

PetaLinux TE-Template

- PetaLinux 2023.2
 - Create own template
 - Use template
 - Issues and Notes
- PetaLinux 2022.2
 - Create own template
 - Use template
 - Issues and Notes
- PetaLinux 2021.2
 - Create own template
 - Use template
 - Issues and Notes
- PetaLinux 2020.2
 - Create own template
 - Use template
 - Issues and Notes
- PetaLinux 2019.2
 - Create own template
 - Use template
 - Issues and Notes
- PetaLinux 2018.3
 - Create own template
 - Use template
 - Issues and Notes
- PetaLinux 2018.2
 - Create own template
 - Use template
 - Issues and Notes
- PetaLinux 2017.4
 - Create own template
 - Use template
 - Issues and Notes

PetaLinux 2023.2



Petalinux 2023.2 is under review documentation for 2023.2 can be changed permanently at the moment

Create own template

1. Clear existing project with: **petalinux-build -x mrproper**
 - a. **in** case changes in u-boot or kernel, see Issues and note
2. change/remove manually(on linux file manager press Strg+H to see hidden files):

| folder/file | Delete | Note |
|---------------|--|-------------------------------------|
| <base folder> | <ul style="list-style-type: none">• *.xsa• .gitignore | "config.project" must be stay there |
| .petalinux/ | all, excepted "metadata" | "metadata" must be stay there |
| .xil/ | complete folder | |
| components/ | --- | should be empty |

| | | |
|------------------------------|---|---|
| project-spec/ | <ul style="list-style-type: none"> • yocto-layer.log | "attributes" must be stay there |
| project-spec/configs/ | <ul style="list-style-type: none"> • *.old • .Xil | "config" and "rootfs_config" must be stay there |
| project-spec/hw-description/ | all, excepted "metadata" | "metadata" must be stay there |
| project-spec/meta-user | --- | complete folder must be stay there |

3. uncomment DDR settings in "project-spec/configs/config", see Issues and notes

Use template

1. copy xsa into base folder
2. reload XSA with **petalinux-config --get-hw-description**
3. build or change design like prefer

Issues and Notes

| Issue | Workaround | Note |
|-------------------------------|---|---|
| DDR size will be not reloaded | comment out DDR settings in "project-spec/configs/config" to force DDR reload with XSA import | Only important, if DDR size will is changed |

PetaLinux 2022.2

Create own template

1. Clear existing project with: **petalinux-build -x mrproper**
 - a. in case changes in u-boot or kernel, see Issues and note
2. change/remove manually(on linux file manager press Strg+H to see hidden files):

| folder/file | Delete | Note |
|------------------------------|---|---|
| <base folder> | <ul style="list-style-type: none"> • *.xsa • .gitignore | "config.project" must be stay there |
| .petalinux/ | all, excepted "metadata" | "metadata" must be stay there |
| .xil/ | complete folder | |
| components/ | --- | should be empty |
| project-spec/ | <ul style="list-style-type: none"> • yocto-layer.log | "attributes" must be stay there |
| project-spec/configs/ | <ul style="list-style-type: none"> • config.old • rootfs_config.old | "config" and "rootfs_config" must be stay there |
| project-spec/hw-description/ | all, excepted "metadata" | "metadata" must be stay there |

| | | |
|------------------------|-----|------------------------------------|
| project-spec/meta-user | --- | complete folder must be stay there |
|------------------------|-----|------------------------------------|

3. uncomment DDR settings in ""project-spec/configs/config", see Issues and notes

Use template

1. copy xsa into base folder
2. reload XSA with **petalinux-config --get-hw-description**
3. build or change design like prefer

Issues and Notes

| Issue | Workaround | Note |
|-------------------------------|---|---|
| DDR size will be not reloaded | comment out DDR settings in "project-spec/configs/config" to force DDR reload with XSA import | Only important, if DDR size will is changed |

PetaLinux 2021.2



Petalinux 2021.2 is under review documentation for 2021.2 can be changed permanently at the moment

