SAMSUNG TECHWIN

NETVÆRKSKAMERA

Brugervejledning

SNV-7080R

CE

SAMSUNG

Netværkskamera

Brugervejledning

Copyright

©2012 Samsung Techwin Co., Ltd. Alle rettigheder forbeholdes.

Varemærke

SAMSUNG TECHWIN er det registrerede logo for Samsung Techwin Co., Ltd.
Navnet på dette produkt er det registrerede varemærke for Samsung Techwin Co., Ltd.
Andre varemærker nævnt i denne vejledning er det registrerede varemærke for den respektive virksomhed.

Begrænsning

Samsung Techwin Co., Ltd forbeholder sig copyrighten til dette dokument. Dette dokument må under ingen omstændigheder reproduceres, distribueres eller ændres, delvist eller helt, uden formel godkendelse fra Samsung Techwin.

Fraskrivelse

Samsung Techwin gør mest muligt ud af at sikre integriteten og rigtigheden af indholdet i dette dokument, men der gives ingen formel garanti. Brug af dette dokument og efterfølgende resultateter sker udelukkende på brugerens eget ansvar. Samsung Techwin forbeholder sig retten til at ændre indholdet af dette dokument uden forudgående underretning.

- **Design og specifikationer kan ændres uden forudgaende varsel.**
- **Standardadgangskoden kan blive eksponeret for hackertrusler, så det anbefales at skifte adgangskode efter installation af produktet.**
  Bemærk, at sikkerhed og andre relaterede problemstillinger forårsaget af uændret adgangskode er brugerens ansvar.

VIGTIGE SIKKERHEDSINSTRUKTIONER

1. Læs disse instruktioner.
2. Gem disse instruktioner.
3. Vær opmærksom på alle advarsler.
4. Følg alle instruktioner.
5. Brug ikke dette udstyr nær vand.
6. Brug kun en tør klud til rengøring.
7. Blokér ikke nogen ventilationsåbning, og installér i overensstemmelse med fabrikantens instruktioner.
8. Installer ikke tæt på varmekilder, som f.eks. radiatorer, varmeovne eller andre afspillere (herunder forstærkere), der afgiver varme.
9. Et polariseret stik eller et stik med jordforbindelse har et vigtigt sikkerhedsformål. Et polariseret stik har to ben, hvor det ene er bredere end det andet. Et stik med jordforbindelse har to ben og en tredje “tand” til jordforbindelsen. Det brede ben eller den tredje “tand” findes af hensyn til din sikkerhed. Hvis det leverede stik ikke passer til din stikkontakt, skal du konsultere en elektriker for at få en erstatning for det forkerte stik.
10. Sørg for, at du ikke bøjer eller trykker på netledningen, specielt ved stikkene, på opbevaringssteder og det sted, hvor den udgår fra afspilleren.
11. Brug kun tilbehør, der er specificeret af fabrikanten.
12. Brug kun rullebord, sokkel stativ, ophæng eller bord, som anbefalet af fabrikanten, eller der sælges sammen med afspilleren. Når der anvendes et rullebord, skal du være forsigtig, når du flytter rullebordet/afspilleren for at forhindre skade pga. tippende apparater.

13. Tag ledningen ud af afspilleren ved uvejr med lyn og torden, eller hvis den ikke skal anvendes i længere tid.
14. Overlad al service til uddannet servicepersonale. Service er nødvendig, hvis afspilleren er blevet beskadiget på nogen måde, som f.eks. beskadiget netledning eller stik, hvis der er spildt væske, hvis der er kommet objekter ind i afspilleren, hvis afspilleren har været udsat for regn eller fugt, fungerer unormalt eller er blevet tabt på gulvet.

ADVARSEL

DETTE PRODUKT MÅ IKKE UDSÆTTES FOR REGN ELLER FUGT, DA DER ER RISIKO FOR BRAND ELLER ELEKTRISK STØD.
INDFØR IKKE METALGENSTANDE GENNEM VENTILATIONSRISTEN ELLER ANDRE ÅBNINGER PÅ UDSTYRET.

Apparatet må ikke udsættes for dryp eller sprøjt, og ingen genstande, der er fyldt med væske, f.eks. vaser, må anbringes på apparatet.

For at forhindre skader skal dette apparat fastgøres sikkert til væggen/gulvet i overensstemmelse med installationsinstruktionerne.

FORSIGTIG

FORSIGTIG

RISIKO FOR ELEKTRISK STØD MÅ IKKE ÅBNES

FORSIGTIG : FOR AT MINDSKE RISIKOEN FOR ELEKTRISK STØD. FJERN IKKE DÆKSEL (ELLER BAGBEKLÆDNING). DER ER INTET INDENI, DER KAN REPARERES AF BRUGEREN. OVERLAD SERVICE TIL KVALIFICERET SERVICEPERSONALE.

FORKLARING PÅ GRAFISKE SYMBOLER

Lynet med pilen i trekanten har til formål at advare brugeren mod tilstedeværelse af "farlig spænding" inde i produktets kabinet, som kan være i en sådan størrelsesorden, at den kan udgøre en risiko for, at personer kan få elektrisk stød.

Udråbstegnet i trekanten har til hensigt at advare brugeren mod tilstedeværelse af vigtige drifts- og vedligeholdelses-(service) instruktioner i den dokumentation, som følger med produktet.

Klasse I Konstruktion

Et apparat med KLASSE I-konstruktion skal tilsluttes en stikkontakt med beskyttende jordstik.

Batteri

Batterier (batteripakker eller installerede batterier) må ikke udsættes for stor varme, f.eks. solskin, ild eller lignende.

Forkert udskiftning af batteriet kan medføre eksplosionsrisiko.
Udskift kun med den samme eller en tilsvarende type.

Frakobling af enheden

Tag stikkontakten ud af apparatet, hvis det er defekt. Ring derefter til en reparatør i nærheden.

Når det anvendes uden for USA, kan der anvendes HAR-kode med beslag fra en certificeret servicevirksomhed.

FORSIGTIG

Serviceinstruktionerne er kun til brug af uddannet servicepersonale.
Du må ikke udføre anden service end den, der omtales i driftsinstruktionerne, medmindre du har de fornødne kvalifikationer, da der er risiko for elektrisk stød.

Produktets BNC Out-stik er beregnet til nemmere installation, og anbefales ikke til overvågningsformål.
Hvis du bevarer BNC-kablet tilsluttet, er der risiko for, at lys kan medføre skade eller fejlfunktion på produktet.

Anvend tilslutningsstrøm med kun ét kamera: Andre enheder må ikke være tilsluttet.

oversigt

Læs omhyggeligt følgende anbefalede sikkerhedsforanstaltninger.

- Anbring ikke apparatet på en ujævn overflade.
- Anbring ikke apparatet på en overflade, hvor det udsættes for direkte sollys, eller i nærheden af varmeudstyr eller et område med stor kulde.
- Anbring ikke dette apparat i nærheden af elektrisk ledende materiale.
- Forsøg ikke selv at udføre service på dette apparat.
- Anbring ikke et glas vand på produktet.
- Anbring ikke produktet tæt på magnetiske kilder.
- Blokér ikke nogen ventilationsåbning.
- Anbring ikke tunge genstande oven på produktet.

Brugermanualen er en vejledning i, hvordan produkterne anvendes.

De anvendte tegn i bogen har følgende betydning.

- Reference: Der gives informationer om brug af produktet
- Bemærk: Hvis der er risiko for at påføre produkter og mennesker skade, hvis vejledningen ikke følges

※ Læs denne manual igennem, inden produktet tages i brug, og opbevar den et sikkert sted.

INDHOLD

OVERSIGT

3

3 Vigtige sikkerhedsinstruktioner
9 Produktfunktioner
10 Anbefalede PC-specifikationer
10 Anbefalede SD-/SDHC-hukommelseskort specifikationer
11 Dette Følger
12 Hurtigt overblik

INSTALLATION OG TILSLUTNING

14

14 Installation
20 Indsætning/udtagning af et SD-hukommelseskort
21 Information om hukommelseskortet (medfølger ikke)
22 Tilslutning til anden enhed

NETVÆRKSFORBINDELSE OG OPSÆTNING

26

26 Tilslutning af kameraet direkte til lokalt netværk
27 Tilslutning af kameraet direkte til et DHCP-baseret DSL-/kabelmodem
28 Tilslutning af kameraet direkte til et PPPoE-modem
29 Tilslutning af Kameraet til en Bredbånds-router med PPPoE-/Kabelmodemmet
30 Anvendte knapper i IP-installationsprogrammet
31 Statisk IP-opsætning
35 Dynamisk IP-opsætning
36 Opsætning af videresendelse af portinterval (porttilknytning)
38 Tilslutning til kameraet fra en delt lokal PC
38 Tilslutning til kameraet fra en fjern-PC via internettet

oversigt

OPSÆTNINGSSKÆRM 39

39 Tilslutning til kameraet
40 Log på
41 Installation af Silverlight Runtime
45 Installation af STW WebViewer-plugin'en
46 Brug af live-skærmen
48 Wyszukuj i odtwarzaj według zdarzeń
49 Wyszukuj i odtwarzaj według godziny

OPSÆTNINGSSKÆRM 51

51 Opsætning
51 Opsætning af Audio og video
65 Netværksopsætning
74 Opsætning af begivenhed
88 Systemopsætning

APPENDIKS 95

95 Specifikation
99 Produktoversigt
101 Problemløsning
103 Open Source Announcement

PRODUKTFUNKTIONER

- **Støvtæt/vandtæt (IP66)**
  Det støv- og vandtætte design gør det nemt for dig, når du installerer produktet udendørs eller udsætter det for regn.
- **SSNR3 (Samsung Super Noise Reduction)**
  Den kraftige DSP-chip reducerer forstærkningsstøj effektivt for at fjerne forsinkelsen, så den kan levere et skarpt og tydeligt billede ved scener med lav kontrast.
- **Dag og nat (ICR)**
  Detekterer automatisk tidens skiften over dagen og skifter til en tilstand, der er relevant for den aktuelle scene. Ved en dagslysscene skiftes der til farvetilstand for at bevare de optimale farvetoner, mens der om natten skiftes til S-H-tilstand for at kunne identificere scener med lav kontrast.
- **IR-tilstand**
  Hvis IR-indikatoren tændes, skifter produktet til IR-tilstand for et forhindre, at en genstand bliver for lys, og det hjælper dig med at identificere genstanden på kort afstand.
- **Synlighed: 25 m**
  I S-H-tilstand tænder IR-indikatoren ved en effektiv synlighed på 25 m ved 0 Lux.
- **SSDR (Samsung Super Dynamic Range)**
  Ved en scene, der har en stor kontrastforskel, som f.eks. en modlysscene, bevarer produktet de lyse områder og gør selektivt de mørke områder lysere for at balancere den overordnede kontrast.
- **Andet**
  Andre funktioner omfatter: HLC (Højlyskompensation), SENS-UP, V-REV, H-REV, D-ZOOM, SKARPHED, Bevægelsesdetek., PRIVAT ZONE.
- **Full HD-videokvalitet**
- **Multi-streaming**
  Dette netværkskamera kan vise videoer i forskellige opløsninger og kvaliteter samtidig ved hjælp af forskellige codecs.
- **Webbrowserbaseret overvågning**
  Bruger webbrowseren til at afspille billedet i et lokalt netværksmiljø.
- **Alarm**
  Hvis der opstår en hændelse, overføres den hændelsesrelaterede video til den FTP/e-mail, som brugeren har angivet, eller den gemmes på SD-hukommelsen, eller signalet for hændelsen sendes til alarmudgangen.
- **Detektering af manipulation**
  Detekterer forsøg på manipulation på videoovervågning.

- **Bevægelsesdetektering**
  Detekterer bevægelse fra kameraets videoindgang.
- **Intelligent videoanalyse**
  Analyserer video for at detektere logiske begivenheder med specificerede betingelser fra kameraets videoindgang.
- **Ansigtsdetektering**
  Genkender et ansigt fra kameraindgangsvideoen.
- **Smart Codec**
  Anvender codecs gennem tilpasning for en del af kameraets synsfelt for at forbedre kvaliteten af en region, som er angivet af brugeren.
- **Autodetektion af afbrudt netværk**
  Registrerer netværksfrakobling inden udløsning af en alarm.
- **Overholdelse af ONVIF**
  Dette produkt understøtter ONVIF.
  Yderligere oplysninger findes på www.onvif.org.

Driving network video through global standardization

ANBEFALEDE PC-SPECIFIKATIONER

- CPU : Intel Core 2 Duo 2,4 GHz eller højere
- Operativsystem : Windows XP, VISTA, 7, Mac OS
- Opløsning : 1280 X 1024 pixels eller højere
- RAM : 2GB eller højere
- Webbrowser : Internet Explorer 7.0 eller nyere, Firefox 3.0 eller nyere, Chrome 8.0 eller nyere, Safari 4.0 eller nyere
  - Hverken en anden betatest-version end den, der findes på virksomhedens hjemmeside, eller udviklingsversionen vil blive understøttet.
  - Det anbefales at slutte til IPv6 i Windows 7.
- Videohukommelse : 256MB eller højere

- Hvis driveren til grafikkortet ikke er installeret korrekt, eller den ikke er den nyeste version, afspilles videoen måske ikke korrekt.
- For et system med mindst 2 skærme kan afspilningsydelsen blive forringet. Det afhænger af systemet.

ANBEFALEDE SD-/SDHC-HUKOMMELSESKORT SPECIFIKATIONER

- 4GB ~ 32GB
- Det anbefales at bruge hukommelseskort med en hastighed på mindst klasse 6.

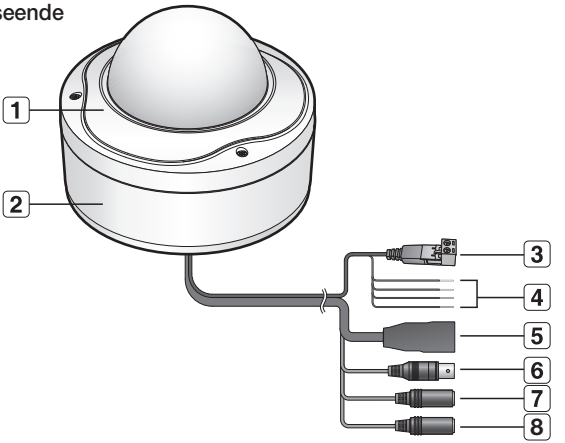
DETTE FØLGER

Kontroller, om kameraet og alt tilbehør medfølger i emballagen.

Udseende	Elementets navn	Antal	Beskrivelse
	Kamera	1	
	Brugervejledning, CD med installationssoftware, DVD med CMS-software	2	
	Hurtig vejledning	1	
	Skabelon	1	Produktinstallationsvejledning
	ASSY-Screw selvskærende skrue	4	Bruges til installation på væg eller loft
	Unbrakonøgle	1	Bruges til at fjerne/ordne kuppeldækslet
	Plastikrawplug	4	Til at fastsætte en skrue, indsættes i et hul (forstærket fastgørelseskraft)
	Maskinskruer	4	Anvendes til samling af kuppeldækslet ved installation af produktet på et rør, ved vægmontering eller til blokering af hullet.
	Kabel til test af skærm	1	Bruges til at teste kameraforbindelsen til en bærbar fremvisningsenhed
	Gummikappe	3	Isoleringskappe for forbedret EMC-ydelse.

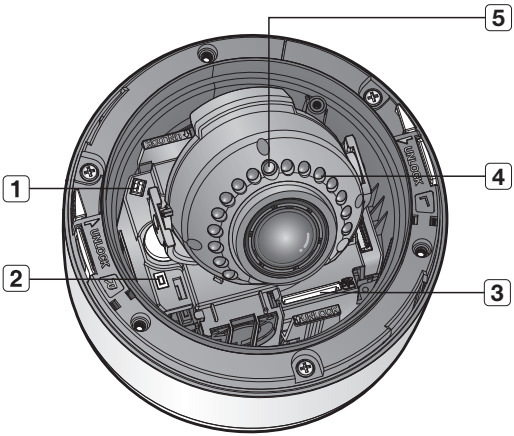
HURTIGT OVERBLIK

Udseende



Element		Beskrivelse	
1	Topdæksel	Dæksel til beskyttelse af objektivet og hovedenheden.	
2	Kamerakasse	Beskytter objektivet og kamerahuset.	
3	Strømport	Her sættes strømkablet i.	
4	Alarm ind/ud-stik	ARM-IN	BLUE : Bruges til at tilslutte alarmindgangssignalet.
		ARM-OUT	WHITE : Bruges til at tilslutte alarmudgangssignalet.
		A-COM	GRAY : Fælles port, hvor alarmudgangssignalet tilsluttes.
		GND	YELLOW : Bruges til jordforbindelse.
5	Netværksport	Bruges til at tilslutte et PoE- eller et LAN-kabel.	
6	Videoudgangsport	Analog videoudgangsport. (til installation)	
7	Lydindgangsstik	Bruges til at tilslutte en mikrofon.	
8	Lydudgangsstik	Bruges til at tilslutte højttalere.	

Indvendig



Element	Beskrivelse
1 Skærmudgang	Med testskærmkablet kan du teste kameraet ved at tilslutte det til en mobil fremvisningsenhed. (til installation)
2 Knappen nulstil	Nulstiller kameraindstillingerne til standarder. Tryk og hold i omkring 5 sekunder for at genstarte systemet. ! Hvis du nulstiller kameraet, justeres netværksindstillingerne, så DHCP kan aktiveres. Hvis der ikke er nogen DHCP-server i netværket, skal du køre IP-installationsprogrammet for at ændre de grundlæggende netværksindstillinger såsom IP-adresse, undernetmaske, gateway osv., inden du kan oprette forbindelse til netværket.
3 Rum til SD-hukommelseskort	Rum til SD-hukommelseskortet.
4 IR-LED	Disse infrarøde lysdioder kontrolleres af belysningssensoren.
5 Belysningssensor	Registrerer indgående lys for at kontrollere IR LED.

INSTALLATION

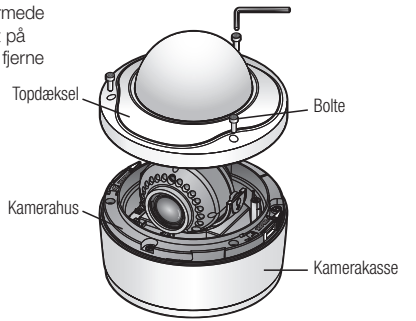
Forholdsregler inden installation

Sørg for at læse følgende instruktioner, inden kameraet installeres:

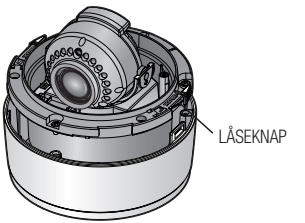
- Vælg et installationssted (loft eller væg), der kan holde til mindst 5 gange kameraets vægt.
- Indsatte eller afrevne kabler kan føre til beskadigelse af produktet eller brand.
- Hold af sikkerhedshensyn alle andre væk fra installationsstedet.
  Læg personlige ejendele væk fra stedet for en sikkerheds skyld.

Demontering

1. Brug den medfølgende L-formede nøgle, og løsn 3 bolte øverst på topdækslet (mod uret) for at fjerne dækslet.

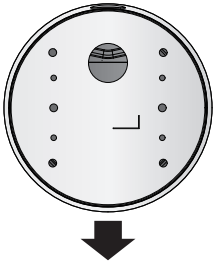


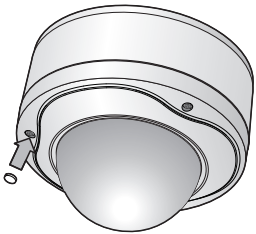
2. Løsn 3 skruer på kamerahuset (mod uret) og skub venstre/højre LÅSEKNAP ned (i pilens retning) for at låse op. Fjern derefter kameraet fra kassen.



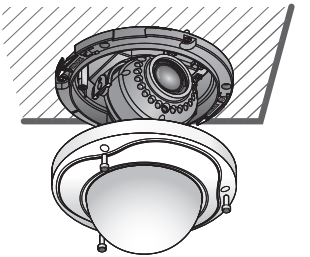
Installation direkte på loftet

1. Fjern topdækslet fra kassen ved at se afsnittet "**Demontering**". (side 14)
2. Bor et hol (diameter: 5 mm, dybde: min. 35 mm) på et ønsket sted i kassens bund, og isæt det medfølgende plasticanker (HUD 5) til enden.
3. Fastgør bundhullet til ankerhullet, og isæt og fastgør den samlende, selvskørende skrue (TH M4xL30).
   - Når kamerakassen samles med en samlingskasse, skal du vælge de relevante skruehuller i bunden af kassen til installationen.
4. Tilslut og placer de nødvendige kabler, så de ikke bliver beskadiget eller sidder i klemme, når kameraet installeres.
5. Installer kamerahuset modsat i forhold til "**Demontering**".
6. Juster objektivet i den ønskede retning ved at se afsnittet "**Justering af retningen for kameraet**". (side 19)
7. Luk topdækslet.
   - For at sikre vandtæthed: Stram fikseringsboltene med L-nøglen.
   - For forbedret EMC-ydelse anbefales det at bruge den medfølgende isolationskappe. (x 3)





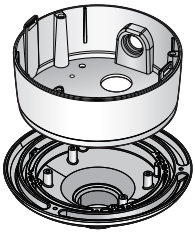
Loftsbeslag



1. Fjern topdækslet fra kassen ved at se afsnittet "**Demontering**". (side 14)
2. Brug den medfølgende skabelon til at bore ét hul til kameraet og ét hul til skruen (5 mm i diameter, mindst 35 mm dybt), og sæt plasticrawpluggen (HUR 5) for enden af hullet til skruen.
3. Tilslut og placer de nødvendige kabler, så de ikke bliver beskadiget eller sidder i klemme, når kameraet installeres.
4. Løsn og fjern skruerne i kameraenheder, der holder det fast i huset. (x 3)
5. Indsæt kameraenheden i hullet, så det passer til kamerahullet, og fastgør enheden med de selvskærende skruer til samlingen (TH, M4xL30). (x 3)
6. Juster objektivet i den ønskede retning ved at se afsnittet "**Justering af retningen for kameraet**". (side 19)
7. Luk topdækslet.
   - For at sikre vandtæthed : Stram fikseringsboltene med L-nøglen.

Montering af den ikke-medfølgende adapter

Vælg og køb efter ønske en af følgende muligheder (medfølger ikke), der passer til installationsstedet.

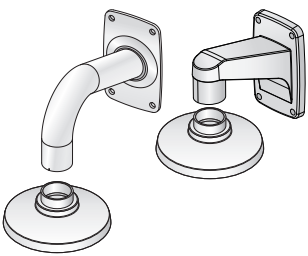


1. Fjern topdækslet fra kassen ved at se afsnittet "**Demontering**". (side 14)
2. Brug den medfølgende maskinskrue til at fastgøre kamerakassen til den ikke-medfølgende adapter.
3. Tilslut og placer de nødvendige kabler, så de ikke bliver beskadiget eller sidder i klemme, når kameraet installeres.
4. Installer kamerahuset modsat i forhold til "**demontering**".
5. Juster objektivet i den ønskede retning ved at se afsnittet "**Justering af retningen for kameraet**". (side 19)
6. Luk topdækslet.
   - For at sikre vandtæthed : Stram fikseringsboltene med L-nøglen.

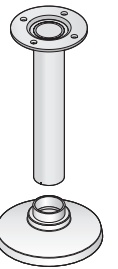
Ekstraudstyr til installation

For at gøre installationen lettere kan du købe relevant ekstraudstyr.

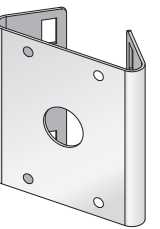
1. ADAPTER TIL VÆGBESLAG(SBP-300WM eller SBP-300WM1)/HÆNGEBESLAG (SBP-300HM3)
   Adapteren bruges, når kuppelkameraet installeres på en væg.



