## A CASTLE IN THE LIMELIGHT

By day, Castle Heusenstamm near Frankfurt in Germany is already an impressive sight. The main castle building looks out on one side over well-kept gardens and the long Kaiserlindenallee, and on the other side over the magnificent courtyard. To mark the 800<sup>th</sup> anniversary of the town of Heusenstamm in 2011, a brand new lighting system was commissioned.

Since then, Heusenstamm Castle, which today also includes the town hall, a restaurant and an open-air theatre, has been a breathtaking sight as soon as evening falls. The castle walls and inner courtyard are bathed in a sea of light, which provides just the right backdrop for exclusive evening events. The elaborate lighting was set up using Helvar control technology.

The town was already very satisfied with the Helvar toolbox control system, but a more efficient concept was introduced for the new development offering more flexible controls as well as other options.

A DALI and DMX compatible Helvar Imagine Router was used, which in this case reads and interprets an external clock and light sensor. The associated DALI components are then controlled via the DALI Bus. However, the Helvar Imagine 920 Text: Sigi Riedelbauch / Public Touch Pictures: T.Merz / CV-Leuchten GmbH

Router also has an astronomical clock and normal time functions fitted as standard.

The Helvar Imagine Router also enables the control of appliances that are not DALI compatible using relay modules to switch light groups on or off. At the same time, RGB modules can also be controlled via DMX signals. This means that the lighting components integrated within the Helvar system can also be controlled using lighting scenes, providing a rich variety of effects.

The design agency Schönecker architektur & licht, led by Wiltrud Schönecker, was responsible for the lighting design of the overall system.



The scope of work for the project was the attractive transformation of the inner courtyard. The main idea was to set up a multi-functional lighting system, which would conform to standards as well as provide atmosphere, without ruining the castle exterior with unsightly pylons. Another specific feature of this project was the direct structural link between historic architecture and the modern part of the building dating from the 1970s.

Today, Heusenstamm Castle benefits from a wide spectrum of lighting technology. The focus is on the illumination of the historic castle using lines of lighting, which shine down parallel with the guttering or up parallel with the gable. The overall effect is to bathe the entire building in a uniform and very warm, almost golden light. The reflection of light off the outside walls successfully illuminates the courtyard in large pools of light.

The modern parts of the building are accentuated by recessed lights in the ground, which was an auxiliary part of the design agency's project. The lights are controlled via relay modules and enable a variety of different lighting effects to be achieved.

The fountain in the centre of the courtyard and the passageway behind it are colourfully staged using LED lights with RGB function. In contrast, hand-made lights turn the historic passageway into a stylish entry to the inner courtyard. These lights are also controlled using relay modules, as well as by DMX Bus, so that the colours are infinitely adaptable to suit every occasion. In addition, white LED panels and the relevant drivers provide stylish lighting effects for the coats of arms and tower roofs.

All the coloured light elements can be selected in pre-programmed colour combinations from the DIGIDIM modular panels. The touch panel can also be used to change the colours - settings can be adjusted for the fountain and passageway lighting so that the colours change slowly in five different combinations.

Data from light sensors and time switches is evaluated to enable the controls to change the lighting at specific times of day and night. From a certain degree of darkness, the brightness of the system changes from 70 to 85% depending on the element. After midnight, the Helvar system automatically starts night mode - dimmable lights are set to 30 percent and switchable lighting is turned off. As soon as the light sensor registers the break of dawn, the Helvar Imagine Router switches the remaining elements off.

The chief attraction of the Helvar system is the three Helvar panels installed in the storeroom of the inner courtyard, making them easily accessible for operators. From these panels, individual lighting groups can be selected or deselected in order to decide which lighting groups should be switched on or left off at different times of day and depending on the level of brightness required - for example, when a concert is taking place in the courtyard as part of the summer program of cultural events. Light intensity and colour can also be selected using the Helvar panel, ensuring the right kind of lighting for every occasion. 

