このマニュアルの著作権は Samsung Techwin Co., Ltd. にあります。 このマニュアルの内容の部分的または全体的を問わず、いかなる状況においても、Samsung Techwin の正式な許可なく複製、配布または変更することはできません。

免責事項について

Samsung Techwin はマニュアルの完全性および正確性について万全を期しておりますが、その内容について公式に保証するものではありません。 このマニュアルの使用およびその結果については、すべてユーザーが責任を負うことになります。
Samsung Techwin は事前の通知なしにこのマニュアルの内容を変更する権利を留保します。

- **設計および仕様は予告なく変更する場合があります。**
- **デフォルトのパスワードは、ハッキングスレッドにさらされる恐れがあるため、製品インストール後に変更することをお勧めします。**
  パスワードを変更しなかったことにより、セキュリティ関連の問題が起こった場合は、ユーザーの責任となります。

概要

重要な安全ガイド

1. 本書の説明をよく読んで下さい。
2. 本書の指示を守ってください。
3. 全ての警告を留意してください。
4. 全ての指示に従って下さい。
5. 本機を水の傍で使用しないで下さい。
6. お手入れは乾いた布のみを使用して行って下さい。
7. どの換気孔も塞がないようにして下さい。メーカーの指示に従って取り付けて下さい。
8. ラジエーター、熱レジスタ、あるいは熱を発するその他の装置（アンプを含む）などの熱源の傍に設置しないで下さい。
9. 分極タイプあるいは接地タイプのプラグの安全目的を必ず守ってください。 分極プラグには一方が他方より幅広い2本の足が付います。 接地プラグには2本の足とアース（接地）差込み先が付いています。2本の平たい足あるいは3本めの差込み先はユーザーの安全のために付いています。提供されたプラグがお使いのコンセントに合わない場合には、旧式のコンセントの交換について電気技師にご相談下さい。
10. 特にプラグ、ソケット、機器との接点でコードが踏まれたり引っ張っられたりしないよう電源コードを保護してください。
11. メーカーが指定する付属品のみを使用してください。
12. カート、スタンド、三脚、ブラケットはメーカー指定のもの、あるいは製品と一緒に販売されたもののみを使用してください。カート使用する場合、カートと製品を動かす際には転倒による損傷に注意してください。

13. 雷雨のときまたは長期間使用しないは場合は、製品の電源プラグを抜いてください。
14. 全ての修理は資格のあるサービス・スタッフに任せて下さい。
修理は電源コードあるいはプラグの損傷、液体をこぼした、または物体を機器内に落としてしまった、機器を雨や湿度にさらしてしまった、正常に機能しない、あるいは機能の低下など、様々な原因で機器が損傷した場合に必要となります。

概要

警告

火災または感電防止のため、この装置を雨または湿気にさらさないでください。本製品の換気グリルまたはその他の開口部から金属製物質を差し込まないでください。

製品に液体をこぼしたりかけたりせず、また花瓶のように液体が入った物体を製品の上に載せたりしないでください。

注意

注意

感電の危険がありますので開けないで下さい

注意 : 感電の恐れがありますので裏カバーは開けないで下さい。
如何なる場合にも本品の分解や改造を行わないで下さい。
資格のあるサービス・スタッフにお問い合わせ下さい。

グラフィック記号の説明

正三角形内の稲妻型の矢印は、本製品の筐体に人が感電する恐れのある"高圧電流"が存在することを、ユーザーに警告するものです。

正三角形内の感嘆符は、製品の操作およびメンテナンス(修理)に関する重要な付属説明書があることをユーザーに知らせるこもの です。

クラスⅠ構造

クラスⅠ構造を持つ装置は保護接地接続のある本線ソケットに接続してください。

バッテリー

電源（バッテリーパックまたは取り付けた状態のバッテリー）は直射日光の当る場所や、熱器具の近くには置かないでください。

注意

電池を間違ったタイプと交換すると爆発の危険性があります。
指示に従って使用済み電池を処分してください。

これらの保守説明書は、資格のあるサービススタッフのみが使用するものです。感電の危険性を低減するために、資格がある場合を除き操作説明書に含まれていない修理は行わないでください。

ITEは、外部の施設へルーティングなしで、PoEネットワークのみに接続することになっています。

概要

次に示す安全のための推奨注意事項を熟読してください。

- 本製品は平らな場所に置いてください。
- 直射日光の当たる場所、暖房設備または低温区域の近くには取付けないでください。
- 本製品を導電性の高い物体の近くに置かないでください。
- 本製品は自分で修理しないでください。
- 本製品の上に水の入ったコップを置かないでください。
- 磁気源のそばに取付けないでください。
- 換気口は塞がないようにしてください。
- 本製品の上に重いものを置かないでください。

ユーザーマニュアルは、本製品の使用方法に関するガイドブックです。

このマニュアルで使用する用語の意味を次に示します。

- 参照 : 製品の使用方法についてのヘルプ情報を示す場合。
- 注意 : 指示に従わないことで、ものや人に損害が発生する可能性がある場合。

※ 製品を使用する前に安全のためこのマニュアルを読み、大切に保管しておいてください。

目次

概要 3

3 重要な安全ガイド
9 製品の特徴
9 推奨PC仕様
10 キット内容
11 概観

取付けおよび接続 14

14 他のデバイスとの接続

ネットワーク接続と設定 19

19 LAN環境でのネットワークビデオデコーダーの設定
20 ネットワークビデオデコーダーのDHCPベースのDSL/ケーブルモデムへの直接接続
21 ネットワークビデオデコーダーと、ケーブルモデムに接続されているブロードバンドルーターとの接続
22 IPインストーラに使用するボタン
23 静的IPの設定
27 動的IP設定
28 共有ローカルPCからネットワークデバイスへの接続

概要

WEB VIEWER

29

29 ネットワークビデオデコーダーにアクセスする
30 ログイン

設定画面

31

31 設定
31 音声とビデオの設定
39 ネットワーク設定
41 イベント設定
43 システム設定

付録

48

48 仕様
50 製品概要
51 トラブルシューティング
52 Open Source Announcement
53 License
56 GPL/LGPL Software License

製品の特徴

- **マルチフォーマットデコーディングのサポート**
  ネットワークビデオデコーダーでは、H.264/MPEG-4/MJPEGマルチフォーマットデコーダーを採用しており、ネットワークを介して転送される映像ストリーミングを4つまでデコードおよび表示することができます。
- **フルHDビデオ表示のサポート**
  サポートされている最大出力解像度は1920x1080であり、表示用の出力ポートにはHDMI、VGAおよびCVBS（BNC）があります。
- **アラームモニター**
  ネットワークカメラまたはエンコーダーにイベントが発生すると、設定に応じてモニター表示が該当する映像に切り替わります。

推奨PC仕様

- CPU : Intel(R) Core(TM)2 2.00 GHz以上
- オペレーティングシステム : Windows XP、Vista、7、
  Mac OS
- 解像度 : 1280X1024ピクセル以上
- RAM: 1GB以上
- Webブラウザ : Internet Explorer 7.0または8.0、Firefox、Chrome、Safari
- ビデオメモリー : 128MB以上

概要

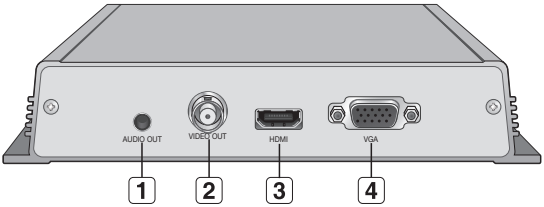
キット内容

製品パッケージに、ネットワークビデオデコーダーと付属品がすべて同梱されていることをご確認ください。

外観	品目名	数量	説明
	SPD-400	1	
	説明書、設置CD	1	ユーザーマニュアル、 IPインストーラS/Wプログラム
	簡易ガイド	1	
	組立て用タッピングネジ	4	壁に取付けるために使用します

概観

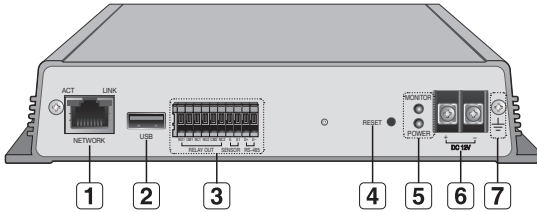
前面



項目	説明
1 AUDIO OUT	このポートでは設定に応じて、ネットワークを介して接続したデバイスから、選択した音声を出力します。
2 VIDEO (CVBS) OUT	表示用のBNC出力ポート。 このポートでは、CVBSモードを選択している場合にのみ映像が出力されます。
3 HDMI	表示用のHDMI出力ポート。 このポートでは、HDMIまたはVGAモードを選択している場合にのみ映像が出力されます。
4 VGA	表示用のVGA出力ポート。 このポートでは、HDMIまたはVGAモードを選択している場合にのみ映像が出力されます。

概要

背面

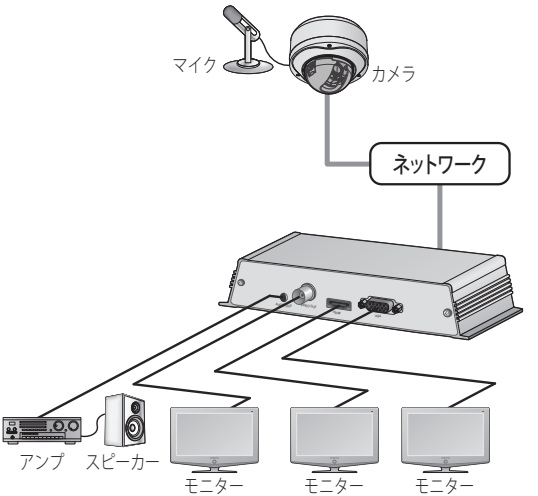


項目	説明	
1 NETWORK	Ethernetケーブルの接続に使用します。	
2 USB	この機能は現在使用されていません。	
3 入出力ポート	RS-485 D+/D-	この機能は現在使用されていません。
	NO1/NO2	アラーム出力(ノーマルオープン)
	CM1/CM2	アラーム出力(共通)
	NC1/NC2	アラーム出力(ノーマルクローズ)
	S1	アラーム入力センサーポート。
	G	外部信号の接地ポート。
4 RESET	このボタンでは、ネットワークビデオデコーダーの設定を初期化するか、モニター出力を選択します。 ボタンを5秒以上押し続けるとシステムインジケータがオフになり、設定が初期化され、再起動します。 ボタンを1秒間押すと、ビデオ出力モードの変更に応じてモニターLEDの色が変わります。	

項目	説明	
5 電源、モニターLED	MONITOR	ビデオ出力モードを示します。 緑 : HDMIまたはVGA出力モード 黄 : CVBS出力モード ■ ビデオ出力モードを変更するには、Web Viewerのビデオ設定でモードを変更するか、[**RESET**]ボタンを1秒間押します。
	POWER	ON : 電源がオンです。 OFF : 電源がオフです。
6 電源ポート	特定の電源の接続に使用します。	
7 GND	接地に使用します。	

取付けおよび接続

他のデバイスとの接続



ビデオ出力に接続する

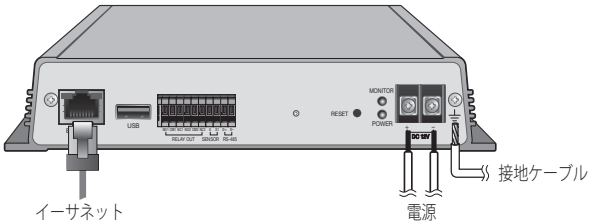
モニターを、使用するネットワークビデオデコーダーのビデオ出力に接続します。

- 映像はWeb Viewerの "**表示設定** > **モニター**" の設定に応じて、ポートを介して出力されます。(37ページ)
- HDMIまたはVGA出力モードでは、モニターで設定した解像度がサポートされていない場合、表示は正しくレンダリングされません。
- [**RESET**]ボタンを1秒間押すと、ビデオ出力モードに変わります。
- モードに応じてモニターLEDの色が変わります。

音声入力/出力に接続する

1. マイクをネットワークカメラまたはエンコーダーに接続し、該当するデバイスの音声を<**ON**>に設定します。
2. ビデオデコーダーのシングルレイアウト設定で、ネットワークAUDIO SETUPをONに設定し、音声設定のライン出力とHDMI出力から該当の出力を選択します。音声出力HDMI OUTは、モニター出力をHDMIに設置している場合にのみ選択することができます。
3. ライン出力を使用するには、スピーカーのLINE IN端子とネットワークビデオデコーダーのAUDIO OUT端子とを接続します。
4. HDMI出力の場合、HDMIモニターをHDMIポートに接続します。
   - HDMI音声出力の場合、内蔵スピーカー付きのモニターが必要です。

- ある特定のモニターではHDMI音声が機能しない可能性があります。



イーサネット接続

イーサネットケーブルをローカルネットワークもしくはインターネットに接続します。

取付けおよび接続

電源

ドライバーを使用して、電源ケーブルの各線(+、–)をネットワークビデオデコーダーの対応する電源ポートに接続します。

- 電源ケーブルの接続時に、極性を逆にしないようご注意ください。
- 外部デバイスを接続する場合は、作業を進める前に外部デバイスの電源を切る必要があります。

銅線の抵抗値[20ºC (68ºF) の場合]

銅線ゲージ(AWG)	#24(0.22mm²)	#22(0.33mm²)	#20(0.52mm²)	#18(0.83mm²)
抵抗 (Ω/m)	0.078	0.050	0.030	0.018
電界 (V/m)	0.028	0.018	0.011	0.006
推奨距離(m)	20以内	30以内	30以内	30以内

- 上記の表に示すように、線の長さによっては瞬時電圧低下が起きる可能性があります。
  ネットワークビデオエデコーダーの接続に非常に長い線を使用すると、ネットワークビデオデコーダーが正常に動作しない可能性があります。
  - ネットワークビデオデコーダーの動作電圧 : DC 12V±10%
  - 上記の表に示す電圧降下指標は、銅線の種類および製造元によって異なる可能性があります。

製品の接地

ドライバーを使用して、電源口の横のFGネジに接地ケーブルを接続します。

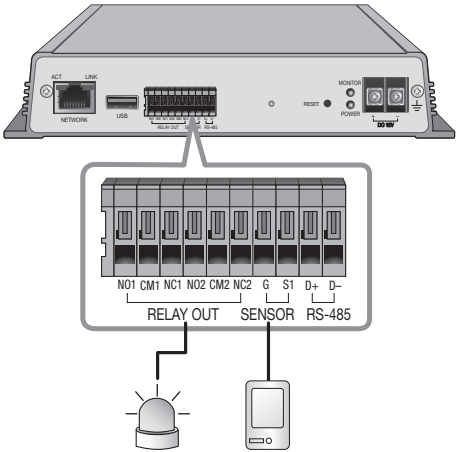
- 接地によって、電圧変化や雷から製品を保護します。
- 接地する場合は、必ず製品の電源を切ってください。