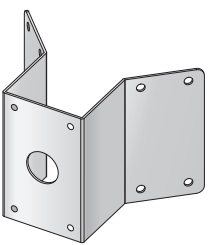
2. ADAPTER TIL LOFTBESLAG(SBP-300CM)/ HÆNGEBESLAG(SBP-300HM3)
   Adapteren bruges, når kuppelkameraet installeres på et betonloft.



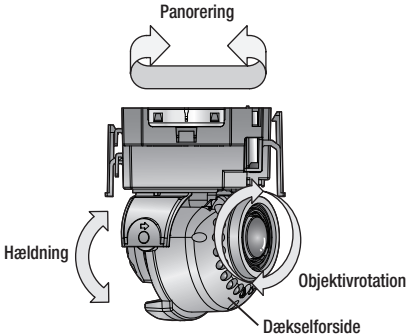
3. ADAPTER TIL STANGBESLAG(SBP-300PM)
   Dette er en adapter til installation af ADAPTER TIL VÆGBESLAG (SBP-300WM eller SBP-300WM1) på en stang, hvis diameter er større end 80 mm.



4. ADAPTER TIL HJØRNEBESLAG(SBP-300KM)
   Dette er en adapter til installation af ADAPTER TIL VÆGBESLAG (SBP-300WM eller SBP-300WM1) i hjørnet af en væg.



Justering af retningen for kameraet



▪ Justering af overvågningsretningen

Du kan kun justere kameraets retning, når kameraet er fastgjort på loftet.
Rotering af kameraenheden til venstre eller højre kaldes for Pan, justering af hældningen kaldes for Hld., og drejning af objektivet om sin akse kaldes for Rotation.

- Det effektive pan-område er 355 grader.
- Det effektive rotationsområde er 355 grader.
- Det effektive hældningsområde er 90 grader.

- Ved visse vinkler kan topdækslet afskære en del af det objekt, der overvåges.
- Roter ikke fokus-/zoomobjektivet med tvang efter dækselforsiden er fjernet. Hvis du gør det, kan det forårsage ukorrekt fokus pga. motorfejl.

▪ Justeringsmetoder

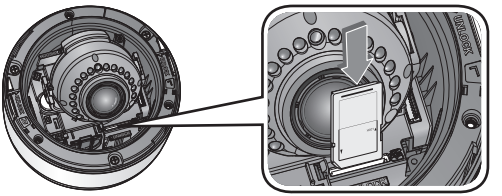
1. Efter installation af kameraet: Juster panoreringsvinklen i forhold til overvågningsretningen.
   Ved hældning af kameraet skal du justere den horisontale vinkel, så billedet ikke bliver spejlvendt.
2. Juster rotationsvinklen for at korrigere billedvisningspositionen (op/ned/venstre/højre).
   - Rotation betyder rotation i forhold til den bageste objektivenhed.
3. Juster hældningsvinklen, så kameraet vender mod det objekt, der skal overvåges.

INDSÆTNING/UDTAGNING AF ET SD-HUKOMMELSESKORT

- Tag strømkablet ud af kameraet før SD-hukommelseskortet indsættes.

Indsætning af et SD-hukommelseskort

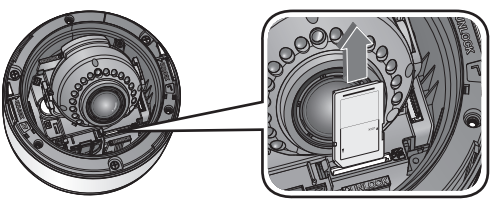
Skub SD-hukommelseskortet i pilens retning som vist på illustrationen.



- Forcér ikke, hvis du indsætter SD-hukommelseskortet, når det vender på hovedet. Ellers kan det beskadige SD-hukommelseskortet.

Udtagning af et SD-hukommelseskort

Tryk forsigtigt nedad på den ende af hukommelseskortet, der stikker udenfor, som vist på illustrationen for at fjerne hukommelseskortet fra slotten.



- Hvis du trykker for hårdt på SD-hukommelseskortet, kan det føre til, at kortet skydes ukontrollerbart ud af slotten, når det frigives.
- For at fjerne SD-hukommelseskortet skal du indstille kortet til <**Fra**> i menuen <**Opbevaring**> og trykke på knappen [**Anvend (** Anvend **)**]. (Side 76)
- Udtagning af SD-hukommelseskortet, mens der foretages lagring, kan beskadige dataene på kortet.

INFORMATION OM HUKOMMELSESKORTET (MEDFØLGER IKKE)

Hvad er et hukommelseskort?

Et hukommelseskort er en ekstern datalagringsenhed, der er blevet udviklet for at give en hel ny måde at optage og dele video-, lyd- og tekstdata på med digitale enheder.

Vælg et hukommelseskort, der passer til dig

Kameraet understøtter SDHC-hukommelseskort.
Du kan dog opleve kompatibilitetsproblemer alt afhængigt af hukommelseskortets model og udformning.

Til dette kamera anbefaler vi hukommelseskort fra følgende producenter:
SD/SDHC-hukommelseskort: Sandisk, Transcend

Hukommelseskort på 4GB - 32GB anbefales til brug med dette kamera.

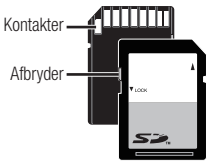
Afspilningen kan påvirkes alt efter hukommelseskortets hastighed, så brug hurtige hukommelseskort.

Det anbefales at bruge hukommelseskort med en hastighed på mindst klasse 6.

Anvendelse af hukommelseskortet

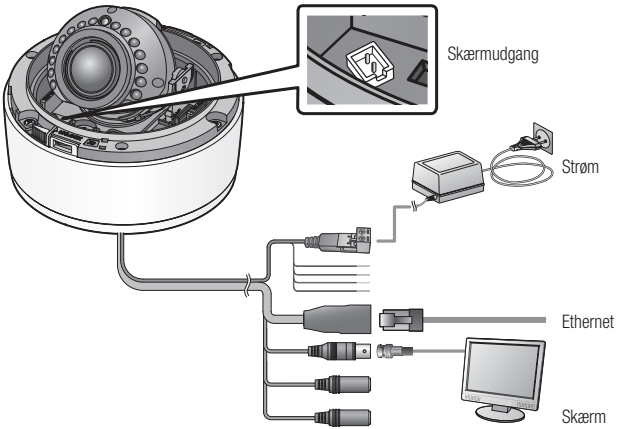
SD- og SDHC-hukommelseskort har en afbryder, der deaktiverer skrivning af data på mediet.
Når denne kontakt er låst, forhindres det, at der ved en fejltagelse slettes data, der er lagret på hukommelseskortet. Samtidig forhindrer det dig også i at skrive data på mediet.

▪ Hukommelseskortets dele



SD/SDHC

TILSLUTNING TIL ANDEN ENHED



- Produktets BNC Out-stik er beregnet til nemmere installation, og anbefales ikke til overvågningsformål. Hvis du bevarer BNC-kablet tilsluttet, er der risiko for, at lys kan medføre skade eller fejlfunktion på produktet.

Ethernet-forbindelse

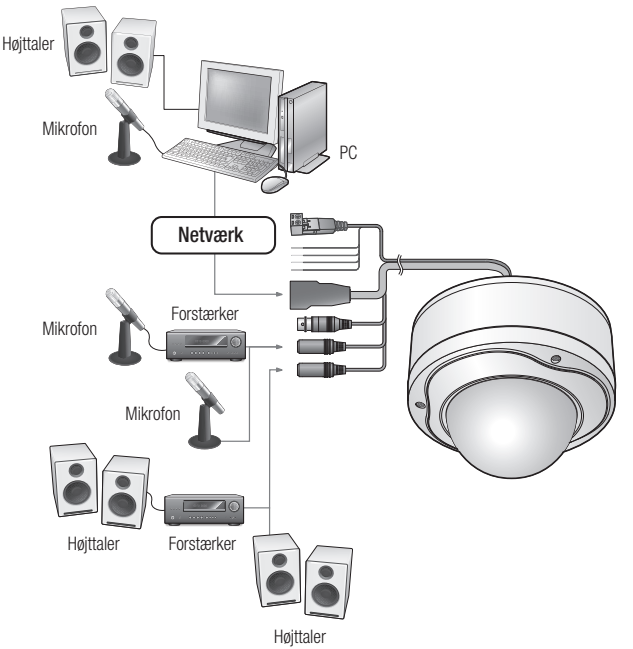
Tilslut Ethernet-kablet til det lokale netværk eller til internettet.

Strømforsyning

Brug skruetrækkeren til at forbinde hver ledning (+, –) på strømkablet til det tilsvarende strømstik på kameraet.

- Pas på ikke at bytte om på polariteten, når du tilslutter strømkablet.
  Du kan også bruge en router med PoE (Power over Ethernet) til at forsyne kameraet med strøm.
- Hvis du kun bruger 24 V vekselstrøm, kører varmekilden.
- Hvis du anvender PoE (Power over Ethernet), kører varmeren slet ikke.
  Brug en adapter, hvis installationsstedet kræver brug af en varmekilde. Adapter sælges separat.
  Se "**Appendiks**" for strømspecifikationer. (side 98)
- Hvis både PoE og javnstrom 12V bruges, vil dette kamera få strøm fra PoE.
- Du skal sikre, at skærmen og kameraet er slukket, når du forbinder dem.

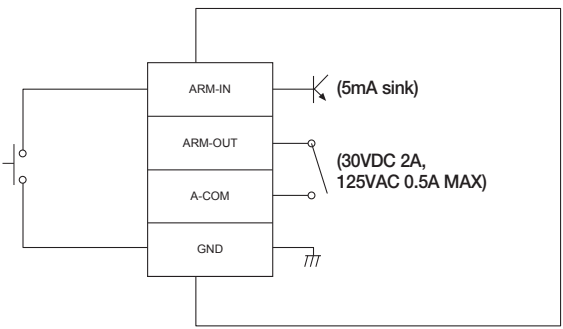
Tilslutning til lydind-/udgang



1. Tilslut AUDIO IN-stikket på kameraet direkte til mikrofonen eller LINE OUT-stikket på forstærkeren, som mikrofonen er tilsluttet.
2. Tilslut AUDIO OUT-stikket på kameraet med LINE IN-stikket på højttaleren.
3. Kontroller specifikationerne for lydindgang.

- **Audio-codec**
  G.711 PCM. μ-law 64kbps 8kHz sampling
- **Fuld dobbelt audio**
- **Audio in**
  Anvendes til linjeindgang af monosignal (maks. 2,4 Vpp)
- **Audio out**
  Anvendes til linjeudgang af monosignal (maks. 2,4 Vpp)
- **Linjeudgangsimpedans**
  600Ω

Alarm I/O ledningsdiagram



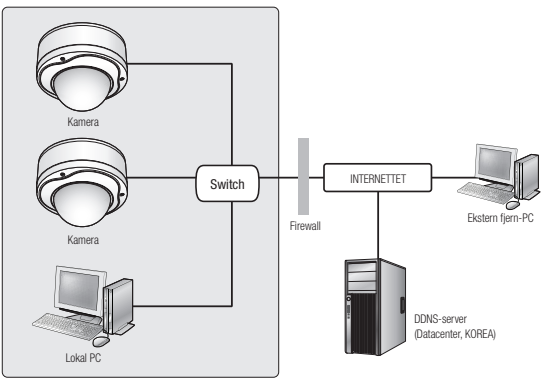
netværksforbindelse og opsætning

Du kan indstille netværksindstillingerne i henhold til dine netværkskonfigurationer.

TILSLUTNING AF KAMERAET DIREKTE TIL LOKALT NETVÆRK

Tilslutning til kameraet fra en lokal pc i LAN

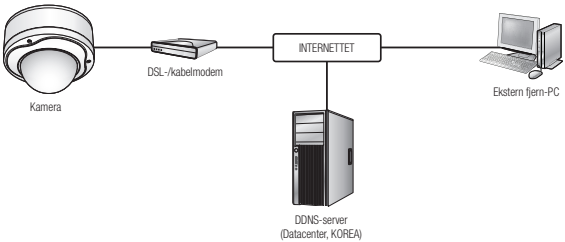
1. Start en internetbrowser på den lokale PC.
2. Angiv IP-adressen på kameraet i browserens adressefelt.



<Lokalt netværk>

- En fjern-pc i et eksternt internet uden for LAN-netværket er muligvis ikke i stand til at oprette forbindelse til kameraet, der er installeret i intranettet, hvis port-forwarding ikke er korrekt indstillet, eller der er en firewall.
  I dette tilfælde skal du kontakte din netværksadministrator for at løse problemet.
- Som standardindstilling tildeles IP-adressen automatisk fra DHCP-serveren. Hvis der ikke er nogen DHCP-server tilgængelig, bliver IP-adressen sendt til 192.168.1.100.
  Brug IP-installationsprogrammet til at ændre IP-adressen.
  For flere detaljer om brug af IP-installationsprogrammet skal du se "**Statisk IP-opsætning**". (side 31)

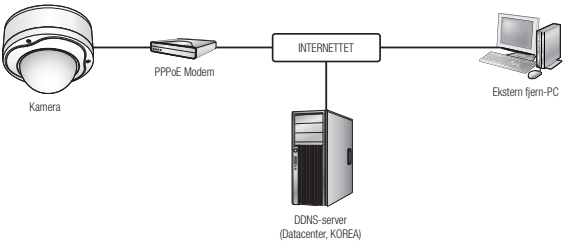
TILSLUTNING AF KAMERAET DIREKTE TIL ET DHCP-BASERET DSL-/KABELMODEM



1. Anvend LAN-krydskablet til at tilslutte netværkskablet direkte til din PC.
2. Kør IP-installationsprogrammet, og ændr kameraets IP-adresse, så du kan bruge webbrowseren på dit skrivebord til at oprette forbindelse til internettet.
3. Brug internetbrowseren til at oprette forbindelse til kameraet.
4. Gå videre til siden [**Setup**].
5. Gå videre til [**Network**] – [**DDNS**], og konfigurer DDNS-indstillingerne.
6. Gå til [**Network**] – [**Interface**], og indstil netværkstypen til [**DHCP**].
7. Tilslut kameraet, der er frakoblet pc'en, direkte til modemmet.
8. Genstart kameraet.

- Se "**Registrering med DDNS**" om registrering af DDNS-indstillingerne. (side 68)
- Se "**DDNS**" om konfiguration af DDNS-indstillingerne. (side 67)
- Se "**Interface**" om indstilling af netværkstype. (side 65)

TILSLUTNING AF KAMERAET DIREKTE TIL ET PPPoE-MODEM

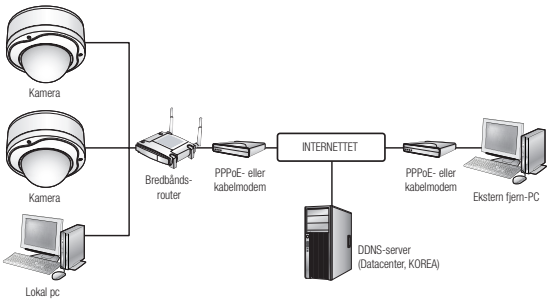


1. Anvend LAN-krydskablet til at tilslutte netværkskablet direkte til din PC.
2. Kør IP-installationsprogrammet, og ændr kameraets IP-adresse, så du kan bruge webbrowseren på dit skrivebord til at oprette forbindelse til internettet.
3. Brug internetbrowseren til at oprette forbindelse til kameraet.
4. Gå videre til siden [**Setup**].
5. Gå videre til [**Network**] – [**DDNS**], og konfigurer DDNS-indstillingerne.
6. Gå til [**Network**] – [**Interface**], og indstil netværkstypen til [**PPPoE**].
7. Tilslut kameraet, der er frakoblet pc'en, direkte til modemmet.
8. Genstart kameraet.

- Se "**Registrering med DDNS**" om registrering af DDNS-indstillingerne. (side 68)
- Se "**DDNS**" om konfiguration af DDNS-indstillingerne. (side 67)
- Se "**Interface**" om indstilling af netværkstype. (side 65)

TILSLUTNING AF KAMERAET TIL EN BREDBÅNDS-ROUTER MED PPPoE-/KABELMODEMMET

Dette gælder for et lille netværksmiljø, f.eks. private hjem, hjemmekontorer og almindelige butikker.



Konfiguration af netværksindstillinger på den lokale pc tilsluttet en Bredbånds-router

Følg nedenstående instruktioner for at konfigurere netværksindstillingerne på den lokale pc tilsluttet en Bredbånds-router

- Vælg : <**Netværkskvarter**> → <**Egenskaber**> → <**Tilslutning til lokalt område**> → <**Egenskaber**> → <**Generelt**> → <**Internetprotokol (TCP/IP**)> → <**Egenskaber**> → <**Få automatisk en IP-adresse**> eller <**Brug følgende IP-adresse**>.
- Følg nedenstående instruktioner, hvis du vælger <**Brug følgende IP-adresse**>:

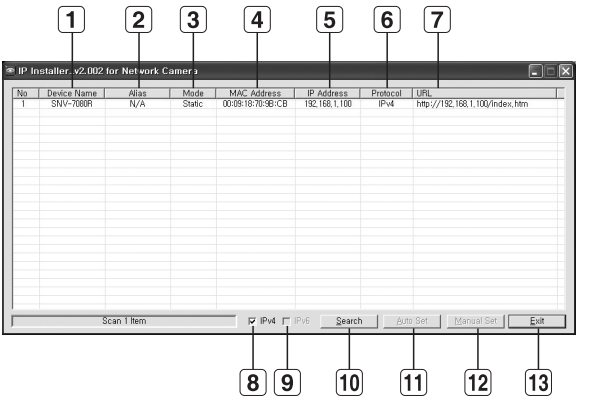
eks.1) Hvis (LAN IP) Bredbånds-routerens adresse er 192.168.1.1
IP-adresse : 192.168.1.100
Undernetmaske : 255.255.255.0
Standardgateway : 192.168.1.1

eks.2) Hvis (LAN IP) Bredbånds-routerens adresse er 192.168.0.1
IP-adresse : 192.168.0.100
Undernetmaske : 255.255.255.0
Standardgateway : 192.168.0.1

eks.3) Hvis (LAN IP) Bredbånds-routerens adresse er 192.168.xxx.1
IP-adresse : 192.168.xxx.100
Undernetmaske : 255.255.255.0
Standardgateway : 192.168.xxx.1

- Bredbånds-routerens adresse findes i dokumentationen til produktet.
- For flere informationer om port-forwarding på bredbåndsrouteren: Se "**Opsætning af videresendelse af portinterval (porttilknytning)**". (side 36)

ANVENDTE KNAPPER I IP-INSTALLATIONSPROGRAMMET



Element	Beskrivelse
1 **Device Name**	Modelnavn på det tilsluttede kamera. Klik på kolonnen for at sortere listen efter modelnavn. Søgningen stopper dog, hvis du klikker under søgningen.
2 **Alias**	Denne funktion er pt. ikke implementeret.
3 **Mode**	Viser enten <**Static**>, <**Dynamic**> eller <**PPPoE**> for den nuværende netværksstatus.
4 **MAC(Ethernet) Address**	Ethernet-adressen på det tilsluttede kamera. Klik på kolonnen for at sortere listen efter Ethernet-adresse. Søgningen stopper dog, hvis du klikker under søgningen.
5 **IP Address**	Det er en IP-adresse angivet i kameraet. Klik på kolonnen for at sortere listen efter IP-adresse. Søgningen stopper dog, hvis du klikker under søgningen.
6 **Protocol**	Netværksindstillinger for kameraet. Fabriksindstillingen er "IPv4". Kameraer med IPv6-indstillingen vises som "IPv6".

Element	Beskrivelse
7 URL	DDNS URL-adresse, der giver mulighed for adgang fra det eksterne internet. Den erstattes dog af kameraets <**IP Address**>, hvis DDNS-registreringen ikke lykkes.
8 IPv4	Scanner kameraet efter IPv4-indstillingen.
9 IPv6	Scanner kameraet efter IPv6-indstillingen. Kun aktiveret i et IPv6-kompatibelt miljø.
10 Search	Scanner efter kameraer, der er tilsluttet til netværket. Denne knap er dog grå, hvis hverken IPv4 eller IPv6 er markeret.
11 Auto Set	IP-installationsprogrammet konfigurerer automatisk netværksindstillingerne.
12 Manual Set	Du skal konfigurere netværksindstillingerne manuelt.
13 Exit	Afslutter IP-installationsprogrammet.

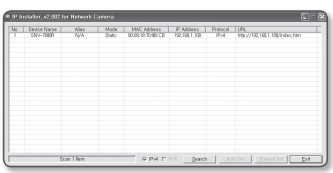
- Angående IP-installationsprogrammet skal du kun bruge den version af installationsprogrammet, der leveres med installations-cd'en eller den seneste version, hvis den er tilgængelig.
  Du kan downloade den nyeste version fra Samsungs website (www.samsungcctv.com).

STATISK IP-OPSÆTNING

Manuel netværksopsætning

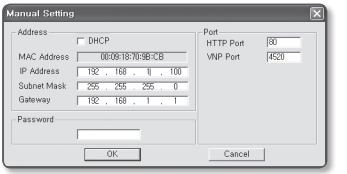
Kør <**IP Installer_v2.XX.exe**> for at få vist kameraets søgeliste.
Efter den første opstart bliver både [**Auto Set**] og [**Manual Set**] grå.

- For kameraer fundet med IPv6-indstillingen er disse knapper grå, da kameraerne ikke understøtter denne funktion.



1. Vælg et kamera på søgelisten.
   Kontroller kameraets MAC-adresse på kameraets etiket.
   Både knappen [**Auto Set**] og [**Manual Set**] aktiveres.
2. Klik på [**Manual Set**].
   Dialogboksen Manual Setting vises.
   Kameraets standardværdier for <**IP Address**>, <**Subnet Mask**>, <**Gateway**>, <**HTTP Port**> og <**VNP Port**> vises.

3. I ruden <**Address**> angives de nødvendige oplysninger.
   - MAC (Ethernet) Address : MAC-adressen, som er trykt på kameraets etiket, vises automatisk og kræver ikke brugerindstilling.

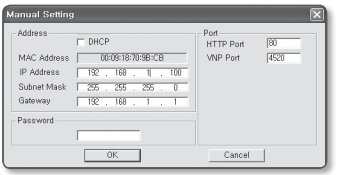


- Du kan kun konfigurere indstillingerne for den statiske IP, hvis DHCP-afkrydsningsfeltet ikke er markeret.

Hvis du ikke bruger en Bredbånds-router

Kontakt din netværksadministrator for indstillingen <**IP Address**>, <**Subnet Mask**> og <**Gateway**>.

4. I ruden <**Port**> angives de nødvendige oplysninger.
   - HTTP Port : Bruges til at få adgang til kameraet med internetbrowseren, standard er 80.
   - VNP Port : Bruges til at kontrollere videosignaloverførsel, standard er 4520.



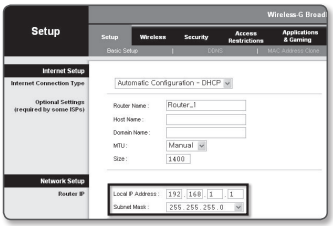
5. Indtast adgangskoden.
   Angiv adgangskoden for kontoen "**admin**", som blev brugt til at få adgang til kameraet.
   Standardadgangskoden er "**4321**".

- Standardadgangskoden kan blive eksponeret for hackertrusler, så det anbefales at skifte adgangskode efter installation af produktet.
  Bemærk, at sikkerhed og andre relaterede problemstillinger forårsaget af uændret adgangskode er brugerens ansvar.
- Hvis du vil ændre adgangskoden, skal du se "**Ændring af administrator-adgangskode**" i brugeropsætningen. (side 90)

6. Klik på [**OK**].
   Den manuelle netværksopsætning afsluttes.

Hvis du bruger en Bredbånds-router

- IP Address : Indtast en adresse inden for IP-området leveret af Bredbånds-routeren.
  eks.) 192.168.1.2~254,
  192.168.0.2~254,
  192.168.XXX.2~254
- Subnet Mask : Bredbånds-routerens <**Subnet Mask**> er kameraets <**Subnet Mask**>.
- Gateway : Bredbånds-routerens <**Local IP Address**> er kameraets <**Gateway**>.