Create own template

1. Clear existing project with: **petalinux-build -x mrproper**
 - a. in case changes in u-boot or kernel, see Issues and note
2. change/remove manually(on linux file manager press Strg+H to see hidden files):

| folder/file | Delete | Note |
|------------------------------|---|---|
| <base folder> | <ul style="list-style-type: none"> • *.xsa • .gitignore | "config.project" must be stay there |
| .petalinux/ | all, excepted "metadata" | "metadata" must be stay there |
| .xil/ | complete folder | |
| components/ | --- | should be empty |
| project-spec/ | <ul style="list-style-type: none"> • yocto-layer.log | "attributes" must be stay there |
| project-spec/configs/ | <ul style="list-style-type: none"> • config.old • rootfs_config.old | "config" and "rootfs_config" must be stay there |
| project-spec/hw-description/ | all, excepted "metadata" | "metadata" must be stay there |
| project-spec/meta-user | --- | complete folder must be stay there |

3. uncomment DDR settings in ""project-spec/configs/config", see Issues and notes

Use template

1. copy xsa into base folder
2. reload XSA with **petalinux-config --get-hw-description**
3. build or change design like prefer

Issues and Notes

| Issue | Workaround | Note |
|-------------------------------|---|---|
| DDR size will be not reloaded | comment out DDR settings in "project-spec/configs/config" to force DDR reload with XSA import | Only important, if DDR size will is changed |

PetaLinux 2020.2

Create own template

1. Clear existing project with: **petalinux-build -x mrproper**
 - a. **in case changes in u-boot or kernel, see Issues and note**
2. change/remove manually(on linux file manager press Strg+H to see hidden files):

| folder/file | Delete | Note |
|------------------------------|---|---|
| <base folder> | <ul style="list-style-type: none"> • *.xsa • .gitignore | "config.project" must be stay there |
| .petalinux/ | all, excepted "metadata" | "metadata" must be stay there |
| .xil/ | complete folder | |
| components/ | --- | should be empty |
| project-spec/ | <ul style="list-style-type: none"> • yocto-layer.log | "attributes" must be stay there |
| project-spec/configs/ | <ul style="list-style-type: none"> • config.old • rootfs_config.old | "config" and "rootfs_config" must be stay there |
| project-spec/hw-description/ | all, excepted "metadata" | "metadata" must be stay there |
| project-spec/meta-user | --- | complete folder must be stay there |

3. uncomment DDR settings in ""project-spec/configs/config", see Issues and notes

Use template

1. copy xsa into base folder
2. reload XSA with **petalinux-config --get-hw-description**
3. build or change design like prefer

Issues and Notes

| Issue | Workaround | Note |
|-------------------------------|---|---|
| DDR size will be not reloaded | comment out DDR settings in "project-spec/configs/config" to force DDR reload with XSA import | Only important, if DDR size will is changed |

PetaLinux 2019.2

Create own template

1. Clear existing project with: **petalinux-build -x mrproper**
 - a. in case changes in u-boot or kernel, see Issues and note
2. change/remove manually:

| folder/file | Delete | Note |
|----------------------------------|---|---|
| <base folder> | <ul style="list-style-type: none"> • *.xsa • .gitignore | "config.project" must be stay there |
| .petalinux/ | all, excepted "metadata" | "metadata" must be stay there |
| .xil/ | complete folder | |
| components/ | --- | should be empty |
| project-spec/ | <ul style="list-style-type: none"> • yocto-layer.log | "attributes" must be stay there |
| project-spec/configs/ | <ul style="list-style-type: none"> • config.old • rootfs_config.old | "config" and "rootfs_config" must be stay there |
| project-spec/hw-description/ | all, excepted "metadata" | "metadata" must be stay there |
| project-spec/meta-plnx-generated | complete folder | |
| project-spec/meta-user | --- | complete folder must be stay there |

Use template

1. copy hdf into base folder
2. reload XSA with **petalinux-config --get-hw-description**
3. build or change design like prefer

Issues and Notes

| Issue | Workaround | Note |
|-------|------------|------|
|-------|------------|------|

| | | |
|--|---|--|
| DDR size will be not reloaded | comment out DDR settings in "project-spec/configs /config" to force DDR reload with HDF import | Only important, if DDR size will is changed |
| Kernel and u-bot changes will not saved automatically in meta-user | run: <ul style="list-style-type: none"> • petalinux-build -c kernel -x finish -f • petalinux-build -c u-boot -x finish -f before the project will be cleared. | only need if you change something in uboot ot kernel setup |

