# StypeKit

WWW.STYPE.TV

# CAMERA TRACKING

FOR XR, AR, VR
PRODUCTION
IN TV AND FILM

STYPE

v 3.1

## STYPEKIT - INTRODUCTION

StypeKit is a camera-tracking add-on for cranes which effectively turns 'old cranes' into modern Virtual & Augmented Reality systems. StypeKit is a fully mechanical system, suitable for indoor and outdoor use and doesn't require any modifications to your crane meaning it's suitable even for rented cranes. StypeKit is the product that originally made the brand "stYpe" known around the world, for a good reason. If you need to track a crane, StypeKit is probably the solution you've been looking for.

## USE ON **TV** SETS

Like RedSpy, StypeKit is trusted by renowned TV stations around the world such as the BBC, FOX, SKY and others. Camera tracking by StypeKit or RedSpy lets you include Virtual or Augmented Reality effects to your set and make your scenes come alive. Virtual effects are especially fitting for big election, sports and e-sports shows and live entertainment events like concerts or ceremonies. StypeKit integrates seamlessly with all standard rendering engines, and also supports direct integration with Unreal engine via our special plugin.

## USE ON **FILM** SETS

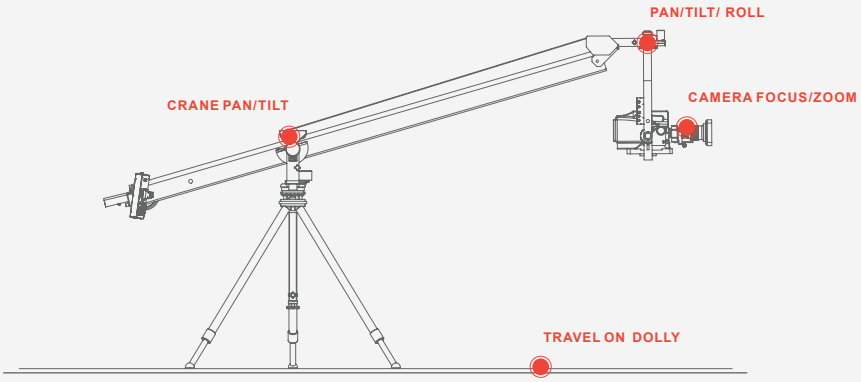
StypeKit, like RedSpy, is used to introduce real-time previsualizations for film scenes which include virtual elements. Seeing virtual elements in real-time makes it easier for your staff and actors to play their role more naturally than if they were relying just on their memory and imagination. StypeKit's tracking data can be saved in FBX and XML file format, along with LTC timecode and lens distortion data. You can use this saved data later, which means you have information about all of the camera movements, as well as zoom and focus data. This makes post-processing a much easier task. StypeKit integrates with Maya and Unreal engines via our proprietary plugins.

# STYPEKIT CONSOLE - CONNECTORS

| | | | |
|---|---|---|---|
| 1 | USB | 2 | LTC |
| | Mini USB connector used to connect with PC for firmware upgrade | | Used to receive SMPTE timecode data via BNC connector |
| 3 | HEAD SENSORS | 4 | POWER SUPPLY |
| | 12 pin Hirose female connector for connection with encoder set | | Standard 3 pin XLR for 24V power supply connector for connecting with power supply |
| 5 | SENSORS | 6 | HEAD CABLE |
| | 12 pin Hirose female connector for connection with encoder set | | 24 pin AMP plug for connecting with head 24 pin cable |
| 7 | JOYSTICK | 8 | SYNC |
| | 16 pin AMP plug for connecting with Stanton joystick and zoom/focus handle | | BNC connector for connecting BlackBurst or Tri-level Genlock signal |
| 9 | DOLLY | 10 | ZOOM/ROLL |
| | 4 pin connector used to connect a string encoder or to connect a focus external encoder | | Used to connect Roll joystick when the roll axis is used on the camera head |
| 11 | VIRTUAL OUTPUT | | |
| | Ethernet connector for virtual studio output, as well as UDP/IP output of camera position, rotation, zoom and focus | | |

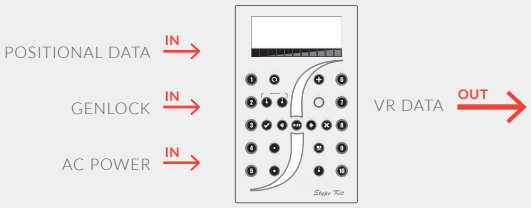
# SYSTEM CONFIGURATION SCHEME

1




StypeKit sensors are placed on all pivot points of the camera crane.
Sensors collect the positional data of the camera in 3D space.

2




Data is sent to the StypeKit main console in real-time where position is calculated and sent to the render engine.

3

Render engine composites the real-time camera footage and 3D virtual graphic overlays.