推奨の接地ケーブル

- 長さ: 3M未満
- ゲージ: 18 AWG以上
  例) UL1007 AWG 18/16, UL1015 AWG18/16/14/12, UL2468 AWG18/16/14

I/Oポートボックスに接続する

アラーム入出力信号を、背面の対応するポートボックスに接続します。



アラーム入力に接続する

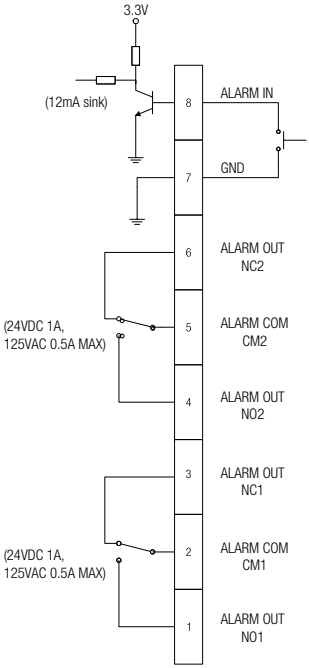
使用可能なセンサーの1つの信号ケーブル(2つから)を[**S1**]ポートに接続し、もう1つのケーブルを[**G**]ポートに接続します。

アラーム出力に接続する

使用可能な外部デバイスの1つの信号ケーブル(2つから)を[**RELAY OUT(NC, NO)**]に接続し、もう1つのケーブルを[**CM**]ポートに接続します。

取付けおよび接続

アラーム入出力配線図



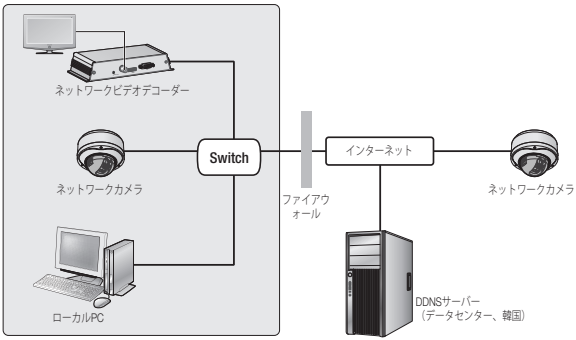
ネットワーク接続と設定

ネットワークビデオデコーダーのネットワーク設定は、目的に応じて設定することができます。

LAN環境でのネットワークビデオデコーダーの設定

同一LAN内のPCからネットワークビデオデコーダーにアクセスする

1. ローカルPCでインターネットブラウザを開始します。
2. ネットワークビデオデコーダーのIPアドレスをブラウザのアドレス項目に入力します。

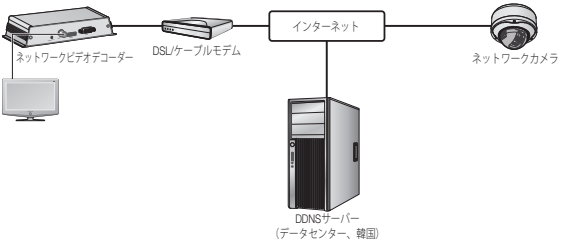


<ローカルネットワーク>

- ファイアウォールが設定されている場合、LANネットワーク外の外部のインターネットに繋がっているリモートPCは、イントラネットにインストールされたネットワークビデオデコーダーに接続できない場合があります。
  この場合は、ネットワーク管理者に連絡して問題を解決してください。
- IPアドレスはデフォルトで192.168.1.200に設定されています。
  IPアドレスを変更するにはIPインストーラを使用してください。
  IPインストーラの使用方法の詳細は、"**静的IPの設定**"を参照照してください。(23ページ)

ネットワーク接続と設定

ネットワークビデオデコーダーのDHCPベースのDSL/ケーブルモデムへの直接接続

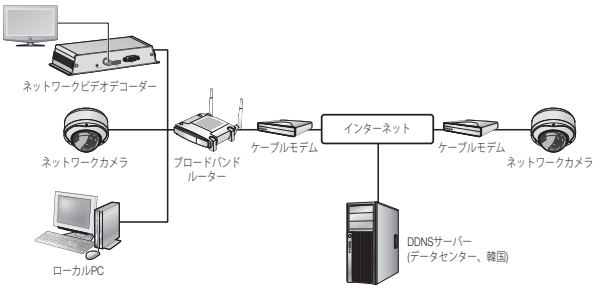


1. クロスケーブルを使用して、コンピュータとネットワークビデオデコーダーを接続します。
2. IPインストーラを実行してネットワークビデオデコーダーのIPアドレスを変更し、デスクトップ上でWebブラウザを使用してインターネットと接続できるようにします。
3. インターネットブラウザを使用して、ネットワークビデオデコーダーにアクセスします。
4. [**設定**]ページに移動します。
5. [**ネットワーク**] – [**インターフェース**]に移動し、IPタイプを[**DHCP**]に設定します。
6. PCから取り外したネットワークビデオデコーダーを直接モデムに接続します。
7. ネットワークビデオデコーダーを再起動します。

- IPタイプの設定については、"**インターフェース**"を参照してください。(39ページ)

ネットワークビデオデコーダーと、ケーブルモデムに接続されているブロードバンドルーターとの接続

これは家庭、SOHO、一般店舗など、小規模ネットワーク環境向けです。



ブロードバンドルーターに接続したローカルPCのネットワークを設定する

ブロードバンドルーターに接続したローカルPCのネットワークを設定するには、以下の手順に従います。

- <**Network Neighborhood**> → <**Properties**> → <**Local Area Connection**> → <**Properties**> → <**General**> → <**Internet Protocol (TCP/IP)**> → <**Properties**> → <**Obtain an IP address automatically**>または<**Use the following IP address**>を選択します。
- <**Use the following IP address**>で次を選択している場合は、以下の手順に従います。
  例1) ブロードバンドルーターのアドレス(LAN IP)が192.168.1.1の場合
  IPアドレス: 192.168.1.200
  サブネットマスク: 255.255.255.0
  デフォルトゲートウェイ: 192.168.1.1

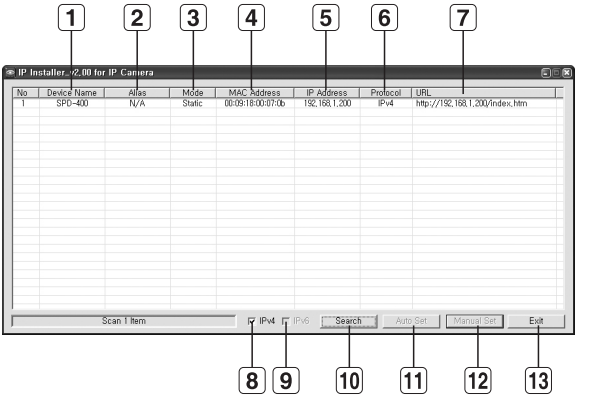
  例2) ブロードバンドルーターのアドレス(LAN IP)が192.168.0.1の場合
  IPアドレス: 192.168.0.200
  サブネットマスク: 255.255.255.0
  デフォルトゲートウェイ: 192.168.0.1

  例3) ブロードバンドルーターのアドレス(LAN IP)が192.168.xxx.1の場合
  IPアドレス: 192.168.xxx.200
  サブネットマスク: 255.255.255.0
  デフォルトゲートウェイ: 192.168.xxx.1

■ ブロードバンドルーターのアドレスについては、製品のドキュメントを参照してください。

ネットワーク接続と設定

IPインストーラに使用するボタン



項目	説明
1 Device Name	接続しているネットワークデバイスのモデル名です。 列をクリックしてモデル名順にリストをソートします。 ただし、検索中にクリックすると検索は中止されます。
2 Alias	この機能は現在導入されていません。
3 Mode	現在のネットワーク接続状態によって、<Static>または<Dynamic>と表示します。
4 MAC(Ethernet) Address	接続したネットワークエンコーダーのイーサネットアドレスです。 列をクリックしてイーサネットのアドレス順にリストをソートします。 ただし、検索中にクリックすると検索は中止されます。
5 IP Address	IPアドレスです。 列をクリックしてIPアドレス順にリストをソートします。 ただし、検索中にクリックすると検索は中止されます。 工場初期値は"**192.168.1.200**"です。
6 Protocol	ネットワークデバイスのネットワーク設定です。 工場初期値は"IPv4"です。 IPv6設定のネットワークビデオデコーダーは、"IPv6"と表示されます。

項目	説明
7 URL	URLアドレスを示します。
8 IPv4	IPv4設定のネットワークデバイスをスキャンします。
9 IPv6	IPv6設定のネットワークデバイスをスキャンします。 IPv6対応の環境で有効化されます。
10 Search	ネットワークに接続されているネットワークデバイスをスキャンします。 ただし、IPv4、IPv6どちらも確認できない場合、このボタンはグレー表示されます。
11 Auto Set	IPインストーラによって自動的にネットワークが設定されます。
12 Manual Set	ネットワーク設定を手動で行う必要があります。
13 Exit	IPインストーラプログラムを終了します。

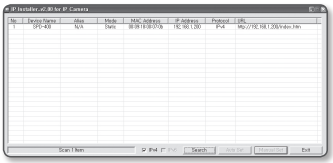
- IPインストーラの場合、インストールCDに用意されているインストーラバージョンのみを使用してください。

静的IPの設定

手動ネットワーク設定

<**IP Installer_vX.XX.exe**>を実行し、ネットワークデバイスの検索リストを表示します。
最初の起動時には、[**Auto Set**]と[**Manual Set**]は両方グレー表示となります。

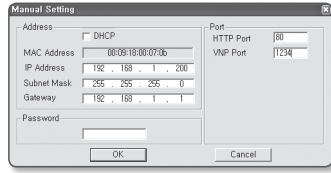
- IPv6設定のネットワークデバイスが見つかった場合、ネットワークデバイスがこの機能をサポートしていないため、ボタンがグレー表示されます。



1. 検索結果からネットワークデバイスを選択します。
   背面にMAC（イーサネット)アドレスのラベルが貼付されているネットワークデバイスを検索します。
   [**Auto Set**]と[**Manual Set**]の両方のボタンが有効となります。
2. [**Manual Set**]をクリックします。
   手動設定ダイアログが表示されます。
   ネットワークデバイスの<**IP Address**>、<**Subnet Mask**>、<**Gateway**>、<**HTTP Port**>および<**VNP Port**>の初期値が表示されます。

ネットワーク接続と設定

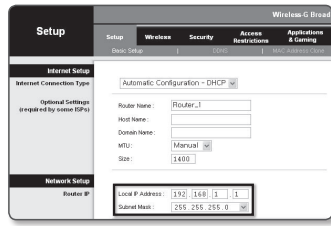
3. <**Address**>ペインに必要な情報が表示されます。
   - MAC (Ethernet) Address：使用可能なネットワークデバイスのMAC（イーサネット）アドレスは自動的に設定されるため、手動で入力する必要はありません。



■ DHCPチェックボックスが選択解除されている場合にのみ、静的IPを設定することができます。

ブロードバンドルーターを使用する場合

- IP Address : ブロードバンドルーターによって指定されたIP範囲でアドレスを入力します。
  例) 192.168.1.2～254、192.168.0.2～254、192.168.XXX.2～254
- Subnet Mask : ブロードバンドルーターの<**Subnet Mask**>がネットワークビデオデコーダーの<**Subnet Mask**>になります。
- Gateway : ブロードバンドルーターの<**Local IP Address**>がネットワークビデオデコーダーの<**Gateway**>になります。

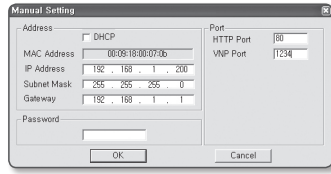


■ 設定は、接続しているブロードバンドルーターのモデルによって異なる場合があります。詳細は、該当するルーターのユーザーマニュアルを参照してください。

ブロードバンドルーターを使用しない場合

<**IP Address**>、<**Subnet Mask**>、<**Gateway**>の設定については、システム管理者にお問い合わせください。

4. <**Port**>ペインに必要な情報が表示されます。
   - HTTP Port : インターネットブラウザを使用してネットワークデバイスにアクセスする際に使用します。初期設定は80です。
     スピンボタンを使用して、HTTPポートの値を変更します。



   - VNP Port : ネットワークカメラまたはエンコーダーからの映像転送の制御に使用されます。
     ネットワークビデオデコーダーのVNPポートの設定は必要ありません。デフォルト値は1234です。これは変更できません。

5. パスワードを入力してください。
これは、ネットワークデバイスにアクセスする"**admin**"ユーザー用のログインパスワードです。
パスワードの初期値は"**4321**"です。

- デフォルトのパスワードは、ハッキングスレッドにさらされる恐れがあるため、製品インストール後に変更することをお勧めします。
パスワードを変更しなかったことにより、セキュリティ関連の問題が起こった場合は、ユーザーの責任となります。

6. [**OK**]をクリックします。
手動でのネットワーク設定が完了しました。

ネットワークビデオデコーダーをブロードバンドルーターに接続している場合

IPに関する設定と、ポートに関する設定は別々に設定します。

カテゴリ		デコーダー #1	デコーダー #2
IP設定	IP Address Subnet Mask Gateway	192.168.1.200 255.255.255.0 192.168.1.1	192.168.1.201 255.255.255.0 192.168.1.1
ポート設定	HTTP Port	8080	8081

- <**HTTP Port**>が80以外に設定されている場合、ネットワークビデオデコーダーにアクセスするには、インターネットブラウザのアドレスバーで<**Port**>番号を設定する必要があります。
例）http://IPアドレス： HTTPポート
http://192.168.1.200:8080

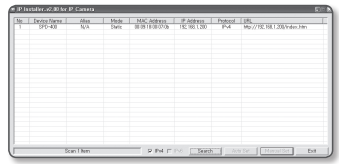
ネットワーク接続と設定

自動ネットワーク設定

<**IP Installer_vX.XX.exe**>を実行し、ネットワークデバイスの検索リストを表示します。
最初の起動時には、[**Auto Set**]と[**Manual Set**]は両方ともグレー表示となります。

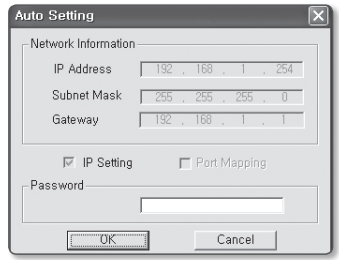
- IPv6設定のネットワークデバイスが見つかった場合、カメラがこの機能をサポートしていないため、ボタンがグレー表示されます。

1. 検索結果からネットワークデバイスを選択します。
   背面にMAC（イーサネット)アドレスのラベルが貼付されているネットワークデバイスを検索します。
   [**Auto Set**]と[**Manual Set**]の両方のボタンが有効となります。



2. [**Auto Set**]をクリックします。
   自動設定ダイアログが表示されます。
   <**IP Address**>、<**Subnet Mask**>、<**Gateway**>が自動的に設定されます。