- Indstillingerne kan være forskellige alt efter modellen af den tilsluttede Bredbånds-router. Yderligere oplysninger findes i den pågældende routers brugervejledning.
- For flere informationer om port-forwarding på bredbåndsrouteren: Se "**Opsætning af videresendelse af portinterval (porttilknytning)**". (Side 36)

Hvis Bredbånds-routeren har mere end et kamera tilsluttet

Konfigurer de IP-relaterede indstillinger og de port-relaterede indstillinger tydeligt med hinanden.

eks.)

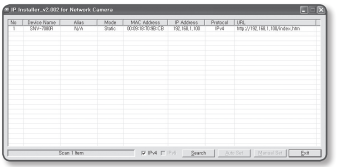
Kategori		Kamera #1	Kamera #2
IP-relaterede indstillinger	IP Address Subnet Mask Gateway	192.168.1.100 255.255.255.0 192.168.1.1	192.168.1.101 255.255.255.0 192.168.1.1
Port-relaterede indstillinger	HTTP Port VNP Port	8080 4520	8081 4521

- Hvis <**HTTP Port**> er indstillet til andet end 80, skal du angive nummeret på <**Port**> i adressefeltet i internetbrowseren, inden du kan få adgang til kameraet.
  eks.) http://IP-adresse: HTTP-port
  http://192.168.1.100:8080

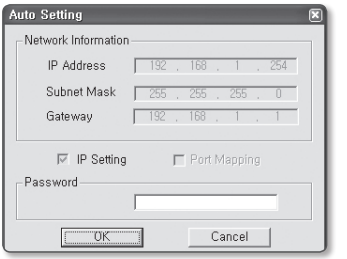
Automatisk netværksopsætning

Kør <**IP Installer_v2.XX.exe**> for at få vist kameraets søgeliste.
Efter den første opstart bliver både [**Auto Set**] og [**Manual Set**] grå.

- For kameraer fundet med IPv6-indstillingen er disse knapper grå, da kameraerne ikke understøtter denne funktion.



1. Vælg et kamera på søgelisten.
   Kontroller kameraets MAC-adresse på kameraets etiket.
   Både knapperne [**Auto Set**] og [**Manual Set**] aktiveres.
2. Klik på [**Auto Set**].
   Dialogboksen Auto Setting vises.
   <**IP Address**>, <**Subnet Mask**> og <**Gateway**> indstilles automatisk.
3. Indtast adgangskoden.
   Angiv adgangskoden for kontoen "**admin**", som blev brugt til at få adgang til kameraet.
   Standardadgangskoden er "**4321**".



- Standardadgangskoden kan blive eksponeret for hackertrusler, så det anbefales at skifte adgangskode efter installation af produktet.
  Bemærk, at sikkerhed og andre relaterede problemstillinger forårsaget af uændret adgangskode er brugerens ansvar.
- Hvis du vil ændre adgangskoden, skal du se "**Ændring af administrator-adgangskode**" i brugeropsætningen. (side 90)

4. Klik på [**OK**].
   Den automatiske netværksopsætning afsluttes.

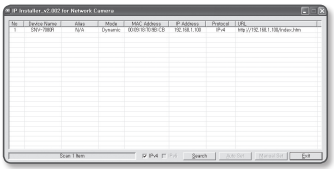
DYNAMISK IP-OPSÆTNING

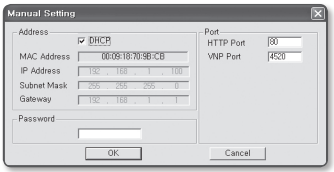
Dynamisk IP-miljøopsætning

- Eksempel på dynamisk IP-miljø
  - Hvis en Bredbånds-router med tilsluttede kameraer tildeles en IP-adresse af DHCP-serveren
  - Hvis kameraet tilsluttes direkte til modem med DHCP-protokollerne
  - Hvis der tildeles IP'er af den interne DHCP-server via LAN

Kontrol af den dynamiske IP

1. Kør IP-installationsprogrammet på brugerens lokale computer.
   Kameraer, som tildeles <**Dynamic IP**>-adresse vises på listen.
2. Vælg et kamera fra søgeresultatet.
3. Klik på knappen [**Manual Set**], og kontroller kameraets <**Dynamic IP**>-adresse.
   Hvis du fjerner afkrydsningen <**DHCP**>, kan du ændre IP til <**Static**>.

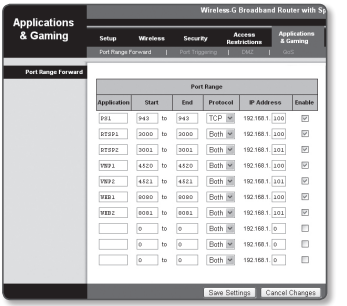




OPSÆTNING AF VIDERESENDELSE AF PORTINTERVAL (PORTTILKNYTNING)

Hvis du har installeret en Bredbånds-router med tilsluttet kamera, skal du angive portinterval fremad på Bredbånds-routeren, så en fjern-pc kan få adgang til kameraet.

Manuel videresendelse af portinterval



1. Vælg <**Applications & Gaming**> - <**Port Range Forward**> i opsætningsmenuen på Bredbånds-routeren.
   Se Bredbånds-routerens vejledning for oplysninger om, hvordan videresendelse af portintervallet indstilles for en tredjeparts-Bredbånds-router.
2. Vælg <**TCP**> og <**UDP Port**> for hvert kamera, der er tilsluttet til Bredbånds-routeren.
   Hvert portnummer til bredbåndsrouteren skal passe til det, der er angivet i <**Setup**> - <**Network**> - <**Port**> i kameraets webfremvisermenu.
3. Klik bagefter på [**Save Settings**].
   Dine indstillinger gemmes.

- Ovenstående eksempelinstruktioner er baseret på CISCO's Bredbånds-router.
- Indstillingerne kan være forskellige alt efter modellen af den tilsluttede Bredbånds-router. Yderligere oplysninger findes i den pågældende routers brugervejledning.

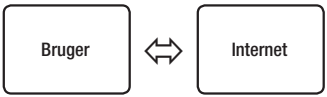
Indstilling af område til port-forwarding for flere netværkskameraer

Hvis der er sluttet flere netværkskameraer til én Bredbånds-router, bør du videresende TCP-port 943 på routeren til TCP-port 943 på et tilsluttet kamera.

- Hvis du ikke korrekt indstiller TCP-port 943 på routeren, kan du ikke få nogen videostream fra kameraets webside.

- TCP-port 943 er en port til et kameras Silverlight-policy-server.
- Du kan indstille en regel for port-forwarding af Bredbånds-router-enheden på dens webside til konfiguration.
- Du kan ikke ændre Silverlight-policy-serverens port på et kamera.
- Med undtagelse af policy-serverporten kan du ændre kameraets porte på dens webside til konfiguration.

Når Kamera1 og Kamera2 er sluttet til en router :



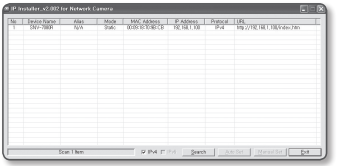
Bredbånds-router			
Start	Afslut	Protokol	IP-adresse
943	943	TCP	192.168.1.100
3000	3000	TCP/UDP	192.168.1.100
3001	3001	TCP/UDP	192.168.1.101
4520	4520	TCP/UDP	192.168.1.100
4521	4521	TCP/UDP	192.168.1.101
8080	8080	TCP/UDP	192.168.1.100
8081	8081	TCP/UDP	192.168.1.101

Kamera1 (192.168.1.100)	
HTTP-port	8080
Enhedsport	4520
RTSP-port	3000
Policy-serverport	943

Kamera2 (192.168.1.101)	
HTTP-port	8081
Enhedsport	4521
RTSP-port	3001
Policy-serverport	943

TILSLUTNING TIL KAMERAET FRA EN DELT LOKAL PC

1. Kør IP-installationsprogrammet.
   Det scanner efter tilsluttede kameraer og viser en liste over dem.
2. Dobbeltklik på et kamera for at få adgang til det.
   Internetbrowseren starter og opretter forbindelse til kameraet.



- Du kan også få adgang til kameraet ved at indtaste IP-adressen fundet på kameraet i internetbrowserens adressefelt.

TILSLUTNING TIL KAMERAET FRA EN FJERN-PC VIA INTERNETTET

Da brug af IP-installationsprogrammet på en fjerncomputer, der ikke er i Bredbånds-routerens netværksklynge, ikke er tilladt, kan brugere tilgå kameraer i en Bredbånds-routers netværk ved at bruge kameraets DDNS-URL.

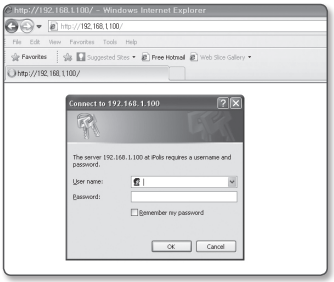
1. Inden du kan få adgang til et kamera i Bredbånds-routernetværket, skal du have indstillet videresendelse af portintervallet for Bredbånds-routeren.
2. Start internetbrowseren på fjern-pc'en, og indtast kameraets DDNS URL-adresse eller Bredbånds-routerens IP-adresse i adressefeltet.
   eks.) http://www.samsungipolis.com/[Produkt-ID]

- Se “**Registrering med DDNS**” om registrering af DDNS-indstillingerne. (side 68)

TILSLUTNING TIL KAMERAET

Normalt vil du gøre følgende

1. Start internetbrowseren.
2. Indtast kameraets IP-adresse på adresselinjen.
   eks.) • IP address (IPv4) : 192.168.1.100
   ➜ http://192.168.1.100
   - login-dialogen vises.
   • IP address (IPv6) : 2001:230:abcd:ffff:0000:0000:ffff:1111
   ➜ http://[2001:230:abcd:ffff:0000:0000:ffff:1111] - login-dialogen vises.



Hvis HTTP-porten ikke har værdien 80

1. Start internetbrowseren.
2. Indtast kameraets IP-adresse og HTTP-portnummer på adresselinjen.
   eks.) IP address : 192.168.1.100:HTTP Port number(8080)
   ➜ http://192.168.1.100:8080 - login-dialogen vises.

Brug af URL

1. Start internetbrowseren.
2. Indtast kameraets DDNS-URL på adresselinjen.
   eks.) URL address : http://www.samsungipolis.com/[Produkt-ID]
   - login-dialogen vises.

▪ Sådan kontrolleres DDNS-adressen

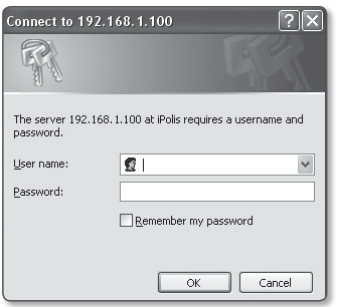
Hvis kameraet er tilsluttet direkte til et DHCP-kabelmodem, DSL-modem eller PPPoE-modem, vil IP-adressen på dit netværk ændres, hver gang du forsøger at oprette forbindelse til ISP-serveren (internetudbyderens server).
Hvis dette er tilfældet, vil du ikke blive informeret om, at IP-adressen ændres af DDNS.

Når du tilmelder en dynamisk IP-baseret enhed til DDNS-serveren, kan du nemt tjekke den ændrede IP, når du forsøger at få adgang til enheden.
For at registrere enheden på <**DDNS**>-serveren skal du besøge www.samsungipolis.com og registrere enheden først og derefter indstille <**Network**> - <**DDNS**> for Web Viewer til <**Samsung DDNS**> samt angive det <**Produkt-ID**>, som blev brugt til DDNS-registrering.

LOG PÅ

Når som helst, du tilgår kameraet, vises log ind-vinduet.
Indtast bruger-id'et og adgangskoden for at tilgå kameraet.

1. Indtast "**admin**" i indtastningsfeltet <**User Name**>.
   Administrator-id'en "**admin**" er fast og kan ikke ændres.
2. Indtast "**4321**" i indtastningsfeltet <**Password**>.
   Hvis adgangskoden er ændret, skal du indtaste den ændrede adgangskode i stedet.
3. Klik på [**OK**].
   Hvis du er logget på, vil du se Live Viewer-skærmen.



- Standard-bruger-id er "**admin**", og standard-adgangskoden er "**4321**".
- Af sikkerhedsgrunde skal du ændre adgangskoden i <**System**> - <**Bruger**>.
- Standardadgangskoden kan blive eksponeret for hackertrusler, så det anbefales at skifte adgangskode efter installation af produktet.
  Bemærk, at sikkerhed og andre relaterede problemstillinger forårsaget af uændret adgangskode er brugerens ansvar.
- Hvis du markerer feltet "**Remember my password**", når du har foretaget din indtastning, logges du på automatisk uden at blive bedt om at indtaste login-oplysninger fra og med næste gang.

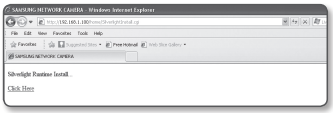
- Du får den bedste videokvalitet, hvis skærmstørrelsen er 100%. Hvis dette forhold reduceres, kan billedets kanter blive beskåret.

INSTALLATION AF SILVERLIGHT RUNTIME

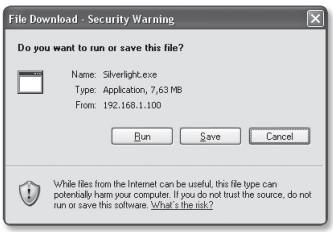
Hvis der ikke er installeret Silverlight Runtime på din pc, eller du kun har installeret en ældre runtime-version, vil du automatisk blive omdirigeret til Silverlight Runtime installationsiden, når du starter web vieweren.

▪ Sådan installerer du på et Windows-operativsystem

1. Klik på <**Click Here**>.

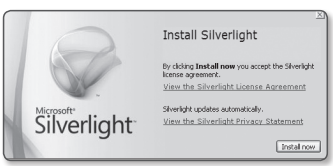


2. Når dialogboksen for filoverførsel åbnes, skal du klikke på <**Run**>.

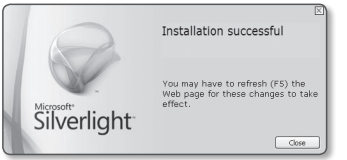


3. Når overførslen er fuldført, skal du klikke på <**Run**>.

4. Silverlight Runtime-installationssiden vises. <**Install now**> for at fortsætte med installationen.



5. Vælg <**Close**>, når du er færdig.

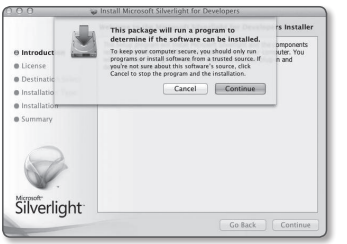


- **Sådan installerer du på MAC OS**

1. Kør filen med filtypenavnet ".dmg".

2. Kør den automatisk oprettede installationspakkefil, som har filtypenavnet ".pkg".

3. Klik på <**Continue**>.



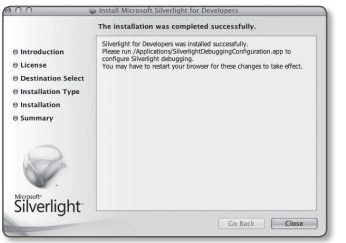
4. Vælg dit sprog på skærmbilledet med sprogvalg, og klik på <**Continue**>.

5. Klik på <**Agree**>.

6. Klik på <**Install**>.

7. Angiv adgangskoden til den konto, der aktuelt er logget ind, og klik på <**Install Software**>, og fortsæt.

8. Klik på <**Close**>, når du er færdig.

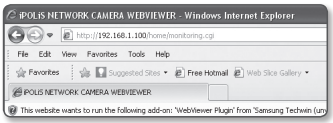


INSTALLATION AF STW WEBVIEWER-PLUGIN'EN

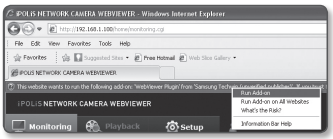
Når du tilslutter kameraet første gang, får du vist installationsmeddelelsen. Installer derefter den nødvendige WebViewer-plug-in for at få adgang til kameraet, og kontrollér videoen derfra i realtid.

- Microsoft Visual C++ 2010 Redistribute Package skal installeres på pc'en, før du kan installere Web viewer plug-in'en. Hvis Visual Studio 2010 ikke er installeret endnu, vises meddelelsen "VC++ 2010 runtime er ikke installeret. Installer runtime-biblioteket" Kør filen vcredist_x86.exe, der kan findes på Samsungs websted på www.samsungcctv.com eller på den medfølgende installations-cd. Filen vcredist_x86.exe er et installationsprogram til Microsofts Visual Studio 2010 Redistributable Package til 32-bit operativsystemer.

1. Ved adgang til startskærmen på overvågningssiden: Klik på den gule advarselsmeddelelse øverst på siden.

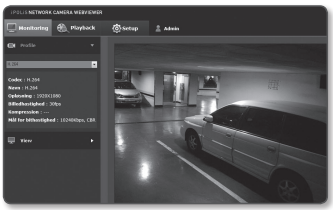


2. Klik på <**Run Add-on**>.



3. Pop-up-meddelelsen med sikkerhedsadvarslen vises. Klik på [**Run**].

4. Når Web Viewer-plug-in'en er installeret korrekt, vil du se live-skærmen.



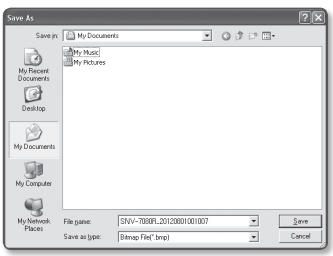
BRUG AF LIVE-SKÆRMEN

Element	Beskrivelse
1 **Overvågning**	Flyt til overvågningsskærmen.
2 **Afspilning**	Skift til overvågningsskærmen, der afspiller optagede data i SD-hukommelsen.
3 **Opsætning**	Flyt til opsætningsskærmen.
4 **Viewer-skærm**	Viser Live-videoen på skærmen. ■ Du kan bruge musen til at aktivere digital zoom på Viewer-skærmen.
5 **Profiltype**	Du kan vælge en profiltype i <**Videoprofil**> under opsætningsmenuen <**Video & Audio**>. ■ Når Web Viewer er tilsluttet, vises den aktuelt anvendte profilinformation.
6 **Skærmoptimering**	Kameraets videostørrelse skifter til webbrowserens størrelse.
7 **Fastsæt opløsningen**	Uanset den opløsning, der er konfigureret i kameraet, indstilles opløsningen til 640x480. Tryk igen for at vende tilbage til standardopløsning.

Element	Beskrivelse
8 Fuld skærm	Skift den aktuelle video til skærmens maksimale størrelse.
9 Optag	Gemmer snapshottet som en billedfil i formatet .bmp eller .jpg.
10 Lyd-/ mikrofonstyring	Aktiver/deaktiver lyd og mikrofon, og styr volumen.
11 Alarmudgang	Aktiverer alarmudgangen.
12 Skjul kontekstmenuen	Kontekstmenuen i venstre hjørne forsvinder, men kun menuikonet.

Sådan optages snapshottet

1. Klik på [**Optag (** **)**] det motiv, der skal optages. Dialogen til optagelse vises.
2. Bekræft lagringsstien, og klik på knappen [**Save**].
   Skærmbilledet gemmes i den angivne sti.



- Hvis du oplever afbrudte videoer, når du optager billedet med IE8 på en Windows 7-baseret pc: Fravælg "**Slå beskyttet tilstand til**" fra "**Funktioner – Internetindstillinger – Sikkerhed**".

Sådan tilpasses til fuld skærm

1. Klik på knappen [**Fuld skærm (** **)**].
2. Herved tilpasses Viewer til hele skærmen.
3. Du kan forlade fuldskærmsvisning ved at trykke på [**Esc**] på tastaturet.

- I Internet Explorer og Google Chrome-browseren kan du skifte til fuld skærm.

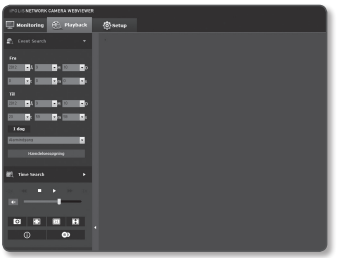
Sådan styres lyden

1. Klik på ikonet [**Lyd (**)] for at aktivere lydkommunikation.
2. Brug bjælken [ ] til at styre lydstyrken.

Sådan styres mikrofonen

1. Klik på ikonet [**Mikrofon** ( )] for at aktivere mikrofonen.

WYSZUKUJ I ODTWARZAJ WEDŁUG ZDARZEŃ

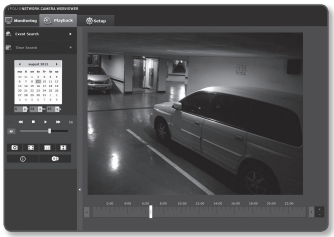


1. Kliknij przycisk [**Playback (**)].
2. Wybierz typ zdarzenia do wyszukiwania dla podanego okresu.
3. Wybierz rodzaj wyszukiwania.
4. Kliknij przycisk [**Hændelsessøgning**]. W przeglądarce zostaną wyświetlone wyniki wyszukiwania.

- W przypadku nagrania ponad 500 zdarzeń w trakcie wyszukiwania wyszukiwanie zostanie przerwanie po nagraniu 500. zdarzenia. Na przykład, jeśli okres wyszukiwania ustawiony jest pomiędzy 10 a 15 dniem miesiąca, a pomiędzy 10 a 11 dniem zostało nagranych ponad 500 zdarzeń, wyszukiwanie zostanie przerwane 11-tego dnia z liczbą 500 zdarzeń. Natomiast wyszukanie zdarzeń mających miejsce po tym czasie (od dnia 12-tego) będzie niemożliwe.

5. Wybierz z listy wyszukiwania pozycję, która ma być odtwarzana.
6. Kliknij przycisk [**Odtwarzaj (**)].
7. Aby zatrzymać odtwarzanie wideo, kliknij przycisk [**Zatrzymaj (**)].
8. Aby wrócić do ekranu wyszukiwania, kliknij [**Wyjdź (**)].

WYSZUKUJ I ODTWARZAJ WEDŁUG GODZINY



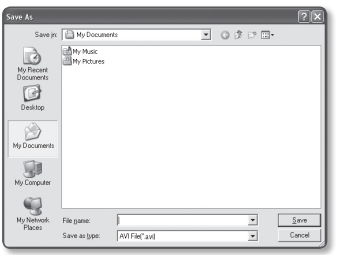
1. Kliknij [**Time Search (**)].
2. Kliknij żądaną datę w kalendarzu. Zostanie odtworzone wideo zarejestrowane wybranego dnia.
3. Hvis videoafspilningen er stoppet, skal du vælge et tidspunkt og klikke på [**Afspil (** ▶ **)**]. Video for det valgte tidspunkt afspilles.
4. Podczas odtwarzania wideo będzie wyświetlany czas nagrywania dla bieżącego obrazu wideo.
5. Wyszukuj wideo przechodząc wstecz i do przodu oraz steruj prędkością odtwarzania.
   - Sterowanie prędkością odtwarzania
     W przypadku wyboru ▶▶, przycisk zostanie przełączony na x1, x2, x4, x8, a prędkość odtwarzania odpowiednio zwiększona.
     W przypadku wyboru ◀◀, przycisk zostanie przełączony na x8, x4, x2, x1, a prędkość odtwarzania odpowiednio zmniejszona.
   - Sterowanie kierunkiem odtwarzania
     Jeśli wraz z wyświetleniem prędkości odtwarzania zostanie wyświetlony przycisk ▶▶ obraz wideo będzie odtwarzany do przodu; Natomiast, jeśli wraz z prędkością odtwarzania zostanie wyświetlony przycisk ◀◀ obraz wideo będzie odtwarzany do tyłu.
6. Przenieś [**Pasek czasu (** ▌▌ **)**] do żądanego punktu w nagraniu wideo przed rozpoczęciem odtwarzania.
   Godzina z plikiem normalnego nagrania zostanie podświetlona na niebiesko, a godzina nagrania zdarzenia — na czerwono.