# TECHNICAL SPECIFICATIONS TABLE

| | |
|---|---|
| RECALIBRATION TIME AFTER POWER UP | Automatic (no recalibration needed) |
| DATA OUTPUT | via ETHERNET (UDP ) or SERIAL (RS-422) |
| CAMERA TILT/PAN ANGLE | 360 degrees |
| DATA RECORDING | Suported in FBX format. For post processing requirements. |
| ENCODER INPUT (8 CHANNELS) | Pan, Tilt, Zoom, Focus, Dolly |
| SUPORTED LENSES | Canon digital (cable), Fujinon digital (cable), other lenses (with external encoder) |
| PROTOCOLS | FREED, STYPE A5, STYPE HF |
| SUPPORTED ENGINES | Vizrt, Avid, Xpression, Pixotope and others. |
| DOLLY TRACK LENGHT | 13/30 meters |
| DRIFT | System does not accummulate any drift. |

| | |
|---|---|
| CANON LENSES DIGITAL PROTOCOL | Yes |
| FUJION LENSES DIGITAL PROTOCOL | Yes |
| AUTO AIMING | Yes |
| AUTO FOCUSING | Yes |
| DATA RECORDING FOR POST PROCESSING | Yes |
| INPUT POWER | 24V |
| POWER CONSUMPTION | 50W |
| KIT WEIGHT | 13KG |

| | |
|---|---|
| CRANE PAN RESOLUTION | 524,288 per 360 DEG |
| CRANE TILT RESOLUTION | 524,288 per 360 DEG |
| HEAD PAN RESOLUTION | 524,288 per 360 DEG |
| HEAD TILT RESOLUTION | 524,288 per 360 DEG |
| HEAD ROLL RESOLUTION | 524,288 per 360 DEG |
| DOLLY RESOLUTION | 31,066 PULSES PER M |
| ZOOM ENCODER RESOLUTION | ~8,500 PULSES |

## COMPATIBLE CAMERA CRANES

| CamMate® Systems | | TRIANGLE Jimmy Jib | SUPER TECHNO | HUMAN CRANE BY STYPE |
|---|---|---|---|---|
| **2000 SERIES** | **TRAVEL SERIES** | | | |
| 2012 CRANE<br>REACH 7,3FT (2.21M) | T1<br>REACH 5FT (1.52M) | TRIANGLE STANDARD (PRO)<br>REACH 6FT (1.8M) | SUPERTECHNO 20<br>(TELESCOPIC) | HUMAN CRANE BY STYPE<br>REACH 6.56FT (2M) |
| 2018 CRANE<br>REACH 13FT (4.17M) | T15<br>REACH 9FT (2.74M) | TRIANGLE GIANT (PRO)<br>REACH 12FT (3.6M) | SUPERTECHNO 30<br>(TELESCOPIC) | HUMAN CRANE BY STYPE<br>REACH 9.84FT (3M) |
| 2024 CRANE<br>REACH 20,1FT (6.12M) | T18<br>REACH 13FT (3.96M) | TRIANGLE SUPER (PRO)<br>REACH 17,7FT (5.4M) | SUPERTECHNO 50<br>(TELESCOPIC) | HUMAN CRANE BY STYPE<br>REACH 13.12FT (4M) |
| 2032 CRANE<br>REACH 26,6FT (8.08M) | T21<br>REACH 17,5FT | TRIANGLE SUPER PLUS(PRO)<br>REACH 24FT (7.3) | | HUMAN CRANE BY STYPE<br>REACH 16.40FT (5M) |
| 2039 CRANE<br>REACH 32,11 FT (10,03M) | T25<br>REACH 21FT (6,40M) | TRIANGLE EXTREME(PRO)<br>REACH 30FT (9.1M) | | HUMAN CRANE BY STYPE<br>REACH 19.68FT (6M) |
| 2043 CRANE<br>REACH 39,4FT (11.99M) | | TRIANGLE 12 METER(PRO)<br>HEIGHT 40FT (12M) | | HUMAN CRANE BY STYPE<br>REACH 22.96FT (7M) |
| 2050 CRANE<br>REACH 45,9FT (14M) | | | | OTHER LENGHTS AVAILABLE<br>ON REQUEST |

OTHER CAMERA CRANES ARE AVAILABLE ON REQUEST. DELIVERY TIME IS FROM 2-4 WEEKS.
**OPTION:** EVERY CRANE CAN BE PUT ON TRACKS

# SUPPORTED LENSES

## CANON DIGITAL CABLE

Ability to read the data from the virtual encoder. If no virtual encoder is installed it can read data over serial protocol.

Suitable for IASE, IRSE and Box lenses.

## FUJINON DIGITAL CABLE

Ability to read the data from the virtual encoder. If no virtual encoder is installed it can read data over serial protocol.

Suitable for lenses equiped with Virtual Connector.

## OTHER LENSES

stYpe external Zoom and Focus encoders can be easily mounted on lenses which do not have internal encoders.

Canon and Fujinon gears are shown here.

## COMPATIBILE RENDER ENGINES

vizrt
ROSS Production Technology Experts
AVID
BRAINSTORM
rt software
CHYRONHEGO
[VENTUZ]
WASP3D #rtgfx4all
Zero Density
FRONTIER THE FUTURE GROUP
unity
PIXOTOPE
Aximmetry VIRTUAL STUDIO ENGINE
PHOTON by vyv

## PARTNERS AND REFERENCES

BBC
ESPN
FOX SPORTS
MTV MUSIC TELEVISION
tv azteca
CBC

## PLEASE CONTACT US FOR MORE INFORMATION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