3. パスワードを入力してください。
   これは、ネットワークビデオデコーダーにアクセスする"**admin**"ユーザー用のログインパスワードです。
   パスワードの初期値は"**4321**"です。
   - デフォルトのパスワードは、ハッキングスレッドにさらされる恐れがあるため、製品インストール後に変更することをお勧めします。
     パスワードを変更しなかったことにより、セキュリティ関連の問題が起こった場合は、ユーザーの責任となります。



4. [**OK**]をクリックします。
   自動ネットワーク設定が完了しました。

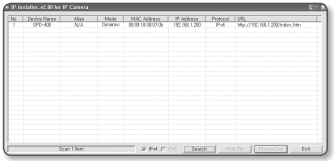
動的IP設定

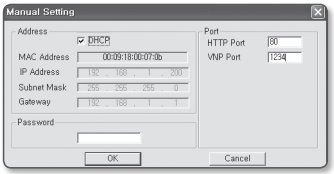
動的IP環境設定

- 動的IP環境の例
  - ネットワークデバイスが接続されているブロードバンドルーターのIPアドレスがDHCPサーバーによって割り当てられる場合
  - ネットワークデバイスがDHCPベースのモデムに直接接続されている場合
  - IPがLAN経由で内部DHCPサーバーに割り当てられている場合

動的IPの確認

1. ローカルPCから<**IP Installer**>を実行し、<**Dynamic IP**>が割り当てられているネットワークデバイスを表示します。
2. リストからネットワzークデバイスを選択し、[**Manual Set**]をクリックしてネットワークデバイスの<**Dynamic IP**>を確認します。
   <**DHCP**>のチェックを外しておくと、IPを<**Static**>に変更できます。

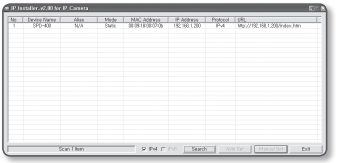




ネットワーク接続と設定

共有ローカルPCからネットワークデバイスへの接続

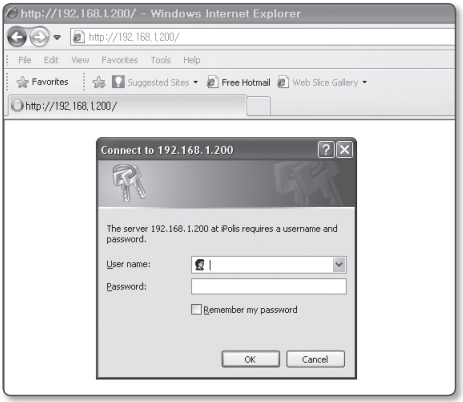
1. IPインストーラを実行します。
   接続されているネットワークデバイスを検索し、リスト表示します。
2. 必要なネットワークデバイスをダブルクリックして接続します。
   インターネットブラウザが起動し、ネットワークデバイスに接続されます。



- インターネットブラウザのアドレスバーに検出されたネットワークデバイスのIPアドレスを入力し、カメラにアクセスすることもできます。

ネットワークビデオデコーダーにアクセスする

通常の方法



1. インターネットブラウザを起動します。
2. ネットワークビデオデコーダーのIPアドレスをアドレス項目に入力します。
   例）• IPアドレス（IPv4）: 192.168.1.200
   ➜ http://192.168.1.200 - ログインダイアログが表示されます。
   • IPアドレス（IPv6）: 2001:0230:abcd:ffff:0000:0000:ffff:1111
   ➜ http://[2001:230:abcd:ffff:::ffff:1111] - ログインダイアログが表示されます。

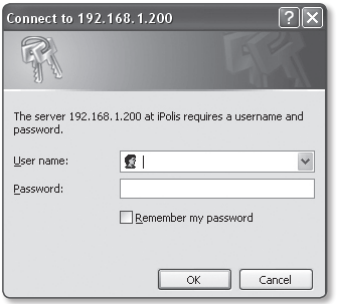
HTTPポートが80以外の場合

1. インターネットブラウザを起動します。
2. ネットワークビデオデコーダーのIPアドレスとHTTPポート番号をアドレス項目に入力します。
   例）IPアドレス: 192.168.1.200: HTTPポート番号（8080）
   ➜ http://192.168.1.200:8080 - ログインダイアログが表示されます。

ログイン

ユーザーIDの初期値は"**admin**"で、パスワードの初期値は"**4321**"です。

1. <**User Name**>入力ボックスに"**admin**"と入力します。
2. <**Password**>入力ボックスに"**4321**"と入力します。
   パスワードを変更した場合は、変更後のパスワードを入力します。
3. [**OK**]をクリックします。
   ログインした後、ネットワークビデオデコーダーの設定画面が表示されます。



- セキュリティを確保するため、パスワードを<**システム**> - <**ユーザー**>で変更してください。
  管理者ID "**admin**"は、確定されており変更できません。
- デフォルトのパスワードは、ハッキングスレッドにさらされる恐れがあるため、製品インストール後に変更することをお勧めします。
  パスワードを変更しなかったことにより、セキュリティ関連の問題が起こった場合は、ユーザーの責任となります。
- 入力完了時に、"**Remember my password**"オプションをチェックしておくと、次回からはログイン情報の入力を求められることなく自動的にログインします。

- 画面サイズが100%である場合、映像画質が最高の状態になります。倍率を小さくすると、境界線上の画像がカットされます。

設定画面

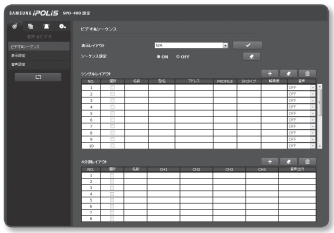
設定

ネットワークビデオデコーダーの音声とビデオ、ネットワーク、イベントとシステム設定をリモートで設定することができます。

- ネットワークカメラ/エンコーダーのファームウェアバージョンによっては、このようなデバイスをネットワークビデオデコーダーに登録すると、失敗したり正常に機能しなくなる可能性があります。www.samsungtechwin.comにアクセスし、最新のファームウェアをダウンロードして更新してください。

音声とビデオの設定

ビデオ&シーケンス



1. 設定メニューから、<**音声＆ビデオ**( )>タブを選択します。
2. <**ビデオ&シーケンス**>を選択します。
3. 各項目の入力ボックスをクリックして、値を入力/選択します。
   - 表示レイアウト：シングルまたは4分割レイアウトから目的の監視画面のレイアウトを選択します。
   - シーケンス設定：自動監視シーケンスを使用するかどうかを選択し、シーケンスレイアウトのレイアウトおよび滞留時間を選択します。
     - 設定のシーケンスに設定した滞留時間に応じて割り当てられたレイアウトが自動的に順番に繰り返し表示されます。最大10のレイアウトをシングルまたは4分割レイアウトから選択して順序付けることができます。
   - シングルレイアウト：ネットワーク内で動作しているネットワークカメラ/エンコーダーを追加したり、登録されているシングルレイアウトを編集/削除することができます。
     - これは、ネットワークビデオデコーダーに接続されたネットワークカメラ/エンコーダーの表示レイアウトの基本単位です。
       ネットワークカメラ/エンコーダーのシングルレイアウトを追加した後、追加したシングルレイアウトのカメラ名を選択し、ネットワークカメラ/エンコーダーのビデオを監視画面に表示します。
       最大64のネットワークカメラまたはエンコーダーを追加することができます。
   - 4分割レイアウト：追加したシングルレイアウトを選択することにより、4分割レイアウトを複合、編集または削除することができます。
     - 4分割監視画面を表示するためのネットワークカメラ/エンコーダーのシングルレイアウトを選択することにより、4分割レイアウトを構成します。
       追加したネットワークカメラ/エンコーダーのシングルレイアウトを4分割レイアウトに割り当て、構成した4分割レイアウトを選択し、モニターに4分割画面を表示します。最大8つの4分割レイアウトを追加することができます。

シングルレイアウトを追加するには

1. [**ビデオの追加**(+)]ボタンをクリックします。
2. ネットワークカメラ/エンコーダーに関する情報を入力します。
3. 追加するデバイスのIPアドレスまたはDDNS URLを<**アドレス**>項目に入力します。
   - 最大64文字を入力でき、レイアウトリストには最大9文字が表示され、残りの部分については<…>が表示されます。
4. 追加するデバイスのIDおよびパスワードを入力します。
5. [**プロパティのインポート**]ボタンをクリックし、接続するデバイスに関する情報をフェッチします。
   - プロファイルがない場合、カメラを追加することはできません。

6. フェッチした情報が表示された後、<**カメラ名**>を入力します。
   - カメラ名に空白スペースを使用することはできません。
   - 最大15文字を入力でき、レイアウトリストには最大7文字が表示され、残りの部分については<…>が表示されます。

7. プロファイルを選択します。

- カメラプロファイルのプロパティが選択した後で変更されると、ビデオが表示されない場合があります。このような場合、"**Not Decodable**"メッセージがモニターに表示されます。

8. [**追加** (+)]ボタンをクリックします。

- 最大64のレイアウトを追加することができます。
- [**カメラ設定** (▤)]ボタンをクリックし、追加したカメラのWebページにアクセスするためのブラウザを表示します。

シングルレイアウトで使用可能な解像度

コーデック	H.264	MPEG-4	MJPEG
シングルレイアウト	1920x1080p～320x240	4CIF～320x240	1280x720p～320x240 (800x600を除く)

設定画面

既存のレイアウトを編集するには

1. チェックボックスをクリックし、追加したデバイスを選択します。
2. 既存の情報を編集します。
   - <**プロトコル**>および<**アドレス**>項目を編集することはできません。
3. [**保存**( )]をクリックします。
4. キャンセルするには、[**取消**( )]ボタンをクリックします。

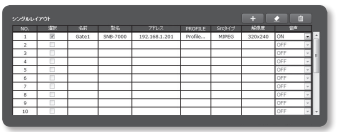
既存のレイアウトを削除するには

1. チェックボックスをクリックし、追加したデバイスを選択します。
2. レイアウトリストの上部にある[**削除**( )]ボタンをクリックします。
3. 確認メッセージが表示されたら、[**OK**]をクリックします。

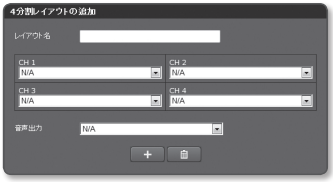
- <**4分割レイアウト**>または<シーケンス設定>で使用されているレイアウトや、監視画面に現在表示されているレイアウトを変更または削除することはできません。このような処理を行おうとすると、確認メッセージが表示されます。

追加したシングルレイアウトの音声を設定するには

1. 追加したシングルレイアウトのリストから、目的に応じて音声を<**ON**>または<**OFF**>に設定します。
   - 音声を出力するよう設定されているデバイスの場合、4分割レイアウトで<**OFF**>から<**ON**>に切り替えることはできません。このような処理を行おうとすると、確認メッセージが表示されます。
   - 音声を選択できるのは、デバイスの音声出力がシングルレイアウト設定で<**ON**>に設定されている場合のみです。



4分割レイアウトを追加するには



1. [**4分割レイアウトの追加** (+)]ボタンをクリックします。
2. 各チャンネルに割り当てるデバイスを、追加したシングルレイアウトから選択します。
3. <**レイアウト名**>を入力します。
   - 最大15文字を入力でき、レイアウトリストには最大7文字が表示され、残りの部分については<**…**>が表示されます。
4. 割り当てられている4つのチャンネルから4分割レイアウトの音声出力チャンネルを選択します。
   デバイスを選択できるのは、デバイスの音声がシングルレイアウトで<**ON**>に設定されている場合です。
5. [**追加** (+)]ボタンをクリックします。

- 最大8つの4分割レイアウトを追加することができます。1つのシングルレイアウトを同じ4分割レイアウトに複数回割り当てることはできません。
  ただし、1つのシングルレイアウトを複数の4分割レイアウトに割り当てることはできます。

4分割レイアウトで使用可能な解像度

一部の解像度は、使用されているコーデックによってはネットワークビデオデコーダーの4分割レイアウトでサポートされていない可能性があります。
サポートされていない解像度を選択すると、エラーメッセージが表示されます。
追加する前に、次の使用可能な解像度を参照してください。

コーデック	H.264	MPEG-4	MJPEG
4分割レイアウト	1280x720p～320x240（800x600を除く）	4CIF～320x240	1280x720p～320x240（800x600を除く）

設定画面

- 960x540未満の解像度の4分割モード表示では、4つのチャンネルのビデオがすべて同じ解像度である場合、各ビデオはその分割画面の中央に配置されます。このとき、320x240のビデオと352x240のビデオはそれぞれ640x480と704x480に拡大されます。

- 4分割画面モードで、4台のカメラから受信するデータトラフィックの全量が40Mbpsを超えるとビデオの再生はスムーズに行われません。

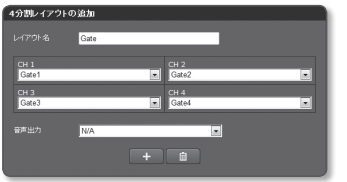
<2番目の分割画面は解像度が960x540未満のビデオを表示>

4分割レイアウトを編集するには

1. リストから目的のレイアウトの選択チェックボックスをクリックします。
2. 割り当てられたチャンネルを変更するか、レイアウト名を編集します。
3. [**保存**( )]をクリックします。
4. キャンセルするには、[**取消**( )]ボタンをクリックします。

4分割レイアウトを削除するには

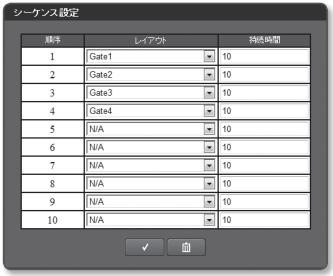
1. リストから目的のレイアウトの選択チェックボックスをクリックします。
2. [**削除**( )]ボタンをクリックします。
3. 確認メッセージが表示されたら、[**OK**]をクリックします。



- <**シーケンス設定**>に含まれる4分割レイアウトや、監視画面に現在表示されているレイアウトを変更または削除することはできません。このような処理を行おうとすると、確認メッセージが表示されます。

シーケンスを設定するには

1. [**シーケンス設定** (✎)]ボタンを押します。
2. シーケンス内で表示する順序でレイアウトを選択します。
3. レイアウト遷移の間隔を入力します。
4. 設定完了後、[**適用** (✓)]をクリックします。
5. シーケンス設定を<**ON**>に設定します。選択したレイアウトが指定した順序で表示され、指定した間隔で切り替わります。



モニターに表示するレイアウトを選択するには

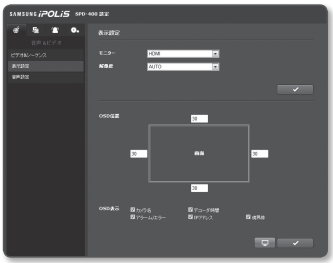
接続したモニターに表示するレイアウトを設定することができます。

1. "表示レイアウト"リストをクリックし、使用可能なレイアウトを表示します。画面に表示するレイアウトを選択します。

2. 設定完了後、[**適用** (✓)]をクリックします。
   - シーケンス設定が<**ON**>に設定されている場合、<**表示レイアウト**>リストボックスが表示されます。