Sådan kontrolleres tidsoplysningerne for videoen, der afspilles

1. Klik på knappen [**About (** ⓘ **)**].
2. Dato- og klokkeslætsinformationer vises på skærmen.

Sådan laves en sikkerhedskopi af den søgte video

1. Under afspilning: Klik på [ ] på motivet for at sikkerhedskopiere. Planlægningsvinduet for start- og sluttidspunkt for sikkerhedskopiering vises.
2. Klik på knappen [ ]. Vinduet Gem som vises.
3. Bekræft lagringsstien, og klik på knappen [**Save**]. Skærmbilledet sikkerhedskopieres til den angivne sti.



Sådan afspilles sikkerhedskopieret video

Den sikkerhedskopierede video gemmes i formatet .avi. Den sikkerhedskopierede video kan afspilles i enhver multimedieafspiller, der understøtter formatet, på din pc.

opsætningsskærm

OPSÆTNING

Du kan konfigurere video og lyd, netværk, hændelser og systemindstillinger for kameraet i netværket.

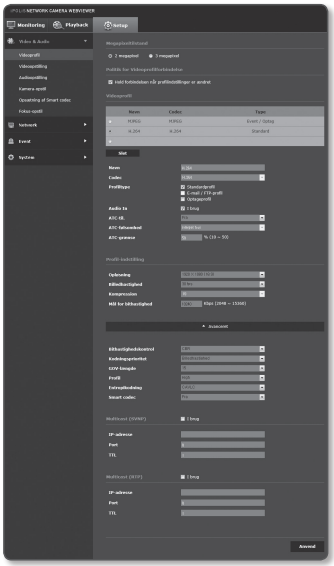
1. Klik på [**Setup (** Setup **)**] på Live-skærmen.
2. Opsætningsskærmen vises.

- Microsoft Silverlight 4.0 skal være installeret på pc'en for opsætningssider, der forhåndsviser video.
  Hvis denne ikke er installeret allerede, skiftes automatisk til installation af Silverlight.

OPSÆTNING AF AUDIO OG VIDEO

Videoprofil

1. Vælg fanen <**Video & Audio (** **)**> i opsætningsmenuen.
2. Klik på <**Videoprofil**>.
3. Indstil <**Megapixeltilstand**>.
   Ved ændring af valgt tilstand vises en bekræftelsesmeddelelse om nulstilling af videokonfigurationerne.
   Klik på [**OK**] for at bekræfte de ændrede videoindstillinger.
4. Indstil <**Politik for Videoprofilforbindelse**>.
   - Hold forbindelsen når profilindstillinger er ændret : Ændring af profilegenskaber, der anvendes af en eksisterende forbindelse, berører ikke en sådan tilslutning og beholder den gamle profilopsætning.
     Hvis denne ikke er valgt, vil ændring af en profil, der anvendes af en eksisterende forbindelse, nulstille en sådan forbindelse.
5. Vælg de enkelte profilegenskaber.



6. Klik på indtastningsfeltet for hvert element, og indtast / vælg de ønskede værdier.
   - Genvejsmenuen kan variere, afhængigt af den valgte codectype.
   - Standardprofil : Hvis der vælges en profil til brug af Web Viewer, anvendes en standard-videoprofil.
   - E-mail / FTP-profil : Video-profil, der skal overføres til den angivne e-mail eller FTP-sted.
     - Kun MJPEG-codec'et kan indstilles som E-mail / FTP-profil.
   - Optageprofil : Denne profil anvendes til videooptagelse.
   - Audio In : Indstiller, om der skal anvendes lyd ved videooptagelser.
7. Indstil ATC (Automatisk transmissionsstyring) i henhold til situationen.

   - ATC-til. : Justerer videoegenskaberne i overensstemmelse med variationerne i netværksbåndbredde, styrer bithastigheden. Justering af bithastigheden afhænger ATC-tilstanden.
     - Styr billedhast. : Reducerer billedhastigheden, hvis netværksbåndbredden falder.
     - Styr komprimering : Styrer komprimeringsgraden, hvis netværksbåndbredden falder.
       Justering af komprimering kan medføre forringelse af billedkvaliteten.
     - Hvis <**Bithastighedskontrol**> er indstillet til <**CBR**>, fastsættes kodningsprioriteten i henhold til ATC-tilstanden som følger:

Bithastighedskontrol / ATC-til.	Styr billedhastighed	Styr komprimering
CBR	Billedhastighed	Komprimering

   - ATC-følsomhed : Påvirker overførselshastigheden i henhold til variationerne i netværksbåndbredden.
     Overførselshastigheden justeres til den hurtigste, hvis båndbredden er <**Meget høj**> og justeres til den langsomste, hvis båndbredden er <**Meget lav**>.
   - ATC-grænse : Hvis kvaliteten eller billedhastigheden justeres, ændres egenskaben til den anvendte værdi (%) i forhold til indstillingsværdien (100%).
     Bemærk, at hvis egenskabsværdien justeres for meget, kan der opstå flimren på skærmen. Derfor er det tilrådeligt at justere værdien inden for grænsen.

- Det anbefales kun at anvende ATC-styring for kameraer, der understøtter ATC.
- Indstil ATC-følsomheden til <**Meget lav**> i et netværksmiljø med høj variation i netværksbåndbredden.
- Hvis netværksforbindelsen er ustabil, kan der opstå flimren på skærmen.

8. Klik på [**Anvend (** Anvend **)**], når du er færdig.

Sådan tilføjes en videoprofil

Du kan tilføje så mange codec'er, som der er brug for, således at der kan anvendes en række profiler på optagefunktionen.

1. Vælg en af mulighederne fra <**Videoprofil**>.
2. Angiv navnet og vælg et codec.
3. Angiv de betingelser, hvorunder den pågældende codec vil blive anvendt.
4. Angiv detaljerne for den valgte codec, inklusive opløsning og billedhastighed. Klik på <**Avanceret**> for at vise genvejsmenuen.
   - Opløsning : Indstil videostørrelsen for filer af typen H.264 og MJPEG.
   - Billedhastighed : Angiver billedhastigheden.
   - Kompression : Angiver komprimeringsgraden for videoen.
   - Maks. bithastighed : Angiv videoens maksimale bithastighed.

- Da bithastigheden kun kan justeres noget i henhold til opløsningen, billedhastighed og skærmkompleksitet, kan den virkelige bithastighed være større end den maksimale bithastighed. Så du skal tænke på forholdene, når du indstiller denne værdi.

   - Bithastighedskontrol : Du kan vælge blandt konstant bithastighed og variabel bithastighed til komprimering. Konstant bithastighed (CBR) varierer videoens kvalitet og har fast overførselshastighed på netværket, mens variabel bithastighed lægger vægt på kvaliteten ved at variere overførselshastigheden på netværket.
   - Kodningsprioritet : Du kan indstille videooverførselsmetoden til Framerate eller Compression.
   - GOV-længde : Du kan bestemme længden af GOV. (2Mega mode - 1 ~ 150, 3Mega mode - 1 ~ 100)
   - Profil : Du kan vælge profilmetoden H.264.
   - Entropikodning : Reducerer det eventuelle kompressionstab som følge af kodning.
   - Smart codec : Angiv brugen af Smart codec.

- Smart Codec'en er kun aktiv, hvis codec'en er H.264, og komprimeringssystemet er CBR.

   - Multicast (SVNP) : Angiver anvendelse af SVNP-protokollen.
     - IP-adresse : Angiv en IPv4-address, hvormed du kan oprette forbindelse til IPv4-netværket.
     - Port : Angiver videokommunikationsporten.
     - TTL : Indstiller TTL for SVNP-pakken.
   - Multicast (RTP) : Angiver anvendelse af RTP-protokollen.
     - IP-adresse : Angiv en IPv4-address, hvormed du kan oprette forbindelse til IPv4-netværket.
     - Port : Angiver videokommunikationsporten.
     - TTL : Du kan indstille TTL for RTP-pakken.

Hvad er GOV-længde?

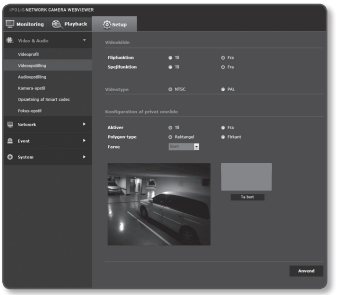
GOV (Gruppe af video-objektplaner) er et sæt af videobilleder til H.264-komprimering, der angiver en samling billeder fra det første I-billede (nøglebillede) til næste I-billede. GOV består af 2 slags billeder: I-billede og P-billede.

I-billedet er det grundlæggende billede for kompressionen, også kaldet nøglebilledet. Det indeholder fuldstændige billeddata. P-billedet indeholder kun de data, der har ændret sig i forhold til det foregående I-billede.

For H.264 codec, kan du bestemme GOV længde.
(2Mega mode - 1 ~ 150, 3Mega mode - 1 ~ 100)

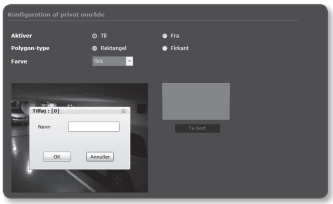
Videoopstilling

1. Vælg fanen <**Video & Audio (** **)**> i opsætningsmenuen.
2. Klik på <**Videoopstilling**>.
3. Vælg et nummer på en <**Videokilde**>.
   - Flipfunktion : Vend det billede, der er optaget af kameraet, på hovedet.
   - Spejlfunktion : Vend det billede, der er optaget af kameraet, ad den vandrette akse.
4. Vælg ønsket Videotype.
5. Angiv privatzonen.
6. Klik på [**Anvend (** **Anvend** **)**], når du er færdig.



Sådan opsættes den private zone.

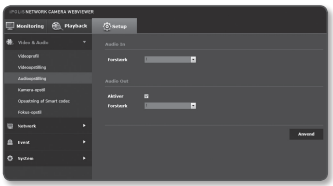
Du kan angive et bestemt område af kameraets video, der skal beskyttes af hensyn til dit privatliv.



1. Indstil den til <**Aktiver**>.
2. Klik på [**Anvend (** Anvend **)**], når du er færdig.
3. Vælg typen og farvemaskeringen for et ønsket privat område.
   - Rektangel : Anbring markøren på et sted i videoen, og træk den til det sted, du har brug for.
     Du kan overlappe rektangler ved opsætning af privat område.
   - Firkant : Vælg 4 kanter (der danner en firkant) på videoen.
4. Klik på skærmen, og træk til den ønskede region.
5. Navngiv den og tryk [**OK**].
6. Hvis du vil slette et område på listen, skal du vælge det og klikke på [**Ta bort (** Ta bort **)**].

Audioopstilling

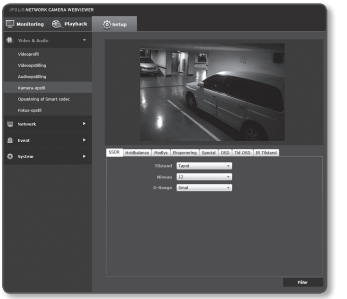
Du kan konfigurere I/O-indstillingerne for lydkilden fra kameraet.



1. Vælg fanen <**Video & Audio (** **)**> i opsætningsmenuen.
2. Klik på <**Audioopstilling**>.
3. Indstil niveauet for lydindgangen.
   - Forstærk : Indstiller forstærkningen af lydindgangen.
4. Indstil niveauet for lydindgangen.
   - Aktiver : Indstiller, om der skal anvendes lydudgang.
   - Forstærk : Indstiller forstærkningen af lydudgangen.
5. Klik på [**Anvend (** Anvend **)**], når du er færdig.

Kamera-opstil

Du kan ændre kameraindstillingerne i henhold til det miljø, hvor kameraet befinder sig.



1. Vælg fanen <**Video & Audio (** **)**> i opsætningsmenuen.
2. Klik på <**Kamera-opstil**>.
3. Konfigurer indstillingerne af det følgende i det omfang, det er nødvendigt : SSDR, Hvidbalance, Modlys, Eksponering, Special, OSD, Tid OSD, IR Tilstand
4. Klik på [**Anvend (** Anvend **)**], når du er færdig.
   - Hvis en vis tid (timeout: 240 s) går, hvor du ikke trykker på knappen [**Anvend (** Anvend **)**], når du har ændret indstillingerne, anvendes dine ændringer ikke.

Opsætning af SSDR (Samsung Super Dynamic Range)

I et område, hvor der er stor forskel mellem lys og mørke, kan du øge kun det mørke områdes lysstyrke for at tilpasse den generelle lysstyrke.

1. Vælg <**SSDR**>.
2. Indstil <**Tilstand**> til <**Tænd**>.
3. Konfigurer indstillingerne for <**Niveau**> og <**D-Range**> efter behov.
   - Niveau : Juster niveauet for det dynamiske område.
   - D-Range : Vælg rækkevidden for det dynamiske område.

Opsætning af hvidbalance

Du kan justere billedfarverne ud fra det hvide under alle lysforhold.

1. Vælg <**Hvidbalance**>.
2. Vælg <**Funktion**>.
   - ATW : Korrigerer automatisk kameravideoens farver.
   - Manuel : Du kan justere de røde og blå nuancer på kameravideoen.
   - AWC : Korrigerer kameravideoens farver optimalt i forhold til lysforhold og skærmtilstand.
     For at fa de optimale betingelser for den aktuelle belysning: Fokuser kameraet pa et ark hvidt papir, og tryk pa knappen [**AWC Set**]. Hvis lysforholdene ændres, skal du genjustere indstillingerne tilsvarende.
   - Udendørs : Automatically corrects the video colors of the camera to be optimized to the outdoor environment.
   - Indendørs : Korrigerer automatisk videofarverne på kameraet optimalt i forholdet til indendørsforholdene.

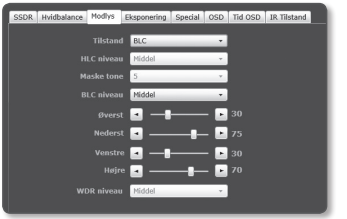
- I AWC-tilstand skal du klikke på knappen [**AWC Set**], hvis du vil beholde hvidbalanceniveauet på det aktuelle billede.

- Hvidbalancen fungerer maske ikke korrekt under følgende forhold :
  Er det tilfældet, sa skift til tilstanden AWC.
  - Hvis motivets omgivende forhold er udenfor temperaturkorrektionsomradet
    Eks.) Klar himmel, solnedgang
  - Hvis motivets omgivelser er mørke
  - Hvis kameraets fokus er rettet direkte mod et lysstofrør, eller hvis kameraet er installeret et sted med variabel belysning, kan hvidbalancefunktionen blive ustabil.

Brugeropsætning af modlys

Du kan manuelt angive et ønsket område på videoen og indstille dette område til at blive vist mere tydeligt.

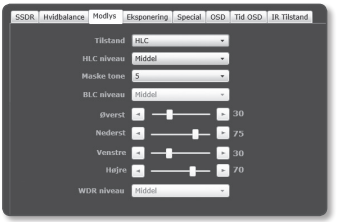
1. Vælg <**Modlys**>.
2. Indstil <**Tilstand**> til <**BLC**>.
3. Indstil <**BLC niveau**>.
   Du kan ændre niveauet for at justere overvågningsområdets lysstyrke.
4. Indstil niveauerne for <**Øverst**, **Nederst**, **Venstre**, **Højre**> for at angive målområdet.



Opsætning af HLC (Highlight Compensation)

Når kraftigt lys, f.eks en gadelampe eller forlygter fra en bil, vender mod kameraet, kan du afmaske det udsatte område for at beskytte det mod at blive mættet.

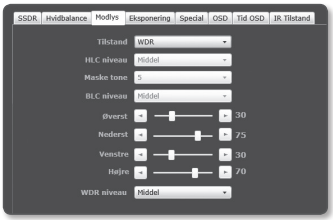
1. Vælg <**Modlys**>.
2. Indstil <**Tilstand**> til <**HLC**>.
3. Indstil <**HLC niveau**> og <**Maske tone**>
   - HLC niveau : Justerer lysstyrkeniveauet for at fjerne indkommende højlys fra bestemte forhold.
   - Maske tone : Justerer masketonen på området med højlys.



- Ved natoptagelser aktiveres denne funktion kun, hvis det indkommende højlys overstiger et bestemt område i et miljø med lav kontrast.
- Ved natoptagelser fungerer HLC ikke, hvis motivet er for lyst eller for mørkt.

WDR-opsætning

Den viser en skarpt billede med genstandene i en scene, hvor der er både lyse og mørke områder.

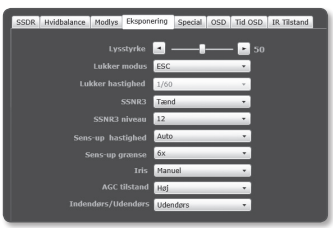


1. Vælg <**Modlys**>.
2. Indstil <**Tilstand**> til <**WDR**>.
3. Angiv <**WDR-niveau**>.

- WDR er kun tilgængelig, hvis <**Megapixeltilstand**> er indstillet til <**2 megapixel**>.
- Hvis tilstanden WDR er aktiv, kan lukkertilstanden ikke ændres.
  Dataoverførsel via netværket er tilgængelig med en hastighed på op til 15 fps.
- Hvis tilstanden WDR er aktiv, kan et objekt i bevægelse forårsage et efterbillede på skærmen.

Opsætning af eksponering

Du kan justere kameraets eksponeringsniveau.



1. Vælg <**Eksponering**>.
2. Vælg hvert element, og indstil det korrekt.
   - Lysstyrke : Justerer skærmens lysstyrke.
   - Lukker modus : Justerer kameraets lukker.
     - ESC (Elektronisk lukningskontrol) : Juster lukkerhastigheden automatisk i overensstemmelse med de omgivende lysforhold.
       - Denne aktiveres, hvis <**Iris**> er indstillet til <**Manuel**>.
     - Manuel : Justerer kameraets lukkerhastighed manuelt.
       - Du kan vælge én mellem 1/30 s og 1/12000 s i 2-mega-tilstand og vælge én mellem 1/21 s og 1/12000 s i 3-mega-tilstand.
     - A.FLK (Antiflimren) : Vælg denne funktion, hvis du oplever skærmflimmer, der skyldes frekvensforskel i forhold til det omgivende lys.

- Lukker hastighed : Kontroller lukkerhastigheden manuelt.
- SSNR3 : Angiv brugen af støjreduktion.
- SSNR3 niveau : Justerer støjreduktionsniveauet.
- Sens-up hastighed : Registrerer automatisk graden af mørke om natten eller ved et motiv med lav kontrast og forlænger akkumuleringstiden herefter for at opnå et lyst og skarpt billede.
  - Hvis du indstiller lukkerfunktionen til Manual/A.FLK, aktiveres Sens-up funktionen.
  - Jo større Sens-Up-faktor, jo lysere bliver skærmen, men det kan medføre et efterbillede eller videoforsinkelse.
- Sens-up grænse : Indstil arbejdsfunktionen til Auto-funktion ved et motiv med lav kontrast.
- Iris : Du kan indstille kameraets iris til Auto eller Manual efter ønske.
  - Auto : Indstiller automatisk iris, så den tilpasses efter det omgivende lys og lukkertiden.
  - Manuel : Indstiller iris til maksimal blænde.
- AGC tilstand : Vælger kontroltilstanden AGC.
  Juster forstærkningsværdien for videoen (ikke mindst, hvis den er optaget med lav kontrast og har et mindre lysstyrkeniveau end normalt) for at kontrollere videoens lysstyrke.
- Indendørs/Udendørs : Vælg Indendørs eller Udendørs til installationsmiljøet.

Opsætning af special

1. Vælg <**Special**>.
2. Vælg hvert element, og indstil det korrekt.
   - Dag/nat : Du kan skifte funktionen for at justere de sorte og hvide niveauer samt farverne.
     - Farve : Video vises altid i farver.
     - B/W : Video vises altid i sort/hvid.
     - Auto : Bruger farvefunktion til visning under normale forhold i dagtimerne og skifter til sort/hvid-tilstand ved motiver med lav kontrast om natten.
       - Hvis du indstiller AGC-tilstanden til <**Fra**> fra <**Eksponering**>, deaktiveres AUTO DAG/NAT-funktionen tilsvarende.

   - Hviletid : Dette er det tidsrum, hvor det enkelte lysforhold fastholdes for at aktivere skift mellem dag- og natfunktion.
   - Varighed : Angiv tidsintervallet for belysningen, hvor sekvensdrift udløses.
   - Enkel fokus efter skift af dag / nat : Ved skift mellem dag/nattilstand køres automatisk fokuseringsjustering.
     Ved brug af IR-objektiv med kameraet: Indstil denne til <**Fra**>.

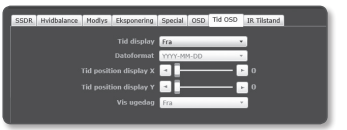
- Indstilling af muligheden <**Enkel fokus efter skift af dag / nat**> kan måske medføre falsk fokuseringsjustering under visse forhold. Hvis du vil have yderligere oplysninger, henvises der til "**Fokuseringsopsætning**". (Side 64)

   - Skarphed : Justerer billedets generelle skarphed.
     Hvis du vælger <**Tænd**>, kan du justere billedets skarphed.
   - Opsætning skarphed niveau : Jo højere niveauet er, desto skarpere og tydeligere bliver konturerne i billedet.
   - Gamma : Justerer billedets kontrast.
   - Farve niveau : Justerer billedets farveniveau.

Opsætning af OSD

1. Vælg <**OSD**>.
2. Vælg hvert element, og indstil det korrekt.
   - Kamera titel : Angiv, om kameratitlen skal vises på skærmen eller ej.
     - Du kan indtaste op til 15 tegn for titlen.
   - Kamera titel position X, Y : Angiv koordinaterne, hvor kameraets titel skal vises på skærmen.

Opsætning af OSD tid



1. Vælg <**Tid OSD**>.
2. Vælg hvert element, og indstil det korrekt.
   - Tid display : Angiv brugen af tidsvisning på skærmen.
   - Datoformat : Angiv det datoformat, der skal vises på skærmen.
   - Tid position display X, Y : Angiv placeringen af tidsvisning på skærmen.
   - Vis ugedag : Angiv datovisningen på skærmen.

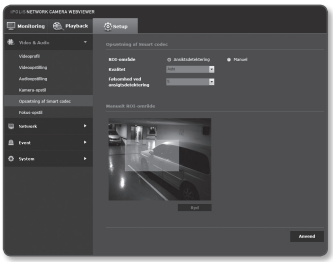
Indstilling af tilstanden IR

1. Vælg <**IR Tilstand**>.
2. Vælg hvert element, og indstil det korrekt.
   - IR Tilstand : Når IR-indikatoren ændres til B/W-tilstand, beskyttes skærmen mod mætning på midten af skærmen, så du kan identificere en genstand på kort afstand.
     - Fra : IR tilstand bliver deaktiveret.
     - Auto : Juster IR-lysstyrken i overensstemmelse med lysstyrken på genstanden på midten af skærmen.
     - Manuel : Juster IR-lysstyrken manuelt.
   - Niveau : Hvis du indstiller IR-tilstand til Manuel, kan du justere lysstyrken for IR-indikatoren til mellem 0 og 32.

- IR-tilstand bliver aktiveret, når <**Dag/nat**> er indstillet til <**Auto**> eller <**B/W**>.

Opsætning af Smart codec

Indstil et ønsket område for den indkommende video fra kameraet som interesseregion, og angiv detektionsfølsomheden for området.



1. Vælg fanen <**Video & Audio (** **)**> i opsætningsmenuen.
2. Klik på <**Opsætning af Smart codec**>.
3. Vælg interesseregion.
   - Ansiktsdetektering : Aktiv hvis et ansigt genkendes på overvågningsskærmen.

- Ansigtsdetektering er kun aktiveret, hvis følgende betingelser er opfyldt:
  - Ansigtet er placeret ±45 grader til venstre eller højre for toppen.
  - Det effektive område for ansigtsrotation er ±30 grader vertikalt og ±60 grader horisontalt.
  - Den mindste ansigtsstørrelse er 20x20 baseret på opløsningen 320x240.

