

## Release Note for Deployment Package iMX Devices

Product	Deployment Package iMX Devices
Version	Koala (v3_06r0)
Date	June 2023

### Product components

The new deployment package is compatible with all iMX Devices.

### Significant aspects

- General
  - Added support for ESX.4cl-ag-p.
  - Created a virtual version of the TCG-4. Added this "digital twin" to the devkit. (Beta version)
  - Added a STW SDK package in the form of a docker image to the devkit.
  - Added a c-template project to devkit to help speed up the development.
  - Added possibility to export the configuration of the device.
  - Added CANopen Manager Library for openSYDE server (Contact sales@wiedemann-group for further information).
- Security
  - Updated Kernel and Buildroot base to get the latest updates and fixes.
  - Fixed a security problem in the stw\_RecvSMS application. The SMS wakeup mechanism was also affected. For further information see CVE-2023-35830.
- Kernel 5.4.228 (STW-v3\_04r1)
  - Upgraded patch level to 228.
  - Added imx\_ready signal for better communication with the AURIX.
  - Added support for a magnetic field sensor.
  - Added support for a gyro sensor.
  - Improved CAN error handling for CAN3 and CAN4.
- Buildroot 2022.02.8 (STW-v3\_04r0)
  - Upgraded to Buildroot 2022.02.8
  - Fixed bug regarding hawkbit updates.
  - Reworked S26wakeup script.
  - Implemented hard reboot in rcK in case of a blocking function or script.
  - Enabled phonebook check for SMS wakeup by default
- OBS - On Board Software (v1\_05r0)
  - yedged - fixed known bugs.
  - yupdated - create database without yupdated being activated.
  - stw\_ExportConfig - added utility for extracting the configuration of your device.
  - stw\_RecvSMS - fixed security issue.
  - stw\_dptool - fixed memory leak.
  - libtaf - fixed memory leak.
- iMX updater (v3\_02r0)
  - Added possibility to update TCG-4lite via TFTP (using a USB to Ethernet adapter).
  - Added possibility to update OBS partition individually.
  - Equipped the updater with all \*.fit files for all targets. Renamed .fit image files.
- Update Package Generator (v1\_03r0)
  - Added to the deployment package.
  - Improved version check in combination with CUSTOM\_VERSION and APPS\_VERSION.
  - Reworked examples to match new structure.

- Example Configuration
  - openSYDE\_ready - Provided a custom.fit image to illustrate how the device can be configured in order to be found by openSYDE PC client.

Not all the above listed features can be used on every iMX target or variant. To support a software feature, the device needs to be shipped with the corresponding hardware component.

## **Related Tools**

All BSP components must be updated simultaneously using the "iMX Updater" or the corresponding swu package for "In Field Updates".

## **Related Documentation**

For further information, please refer to the development/documentation folder within the deployment package.

Product	Deployment Package iMX Devices
Version	Jellyfish (V3_04r0)
Date	December 2022

## Product components

The new deployment package is compatible with all iMX Devices.

## Significant aspects

- General
  - Added automatic baud rate detection.
  - Added edged computing on the device in the form of the yedged.
- Security
  - Activated support for symmetrical encryption of SWUs in swupdate.
  - Updated Kernel and Buildroot base to get latest updates and fixes.
- U-boot 2017.05 (STW-V2\_02r0)
  - Activate GPT support to allow more usb drives to be detected.
- Kernel 5.4.201 (STW-v3\_03r0)
  - Upgraded patch level to 201
  - Added support for RS485 variant
  - Activated SAE J1939 kernel module.
  - Initialize wakeup pin in tja1145 transceiver.
- Buildroot 2022.02.03 (STW-V3\_03r0)
  - Upgraded to Buildroot 2022.02.03
  - Add new public certificate for decrypting SWU packages.
  - Added fix for CAN wakeup deactivation issue.
  - Added CAN baud rate detection.
  - Activated JSON parser for cpp.
  - Activated summetrical encryption support in swupdate.config.
  - Fixed known bugs.
- OBS - On Board Software (STW-V1\_04r0)
  - Updated ylogd start script to support larger datapools.
  - Change watchdog triggering of obs components to monotonic clock.
  - ycumulocityd - Set correct year in case of 1970.
  - ycumulocityd - Add CURL timeout parameter to daemon config file.
  - stw\_J1939DM1 - Added possibility to select alarm severity for every SPN.
  - stw\_J1939DM1 - Added additional conversion methods.
  - yedged - Added new edge computing daemon.
  - stw\_CanReader - Fixed issue with signed integer datapool variables.
  - libtaf - Fixed version number issue in taf.h
  - Fixed known bugs.
- openSYDE
  - Reworked **T**arget **S**upport **P**ackage entirely.
  - Reworked device user manual chapter.
  - Added chapter "Create own openSYDE server" to iMX\_Programmers\_Guide.
  - Updated sydesup client.

- imx updater
  - Fixed issue "could not find USB".

Not all the above listed features can be used on every iMX target or variant. To support a software feature, the device needs to be shipped with the corresponding hardware component.

## **Related Tools**

All BSP components must be updated simultaneously using the "IMX Updater" or the corresponding swu package for "In Field Updates".

## **Related Documentation**

For further information, please refer to the development/documentation folder within the deployment package.