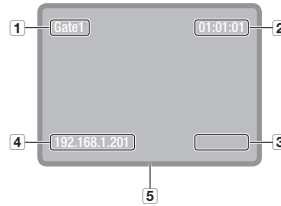
表示設定

1. 設定メニューから、<**音声＆ビデオ** (🎧)>タブを選択します。
2. <**表示設定**>をクリックします。
3. 各項目の入力ボックスをクリックして、値を入力/選択します。
   - モニター : ビデオ表示の対象モニタータイプを選択します。
   - 解像度 : モニターの解像度を選択します。
     - <**CVBS**>を選択すると、メニューは<**CVBSタイプ**>に変更されます。



設定画面

- OSD位置 : 画面表示メニューの位置を選択します。
  OSD位置の数値を変更すると、画面全体に基づいて数値が設定されるようOSDが移動します。
- OSD表示 : モニターに表示するOSDのタイプを選択します。
  1 カメラ名: レイアウトの登録時に使用されるカメラの名前を表示します。
  2 デコーダ時間: デコーダーに設定されている時間を表示します。
  3 アラーム/エラー: アラーム/エラーが発生したときに、これらをモニターに表示します。
  4 IPアドレス: カメラのIPアドレスを表示します。
  5 境界線: 各カメラの画面を境界線で区切ります。



- プレビュー ( ) : 変更したOSD関連設定をプレビューし、確認されたら適用します。
  OSD設定の変更を適用してもモニター設定には影響しません。

4. 設定完了後、[**適用** (✓)]をクリックします。

音声設定

ネットワークビデオデコーダーに接続されているデバイスの音声入力/出力設定を設定することができます。

1. 設定メニューから、<**音声＆ビデオ** ( )>タブを選択します。
2. <**音声設定**>をクリックします。
3. 音声の入出力レベルを必要に応じて調整します。
   - 音声出力 : 音声を使用するかどうか、およびその出力方法を設定します。

- GAIN : <**ライン出力**>が選択されているときに有効になり、その値を設定します。

- 音声が出力されるのは、接続されているデバイスが音声をサポートしており、オンに設定されている場合のみです。
- HDMI音声出力を選択するには、表示設定のモニターをHDMIに設定する必要があります。
- 入力オーディオが非常に高い場合、デコーダーオーディオが歪んでしまう可能性があります。 入力オーディオレベルを調整してください。

4. 設定完了後、[**適用** (✓)]をクリックします。

ネットワーク設定

インタフェース

1. 設定メニューから、<**ネットワーク**( )>タブを選択します。
2. <**インターフェース**>をクリックします。
3. 必要に応じて<**接続モード**>および<**IPv6 設定**>を設定します。
   - IPタイプ : IP接続タイプを選択します。
     - マニュアル : IPアドレス、Subnet Mask、Gateway、DNS1、およびDNS2を指定します。
     - DHCP : DNS1およびDNS2を指定します。
     - ■ <**マニュアル**> に設定した場合は、IP、Subnet Mask、Gateway、DNS1、およびDNS2をマニュアルで設定します。
   - MACアドレス : ネットワークビデオデコーダーのMACアドレスを表示します。
   - IPアドレス : 現在のIPアドレスを表示します。
   - SUBNET MASK : 設定したIPの<**SUBNET MASK**>を表示します。
   - GATEWAY : 設定したIPの<**GATEWAY**>を表示します。
   - DNS1/DNS2 : DNS（ドメインネームサービス）サーバーのアドレスを表示します。
   - HTTPポート : Webブラウザ経由でネットワークビデオデコーダーにアクセスする際に使用されるHTTPポートです。初期値は80（TCP)です。
   - IPv6 使用 : IPv6を使用するかどうかを指定します。
   - IPv6 アドレス : IPv6ネットワークにアクセスするためのIPv6アドレスを取得します。
4. 設定完了後、[**適用**( )]をクリックします。

SSL

この目的で、保安接続方式の選択または公認証設定が可能です。

1. 設定メニューから、<**ネットワーク**( )>タブを選択します。
2. <**SSL**>をクリックします。
3. 保安接続方式を選択します。
   - セキュアなHTTPSモードを使用してネットワークビデオデコーダーにアクセスする場合、IPアドレスをhttps://<Network Decoder_IP>としてアドレス項目に入力します。
4. ネットワークビデオデコーダーの証明書を検索して追加します。
   ネットワークビデオデコーダーに証明書をインストールするには、証明書の名前（ユーザーが任意に割り当てることができる）を入力し、認証局から発行された証明書ファイルおよびキーファイルを指定する必要があります。
   - **<HTTPS(公認保安接続モード)>**項目は、公認証が設定されている場合にのみ使用できます。
5. 設定完了後、[**適用**( )]をクリックします。

証明書の設定

1. 証明書の名前を入力します。
2. 目的の証明書ファイルとそのキーファイルを選択し、[**設置**(設置)]ボタンをクリックします。

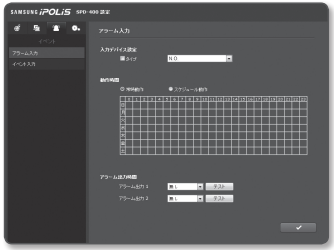
証明書の削除

1. [**削除**(削除)]ボタンをクリックします。
2. 公認証を削除するには、<**HTTP(保安接続未使用)**>または<**HTTP(自体認証保安接続モード)**>のモードでネットワークビデオデコーダーにアクセスする必要があります。

イベント設定

アラーム入力

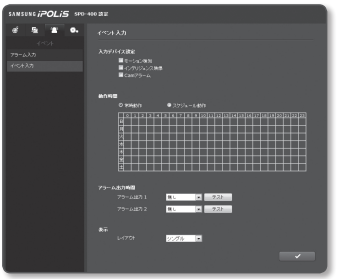
ネットワークビデオデコーダーのアラーム入力ポートのアラーム入力タイプ、持続時間および動作タイプを設定することができます。



1. 設定メニューから、<**イベント**( )>タブを選択します。
2. <**アラーム入力**>をクリックします。
3. 入力デバイスタイプを選択します。
   - タイプ
     - N.O. : 通常はオープンされていますが、クローズされると、アラームがトリガーされます。
     - N.C. : 通常はクローズされていますが、オープンされると、アラームがトリガーされます。
4. <**動作時間**>を指定します。
   - 常時動作 : アラームを発生させる場合はチェックします。アラーム発生時に、動作モードで有効化されます。
   - スケジュール動作 : 指定した期間内の指定した曜日に、アラームを発生させる場合にチェックします。アラーム発生時に、動作モードで有効化されます。
5. アラーム発生時のアラームの出力滞留時間を設定します。
   - アラーム出力 : アラーム入力設定でアラーム出力時間を指定します。
     - アラーム出力の持続時間が<**常時動作**>に設定されている場合、音声&ビデオページで示すように、アラーム確認ボタンが押されるまでアラームは機能し続けます。
   - テスト : 接続したアラーム出力デバイスのテストアラームを実行します。
6. 設定完了後、[**適用**( )]をクリックします。

イベント入力

ネットワークカメラまたはエンコーダーのアラームの持続時間およびアラームの動作タイプを設定することができます。



1. 設定メニューから、<**イベント**( )>タブを選択します。
2. <**イベント入力**>をクリックします。
3. イベント入力デバイスを指定します。
   - 入力デバイス設定
     - モーション検知 : 接続したデバイスから検知したモーションをアラームとして認識します。
     - インテリジェンス映像 : 接続したデバイスから検知したインテリジェント映像分析イベントをアラームとして認識します。
     - Camアラーム : 接続したデバイスからセンサー入力イベントをアラームとして認識します。

■ 動作可能なのは、レイアウトに登録されているカメラが適切な機能をサポートしており、オンに設定されている場合のみです。

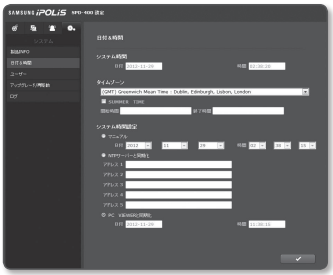
4. 動作時間を指定します。
   - <**起動時間**>設定については、"**アラーム入力**"を参照してください。(41ページ)
5. アラームごとに<**アラーム出力時間**>を設定します。
6. イベントに対する各デバイスのビデオ表示の<**レイアウト**>を選択します。
   <**4分割**>モードが選択されており、目的のシングルレイアウトが2つの4分割レイアウトに割り当てられている場合、レイアウト番号の小さい方の4分割レイアウトが選択されて表示されます。
   イベントが発生すると、音声&ビデオページでアラーム確認ボタンが押されるまで、指定した表示設定に応じてこのイベントに選択されているレイアウトがアラーム境界線およびアラームメッセージとともに表示されます。
   アラーム確認ボタンが押されると、画面はイベント以前のレイアウトに戻ります。
7. 設定完了後、[**適用**( )]をクリックします。

システム設定

製品情報

1. 設定メニューから、<**システム**(⚙)>タブを選択します。
2. <**製品INFO**>をクリックします。
3. ネットワークビデオデコーダーの情報をチェックするか、またはネットワーク環境に応じて詳細を指定します。
   - デバイス名 : ネットワークビデオデコーダーの名前を入力します。
   - 位置 : インストールしたネットワークビデオデコーダーの位置について説明します。
   - 詳細情報 : インストールしたネットワークビデオデコーダーに関する詳細情報を入力します。
   - メモ : よりわかりやすくするため、ネットワークビデオデコーダーについての説明を入力します。
   - 言語 : ネットワークビデオデコーダーのメニューおよびWeb Viewer OSDで使用する言語を選択します。
4. 設定完了後、[**適用**(✓)]をクリックします。

日付＆時間



1. 設定メニューから、<**システム**(⚙)>タブを選択します。
2. <**日付＆時間**>をクリックします。
3. ネットワークビデオデコーダーのシステム時間を設定します。
   - システム時間 : システムの現在の時間設定を表示します。
   - タイムゾーン : GMTを基準にしたローカルタイムゾーンを指定します。
   - SUMMER TIME : インストールした位置の地域がDSTを適用可能な場合、DSTを適用するかどうかを選択することができます。

- システム時間設定 : システムに適用される時間および日付を指定します。
  - マニュアル : 時間をマニュアルで指定します。
  - NTPサーバーと同期化 : 指定されたサーバーアドレスの時間と同期を取ります。
  - PC VIEWERと同期化 : 接続されたPCの時間と同期を取ります。

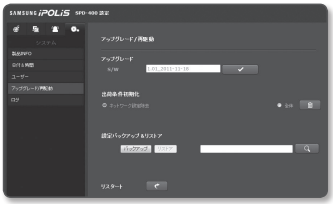
4. 設定完了後、[**適用** (✓)]をクリックします。

- <**PC VIEWERと同期化**>を選択した場合は、PCの現在のタイムゾーンと同じ標準タイムゾーンを設定する必要があります。

ユーザー

1. 設定メニューから、<**システム** (⚙)> タブを選択します。
2. <**ユーザー**>をクリックします。
3. 必要なユーザー情報を指定します。
   - ADMIN PASSWORD変更 : 管理者の現在のパスワードを変更します。
     - デフォルトのパスワードは、ハッキングスレッドにさらされる恐れがあるため、製品インストール後に変更することをお勧めします。
       パスワードを変更しなかったことにより、セキュリティ関連の問題が起こった場合は、ユーザーの責任となります。
   - 現在ユーザー: <**使用**>に設定されているユーザーのユーザー情報を変更し、権限レベルを調整することができます。
     - 制御 : オンに設定した場合、ユーザーアカウント管理以外のすべてのメニュー項目を使用することができます。
     - 使用 : ユーザーアカウントを有効化します。
4. 設定完了後、[**適用** (✓)]をクリックします。

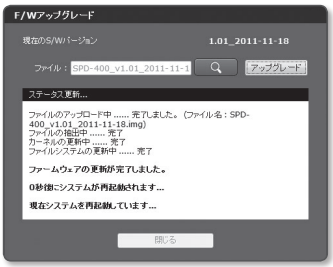
アップグレード/再駆動



1. 設定メニューから、<**システム**( )>タブを選択します。
2. <**アップグレード/再駆動**>をクリックします。
3. 必要な項目を選択し、適切に設定します。
   - アップグレード : システムのアップグレードを実行します。
   - 出荷条件初期化 : システムを出荷時の初期状態にリセットします。
     - ネットワーク設定除去: ネットワークパラメータ以外の設定をすべてリセットします。
     - 全体: ネットワークパラメータを含むすべての設定をリセットします。
   - 設定バックアップ＆リストア : 復元プロセス実行前に現在のシステム設定をバックアップします。バックアップまたは復元後にシステムは自動的に再起動されます。
   - リスタート: システムを再起動します。

アップグレードを実行するには

1. [ ]をクリックします。
2. [ ] をクリックし、アップグレード対象のファイルを指定します。
3. [**アップグレード**]をクリックします。



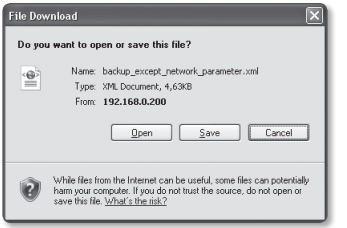
4. "**ステータス更新**"ダイアログが表示され、進捗状況が下部に表示されます。

- アップグレードプロセスを強制終了すると、アップグレードは正常に完了しません。

現在の設定を保存し、バックアップ設定をリストアするには

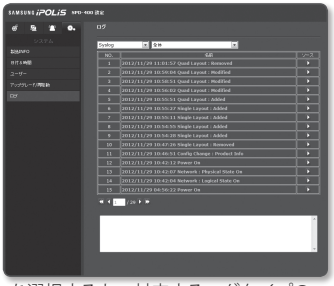
1. [**バックアップ**]をクリックします。
   名前を付けて保存ダイアログが表示されます。

2. バックアップパスおよび適切なファイル名を指定し、[**Save**]をクリックします。
   バックアップファイルが指定したパスに"**.xml**"形式で保存されます。
3. バックアップから設定をリストアするには、バックアップファイルを選択します。
4. [**リストア**]をクリックします。
   リストアが完了した後、システムが再起動されます。



ログ

システムログまたはイベントログをチェックできます。



1. 設定メニューから、<**システム**( )>タブを選択します。
2. <**ログ**>をクリックします。
3. ログタイプを選択します。
   - Syslog : 時間情報など、システム上のすべての変更が記録されるシステムログをチェックできます。
   - Evtlog : 時間情報などのイベントログをチェックできます。
4. 対応するログリストから検索するアイテムを選択します。
   - 左上のドロップダウンリストで<**全体**>を選択すると、対応するログタイプのすべてのログが表示されます。
5. 1ページでは利用可能なすべてのログを表示できない場合は、下部のボタンを使用して前のアイテム、次のアイテム、または最後のアイテムに移動します。