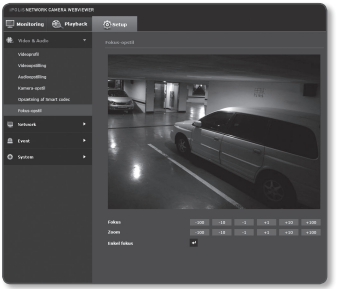
   - Manuel : Angiv manuelt interesseregionen, der skal overvåges.
4. Vælg en kvalitet og en detekteringsfølsomhed for interesseregionen.
5. Hvis du manuelt angivet interesseregionen: Vælg et ønsket område med musemarkøren, og træk den efter ønske.
   - Du kan angive op til 5 adskilte regioner.
6. For at annullere dit valg skal du blot klikke på [**Ryd (** **)**].
7. Klik på [**Anvend (** **)**], når du er færdig.

- Smart codec'en er ikke aktiv, hvis den indstilles til <**Fra**> i <**Videoprofil**>. (side 51)

Fokus-opstil

Du kan justere fokus og zoomforholdet for videobilledet.

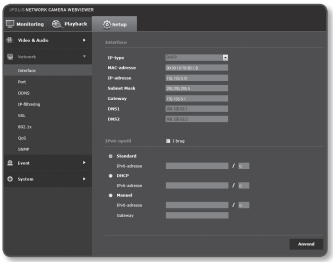
1. Vælg fanen <**Video & Audio (** **)**> i opsætningsmenuen.
2. Klik på <**Fokus-opstil**>.
3. Indstil fokus og zoom.
   - Fokus : Juster objektivets fokus manuelt (Langt væk <-> Tæt på).
   - Zoom : Justerer zoom manuelt (Vidvinkel <->Tele).
   - Enkel fokus : Klik på knappen [↵] for at tilpasse fokus automatisk.



- Tilstanden Enkel fokus passer måske ikke i følgende tilfælde:
  - En pludselig ændring af motivet i tilstanden Enkel fokus (pludselig bevægelse, tilsynekomst eller forsvinden)
  - Radikal ændring af lysstyrken i tilstanden Enkel fokus
  - Billede med lav kontrast
  - Hvis kameraet udsættes for en stærk lyskilde foran eller i omgivelserne
- Hvis fokus ikke fungerer, bortset fra ovennævnte tilfælde, skal du bruge [-100 , -10 , -1 , +1 , +10 , +100] til at fokusere manuelt.
- I en situation, hvor Enkel fokus er vanskelig at anvende, kan du prøve at bruge tilstanden Manuel fokus.

NETVÆRKSOPSÆTNING

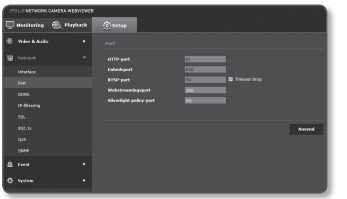
Interface



1. Vælg fanen <**Network (** **)**> i opsætningsmenuen.
2. Klik på <**Interface**>.
3. Indstil <**Interface**>.
   - IP-type : Vælg en IP-forbindelsestype.
     - Manuel : Angiv IP-adresse, Subnet Mask, Gateway, DNS1 og DNS2.
     - DHCP : Angiv DNS1 og DNS2.
     - PPPoE : Angiv DNS1, DNS2, Navn og Adgangskode.
     - ■ Hvis du indstiller den til <**Manuel**>, kan du angive IP, Subnet Mask, Gateway samt DNS 1 & 2 manuelt.
   - MAC-adresse : Viser MAC-adressen.
   - IP-adresse : Viser den aktuelle IP-adresse.
   - Subnet Mask : Viser <**Subnet Mask**> for den indstillede IP.
   - Gateway : Viser <**Gateway**> for den indstillede IP.
   - DNS1/DNS2 : Viser DNS (Domain Name Service) serveradressen.
4. Indstil <**IPv6-opstil**>.
   - ■ Indstil til <**I brug**> for at anvende IPv6-addresse.
   - Standard : Brug standard IPv6-adressen.
   - DHCP : Vis og brug IPv6-adressen hentet fra DHCP-serveren.
   - Manuel : Indtast IP-adresse og gateway manuelt, og anvend dette.
5. Klik på [**Anvend (** **Anvend** **)**], når du er færdig.

- ■ IP-adressesystemet indstilles som standard til DHCP. Hvis der ikke findes en DHCP-server, gendannes den tidligere indstilling automatisk.
- ■ Når du er færdig med redigeringen, skal du klikke på [**Anvend (** **Anvend** **)**] for at anvende ændringerne. Herefter afsluttes browseren.
  Opret forbindelse igen med de ændrede IP-oplysninger efter et stykke tid.

Port



1. Vælg fanen <**Network (** **)**> i opsætningsmenuen.
2. Klik på <**Port**>.
3. Indtast hvert element i Port-menuen efter behov.
   - Port-værdier mellem 0 og 1023 samt 3702 er ikke tilgængelige.

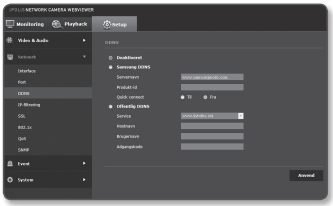
- HTTP-port : HTTP-port, som bruges til at få adgang til kameraet via webbrowseren. Standardværdien er 80(TCP).
  - I henhold til sikkerhedspolitik, er det ikke tilladt at indstille HTTP- porten for Safari og -Google Chrome-browsere til 65535.
- Enhedsport : Angiver en port, som bruges til at overføre videosignaler med Samsung-protokoller.
- RTSP-port : Bruges til at overføre videoer i RTSP-tilstanden, standard er 554.
- Webstreamingsport : Anvendes til at overføre videoer til Web Viewer, standard er 4520.
- Silverlight policy-port : Silverlight bruges til at tillade at hente en netværksforbindelse. Standarden er 943.

- Hvis HTTP-porten blev ændret, afsluttes browseren.
  Bagefter skal adressen indeholde den netop tildelte HTTP-port efter IP.
  eks.) IP-addresse : 192.168.1.100, HTTP-port: Tildelt 8080 → http://192.168.1.100:8080
  (Hvis HTTP-porten er indstillet til 80, er det ikke nødvendigt at angive portnummeret)
- Port-værdierne for Webstreaming ligger mellem 4502 og 4534. Hvis enhedsporten ligger inden for dette område, skal Webstreamingporten specificeres med samme værdi som enhedsporten.
- Du kan ikke ændre Webstreaming/Silverlight-policy-serverporten for et kamera.

4. Klik på [**Anvend (** Anvend **)**], når du er færdig.

DDNS

DDNS er en forkortelse for Dynamic Domain Name Service, der konverterer til IP-adressen for et kamera til et generelt værtsnavn, så brugeren let kan huske det.



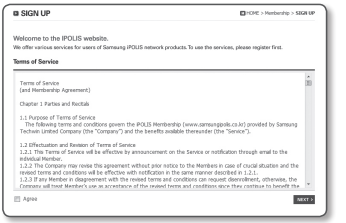
1. Vælg fanen <**Network (** **)**> i opsætningsmenuen.
2. Klik på <**DDNS**>.
3. Vælg tilslutningstypen <**DDNS**>.
4. Angiv DDNS-elementerne i henhold til den valgte type.
   - Samsung DDNS : Vælg dette, hvis du bruger DDNS-serveren fra Samsung Techwin.
     - Produkt-id : Angiv det produkt-ID, der er registreret hos Samsung DDNS-tjenesten.
     - Quick connect : Indstiller automatisk port forwarding ved brug med en router, der understøtter UPnP (Universal Plug and Play).
   - Offentlig DDNS : Vælg en af de angivne offentlige DDNS-servere, når du bruger en offentlig DDNS-server.
     - Service : Vælg den ønskede offentlige DDNS-server.
     - Hostnavn : Angiv navnet på den vært der er registreret med DDNS-serveren.
     - Brugernavn : Angiv brugernavnet for DDNS-tjenesten.
     - Adgangskode : Angiv adgangskoden for DDNS-tjenesten.
5. Klik på [**Anvend (** **)**], når du er færdig.

- Hvis <**Quick connect**> er valgt, skal Samsung DDNS-tjenesten vælges.

Registrering med DDNS

Sådan registrerer du dit produkt med Samsung DDNS

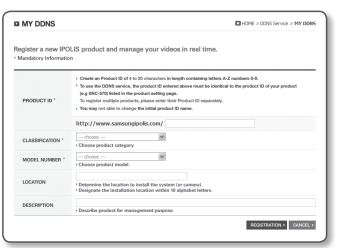
1. Besøg iPOLiS-webstedet (www.samsungipolis.com), og log på med en registreret konto.



2. Vælg <**DDNS SERVICE**>-<**MY DDNS**> fra den øverste menulinje.

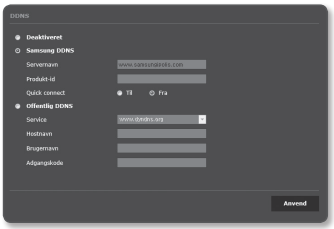
3. Klik på [**PRODUCT REGISTRATION**].
4. Indtast produkt-id'et.
   - Du skal udføre den dobbelte kontrol for det id, du har indtastet.

5. Vælg en <**CLASSIFICATION**>, og angiv <**MODEL NUMBER**>.
6. Angiv produktets placering med en beskrivelse, hvis nødvendigt.
7. Klik på [**REGISTRATION**].
   Produktet vil blive føjet til produktlisten, som du kan kontrollere.



Sådan opretter du forbindelse til Samsung DDNS i kameraopsætning

1. Sæt <**DDNS**> til <**Samsung DDNS**> fra DDNS-opsætningssiden.
2. Angiv det <**Produkt-id**>, som du registrerede produkt-id'et med på DDNS-stedet.
3. Klik på [**Anvend (** Anvend **)**].
   Når forbindelsen er oprettet, ser du meddelelsen <**(Gennemført)**> på skærmen.



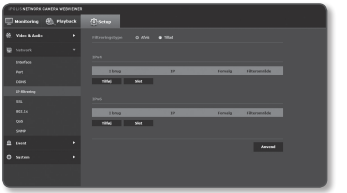
Konfiguration af offentlig DDNS i kameraindstillinger

1. Åbn siden med DDNS-indstillinger, og vælg <**Offentlig DDNS**> for <**DDNS**>.
2. Indtast det tilhørende steds værtsnavn, brugernavn og adgangskode.
3. Klik på knappen [**Anvend (** Anvend **)**].
   Hvis forbindelsen oprettes korrekt, vises <**(Gennemført)**>.
4. Klik på [**Anvend (** Anvend **)**], når du er færdig.

- For at bruge DDNS-tjenesten korrekt kræves opsætning af DDNS og routerens port forwarding.
  Se "**Opsætning af videresendelse af portinterval (port-kortlægning)**" (side 36)

IP-filtrering

Du kan oprette en liste over IP'er, som du vil give adgang til eller nægte adgang til.



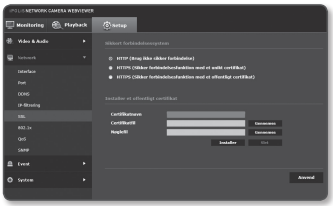
1. Vælg fanen <**Network (**)> i opsætningsmenuen.
2. Klik på <**IP-filtrering**>.
3. Vælg <**Filtreringstype**>.
   - Afvis : Hvis du vælger dette, begrænses adgangen fra de IP'er, der føjes til filtreringen.
   - Tillad : Hvis du vælger dette, accepteres kun adgang fra de IP'er, der føjes til filtreringen.
4. Klik pa knappen [**Tilføj (** Tilføj **)**].
   IP-listen oprettes.
5. Angiv den IP, som du ønsker at give eller nægte adgang fra.
   Når du angiver en IP-adresse og et præfiks, vises listen over tilgængelige IP-adresser til rådighed i kolonnen med filterinterval i højre side.

- Hvis <**Tillad**> er valgt for IP-filtrering, og <**IPv6-opsætning**> for <**Interface**> er indstillet til <**I brug**>, skal både IPv4- og IPv6-adresserne på den computer, der i øjeblikket konfigurerer, tildeles.
- IP-adressen på den computer, der anvendes til den aktuelle opsætning, kan ikke føjes til <**Afvis**>, den skal føjes til <**Tillad**>.
- Kun de IP-adresser, der er indstillet til <**I brug**>, vises i filterkolonnen.

6. Vælg en IP-adresse, der skal slettes fra listen.
   Klik pa knappen [**Slet (** Slet **)**].
7. Klik på [**Anvend (** Anvend **)**], når du er færdig.

SSL

Du kan vælge et sikkert forbindelsessystem eller installere det offentlige certifikat til dette formål.



1. Vælg fanen <**Network (** **)**> i opsætningsmenuen.
2. Klik på <**SSL**>.
3. Vælg et sikkert forbindelsessystem.
   - For at få adgang til kameraet med HTTPS-funktionen skal du indtaste kameraets IP-adresse i formatet "https://<Camera_IP>". Hvis konfigurering af indstillinger for Web Viewer i HTTPS-tilstand mislykkes med Internet Explorer, skal du redigere internetindstillingerne som følger: <Menu → Værktøjer → Internetindstillinger → Avanceret → Sikkerhed → Fjern markering for TLS 1.0, og marker TLS 1.1 og TLS 1.2>
4. Søg efter det offentlige certifikat, du vil installere på kameraet.
   Hvis du vil installere certifikatet på kameraet, skal du kunne angive et certifikatnavn (det kan tildeles vilkårligt af brugeren), en certifikat-fil, der er udstedt fra certifikatmyndigheden samt en nøglefil.
   - Elementet <**HTTPS (Sikker forbindelsesfunktion med et offentligt certifikat)**> vil kun være aktivt, hvis der er installeret et offentligt certifikat.
5. Klik på [**Anvend (** Anvend **)**], når du er færdig.

Installation af certifikatet

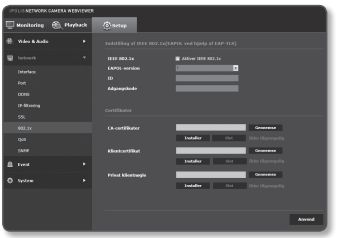
1. Indtast certifikatnavnet.
2. Vælg den certifikatfil og certifikatnøgle, der skal installeres, og klik på knappen [**Installer (** Installer **)**].

Sletning af certifikatet

1. Klik på knappen [**Slet (** Slet **)**].
2. Hvis du vil slette et offentligt certifikat, skal du opnå adgang til netværksvideodekoderen i tilstanden <**HTTP (Brug ikke sikker forbindelse)**> eller <**HTTPS (Sikker forbindelsesfunktion med et unikt certifikat)**>.

802.1x

Ved tilslutning af netværket kan du vælge, om du vil bruge 802.1x-protokollen og derefter installere certificeringen.



1. Vælg fanen <**Network (**)> i opsætningsmenuen.
2. Klik på <**802.1x**>.
3. Indstil <**Indstilling af IEEE 802.1x (EAPOL ved hjælp EAP-TLS)**>.
   - IEEE 802.1x : Angiv anvendelse af 802.1x -protokollen.
   - EAPOL-version : Vælg version 1 eller 2.
   - ID : Angive den private ID for klienten.
   - Adgangskode : Angive den private adgangskode for klienten. Hvis den anvendte nøglefil ikke er krypteret, behøver du ikke at angive den.

- Hvis den tilsluttede netværksenhed ikke understøtter 802.1x-protokollen, fungerer protokollen ikke korrekt, heller ikke selvom du indstiller den.

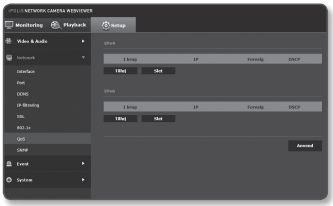
4. Installer/fjern certifikatet.
   - CA-certifikater : Vælg et offentligt certifikat, som indeholder den offentlige nøgle.
   - Klientcertifikat : Vælg et offentligt certifikat, som indeholder klientcertifikat-nøglen.
   - Privat klientnøgle : Vælg et offentligt certifikat, som indeholder den private klientnøgle.
5. Klik på [**Anvend (** Anvend **)**], når du er færdig.

Til installation/fjernelse af 802.1x relaterede certifikater.

1. Klik på [**Gennemse (** Gennemse **)**] knappen for hvert element og vælg et certifikat til installering.
2. Hvis der ikke er installeret et certifikat vil du se “Ikke disponibel” vist ved siden af det valgte element.
3. Klik på [**Installer (** Installer **)**] knappen for at starte installationen med en besked om “installeret” ved siden af elementet.
4. Klik på [**Slet (** Slet **)**] knappen for at fjerne certifikatet.

QoS

Du kan angive pririteт for at sikre en stabil overførselshastighed for en specific IP.



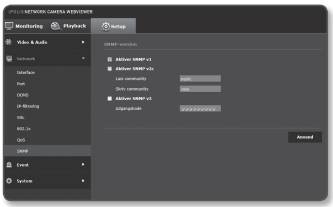
1. Vælg fanen <**Network (**)> i opsætningsmenuen.
2. Klik på <**QoS**>.
3. Klik pa knappen [**Tilføj (** Tilføj **)**]. IP-listen oprettes.
4. Angiv en IP-adresse, som QoS som skal anvendes på.

- Standardpræfikset for IPv4 er 32. For DSCP er standarden indstillet til 63.
- Kun de IP-adresser, der er indstillet til <**I burg**>, kan prioriteres.

5. Vælg en IP-adresse, der skal slettes fra listen. Klik pa knappen [**Slet (** Slet **)**].
6. Klik på [**Anvend (** Anvend **)**], når du er færdig.

SNMP

Med SNMP-protokollerne kan system- eller netværksadministratoren overvåge netværksenheder på et fjernt sted og konfigurere miljøindstillinger.



1. Vælg fanen <**Network (**)> i opsætningsmenuen.
2. Klik på <**SNMP**>.
3. Angiv <**SNMP**>.
   - Aktiver SNMP v1 : SNMP-version 1 vil være aktiv.
   - Aktiver SNMP v2c : SNMP-version 2 vil være aktiv.
     - Læs community : Skriv navnet på det læsefællesskab, hvor du har adgang til SNMP-informationerne. Standardnavnet er <**public**>.
     - Skriv community : Skriv navnet på det skrivefællesskab, hvor du har adgang til SNMP-informationerne. Standardnavnet er <**write**>.

- Aktiver SNMP v3 : SNMP-version 3 vil være aktiv.
  - Adgangskode : Angiv standardadgangskoden til SNMP version 3. Standardadgangskoden er <**admin4321**>.
    - Standardadgangskoden kan blive eksponeret for hackertrusler, så det anbefales at skifte adgangskode efter installation af produktet.
      Bemærk, at sikkerhed og andre relaterede problemstillinger forårsaget af uændret adgangskode er brugerens ansvar.
    - Adgangskoder skal være længere end 8 tegn og højst 16 tegn.

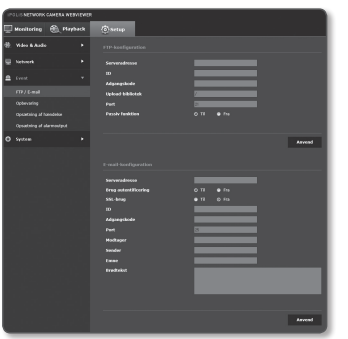
4. Klik på [**Anvend** (Anvend)], når du er færdig.

- SNMP v3 kan kun indstilles, når den sikre forbindelsestilstand er indstillet til HTTPS. Se "**SSL**". (side 71)

OPSÆTNING AF BEGIVENHED

FTP / E-mail

Du kan konfigurere FTP/E-mail-serverens indstillinger, så du kan overføre billederne i kameraet til din pc, hvis en bestemt begivenhed indtræffer.



1. Vælg fanen <**Event** ( )> i opsætningsmenuen.
2. Klik på <**FTP / E-mail**>.
3. Vælg <**FTP-konfiguration**> eller <**E-mail-konfiguration**>, og indtast / vælg den ønskede værdi.
   - FTP-konfiguration
     - Serveradresse : Indtast IP-adressen på den FTP-server, som du overfører alarm- eller hændelsesbillederne til.
     - ID : Indtast den bruger-id, som du vil logge ind på FTP-serveren med.
     - Adgangskode : Indtast adgangskoden til brugerkontoen for at logge på FTP-serveren.
     - Upload-bibliotek : Angiv den FTP-sti, hvortil du vil overføre alarm- eller hændelsesbillederne.

- Port : Standardporten på FTP-serveren er 21, men du kan bruge et andet portnummer i henhold til FTP-serverindstillingerne.
- Passiv funktion : Vælg <**Til**>, hvis du har brug for at oprette forbindelse i passiv funktion på grund af firewall eller indstillinger af FTP-server.

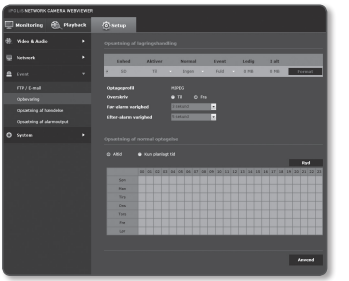
• E-mail-konfiguration
- Serveradresse : Indtast IP-adressen på den e-mail-server, som du overfører alarm- eller hændelsesbillederne til.
- Brug godkendelse : Vælg om der skal anvendes godkendelse.
- SSL-brug : Specificer brugen af SSL.
- ID : Indtast bruger-id til at logge ind på e-mail-serveren.
- Adgangskode : Indtast adgangskoden til brugerkontoen for at logge på e-mail-serveren.
- Port : Standardporten på e-mail-serveren er 25, men du kan bruge et andet portnummer i henhold til FTP-serverindstillingerne.
- Modtager : Indtast adressen på e-mail-modtageren.
- Sender : Indtast adressen på e-mail-afsenderen. Hvis afsenderadressen er forkert, kan e-mailen fra afsenderen blive klassificeret som SPAM af e-mail-serveren, så den muligvis ikke bliver sendt.
- Emne : Indtast et emne for din e-mail.
- Brødtekst : Angiv meddelelsens tekst. Vedhæft alarm- eller hændelsesbillederne til den e-mail, du er ved at lave.

4. Klik på [**Anvend (** Anvend **)**], når du er færdig.

Opbevaring

Du kan indstille optagelsesbetingelserne eller brugen af optagelse for SD-hukommelsen, kontrollere størrelsen på lagrede data eller formatere selve SD-hukommelsen.

1. Vælg fanen <**Event (** **)**> i opsætningsmenuen.
2. Klik på <**Opbevaring**>.

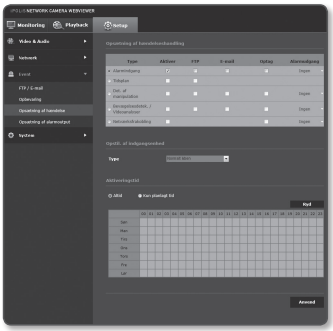


Sådan laver du en optagelse til SD-hukommelsen

1. Kontroller hukommelseskortets <**Ledig**> størrelse og <**I alt**> størrelse.
2. Hvis der er tilstrækkelig ledig plads, skal du indstille enheden til <**Til**>.
   Hvis det ikke er tilfældet, skal du kontrollere de lagrede data, og hvis ikke du mener, at de er vigtige, skal du derefter klikke på <**Format**> for at formatere SD-hukommelsen.
   - Hvis SD-hukommelseskortet skriver langsomt, vil der kun blive gemt ét billede i sekundet.
   - For et SD-hukommelseskort med stor kapacitet, vil formateringen tage tilsvarende længere tid.
   - Indstilling af højere opløsning, bithastighed og billedhastighed øger mængden af de genererede data. Efterhånden som datamængderne vokser, kan overført video kun lagres med 1 billede pr. sekund, selvom du indstiller optagekvaliteten til fulde billeder.
3. Angiv lagringshandlingen.
   - Optageprofil : Viser optageprofilens codec-type.
   - Overskriv : Hvis SD-hukommelsen er fuld, vil dette slette gamle data og gemme nye data i stedet for.
   - Før-alarm varighed : Angiv tidsrummet før alarmen forekommer. Fra dette tidspunkt vil billederne blive overført. Du kan angive op til 5 sekunder før forekomsten af alarmen.
   - Efter-alarm varighed : Angiv tidsrummet efter alarmen forekommer. På dette tidspunkt vil billederne blive overført. Du kan angive op til 120 sekunder efter alarmens forekomst.
   - Normal : Udfør optagelse med en bestemt billedhastighed
   - Event : Indstil optagelsestypen for en bestemt begivenhed, der opstar.
4. Angiv <**Opsætning af normal optagelse**>.
   - Altid : Gem altid optaget video på SD-hukommelseskortet.
     - Hvis indstillet til altid, kan aktiveringstiden ikke andres.
   - Kun planlagt tid : Optager kun på det angivne tidspunkt på den angivne dag i ugen.
   - [Ryd (**Ryd**)] : Genindstil alle indstillinger.
5. Klik på [**Anvend (** **Anvend** **)**], når du er færdig.

