```
\begin{chapterfig}[Thesis]
\inputonce{figures/arch_style}
\label{cfig:thesis}
\setlength{\platformlayerwidth}{21ex}
\tikzset{
    chapter node/.style={anchor=mid east,font=\figureversion{text,tab}\itshape,outer
xsep=1ex,outer ysep=0,inner sep=0},
    platform node/.style={outer sep=0,minimum width=10em},
    zoom/.style={draw=niceblack,densely dotted,thick,overlay},
    chapter shade/.style={draw=nicegray,dashed},
    software/.append style={platform node,layer fill,minimum height=1em},
    interface/.append style={platform node,model,minimum height=1em},
}

% set of layers
\platformlayer[padded]                      (app)   {application};
\platformlayer[model,padded]                (pm)    {programming model};
\platformlayer[model,padded]                (moc)   {model of computation};
\platformlayerglue[padded]                  (moccm) {parallelization tool};
\platformlayer[model,padded]                (cm)    {concurrency model};
\platformlayerglue[padded]                  (cmmm)  {\acs{OS}, \acl{RTS}};
\platformlayer[model,padded]                (mm)    {memory model};
\platformlayer[padded,minimum height=5em]   (hw)    {actual hardware};

% cross layers
\crosslayerright[]  <moc.north east->           ()      {platform: \Starburst};
\crosslayerleft[]   <app.north west-mm.west>    ()      {software layers};
\crosslayerleft[]   <mm.west->                  ()      {hardware};

% corresponding models in actual platform
\begin{pgfonlayer}{deepground}
    \platformlayersnode[interface]      <pm-moc>        +15ex () {C, C++, \lcalc};
    \platformlayersnode[interface]      <mm-mm>         +15ex () {\acs{PMC}};
    \platformlayersnode[interface]      <cm-cm>         +15ex (pthread) {};
    \begin{scope}[
            x=1em,y=1em,
            shift={(pthread.west)},
            thread/.style={software,no wrap text,no icon,minimum
size=1em,font=\scriptsize,outer sep=.5\pgflinewidth,inner sep=0},
    ]
        \node[thread,anchor=west] (t1) at (.6,0) {T};
        \node[thread,anchor=center] (t2) at ($(t1.center)+(1.5,0)$) {T};
        \node[thread,anchor=center,draw=none,fill=none,no shade] (tn) at
($(t2.center)+(1.2,0)$) {\rule[0pt]{0pt}{1.3ex}$\cdots$};
        \node[draw=none,fill=none,minimum size=0,anchor=mid west,outer sep=1ex] at (tn.east)
{Pthreads};
%       \path[use as bounding box] (current bounding box.north east) rectangle (current
bounding box.south west);
        \path[zoom] (t1) -- +(0,-1em);
        \path[zoom] (t2) -- +(0,-1em);
%       \path[zoom] (tn) -- +(0,-1em);
    \end{scope}
\end{pgfonlayer}

% corresponding software in actual platform
\platformlayersnode[software]       <app-app>       +15ex () {\SPLASH and \NoFib};
\platformlayersnode[software]       <moccm-moccm>   +15ex () {\ourfp};
\platformlayersnode[software]       <cmmm-cmmm>     +15ex (os) {\Helix};
\platformlayersnode[platform node]  <hw-hw>         +15ex (soc) {};
\begin{scope}[
        x=1em,y=1em,
        shift={(soc.center)},
        connection/.style={thick,draw},
        component/.append style={no wrap text,font=\scriptsize,minimum size=1.25em,inner
sep=0},
        interconnect/.append style={minimum width=7em},
        memory/.append style={minimum width=5em},
```

```
    ]
    \node[core,anchor=south] (p1) at (-3,1) {};
    \node[core,anchor=south] (p2) at (-1.5,1) {};
    \node[core,anchor=south] (p3) at (0,1) {};
    \node[core,anchor=south] (p4) at (1.5,1) {};
    \node[plain label,anchor=south] (pn) at (3,1) {\strut$\cdots$};
    \node[memory,anchor=north] (mem) at (0,-1) {\strut memory};
    \path[connection] (p1.south) -- +(0,-.5);
    \path[connection] (p2.south) -- +(0,-.5);
    \path[connection] (p3.south) -- +(0,-.5);
    \path[connection] (p4.south) -- +(0,-.5);
%   \path[connection] (pn.south) -- +(0,-.5);
    \path[connection] (mem.north) -- +(0,.5);
    \node[interconnect,anchor=center] (noc) at (0,0) {\strut interconnect};
    \path[zoom] (os.south west) -- (p2.north west);
    \path[zoom] (os.south east) -- (p2.north east);
\end{scope}

% corresponding chapters
\node[platform node,chapter node,anchor=south,minimum height=\platformlayerheight] (tr) at
(app.north)     {\strut trends};
\platformlayersnode[chapter node]   <tr-app>        +-2ex (c2)  {\Cref{c:starburst}};
\platformlayersnode[chapter node]   <pm-moc>        +-2ex (c3)  {\Cref{c:progmodel}};
\platformlayersnode[chapter node]   <moccm-cm>      +-2ex (c6)  {\Cref{c:concurrency}};
\platformlayersnode[chapter node]   <cmmm-mm>       +-2ex (c5)  {\Cref{c:memory}};
\platformlayersnode[chapter node]   <hw-hw>         +-2ex (c4)  {\Cref{c:hardware}};
\node[chapter node,anchor=south west,minimum height=\platformlayerheight]   at (c2.north west)
{\strut\Cref{c:introduction}};
\node[chapter node,anchor=south,minimum height=\platformlayerheight]        at (tr.north)
{\strut introduction};
\node[chapter node,anchor=north west,minimum height=\platformlayerheight]   at (c4.south west)
{\strut\Cref{c:conclusion}};
\node[chapter node,anchor=north,minimum height=\platformlayerheight]        at (hw.south)
{\strut conclusion};

% horizontal lines between all layers
\begin{pgfonlayer}{background}
    \path[chapter shade] (c2.north west) -- +(.99\linewidth,0);
    \path[chapter shade] (c3.north west) -- +(.99\linewidth,0);
    \path[chapter shade] (c4.north west) -- +(.99\linewidth,0);
    \path[chapter shade] (c5.north west) -- +(.99\linewidth,0);
    \path[chapter shade] (c6.north west) -- +(.99\linewidth,0);
    \path[chapter shade] (c4.south west) -- +(.99\linewidth,0);
\end{pgfonlayer}

\end{chapterfig}%
```