- ログの詳細を表示する場合は、ログの右列にある[**ソース**( )]をクリックします。ログ情報が下部のウィンドウ枠に表示されます。
- 各ページには15のログが表示され、最新のログが上部に表示されます。
- イベント/システムログリストには最大1000のログを含むことができます。1000を超えると、新しいログが作成されるたびに、既存のログは古いものから削除されます。

付録

仕様

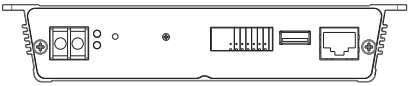
項目		説明
ビデオ出力	ビデオ出力	1) HDMI / VGA : 最大1920x1080p（HDMI、VGAと同じ出力解像度）、1920x1080p、1680x1050、1600x900、1440x900、1280x1024、1280x720p、1024x768 2) CVBS : NTSC : 1.0 Vp-p / 75Ωコンポジット704x480 PAL : 1.0 Vp-p / 75Ωコンポジット704x576 3) HDMI/VGA、CVBSから選択
	ビデオ待ち時間	1) H.264 : 最大で3.5秒 2) MPEG-4 : 最大で2秒 3) MJPEG : 最大で2秒
	イベントトリガー	アラーム入力、ネットワークカメライベント入力
	アラーム入出力	入力1個/出力2個（リレー）
ネットワーク	イーサネット	RJ-45（10/100/1000BASE-T）
	ビデオ圧縮フォーマット	H.264、MPEG-4、MJPEG
	解像度	1) H.264 - シングルビュー : 1920x1080p～320x240 - 4分割ビュー : 1280x720p～320x240（800x600を除く） 2) MPEG-4: - シングルビュー: 4CIF～320x240 - 4分割ビュー: 4CIF～320x240 3）MJPEG: - シングルビュー: 1280x720p～320x240（800x600を除く） - 4分割ビュー: 1280x720p～320x240（800x600を除く） 1920x1080p、1280X1024、1280X720p、704x576、704x480、640x480、352x288、352x240、320x240
	最大フレームレート	シングルビューで最大30fps、4x（640x480）で最大120fps、4x4 CIFで最大100fps、4x720pで最大60fps（音声が無効な場合）
	表示	シングルレイアウト、4分割レイアウト

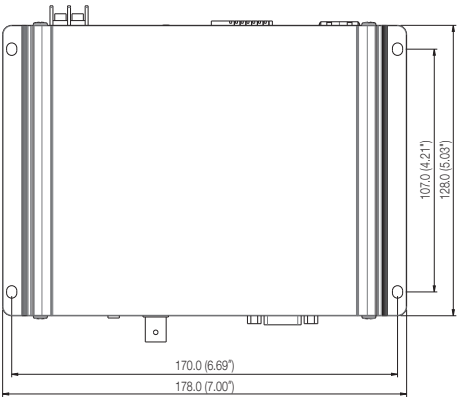
項目		説明
ネットワーク	音声入出力	1ライン出力
	音声圧縮フォーマット	G.711, G.726
	IP	IPv4、IPv6
	プロトコル	TCP/IP、UDP/IP、RTP(UDP)、RTP(TCP)、NTP、HTTP、DHCP、ICMP、IGMP、ARP、SSL、DNS
	セキュリティ	HTTPS(SSL)ログイン認証 ユーザーアクセスログ
	カメラ接続	64台のカメラ、8つのレイアウト、10のシーケンス
	ONVIF準拠	サポートなし
	対応デバイス	Samsungネットワークカメラ (*) Axis: P3301、P3343、P3344、P1311、P1343、P1344、P1346、PTZ215、Q6032、Q7401、Q7404(ファームウェアバージョン: 5.x) 1)ストリーム(ライブビデオ/音声): SVNP 1.2(AXIS : RTP/RTSP) 2)制御/ネットワークアラーム: SVNP 1.2(AXIS: サポートなし) * 互換性のあるSamsungネットワークデバイスのアップデート詳細については、販売店にお問い合わせください。
	Web Viewer	対応OS: Windows XP / VISTA / 7 対応ブラウザ: Internet Explorer 7.0または8.0、Firefox 2.x、3.x、Chrome、Safari
環境関係	動作温度 /湿度	+0°C ~ +40°C (+32°F ~ +104°F) / 0% ~ 90% RH
電力関連	入力電圧	DC 12V
	消費電力	最大10W
メカニカル	色/材質	シルバー/金属
	寸法(WxHxD)	W178.0 x H34.0 x D128.0mm(W7.00 x H1.33 x D5.03インチ)
	重量	530g

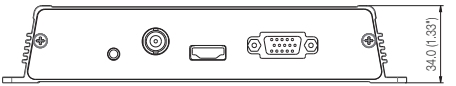
付録

製品概要

単位: mm(インチ)







トラブルシューティング

問題	解決策
インターネットブラウザを使用してネットワークビデオデコーダーにアクセスできません。	• ネットワークビデオデコーダーを再起動しても同じである場合、[初期化]ボタンを約5秒間押し続け、ネットワークビデオデコーダーの設定をリセットしてください。 • すべてのネットワークケーブルが正しく接続されていることを確認してください。 • DHCP環境の場合、ネットワークビデオデコーダーに動的IPアドレスが正しく割り当てられているかどうか確認してください。
Internet Explorer 7.0のタブブラウザを使用してシステムに接続できません。	• タブブラウザを使用してシステムに接続しようとすると、同じCookie情報が共有されるため、接続時にエラーが発生します。このため、タブブラウザを使用するかわりに、新しいブラウザウィンドウを開いてシステムに接続してください。
IPインストーラプログラムで、ネットワークにインストールされているネットワークビデオデコーダーを検索できません。	• ご使用のPCのファイアウォール設定を無効にしてから、再度ネットワークビデオデコーダーを検索してください。
モニターに何も表示されません。	• モニターがネットワークビデオデコーダーに接続されており、出力モードが適合しているかどうか確認してください。 • モニターがネットワークビデオデコーダーの出力解像度をサポートしており、この解像度に適合しているかどうか確認してください。
モニターにロゴ以外何も表示されず、他の画面に切り替わりません。	• ネットワークビデオデコーダーを再起動しても同じである場合、[初期化]ボタンを約5秒間押し続け、ネットワークビデオデコーダーの設定をリセットしてください。

OPEN SOURCE ANNOUNCEMENT

Some software components of this product incorporate source code covered under the BSD license as follows.

Component Name	License	License URL
lighttpd 1.4.25	BSD 2.0	http://www.opensource.org/licenses/bsd-license.html
librtp 1.20	BSD 1.0	
Live555	GPL 2.1	http://www.opensource.org/licenses/LGPL-2.1

lighttpd is a secure, fast, compliant, and very flexible web-server that has been optimized for high-performance environments. It has a very low memory footprint compared to other webservers and takes care of cpu-load. Its advanced feature-set (FastCGI, CGI, Auth, Output-Compression, URL-Rewriting and many more) make lighttpd the perfect webserver-software for every server that suffers load problems.

Simple Network Management Protocol (SNMP) is an Internet-standard protocol for managing devices on IP networks. It is used mostly in network management systems to monitor the devices attached to the network for conditions that need administrative attention. Net-SNMP is a suite of applications used to implement SNMP v1, SNMP v2c and SNMP v3 using both IPv4 and IPv6.

For more additional information, send email to help.cctv@samsung.com.

Copyright (C) 2004, Kneschke, incremental

All rights reserved.

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

- Redistributions of source code must retain the above copyright notice, this list of conditions and the following disclaimer.
- 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.
- Neither the name of the 'incremental' nor the names of its contributors may be used to endorse or promote products derived from this software without specific prior written permission.

THIS SOFTWARE IS PROVIDED BY THE COPYRIGHT HOLDERS AND CONTRIBUTORS "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 COPYRIGHT OWNER 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.

Copyright (c) 1998-2001 University College London

All rights reserved.

Redistribution and use in source and binary forms, with or without modification, is 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 acknowledgement: This product includes software developed by the Computer Science Department at University College London.
4. Neither the name of the University nor of the Department may be used to endorse or promote products derived from this software without specific prior written permission.

THIS SOFTWARE IS PROVIDED BY THE AUTHORS AND CONTRIBUTORS ¨AS IS" AND ANY EXPRESSED OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSEARE DISCLAIMED. IN NO EVENT SHALL THE AUTHORS 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.

LICENSE

Various copyrights apply to this package, listed in various separate parts below. Please make sure that you read all the parts.

Part 1: CMU/UCD copyright notice: (BSD like)

Copyright 1989, 1991, 1992 by Carnegie Mellon University
Derivative Work - 1996, 1998-2000
Copyright 1996, 1998-2000 The Regents of the University of California

All Rights Reserved

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 appears in all copies and that both that copyright notice and this permission notice appear in supporting documentation, and that the name of CMU and The Regents of the University of California not be used in advertising or publicity pertaining to distribution of the software without specific written permission.

CMU AND THE REGENTS OF THE UNIVERSITY OF CALIFORNIA DISCLAIM ALL WARRANTIES WITH REGARD TO THIS SOFTWARE, INCLUDING ALL IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS. IN NO EVENT SHALL CMU OR THE REGENTS OF THE UNIVERSITY OF CALIFORNIA BE LIABLE FOR ANY SPECIAL, INDIRECT OR CONSEQUENTIAL DAMAGES OR ANY DAMAGES WHATSOEVER RESULTING FROM THE 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.

Part 2: Networks Associates Technology, Inc copyright notice (BSD)

Copyright (c) 2001-2003, Networks Associates Technology, Inc

All rights reserved.

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

- Redistributions of source code must retain the above copyright notice, this list of conditions and the following disclaimer.
- 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.
- Neither the name of the Networks Associates Technology, Inc nor the names of its contributors may be used to endorse or promote products derived from this software without specific prior written permission.

THIS SOFTWARE IS PROVIDED BY THE COPYRIGHT HOLDERS AND CONTRIBUTORS "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 COPYRIGHT HOLDERS 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.

Part 3: Cambridge Broadband Ltd. copyright notice (BSD)

Portions of this code are copyright (c) 2001-2003, Cambridge Broadband Ltd.

All rights reserved.

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

- Redistributions of source code must retain the above copyright notice, this list of conditions and the following disclaimer.
- 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.
- The name of Cambridge Broadband Ltd. may not be used to endorse or promote products derived from this software without specific prior written permission.

THIS SOFTWARE IS PROVIDED BY THE COPYRIGHT HOLDER “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 COPYRIGHT HOLDER 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.

Part 4: Sun Microsystems, Inc. copyright notice (BSD)

Copyright © 2003 Sun Microsystems, Inc., 4150 Network Circle, Santa Clara,
California 95054, U.S.A.

All rights reserved.

Use is subject to license terms below. This distribution may include materials developed by third parties. Sun, Sun Microsystems, the Sun logo and Solaris are trademarks or registered trademarks of Sun Microsystems, Inc. in the U.S. and other countries. Redistribution and use in source and binary forms, with or without modification, are permitted provided that the following conditions are met:

- Redistributions of source code must retain the above copyright notice, this list of conditions and the following disclaimer.
- 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.
- Neither the name of the Sun Microsystems, Inc. nor the names of its contributors may be used to endorse or promote products derived from this software without specific prior written permission.

THIS SOFTWARE IS PROVIDED BY THE COPYRIGHT HOLDERS AND CONTRIBUTORS "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 COPYRIGHT HOLDERS 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.

Part 5: Sparta, Inc copyright notice (BSD)

Copyright (c) 2003-2009, Sparta, Inc

All rights reserved.

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

- Redistributions of source code must retain the above copyright notice, this list of conditions and the following disclaimer.
- 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.
- Neither the name of Sparta, Inc nor the names of its contributors may be used to endorse or promote products derived from this software without specific prior written permission.

THIS SOFTWARE IS PROVIDED BY THE COPYRIGHT HOLDERS AND CONTRIBUTORS "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 COPYRIGHT HOLDERS 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.

Part 6: Cisco/BUPTNIC copyright notice (BSD)

Copyright (c) 2004, Cisco, Inc and Information Network Center of Beijing University of Posts and Telecommunications.

All rights reserved.

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

- Redistributions of source code must retain the above copyright notice, this list of conditions and the following disclaimer.
- 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.
- Neither the name of Cisco, Inc, Beijing University of Posts and Telecommunications, nor the names of their contributors may be used to endorse or promote products derived from this software without specific prior written permission.

THIS SOFTWARE IS PROVIDED BY THE COPYRIGHT HOLDERS AND CONTRIBUTORS "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 COPYRIGHT HOLDERS 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.

Part 7: Fabasoft R&D Software GmbH & Co KG copyright notice (BSD)

Copyright (c) Fabasoft R&D Software GmbH & Co KG, 2003
oss@fabasoft.com
Author: Bernhard Penz

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

- Redistributions of source code must retain the above copyright notice, this list of conditions and the following disclaimer.
- 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.
- The name of Fabasoft R&D Software GmbH & Co KG or any of its subsidiaries, brand or product names may not be used to endorse or promote products derived from this software without specific prior written permission.

THIS SOFTWARE IS PROVIDED BY THE COPYRIGHT HOLDER "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 COPYRIGHT HOLDER 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.

Part 8: Apple Inc. copyright notice (BSD)

Copyright (c) 2007 Apple Inc.

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. Neither the name of Apple Inc. ("Apple") nor the names of its contributors may be used to endorse or promote products derived from this software without specific prior written permission.

THIS SOFTWARE IS PROVIDED BY APPLE AND ITS CONTRIBUTORS "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 APPLE OR ITSCONTRIBUTORS 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.

Part 9: ScienceLogic, LLC copyright notice (BSD)

Copyright (c) 2009, ScienceLogic, LLC

All rights reserved.

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

- Redistributions of source code must retain the above copyright notice, this list of conditions and the following disclaimer.
- 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.
- Neither the name of ScienceLogic, LLC nor the names of its contributors may be used to endorse or promote products derived from this software without specific prior written permission.

THIS SOFTWARE IS PROVIDED BY THE COPYRIGHT HOLDERS AND CONTRIBUTORS "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 COPYRIGHT HOLDERS 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.

GPL/LGPL SOFTWARE LICENSE

The software included in this product contains copyrighted software that is licensed under the GPL/LGPL. You may obtain the complete Corresponding Source code from us for a period of three years after our last shipment of this product by sending email to help.cctv@samsung.com

If you want to obtain the complete Corresponding Source code in the physical medium such as CD-ROM, the cost of physically performing source distribution might be charged.