Alarmindgang

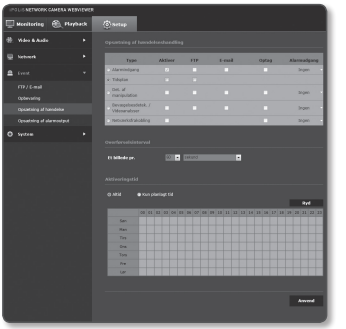
Du kan indstille alarmindgangstypen, aktiveringstiden og en funktionstilstand.



1. Vælg fanen <**Event (**)> i opsætningsmenuen.
2. Klik på <**Opsætning af hænelse**>.
3. Vælg <**Alarmindgang**> under <**Opsætning af hændelseshandling**>.
4. Indstil valg af <**Aktiver**>.
5. Angiv en indgangsenhed.
   - Type
     - Normalt åben : Den er normalt åben, men hvis den er lukket, udløses en alarm.
     - Normalt lukket : Den er normalt lukket, men hvis den er åben, udløses en alarm.
6. Angiv <**Aktiveringstid**>.
   - Altid : Kontroller altid, om der forekommer en alarm.
     - Hvis denne er indstillet til <**Altid**>, kan aktiveringstiden ikke ændres.
   - Kun planlagt tid : Kontrollerer om en alarm forekommer på en angivet ugedag i et angivet tidsrum. Den aktiveres i betjent tilstand, når der forekommer en alarm.
   - [Ryd (**Ryd**)] : Genindstil alle indstillinger.
7. Angiven funktion, der skal udføres, hvis en alarm forekommer.
   - FTP : Angiv brugen af FTP-overførsel i opsætningen af alarmindgangen.
   - E-mail : Angiv brugen af e-mail-overførsel i opsætningen af alarmindgangen.
   - Optag : Angiv brugen af optagelse i opsætningen af alarmindgangen.
   - Alarmudgang : Vælg, om du vil indstille alarmudgangen, hvis der kommer en alarm, og angiv alarmudgangstiden.
8. Klik på [**Anvend (** **Anvend**)], når du er færdig.

Tidsplan

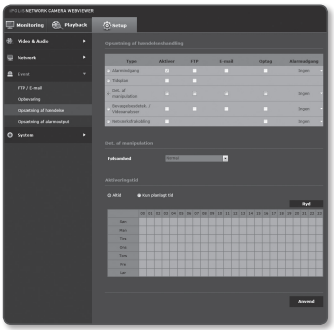
Du kan indstille lagring af videodata med et vist interval som planlagt uanset den faktiske forekomst af hændelsen.



1. Vælg fanen <**Event (** **)**> i opsætningsmenuen.
2. Klik på <**Opsætning af hænelse**>.
3. Vælg <**Tidsplan**> under <**Opsætning af hændelseshandling**>.
4. Indstil valg af <**Aktiver**>.
5. Angiv <**Overførselsinterval**>.
6. Angiv <**Aktiveringstid**>.
   - Altid : Aktiveres altid i betjent tilstand ved det indstillede interval.
   - Kun planlagt tid : Aktiveres periodisk i betjent tilstand på angivet dato og klokkeslæt.
7. Angiv optagelsesbetingelserne.
   - FTP : Angiv brugen af FTP-overførsel, hvis der indtræffer en begivenhed.
8. Klik på [**Anvend (** Anvend **)**], når du er færdig.

Det. af manipulation

Du kan indstille denne til detektering af manipulationsforsøg og udløsende hændelser, såsom pludselig ændring af kameraets optageretning, blokeret objektiv og andre generelle ændringer af scenerne i video.

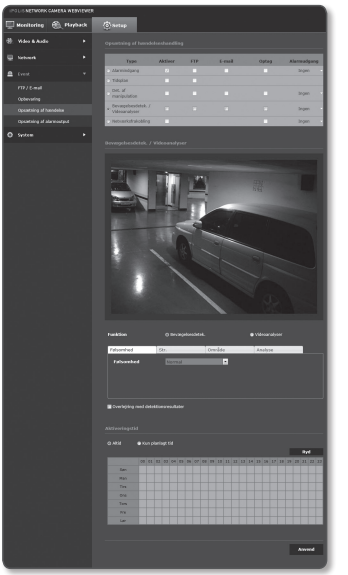


1. Vælg fanen <**Event (** **)**> i opsætningsmenuen.
2. Klik på <**Opsætning af hænelse**>.
3. Vælg <**Det. af manipulation**> under <**Opsætning af hændelseshandling**>.
4. Indstil valg af <**Aktiver**>.
5. Indstilling af følsomhed for detektering af manipulation.
   Jo højere følsomhed, desto mindre manipulationsforsøg registreres.
6. Angiv aktiveringstiden og aktiveringsbetingelserne.
   - Du kan finde flere oplysninger om <**Aktiveringstid**> og <**Aktion**> under "**Alarmindgang**". (side 77)
7. Klik på [**Anvend (** **)**], når du er færdig.

- Standardfunktionen til detektering af manipulation fungerer måske ikke korrekt i følgende tilfælde:
  - Forhold med enkel baggrund eller lav belysning og nattetid kan sænke detekteringsfølsomheden.
  - En kraftig rystelse af kameraet eller en drastisk ændring i belysningen kan ved en fejltagelse blive opfattet som manipulation.
  - Detektering af manipulation kan tage et stykke tid (maks. 5 sekunder) efter tidspunktet for manipulationen.
  - Når manipulation er blevet detekteret, genoptager kameraet normal drift efter en vis stabilitetsperiode (ca. 5 sekunder), hvori der ikke foretages nogen detektering.

Bevægelsesdetek. / Videoanalyser

ændelser med bevægelsesdetektering og videoanalyse kan indstilles til at udløse udsendelse af et hændelssignal.

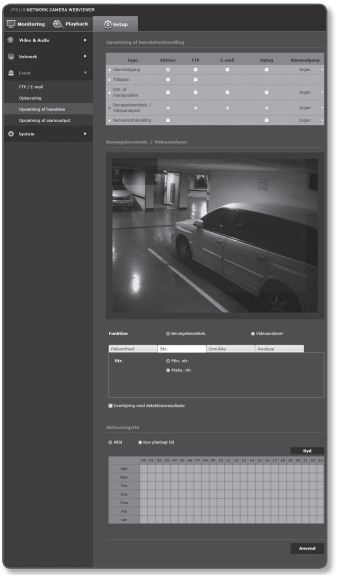


1. Vælg fanen <**Event (** **)**> i opsætningsmenuen.
2. Klik på <**Opsætning af hænelse**>.
3. Vælg <**Bevægelsesdetek. / Videoanalyser**> under <**Opsætning af hændelseshandling**>.
4. Indstil valg af <**Aktiver**>.
5. Vælg bevægelsesdetektering og intelligent videoanalyse efter behov.
6. Indstil <**Følsomhed**>, <**Str.**> and <**Område**>.
   Når intelligent videoanalyse er valgt, skal du også indstille <**Analyse**>.
7. Indstil, om der skal bruges <**Overlejring med detektionsresultater**>.
   Når en bevægelse detekteres, markeres dens størrelse og placering med et rektangel på skærmen.
   - Grøn : Alle mål detekteret som værende i bevægelse.
   - Rød : Alle mål detekteret som i passage, indgående eller udgående. (Den farvede markering forbliver i 1 - 2 sekunder.)
   - Blå : Alle mål detekteret som vises/skjules-hændelser. (Den farvede markering forbliver i 3 - 5 sekunder.)
8. Angiv aktiveringstiden og aktiveringsbetingelserne.
   - Du kan finde flere oplysninger om <**Aktiveringstid**> og <**Aktion**> under "**Alarmindgang**". (side 77)
9. Klik på [**Anvend (** **)**], når du er færdig.

- Bevægelsesdetektering og Videoanalyse kan ikke bruges samtidigt.
- Før brug skal du indstille minimal og maksimal bevægelsesstørrelse, der passer til det bevægelsesområde, der ønskes detekteret.
- Angiv den maksimale og minimale registreringsstørrelse, der er relevant for de objekter, der skal registreres.
- Den registrerede størrelse på et objekt kan afvige fra den faktiske størrelse i henhold til dets form.
- Der kan vises op til 16 objekter fra den øverste del af skærmen.
- Hvis kameraet optager en genstand, der er tæt på, kan videoanalysens kapacitet forringes.
- I de følgende tilfælde kan bevægelsesdetektering og intelligent videoanalyse være forringet eller forårsage forkert detektering.
  - Objektets farve eller lysstyrke minder om baggrunden.
  - Små aktiviteter omkring grænseområdet for kameraets synsfelt.
  - Flere bevægelser bliver ved med at finde sted tilfældigt på grund af ændring i motivet eller andre årsager.
  - Et stillestående objekt bevæger sig fortsat i samme retning.
  - Bevægelser med mindre positionsændring, f.eks. når objekter nærmer sig kameraet eller fjerner sig fra det.
  - Objekt i bevægelse kommer for tæt på kameraet
  - En genstand skjuler andre genstande bagved.
  - To eller flere genstande overlapper hinanden, eller en genstand opdeles i flere dele.
  - Genstanden er for hurtig (for korrekt detektering skal en genstand overlappe mellem tilstødende rammer).
  - Refleksion/slør/skygge pga. stærkt lys som f.eks. direkte sollys, belysning eller hovedlampe.
  - I stærk sne, regn, vind eller ved daggry/skumring.

Sådan bruges bevægelsesdetektering

Den detekterer en bevægelse, der opfylder alle betingelserne, der er angivet for følsomhed, størrelse og område.



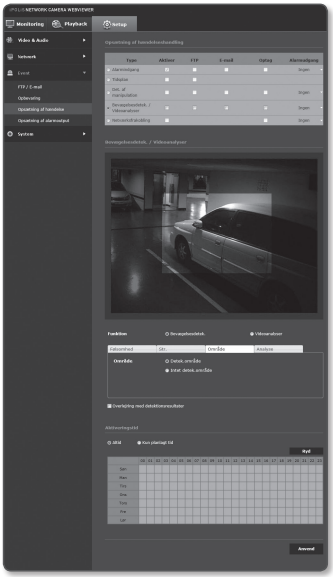
1. Vælg en bevægelsesde tekteringstilstand.
2. Vælg fanen <**Følsomhed**> for at indstille følsomhedsniveauet. Sensorens følsomhed kan indstilles til at detektere en bevægelse i forhold til overvågningsvideoens baggrund.

- I en situation, der objekter let kan skelnes fra baggrunde skal du indstille denne til et lavt følsomhedsniveau. I det modsatte tilfælde, hvor det er svært at skelne objekter, såsom situationer med svag belysning, skal du indstille den til et højt niveau.

3. Vælg fanen <**Str.**>. Du kan sætte minimum og maksimum for størrelsen af den bevægelse, der skal detekteres.
   - Min. str. : For at indstille den mindste størrelse for detekterede bevægelser skal du vælge <**Min. str.**> og derefter pege og trække til den ønskede størrelse på skærmen ved hjælp af musen.
   - Maks. str. : For at indstille den største størrelse for detekterede bevægelser skal du vælge <**Maks. str.**> og derefter pege og trække til den ønskede størrelse på skærmen med musen.

- Bevægelser mindre end den angivne minimum-størrelse eller større end maksimum-størrelsen detekteres ikke. For at undgå uønsket detektering på grund af kraftig og svag støj skal du indstille minimum og maksimum for bevægelsesstørrelserne i overensstemmelse med omgivelserne. Bemærk, at nogle bevægelser på samme placering kan detekteres med forskellig detektionsstørrelse. Det anbefales at overveje og medtage den acceptable forskel ved indstilling af minimum og maksimum for detektionsstørrelserne.

4. Vælg fanen <**Område**>.
   Du kan angive et område på skærmen, som skal medtages i eller udelukkes fra detektering.
   Du kan angive op til 4 regioner.
   - Detek. område : Indstiller hele skærmen som værende udelukket fra detektering og tilføjer den angivne region som regionen for bevægelsesdetektering. Træk med musen for at angive de foretrukne regioner som region for bevægelsesdetektering.
   - Intet detek. område : Indstiller hele skærmen som region for bevægelsesdetektering og udelukker den angivne region fra detektering. Træk med musen for at angive de foretrukne regioner som region uden bevægelsesdetektering.
5. Hvis du vil slette en region, skal du højreklikke på skærmen for at åbne popup-genvejsmenuen, vælge Slet og trykke på knappen [**OK**].

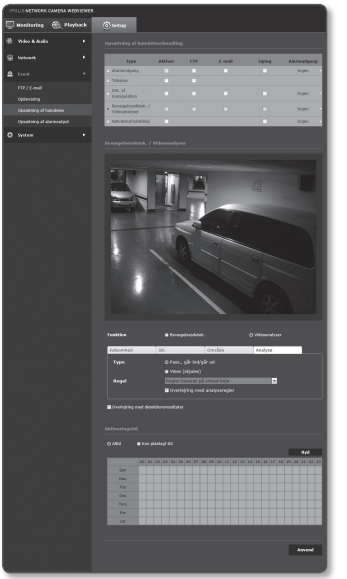


- Alle definerede regioner slettes.

6. Klik på [**Anvend (** Anvend **)**], når du er færdig.

Sådan bruges videoanalyse

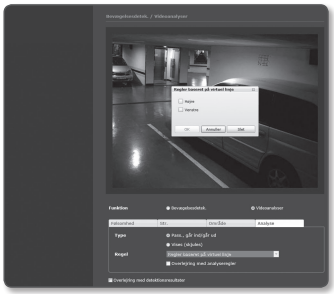
Den detekterer hændelser, der opfylder alle betingelserne for følsomhed, størrelse og region samt reglerne for hændelsestilstand.



1. Vælg tilstand for videoanalyse.
2. Indstil <**Følsomhed**>, <**Str.**> and <**Område**>. Se "**Sådan bruges bevægelsesdetektering**" for flere detaljer. (side 82 - 83)
3. Vælg fanen <**Analyse**>.
4. Vælg tilstand for videoanalyse.
   - Pass., går ind/går ud : Detekterer bevægelser med indgang i, eller udgang fra en virtuel linje, som er angivet af brugeren.
   - Vises (skjules) : Detekterer bevægelser for objekter, der vises på eller skjules fra den brugerdefinerede region eller hele skærmområdet.
5. Indstil regler for videoanalyse. Se "**Sådan indstilles regler for videoanalyser**" for flere oplysninger. (side 85 - 86)
6. Indstil, om der skal bruges <**Overlejring med detektionsresultater**>. Angivne regler for virtuelle linjer og regioner vises på overvågningssiden.
7. Klik på [**Anvend (** Anvend **)**], når du er færdig.

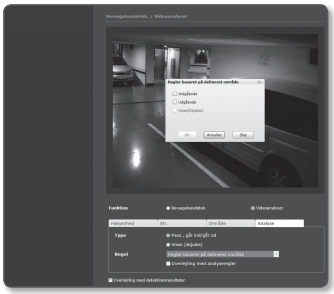
Sådan indstilles regler for videoanalyse

▪ Pass.



1. Indstil typen til <**Pass., går ind/går ud**>.
2. Indstil hændelsesreglen til <**Regler baseret på virtuel linje**>.
3. Klik på skærmen på det ønskede start- og slutpunkt for den virtuelle linje. Et popup-vindue vises.
4. Vælg den ønskede regel:
   - Højre : Detekterer bevægelser fra venstre mod højre hen over den virtuelle linje.
   - Venstre : Detekterer bevægelser fra højre mod venstre hen over den virtuelle linje.
5. Klik på [**OK**].
6. For at fjerne en defineret regel skal du højreklikke på den viste virtuelle linje for at åbne popup-genvejsmenuen og vælge knappen [**Slet**].

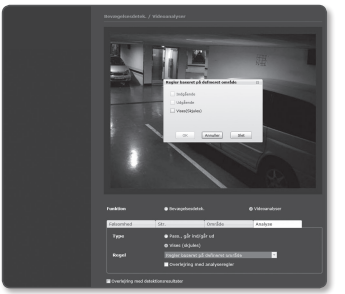
▪ Går ind/går ud

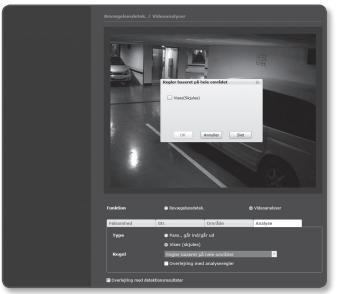


1. Indstil typen til <**Pass., går ind/går ud**>.
2. Indstil hændelsesreglen til <**Regler baseret på defineret område**>.
3. Klik på skærmen på fire knudepunkter for at definere overvågningsområdet. Et popup-vindue vises.
4. Vælg den ønskede regel:
   - Indgående : Detekterer bevægelser af objekter, hvis midtpunkt kommer ind i det definerede område udefra.
   - Udgående : Detekterer bevægelser af objekter, hvis midtpunkt bevæger sig ud af det definerede område indefra.
5. Klik på [**OK**].
6. For at fjerne en defineret regel skal du højreklikke på de viste sidelinjer for området for at åbne popup-genvejsmenuen og vælge knappen [**Slet**].

- **Vises (skjules)**

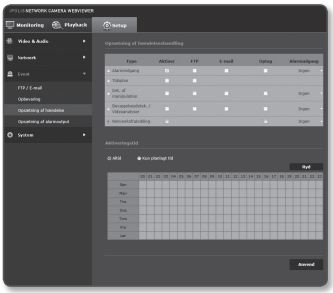
1. Indstil analysetypen til <**Vises (skjules)**>.
2. Vælg den ønskede hændelsesregel :
   - Regler baseret på defineret område : Detekterer begivenhed med objekt, der vises eller skjules i området og bliver der et bestemt tidsrum, mens det ikke passerer gennem områdets grænser, samt det modsatte tilfælde, hvor objekter, som fandtes i området, forsvinder.
     Klik på de fire knudepunkter på skærmen for at definere detekteringsområdet.Vælg [**Vises (Skjules)**] fra popup-menuen.
   - Regler baseret på hele området : Detekterer begivenhed med objekt, der dukker op på hele skærmen og bliver et bestemt tidsrum, og det modsatte tilfælde, hvor objekter, som fandtes på skærmen, forsvinder. Højreklik på skærmen for at åbne popup-genvejsmenuen, og vælg [**Vises(Skjules)**].
3. Klik på [**OK**].
4. For at fjerne en defineret regel skal du højreklikke på de viste sidelinjer for området eller på skærmen for at åbne popup-genvejsmenuen og vælge knappen [**Slet**].





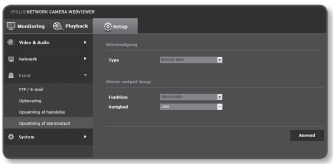
Netværksfrakobling

Du kan modtage og gemme hændelser for et fysisk adskilt netværk.



1. Vælg fanen <**Event (** 🔔 **)**> i opsætningsmenuen.
2. Klik på <**Opsætning af hænelse**>.
3. Vælg <**Netværksfrakobling**> under <**Opsætning af hændelseshandling**>.
4. Indstil valg af <**Aktiver**>.
5. Angiv aktiveringstiden og aktiveringsbetingelserne.
   - Du kan finde flere oplysninger om <**Aktiveringstid**> og <**Aktion**> under "**Alarmindgang**". (side 77)
6. Klik på [**Anvend (** Anvend **)**], når du er færdig.

Opsætning af alarmudgang



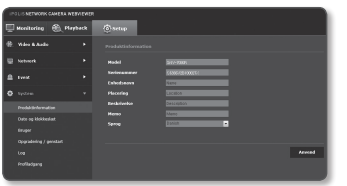
1. Vælg fanen <**Event (** 🔔 **)**> i opsætningsmenuen.
2. Klik på <**Opsætning af alarmoutput**>.
3. Indstil typen for kameraets alarmudgang.
   - Hvis du ændrer typen for alarmudgang, vil Alarm ud-knappen på overvågningssiden og typen af alarmudgang, som vises på siden til opsætning af hændelse, blive ændret i overensstemmelse hermed.

- Type
  - Normalt åben : Betragter status med "åbent kredsløb" for sensoren eller alarm-indgangsenheden som normal og udløser en alarmhændelse, hvis status bliver "lukket kredsløb".
  - Normalt lukket : Betragter status med "lukket kredsløb" for sensoren eller alarm-indgangsenheden som normal og udløser en alarmhændelse, hvis status bliver "åbent kredsløb".

4. Indstil knappen for alarmudgang.
   - Funktion : Indstil typen af alarmudgang.
     - Der er forskel på driften, når der klikkes på alarmudgangsknappen, mens den er deaktiveret.
     - Puls : Aktiveres i tidsrummet, som er angivet som varighed (skifteinterval) og bliver derefter automatisk inaktiv.
     - Aktiv/inaktiv : Forbliver aktiveret, indtil brugeren klikker på knappen igen for at gøre den inaktiv.
   - Varighed : Indstil alarmvarigheden, hvor den opretholdes aktiveret, hvis tilstanden er indstillet til impuls, fra 1 til 15 sekunder.
5. Klik på [**Anvend (** Anvend **)**], når du er færdig.

SYSTEMOPSÆTNING

Produkinformation

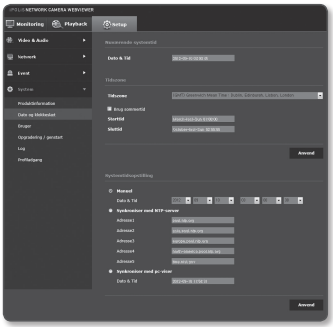


1. Vælg fanen <**System (** **)**> i opsætningsmenuen.
2. Klik på <**Produkinformation**>.
3. Kontrollér kamerainformationen, eller angiv oplysninger i henhold til dit netværksmiljø.
   - Model : Produktets modelnavn.
   - Serienummer : Produktets serienummer.
   - Enhedsnavn : Giv et enhedsnavn, der vises på Live-skærmen.
   - Placering : Angiv den placering, hvor kameraet er installeret.
   - Beskrivelse : Angiv detaljerede oplysninger om kameraets placering.
   - Memo : Angiv en forklaring om kameraet med henblik på bedre forståelse.
   - Sprog : Vælg det foretrukne sprog for visning på skærmen for Web Viewer.

- Standardsproget er indstillet til <**English**>.

4. Klik på [**Anvend (** Anvend **)**], når du er færdig.

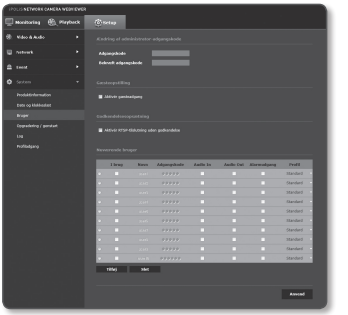
Dato og klokkeslæt



1. Vælg fanen <**System (** ⚙ **)**> i opsætningsmenuen.
2. Klik på <**Dato og klokkeslæt**>.
3. Angiv klokkeslæt og dato, der skal anvendes på kameraet.
   - Nuværende systemtid : Viser systemets aktuelle tidsindstillinger.
   - Tidszone : Angiv den lokale tidszone baseret på GMT.
   - Brug sommertid : Hvis dette er afkrydset, så vil klokkeslættet være indstillet en time før den lokale tidszone for den angivne tidsperiode. Denne indstilling vises kun i områder, hvor der anvendes sommertid.
   - Systemtidsopstilling : Angiv klokkeslæt og dato, der skal anvendes på systemet.
     - Manuel : Angiv klokkeslættet manuelt.
     - Synkroniser med NTP-server : Synkroniser med klokkeslættet for den angivne serveradresse.
     - Synkroniser med pc-viser : Indstiller til tiden for den tilsluttede computer.
4. Klik på [**Anvend (** Anvend **)**], når du er færdig.