PetaLinux 2018.3

Create own template

1. Clear existing project with: **petalinux-build -x mrproper**
2. change/remove manually:

| folder/file | Delete | Note |
|----------------------------------|---|---|
| <base folder> | <ul style="list-style-type: none"> • *.hdf • .gitignore | "config.project" must be stay there |
| .petalinux/ | all, excepted "metadata" | "metadata" must be stay there |
| .xil/ | complete folder | |
| components/ | --- | should be empty |
| project-spec/ | <ul style="list-style-type: none"> • yocto-layer.log | "attributes" must be stay there |
| project-spec/configs/ | <ul style="list-style-type: none"> • config.old • rootfs_config.old | "config" and "rootfs_config" must be stay there |
| project-spec/hw-description/ | all, excepted "metadata" | "metadata" must be stay there |
| project-spec/meta-plnx-generated | complete folder | |
| project-spec/meta-user | --- | complete folder must be stay there |

Use template

1. copy hdf into base folder
2. reload HDF with **petalinux-config --get-hw-description**
3. build or change design like prefer

Issues and Notes

| Issue | Workaround | Note |
|-------|------------|------|
|-------|------------|------|

| | | |
|-------------------------------|---|---|
| DDR size will be not reloaded | comment out DDR settings in "project-spec/configs/config" to force DDR reload with HDF import | Only important, if DDR size will is changed |
|-------------------------------|---|---|

PetaLinux 2018.2

Create own template

1. Clear existing project with: **petalinux-build -x mrproper**
2. change/remove manually:

| folder/file | Delete | Note |
|----------------------------------|---|---|
| <base folder> | <ul style="list-style-type: none"> • *.hdf • .gitignore | "config.project" must be stay there |
| .petalinux/ | all, excepted "metadata" | "metadata" must be stay there |
| .xil/ | complete folder | |
| components/ | --- | should be empty |
| project-spec/ | <ul style="list-style-type: none"> • yocto-layer.log | "attributes" must be stay there |
| project-spec/configs/ | <ul style="list-style-type: none"> • config.old • rootfs_config.old | "config" and "rootfs_config" must be stay there |
| project-spec/hw-description/ | all, excepted "metadata" | "metadata" must be stay there |
| project-spec/meta-plnx-generated | complete folder | |
| project-spec/meta-user | --- | complete folder must be stay there |

Use template

1. copy hdf into base folder
2. reload HDF with **petalinux-config --get-hw-description**
3. build or change design like prefer

Issues and Notes

| Issue | Workaround | Note |
|-------------------------------|---|---|
| DDR size will be not reloaded | comment out DDR settings in "project-spec/configs/config" to force DDR reload with HDF import | Only important, if DDR size will is changed |

PetaLinux 2017.4

Create own template

1. Clear existing project with: **petalinux-build -x mrproper**
2. change/remove manually:

| folder/file | Delete Files/Folder | Note |
|----------------------------------|--|---|
| <base folder> | <ul style="list-style-type: none">• *.hdf• .gitignore | "config.project" must be stay there |
| .petalinux/ | all, excepted "metadata" | "metadata" must be stay there |
| .xil/ | complete folder | |
| components/ | --- | should be empty |
| project-spec/ | <ul style="list-style-type: none">• yocto-layer.log | "attributes" must be stay there |
| project-spec/configs/ | <ul style="list-style-type: none">• config.old• rootfs_config.old | "config" and "rootfs_config" must be stay there |
| project-spec/hw-description/ | all, excepted "metadata" | "metadata" must be stay there |
| project-spec/meta-plnx-generated | complete folder | |
| project-spec/meta-user | --- | complete folder must be stay there |

Use template

1. copy hdf into base folder
2. reload HDF with **petalinux-config --get-hw-description**
3. build or change design like prefer

Issues and Notes

| Issue | Workaround | Note |
|-----------------------------------|---|--|
| temp folder path is absolute path | change CONFIG_TMP_DIR_LOCATION from "project-spec /configs/config" to the correct project dir | Trenz Electronic provide init_config.sh script to change path to the current project |