- GPL S/W
  - Base Kernel, Busybox, Sysvinit, dosfstools
- LGPL S/W
  - gLibc, Inetutils

GNU GENERAL PUBLIC LICENSE

Version 2, June 1991
Copyright (C)1989, 1991 Free Software Foundation, Inc.
51 Franklin Street,Fifth Floor, Boston, MA 02110-1301, USA

Everyone is permitted to copy and distribute verbatim copies of this license document, but changing it is not allowed.

Preamble

The licenses for most software are designed to take away your freedom to share and change it. By contrast, the GNU General Public License is intended to guarantee your freedom to share and change free software-- to make sure the software is free for all its users.

This General Public License applies to most of the Free Software Foundation's software and to any other program whose authors commit to using it. (Some other Free Software Foundation software is covered by the GNU Lesser General Public License instead.) You can apply it to your programs, too.

When we speak of free software, we are referring to freedom, not price.

Our General Public Licenses are designed to make sure that you have the freedom to distribute copies of free software (and charge for this service if you wish), that you receive source code or can get it if you want it, that you can change the software or use pieces of it in new free programs ; and that you know you can do these things.

To protect your rights, we need to make restrictions that forbid anyone to deny you these rights or to ask you to surrender the rights. These restrictions translate to certain responsibilities for you if you distribute copies of the software, or if you modify it.

For example, if you distribute copies of such a program, whether gratis or for a fee, you must give the recipients all the rights that you have.

You must make sure that they, too, receive or can get the source code. And you must show them these terms so they know their rights.

We protect your rights with two steps :

(1)copyright the software, and (2)offer you this license which gives you legal permission to copy, distribute and/or modify the software.

Also, for each author's protection and ours, we want to make certain that everyone understands that there is no warranty for this free software. If the software is modified by someone else and passed on, we want its recipients to know that what they have is not the original, so that any problems introduced by others will not reflect on the original authors' reputations.

Finally, any free program is threatened constantly by software patents. We wish to avoid the danger that redistributors of a free program will individually obtain patent licenses, in effect making the program proprietary. To prevent this, we have made it clear that any patent must be licensed for everyone's free use or not licensed at all.

The precise terms and conditions for copying, distribution and modification follow.

TERMS AND CONDITIONS FOR COPYING, DISTRIBUTION AND MODIFICATION

Version 2, June 1991 Copyright (C) 1989, 1991 Free Software Foundation, Inc. 51 Franklin S

0. This License applies to any program or other work which contains a notice placed by the copyright holder saying it may be distributed under the terms of this General Public License.
The "Program", below, refers to any such program or work, and a "work based on the Program" means either the Program or any derivative work under copyright law : that is to say, a work containing the Program or a portion of it, either verbatim or with modifications and/or translated into another language. (Hereinafter, translation is included without limitation in the term "modification".) Each licensee is addressed as "you".
Activities other than copying, distribution and modification are not covered by this License ; they are outside its scope. The act of running the Program is not restricted, and the output from the Program is covered only if its contents constitute a work based on the Program (independent of having been made by running the Program). Whether that is true depends on what the Program does.

1. You may copy and distribute verbatim copies of the Program's source code as you receive it, in any medium, provided that you conspicuously and appropriately publish on each copy an appropriate copyright notice and disclaimer of warranty; keep intact all the notices that refer to this License and to the absence of any warranty ; and give any other recipients of the Program a copy of this License along with the Program.
You may charge a fee for the physical act of transferring a copy, and you may at your option offer warranty protection in exchange for a fee.

2. You may modify your copy or copies of the Program or any portion of it, thus forming a work based on the Program, and copy and distribute such modifications or work under the terms of Section 1 above, provided that you also meet all of these conditions :

a) You must cause the modified files to carry prominent notices stating that you changed the files and the date of any change.

b) You must cause any work that you distribute or publish, that in whole or in part contains or is derived from the Program or any part thereof, to be licensed as a whole at no charge to all third parties under the terms of this License.

c) If the modified program normally reads commands interactively when run,you must cause it, when started running for such interactive use in the most ordinary way, to print or display an announcement including an appropriate copyright notice and a notice that there is no warranty (or else, saying that you provide a warranty) and that users may redistribute the program under these conditions, and telling the user how to view a copy of this License. (Exception:if the Program itself is interactive but does not normally print such an announcement, your work based on the Program is not required to print an announcement.)

These requirements apply to the modified work as a whole. If identifiable sections of that work are not derived from the Program, and can be reasonably considered independent and separate works in themselves, then this License, and its terms, do not apply to those sections when you distribute them as separate works. But when you distribute the same sections as part of a whole which is a work based on the Program, the distribution of the whole must be on the terms of this License, whose permissions for other licensees extend to the entire whole, and thus to each and every part regardless of who wrote it.

Thus, it is not the intent of this section to claim rights or contest your rights to work written entirely by you ; rather, the intent is to exercise the right to control the distribution of derivative or collective works based on the Program. In addition, mere aggregation of another work not based on the Program with the Program (or with a work based on the Program)on a volume of a storage or distribution medium does not bring the other work under the scope of this License.

3. You may copy and distribute the Program (or a work based on it, under Section 2)in object code or executable form under the terms of Sections 1 and 2 above provided that you also do one of the following :

a) 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 ; or,

b) Accompany it with a written offer, valid for at least three years, to give any third party, for a charge no more than your cost of physically performing source distribution, a complete machinereadable copy of the corresponding source code, to be distributed under the terms of Sections 1 and 2 above on a medium customarily used for software interchange ; or,

c) Accompany it with the information you received as to the offer to distribute corresponding source code. (This alternative is allowed only for noncommercial distribution and only if you received the program in object code or executable form with such an offer, in accord with Subsection b above.)

The source code for a work means the preferred form of the work for making modifications to it. For an executable work, complete source code means all the source code for all modules it contains, plus any associated interface definition files, plus the scripts used to control compilation and installation of the executable. However, as a special exception, the source code 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.

If distribution of executable or 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 counts as distribution of the source code, even though third parties are not compelled to copy the source along with the object code.

4. You may not copy, modify, sublicense, or distribute the Program except as expressly provided under this License. Any attempt otherwise to copy, modify, sublicense or distribute the Program 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.

5. 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 Program or its derivative works.
These actions are prohibited by law if you do not accept this License.Therefore, by modifying or distributing the Program (or any work based on the Program), you indicate your acceptance of this License to do so, and all its terms and conditions for copying, distributing or modifying the Program or works based on it.

6. Each time you redistribute the Program (or any work based on the Program), the recipient automatically receives a license from the original licensor to copy, distribute or modify the Program 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 to this License.

7. 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 Program at all. For example, if a patent license would not permit royalty-free redistribution of the Program 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 Program.

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.

8. If the distribution and/or use of the Program is restricted in certain countries either by patents or by copyrighted interfaces, the original copyright holder who places the Program 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.

9. The Free Software Foundation may publish revised and/or new versions of the 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 Program 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 Program does not specify a version number of this License, you may choose any version ever published by the Free Software Foundation.

10. If you wish to incorporate parts of the Program into other free programs whose distribution conditions are different, 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.

NO WARRANTY

11. BECAUSE THE PROGRAM IS LICENSED FREE OF CHARGE, THERE IS NO WARRANTY FOR THE PROGRAM, TO THE EXTENT PERMITTED BY APPLICABLE LAW. EXCEPT WHEN OTHERWISE STATED IN WRITING THE COPYRIGHT HOLDERS AND/OR OTHER PARTIES PROVIDE THE PROGRAM “ASIS” WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESSED OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. THE ENTIRE RISK AS TO THE QUALITY AND PERFORMANCE OF THE PROGRAM IS WITH YOU. SHOULD THE PROGRAMPROVE DEFECTIVE, YOU ASSUME THE COST OF ALL NECESSARY SERVICING, REPAIR OR CORRECTION.

12. IN NO EVENT UNLESS REQUIRED BY APPLICABLE LAW OR AGREED TO IN WRITING WILL ANY COPYRIGHT HOLDER, OR ANY OTHER PARTY WHO MAY MODIFY AND/OR REDISTRIBUTE DAMAGES, INCLUDING ANY GENERAL, SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES ARISING OUT OF THE USE OR INABILITY TO USE THE PROGRAM (INCLUDING BUT NOT LIMITED TO LOSS OF DATA OR DATA BEING RENDERED INACCURATE OR LOSSES SUSTAINED BY YOU OR THIRD PARTIES OR A FAILURE OF THE PROGRAM TO OPERATE WITH ANY OTHER PROGRAMS), EVEN IF SUCH HOLDER OR OTHER PARTY HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

END OF TERMS AND CONDITIONS

How to Apply These Terms to Your New Programs

If you develop a new program, and you want it to be of the greatest possible use to the public, the best way to achieve this is to make it free software which everyone can redistribute and change under these terms.

To do so, attach the following notices to the program. It is safest to attach them to the start of each source file to most effectively convey the exclusion of warranty ; and each file should have at least the “copyright” line and a pointer to where the full notice is found.

one line to give the program’s name and an idea of what it does.

Copyright (C)yyyy name of author

This program is free software ; you can redistribute it and/or modify it under the terms of the GNU General Public License as published by the Free Software Foundation ; either version 2 of the License, or (at your option)any later version.

This program is distributed in the hope that it will be useful, but WITHOUT ANY WARRANTY ; without even the implied warranty of MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the GNU General Public License for more details.

You should have received a copy of the GNU General Public License along with this program ; if not, write to the Free Software Foundation, Inc.,51 Franklin Street, Fifth Floor, Boston, MA 02110-1301, USA.

Also add information on how to contact you by electronic and paper mail. If the program is interactive, make it output a short notice like this when it starts in an interactive mode :

Gnomovision version 69,

Copyright (C) year name of author

Gnomovision comes with ABSOLUTELY NO

WARRANTY ; for details type ‘show w’. This is free software, and you are welcome to redistribute it under certain conditions ; type ‘show c’ for details.

The hypothetical commands ‘show w’ and ‘show c’ should show the appropriate parts of the General Public License. Of course, the commands you use may be called something other than ‘show w’ and ‘show c’ ; they could even be mouse-clicks or menu items-- whatever suits your program.

You should also get your employer (if you work as a programmer)or your school, if any, to sign a “copyright disclaimer” for the program,if necessary. Here is a sample ; alter the names:

Yoyodyne, Inc.,hereby disclaims all copyright interest in the program ‘Gnomovision’ (which makes passes at compilers) written by James Hacker.

signature of Ty Coon, 1 April 1989 Ty Coon, President of Vice This General Public License does not permit incorporating your program into proprietary programs. If your program is a subroutine library, you may consider it more useful to permit linking proprietary applications with the library. If this is what you want to do, use the **GNU Lesser General Public License** instead of this License.

GNU GENERAL PUBLIC LICENSE

Version 3, 29 June 2007

Copyright © 2007 Free Software Foundation, Inc. <http://fsf.org/>

Everyone is permitted to copy and distribute verbatim copies of this license document, but changing it is not allowed.

Preamble

The GNU General Public License is a free, copyleft

license for software and other kinds of works. The licenses for most software and other practical works are designed to take away your freedom to share and change the works. By contrast, the GNU General Public License is intended to guarantee your freedom to share and change all versions of a program--to make sure it remains free software for all its users.

We, the Free Software Foundation, use the GNU General Public License for most of our software; it applies also to any other work released this way by its authors.
You can apply it to your programs, too.

When we speak of free software, we are referring to freedom, not price. Our General Public Licenses are designed to make sure that you have the freedom to distribute copies of free software (and charge for them if you wish), that you receive source code or can get it if you want it, that you can change the software or use pieces of it in new free programs, and that you know you can do these things.

To protect your rights, we need to prevent others from denying you these rights or asking you to surrender the rights. Therefore, you have certain responsibilities if you distribute copies of the software, or if you modify it: responsibilities to respect the freedom of others.

For example, if you distribute copies of such a program, whether gratis or for a fee, you must pass on to the recipients the same freedoms that you received. You must make sure that they, too, receive or can get the source code. And you must show them these terms so they know their rights.

Developers that use the GNU GPL protect your rights with two steps: (1) assert copyright on the software, and (2) offer you this License giving you legal permission to copy, distribute and/or modify it.

For the developers' and authors' protection, the GPL clearly explains that there is no warranty for this free software. For both users' and authors' sake, the GPL requires that modified versions be marked as changed, so that their problems will not be attributed erroneously to authors of previous versions.

Some devices are designed to deny users access to install or run modified versions of the software inside them, although the manufacturer can do so. This is fundamentally incompatible with the aim of protecting users' freedom to change the software. The systematic pattern of such abuse occurs in the area of products for individuals to use, which is precisely where it is most unacceptable. Therefore, we have designed this version of the GPL to prohibit the practice for those products. If such problems arise substantially in other domains, we stand ready to extend this provision to those domains in future versions of the GPL, as needed to protect the freedom of users.

Finally, every program is threatened constantly by software patents. States should not allow patents to restrict development and use of software on general-purpose computers, but in those that do, we wish to avoid the special danger that patents applied to a free program could make it effectively proprietary. To prevent this, the GPL assures that patents cannot be used to render the program non-free.

The precise terms and conditions for copying, distribution and modification follow.

TERMS AND CONDITIONS

0. Definitions.

"This License" refers to version 3 of the GNU General Public License.

"Copyright" also means copyright-like laws that apply to other kinds of works, such as semiconductor masks.

"The Program" refers to any copyrightable work licensed under this License. Each licensee is addressed as "you". "Licensees" and "recipients" may be individuals or organizations.

To "modify" a work means to copy from or adapt all or part of the work in a fashion requiring copyright permission, other than the making of an exact copy. The resulting work is called a "modified version" of the earlier work or a work "based on" the earlier work.

A "covered work" means either the unmodified Program or a work based on the Program.

To "propagate" a work means to do anything with it that, without permission, would make you directly or secondarily liable for infringement under applicable copyright law, except executing it on a computer or modifying a private copy. Propagation includes copying, distribution (with or without modification), making available to the public, and in some countries other activities as well.

To "convey" a work means any kind of propagation that enables other parties to make or receive copies. Mere interaction with a user through a computer network, with no transfer of a copy, is not conveying.

An interactive user interface displays "Appropriate Legal Notices" to the extent that it includes a convenient and prominently visible feature that (1) displays an appropriate copyright notice, and (2) tells the user that there is no warranty for the work (except to the extent that warranties are provided), that licensees may convey the work under this License, and how to view a copy of this License. If the interface presents a list of user commands or options, such as a menu, a prominent item in the list meets this criterion.

1. Source Code.

The "source code" for a work means the preferred form of the work for making modifications to it. "Object code" means any non-source form of a work.

A "Standard Interface" means an interface that either is an official standard defined by a recognized standards body, or, in the case of interfaces specified for a particular programming language, one that is widely used among developers working in that language.

The "System Libraries" of an executable work include anything, other than the work as a whole, that (a) is included in the normal form of packaging a Major Component, but which is not part of that Major Component, and (b) serves only to enable use of the work with that Major Component, or to implement a Standard Interface for which an implementation is available to the public in source code form. A "Major Component", in this context, means a major essential component (kernel, window system, and so on) of the specific operating system (if any) on which the executable work runs, or a compiler used to produce the work, or an object code interpreter used to run it.