- Hvis du vælger <**Synkroniser med pc-viser**>, skal standardtidszonen være den samme som den aktuelle tidszone i pc'en.

Bruger

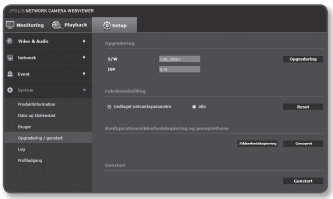


1. Vælg fanen <**System (** ⚙ **)**> i opsætningsmenuen.
2. Klik på <**Bruger**>.
3. Angiv de nødvendige brugeroplysninger.
   - Ændring af administrator-adgangskode : Skift adgangskoden for administratoren.
     - Standardadgangskoden kan blive eksponeret for hackertrusler, så det anbefales at skifte adgangskode efter installation af produktet.
       Bemærk, at sikkerhed og andre relaterede problemstillinger forårsaget af uændret adgangskode er brugerens ansvar.
   - Gæsteopstilling : Hvis du vælger <**Aktivér gæsteadgang**>, har gæstekontoen adgang til Web Viewer-skærmen, men kan kun vise Live viewer-skærmen.
     - ID'et/adgangskoden for gæstekontoen er <**guest/guest**>, og dette kan ikke ændres.
   - Godkendelsesopsætning : Hvis du vælger <**Aktivér RTSP-tilslutning uden godkendelse**>, har du adgang til RTSP uden at logge på og se videoen.
   - Nuværende brugere : Hvis du vælger <**I brug**>, kan du indstille eller ændre brugertilladelserne.
     - Administratoren kan indstille tilladelser for lydindgang, lydudgang og alarmudgang.
     - Profil : Hvis du vælger <**Standard**>, kan du kun se standardprofilvideo, hvis du vælger <**Alle**>, kan du se de fulde profilvideoer.

- ONVIF-funktioner, som er tilgængelige for en registreret bruger, som har tilladelse til at bruge ONVIF-funktioner, er begrænset til de brugere, som har modtaget tilladelse.
- Information om videooverførsel og videoskift: Indstil profilen til <**Alle**>, og indstil lydindgang og lydudgang.
- Videooverførsel, ændring af videoinformation, alarmudgang: Indstil profilen til <**Alle**>, og indstil resten efter behov.

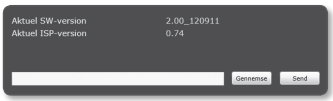
4. Klik på [**Anvend (** Anvend **)**], når du er færdig.

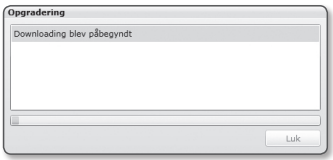
Opgradering / genstart



1. Vælg fanen <**System (** **)**> i opsætningsmenuen.
2. Klik på <**Opgradering / genstart**>.
3. Vælg det ønskede element, og indstil det til en passende værdi.
   - Opgradering : Udfører opgradering af systemet.
   - Fabriksindstilling : Nulstiller systemet til fabriksindstillingerne.
     - Undtaget netværksparametre : Nulstiller alle indstillinger, undtagen netværksindstillingerne.
     - Alle : Nulstiller alle indstillinger, inklusive kameraets indstillinger. (dog vil loginformationen ikke blive nulstillet)
       - IP-adressesystemet går tilbage til DHCP, hvis du nulstiller kameraet. Hvis der ikke findes en DHCP-server, gendannes den tidligere indstilling automatisk.
   - Konfigurationssikkerhedskopiering og genoprettelse : Foretager sikkerhedskopiering af de aktuelle systemindstillinger, før gendannelse udføres. Systemet genstarter automatisk efter sikkerhedskopiering eller genoprettelse.
   - Genstart : Genstarter systemet.

Sådan udføres opgraderingen



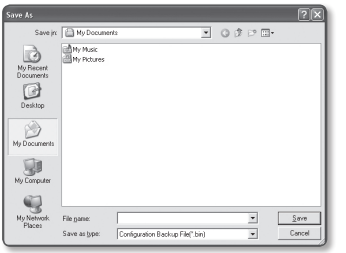


1. Klik på [**Opgradering**].
2. Klik på [**Gennemse**], og angiv en fil til opgradering.
3. Klik på [**Send**].
4. Dialogboksen "**Opgradering**" vises, med status vist for neden.
5. Når du er færdig med opgraderingen, afsluttes browseren, og kameraet genstarter.

- Opgraderingsprocessen tager højst 20 minutter.
  Hvis du afslutter opgraderingen med magt, vil opgraderingen ikke blive fuldført korrekt.
- Under genstart af systemet er der ikke adgang med web viewer.
- Du kan hente den nyeste version fra Samsungs websted (www.samsungcctv.com).

Sikkerhedskopiering af de aktuelle indstillinger

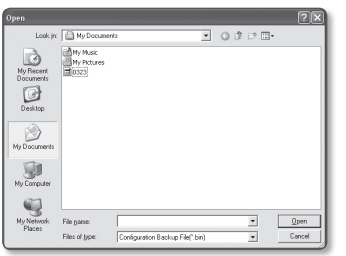
1. Klik på [**Sikkerhedskopiering**].
   Dialogboksen Save As vises.
2. Angiv sikkerhedskopieringsstien med et korrekt filnavn, og klik på [**Save**].
   Den sikkerhedskopierede fil gemmes i den angivne sti med filtypen "**.bin**".



Gendannelse af de sikkerhedskopierede indstillinger

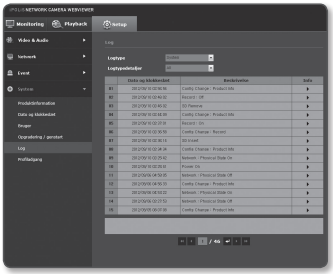
1. For at gendanne sikkerhedskopieringsindstillingerne skal du klikke på [**Genopret**].
2. Vælg en sikkerhedskopieringsfil, og klik på [**Open**].

- Hvis du kører sikkerhedskopiering eller gendannelse, lukker webbrowseren, og kameraet genstarter.



Log

Du kan kontrollere systemloggen eller begivenhedsloggen.

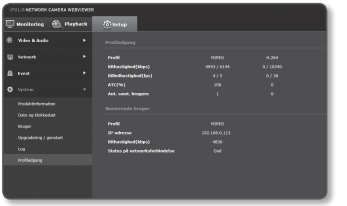


1. Vælg fanen <**System (** **)**> i opsætningsmenuen.
2. Klik på <**Log**>.
3. Vælg en søgningstype.
   - System : Du kan kontrollere systemets logfiler, når der registreres systemændringer, inklusive tidsoplysninger.
   - Event : Du kan kontrollere begivenhedslogs inklusive tidsoplysninger.
4. Vælg et element at søge efter i den rigtige logliste.
   - Hvis du vælger <**All**> i rullelisten øverst til venstre, vil alle logfiler for den relevante logtype blive vist.
5. Hvis en side ikke kan vise alle tilgængelige logfiler, skal du bruge de nederste knapper til at flytte til forrige, næste eller sidste element.

- Hvis du ønsker at få vist de detaljerede oplysninger om en log, skal du klikke på [**Info (** **)**] i loggens højre kolonne, vil loginformationen blive vist i den nederste rude.
- Hver side viser 15 logfiler med den nyeste vist øverst.
- Listen over begivenheds-/systemlogfiler kan indeholde op til 1000 logfiler. Herefter vil den ældste blive slettet, hver gang der oprettes en ny log.

Profiladgang

Du kan kontrollere profilinformationen.



1. Vælg fanen <**System (** ⚙ **)**> i opsætningsmenuen.
2. Klik på <**Profiladgang**>.
   - Profiladgang : Vis oplysninger om den nyligt tilføjede profil.
     - Profil : Vis oplysninger om den nyligt tilføjede codec.
     - Bithastighed(kbps) : Vis både den faktiske bithastighed og den indstillede bithastighed.
     - Billedhastighed(fps) : Vis både den faktiske billedhastighed og den indstillede billedhastighed.
     - ATC(%) : Vis ATC-status.
     - Ant. samt. brugere : Vis antallet af samtidige brugere, der tilgår profilen.
   - Nuværende bruger : Viser oplysninger om brugere, der tilgår web viewer og viser overvågningsvideo.
     - Profil : Vis navnet på den profil, tilgås af brugeren.
     - IP-adresse : Vis IP-addressen for den aktuelle bruger.
     - Bithastighed(kbps) : Vis den aktuelle bithastighed.
     - Status på netværksforbindelse : Du kan kontrollere status for netværksforbindelsen.

- Hvis du vil se oplysninger om den aktuelt anvendte profil, skal du klikke på <**Profiladgang**> igen for at opdatere den.

SPECIFIKATION

Elementer		Beskrivelse
Video	Billedenhed	1/2,8" 3 M PS-CMOS
	Pixels i alt	2,144 (H) x 1,588 (V)
	Effektive pixels	2,096 (H) x 1,561 (V)
	Scanningssystem	Progressiv
	Mindste belysning	Farve: 1 lux (F1,2, 50 IRE), B/W:0 lux (F1,2, 50 IRE, IR-SENSOR TIL)
	Signal/støjforhold	50dB
	Videoudgang	CVBS: 1,0 Vp-p / 75Ω komposit, 704x480(N), 704x576(P), til installation
Objektiv	Brændvidde (zoomforhold)	3~8,5 mm (2,8 X) motoriseret variabel fokus
	Maks. blænde	F1,2
	Synsviddevinkel	H : 100˚(Vidvinkel) ~ 35,3˚(Tele), V : 74,6˚(Vidvinkel) ~ 26˚(Tele)
	Fokuskontrol	Fjernbetjening via netværk (Manuel, Én op. AF)
	Objektivtype	DC-autoblænde
	Fatning	Board-in-type
Pan / Hæld / Roter	Panoreringsområde	0°~355°
	Panoreringshastighed	-
	Hældningsområde	0°~90°
	Hældningshastighed	-
	Rotationsområde	0°~355°
	Forudindstilling	-
	Nøjagtighed ved forudindstilling	-
	Automatisk sporing	-

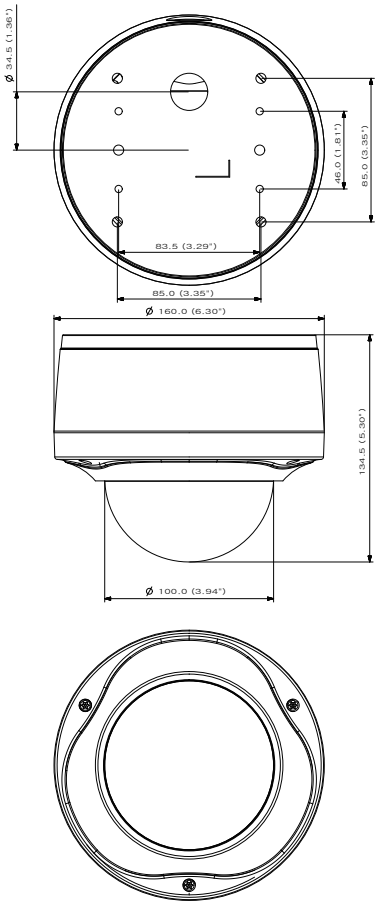
Elementer		Beskrivelse
Automatisk sporing	IR-LED	15 stk.
	Synlig længde	25 m
	Kameratitel	Fra / Til (op til 15 tegn vises)
	Dag og nat	Auto (ICR) / farve / B/W
	Modlyskompensation	Fra / BLC / HLC
	Bredt dynamisk område	Fra / Til (Full HD WDR) (* kun i 2M tilstand)
	Kontrastforbedring	SSDR (Samsung Super Dynamic Range) (Fra / Til)
	Digital støjreduktion	SSNRIII (2D+3D støjfilter) (Fra / Til)
	Digital billedstabilisering	-
	Bevægelsesdetektering	Fra / Til (4 programmerbare zoner)
	Personlig maske	Fra / Til (1 x 4 punkts polyfon + 16 x rektangulære zoner)
	Sens-up (billedintegration)	Fra / Auto (2X ~ 60X)
	Niveauregulering	Fra / Lav / Medium / Høj
	Hvidbalance	ATW / AWC / Manuel / Indendørs / Udendørs
	Elektronisk lukkerhastighed	---/ESC / A.FLK / Manuel (2M-tilstand : 1/30 s ~ 1/12.000 s, 3M-tilstand : 1/21 s ~ 1/12.000 s)
	Digital zoom	-
	Vend / spejlvend	Fra / Til
	Intelligent videoanalyse	Manipulation, Virtuel linje, Gå ind / Afslut, Vises(Skjules)
	Alarm-indgang/udgang	Digital indgang 1 stk. / Digital indgang 1 stk. (relæ)
	Fjernstyringsgrænseflade	-
	RS-485-protokol	-
	Alarmudløsere	Bevægelsesdetek., Videoanalyser, Alarmindgang, Netværksfrakobling
	Alarmhændelser	• Filupload via FTP, E-mail • Besked via E-mail, TCP • Lokal lagringsoptagelse (SD/SDHC) på netværk frakoblet

Elementer		Beskrivelse
Netværk	Ethernet	RJ-45 (10/100BASE-T)
	Videokomprimeringsformat	H.264, MJPEG
	Opløsning	<2M-tilstand> 1920x1080P(Full HD), 1280x1024, 1280x960, 1280x720P(HD), 1024x768, 800x600, 800x450, 640x480, 640x360, 320x240, 320x180 <3M-tilstand> 2048x1536, 1920x1080P(Full HD), 1600x1200, 1280x1024, 1280x960, 1280x720P(HD), 1024x768, 800x600, 800x450, 640x480, 640x360, 320x240, 320x180
	Maks. billedhastighed	<2M-tilstand> * H.264 : Maks. 30 bill./s ved alle opløsninger (Når WDR er TÆNDT, maks. billedhastighed 15 bill./s) * MJPEG : 800x600 ~ 320x180 - 30 bill./s 1024x768 ~ 1920x1080 - 15 bill./s <3M-tilstand> * H.264 : Maks. 20 bill./s ved alle opløsninger * MJPEG : 800x600 ~ 320x180 - 20 bill./s 1024x768 ~ 1920x1080 - 15 bill./s 2048x1536 - 10 bill./s
	Smart Codec	Ja (Områdebaseret metode, Ansigtsdetekteringsmetode)
	Justering af videokvalitet	H.264 : Komprimeringsniveau, kontrol med målbithastighed MJPEG : Kontrol med kvalitetsniveau
	Kontrolmetode til bithastighed	H.264 : CBR eller VBR MJPEG : VBR
	Stream-mulighed	Flere streams (op til 6 profiler)
	Lydindgang/udgang	Mikrofon / Linje ind, Linje ud
	Lydkomprimeringsformat	G.711 μ-law
	Lydkommunikation	2 vejs
	IP	IPv4, IPv6

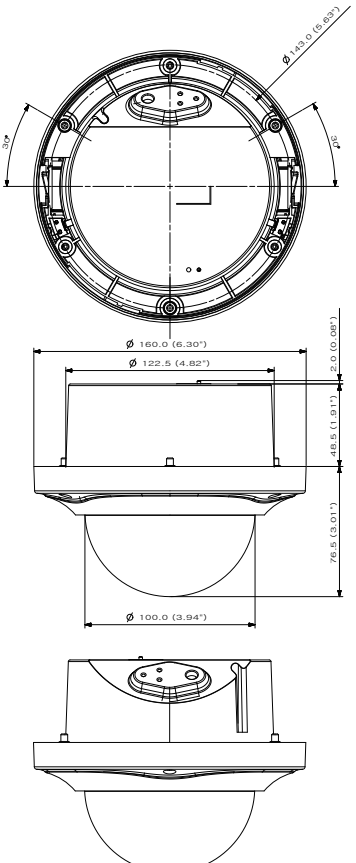
Elementer		Beskrivelse
Netværk	Protokol	TCP/IP, UDP/IP, RTP (UDP), RTP (TCP), RTSP, NTP, HTTP, HTTPS, SSL, DHCP, PPPoE, FTP, SMTP, ICMP, IGMP, SNMPv1/v2c/v3 (MIB-2), ARP, DNS, DDNS, QoS
	Sikkerhed	HTTPS (SSL) login-godkendelse Digest login-godkendelse IP-adressefiltrering Brugeradgangslog 802.1X godkendelsesmetode
	Stream-metode	Unicast / Multicast
	Maks. brugeradgang	10 brugere i Unicast-tilstand
	Hukommelsesslot	SD/SDHC-hukommelsesslot
	ONVIF-kompatibel	Ja
	Hjemmesidesprog	Engelsk, Fransk, Tysk, Spansk, Italiensk, Kinesisk, Koreansk, Russisk, Japansk, Svensk, Dansk, Portugisisk, Tjekkisk, Polsk, Tyrkisk, Rumænsk, Serbisk, Hollandsk, Kroatisk, Ungarsk, Græsk, Finsk, Norsk
	Web Viewer	Understøttede operativsystemer : Windows XP / Vista / 7, Mac OS Understøttede browsere : Internet Explorer 7.0 eller nyere, Firefox, Chrome, Safari
	Central administrationssoftware	NET-i viewer
Miljø	Driftstemperatur / luftfugtighed	24 V vekselstrøm : -40°C ~ +55°C (-40°F ~ +131°F) / ~ 90% RH (varmer aktiveret) 12 V jævnstrøm, PoE : -10°C ~ +55°C (+14°F ~ +131°F) / ~ 90% RH (varmer deaktiveret)
	Indtrængningsbeskyttelse	IP66-klassificering (vandtæt)
Elektrisk	Indgangsspænding/strøm	12 V jævnstrøm, 24 V vekselstrøm PoE (IEEE802.3af)
	Strømforbrug	Maks. 9 W eller 650 mA (varmer deaktiveret), Maks. 13 W eller 800 mA (varmer aktiveret) * Varmer fungerer kun ved vekselstrømstilslutning.
Mekanisk	Farve / Materiale	Hus : Elfenben / Aluminium
	Dimension (Ø x H)	Ø160,0 x H134,5 mm
	Vægt	1,4kg

PRODUKTOVERSIGT

Enhed: mm (tommer)



Indbygget tilstand



PROBLEMLØSNING

PROBLEM	LØSNING
Jeg kan ikke få adgang til kameraet fra en webbrowser.	• Kontroller, om kameraets netværksindstillinger er korrekte. • Kontroller, om alle netværkskabler er tilsluttet korrekt. • Hvis tilsluttet med DHCP: Kontroller, om kameraet kan hente dynamiske IP-adresser uden problemer. • Hvis kameraet er sluttet til en router: Kontroller, at port forwarding er konfigureret korrekt.
Fremviser blev frakoblet under overvågning.	• Tilsluttede fremvisere bliver frakoblet ved enhver ændring af kamera- eller netværkskonfiguration. • Kontroller alle kabelforbindelser. • Hvis kameraet er tilsluttet via et PPPoE-netværk, kan det være, at fremviseren bliver frakoblet under ringe netværksbetingelser.
Jeg kan ikke slutte til systemet med en browserfane i Internet Explorer 7.0.	• Når du forsøger at slutte til systemet med en browserfane, deles de samme cookieinformationer, og det resulterer i fejl ved tilslutning. I stedet for at bruge en browserfane skal du derfor åbne et nyt browservindue for at slutte til systemet.
Kameraet, der er sluttet til netværket, detekteres ikke i IP-installationsprogrammet.	• Deaktiver alle firewall-indstillingerne på din pc, og søg efter kameraet igen.
Billeder overlapper.	• Kontroller om to eller flere kameraer er indstillet til den samme multicast-adresse i stedet for to forskellige adresser. Hvis den samme adresse anvendes til flere kameraer, kan billederne overlappe.
Der er intet billede.	• Hvis overførselsmetoden er indstillet til multicast: Kontroller, om det er en router, der understøtter multicast på LAN'et, som kameraet er sluttet til.

PROBLEM	LØSNING
<Bevægelsesdetek. / Videoanalyser> for <Opsætning af hændelse> er indstillet til <Aktiver>, men jeg modtager ikke nogen e-mail med underretning, selvom en analysehændelse er forekommet.	• Kontroller indstillingerne i følgende rækkefølge: A. Kontrollér indstillinger af <Dato og klokkeslæt>. B. <Bevægelsesdetek. / Videoanalyser> skal indstilles til <Aktiver>. C. Kontroller, om indstillingen <E-mail> for <Opsætning af hændelseshandling> er markeret til at blive anvendt.
Kan jeg definere hændelsesregler, selvom jeg ikke bruger <Bevægelsesdetek. / Videoanalyser>?	• Du kan indstille regler for begivenheder uanset indstillingen af intelligent videoanalyse.
Der findes ikke noget signal på alarmudgangsporten, selv når der genereres en intelligent videoanalysebegivenhed.	• Kontrollér alarmudgangsportens indstillinger.
Kan ikke optage på SD-hukommelseskortet.	• Kontrollér, om hukommelseskortet er defekt. • Kontrollér, om beskyttelsestappen på hukommelseskortet står på "LOCK".
SD-hukommelseskortet er indsat, men kameraet fungerer ikke korrekt.	• Kontrollér, om hukommelseskortet er indsat i den rigtige retning. Anvendelse af hukommelseskort, der er formateret af andre enheder, garanteres ikke med denne kameraenhed • Formatér hukommelseskortet igen i menuen <Setup> → <Event> → <Opbevaring>.
Kan ikke formatere SD-hukommelseskortet.	• Kontrollér, om beskyttelsestappen på hukommelseskortet står på "LOCK".

Open Source Announcement

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, DSP-SW-package
- 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 royaltyfree 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

Lwihcaetn ysoeu want to do, use the GNU Lesser General Public instead of this License.

GNU GENERAL PUBLIC LICENSE

Version 3, 29 June 2007

Copyright (C) 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 omputers, but in those that do, we wish to avoid the special anger that patents applied to a free program could make it ffectively proprietary. To prevent this, the GPL assures that atents cannot be used to render the program non-free. he 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 generalpurpose 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 ofthe 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 conveyedby 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 thisLicense. 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. 51Franklin 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, nonfree 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 nonfree 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 withthe 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 istribute so as to satisfy simultaneously your obligations nder 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.

Open SSL 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.

BSD License

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

Component Name	License	URL
net-snmp-5.4	BSD	http://www.net-snmp.org/about/license.html
lighttpd 1.4.25	BSD 2.0	http://www.opensource.org/licenses/bsd-license.html
Game-ws	BSD 2.0	
MiniUPnP Project Client	BSD 2.0	

lighttpd is a secure, fast, compliant, and very flexible webserver that has been optimized for high-performance environments. It has a very low memory footprint compared to other webservers and takes care of cpuload. 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 Internetstandard 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.

Copyright (c) 1991, 1993 The Regents of the University of California.

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 the Regents of the University of California 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) 2006, Creative Labs 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 the Creative Labs 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) 2005-2012, Thomas BERNARD

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 Thomas BERNARD 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.