The "Corresponding Source" for a work in object code form means all the source code needed to generate, install, and (for an executable work) run the object code and to modify the work, including scripts to control those activities. However, it does not include the work's System Libraries, or general-purpose tools or generally available free programs which are used unmodified in performing those activities but which are not part of the work. For example, Corresponding Source includes interface definition files associated with source files for the work, and the source code for shared libraries and dynamically linked subprograms that the work is specifically designed to require, such as by intimate data communication or control flow between those subprograms and other parts of the work.

The Corresponding Source need not include anything that users can regenerate automatically from other parts of the Corresponding Source.

The Corresponding Source for a work in source code form is that same work.

2. Basic Permissions.

All rights granted under this License are granted for the term of copyright on the Program, and are irrevocable provided

the stated conditions are met. This License explicitly affirms your unlimited permission to run the unmodified Program. The output from running a covered work is covered by this License only if the output, given its content, constitutes a covered work. This License acknowledges your rights of fair use or other equivalent, as provided by copyright law.

You may make, run and propagate covered works that you do not convey, without conditions so long as your license otherwise remains in force. You may convey covered works to others for the sole purpose of having them make modifications exclusively for you, or provide you with facilities for running those works, provided that you comply with the terms of this License in conveying all material for which you do not control copyright. Those thus making or running the covered works for you must do so exclusively on your behalf, under your direction and control, on terms that prohibit them from making any copies of your copyrighted material outside their relationship with you.

Conveying under any other circumstances is permitted solely under the conditions stated below. Sublicensing is not allowed; section 10 makes it unnecessary.

3. Protecting Users' Legal Rights From Anti-Circumvention Law.

No covered work shall be deemed part of an effective technological measure under any applicable law fulfilling obligations under article 11 of the WIPO copyright treaty adopted on 20 December 1996, or similar laws prohibiting or restricting circumvention of such measures.

When you convey a covered work, you waive any legal power to forbid circumvention of technological measures to the extent such circumvention is effected by exercising rights under this License with respect to the covered work, and you disclaim any intention to limit operation or modification of the work as a means of enforcing, against the work's users, your or third parties' legal rights to forbid circumvention of technological measures.

4. Conveying Verbatim Copies.

You may convey verbatim copies of the Program's source code as you receive it, in any medium, provided that you conspicuously and appropriately publish on each copy an appropriate copyright notice; keep intact all notices stating that this License and any non-permissive terms added in accord with section 7 apply to the code; keep intact all notices of the absence of any warranty; and give all recipients a copy of this License along with the Program.

You may charge any price or no price for each copy that you convey, and you may offer support or warranty protection for a fee.

5. Conveying Modified Source Versions.

You may convey a work based on the Program, or the modifications to produce it from the Program, in the form of source code under the terms of section 4, provided that you also meet all of these conditions:

a) The work must carry prominent notices stating that you modified it, and giving a relevant date.

b) The work must carry prominent notices stating that it is released under this License and any conditions added under section 7. This requirement modifies the requirement in section 4 to "keep intact all notices".

c) You must license the entire work, as a whole, under this License to anyone who comes into possession of a copy. This License will therefore apply, along with any applicable section 7 additional terms, to the whole of the work, and all its parts, regardless of how they are packaged. This License gives no permission to license the work in any other way, but it does not invalidate such permission if you have separately received it.

d) If the work has interactive user interfaces, each must display Appropriate Legal Notices; however, if the Program has interactive interfaces that do not display Appropriate Legal Notices, your work need not make them do so.

A compilation of a covered work with other separate and independent works, which are not by their nature extensions of the covered work, and which are not combined with it such as to form a larger program, in or on a volume of a storage or distribution medium, is called an "aggregate" if the compilation and its resulting copyright are not used to limit the access or legal rights of the compilation's users beyond what the individual works permit. Inclusion of a covered work in an aggregate does not cause this License to apply to the other parts of the aggregate.

6. Conveying Non-Source Forms.

You may convey a covered work in object code form under the terms of sections 4 and 5, provided that you also convey the machine-readable Corresponding Source under the terms of this License, in one of these ways:

a) Convey the object code in, or embodied in, a physical product (including a physical distribution medium), accompanied by the Corresponding Source fixed on a durable physical medium customarily used for software interchange.

b) Convey the object code in, or embodied in, a physical product (including a physical distribution medium), accompanied by a written offer, valid for at least three years and valid for as long as you offer spare parts or customer support for that product model, to give anyone who possesses the object code either (1) a copy of the Corresponding Source for all the software in the product that is covered by this License, on a durable physical medium customarily used for software interchange, for a price no more than your reasonable cost of physically performing this conveying of source, or (2) access to copy the Corresponding Source from a network server at no charge.

c) Convey individual copies of the object code with a copy of the written offer to provide the corresponding Source. This alternative is allowed only occasionally and noncommercially, and only if you received the object code with such an offer, in accord with subsection 6b.

d) Convey the object code by offering access from a designated place (gratis or for a charge), and offer equivalent access to the Corresponding Source in the same way through the same place at no further charge. You need not require recipients to copy the Corresponding Source along with the object code. If the place to copy the object code is a network server, the Corresponding Source may be on a different server (operated by you or a third party) that supports equivalent copying facilities, provided you maintain clear directions next to the object code saying where to find the Corresponding Source. Regardless of what server hosts the Corresponding Source, you remain obligated to ensure that it is available for as long as needed to satisfy these requirements.

e) Convey the object code using peer-to-peer transmission, provided you inform other peers where the object code and Corresponding Source of the work are being offered to the general public at no charge under subsection 6d.

A separable portion of the object code, whose source code is excluded from the Corresponding Source as a System Library, need not be included in conveying the object code work.

A "User Product" is either (1) a "consumer product", which means any tangible personal property which is normally used for personal, family, or household purposes, or (2) anything designed or sold for incorporation into a dwelling. In determining whether a product is a consumer product,

doubtful cases shall be resolved in favor of coverage. For a particular product received by a particular user, "normally used" refers to a typical or common use of that class of product, regardless of the status of the particular user or of the way in which the particular user actually uses, or expects or is expected to use, the product. A product is a consumer product regardless of whether the product has substantial commercial, industrial or non-consumer uses, unless such uses represent the only significant mode of use of the product.

"Installation Information" for a User Product means any methods, procedures, authorization keys, or other information required to install and execute modified versions of a covered work in that User Product from a modified version of its Corresponding Source. The information must suffice to ensure that the continued functioning of the modified object code is in no case prevented or interfered with solely because modification has been made.

If you convey an object code work under this section in, or with, or specifically for use in, a User Product, and the conveying occurs as part of a transaction in which the right of possession and use of the User Product is transferred to the recipient in perpetuity or for a fixed term (regardless of how the transaction is characterized), the Corresponding Source conveyed under this section must be accompanied by the Installation Information. But this requirement does not apply if neither you nor any third party retains the ability to install modified object code on the User Product (for example, the work has been installed in ROM).

The requirement to provide Installation Information does not include a requirement to continue to provide support service, warranty, or updates for a work that has been modified or installed by the recipient, or for the User Product in which it has been modified or installed. Access to a network may be denied when the modification itself materially and adversely affects the operation of the network or violates the rules and protocols for communication across the network.

Corresponding Source conveyed, and Installation Information provided, in accord with this section must be in a format that is publicly documented (and with an implementation available to the public in source code form), and must require no special password or key for unpacking, reading or copying.

7. Additional Terms.

"Additional permissions" are terms that supplement the terms of this License by making exceptions from one or more of its conditions. Additional permissions that are applicable to the entire Program shall be treated as though they were included in this License, to the extent that they are valid under applicable law. If additional permissions apply only to part of the Program, that part may be used separately under those permissions, but the entire Program remains governed by this License without regard to the additional permissions.

When you convey a copy of a covered work, you may at your option remove any additional permissions from that copy, or from any part of it. (Additional permissions may be written to require their own removal in certain cases when you modify the work.) You may place additional permissions on material, added by you to a covered work, for which you have or can give appropriate copyright permission.

Notwithstanding any other provision of this License, for material you add to a covered work, you may (if authorized by the copyright holders of that material) supplement the terms of this License with terms:

a) Disclaiming warranty or limiting liability differently from the terms of sections 15 and 16 of this License; or

b) Requiring preservation of specified reasonable legal notices or author attributions in that material or in the Appropriate Legal Notices displayed by works containing it; or

c) Prohibiting misrepresentation of the origin of that material, or requiring that modified versions of such material be marked in reasonable ways as different from the original version; or

d) Limiting the use for publicity purposes of names of licensors or authors of the material; or

e) Declining to grant rights under trademark law for use of some trade names, trademarks, or service marks; or

f) Requiring indemnification of licensors and authors of that material by anyone who conveys the material (or modified versions of it) with contractual assumptions of liability to the recipient, for any liability that these contractual assumptions directly impose on those licensors and authors.

All other non-permissive additional terms are considered "further restrictions" within the meaning of section 10. If the Program as you received it, or any part of it, contains a notice stating that it is governed by this License along with a term that is a further restriction, you may remove that term. If a license document contains a further restriction but permits relicensing or conveying under this License, you may add to a covered work material governed by the terms of that license document, provided that the further restriction does not survive such relicensing or conveying.

If you add terms to a covered work in accord with this section, you must place, in the relevant source files, a statement of the additional terms that apply to those files, or a notice indicating where to find the applicable terms.

Additional terms, permissive or non-permissive, may be stated in the form of a separately written license, or stated as exceptions; the above requirements apply either way.

8. Termination.

You may not propagate or modify a covered work except as expressly provided under this License. Any attempt otherwise to propagate or modify it is void, and will automatically terminate your rights under this License (including any patent licenses granted under the third paragraph of section 11).

However, if you cease all violation of this License, then your license from a particular copyright holder is reinstated (a) provisionally, unless and until the copyright holder explicitly and finally terminates your license, and (b) permanently, if the copyright holder fails to notify you of the violation by some reasonable means prior to 60 days after the cessation.

Moreover, your license from a particular copyright holder is reinstated permanently if the copyright holder notifies you of the violation by some reasonable means, this is the first time you have received notice of violation of this License (for any work) from that copyright holder, and you cure the violation prior to 30 days after your receipt of the notice.

Termination of your rights under this section does not terminate the licenses of parties who have received copies or rights from you under this License. If your rights have been terminated and not permanently reinstated, you do not qualify to receive new licenses for the same material under section 10.

9. Acceptance Not Required for Having Copies.

You are not required to accept this License in order to receive or run a copy of the Program. Ancillary propagation of a covered work occurring solely as a consequence of using peer-to-peer transmission to receive a copy likewise does not require acceptance. However, nothing other than this License grants you permission to propagate or modify any covered work. These actions infringe copyright if you do not accept this License. Therefore, by modifying or propagating a covered work, you indicate your acceptance of this License to do so.

10. Automatic Licensing of Downstream Recipients.

Each time you convey a covered work, the recipient automatically receives a license from the original licensors, to run, modify and propagate that work, subject to this License. You are not responsible for enforcing compliance by third parties with this License.

An “entity transaction” is a transaction transferring control of an organization, or substantially all assets of one, or subdividing an organization, or merging organizations. If propagation of a covered work results from an entity transaction, each party to that transaction who receives a copy of the work also receives whatever licenses to the work the party’s predecessor in interest had or could give under the previous paragraph, plus a right to possession of the Corresponding Source of the work from the predecessor in interest, if the predecessor has it or can get it with reasonable efforts.

You may not impose any further restrictions on the exercise of the rights granted or affirmed under this License. For example, you may not impose a license fee, royalty, or other charge for exercise of rights granted under this License, and you may not initiate litigation (including a cross-claim or counterclaim in a lawsuit) alleging that any patent claim is infringed by making, using, selling, offering for sale, or importing the Program or any portion of it.

11. Patents.

A “contributor” is a copyright holder who authorizes use under this License of the Program or a work on which the Program is based. The work thus licensed is called the contributor’s “contributor version”.

A contributor’s “essential patent claims” are all patent claims owned or controlled by the contributor, whether already acquired or hereafter acquired, that would be infringed by some manner, permitted by this License, of making, using, or selling its contributor version, but do not include claims that would be infringed only as a consequence of further modification of the contributor version. For purposes of this definition, “control” includes the right to grant patent sublicenses in a manner consistent with the requirements of this License.

Each contributor grants you a non-exclusive, worldwide, royalty-free patent license under the contributor’s essential patent claims, to make, use, sell, offer for sale, import and otherwise run, modify and propagate the contents of its contributor version.

In the following three paragraphs, a “patent license” is any express agreement or commitment, however denominated, not to enforce a patent (such as an express permission to practice a patent or covenant not to sue for patent infringement). To “grant” such a patent license to a party means to make such an agreement or commitment not to enforce a patent against the party.

If you convey a covered work, knowingly relying on a patent license, and the Corresponding Source of the work is not available for anyone to copy, free of charge and under the terms of this License, through a publicly available network server or other readily accessible means, then you must either (1) cause the Corresponding Source to be so available, or (2) arrange to deprive yourself of the benefit of the patent license for this particular work, or (3) arrange, in a manner consistent with the requirements of this License, to extend the patent license to downstream recipients. “Knowingly relying” means you have actual knowledge that, but for the patent license, your conveying the covered work in a country, or your recipient’s use of the covered work in a country, would infringe one or more identifiable patents in that country that you have reason to believe are valid.

If, pursuant to or in connection with a single transaction or arrangement, you convey, or propagate by procuring conveyance of, a covered work, and grant a patent license to some of the parties receiving the covered work authorizing them to use, propagate, modify or convey a specific copy of the covered work, then the patent license you grant is automatically extended to all recipients of the covered work and works based on it.

A patent license is “discriminatory” if it does not include within the scope of its coverage, prohibits the exercise of, or is conditioned on the non-exercise of one or more of the rights that are specifically granted under this License. You may not convey a covered work if you are a party to an arrangement with a third party that is in the business of distributing software, under which you make payment to the third party based on the extent of your activity of conveying the work, and under which the third party grants, to any of the parties who would receive the covered work from you, a discriminatory patent license

(a) in connection with copies of the covered work conveyed by you (or copies made from those copies), or

(b) primarily for and in connection with specific products or compilations that contain the covered work, unless you entered into that arrangement, or that patent license was granted, prior to 28 March 2007.

Nothing in this License shall be construed as excluding or limiting any implied license or other defenses to infringement that may otherwise be available to you under applicable patent law.

12. No Surrender of Others’ Freedom.

If 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 convey a covered work so as to satisfy simultaneously your obligations under this License and any other pertinent obligations, then as a consequence you may not convey it at all. For example, if you agree to terms that obligate you to collect a royalty for further conveying from those to whom you convey the Program, the only way you could satisfy both those terms and this License would be to refrain entirely from conveying the Program.

13. Use with the GNU Affero General Public License.

Notwithstanding any other provision of this License, you have permission to link or combine any covered work with a work licensed under version 3 of the GNU Affero General Public License into a single combined work, and to convey the resulting work. The terms of this License will continue to apply to the part which is the covered work, but the special requirements of the GNU Affero General Public License, section 13, concerning interaction through a network will apply to the combination as such.

14. Revised Versions of this License.

The Free Software Foundation may publish revised and/ or new versions of the GNU 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 Program specifies that a certain numbered version of the GNU General Public License “or any later version” applies to it, you have the option of following the terms and conditions either of that numbered version or of any later version published by the Free Software Foundation. If the Program does not specify a version number of the GNU General Public License, you may choose any version ever published by the Free Software Foundation.

If the Program specifies that a proxy can decide which future versions of the GNU General Public License can be used, that proxy's public statement of acceptance of a version permanently authorizes you to choose that version for the Program.

Later license versions may give you additional or different permissions. However, no additional obligations are imposed on any author or copyright holder as a result of your choosing to follow a later version.

15. Disclaimer of Warranty.

THERE IS NO WARRANTY FOR THE PROGRAM, TO THE EXTENT PERMITTED BY APPLICABLE LAW. EXCEPT WHEN OTHERWISE STATED IN WRITING THE COPYRIGHT HOLDERS AND/OR OTHER PARTIES PROVIDE THE PROGRAM "AS IS" WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESSED OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. THE ENTIRE RISK AS TO THE QUALITY AND PERFORMANCE OF THE PROGRAM IS WITH YOU. SHOULD THE PROGRAM PROVE DEFECTIVE, YOU ASSUME THE COST OF ALL NECESSARY SERVICING, REPAIR OR CORRECTION.

16. Limitation of Liability.

IN NO EVENT UNLESS REQUIRED BY APPLICABLE LAW OR AGREED TO IN WRITING WILL ANY COPYRIGHT HOLDER, OR ANY OTHER PARTY WHO MODIFIES AND/OR CONVEYS THE PROGRAM AS PERMITTED ABOVE, BE LIABLE TO YOU FOR DAMAGES, INCLUDING ANY GENERAL, SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES ARISING OUT OF THE USE OR INABILITY TO USE THE PROGRAM (INCLUDING BUT NOT LIMITED TO LOSS OF DATA OR DATA BEING RENDERED INACCURATE OR LOSSES SUSTAINED BY YOU OR THIRD PARTIES OR A FAILURE OF THE PROGRAM TO OPERATE WITH ANY OTHER PROGRAMS), EVEN IF SUCH HOLDER OR OTHER PARTY HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

17. Interpretation of Sections 15 and 16.

If the disclaimer of warranty and limitation of liability provided above cannot be given local legal effect according to their terms, reviewing courts shall apply local law that most closely approximates an absolute waiver of all civil liability in connection with the Program, unless a warranty or assumption of liability accompanies a copy of the Program in return for a fee.

END OF TERMS AND CONDITIONS

GNU LESSER GENERAL PUBLIC LICENSE

Version 2.1, February 1999

Copyright (C) 1991, 1999 Free Software Foundation, Inc. 51 Franklin Street, Fifth Floor, Boston, MA 02110-1301

USA Everyone is permitted to copy and distribute verbatim copies of this license document, but changing it is not allowed.

[This is the first released version of the Lesser GPL. It also counts as the successor of the GNU Library Public License, version 2, hence the version number 2.1.]

Preamble

The licenses for most software are designed to take away your freedom to share and change it. By contrast, the GNU General Public Licenses are intended to guarantee your freedom to share and change free software to make sure the software is free for all its users.

This license, the Lesser General Public License, applies to some specially designated software packages-typically libraries-of the Free Software Foundation and other authors who decide to use it. You can use it too, but we suggest you first think carefully about whether this license or the ordinary General Public License is the better strategy to use in any particular case, based on the explanations below.

When we speak of free software, we are referring to freedom of use, not price. Our General Public Licenses are designed to make sure that you have the freedom to distribute copies of free software (and charge for this service if you wish); that you receive source code or can get it if you want it; that you can change the software and use pieces of it in new free programs; and that you are informed that you can do these things.

To protect your rights, we need to make restrictions that forbid distributors to deny you these rights or to ask you to surrender these rights. These restrictions translate to certain responsibilities for you if you distribute copies of the library or if you modify it.

For example, if you distribute copies of the library, whether gratis or for a fee, you must give the recipients all the rights that we gave you. You must make sure that they, too, receive or can get the source code. If you link other code with the library, you must provide complete object files to the recipients, so that they can relink them with the library after making changes to the library and recompiling it. And you must show them these terms so they know their rights.

We protect your rights with a two-step method: (1) we copyright the library, and (2) we offer you this license, which gives you legal permission to copy, distribute and/or modify the library.

To protect each distributor, we want to make it very clear that there is no warranty for the free library. Also, if the library is modified by someone else and passed on, the recipients should know that what they have is not the original version, so that the original author's reputation will not be affected by problems that might be introduced by others.

Finally, software patents pose a constant threat to the existence of any free program. We wish to make sure that a company cannot effectively restrict the users of a free program by obtaining a restrictive license from a patent holder. Therefore, we insist that any patent license obtained for a version of the library must be consistent with the full freedom of use specified in this license.

Most GNU software, including some libraries, is covered by the ordinary GNU General Public License. This license, the GNU Lesser General Public License, applies to certain designated libraries, and is quite different from the ordinary General Public License. We use this license for certain libraries in order to permit linking those libraries into non-free programs.

When a program is linked with a library, whether statically or using a shared library, the combination of the two is legally speaking a combined work, a derivative of the original library. The ordinary General Public License therefore permits such linking only if the entire combination fits its criteria of freedom. The Lesser General Public License permits more lax criteria for linking other code with the library.

We call this license the "Lesser" General Public License because it does Less to protect the user's freedom than the ordinary General Public License. It also provides other free software developers Less of an advantage over competing non-free programs. These disadvantages are the reason we use the ordinary General Public License for many libraries. However, the Lesser license provides advantages in certain special circumstances.

For example, on rare occasions, there may be a special need to encourage the widest possible use of a certain library, so that it becomes a de-facto standard. To achieve this, non-free programs must be allowed to use the library. A more frequent case is that a free library does the same job as widely used non-free libraries. In this case, there is little to gain by limiting the free library to free software only, so we use the Lesser General Public License.

In other cases, permission to use a particular library in non-free programs enables a greater number of people to use a large body of free software. For example, permission to use the GNU C Library in non-free programs enables many more people to use the whole GNU operating system, as well as its variant, the GNU/ Linux operating system.

Although the Lesser General Public License is Less protective of the users' freedom, it does ensure that the user of a program that is linked with the Library has the freedom and the wherewithal to run that program using a modified version of the Library.

The precise terms and conditions for copying, distribution and modification follow. Pay close attention to the difference between a "work based on the library" and a "work that uses the library". The former contains code derived from the library, whereas the latter must be combined with the library in order to run.

TERMS AND CONDITIONS FOR COPYING, DISTRIBUTION AND MODIFICATION

0. This License Agreement applies to any software library or other program which contains a notice placed by the copyright holder or other authorized party saying it may be distributed under the terms of this Lesser General Public License (also called "this License"). Each licensee is addressed as "you".

A "library" means a collection of software functions and/ or data prepared so as to be conveniently linked with application programs (which use some of those functions and data) to form executables.

The "Library", below, refers to any such software library or work which has been distributed under these terms. A "work based on the Library" means either the Library or any derivative work under copyright law: that is to say, a work containing the Library or a portion of it, either verbatim or with modifications and/or translated straightforwardly into another language. (Hereinafter, translation is included without limitation in the term "modification".)

"Source code" for a work means the preferred form of the work for making modifications to it. For a library, complete source code means all the source code for all modules it contains, plus any associated interface definition files, plus the scripts used to control compilation and installation of the library.

Activities other than copying, distribution and modification are not covered by this License; they are outside its scope. The act of running a program using the Library is not restricted, and output from such a program is covered only if its contents constitute a work based on the Library (independent of the use of the Library in a tool for writing it). Whether that is true depends on what the Library does and what the program that uses the Library does.

1. You may copy and distribute verbatim copies of the Library's complete source code as you receive it, in any medium, provided that you conspicuously and appropriately publish on each copy an appropriate copyright notice and disclaimer of warranty; keep intact all the notices that refer to this License and to the absence of any warranty; and distribute a copy of this License along with the Library.

You may charge a fee for the physical act of transferring a copy, and you may at your option offer warranty protection in exchange for a fee.

2. You may modify your copy or copies of the Library or any portion of it, thus forming a work based on the Library, and copy and distribute such modifications or work under the terms of Section 1 above, provided that you also meet all of these conditions:

a) The modified work must itself be a software library. b) You must cause the files modified to carry prominent notices stating that you changed the files and the date of any change. c) You must cause the whole of the work to be licensed at no charge to all third parties under the terms of this License. d) If a facility in the modified Library refers to a function or a table of data to be supplied by an application program that uses the facility, other than as an argument passed when the facility is invoked, then you must make a good faith effort to ensure that, in the event an application does not supply such function or table, the facility still operates, and performs whatever part of its purpose remains meaningful. (For example, a function in a library to compute square roots has a purpose that is entirely well-defined independent of the application. Therefore, Subsection 2d requires that any application-supplied function or table used by this function must be optional: if the application does not supply it, the square root function must still compute square roots.) These requirements apply to the modified work as a whole. If identifiable sections of that work are not derived from the Library, and can be reasonably considered independent and separate works in themselves, then this License, and its terms, do not apply to those sections when you distribute them as separate works. But when you distribute the same sections as part of a whole which is a work based on the Library, the distribution of the whole must be on the terms of this License, whose permissions for other licensees extend to the entire whole, and thus to each and every part regardless of who wrote it.

Thus, it is not the intent of this section to claim rights or contest your rights to work written entirely by you; rather, the intent is to exercise the right to control the distribution of derivative or collective works based on the Library.

In addition, mere aggregation of another work not based on the Library with the Library (or with a work based on the Library) on a volume of a storage or distribution medium does not bring the other work under the scope of this License.

3. 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.

4. 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 t hat 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.

5. 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.

6. 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:

a) 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.)

b) 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.

c) 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.

d) 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.

e) 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.

7. 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.

8. 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.

9. 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.

10. 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.

11. 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.

12. 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.

13. 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.

14. 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.

NO WARRANTY

15. BECAUSE THE LIBRARY IS LICENSED FREE OF CHARGE, THERE IS NO WARRANTY FOR THE LIBRARY, TO THE EXTENT PERMITTED BY APPLICABLE LAW. EXCEPT WHEN OTHERWISE STATED IN WRITING THE COPYRIGHT HOLDERS AND/OR OTHER PARTIES PROVIDE THE LIBRARY "AS IS" WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESSED OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. THE ENTIRE RISK AS TO THE QUALITY AND PERFORMANCE OF THE LIBRARY IS WITH YOU. SHOULD THE LIBRARY PROVE DEFECTIVE, YOU ASSUME THE COST OF ALL NECESSARY SERVICING, REPAIR OR CORRECTION.

16. IN NO EVENT UNLESS REQUIRED BY APPLICABLE LAW OR AGREED TO IN WRITING WILL ANY COPYRIGHT HOLDER, OR ANY OTHER PARTY WHO MAY MODIFY AND/OR REDISTRIBUTE THE LIBRARY AS PERMITTED ABOVE, BE LIABLE TO YOU FOR DAMAGES, INCLUDING ANY GENERAL, SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES ARISING OUT OF THE USE OR INABILITY TO USE THE LIBRARY (INCLUDING BUT NOT LIMITED TO LOSS OF DATA OR DATA BEING RENDERED INACCURATE OR LOSSES SUSTAINED BY YOU OR THIRD PARTIES OR A FAILURE OF THE LIBRARY TO OPERATE WITH ANY OTHER SOFTWARE), EVEN IF SUCH HOLDER OR OTHER PARTY HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

END OF TERMS AND CONDITIONS

How to Apply These Terms to Your New Libraries

If you develop a new library, and you want it to be of the greatest possible use to the public, we recommend making it free software that everyone can redistribute and change. You can do so by permitting redistribution under these terms (or, alternatively, under the terms of the ordinary General Public License).

To apply these terms, attach the following notices to the library. It is safest to attach them to the start of each source file to most effectively convey the exclusion of warranty; and each file should have at least the "copyright" line and a pointer to where the full notice is found. one line to give the library's name and an idea of what it does.

Copyright (C) year name of author

This library is free software; you can redistribute it and/ or modify it under the terms of the GNU Lesser General Public License as published by the Free Software Foundation; either version 2.1 of the License, or (at your option) any later version.

This library is distributed in the hope that it will be useful, but WITHOUT ANY WARRANTY; without even the implied warranty of MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE. See the GNU Lesser General Public License for more details.

You should have received a copy of the GNU Lesser General Public License along with this library; if not, write to the Free Software Foundation, Inc., 51 Franklin Street, Fifth Floor, Boston, MA 02110-1301 USA Also add information on how to contact you by electronic and paper mail.

You should also get your employer (if you work as a programmer) or your school, if any, to sign a "copyright disclaimer" for the library, if necessary. Here is a sample; alter the names:

Yoyodyne, Inc., hereby disclaims all copyright interest in the library 'Frob' (a library for tweaking knobs) written by James Random Hacker.

signature of Ty Coon, 1 April 1990 Ty Coon, President of Vice.

OpenSSL LICENSE

Copyright (c) 1998-2006 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 (eay@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 aheared 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 rouines 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.]

eco
RoHS compliant

Samsung Techwinでは環境保護のため、製品製造の全工程で環境に配慮しており、より環境に優しい製品をお客様にお届けするため数多くの措置を講じています。
エコマークは、環境に優しい製品を創り出すSamsung Techwinの意志を表すとともに、それらの製品が欧州RoHS指令に準拠していることを示しています。

SAMSUNG

販売ネットワーク

SAMSUNG TECHWIN CO., LTD.
Samsungtechwin R&D Center, 701, Sampyeong-dong, Bundang-gu, Seongnam-si, Gyeonggi-do, Korea, 463-400
TEL : +82-70-7147-8740~60 FAX : +82-31-8018-3745

SAMSUNG TECHWIN AMERICA Inc.
100 Challenger Rd. Suite 700 Ridgefield Park, NJ 07660
Toll Free : +1-877-213-1222 Direct : +1-201-325-6920
Fax : +1-201-373-0124
www.samsungcctvusa.com

SAMSUNG TECHWIN EUROPE LTD.
Samsung House, 1000 Hillswood Drive, Hillswood Business Park Chertsey, Surrey, UNITED KINGDOM KT16 OPS
TEL : +44-1932-45-5300 FAX : +44-1932-45-5325

www.samsungtechwin.com
www.samsungsecurity.com
www.samsungipolis.com