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: yy Redistributions of source code must retain the above copyright notice, this list of conditions and the following

disclaimer. yy 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. yy 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. copyrightnotice (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: yy Redistributions of source code must retain the above copyright notice, this list of conditions and the following disclaimer. yy 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. yy 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 (c) 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: yy Redistributions of source code must retain the above copyright notice, this list of conditions and the following disclaimer. yy 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. yy 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: yy Redistributions of source code must retain the above copyright notice, this list of conditions and the following disclaimer. yy 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. yy 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: yy Redistributions of source code must retain the above copyright notice, this list of conditions and the following disclaimer. yy 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. yy 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, 2003oss@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: yy Redistributions of source code must retain the above copyright notice, this list of conditions and the following disclaimer. yy 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. yy 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: yy Redistributions of source code must retain the above copyright notice, this list of conditions and the following disclaimer. yy 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. yy 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

The MIT License

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

MIT License 2.0

- Acewidget, bettermeans, jquery-ui, libxml, libxml2, Mesa3D-MesaLib,mwEmbed,OpenGL Samples Pack, Wide Studio, xorg-server

Copyright (c) 2011, The Dojo Foundation

Copyright 2010, AUTHORS.txt (http://jqueryui.com/about)

Dual licensed under the MIT or GPL Version 2 licenses.

- http://jquery.org/license

- http://docs.jquery.com/UI/Widget

Copyright Daniel Veillard

Copyright Igor Zlatovic <igor@zlatkovic.com>

Copyright Aleksey Sanin

Copyright Gary Pennington <Gary.Pennington@uk.sun.com>

Copyright Alfred Mickautsch <alfred@mickautsch.de>

Copyright Bjorn Reese <bjorn.reese@systematic.dk>

Copyright Joel W. Reed

Copyright William Brack <wbrack@mmm.com.hk>

Copyright (c) 2007-2010 The Khronos Group Inc.

Copyright Atish Kumar Patra

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

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

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

The Independent JPEG Group's JPEG Software

The software included in this product contains copyrighted software that is licensed under the JPEG license.

- JPEG license
  - Code project – Generating Outline OpenGL, Libjpeg

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

Serious users of this software (particularly those incorporating it into larger programs) should contact IJG at jpeg-info@uunet.uu.net to be added to our electronic mailing list. Mailing list members are notified of updates and have a chance to participate in technical discussions, etc.

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

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

LEGAL ISSUES

==========

In plain English:

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

In legalese:

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

This software is copyright (C) 1991-1998, Thomas G. Lane. All Rights Reserved except as specified below.

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

(1) If any part of the source code for this software is distributed, then this README file must be included, with this copyright and no-warranty notice unaltered; and any additions, deletions, or changes to the original files must be clearly indicated in accompanying documentation.

(2) If only executable code is distributed, then the accompanying documentation must state that "this software is based in part on the work of the Independent JPEG Group".

(3) Permission for use of this software is granted only if the user accepts full responsibility for any undesirable consequences; the authors accept NO LIABILITY for damages of any kind.

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

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

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

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

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

It appears that the arithmetic coding option of the JPEG spec is covered by patents owned by IBM, AT&T, and Mitsubishi. Hence arithmetic coding cannot legally be used without obtaining one or more licenses. For this reason, support for arithmetic coding has been removed from the free JPEG software. (Since arithmetic coding provides only a marginal gain over the unpatented Huffman mode, it is unlikely that very many implementations will support it.) So far as we are aware, there are no patent restrictions on the remaining code.

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

We are required to state that

"The Graphics Interchange Format(c) is the Copyright property of CompuServe Incorporated. GIF(sm) is a Service Mark property of CompuServe Incorporated."

Mozilla Public License

Since we, at Samsung Techwin, used the Mozilla Firefox component without modifying the source code according to the MOZILLA Public license 1.1, we are not obliged to provide the source code of the corresponding component.

- Version 1.1

1. Definitions.

1.0.1. "Commercial Use" means distribution or otherwise making the Covered Code available to a third party.

1.1. ''Contributor" means each entity that creates or contributes to the creation of Modifications.

1.2. ''Contributor Version" means the combination of the Original Code, prior Modifications used by a Contributor, and the Modifications made by that particular Contributor.

1.3. ''Covered Code" means the Original Code or Modifications or the combination of the Original Code and Modifications, in each case including portions thereof.

1.4. ''Electronic Distribution Mechanism" means a mechanism generally accepted in the software development community for the electronic transfer of data.

1.5. ''Executable" means Covered Code in any form other than Source Code.

1.6. ''Initial Developer" means the individual or entity identified as the Initial Developer in the Source Code notice required by Exhibit A.

1.7. ''Larger Work" means a work which combines Covered Code or portions thereof with code not governed by the terms of this License.

1.8. ''License" means this document.

1.8.1. "Licensable" means having the right to grant, to the maximum extent possible, whether at the time of the initial grant or subsequently acquired, any and all of the rights conveyed herein.

1.9. ''Modifications" means any addition to or deletion from the substance or structure of either the Original Code or any previous Modifications. When Covered Code is released as a series of files, a Modification is:

A. Any addition to or deletion from the contents of a file containing Original Code or previous Modifications.

B. Any new file that contains any part of the Original Code or previous Modifications.

1.10. ''Original Code" means Source Code of computer software code which is described in the Source Code notice required by Exhibit A as Original Code, and which, at the time of its release under this License is not already Covered Code governed by this License.

1.10.1. "Patent Claims" means any patent claim(s), now owned or hereafter acquired, including without limitation, method, process, and apparatus claims, in any patent Licensable by grantor.

1.11. ''Source Code" means the preferred form of the Covered Code for making modifications to it, including all modules it contains, plus any associated interface definition files, scripts used to control compilation and installation of an Executable, or source code differential comparisons against either the Original Code or another well known, available Covered Code of the Contributor's choice. The Source Code can be in a compressed or archival form, provided the appropriate decompression or de-archiving software is widely available for no charge.

1.12. "You" (or "Your") means an individual or a legal entity exercising rights under, and complying with all of the terms of, this License or a future version of this License issued under Section 6.1. For legal entities, "You" includes any entity which controls, is controlled by, or is under common control with You. For purposes of this definition, "control" means (a) the power, direct or indirect, to cause the direction or management of such entity, whether by contract or otherwise, or (b) ownership of more than fifty percent (50%) of the outstanding shares or beneficial ownership of such entity.

2. Source Code License.

2.1. The Initial Developer Grant. The Initial Developer hereby grants You a world-wide, royalty-free, non-exclusive license, subject to third party intellectual property claims:

(a) under intellectual property rights (other than patent or trademark) Licensable by Initial Developer to use, reproduce, modify, display, perform, sublicense and distribute the Original Code (or portions thereof) with or without Modifications, and/or as part of a Larger Work; and

(b) under Patents Claims infringed by the making, using or selling of Original Code, to make, have made, use, practice, sell, and offer for sale, and/or otherwise dispose of the Original Code (or portions thereof).

(c) the licenses granted in this Section 2.1(a) and (b) are effective on the date Initial Developer first distributes Original Code under the terms of this License.

(d) Notwithstanding Section 2.1(b) above, no patent license is granted: 1) for code that You delete from the Original Code; 2) separate from the Original Code; or 3) for infringements caused by: i) the modification of the Original Code or ii) the combination of the Original Code with other software or devices.

2.2. Contributor Grant. Subject to third party intellectual property claims, each Contributor hereby grants You a world-wide, royalty-free, non-exclusive license

(a) under intellectual property rights (other than patent or trademark) Licensable by Contributor, to use, reproduce, modify, display, perform, sublicense and distribute the Modifications created by such Contributor (or portions thereof) either on an unmodified basis, with other Modifications, as Covered Code and/or as part of a Larger Work; and

(b) under Patent Claims infringed by the making, using, or selling of Modifications made by that Contributor either alone and/or in combination with its Contributor Version (or portions of such combination), to make, use, sell, offer for sale, have made, and/or otherwise dispose of: 1) Modifications made by that Contributor (or portions thereof); and 2) the combination of Modifications made by that Contributor with its Contributor Version (or portions of such combination).

(c) the licenses granted in Sections 2.2(a) and 2.2(b) are effective on the date Contributor first makes Commercial Use of the Covered Code.

(d) Notwithstanding Section 2.2(b) above, no patent license is granted: 1) for any code that Contributor has deleted from the Contributor Version; 2) separate from the Contributor Version; 3) for infringements caused by: i) third party modifications of Contributor Version or ii) the combination of Modifications made by that Contributor with other software (except as part of the Contributor Version) or other devices; or 4) under Patent Claims infringed by Covered Code in the absence of Modifications made by that Contributor.

3. Distribution Obligations.

3.1. Application of License. The Modifications which You create or to which You contribute are governed by the terms of this License, including without limitation Section 2.2. The Source Code version of Covered Code may be distributed only under the terms of this License or a future version of this License released under Section 6.1, and You must include a copy of this License with every copy of the Source Code You distribute. You may not offer or impose any terms on any Source Code version that alters or restricts the applicable version of this License or the recipients' rights hereunder. However, You may include an additional document offering the additional rights described in Section 3.5.

3.2. Availability of Source Code. Any Modification which You create or to which You contribute must be made available in Source Code form under the terms of this License either on the same media as an Executable version or via an accepted Electronic Distribution Mechanism to anyone to whom you made an Executable version available; and if made available via Electronic Distribution Mechanism, must remain available for at least twelve (12) months after the date it initially became available, or at least six (6) months after a subsequent version of that particular Modification has been made available to such recipients. You are responsible for ensuring that the Source Code version remains available even if the Electronic Distribution Mechanism is maintained by a third party.

3.3. Description of Modifications. You must cause all Covered Code to which You contribute to contain a file documenting the changes You made to create that Covered Code and the date of any change. You must include a prominent statement that the Modification is derived, directly or indirectly, from Original Code provided by the Initial Developer and including the name of the Initial Developer in (a) the Source Code, and (b) in any notice in an Executable version or related documentation in which You describe the origin or ownership of the Covered Code.

3.4. Intellectual Property Matters

(a) Third Party Claims. If Contributor has knowledge that a license under a third party's intellectual property rights is required to exercise the rights granted by such Contributor under Sections 2.1 or 2.2, Contributor must include a text file with the Source Code distribution titled "LEGAL" which describes the claim and the party making the claim in sufficient detail that a recipient will know whom to contact. If Contributor obtains such knowledge after the Modification is made available as described in Section 3.2, Contributor shall promptly modify the LEGAL file in all copies Contributor makes available thereafter and shall take other steps (such as notifying appropriate mailing lists or newsgroups) reasonably calculated to inform those who received the Covered Code that new knowledge has been obtained.

(b) Contributor APIs. If Contributor's Modifications include an application programming interface and Contributor has knowledge of patent licenses which are reasonably necessary to implement that API, Contributor must also include this information in the LEGAL file.

(c) Representations.

Contributor represents that, except as disclosed pursuant to Section 3.4(a) above, Contributor believes that Contributor's Modifications are Contributor's original creation(s) and/or Contributor has sufficient rights to grant the rights conveyed by this License.

3.5. Required Notices. You must duplicate the notice in Exhibit A in each file of the Source Code. If it is not possible to put such notice in a particular Source Code file due to its structure, then You must include such notice in a location (such as a relevant directory) where a user would be likely to look for such a notice. If You created one or more Modification(s) You may add your name as a Contributor to the notice described in Exhibit A. You must also duplicate this License in any documentation for the Source Code where You describe recipients' rights or ownership rights relating to Covered Code. You may choose to offer, and to charge a fee for, warranty, support, indemnity or liability obligations to one or more recipients of Covered Code. However, You may do so only on Your own behalf, and not on behalf of the Initial Developer or any Contributor. You must make it absolutely clear than any such warranty, support, indemnity or liability obligation is offered by You alone, and You hereby agree to indemnify the Initial Developer and every Contributor for any liability incurred by the Initial Developer or such Contributor as a result of warranty, support, indemnity or liability terms You offer.

3.6. Distribution of Executable Versions. You may distribute Covered Code in Executable form only if the requirements of Section 3.1-3.5 have been met for that Covered Code, and if You include a notice stating that the Source Code version of the Covered Code is available under the terms of this License, including a description of how and where You have fulfilled the obligations of Section 3.2. The notice must be conspicuously included in any notice in an Executable version, related documentation or collateral in which You describe recipients' rights relating to the Covered Code. You may distribute the Executable version of Covered Code or ownership rights under a license of Your choice, which may contain terms different from this License, provided that You are in compliance with the terms of this License and that the license for the Executable version does not attempt to limit or alter the recipient's rights in the Source Code version from the rights set forth in this License. If You distribute the Executable version under a different license You must make it absolutely clear that any terms which differ from this License are offered by You alone, not by the Initial Developer or any Contributor. You hereby agree to indemnify the Initial Developer and every Contributor for any liability incurred by the Initial Developer or such Contributor as a result of any such terms You offer.

3.7. Larger Works. You may create a Larger Work by combining Covered Code with other code not governed by the terms of this License and distribute the Larger Work as a single product. In such a case, You must make sure the requirements of this License are fulfilled for the Covered Code.

4. Inability to Comply Due to Statute or Regulation.

If it is impossible for You to comply with any of the terms of this License with respect to some or all of the Covered Code due to statute, judicial order, or regulation then You must: (a) comply with the terms of this License to the maximum extent possible; and (b) describe the limitations and the code they affect. Such description must be included in the LEGAL file described in Section 3.4 and must be included with all distributions of the Source Code. Except to the extent prohibited by statute or regulation, such description must be sufficiently detailed for a recipient of ordinary skill to be able to understand it.

5. Application of this License.

This License applies to code to which the Initial Developer has attached the notice in Exhibit A and to related Covered Code.

6. Versions of the License.

6.1. New Versions. Netscape Communications Corporation (''Netscape'') may publish revised and/or new versions of the License from time to time. Each version will be given a distinguishing version number.

6.2. Effect of New Versions. Once Covered Code has been published under a particular version of the License, You may always continue to use it under the terms of that version. You may also choose to use such Covered Code under the terms of any subsequent version of the License published by Netscape. No one other than Netscape has the right to modify the terms applicable to Covered Code created under this License.

6.3. Derivative Works. If You create or use a modified version of this License (which you may only do in order to apply it to code which is not already Covered Code governed by this License), You must (a) rename Your license so that the phrases ''Mozilla'', ''MOZILLAPL'', ''MOZPL'', ''Netscape", "MPL", ''NPL" or any confusingly similar phrase do not appear in your license (except to note that your license differs from this License) and (b) otherwise make it clear that Your version of the license contains terms which differ from the Mozilla Public License and Netscape Public License. (Filling in the name of the Initial Developer, Original Code or Contributor in the notice described in Exhibit A shall not of themselves be deemed to be modifications of this License.)

7. DISCLAIMER OF WARRANTY.

COVERED CODE IS PROVIDED UNDER THIS LICENSE ON AN "AS IS" BASIS, WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESSED OR IMPLIED, INCLUDING, WITHOUT LIMITATION, WARRANTIES THAT THE COVERED CODE IS FREE OF DEFECTS, MERCHANTABLE, FIT FOR A PARTICULAR PURPOSE OR NON-INFRINGING. THE ENTIRE RISK AS TO THE QUALITY AND PERFORMANCE OF THE COVERED CODE IS WITH YOU. SHOULD ANY COVERED CODE PROVE DEFECTIVE IN ANY RESPECT, YOU (NOT THE INITIAL DEVELOPER OR ANY OTHER CONTRIBUTOR) ASSUME THE COST OF ANY NECESSARY SERVICING, REPAIR OR CORRECTION. THIS DISCLAIMER OF WARRANTY CONSTITUTES AN ESSENTIAL PART OF THIS LICENSE. NO USE OF ANY COVERED CODE IS AUTHORIZED HEREUNDER EXCEPT UNDER THIS DISCLAIMER.

8. TERMINATION.

8.1. This License and the rights granted hereunder will terminate automatically if You fail to comply with terms herein and fail to cure such breach within 30 days of becoming aware of the breach. All sublicenses to the Covered Code which are properly granted shall survive any termination of this License. Provisions which, by their nature, must remain in effect beyond the termination of this License shall survive.

8.2. If You initiate litigation by asserting a patent infringement claim (excluding declatory judgment actions) against Initial Developer or a Contributor (the Initial Developer or Contributor against whom You file such action is referred to as "Participant") alleging that:

(a) such Participant's Contributor Version directly or indirectly infringes any patent, then any and all rights granted by such Participant to You under Sections 2.1 and/or 2.2 of this License shall, upon 60 days notice from Participant terminate prospectively, unless if within 60 days after receipt of notice You either: (i) agree in writing to pay Participant a mutually agreeable reasonable royalty for Your past and future use of Modifications made by such Participant, or (ii) withdraw Your litigation claim with respect to the Contributor Version against such Participant. If within 60 days of notice, a reasonable royalty and payment arrangement are not mutually agreed upon in writing by the parties or the litigation claim is not withdrawn, the rights granted by Participant to You under Sections 2.1 and/or 2.2 automatically terminate at the expiration of the 60 day notice period specified above.

(b) any software, hardware, or device, other than such Participant's Contributor Version, directly or indirectly infringes any patent, then any rights granted to You by such Participant under Sections 2.1(b) and 2.2(b) are revoked effective as of the date You first made, used, sold, distributed, or had made, Modifications made by that Participant.

8.3. If You assert a patent infringement claim against Participant alleging that such Participant's Contributor Version directly or indirectly infringes any patent where such claim is resolved (such as by license or settlement) prior to the initiation of patent infringement litigation, then the reasonable value of the licenses granted by such Participant under Sections 2.1 or 2.2 shall be taken into account in determining the amount or value of any payment or license.

8.4. In the event of termination under Sections 8.1 or 8.2 above, all end user license agreements (excluding distributors and resellers) which have been validly granted by You or any distributor hereunder prior to termination shall survive termination.

9. LIMITATION OF LIABILITY.

UNDER NO CIRCUMSTANCES AND UNDER NO LEGAL THEORY, WHETHER TORT (INCLUDING NEGLIGENCE), CONTRACT, OR OTHERWISE, SHALL YOU, THE INITIAL DEVELOPER, ANY OTHER CONTRIBUTOR, OR ANY DISTRIBUTOR OF COVERED CODE, OR ANY SUPPLIER OF ANY OF SUCH PARTIES, BE LIABLE TO ANY PERSON FOR ANY INDIRECT, SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES OF ANY CHARACTER INCLUDING, WITHOUT LIMITATION, DAMAGES FOR LOSS OF GOODWILL, WORK STOPPAGE, COMPUTER FAILURE OR MALFUNCTION, OR ANY AND ALL OTHER COMMERCIAL DAMAGES OR LOSSES, EVEN IF SUCH PARTY SHALL HAVE BEEN INFORMED OF THE POSSIBILITY OF SUCH DAMAGES. THIS LIMITATION OF LIABILITY SHALL NOT APPLY TO LIABILITY FOR DEATH OR PERSONAL INJURY RESULTING FROM SUCH PARTY'S NEGLIGENCE TO THE EXTENT APPLICABLE LAW PROHIBITS SUCH LIMITATION. SOME JURISDICTIONS DO NOT ALLOW THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THIS EXCLUSION AND LIMITATION MAY NOT APPLY TO YOU. 10. U.S. GOVERNMENT END USERS.

The Covered Code is a ''commercial item," as that term is defined in 48 C.F.R. 2.101 (Oct. 1995), consisting of ''commercial computer software" and ''commercial computer software documentation," as such terms are used in 48 C.F.R. 12.212 (Sept. 1995). Consistent with 48 C.F.R. 12.212 and 48 C.F.R. 227.7202-1 through 227.7202-4 (June 1995), all U.S. Government End Users acquire Covered Code with only those rights set forth herein.

11. MISCELLANEOUS.

This License represents the complete agreement concerning subject matter hereof. If any provision of this License is held to be unenforceable, such provision shall be reformed only to the extent necessary to make it enforceable. This License shall be governed by California law provisions (except to the extent applicable law, if any, provides otherwise), excluding its conflict-of-law provisions. With respect to disputes in which at least one party is a citizen of, or an entity chartered or registered to do business in the United States of America, any litigation relating to this License shall be subject to the jurisdiction of the Federal Courts of the Northern District of California, with venue lying in Santa Clara County, California, with the losing party responsible for costs, including without limitation, court costs and reasonable attorneys' fees and expenses. The application of the United

Nations Convention on Contracts for the International Sale of Goods is expressly excluded. Any law or regulation which provides that the language of a contract shall be construed against the drafter shall not apply to this License.

12. RESPONSIBILITY FOR CLAIMS.

As between Initial Developer and the Contributors, each party is responsible for claims and damages arising, directly or indirectly, out of its utilization of rights under this License and You agree to work with Initial Developer and Contributors to distribute such responsibility on an equitable basis. Nothing herein is intended or shall be deemed to constitute any admission of liability.

13. MULTIPLE-LICENSED CODE.

Initial Developer may designate portions of the Covered Code as Multiple-Licensed. Multiple-Licensedmeans that the Initial Developer permits you to utilize portions of the Covered Code under Your choice of the MPL or the alternative licenses, if any, specified by the Initial Developer in the file described in Exhibit A.

EXHIBIT A -Mozilla Public License.

``The contents of this file are subject to the Mozilla Public License Version 1.1 (the "License"); you may not use this file except in compliance with the License. You may obtain a copy of the License at http://www.mozilla.org/MPL/

Software distributed under the License is distributed on an "AS IS" basis, WITHOUT WARRANTY OF ANY KIND, either express or implied. See the License for the specific language governing rights and limitations under the License.

The Original Code is _____.

The Initial Developer of the Original Code is _____. Portions created by _____ are Copyright (C) _____ _____. All Rights Reserved.

Contributor(s): _____.

Alternatively, the contents of this file may be used under the terms of the _____ license (the [___] License), in which case the provisions of [_____] License are applicable instead of those above. If you wish to allow use of your version of this file only under the terms of the [____] License and not to allow others to use your version of this file under the MPL, indicate your decision by deleting the provisions above and replace them with the notice and other provisions required by the [___] License. If you do not delete the provisions above, a recipient may use your version of this file under either the MPL or the [___] License."

[NOTE: The text of this Exhibit A may differ slightly from the text of the notices in the Source Code files of the Original Code. You should use the text of this Exhibit A rather than the text found in the Original Code Source Code for Your Modifications

Samsung Techwin ønsker at beskytte miljøet på alle stadier i fremstillingsprocessen, og tager flere skridt til at give kunderne mere miljøvenlige produkter. Eco-mærket repræsenterer Samsung Techwins vilje til at skabe miljøvenlige produkter, og angiver at maskinen opfylder EU's RoHS-direktiv.

Korrekt affaldsbortskaffelse af dette produkt (Elektrisk & elektronisk udstyr)

Mærket på dette produkt, på tilbehør eller i den medfølgende dokumentation betyder, at produktet og elektronisk tilbehør hertil (f.eks. oplader, hovedsæt, USB-ledning) ikke må bortskaffes sammen med almindeligt husholdningsaffald efter endt levetid. For at undgå skadelige miljø- eller sundhedspåvirkninger på grund af ukontrolleret affaldsbortskaffelse skal ovennævnte bortskaffes særskilt fra andet affald og indleveres behørigt til fremme for bæredygtig materialegenvinding.

Forbrugere bedes kontakte forhandleren, hvor de har købt produktet, eller kommunen for oplysning om, hvor og hvordan de kan indlevere ovennævnte med henblik på miljøforsvarlig genvinding.

Virksomheder bedes kontakte leverandøren og læse betingelserne og vilkårene i købekontrakten. Dette produkt og elektronisk tilbehør hertil bør ikke bortskaffes sammen med andet erhvervsaaffald.

Korrekt bortskaffelse af batterierne i dette produkt

(Gælder i EU og andre europæiske lande med særlige retursystemer for batterier).

Mærket på dette batteri, dokumentationen eller emballagen betyder, at batterierne i dette produkt efter endt levetid ikke må bortskaffes sammen med andet husholdningsaffald. Mærkning med de kemiske symboler Hg, Cd eller Pb betyder, at batteriet indeholder kviksølv, cadmium eller bly over grænseværdierne i EU-direktiv 2006/66. Hvis batterierne ikke bortskaffes korrekt, kan disse stoffer være skadelige for menneskers helbred eller for miljøet.

For at beskytte naturens ressourcer og fremme genbrug, skal batterier holdes adskilt fra andre typer affald og genanvendes via dit lokale, gratis batteriretursystem.

SALGSNETVÆRK

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